CITY OF HOMER
INVITATION TO BID / BID DOCUMENTS

Homer Harbormaster's Building / Deepwater Dock Trail Boardwalk 2014

PREPARED BY:
CITY OF HOMER – PUBLIC WORKS DEPARTMENT
3575 HEATH STREET
HOMER ALASKA 99603
907-235-3170

INVITATION TO BID

By the City of Homer, Alaska, for the

MAY - 2 2014

Homer Harbormaster's Building / Deepwater Dock Trail Boardwalk

Sealed bids for the construction of the **Homer Harbormaster's Office / Deepwater Dock Trail Boardwalk** will be received at the office of the City Clerk, City Hall, City of Homer, 491 East Pioneer Avenue, Homer, Alaska, until **2:00 PM, Thursday, June 19, 2014** at which time they will be publicly opened and read. The time of receipt will be determined by the City Clerk's time stamp. Bids received after the time fixed for the receipt of the bids shall not be considered. **All bidders must submit a City of Homer Plan Holders Registration form to be on the Plan Holders List and to be considered responsive.** Plan holder registration forms, and Plans and Specifications are available on line at http://www.cityofhomer-ak.gov/rfps

The project is funded with a State Legislative Grant. The City's local bidders 5% preference requirements will apply; state prevailing wage rates will apply. The work includes, but is not limited to, the following:

Construct a new 4,778 Sf. Harbormaster's Office building located on the Homer Spit's Freight Dock Road directly adjacent to the Seldovia Fast Ferry terminal. The new office building will consist of a concrete foundation and wood framed structure that will extend 15' over slope of the Homer Harbor banks. The Deepwater Dock Trail Boardwalk will consist of structural cast in place concrete columns that will carry a wood framed boardwalk out and around the southwest side of the Harbormaster's office building carrying trail pedestrians and bicyclists out over the Homer Harbor.

Please direct all technical questions regarding this project to: Dan Nelsen, City of Homer, Public Works Department, 3575 Heath Street, Homer, Alaska, 99603, (907) 435-3141

A mandatory pre-bid conference will be held on Wednesday, **May 28th, 2014** at 1:00 PM at Homer City Hall Conference Room, 491 East Pioneer Avenue, Homer, AK to discuss the construction of the projects and answer any questions bidders may have.

Plan holder registration forms, and Plans and Specifications are available online at http://www.cityofhomer-ak.gov/rfps **All bidders must submit a City of Homer Plan Holders Registration form to be on the Plan Holders List and to be considered responsive.** Hard copies can be obtained at the office of the City Clerk upon payment of $220 per set ($250 for overnight delivery). City of Homer Standard Construction Specifications 2011 Edition (containing general contract provisions) may be downloaded from the City's web site. All fees are non-refundable. The City of Homer reserves the right to accept or reject any or all bids, to waive irregularities or informalities in the bids, and to award the contract to the lowest responsive bidder.

DATED this 2nd day of May, 2014.

CITY OF HOMER

Walt Wrede, City Manager

Homer Tribune – May 14 –May 21, 2014
Peninsula Clarion – May 18, 2014
Anchorage Daily News – May 18, 2014
Fiscal Note: 151-0936

Table of Contents

Homer Harbormaster's Building / Deepwater Dock Trail Boardwalk

Homer Harbormaster's Office / Deepwater Dock Trail Boardwalk

The City of Homer, Alaska is requesting bid proposals from qualified firms and individuals for the project described herein.

I. Scope of Services

The proposed work is located within the Homer city limits and is illustrated on the plans entitled:

Homer Harbormaster's Office / Deepwater Dock Trail Boardwalk

The project consists of furnishing all labor, materials, equipment, tools, supervision and other facilities necessary for the performance of the work described herein and shown on the project drawings. The work includes but is not limited to the following:

Construct a new 4,778 Sf. Harbormaster's Office building located on the Homer Spit's Freight Dock Road directly adjacent to the Seldovia Fast Ferry terminal. The new office building will consist of a concrete foundation and wood framed structure that will extend 15' over slope of the Homer Harbor banks. The Deepwater Dock Trail Boardwalk will consist of structural cast in place concrete columns that will carry a wood framed boardwalk out and around the southwest side of the Harbormaster's office building carrying trail pedestrians and bicyclists out over the Homer Harbor.

II. General Bidding Requirements

The work must be performed by a Contractor skilled and regularly engaged in the general class or type of work called for under the Contract. The bidder must have a current contractor's license issued by the State of Alaska. The license must apply to the work described in the Invitation to Bid.

The City of Homer Standard Construction Specifications, 2011 Edition, shall supplement the project plans. A copy of the Homer Standard Construction Specifications (S.C.S.) may be obtained at the Office of the City Clerk, 491 E. Pioneer Ave., Homer, Alaska 99603. The cost for S.C.S. is per set is $50.00. Persons requesting the sets by mail must include an additional $25.00 for shipping.

This project is covered by the State of Alaska, Laborer's and Mechanic's Minimum Rates of Pay, Title 36 Public Contracts, (AS 36.05 & 36.10) **Pamphlet 600 Issue 28**, **Effective April 1, 2014**. It is the responsibility of the bidder to determine the current rates of pay required and to submit the proper certified payrolls to the State Department of Labor.

Performance and Payment bonds in the amount of One Hundred Percent 100% of the bid amount are required.

Bids must be submitted on the Bid Form and will be received, until **2:00 PM, Thursday, June 19, 2014** at the Office of the City Clerk, 491 E. Pioneer Avenue, Homer, Alaska 99603. **A bid bond is required.** Cashier checks in an amount equal to five percent (5%) of the bid are acceptable. Surety bonds are acceptable.

The City of Homer has a two-part bid process, Part A and Part B. Each portion of the bid must be submitted in separate envelopes. At the bid opening, Part B is opened first and must be complete and regular or Part A will not be opened and the bid will be rejected.

Part A of the bid contains the Bid Form, the Bid Bond and the Power of Attorney (if needed). Part A must be submitted separately in an envelope marked Part A.

Part B of the bid contains the 1) Addenda Acknowledgment, 2) EEO-1 Certification, 3) Equal Employment Opportunity Clause. Part B must be submitted separately in an envelope marked Part B.

III. Instruction to Bidders

The City of Homer reserves the right to accept or reject any or all proposals, to waive irregularities or informalities in the proposals, and to award the contract to the bidder that best meets the criteria stated below.

A. Qualification of Bidders

It is the intention of the City of Homer to award this contract to the lowest responsible, responsive Bidder who furnishes satisfactory evidence they have the requisite experience, ability and sufficient capital, facilities and plant to prosecute the work successfully (and properly) and to complete it within the time allowed in the Contract at the least cost to the City of Homer for dollars spent for value received.

If the signature on the Bid is by an agent, other than an Officer of a corporation of a member of a Co-partnership, a Power of Attorney must either be on file with the City Clerk prior to the Bid opening or submitted with the Bid in Part B.

B. Taxes

Attention is directed to the requirements of the General Conditions regarding the payment of taxes. All taxes that are lawfully assessed against Owner or Contractor in connection with the work shall be paid by the Contractor. The Bid prices shall include all such taxes.

The City of Homer is exempt from local sales taxes. The Contractor shall not include sales tax markup in his bid. However, in order to recoup sales tax the Contractor might pay at local vendors, the Contractor must secure a Tax Exempt card from the Kenai Peninsula Borough Tax Department.

C. Familiarization With The Work

Before submitting a Bid, each prospective Bidder shall familiarize themselves with the work, labor conditions and all laws, regulations and other factors affecting performance of the work. The Contractor shall carefully correlate his observations with the requirements of the Contract Documents and otherwise satisfy himself of the expense and difficulties attending performance of the work. The submission of a Bid shall constitute an acknowledgement that the Bidder has thoroughly examined and is familiar with the Contract Documents and the provisions thereof. The failure or neglect of a Bidder to receive or examine any of the Bid Documents shall in no way relieve the bidder from any obligations with the respect to their Bid or to the Contract. Misinterpretation or a reputed lack of knowledge concerning the Bid will not serve as a basis for a claim for additional compensation.

1. Site Conditions

Each Bidder shall visit the site of the Work and completely inform himself relative to construction hazards and procedures, the availability of lands, the character and quantity of surface and subsurface materials and utilities to be encountered, the arrangement and conditions of existing structures and facilities, the procedure necessary for maintenance of uninterrupted operations of existing facilities, the character of construction equipment and facilities needed for performance of the work, and facilities for transportation, handling and storage of materials and equipment. All such factors shall be properly investigated and considered in the preparation of the Bid.

D. Interpretation of Bid Documents

All questions about the meaning or intent of the Contract Documents shall be submitted, in writing, to the Office of the Director of Public Works, 3575 Heath St. Homer Alaska, 99603. Replies will be issued by Addenda mailed or delivered to all parties recorded by the City Clerk's Office as having received the Bidding documents. The City of Homer will not be held responsible for questions received less than (7) days prior to the date of opening of Bids. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. No questions will be answered the day of the bid due date.

The Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Addendum Form, properly signed by the Bidder and placed in envelope B.

It shall be the Bidder's responsibility to inquire as to addenda issued. Failure to include the Addenda Form in envelope B shall result in the Bid being rejected as non-responsive.

E. Bid Bond Guarantee

Each Bid shall be accompanied by a Bid Bond duly completed on the suggested form provided by a guaranty company authorized to carry on business in the State of Alaska, along with a General Power of Attorney form, if applicable, for payment to the City in the sum of five percent (5%) of the total amount of the Bid. Failure to include the Bid Bond in envelope A of the Bid shall result in the Bid being rejected as non-responsive.

The amount payable to the City under the Bid Bond or the certified or cashier's check, as the case may be, shall be forfeited to the City in case of a failure or neglect of the Bidder to furnish, execute, and deliver to the City required Performance and Payment Bonds, Evidences of Insurance, necessary forms or material required by the Bid or failure to enter into, execute and deliver to the City the Contract on the form provided therefore, within ten (10) working days after receipt of "Notice of Intent to Award Contract" by the City that the Contract is ready for execution. The "Award of Contract" will be made upon the execution of the Contract by the Bidder and the City.

F. Return of Bid Guarantee

Within thirty (30) days after the Bids are opened, the City will return the Bid Guarantees accompanying the Bids, which are not to be considered in making the award. The bid Guarantees of the three (3) lowest responsive Bids will be held until the Contract has been fully executed after which time the Guarantees will be returned to the respective Bidders whose Bids the Guarantees accompanied.

G. Contract Time

The Contract Time is an essential part of the Contract and it will be necessary for each Bidder to satisfy the City of his ability to complete the work within the time set forth in the Bid form. Provisions for delays, liquidated damages, and extensions of time are set forth in the Standard Construction Specifications. Time is of the essence in this contract.

H. Bids

1. Preparation of Bids

Bids must be submitted on the forms provided by the city and completed in all respects as required by the Bid Documents. Bids shall include all information requested herein, and be manually signed by the Bidder or the Bidder's duly authorized representative, with the Bidder's address and phone number. If the signature is by an agent, other than an Officer of a Corporation, or a member of a Co-partnership, a Power of Attorney must be on file with the City Clerk prior to opening the Bid or submitted in envelope B of the Bid; otherwise, the Bid will be disregarded as irregular and unauthorized, and will be rejected as non-responsive. All Bids must be regular in every respect, and no alterations shall be made to the Bid form.

2. Bid Modifications

If erasures or changes appear on the forms, each must be initialed by the person signing the Bid. Oral or telephonic Bids will not be considered.

Bid modifications by facsimile or hand delivered, to Bids already submitted, will be considered if received prior to the time fixed in the Invitation to Bid. Facsimile or hand delivered modifications will only be considered if they are submitted as a complete **new** Part A (Bid schedule / Bid Bond) and shall be signed by a properly authorized agent, officer, or partner.

Bids will be received at the City Clerk's Office located at 491 East Pioneer Avenue, Homer, Alaska 99603, until the time indicated on the Invitation to Bid. Each Bid shall be submitted enclosed in a sealed, opaque envelope. The Bidder shall see that the Bid title and date of Bid opening is on the lower left-hand corner of the envelope. The City is not responsible for the premature opening of, or failure to open, a bid not properly addressed and identified. Promised overnight delivery from the Post office or private carriers usually is an inaccurate statement for Alaska and Homer Area.

No consideration will be given by the city to a claim of error unless such claim is made to the city in writing within two (2) hours after the time of Bid opening. Written verification and supporting evidence of the error shall be delivered to the City Clerk within 24 hours of the Bid Opening (not including Saturday, Sunday or legal holidays) to allow consideration of the claim for error. Supporting evidence shall be original documents, including cost breakdown sheets, supplier quotes and other documents used to compute the Bid.

It is the bidder's responsibility to see that Bids are deposited at the time and place set forth for the public opening of Bids. Bids not received by the time will not be accepted and will be returned to the Bidder in the sealed bid envelope.

I. Local Bidders Preference

The City of Homer Local Bidder Preference does apply to this contract.

IV. BID SCHEDULE
Part A

BID SCHEDULE - Homer Harbormaster's Office and DWD Trail Boardwalk

BASE BID - Homer Harbormaster's Office

Bid Item Number	Work Item Description	Name of Primary Sub-Contractor	Total Lump Sum
01	General Requirements		$
02A	Sitework		$
02B	Prepare and Implement SWPPP		$
03A	Concrete (Except Over Slope Columns)		$
03B	Concrete Over Slope Columns		$
06	Metals, Wood, Plastics & Composites		$
07	Thermal & Moisture Protection		$
08	Doors & Windows		$
09	Finishes		$
10	Equipment, Furnishings, and Specialties		$
15A	Plumbing		$
15B	HVAC		$
15C	Fire Sprinkler System		$
16	Electrical		$

Total Harbormaster's Office Base Bid = $ _____

BASE BID - DWD Trail Boardwalk

Bid Item Number	Work Item Description	Name of Primary Sub-Contractor	Total Lump Sum
17	Boardwalk Construction		$

Total Boardwalk Base Bid = $ _____

ADDITIVE BID ITEMS - Homer Harbormaster's Office

Bid Item Number	Work Item Description	Name of Primary Sub-Contractor	Total Lump Sum
18	Fire Alarm System		$
19	Security System		$

Total Additive Bid = $ _____

BID SCHEDULE SUMMARY
Homer Harbormaster's Office and DWD Trail Boardwalk

BASE BID - Homer Harbormaster's Office	$ In Numbers $ In Words
BASE BID - DWD Trail Boardwalk	$ In Numbers $ In Words
ADDITIVE BIDS - Homer Harbormaster's Office	$ In Numbers $ In Words
Total Project Cost	$ In Numbers $ In Words

Name of Firm _____

Address of Firm _____

_____

_____

Authorized Signature _____

Printed Name of Signatory _____

Date of Bid _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that _____

_____

Hereinafter called the PRINCIPAL, and _____

a Corporation duly organized under the laws of the State of Alaska having its principal place of business at _____
In the State of Alaska, and authorized to do business in the State of Alaska, as SURETY, are held and firmly bound unto the City of Homer hereinafter called the OBLIGEE, in the penal

sum of _____ DOLLARS ($_____) for payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the PRINCIPAL has herewith submitted his or its BID for _____

_____ said Bid, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if the Bid submitted by the PRINCIPAL is accepted and the Contract awarded to the PRINCIPAL, and if the PRINCIPAL shall execute the proposed Contract and shall furnish such Performance and Payment Bond as required by the Contract Documents within the time fixed by the documents, then this obligation shall be void: if the PRINCIPAL shall fail to execute the proposed Contract and furnish the Bond, the SURETY hereby agrees to pay the OBLIGEE the penal sum as liquidated damages:

Signed and sealed this _____Day of _____, 2014.

PRINCIPAL: _____

BY: _____

SURETY: _____

ATTORNEY-IN-FACT: _____

Part B

ADDENDA ACKNOWLEDGMENT

Project Name: **Homer Harbormaster's Office / Deepwater Dock Trail Boardwalk**

I hereby acknowledge addenda numbers:

_____

_____

_____

_____

_____

_____

Name of Firm: _____

Signature of Bidder: _____

Date: _____

This Acknowledgement must be included with Part B of the Bid or the Bid will be considered non-responsive.

City of Homer

Equal Employment Opportunity (EEO – 1) CERTIFICATION

The following Certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)) and must be submitted by BIDDERS and proposed SUBCONTRACTORS in connections with contracts and subcontracts which are subject to the Equal Opportunity Clause. Contracts and subcontracts which are exempt from the Equal Opportunity Clause are set forth in 41 CFR 60-1.5 (generally only contracts or subcontracts of $10,000 or under are exempt.) Proposed PRIME CONTRACTORS and SUBCONTRACTORS who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports, should note the 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period as specified by the Federal Highway Administration; by the Director, Office of Federal Contract Compliance Programs, U.S. Department of Labor; or by the Equal Employment Opportunity Commission.

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations. The Employer Information Report EEO-1 (Standard Form 100) is not a voluntary survey. The filing of the report is in accordance with Standard Form 100 instructions and is required by Federal law. The applicable law is Section 709©, Title VII, Civil rights Act of 1964 and regulations issued by the Equal Opportunity Commission under that law are reprinted in Appendix (6). Under Section 710(b) of Title VII, the Commission may obtain an order from a United States District Court compelling a covered employer to file this report. Under Section 209 (a) of Executive Order 11246, the penalties for failure by a Federal contractor or subcontractor to comply may include termination of the Federal government contract and debarment from future Federal contracts.

It is the employer's responsibility to keep current on all EEO-1 filing requirements. All inquiries and requests for special procedures should be directed to: Office of Federal Contract Compliance Programs, Department of Labor, Federal Building/U.S. Court House, 701 C Street, Box 55, Anchorage, AK 99513. Blank reporting forms may be obtained from: The Joint Reporting committee, P.O. Box 2236, Norfolk, Virginia 23501 (804) 625-3734.

(CHECK APPLICABLE BLOCK) The BIDDER _____ or proposed SUBCONTRACTOR _____ hereby certifies:

1. Their firm has participated in a previous contract or subcontractor subject to the Equal Opportunity Clause as required by Federal Executive Order 11246, Section 201 (301 F.R. 12319) YES_____ NO _____

   A. Their firm has filed all reports due under the applicable filing requirement with the Joint Reporting Committee Opportunity Commission as stated in this certifications. YES_____ NO _____

2. Their firm has participated in a previous City of Homer construction contract or subcontract. YES_____ NO _____

   A. Their firm has filed all the EEO reports due under applicable filing requirements of the city of Homer Department of Public Works. YES_____ NO _____

_____ _____
Signature of Authorized Representative of Company Date

_____ _____
Name of Company Phone Number

_____ _____
Address of Company Zip Code

PROJECT NAME - **Homer Harbormaster's Office / Deepwater Dock Trail Boardwalk**

This certificate (2 pages) needs to be included with the Bid Documents Part B or the Bid will be considered non-responsive.

EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

During the performance of this contract, the contractor agrees to comply with OFCC Regulations 40 CFR 60.1.4 (1) through (7) as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The contractor will send to each labor union or representative of workers with whom he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965 and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The contractor will comply with all provisions of executive order 11246 of September 24, 1965 and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965 and by the rules, regulations, and orders of the secretary of labor, or pursuant thereto, and will permit access of his books, records, and accounts by the contracting agency and the secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any such rules, regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further government contracts in accordance with procedures authorized in executive order 11246 of September 24, 1965 and such other sanctions may be imposed and remedies invoked as provided in executive order 11246 of September 24, 1965 or by rule, regulation or order of the Secretary of Labor as otherwise provided by law.

7. The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965 so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however that in the event the contractor

becomes involved in, or is threatened wit, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

_____ _____

(Signature) (Title)

_____

(Date)

This form (2 pages) must be included with the Bid, Part B, or the Bid will be considered non-responsive.

V. Contract Documents

C O N T R A C T

This Contract, made and entered into by and between the City of Homer, Alaska, a Municipal Corporation, hereinafter called the "City" and

_____

Hereinafter called the "Contractor";

WITNESSETH:

The Contractor, in consideration of the sum to be paid him by the City and of the covenants and agreements herein contained, hereby agrees at his own cost and expense to do all the work and furnish all the materials, tools, labor and all appliances, machinery and appurtenances for City to the extent of the Bid made by the contractor, dated the _____ day of _____, 2014, all in full compliance with the Contract documents referred to herein as:

Homer Harbormaster's Office / Deepwater Dock Trail Boardwalk

a) Invitation to Bid
b) The signed copy of the Bid
c) The Bid Bond
d) The 2011 City of Homer Standard Construction Specifications
e) All Addenda, totaling ___
f) The drawings which consist of 94 total sheets entitled;

Homer Harbormaster's Office 87 Sheets
Deepwater Dock Trail Boardwalk 7 Sheets

Are hereby referred to and reference made a part of the Contract as fully and completely as if the same were fully set forth herein.

In consideration of the performance of the work as set forth in these Contract Documents, the city agrees to pay to the contractor the amounts specified bid in the Bid and to make such payments upon the Contractor's invoicing as approved by the City Engineer.

C O N T R A C T

CONTRACT COMPLETION TIME

The Contractor agrees to complete the project, in all respects no later than **May 25th 2015**

CONTRACT AMOUNT _____

In Numbers

_____

In Words

LIQUIDATED DAMAGES:

Liquidated damages in the amount of $250.00 per day will apply to the Contractor's unexcused delay in the Completion of Construction. The liquidated damage amount specified herein shall only apply to damages and expenses the Owner may incur as a result of a delay in placing the facility into use and operation exclusive of third party damages or claims. The liquidated damage amount shall not cover any damages or expenses the Owner may incur as a result of the Contractor's unexcused delay in completing any portion of the entire Project, which delay results in whole or in part in delay, disruption, hindrance, interference, damages or expenses to any third party. The Contractor shall remain liable for the full amount of any such delay damages or expenses suffered by any third party without limitation by any liquidated damage provision set forth in the Contract.

IN WITNESS WHEREOF, we, the parties hereto, each herewith subscribe the same this _ day of _____ _____, 2014.

CITY OF HOMER

By: _____

Title: Walt Wrede, Homer City Manager

CONTRACTOR

_____

(Contractor)

By: _____

Title: _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____
(Name of Contractor)

_____ a _____
(Corporation, Partnership, Individual)

hereinafter called "Principal" and _____
(Surety)

of _____, State of _____

hereinafter called the "Surety" are held and firmly bound unto the City of Homer, hereinafter called "Owner," in the penal sum of _____
dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that Whereas, the Principal has or is about to enter into a certain contract with the Owner, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if it shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making food any default, then this obligations shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or the work to be performed thereunder or the specifications accompanying the same shall in any wise affect it obligation on this bond, and it does hereby waive notice of any such change, extension f time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each one of which shall be deemed and original, this the _____ day of _____, 2014.

ATTEST:

(Principal's Corporate Secretary)	(Principal)
Affix CORPORATE SEAL if applicable	
	(Address-Zip Code)
(Witness as to Principal)	
(Address – Zip Code)	
	(Surety)
ATTEST:	By: (Attorney-in-Fact)
(Surety) Secretary	(Address-Zip Code)

(Affix SURETY'S SEAL)

(Witness as to Surety)

(Address-Zip Code)

Notes:

If Principal is Partnership, all partners must execute bond. The Attorney-in-Fact, who executes this bond on behalf of the surety, must attach a copy of his Power-of-Attorney as evidence of his authority.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____
(Name of Contractor)

_____ a _____
(Corporation, Partnership, Individual)

hereinafter called "Principal" and _____
(Surety)

of _____, State of _____

hereinafter called the "Surety" are held and firmly bound unto the City of Homer,

hereinafter called "Owner," in the penal sum of _____

dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATIONS are such that Whereas, the Principal has or is about to enter into a certain contract with the Owner, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors and corporations furnishing material for, or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for material, lubricants, fuels, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor performed in such work, whether by subcontractor or otherwise, then this obligation shall be void: otherwise to remain in full for and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or the work to be performed thereunder or the specifications accompanying the same shall in any wise affect it obligation on this bond, and it does hereby waive notice of any such change, extension f time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each one of which shall be deemed and original, this the _____ day of _____, 2014.

ATTEST:

(Principal's Corporate Secretary)	(Principal)
Affix CORPORATE SEAL if applicable	
	(Address-Zip Code)
(Witness as to Principal)	
(Address-Zip Code)	
	(Surety)
ATTEST:	By: (Attorney-in-Fact)
(Surety) Secretary	(Address-Zip Code)

(Affix SURETY'S SEAL)

(Witness as to Surety)

(Address-Zip Code)

Notes:

If Principal is Partnership, all partners must execute bond. The Attorney-in-Fact, who executes this bond on behalf of the Surety, must attach a copy of his Power-of-Attorney as evidence of his authority.

VI. Project Schedule

Homer Harbormaster's Office / Deepwater Dock Trail Boardwalk

No Later Than

Mandatory Pre-Bid..... at 1:00 PM Wednesday, May 28th, 2014

Bids Due..... until **2:00 PM, Thursday, June 19, 2014**

Notice of intent to Award.....Tuesday June 24th 2014

Pre-Construction meeting and Notice to Proceed.....Tuesday July 1st 2014

Start Construction.....Monday July 7th 2014

Substantial Completion.....Monday May 25, 2015

VII. Special Provisions

SPECIAL PROVISIONS

Homer Harbormaster's Office

General Conditions of the Contract

The General Provisions of this contract shall be those of the City of Homer Standard Construction Specifications, 2011 Edition, Section 10. (These provisions are available on the City's website).

Disadvantaged Business Requirement

The Contractor shall, to the extent possible, use small, minority, women-owned or disadvantaged business concerns.

Liability Exclusion

The City of Homer and the State of Alaska is not liable for damages or claims from damages arising from any Contractor's performance or activities under the terms of this contract. The Contractor shall defend, indemnify, and hold harmless the City and the State of Alaska from all claims, actions, costs, damages, or expenses of any nature whatsoever by reason of the acts or omissions of the City or the State of Alaska in connection with the performance of this contract; except those damages which may be caused by the sole negligence of the City or the State of Alaska.

Construction Schedule

Construction will commence – July 7, 2014
Foundation/Utility Installation must be complete by – September 1, 2014
Building Enclosure work must be complete by – October 30, 2014
Project complete by – May 25, 2015

Contractor will be required to provide a detailed **C**ritical **P**ath **M**ethod project schedule upon award of contract and presented to the City at the Pre-Construction Conference.

Applicable Prevailing Wage Rates

Contractor is required to pay State of Alaska Department of Labor or Workforce Development Laborers' & Mechanics' Minimum Rates of Pay. Contractor is required to submit State of Alaska Department of Labor Certified Payrolls in accordance with the State Department of Labor requirements, including submittal of signed Statements of Compliance.

Questions regarding compliance with State Prevailing Wage requirements should be directed to:

Warren E. Petrasek
Wage and Hour Investigator
Wage and Hour Administration
Anchorage Regional Office
Telephone: 907-352-2558
Fax: 907-352-4182
Email: warren.petrasek@alaska.gov

SPECIAL PROVISIONS
Homer Harbormaster's Office

Insurance Requirements

The Contractor shall provide the following types of insurance prior to starting work (see General Conditions - Article 6.18 – Insurance). All Insurance Certificates shall name "City of Homer, Alaska" and "The State of Alaska" as an additionally insured party. Contractor will also include a provision that the "Department of Transportation and Public Facilities" along with the "State of Alaska" not be liable for damages or claims from damages arising from any contractor's performance or activities in connection with work authorized by the projects Grant Agreement.

1. Worker's Compensation	Minimum Limits
Employer's Liability and Workers' Compensation as required by Alaska State Workers' Compensation Statutes.	Statutory (no less than $100K per occurrence)
U.S. Longshoremen & Harbor Workers' (USL&H).	

2. Comprehensive General Liability	Minimum Limits
Single Limit	$1,000,000
Aggregate	$2,000,000

- Bodily Injury & Property Damage Liability
- Premises Operations
- Blanket Contractual
- Broad Form Property Damage
- Personal Injury
- Independent Contractors

3. Comprehensive Automobile Liability	Minimum Limits
Bodily Injury and Property Damage, including All owned, hired and non-owned vehicles	$1,000,000

Anti-Discrimination Requirements

The Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

Access to Records and Project

The City and the State of Alaska shall have full access and the right to examine, excerpt, and copy any documents generated by the Contractor that relate to this project. Additionally, the

City and the Department shall have unhindered access to the project site and all work performed in connection with this project.

Violation and Breach of Contract

Administrative, contractual, or legal remedies in instances where the Contractor violates or breaches contract terms or either party terminates for cause or convenience are contained in the General Conditions of the City of Homer Standard Construction Specifications 2011 which provide for such procedures, sanctions and penalties as may be appropriate. See Section 5.30, 5.31., 5.32, and 5.34 of the General Conditions and liquidated damages amount in the contract.

Compliance with Equal Employment Opportunity Provisions of Executive Order 11246

Contractor shall be in compliance with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR Chapter 60).

Access to Records

Contractor shall provide access by the any of their duly authorized representatives of the City of Homer or the Alaska Department of Transportation to any books, documents, papers, and records of the contractor which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts, and transcriptions. Contractor shall retain all required records for three years after final payment and all other pending matters are closed.

Compliance with State and Federal Environmental Regulations

Contractor shall be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).

City Provided Work/Services

The City will accomplish the following work items:

1) The City will be responsible for paying all costs associated with HEA work in extending electrical service to the new building.
2) The City will apply for and pay for the installation of the natural gas service line and meter.
3) The City will pay for all concrete and civil site construction material testing.

Contractor Provided Materials/Work

The Contractor is responsible for providing all materials, equipment and labor required to complete the work as specified herein, as shown on the plans and specifications, or as directed

by the Engineer. Contractor is responsible for all required quality control testing and construction survey as described in the technical specifications. Contractor will submit the Testing agencies that will be contracted to perform the required project testing before any work takes place. Refer to the COH Standard Construction Specifications on proper submittal submission.

(Contractor will not proceed with any definable feature of work without Engineer approved submittals in hand.)

Coordination of Work with Ongoing Activities

Contractor shall coordinate with the City of Homer Harbor Master's Office to minimize conflict with adjacent property owners and pedestrian/vehicular traffic. The Contractor shall be responsible for limiting access to the actual job site, including if necessary the installation of barricades and caution tape / danger tape along the perimeter of the work area and around any material storage areas if necessary. The Contractor shall coordinate all power and or water shut downs with the City of Homer Harbor Masters Office 48 hours before the desired time and date.

Coordination with the City/ inspectors/utility companies will be the sole responsibility of the Contractor to facilitate during the duration of this project. Any portion of work that is installed and or covered up without inspectors sign off will not be accepted and Contractor may be asked to uncover work for inspection.

The City will conduct a mandatory weekly project coordination meeting with the Contractor during the duration of the project to be held at the Homer Harbormasters office conference room. Attendance by the Contractors Project Superintendent and Project Manager will be required for all meetings.

Basis of Measurement and Payment

The Contractor shall submit to the City at the pre-construction conference a "Schedule of Values" showing cost breakdown for individual parts of each bid item to assist in determining the value of each allocated work item (to be used as the basis for submitting and reviewing progress payments). Any work not specifically called out as measured and paid for under the bid items shown below shall be incidental to the work.

Base Bid Item 1 – General Requirements: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. This payment will be full compensation for all materials, labor, equipment, and incidentals necessary to meet the general requirements of the Contract including but not limited to project management small tools and consumables, mobilization, supervisory transportation, attending meetings, project layout/survey, reviewing shop drawings, providing temporary site security fencing, providing field office and dumpsters, providing O&M manuals, paying certified payroll fee, providing safety equipment, providing temporary sanitation facilities, providing power/lighting for the project during construction, and administration associated with contract closeout.

SPECIAL PROVISIONS

Homer Harbormaster's Office

Base Bid Item 2A – Site Work: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. This payment will be full compensation for all materials, labor, equipment, and incidentals necessary to complete site civil work including but not limited to foundation excavation/backfill, removal and installation of paving, concrete sidewalks, bollards, striping, water, sewer, drainage, signing, site grading, and erosion control as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 2B – Prepare and Implement SWPPP: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. This payment will be full compensation for all materials, labor, equipment, and incidentals necessary to prepare and implement the Plan in conformance with the Drawings and all other Contract Documents.

Base Bid Item 3A – Concrete (Except Over Slope Columns): Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. This payment will be full compensation for all materials, labor, equipment, and incidentals necessary to complete foundation slab, footings, foundation stem walls, anchor bolts (excepting the exterior over slope columns and footings) as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 3B – Concrete Over Slope Columns: Measurement will be made on the basis of percent complete. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to construct the exterior over slope columns and footings as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 6 - Metals, Wood, Plastics & Composites: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to construct structural steel; floor decking; cold form metal framing; miscellaneous metal fabrication; exterior wall, partition, shear wall ceiling, roof framing, and floor framing rough carpentry; structural glulam timber; sheathing; and exterior architectural woodwork as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 7 – Thermal & Moisture Protection: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to install bituminous damp proofing, weather barriers, building insulation, solid phenolic panels, membrane roofing, sheet metal flashing and trim, roof walkway pads, and joint sealants as shown on the plans, as stated in the specifications, and as directed by the Engineer.

SPECIAL PROVISIONS

Homer Harbormaster's Office

Base Bid Item 8 – Doors & Windows: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to install doors and windows including, but not limited to, hollow metal, aluminum and FRP door frames, flush wood and FRP doors, overhead doors, windows, and door hardware as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 9 – Finishes: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to install finishes including, but not limited to, gypsum board and accessories, acoustical ceiling panels and accessories, laminate flooring, resilient base and accessories, resilient sheet flooring, carpet tile, concrete sealers, and high performance coatings, and paint as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 10 – Equipment, Furnishings, and Specialties: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to install equipment, furnishings and specialties including, but not limited to, marker boards, room and ADA signage, toilet compartments, impact resistant wall protection, toilet accessories, metal lockers, fire protection cabinets, fire extinguishers, flat screen monitors, display casework, and horizontal louver blinds as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 15A – Plumbing: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to install plumbing including, but not limited to, domestic water piping and pipe insulation and accessories; above and below grade sanitation waste and vent piping; drain piping, floor drains, and venting; heating pumps and hydronic piping and fittings, expansion tanks,; glycol system, natural gas piping, plumbing fixtures, water heaters, boilers as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 15B – HVAC: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to install HVAC improvements including, but not limited to; duct work, duct insulation and duct accessories; duct fire resistant liners; air handling units; convection heating units; radiant floor heating equipment; exhaust fans; diffusers, registers, and grills; HVAC instrumentation and controls, testing, adjusting and balancing as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 15C – Fire Sprinkler System: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to install fire sprinkler system including, but not limited to, fire suppression piping as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 16 – Electrical: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary to install electrical improvements including, but not limited to, grounding and bonding; electrical identification; wiring devices; enclosed controllers; switchboards; panel boards; feeders and sub-feeders; interior lighting and switches; exterior lighting; voice and data communication cabling; telephone, and data communication systems; and the door access system and door access control panel rough-in only as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Base Bid Item 17 – Boardwalk Construction: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary constructing the boardwalk including, but not limited to, the 14 (fourteen) cast-in-place concrete support beams, timber joists, timber decking , and timber handrail as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Additive Bid Item 18 – Fire Alarm System: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary installing the fire alarm system as shown on the plans, as stated in the specifications, and as directed by the Engineer.

Additive Bid Item 19 – Security System: Measurement will be made on the basis of percent complete. Payment will be based on the Lump Sum (LS) price stated in the Bid Proposal. Payment will be full compensation for all materials, labor, equipment, and incidentals necessary installing the security system as shown on the plans, as stated in the specifications, and as directed by the Engineer. The door access system and door access control panel rough-in only work is covered in Base Bid Item 16 – Electrical.

Project Safety Requirements

The City of Homer is requiring that the General Contractor and all Sub-Contractors provide a well-developed Activity Hazard Analysis for all definable features of work on this project a minimum of 72 hours before the work is to take place. All plans will be reviewed and approved by the City of Homer before the Contractor will be allowed to proceed with the work. The General Contractor will hold a mandatory jobsite wide safety meeting at a minimum of once a month during the course of construction. The General Contractor will be responsible for their Sub-Contractors safe work practices at all times during this project. The City of Homer will

maintain and enforce the most current issue of O.S.H.A. standards. If there is a need for the Contractor to make a critical pick with any of their hoisting equipment a Critical Lift Plan must be submitted to the City of Homer a minimum of 72 hours before the scheduled work. All Critical Lift Plans will need to be approved by the City Engineer before work can commence.

SWPPP Responsibilities

The Contractor is responsible for preparing a Storm Water Erosion Control Plan (SWPPP) and protecting the waters of the United States as required by the Clean Water Act. The Contractor shall be responsible (under the Prepare and Implement SWPPP bid item) for completing work as described below:

1) Obtain NOI and prepare a SWPPP. Obtain approval by the Owner.
2) Deliver three copies to Owner for approval and have at least one approved copy available on-site.
3) Maintain the SWPPP of Record
4) Provide required site signage/postings.
5) Implement the SWPPP, including weekly inspections and site documentation. Keep copy of all records on-site.
6) Construct a silt fence or other approved sediment control improvement around the work site as determined by the approved SWPPP plan.
7) Implement nominal/basic erosion control measures identified in the SWPPP and basic BMP's.
8) Any other normal requirements of the SWPPP, including but not limited to securing Owner signatures on weekly SWPPP inspection reports, submitting copies of the reports and other basic regulatory obligations.

The City will partner with the Contractor to determine means and methods employed to protect surface and ground water and manage risk. The City and the Contractor are jointly responsible for permitting and permit compliance within the work area. The SWPPP shall encourage the installation of final erosion control measures as soon as possible. Subcontractors must certify that they have read and will abide by the conditions of the project SWPPP.

The City and the Contractor will monitor the site and determine if any special additional work is required beyond the basic work identified in the SWPPP. Any work items above and beyond that listed above will be paid for on a ***time and material basis*** if additional control measures are deemed necessary by the Contractor or the City, based on changing site conditions.

The SWPPP shall be prepared by a Certified Professional in Erosion and Sedimentation Control (CPESC); an individual with a current AK-CESCL certification and at least three relevant years of experience; or a Professional Engineer registered in Alaska with current certification as AK-CESCL

The SWPPP plan will document that the project is in conformance with applicable Clean Water Act provisions and that work conforms to all project environmental permits conditions.

Contractor is responsible for revising SWPPP during construction if necessary. The Contractor will act as the Operator on the Construction site as it relates to completing SWPPP work activities. The Contractor shall track success and failures of BMP implementation in inspection reports.

Utilities

The Contractor shall protect all overhead and underground utilities as provided for in Article 6.13 of CHSCS 2011.

The City will be responsible for all charges and fees associated with providing electric service to the Harbormaster building. The Contractor is responsible for installing a wall mounted meter base on the harbormaster's building in accordance with HEA standards. The City will be responsible for paying all costs associated with HEA work in extending electrical service to the new building. The Contractor is responsible for coordinating with HEA and the City to accomplish the work and coordinate electrical service connection scheduling.

The City will apply for and pay for the installation of the natural gas service line and meter.

VIII. Technical Specifications

The electronic version will be issued as a separate PDF
The hard copy version will be issued within two separate binders

IX. Appendices

Local Bidder Preference

A local bidder preference shall be incorporated into the award of this contract based on the following criteria:

- A Bidder who maintains and operates a business within the boundaries of the City of Homer shall be considered the lower Bidder where its offer is:

    1. Not more than five percent (5%) higher than the lowest non-local bid up to five hundred thousand dollars ($0 - $500,000) or;
    2. Not more than five percent (5%) higher than the lowest non-local bid on the first five hundred thousand dollars ($500,000) and two and ½ percent (2.5%) higher than the lowest non-local bid on an amount greater than five hundred thousand dollars ($500,000) to one million dollars ($1,000,000). There will be no additional local bidder preference percentage for bid amounts exceeding one million dollars ($1,000,000).

- A Bidder shall be deemed a Local Bidder who:

    1. Holds a current Alaska Business License to provide the services requested by this contract; and
    2. Submits a bid under the name appearing on the firm's current Alaska Business License; and
    3. Has maintained a place of business within the boundaries of the City of Homer for a period of at least six (6) months immediately preceding the date of the Bid and intends to permanently maintain such place of business in the future; and
    4. Is not delinquent in the payment of any taxes, charges, or assessments owed to the City of Homer on account of that business.

    The City Manager may require such documentation or verification by the person or firm claim.

LITHONIA LIGHTING®

Catalog Number	Z-1-28T5-MVOLT-GEB10PS
Notes	
Type	CF1

FEATURES & SPECIFICATIONS

INTENDED USE — The industry's next generation in linear direct fluorescent products. This new compact, low-profile design offers our customers unique product features which improve the overall installation process and appearance while reducing labor cost, making it the most versatile solution for commercial, retail, manufacturing, warehouse, and cove and display applications.

CONSTRUCTION — Compact designed channel and cover are formed from code-gauge cold-rolled steel. Innovative T8 two-lamp back plate offers compact design and additional socket protection. Locking lamp holder tracks bolsters strength of the overall strip construction while creating improved lamp stability. Design includes T8 socket, features rotating collar and enclosed contacts. Improved easy "snap n' lock" end plates allow for quick attachment.

Designed to accommodate a wide variety of T8 lamp lengths. Channel offers the gripper back feature which strengthens the overall construction and allows for the use of the new Z spring hanger (see back). Newly designed, patent-pending channel cover offers a secure fit design, allowing for easy access and quick attachment without pinching wires.

Finish: High-gloss, baked white enamel finish (white standard). Five-stage iron-phosphate pretreatment ensures superior paint adhesion and rust resistance. Other channel paint finish options: black (MB), smoke gray (SMG) and galvanized (GALV).

OPTICS — Reflector options include solid or apertured designs in both symmetric and asymmetric configurations. Consult factory for special-apertured versions.

ELECTRICAL — Thermally protected, resetting, Class P, HPF, non-PCB, UL listed. Suitable for damp locations. AWN, TFN or THHN wire used throughout, rated for required temperatures.

INSTALLATION — Patented-pending "three-point" row connector locks channel together for straighter and faster row mounting; included as standard. Ideal for surface-mount or suspended.

LISTINGS — UL Listed, CUL Listed or CSA Certified to Canadian Standards. Listed for 25° C ambient temperature.

WARRANTY — 1-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.

Actual performance may differ as a result of end-user environment and application.

Low-Profile T5/T8 Striplight

Z

Linear Lamps
1 or 2 Lamps

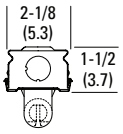
Specifications

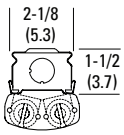
T8 Length: 24 (61.0) ,36 (91.4), 48 (121.9) 72 (182.9) or 96 (243.8)

T5 Length: 23-1/8 (56.7), 34-1/8 (86.7), 46 (116.8) 68-3/8(173.6) or 92 (233.6)

Width: 2-1/8 (5.4)

Depth: 1-1/2 (3.8)





All dimensions are inches (centimeters) unless otherwise noted.

ORDERING INFORMATION

For shortest lead times, configure products using **standard options (shown in bold.)**

Example: Z 1 32 MVOLT GEB10IS

Z	2	28T5	MVOLT	GEB10PS
Series	**Number of lamps**	**Lamp type**	**Voltage**	**Options**

Series	Number of lamps	Lamp type	Voltage	Options
Z Compact strip For tandem double-length unit, add prefix T. Example: TZ	**1** **2** Not included	17 17W T8 (24") 25 25W T8 (36") **32** 32W T8 (48") 14T5 14W T5 (22") 21T5 21W T5 (34") 24T5HO 24W T5 HO (22") **28T5** 28W T5 (46") 39T5HO 39W T5 HO (34") **54T5HO** 54W T5 HO (46")	120 277 347 **MVOLT** Others available	**GEB10IS** T8 electronic ballast, ≤10% THD, instant start (T8 only) GEB10RS T8 electronic ballast, ≤10% THD, rapid start[5] GEB10PS Electronic ballast, ≤10% THD, programmed start BILP High-efficiency .78 bf (low) GLR Internal fast-blow fuse (add X for external)[2] GMF Internal slow-blow fuse (add X for external)[2] PLR__ Plug in wiring, specify number of branch circuits and hot wires (A-black, B-Red, C-Blue, AB or AC) EL55 Emergency battery pack (nominal 390-700 lumens); consult factory for additional battery packs[2,3,4] EL65 Emergency battery pack (nominal 725-1325 lumens)[2, 3, 4] TILW Tandem in-line wiring CSA CSA Certified NOM NOM Certified MSI Aisle motion sensor[2, 3] MSI360 360° motion sensor[2, 3] MSE360LBZ 360° motion sensor; for mounting within row or at end of row[2, 3, 4]

Accessories: *Order as separate catalog number.*

SQ_	Swivel-stem hanger (specify length in 2" increments)
ZSPRG	Tong and T-grid hanger (for 15/16" T-grid)
HC36	Hanger chain, 36"
ZACVH	Adjustable aircraft cable with hook
ZAC72	Adjustable aircraft cable, 72"
ZACF72	Adjustable aircraft cable with feed, 72"
ZAC120	Adjustable aircraft cable, 120"
ZACF120	Adjustable aircraft cable with feed, 120"
ZAC144	Adjustable aircraft cable, 144"
ZACF144	Adjustable aircraft cable with feed, 144"

For T8 fixtures only

Z8SMR48	Symmetric reflector, 48" white[1]
Z8ASR48	Asymmetric reflector, 48" white[1]
Z8SMR36	Symmetric reflector, 36" white[1]
Z8ASR36	Asymmetric reflector, 36" white[1]
Z8SMR24	Symmetric reflector, 24" white
Z8ASR24	Asymmetric reflector, 24" white
WGZ48	48" wireguard, white[1]
WGZ8SMR48	48" wireguard, white, for symmetric reflector[1]
WGZ8ASR48	48" wireguard, white, for asymmetric reflector[1]

For T5 fixtures only

Z5SMR46	Symmetric reflector, 46" white[1]
Z5ASR46	Asymmetric reflector, 46" white[1]
Z5SMR34	Symmetric reflector, 34" white[1]
Z5ASR34	Asymmetric reflector, 34" white[1]
Z5SMR22	Symmetric reflector, 22" white
Z5ASR22	Asymmetric reflector, 22" white
WGZ46	46" wireguard, white[1]
WGZ5SMR46	46" wireguard, white, for symmetric reflector[1]
WGZ5ASR46	46" wireguard, white, for asymmetric reflector[1]

Notes

1 Order two for tandem double length fixtures.
2 Specify voltage (available 120/277V).
3 Not available with CSA Certified.
4 Available with 4' and 8' lengths only.
5 For 347V.

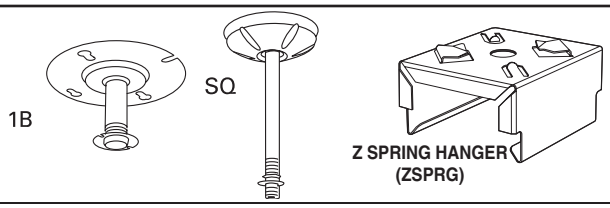
MOUNTING DATA

For unit or row installation, surface or stem mounting.

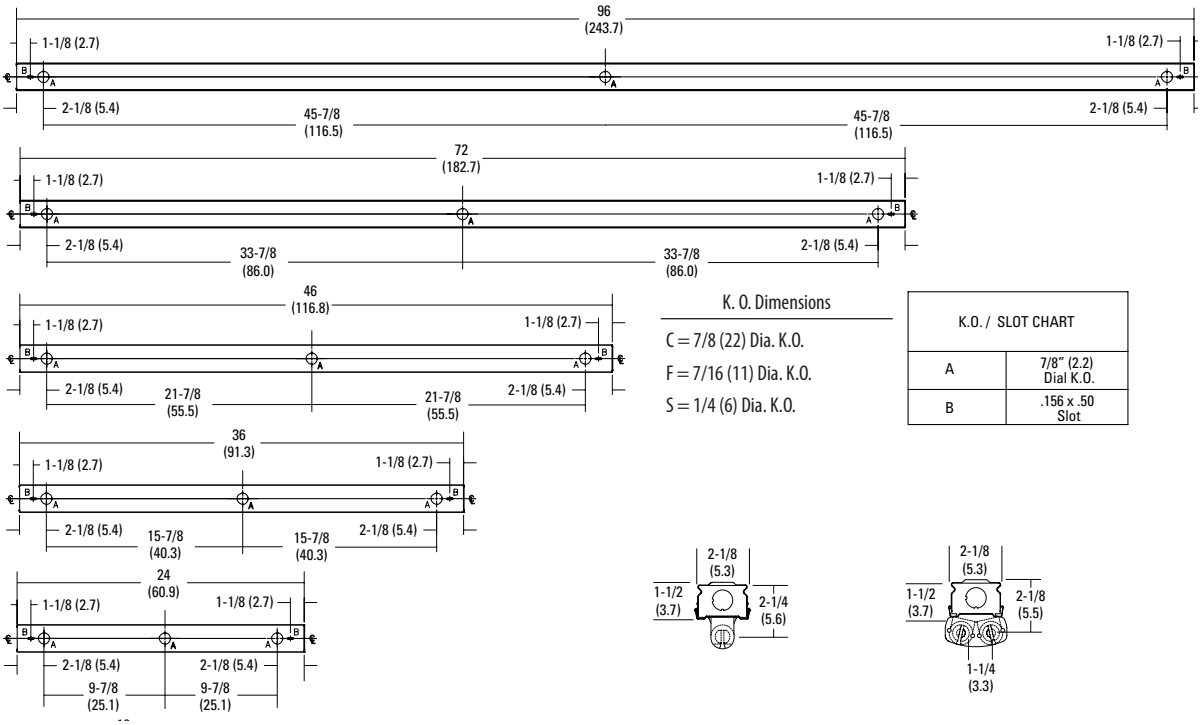
Unit installation — Minimum of two hangers required.

Row installation — One hanger per channel plus one per row required.

Review local codes when installing any product, as the minimum of 1 hanger per fixture may not satisfy your local building code.



T8 DIMENSIONS



K. O. Dimensions

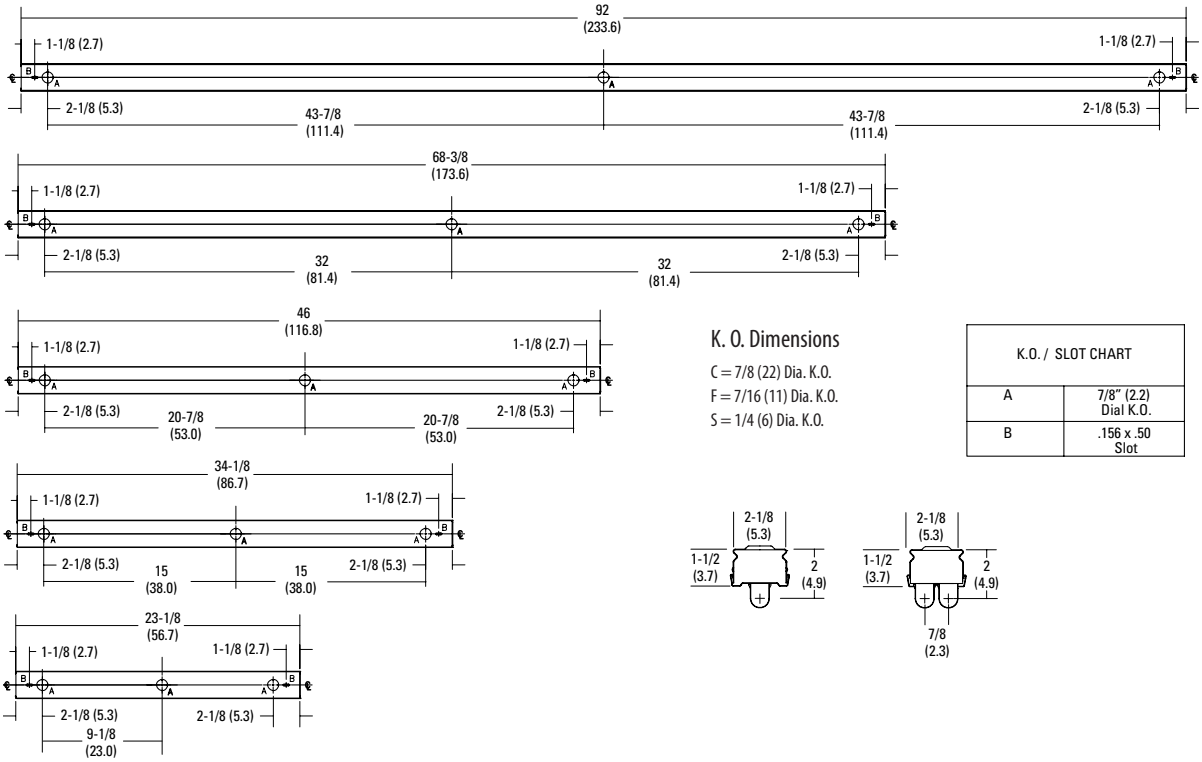
C = 7/8 (22) Dia. K.O.

F = 7/16 (11) Dia. K.O.

S = 1/4 (6) Dia. K.O.

K.O. / SLOT CHART	
A	7/8" (2.2) Dial K.O.
B	.156 x .50 Slot

T5 DIMENSIONS



K. O. Dimensions

C = 7/8 (22) Dia. K.O.

F = 7/16 (11) Dia. K.O.

S = 1/4 (6) Dia. K.O.

K.O. / SLOT CHART	
A	7/8" (2.2) Dial K.O.
B	.156 x .50 Slot

INDUSTRIAL: One Lithonia Way Conyers, GA 30012 Phone: 800.315.4963 Fax: 770-981-8191 www.lithonia.com

PHOTOMETRICS

Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%. Lamp configurations shown are typical. Full photometric data on these and other configurations available upon request.

TEST NO: LTL17128
LUMINAIRE CATALOG NO.: Z 1 32 MVOLT GEB10IS
LUMENS PER LAMP: 2800

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	107	107	107	102	102	102	92	92	92
	1	87	82	77	83	78	74	75	71	68
	2	74	66	60	70	63	57	63	58	53
	3	64	55	48	61	53	46	55	48	43
	4	56	47	40	53	45	38	48	41	35
	5	49	40	33	47	39	32	42	35	30
	6	44	35	29	42	34	28	38	31	26
	7	40	31	25	38	30	24	34	27	22
	8	36	28	22	34	27	21	31	25	20
	9	33	25	19	31	24	19	29	22	18
	10	30	22	17	29	22	17	26	20	16

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	356.4	12.7	13.5
0° - 40°	603.9	21.6	22.9
0° - 60°	1198.3	42.8	45.5
0° - 90°	2029.3	72.5	77.1
90° - 180°	602.8	21.5	22.9
0° - 180°	2632.0	94.0	100.0

TEST NO: LTL17130
LUMINAIRE CATALOG NO.: Z 2 32 MVOLT GEB10IS
LUMENS PER LAMP: 2800

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	100	100	100	95	95	95	86	86	86
	1	84	79	75	79	75	71	72	68	65
	2	71	64	59	68	62	56	61	56	52
	3	62	54	47	59	51	46	53	47	42
	4	54	46	39	51	44	38	46	40	35
	5	48	39	33	46	38	32	41	35	30
	6	43	34	29	41	33	28	37	30	26
	7	38	30	25	37	29	24	33	27	22
	8	35	27	22	33	26	21	30	24	20
	9	32	24	19	30	24	19	28	22	18
	10	29	22	17	28	21	17	26	20	16

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	723.3	12.9	14.6
0° - 40°	1230.3	22.0	24.8
0° - 60°	2402.0	42.9	48.4
0° - 90°	3748.6	66.9	75.5
90° - 180°	1215.1	21.7	24.5
0° - 180°	4963.7	88.6	100.0

TEST NO: LTL17094
LUMINAIRE CATALOG NO.: Z 1 28T5 MVOLT GEB10PS
LUMENS PER LAMP: 2730

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	115	115	115	110	110	110	102	102	102
	1	94	89	83	90	85	81	83	79	75
	2	80	72	65	77	69	63	70	64	59
	3	69	60	52	66	58	51	61	54	48
	4	60	51	43	58	49	42	53	46	40
	5	54	44	37	51	42	36	47	40	34
	6	48	38	31	46	37	31	42	35	29
	7	43	34	27	41	33	27	38	31	25
	8	39	30	24	38	29	24	35	28	22
	9	36	27	21	34	26	21	32	25	20
	10	33	25	19	32	24	19	30	23	18

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	428.3	15.7	15.7
0° - 40°	723.9	26.5	26.6
0° - 60°	1398.5	51.2	51.4
0° - 90°	2278.6	83.5	83.7
90° - 180°	443.9	16.3	16.3
0° - 180°	2722.4	99.7	100.0

TEST NO: LTL17092
LUMINAIRE CATALOG NO.: Z 1 54T5HO MVOLT GEB10PS
LUMENS PER LAMP: 4450

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	109	109	109	106	106	106	99	99	99
	1	92	87	83	89	85	81	84	80	77
	2	79	72	66	76	70	64	72	66	61
	3	68	60	53	66	59	52	62	56	50
	4	60	51	44	58	50	44	55	48	42
	5	53	44	38	52	43	37	49	41	36
	6	48	39	32	46	38	32	44	36	31
	7	43	34	28	42	34	28	40	32	27
	8	39	31	25	38	30	25	36	29	24
	9	36	28	22	35	27	22	33	26	21
	10	33	25	20	32	25	20	30	24	19

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	809.8	18.2	19.5
0° - 40°	1366.0	30.7	32.9
0° - 60°	2625.8	59.0	63.2
0° - 90°	3806.5	85.5	91.6
90° - 180°	347.8	7.8	8.4
0° - 180°	4154.3	93.4	100.0

TEST NO: LTL17070
LUMINAIRE CATALOG NO.: Z 2 54T5HO MVOLT GEB10PS
LUMENS PER LAMP: 4450

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	119	119	119	115	115	115	106	106	106
	1	99	93	88	95	90	85	88	84	80
	2	84	76	69	81	73	67	75	68	63
	3	73	63	56	70	61	54	64	57	51
	4	64	54	46	61	52	45	56	49	42
	5	56	46	39	54	45	38	50	42	36
	6	50	40	33	48	39	32	45	37	31
	7	45	36	29	44	35	28	40	33	27
	8	41	32	25	39	31	25	37	29	24
	9	37	28	22	36	28	22	34	26	21
	10	34	26	20	33	25	20	31	24	19

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1451.4	16.3	15.8
0° - 40°	2517.9	28.3	27.4
0° - 60°	5023.5	56.4	54.7
0° - 90°	7793.5	87.6	84.8
90° - 180°	1392.3	15.6	15.2
0° - 180°	9185.9	103.2	100.0

INDUSTRIAL: One Lithonia Way Conyers, GA 30012 Phone: 800.315.4963 Fax: 770-981-8191 www.lithonia.com

LITHONIA LIGHTING®

Catalog Number	Z-1-54T5HO-MVOLT-GEB10PS
Notes	
Type	CF1H

FEATURES & SPECIFICATIONS

INTENDED USE — The industry's next generation in linear direct fluorescent products. This new compact, low-profile design offers our customers unique product features which improve the overall installation process and appearance while reducing labor cost, making it the most versatile solution for commercial, retail, manufacturing, warehouse, and cove and display applications.

CONSTRUCTION — Compact designed channel and cover are formed from code-gauge cold-rolled steel. Innovative T8 two-lamp back plate offers compact design and additional socket protection. Locking lamp holder tracks bolsters strength of the overall strip construction while creating improved lamp stability. Design includes T8 socket, features rotating collar and enclosed contacts. Improved easy "snap n' lock" end plates allow for quick attachment.

Designed to accommodate a wide variety of T8 lamp lengths. Channel offers the gripper back feature which strengthens the overall construction and allows for the use of the new Z spring hanger (see back). Newly designed, patent-pending channel cover offers a secure fit design, allowing for easy access and quick attachment without pinching wires.

Finish: High-gloss, baked white enamel finish (white standard). Five-stage iron-phosphate pretreatment ensures superior paint adhesion and rust resistance. Other channel paint finish options: black (MB), smoke gray (SMG) and galvanized (GALV).

OPTICS — Reflector options include solid or apertured designs in both symmetric and asymmetric configurations. Consult factory for special-apertured versions.

ELECTRICAL — Thermally protected, resetting, Class P, HPF, non-PCB, UL listed. Suitable for damp locations. AWN, TFN or THHN wire used throughout, rated for required temperatures.

INSTALLATION — Patented-pending "three-point" row connector locks channel together for straighter and faster row mounting; included as standard. Ideal for surface-mount or suspended.

LISTINGS — UL Listed, CUL Listed or CSA Certified to Canadian Standards. Listed for 25° C ambient temperature.

WARRANTY — 1-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.

Actual performance may differ as a result of end-user environment and application.

Low-Profile T5/T8 Striplight

Z

Linear Lamps
1 or 2 Lamps

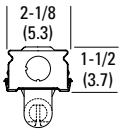
Specifications

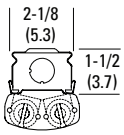
T8 Length: 24 (61.0) ,36 (91.4), 48 (121.9) 72 (182.9) or 96 (243.8)

T5 Length: 23-1/8 (56.7), 34-1/8 (86.7), 46 (116.8) 68-3/8(173.6) or 92 (233.6)

Width: 2-1/8 (5.4)

Depth: 1-1/2 (3.8)





All dimensions are inches (centimeters) unless otherwise noted.

ORDERING INFORMATION

For shortest lead times, configure products using **standard options (shown in bold.)**

Example: Z 1 32 MVOLT GEB10IS

Z	1	54T5HO	MVOL	GEB10PS
Series	**Number of lamps**	**Lamp type**	**Voltage**	**Options**

Series	Number of lamps	Lamp type	Voltage	Options
Z Compact strip For tandem double-length unit, add prefix T. Example: TZ	**1** **2** Not included	17 17W T8 (24") 25 25W T8 (36") **32** 32W T8 (48") 14T5 14W T5 (22") 21T5 21W T5 (34") 24T5HO 24W T5 HO (22") **28T5** 28W T5 (46") 39T5HO 39W T5 HO (34") **54T5HO** 54W T5 HO (46")	120 277 347 **MVOLT** Others available	**GEB10IS** T8 electronic ballast, ≤10% THD, instant start (T8 only) GEB10RS T8 electronic ballast, ≤10% THD, rapid start[5] GEB10PS Electronic ballast, ≤10% THD, programmed start BILP High-efficiency .78 bf (low) GLR Internal fast-blow fuse (add X for external)[2] GMF Internal slow-blow fuse (add X for external)[2] PLR___ Plug in wiring, specify number of branch circuits and hot wires (A-black, B-Red, C-Blue, AB or AC) EL55 Emergency battery pack (nominal 390-700 lumens); consult factory for additional battery packs[2,3,4] EL65 Emergency battery pack (nominal 725-1325 lumens)[2, 3, 4] TILW Tandem in-line wiring CSA CSA Certified NOM NOM Certified MSI Aisle motion sensor[2, 3] MSI360 360° motion sensor[2, 3] MSE360LBZ 360° motion sensor; for mounting within row or at end of row[2, 3, 4]

WGZ46

Accessories: *Order as separate catalog number.*

SQ_	Swivel-stem hanger (specify length in 2" increments)
ZSPRG	Tong and T-grid hanger (for 15/16" T-grid)
HC36	Hanger chain, 36"
ZACVH	Adjustable aircraft cable with hook
ZAC72	Adjustable aircraft cable, 72"
ZACF72	Adjustable aircraft cable with feed, 72"
ZAC120	Adjustable aircraft cable, 120"
ZACF120	Adjustable aircraft cable with feed, 120"
ZAC144	Adjustable aircraft cable, 144"
ZACF144	Adjustable aircraft cable with feed, 144"

For T8 fixtures only

Z8SMR48	Symmetric reflector, 48" white[1]
Z8ASR48	Asymmetric reflector, 48" white[1]
Z8SMR36	Symmetric reflector, 36" white[1]
Z8ASR36	Asymmetric reflector, 36" white[1]
Z8SMR24	Symmetric reflector, 24" white
Z8ASR24	Asymmetric reflector, 24" white
WGZ48	48" wireguard, white[1]
WGZ8SMR48	48" wireguard, white, for symmetric reflector[1]
WGZ8ASR48	48" wireguard, white, for asymmetric reflector[1]

For T5 fixtures only

Z5SMR46	Symmetric reflector, 46" white[1]
Z5ASR46	Asymmetric reflector, 46" white[1]
Z5SMR34	Symmetric reflector, 34" white[1]
Z5ASR34	Asymmetric reflector, 34" white[1]
Z5SMR22	Symmetric reflector, 22" white
Z5ASR22	Asymmetric reflector, 22" white
WGZ46	46" wireguard, white[1]
WGZ5SMR46	46" wireguard, white, for symmetric reflector[1]
WGZ5ASR46	46" wireguard, white, for asymmetric reflector[1]

Notes

1 Order two for tandem double length fixtures.
2 Specify voltage (available 120/277V).
3 Not available with CSA Certified.
4 Available with 4' and 8' lengths only.
5 For 347V.

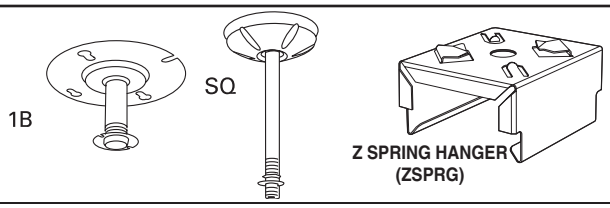
MOUNTING DATA

For unit or row installation, surface or stem mounting.

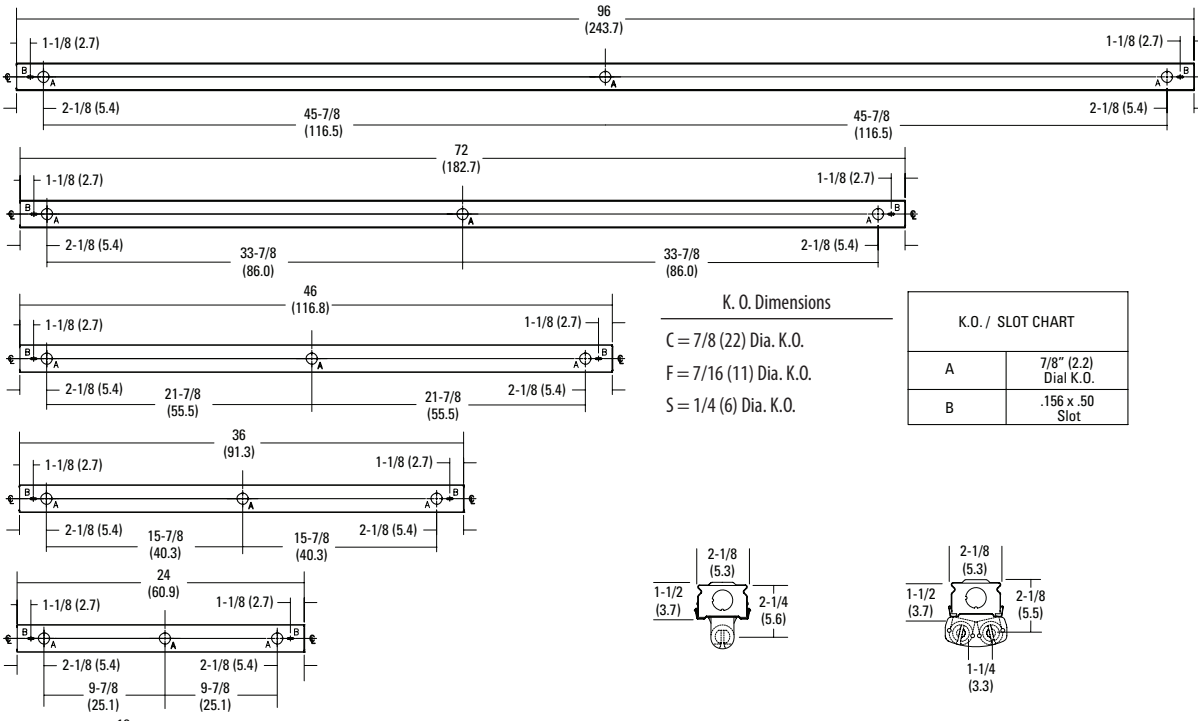
Unit installation — Minimum of two hangers required.

Row installation — One hanger per channel plus one per row required.

Review local codes when installing any product, as the minimum of 1 hanger per fixture may not satisfy your local building code.



T8 DIMENSIONS



K. O. Dimensions

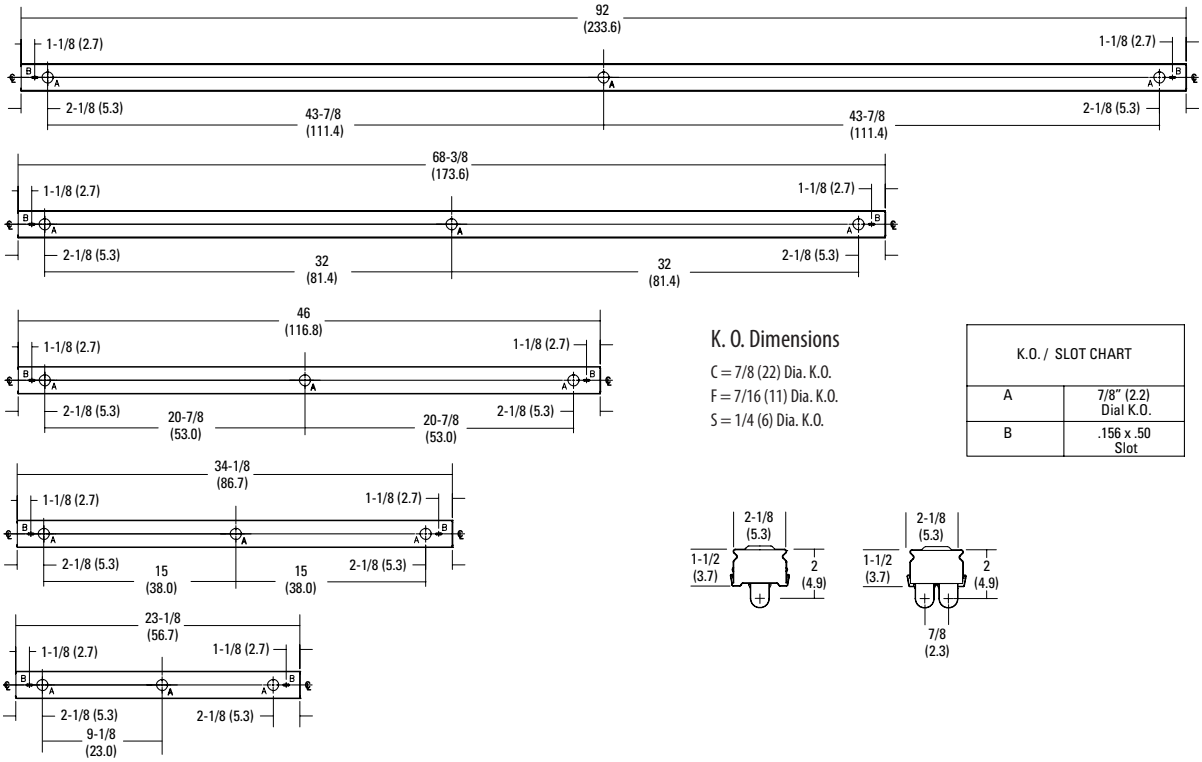
C = 7/8 (22) Dia. K.O.

F = 7/16 (11) Dia. K.O.

S = 1/4 (6) Dia. K.O.

K.O. / SLOT CHART	
A	7/8" (2.2) Dial K.O.
B	.156 x .50 Slot

T5 DIMENSIONS



K. O. Dimensions

C = 7/8 (22) Dia. K.O.

F = 7/16 (11) Dia. K.O.

S = 1/4 (6) Dia. K.O.

K.O. / SLOT CHART	
A	7/8" (2.2) Dial K.O.
B	.156 x .50 Slot

INDUSTRIAL: One Lithonia Way Conyers, GA 30012 Phone: 800.315.4963 Fax: 770-981-8191 www.lithonia.com

PHOTOMETRICS

Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%. Lamp configurations shown are typical. Full photometric data on these and other configurations available upon request.

TEST NO: LTL17128
LUMINAIRE CATALOG NO.: Z 1 32 MVOLT GEB10IS
LUMENS PER LAMP: 2800

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	107	107	107	102	102	102	92	92	92
	1	87	82	77	83	78	74	75	71	68
	2	74	66	60	70	63	57	63	58	53
	3	64	55	48	61	53	46	55	48	43
	4	56	47	40	53	45	38	48	41	35
	5	49	40	33	47	39	32	42	35	30
	6	44	35	29	42	34	28	38	31	26
	7	40	31	25	38	30	24	34	27	22
	8	36	28	22	34	27	21	31	25	20
	9	33	25	19	31	24	19	29	22	18
	10	30	22	17	29	22	17	26	20	16

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	356.4	12.7	13.5
0° - 40°	603.9	21.6	22.9
0° - 60°	1198.3	42.8	45.5
0° - 90°	2029.3	72.5	77.1
90° - 180°	602.8	21.5	22.9
0° - 180°	2632.0	94.0	100.0

TEST NO: LTL17130
LUMINAIRE CATALOG NO.: Z 2 32 MVOLT GEB10IS
LUMENS PER LAMP: 2800

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	100	100	100	95	95	95	86	86	86
	1	84	79	75	79	75	71	72	68	65
	2	71	64	59	68	62	56	61	56	52
	3	62	54	47	59	51	46	53	47	42
	4	54	46	39	51	44	38	46	40	35
	5	48	39	33	46	38	32	41	35	30
	6	43	34	29	41	33	28	37	30	26
	7	38	30	25	37	29	24	33	27	22
	8	35	27	22	33	26	21	30	24	20
	9	32	24	19	30	24	19	28	22	18
	10	29	22	17	28	21	17	26	20	16

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	723.3	12.9	14.6
0° - 40°	1230.3	22.0	24.8
0° - 60°	2402.0	42.9	48.4
0° - 90°	3748.6	66.9	75.5
90° - 180°	1215.1	21.7	24.5
0° - 180°	4963.7	88.6	100.0

TEST NO: LTL17094
LUMINAIRE CATALOG NO.: Z 1 28T5 MVOLT GEB10PS
LUMENS PER LAMP: 2730

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	115	115	115	110	110	110	102	102	102
	1	94	89	83	90	85	81	83	79	75
	2	80	72	65	77	69	63	70	64	59
	3	69	60	52	66	58	51	61	54	48
	4	60	51	43	58	49	42	53	46	40
	5	54	44	37	51	42	36	47	40	34
	6	48	38	31	46	37	31	42	35	29
	7	43	34	27	41	33	27	38	31	25
	8	39	30	24	38	29	24	35	28	22
	9	36	27	21	34	26	21	32	25	20
	10	33	25	19	32	24	19	30	23	18

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	428.3	15.7	15.7
0° - 40°	723.9	26.5	26.6
0° - 60°	1398.5	51.2	51.4
0° - 90°	2278.6	83.5	83.7
90° - 180°	443.9	16.3	16.3
0° - 180°	2722.4	99.7	100.0

TEST NO: LTL17092
LUMINAIRE CATALOG NO.: Z 1 54T5HO MVOLT GEB10PS
LUMENS PER LAMP: 4450

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	109	109	109	106	106	106	99	99	99
	1	92	87	83	89	85	81	84	80	77
	2	79	72	66	76	70	64	72	66	61
	3	68	60	53	66	59	52	62	56	50
	4	60	51	44	58	50	44	55	48	42
	5	53	44	38	52	43	37	49	41	36
	6	48	39	32	46	38	32	44	36	31
	7	43	34	28	42	34	28	40	32	27
	8	39	31	25	38	30	25	36	29	24
	9	36	28	22	35	27	22	33	26	21
	10	33	25	20	32	25	20	30	24	19

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	809.8	18.2	19.5
0° - 40°	1366.0	30.7	32.9
0° - 60°	2625.8	59.0	63.2
0° - 90°	3806.5	85.5	91.6
90° - 180°	347.8	7.8	8.4
0° - 180°	4154.3	93.4	100.0

TEST NO: LTL17070
LUMINAIRE CATALOG NO.: Z 2 54T5HO MVOLT GEB10PS
LUMENS PER LAMP: 4450

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	119	119	119	115	115	115	106	106	106
	1	99	93	88	95	90	85	88	84	80
	2	84	76	69	81	73	67	75	68	63
	3	73	63	56	70	61	54	64	57	51
	4	64	54	46	61	52	45	56	49	42
	5	56	46	39	54	45	38	50	42	36
	6	50	40	33	48	39	32	45	37	31
	7	45	36	29	44	35	28	40	33	27
	8	41	32	25	39	31	25	37	29	24
	9	37	28	22	36	28	22	34	26	21
	10	34	26	20	33	25	20	31	24	19

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1451.4	16.3	15.8
0° - 40°	2517.9	28.3	27.4
0° - 60°	5023.5	56.4	54.7
0° - 90°	7793.5	87.6	84.8
90° - 180°	1392.3	15.6	15.2
0° - 180°	9185.9	103.2	100.0

INDUSTRIAL: One Lithonia Way Conyers, GA 30012 Phone: 800.315.4963 Fax: 770-981-8191 www.lithonia.com

LITHONIA LIGHTING®

Catalog Number	TZ-1-54T5HO-MVOLT-GEB10PS
Notes	
Type	CF2H

FEATURES & SPECIFICATIONS

INTENDED USE — The industry's next generation in linear direct fluorescent products. This new compact, low-profile design offers our customers unique product features which improve the overall installation process and appearance while reducing labor cost, making it the most versatile solution for commercial, retail, manufacturing, warehouse, and cove and display applications.

CONSTRUCTION — Compact designed channel and cover are formed from code-gauge cold-rolled steel. Innovative T8 two-lamp back plate offers compact design and additional socket protection. Locking lamp holder tracks bolsters strength of the overall strip construction while creating improved lamp stability. Design includes T8 socket, features rotating collar and enclosed contacts. Improved easy "snap n' lock" end plates allow for quick attachment.

Designed to accommodate a wide variety of T8 lamp lengths. Channel offers the gripper back feature which strengthens the overall construction and allows for the use of the new Z spring hanger (see back). Newly designed, patent-pending channel cover offers a secure fit design, allowing for easy access and quick attachment without pinching wires.

Finish: High-gloss, baked white enamel finish (white standard). Five-stage iron-phosphate pretreatment ensures superior paint adhesion and rust resistance. Other channel paint finish options: black (MB), smoke gray (SMG) and galvanized (GALV).

OPTICS — Reflector options include solid or apertured designs in both symmetric and asymmetric configurations. Consult factory for special-apertured versions.

ELECTRICAL — Thermally protected, resetting, Class P, HPF, non-PCB, UL listed. Suitable for damp locations. AWN, TFN or THHN wire used throughout, rated for required temperatures.

INSTALLATION — Patented-pending "three-point" row connector locks channel together for straighter and faster row mounting; included as standard. Ideal for surface-mount or suspended.

LISTINGS — UL Listed, CUL Listed or CSA Certified to Canadian Standards. Listed for 25° C ambient temperature.

WARRANTY — 1-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.

Actual performance may differ as a result of end-user environment and application.

Low-Profile T5/T8 Striplight

Z

Linear Lamps
1 or 2 Lamps

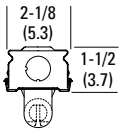
Specifications

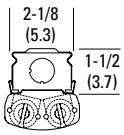
T8 Length: 24 (61.0) ,36 (91.4), 48 (121.9) 72 (182.9) or 96 (243.8)

T5 Length: 23-1/8 (56.7), 34-1/8 (86.7), 46 (116.8) 68-3/8(173.6) or 92 (233.6)

Width: 2-1/8 (5.4)

Depth: 1-1/2 (3.8)





All dimensions are inches (centimeters) unless otherwise noted.

ORDERING INFORMATION

For shortest lead times, configure products using **standard options (shown in bold.)**

Example: Z 1 32 MVOLT GEB10IS

TZ	1	54T5HO	MVOL	GEB10PS
Series	**Number of lamps**	**Lamp type**	**Voltage**	**Options**

Series	Number of lamps	Lamp type	Voltage	Options
Z Compact strip For tandem double-length unit, add prefix T. Example: TZ	**1** **2** Not included	17 17W T8 (24") 25 25W T8 (36") **32** 32W T8 (48") 14T5 14W T5 (22") 21T5 21W T5 (34") 24T5HO 24W T5 HO (22") **28T5** 28W T5 (46") 39T5HO 39W T5 HO (34") **54T5HO** 54W T5 HO (46")	120 277 347 **MVOLT** Others available	**GEB10IS** T8 electronic ballast, ≤10% THD, instant start (T8 only) GEB10RS T8 electronic ballast, ≤10% THD, rapid start[5] GEB10PS Electronic ballast, ≤10% THD, programmed start BILP High-efficiency .78 bf (low) GLR Internal fast-blow fuse (add X for external)[2] GMF Internal slow-blow fuse (add X for external)[2] PLR___ Plug in wiring, specify number of branch circuits and hot wires (A-black, B-Red, C-Blue, AB or AC) EL55 Emergency battery pack (nominal 390-700 lumens); consult factory for additional battery packs[2,3,4] EL65 Emergency battery pack (nominal 725-1325 lumens)[2, 3, 4] TILW Tandem in-line wiring CSA CSA Certified NOM NOM Certified MSI Aisle motion sensor[2, 3] MSI360 360° motion sensor[2, 3] MSE360LBZ 360° motion sensor; for mounting within row or at end of row[2, 3, 4]

WGZ46

Accessories: *Order as separate catalog number.*

SQ_	Swivel-stem hanger (specify length in 2" increments)
ZSPRG	Tong and T-grid hanger (for 15/16" T-grid)
HC36	Hanger chain, 36"
ZACVH	Adjustable aircraft cable with hook
ZAC72	Adjustable aircraft cable, 72"
ZACF72	Adjustable aircraft cable with feed, 72"
ZAC120	Adjustable aircraft cable, 120"
ZACF120	Adjustable aircraft cable with feed, 120"
ZAC144	Adjustable aircraft cable, 144"
ZACF144	Adjustable aircraft cable with feed, 144"

For T8 fixtures only

Z8SMR48	Symmetric reflector, 48" white[1]
Z8ASR48	Asymmetric reflector, 48" white[1]
Z8SMR36	Symmetric reflector, 36" white[1]
Z8ASR36	Asymmetric reflector, 36" white[1]
Z8SMR24	Symmetric reflector, 24" white
Z8ASR24	Asymmetric reflector, 24" white
WGZ48	48" wireguard, white[1]
WGZ8SMR48	48" wireguard, white, for symmetric reflector[1]
WGZ8ASR48	48" wireguard, white, for asymmetric reflector[1]

For T5 fixtures only

Z5SMR46	Symmetric reflector, 46" white[1]
Z5ASR46	Asymmetric reflector, 46" white[1]
Z5SMR34	Symmetric reflector, 34" white[1]
Z5ASR34	Asymmetric reflector, 34" white[1]
Z5SMR22	Symmetric reflector, 22" white
Z5ASR22	Asymmetric reflector, 22" white
WGZ46	46" wireguard, white[1]
WGZ5SMR46	46" wireguard, white, for symmetric reflector[1]
WGZ5ASR46	46" wireguard, white, for asymmetric reflector[1]

Notes

1 Order two for tandem double length fixtures.
2 Specify voltage (available 120/277V).
3 Not available with CSA Certified.
4 Available with 4' and 8' lengths only.
5 For 347V.

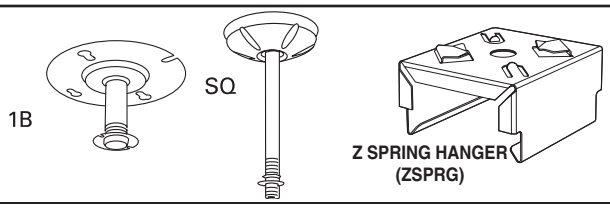
MOUNTING DATA

For unit or row installation, surface or stem mounting.

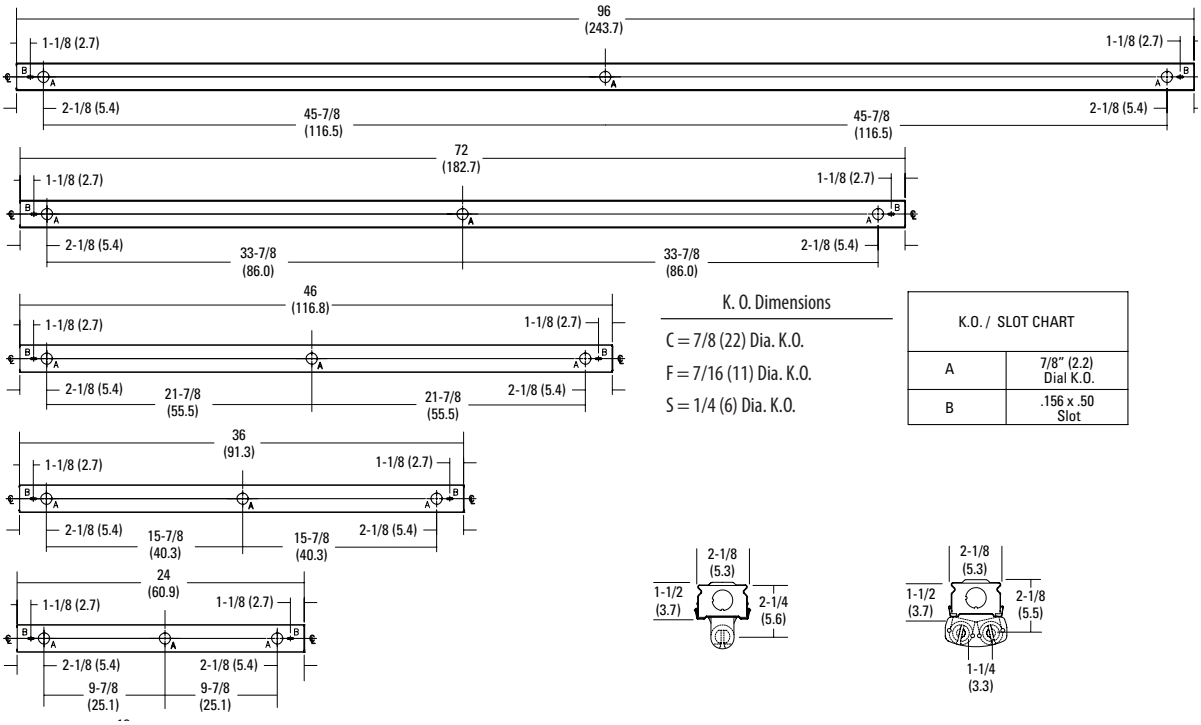
Unit installation — Minimum of two hangers required.

Row installation — One hanger per channel plus one per row required.

Review local codes when installing any product, as the minimum of 1 hanger per fixture may not satisfy your local building code.



T8 DIMENSIONS



K. O. Dimensions

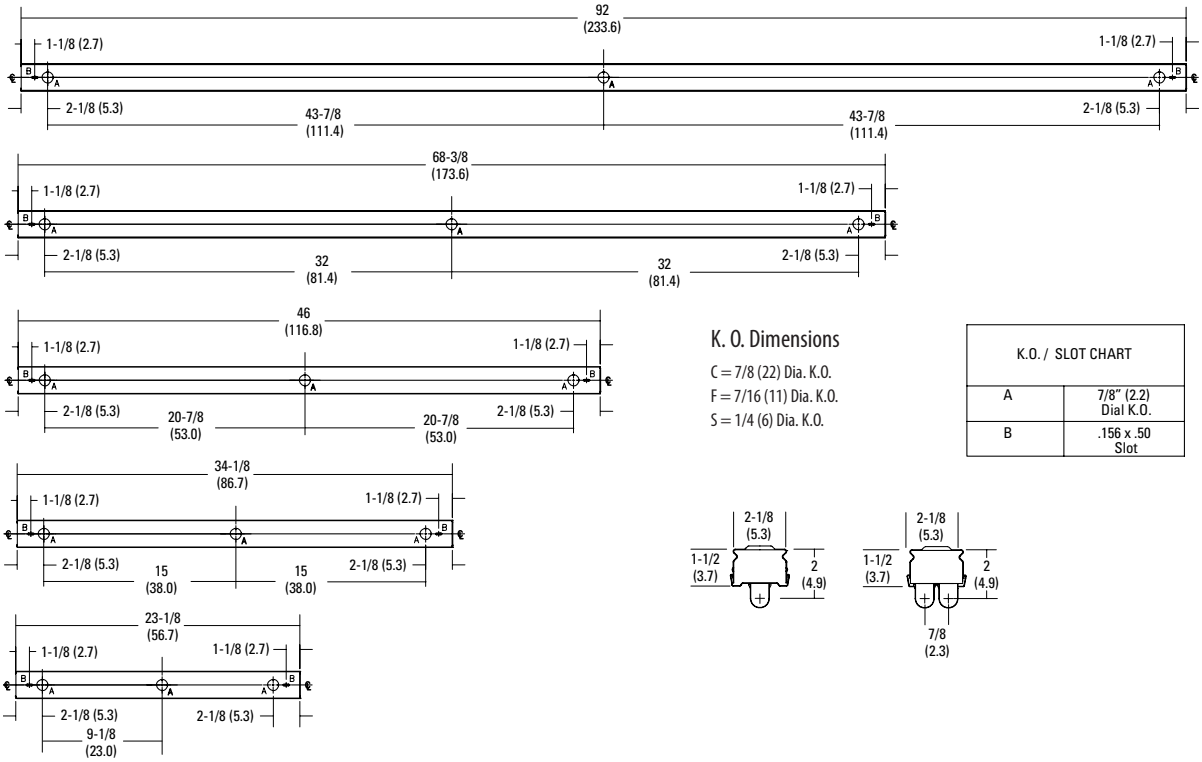
C = 7/8 (22) Dia. K.O.

F = 7/16 (11) Dia. K.O.

S = 1/4 (6) Dia. K.O.

K.O. / SLOT CHART	
A	7/8" (2.2) Dial K.O.
B	.156 x .50 Slot

T5 DIMENSIONS



K. O. Dimensions

C = 7/8 (22) Dia. K.O.

F = 7/16 (11) Dia. K.O.

S = 1/4 (6) Dia. K.O.

K.O. / SLOT CHART	
A	7/8" (2.2) Dial K.O.
B	.156 x .50 Slot

INDUSTRIAL: One Lithonia Way Conyers, GA 30012 Phone: 800.315.4963 Fax: 770-981-8191 www.lithonia.com

PHOTOMETRICS

Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%. Lamp configurations shown are typical. Full photometric data on these and other configurations available upon request.

TEST NO: LTL17128
LUMINAIRE CATALOG NO.: Z 1 32 MVOLT GEB10IS
LUMENS PER LAMP: 2800

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	107	107	107	102	102	102	92	92	92
	1	87	82	77	83	78	74	75	71	68
	2	74	66	60	70	63	57	63	58	53
	3	64	55	48	61	53	46	55	48	43
	4	56	47	40	53	45	38	48	41	35
	5	49	40	33	47	39	32	42	35	30
	6	44	35	29	42	34	28	38	31	26
	7	40	31	25	38	30	24	34	27	22
	8	36	28	22	34	27	21	31	25	20
	9	33	25	19	31	24	19	29	22	18
	10	30	22	17	29	22	17	26	20	16

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	356.4	12.7	13.5
0° - 40°	603.9	21.6	22.9
0° - 60°	1198.3	42.8	45.5
0° - 90°	2029.3	72.5	77.1
90° - 180°	602.8	21.5	22.9
0° - 180°	2632.0	94.0	100.0

TEST NO: LTL17130
LUMINAIRE CATALOG NO.: Z 2 32 MVOLT GEB10IS
LUMENS PER LAMP: 2800

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	100	100	100	95	95	95	86	86	86
	1	84	79	75	79	75	71	72	68	65
	2	71	64	59	68	62	56	61	56	52
	3	62	54	47	59	51	46	53	47	42
	4	54	46	39	51	44	38	46	40	35
	5	48	39	33	46	38	32	41	35	30
	6	43	34	29	41	33	28	37	30	26
	7	38	30	25	37	29	24	33	27	22
	8	35	27	22	33	26	21	30	24	20
	9	32	24	19	30	24	19	28	22	18
	10	29	22	17	28	21	17	26	20	16

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	723.3	12.9	14.6
0° - 40°	1230.3	22.0	24.8
0° - 60°	2402.0	42.9	48.4
0° - 90°	3748.6	66.9	75.5
90° - 180°	1215.1	21.7	24.5
0° - 180°	4963.7	88.6	100.0

TEST NO: LTL17094
LUMINAIRE CATALOG NO.: Z 1 28T5 MVOLT GEB10PS
LUMENS PER LAMP: 2730

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	115	115	115	110	110	110	102	102	102
	1	94	89	83	90	85	81	83	79	75
	2	80	72	65	77	69	63	70	64	59
	3	69	60	52	66	58	51	61	54	48
	4	60	51	43	58	49	42	53	46	40
	5	54	44	37	51	42	36	47	40	34
	6	48	38	31	46	37	31	42	35	29
	7	43	34	27	41	33	27	38	31	25
	8	39	30	24	38	29	24	35	28	22
	9	36	27	21	34	26	21	32	25	20
	10	33	25	19	32	24	19	30	23	18

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	428.3	15.7	15.7
0° - 40°	723.9	26.5	26.6
0° - 60°	1398.5	51.2	51.4
0° - 90°	2278.6	83.5	83.7
90° - 180°	443.9	16.3	16.3
0° - 180°	2722.4	99.7	100.0

TEST NO: LTL17092
LUMINAIRE CATALOG NO.: Z 1 54T5HO MVOLT GEB10PS
LUMENS PER LAMP: 4450

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	109	109	109	106	106	106	99	99	99
	1	92	87	83	89	85	81	84	80	77
	2	79	72	66	76	70	64	72	66	61
	3	68	60	53	66	59	52	62	56	50
	4	60	51	44	58	50	44	55	48	42
	5	53	44	38	52	43	37	49	41	36
	6	48	39	32	46	38	32	44	36	31
	7	43	34	28	42	34	28	40	32	27
	8	39	31	25	38	30	25	36	29	24
	9	36	28	22	35	27	22	33	26	21
	10	33	25	20	32	25	20	30	24	19

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	809.8	18.2	19.5
0° - 40°	1366.0	30.7	32.9
0° - 60°	2625.8	59.0	63.2
0° - 90°	3806.5	85.5	91.6
90° - 180°	347.8	7.8	8.4
0° - 180°	4154.3	93.4	100.0

TEST NO: LTL17070
LUMINAIRE CATALOG NO.: Z 2 54T5HO MVOLT GEB10PS
LUMENS PER LAMP: 4450

Coefficients of Utilization

	pf	20%								
	pc	80%			70%			50%		
	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	119	119	119	115	115	115	106	106	106
	1	99	93	88	95	90	85	88	84	80
	2	84	76	69	81	73	67	75	68	63
	3	73	63	56	70	61	54	64	57	51
	4	64	54	46	61	52	45	56	49	42
	5	56	46	39	54	45	38	50	42	36
	6	50	40	33	48	39	32	45	37	31
	7	45	36	29	44	35	28	40	33	27
	8	41	32	25	39	31	25	37	29	24
	9	37	28	22	36	28	22	34	26	21
	10	34	26	20	33	25	20	31	24	19

Zonal Lumen Summary

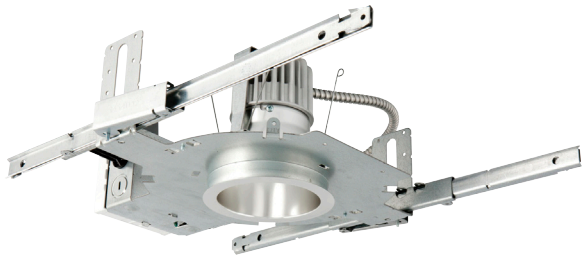
Zone	Lumens	% Lamp	% Fixture
0° - 30°	1451.4	16.3	15.8
0° - 40°	2517.9	28.3	27.4
0° - 60°	5023.5	56.4	54.7
0° - 90°	7793.5	87.6	84.8
90° - 180°	1392.3	15.6	15.2
0° - 180°	9185.9	103.2	100.0

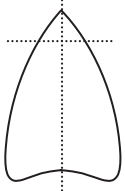
INDUSTRIAL: One Lithonia Way Conyers, GA 30012 Phone: 800.315.4963 Fax: 770-981-8191 www.lithonia.com

gotham®

Luminaire Type: **DL4**

Catalog Number (autopopulated): **EVO** **35/10** **4AR** **MVOLT** GEB10PS





Gotham Architectural Downlighting
LED Downlights

4" Evo®

Open Reflector

Solid-State Lighting

ENERGY STAR

FEATURES

OPTICAL SYSTEM
- Self-flanged semi-specular, matte-diffuse or specular lower reflector
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 45° cutoff to source and source image
- Top-down flash characteristic

MECHANICAL SYSTEM
- 16-gauge galvanized steel construction; maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 32" and minimum of 15", preinstalled, 4" vertical adjustment
- Toolless adjustments post installation
- Junction box capacity: 8 (4 in, 4 out) 12AWG rated for 90°C
- Light engine and driver accessible through aperture

ELECTRICAL SYSTEM
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours based on IESNA LM-79-2008
- 120-277VAC, 50/60hz power supply with 0-10V dimming (10-100%); rated for 50,000-hour life
- Overload and short circuit protected
- LEDs tested under LM80

LISTINGS
- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling

WARRANTY
- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

ORDERING INFORMATION

EXAMPLE: EVO 35/10 4AR 120

EVO	35/10				4AR						MVOLT
Series	Color temperature		Nominal lumen values		Aperture/Trim color		Distribution		Finish		Voltage
EVO	**27/**	2700 K	**06**	600 lumens	**4AR**	Clear	(blank)	1.0 s/mh	(blank)	Semi-specular	**120**
	30/	3000 K	**10**	1000 lumens	**4PR**	Pewter	**MD**	Medium (0.8 s/mh)	**LD**	Matte diffuse	**277**
	35/	3500 K	**14**	1400 lumens	**4WTR**	Wheat	**WD**	Wide (1.5 s/mh)	**LS**	Specular	**347**
	41/	4100 K	**18**	1800 lumens	**4GR**	Gold					
			20	2000 lumens	**4WR**[1]	White					

	GEB10PS
Driver	Options

(blank)[2]	0-10V dimming driver. Minimum dimming level 10%	**SF**	Single fuse	**TRBL**	Black painted flange
ECOS2[3,4]	Lutron® Hi-Lume® 2-wire forward-phase dimming driver. Minimum dimming level 1%	**RRL**	RELOC®-ready luminaire. Provides compatibility with Lithonia RELOC system. Access above ceiling required.	**EL**[6]	Emergency battery pack with integral test switch
ECOS3[2,3]	Lutron® Hi-Lume® 3-wire or EcoSystem® dimming driver. Minimum dimming level 1%	**NEPP**	Interface for Sensor Switch® nLight® network with integral power supply. Refer to TN-623-01.	**ELR**[6]	Emergency battery pack with remote test switch
		TRW[5]	White painted flange	**CP**	Chicago plenum

ACCESSORIES order as separate catalog numbers (shipped separately)

SCA4	Sloped ceiling adapter. Degree of slope must be specified (10D, 15D, 20D, 25D, 30D). Ex: SCA4 10D. Refer to TECH-190.
CTA4-8 YK	Ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 2").
ISD BC	0-10V wallbox dimmer. Refer to ISD-BC.

NOTES

ORDERING NOTES

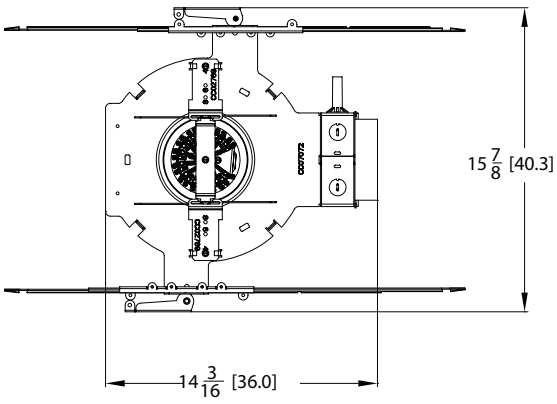
1. Not available with finishes.
2. Refer to TECH-240 for compatible dimmers.
3. Not available with NEPP option.
4. 120V only.
5. Not available with white reflector.
6. For dimensional changes, refer to TECH-140. Access above ceiling required.

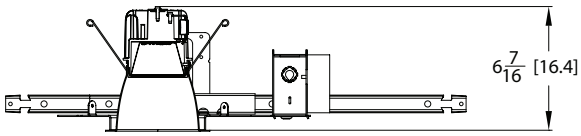
GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers GA 30012 | P 800.315.4982 | gothamlighting.com

gotham®

DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.





Aperture: 4-5/16 (11)
Ceiling Opening: 5-1/8 (13)
Overlap Trim: 5-7/16 (13.8)

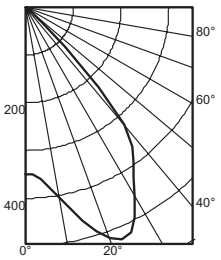
ELECTRICAL

WATTAGE CONSUMPTION MATRIX		
LUMENS	**WATTAGE**	**LUMENS per WATT**
2000	31	65
1800	29	58
1400	26	55
1000	21	51
600	16	49

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance: Single Luminaire 30" Above Floor

EVO 35/6 4AR LS

INPUT WATTS: 15.6, DELIVERED LUMENS: 757.7, LM/W=48.6, 1.6 S/MH, TEST NO. LTL21260



	Ave	Lumens
0	349	
5	361	36
15	463	133
25	520	234
35	393	245
45	117	105
55	2	4
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	402.6	53.1
0° - 40°	647.4	85.4
0° - 60°	756.6	99.9
0° - 90°	757.7	100.0
90° - 180°	0.0	0.0
0° - 180°	757.7	*100.0

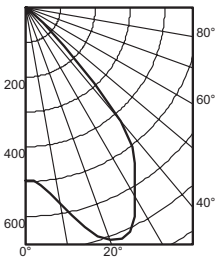
*Efficiency

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	99	95	92	96	93	90
3	93	87	83	92	86	82	89	85	81
4	86	79	75	84	79	74	82	77	73
5	79	72	68	78	72	67	76	71	67
6	73	66	61	72	66	61	71	65	61
7	68	61	56	67	60	56	65	60	55
8	63	56	51	62	56	51	61	55	51
9	58	51	47	58	51	47	57	51	47
10	54	48	43	54	47	43	53	47	43

Mounting Height	Inital FC Center Beam	50% beam - 76.1° Diameter	50% beam - 76.1° FC	10% beam - 91.1° Diameter	10% beam - 91.1° FC
8.0	11.5	8.6	5.8	11.2	1.2
10.0	6.2	11.7	3.1	15.3	0.6
12.0	3.9	14.9	1.9	19.4	0.4
14.0	2.6	18.0	1.3	23.5	0.3
16.0	1.9	21.1	1.0	27.5	0.2

EVO 35/10 4AR LS

INPUT WATTS: 20.6, DELIVERED LUMENS: 1039.0, LM/W=50.4, 1.5 S/MH, TEST NO. LTL21209



	Ave	Lumens
0	497	
5	513	51
15	653	186
25	709	320
35	547	337
45	156	138
55	3	5
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	557.2	53.6
0° - 40°	894.6	86.1
0° - 60°	1037.7	99.9
0° - 90°	1039.0	100.0
90° - 180°	0.0	0.0
0° - 180°	1039.0	*100.0

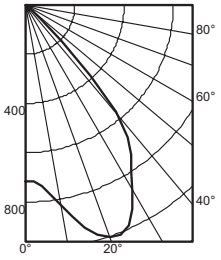
*Efficiency

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	99	95	92	96	93	90
3	93	88	83	92	87	83	89	85	81
4	86	80	75	85	79	74	82	77	74
5	79	73	68	78	72	68	76	71	67
6	73	66	62	72	66	61	71	65	61
7	68	61	56	67	61	56	66	60	56
8	63	56	51	62	56	51	61	55	51
9	58	52	47	58	52	47	57	51	47
10	54	48	44	54	48	44	53	47	43

Mounting Height	Inital FC Center Beam	50% beam - 75.3° Diameter	50% beam - 75.3° FC	10% beam - 90.7° Diameter	10% beam - 90.7° FC
8.0	16.4	8.5	8.2	11.1	1.6
10.0	8.8	11.6	4.4	15.2	0.9
12.0	5.5	14.7	2.8	19.2	0.6
14.0	3.8	17.7	1.9	23.3	0.4
16.0	2.7	20.8	1.4	27.3	0.3

EVO 35/14 4AR LS

INPUT WATTS: 26.2, DELIVERED LUMENS: 1431.9, LM/W=54.7, 1.5 S/MH, TEST NO. LTL21213



	Ave	Lumens
0	716	
5	738	73
15	934	265
25	986	445
35	743	458
45	203	182
55	4	6
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	784.3	54.8
0° - 40°	1242.2	86.8
0° - 60°	1430.4	99.9
0° - 90°	1431.9	100.0
90° - 180°	0.0	0.0
0° - 180°	1431.9	*100.0

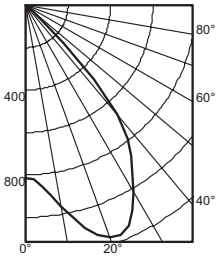
*Efficiency

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	100	96	92	96	93	90
3	93	88	83	92	87	83	89	85	81
4	86	80	75	85	79	75	83	78	74
5	80	73	68	79	72	68	77	71	67
6	74	67	62	73	66	62	71	66	61
7	68	61	57	67	61	57	66	60	56
8	63	57	52	63	56	52	62	56	52
9	59	52	48	58	52	48	57	52	48
10	55	48	44	54	48	44	54	48	44

Mounting Height	Inital FC Center Beam	50% beam - 73.6° Diameter	50% beam - 73.6° FC	10% beam - 90.0° Diameter	10% beam - 90.0° FC
8.0	23.7	8.2	11.8	11.0	2.4
10.0	12.7	11.2	6.4	15.0	1.3
12.0	7.9	14.2	4.0	19.0	0.8
14.0	5.4	17.2	2.7	23.0	0.5
16.0	3.9	20.2	2.0	27.0	0.4

EVO 35/18 4AR LS

INPUT WATTS: 29.0, DELIVERED LUMENS: 1682.7, LM/W=58.0, 1.5 S/MH, TEST NO. LTL21149



	Ave	Lumens
0	813	
5	854	85
15	1086	308
25	1149	519
35	869	536
45	256	223
55	6	9
65	2	2
75	1	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	913.1	54.3
0° - 40°	1449.4	86.1
0° - 60°	1680.5	99.9
0° - 90°	1682.7	100.0
90° - 180°	0.0	0.0
0° - 180°	1682.7	*100.0

*Efficiency

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	99	95	92	96	93	90
3	93	88	83	92	87	83	89	85	81
4	86	80	75	85	79	75	83	78	74
5	79	73	68	78	72	68	77	71	67
6	73	67	62	73	66	62	71	65	61
7	68	61	56	67	61	56	66	60	56
8	63	56	52	62	56	52	61	56	51
9	59	52	48	58	52	47	57	51	47
10	55	48	44	54	48	44	53	48	44

Mounting Height	Inital FC Center Beam	50% beam - 74.3° Diameter	50% beam - 74.3° FC	10% beam - 90.7° Diameter	10% beam - 90.7° FC
8.0	26.9	8.3	13.4	11.1	2.7
10.0	14.5	11.4	7.2	15.2	1.4
12.0	9.0	14.4	4.5	19.2	0.9
14.0	6.1	17.4	3.1	23.3	0.6
16.0	4.5	20.5	2.2	27.3	0.4

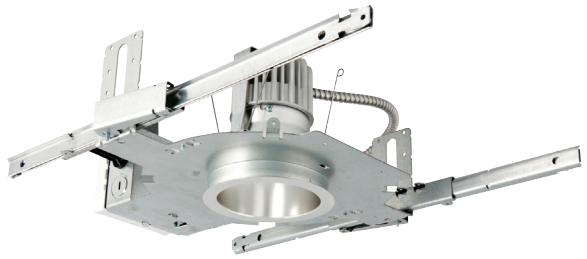
PHOTOMETRY NOTES

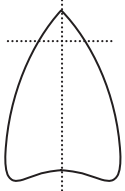
- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- Actual performance may differ as a result of end-user environment and application.
- Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%.
- CRI: 83 typical.
- Consult factory or IES file for microgroove baffle, black cone or other photometric reports.

gotham®

Luminaire Type: **DL4D**

Catalog Number (autopopulated): **EVO 35/10 4AR GEB10PS MVOLT**





Gotham Architectural Downlighting
LED Downlights

4" Evo®

Open Reflector

Solid-State Lighting

ENERGY STAR

FEATURES

OPTICAL SYSTEM
- Self-flanged semi-specular, matte-diffuse or specular lower reflector
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 45° cutoff to source and source image
- Top-down flash characteristic

MECHANICAL SYSTEM
- 16-gauge galvanized steel construction; maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 32" and minimum of 15", preinstalled, 4" vertical adjustment
- Toolless adjustments post installation
- Junction box capacity: 8 (4 in, 4 out) 12AWG rated for 90°C
- Light engine and driver accessible through aperture

ELECTRICAL SYSTEM
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours based on IESNA LM-79-2008
- 120-277VAC, 50/60hz power supply with 0-10V dimming (10-100%); rated for 50,000-hour life
- Overload and short circuit protected
- LEDs tested under LM80

LISTINGS
- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling

WARRANTY
- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

ORDERING INFORMATION

EXAMPLE: EVO 35/10 4AR 120

EVO	35/10				4AR						MVOLT
Series	Color temperature		Nominal lumen values		Aperture/Trim color		Distribution		Finish		Voltage
EVO	**27/**	2700 K	**06**	600 lumens	**4AR**	Clear	(blank)	1.0 s/mh	(blank)	Semi-specular	**120**
	30/	3000 K	**10**	1000 lumens	**4PR**	Pewter	**MD**	Medium (0.8 s/mh)	**LD**	Matte diffuse	**277**
	35/	3500 K	**14**	1400 lumens	**4WTR**	Wheat	**WD**	Wide (1.5 s/mh)	**LS**	Specular	**347**
	41/	4100 K	**18**	1800 lumens	**4GR**	Gold					
			20	2000 lumens	**4WR**[1]	White					

	GEB10PS
Driver	Options

Driver		Options			
(blank)[2]	0-10V dimming driver. Minimum dimming level 10%	**SF**	Single fuse	**TRBL**	Black painted flange
ECOS2[3,4]	Lutron® Hi-Lume® 2-wire forward-phase dimming driver. Minimum dimming level 1%	**RRL**	RELOC®-ready luminaire. Provides compatibility with Lithonia RELOC system. Access above ceiling required.	**EL**[6]	Emergency battery pack with integral test switch
ECOS3[2,3]	Lutron® Hi-Lume® 3-wire or EcoSystem® dimming driver. Minimum dimming level 1%	**NEPP**	Interface for Sensor Switch® nLight® network with integral power supply. Refer to TN-623-01.	**ELR**[6]	Emergency battery pack with remote test switch
		TRW[5]	White painted flange	**CP**	Chicago plenum

ACCESSORIES order as separate catalog numbers (shipped separately)

SCA4	Sloped ceiling adapter. Degree of slope must be specified (10D, 15D, 20D, 25D, 30D). Ex: SCA4 10D. Refer to TECH-190.
CTA4-8 YK	Ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 2").
ISD BC	0-10V wallbox dimmer. Refer to ISD-BC.

NOTES

ORDERING NOTES

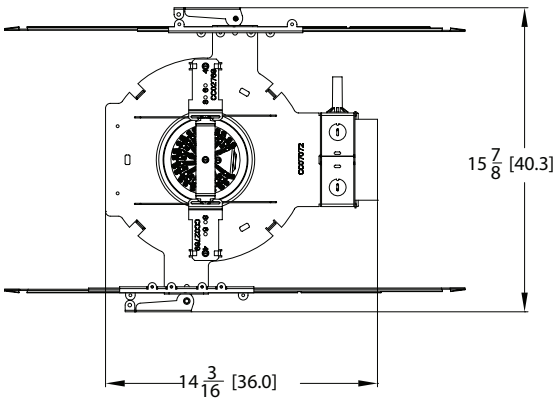
1. Not available with finishes.
2. Refer to TECH-240 for compatible dimmers.
3. Not available with NEPP option.
4. 120V only.
5. Not available with white reflector.
6. For dimensional changes, refer to TECH-140. Access above ceiling required.

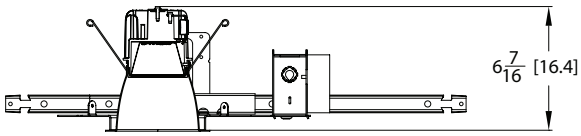
GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers GA 30012 | P 800.315.4982 | gothamlighting.com

gotham®

DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.





Aperture: 4-5/16 (11)
Ceiling Opening: 5-1/8 (13)
Overlap Trim: 5-7/16 (13.8)

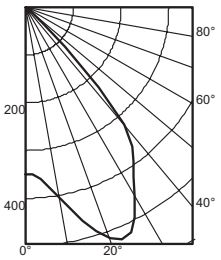
ELECTRICAL

WATTAGE CONSUMPTION MATRIX		
LUMENS	**WATTAGE**	**LUMENS per WATT**
2000	31	65
1800	29	58
1400	26	55
1000	21	51
600	16	49

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance: Single Luminaire 30" Above Floor

EVO 35/6 4AR LS

INPUT WATTS: 15.6, DELIVERED LUMENS: 757.7, LM/W=48.6, 1.6 S/MH, TEST NO. LTL21260



	Ave	Lumens
0	349	
5	361	36
15	463	133
25	520	234
35	393	245
45	117	105
55	2	4
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	402.6	53.1
0° - 40°	647.4	85.4
0° - 60°	756.6	99.9
0° - 90°	757.7	100.0
90° - 180°	0.0	0.0
0° - 180°	757.7	*100.0

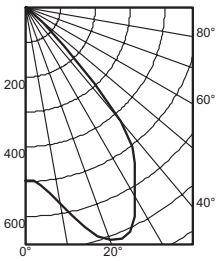
*Efficiency

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	99	95	92	96	93	90
3	93	87	83	92	86	82	89	85	81
4	86	79	75	84	79	74	82	77	73
5	79	72	68	78	72	67	76	71	67
6	73	66	61	72	66	61	71	65	61
7	68	61	56	67	60	56	65	60	55
8	63	56	51	62	56	51	61	55	51
9	58	51	47	58	51	47	57	51	47
10	54	48	43	54	47	43	53	47	43

Mounting Height	Inital FC Center Beam	50% beam - 76.1° Diameter	50% beam - 76.1° FC	10% beam - 91.1° Diameter	10% beam - 91.1° FC
8.0	11.5	8.6	5.8	11.2	1.2
10.0	6.2	11.7	3.1	15.3	0.6
12.0	3.9	14.9	1.9	19.4	0.4
14.0	2.6	18.0	1.3	23.5	0.3
16.0	1.9	21.1	1.0	27.5	0.2

EVO 35/10 4AR LS

INPUT WATTS: 20.6, DELIVERED LUMENS: 1039.0, LM/W=50.4, 1.5 S/MH, TEST NO. LTL21209



	Ave	Lumens
0	497	
5	513	51
15	653	186
25	709	320
35	547	337
45	156	138
55	3	5
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	557.2	53.6
0° - 40°	894.6	86.1
0° - 60°	1037.7	99.9
0° - 90°	1039.0	100.0
90° - 180°	0.0	0.0
0° - 180°	1039.0	*100.0

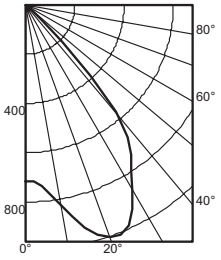
*Efficiency

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	99	95	92	96	93	90
3	93	88	83	92	87	83	89	85	81
4	86	80	75	85	79	74	82	77	74
5	79	73	68	78	72	68	76	71	67
6	73	66	62	72	66	61	71	65	61
7	68	61	56	67	61	56	66	60	56
8	63	56	51	62	56	51	61	55	51
9	58	52	47	58	52	47	57	51	47
10	54	48	44	54	48	44	53	47	43

Mounting Height	Inital FC Center Beam	50% beam - 75.3° Diameter	50% beam - 75.3° FC	10% beam - 90.7° Diameter	10% beam - 90.7° FC
8.0	16.4	8.5	8.2	11.1	1.6
10.0	8.8	11.6	4.4	15.2	0.9
12.0	5.5	14.7	2.8	19.2	0.6
14.0	3.8	17.7	1.9	23.3	0.4
16.0	2.7	20.8	1.4	27.3	0.3

EVO 35/14 4AR LS

INPUT WATTS: 26.2, DELIVERED LUMENS: 1431.9, LM/W=54.7, 1.5 S/MH, TEST NO. LTL21213



	Ave	Lumens
0	716	
5	738	73
15	934	265
25	986	445
35	743	458
45	203	182
55	4	6
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	784.3	54.8
0° - 40°	1242.2	86.8
0° - 60°	1430.4	99.9
0° - 90°	1431.9	100.0
90° - 180°	0.0	0.0
0° - 180°	1431.9	*100.0

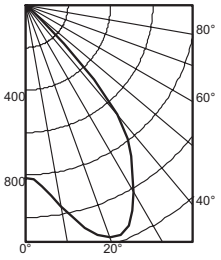
*Efficiency

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	100	96	92	96	93	90
3	93	88	83	92	87	83	89	85	81
4	86	80	75	85	79	75	83	78	74
5	80	73	68	79	72	68	77	71	67
6	74	67	62	73	66	62	71	66	61
7	68	61	57	67	61	57	66	60	56
8	63	57	52	63	56	52	62	56	52
9	59	52	48	58	52	48	57	52	48
10	55	48	44	54	48	44	54	48	44

Mounting Height	Inital FC Center Beam	50% beam - 73.6° Diameter	50% beam - 73.6° FC	10% beam - 90.0° Diameter	10% beam - 90.0° FC
8.0	23.7	8.2	11.8	11.0	2.4
10.0	12.7	11.2	6.4	15.0	1.3
12.0	7.9	14.2	4.0	19.0	0.8
14.0	5.4	17.2	2.7	23.0	0.5
16.0	3.9	20.2	2.0	27.0	0.4

EVO 35/18 4AR LS

INPUT WATTS: 29.0, DELIVERED LUMENS: 1682.7, LM/W=58.0, 1.5 S/MH, TEST NO. LTL21149



	Ave	Lumens
0	813	
5	854	85
15	1086	308
25	1149	519
35	869	536
45	256	223
55	6	9
65	2	2
75	1	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	913.1	54.3
0° - 40°	1449.4	86.1
0° - 60°	1680.5	99.9
0° - 90°	1682.7	100.0
90° - 180°	0.0	0.0
0° - 180°	1682.7	*100.0

*Efficiency

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	99	95	92	96	93	90
3	93	88	83	92	87	83	89	85	81
4	86	80	75	85	79	75	83	78	74
5	79	73	68	78	72	68	77	71	67
6	73	67	62	73	66	62	71	65	61
7	68	61	56	67	61	56	66	60	56
8	63	56	52	62	56	52	61	56	51
9	59	52	48	58	52	47	57	51	47
10	55	48	44	54	48	44	53	48	44

Mounting Height	Inital FC Center Beam	50% beam - 74.3° Diameter	50% beam - 74.3° FC	10% beam - 90.7° Diameter	10% beam - 90.7° FC
8.0	26.9	8.3	13.4	11.1	2.7
10.0	14.5	11.4	7.2	15.2	1.4
12.0	9.0	14.4	4.5	19.2	0.9
14.0	6.1	17.4	3.1	23.3	0.6
16.0	4.5	20.5	2.2	27.3	0.4

PHOTOMETRY NOTES

- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- Actual performance may differ as a result of end-user environment and application.
- Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%.
- CRI: 83 typical.
- Consult factory or IES file for microgroove baffle, black cone or other photometric reports.

LITHONIA LIGHTING®

Catalog Number	ELM2-LED
Notes	
Type	E1

QUANTUM®

Thermoplastic Emergency Light

ELM2 LED

LED Lamp Head
Ni-Cad Battery

LED

FEATURES & SPECIFICATIONS

INTENDED USE — Provides a minimum of 90 minutes of illumination for the rated wattage upon loss of AC power. Ideal for applications requiring attractive unit equipment with quick installation. **Certain airborne contaminants can diminish integrity of acrylic. Click here for Acrylic Environmental Compatibility table, for suitable uses.**

CONSTRUCTION — White, compact, low-profile contemporary design. Engineering-grade thermoplastic housing is impact-resistant, scratch-resistant and corrosion-proof. UL94V-0 flame rating. UV-stable resin resists discoloration from natural and man-made light sources.

Two LED lamp heads with 12 series-parallel white LEDs each, provide redundant light sources to ensure emergency lighting performance. The typical life of the LED lamp is 10 years.

Dual-voltage input capability (120/277V). Edge connector on printed circuit board ensures long-term durability.

Low-profile, integrated test switch/pilot light. Easily visible bright red status indicator.

Unique track-and-swivel arrangement permits full range of direction of lamp head adjustment. Universal J-box mounting pattern. Tool-less access for maintenance. Flexible conduit entry provision on top of the unit. Ceiling- or wall-mount standard.

ELECTRICAL — Current-limiting charger maximizes battery life and minimizes energy consumption. Provides low operating costs.

Short-circuit protection — current-limiting charger circuitry protects printed circuit board from shorts.

Thermal compensation adjusts charger output to provide optimum charge voltage relative to ambient temperature.

Regulated charge voltage maintains constant-charge voltage over a wide range of line voltages. Prevents over/undercharging that shortens battery life and reduces capacity.

Filtered charger input minimizes charge voltage ripple and extends battery life.

AC/LVD reset allows battery connection before AC power is applied and prevents battery damage from deep discharge.

Single multi-color LED indicator to display two-state charging, test activation and three-state diagnostic test. Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection. Self-diagnostic testing for 30 seconds every 30 days, 30 minute every 180 days and 90 minutes annually. Diagnostic evaluation of LED light source, AC to DC transfer, charging and battery condition.

Battery Sealed, maintenance-free nickel-cadmium battery delivers 90 minute capacity to emergency lamps. Two-state constant-current charge maximizes battery life and automatically recharges after battery discharge. Low-voltage disconnect prevents excessively deep discharge that can permanently damage the battery. Optional high-output battery available to power both local and optional LED remote lamp heads simultaneously.

LISTINGS — UL damp location listed standard 50-104°F (10-40°C). Meets UL 924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Actual performance may differ as a result of end-user environment and application.

Note: Specifications subject to change without notice.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: ELM2 LED

ELM2	LED		GEB10PS
Family	**Lamp type**	**Housing**	**Options**
ELM2	LED Two 1.5W/3.6V white LED	(blank) White B Black	HO High-output ni-cad battery for 6W remote capacity SD Self-diagnostics NOM Meets Mexican standards[1]

Accessories: [2,3,5] *Order as separate catalog number.*

ELA Q L0304	Single LED indoor remote head, white
ELA T Q L0304	Twin LED indoor remote head, white
ELA QWP L0304	Single LED weather-proof remote head, gray
ELA T QWP L0304	Twin LED weather-proof remote head, gray
ELA WG1	Wireguard, 15"W x 13-1/2"H x 6"D[4]

Notes

1 Available in black or white. Consult factory for options.

2 Also available in black. Add "B" after ELA to order black finish. Example: ELA B Q L0304.

3 Only compatible with Quantum LED series. For use with self-diagnostics fixture, add SD to end of catalog number. Example: ELA Q L0304 SD.

4 See spec sheet ELA-WG.

5 See spec sheet ELA-Q-LED.

ELM2 LED QUANTUM® Thermoplastic Emergency Light

SPECIFICATIONS

ELECTRICAL

Primary Circuit

Typical LED Life[1]	Supply Voltage	Max Amps	Max Watts
10 years	120	.04	1.44
	277	.03	1.44

BATTERY

Ni-Cad (N)

Voltage	Shelf life[2]	Typical life[2]	Maintenance[3]	Optimum temperature[4]
3.6	3 years	7-9 yrs.	none	50-104°F (10-40°C)

1 Based on continuous operation. The typical life of the LED lamp is 10 years.

2 At 77°F (25°C).

3 All life safety equipment, including emergency lighting path of egress, must be maintained, serviced and tested in accordance with all National Fire Protection Association and local codes. Failure to perform the required maintenance, service or testing could jeopardize the safety of occupants and will void all warranties.

4 Optimum ambient temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity. Consult factory for detailed information.

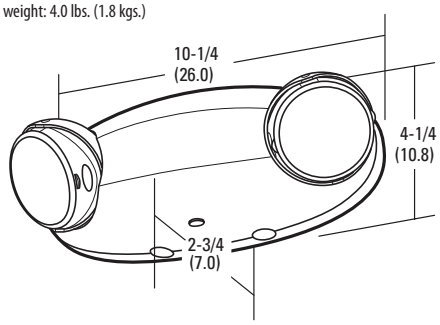
REMOTE OUTPUT CAPACITY

Standard unit	Unit\ high-output battery (HO)
NA	6W

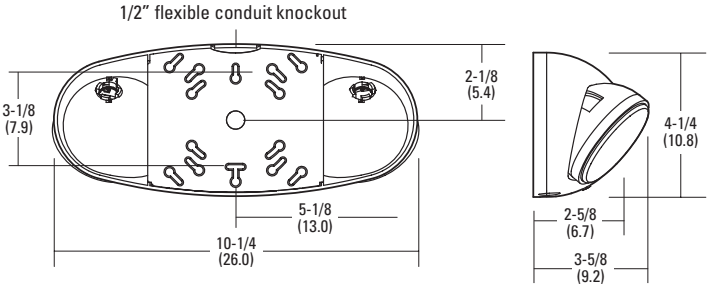
MOUNTING

All dimensions are inches (centimeters).

Shipping weight: 4.0 lbs. (1.8 kgs.)

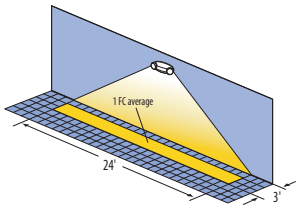


Mounting Plate

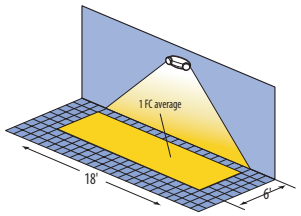


LAMP PHOTOMETRICS

QUANTUM LED SERIES – SINGLE COVERAGE
3W Total White LEDs
Using a single unit at a typical 7.5' mounting height delivers an average illuminance of 1.0 FC over a distance of 24' on a 3' path of egress and 18' on a 6' path of egress.

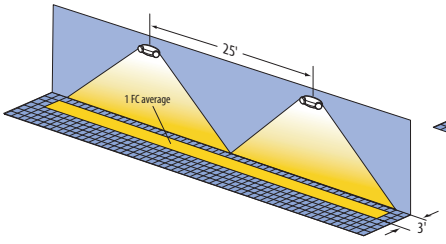


Example of single ELM2 LED unit illuminating a 3' path of egress

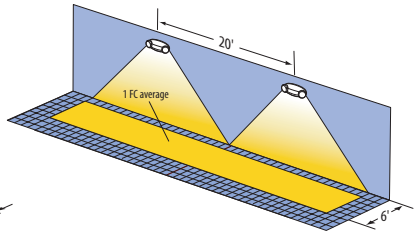


Example of single ELM2 LED unit illuminating a 6' path of egress

QUANTUM LED SERIES – MULTIPLE COVERAGE
3W Total White LEDs
Using multiple units at a typical 7.5' mounting height delivers 25' center-to-center spacing on a 3' path of egress and 20' center-to-center spacing on a 6' path of egress.



Example of multiple ELM2 LED units illuminating a 3' path of egress



Example of multiple ELM2 LED units illuminating a 6' path of egress

EXTENDED RUN-TIME FOR HIGH-OUTPUT UNITS

Product	Run time
ELM2 LED HO (no remotes)	3.9 hours

* Meets Life Safety Code standard minimum illuminance of 0.1 FC and average illuminance of 1.0 FC. Assumes open space with no obstructions, mounting height: 7.5', ceiling height: 9', and reflectances: 80/50/20. Analysis based on independently tested photometrics.

EMERGENCY: One Lithonia Way Conyers, GA 30012 Phone: 800-334-8694 Fax: 770-981-8141 www.lithonia.com

LITHONIA LIGHTING®

Catalog Number	ELA-QWP-L0309
Notes	
Type	ERL

FEATURES & SPECIFICATIONS

INTENDED USE

To be powered by Quantum® LED series unit or combo with high-output option as part of an emergency lighting system providing light for the path of egress. Remote lamp head matches the appearance of the Quantum LED series family units. **Certain airborne contaminants can diminish integrity of acrylic.** Click here for Acrylic Environmental Compatibility table, for suitable uses.

CONSTRUCTION

Single or twin heads available. Fully adjustable lamp heads to meet all aiming requirements. Strong, compact and corrosion-resistant with a UL94V-0 flame rating. Constructed of UV-stabilized thermoplastic that resists discoloration by natural or artificial sunlight. Lamp housing snaps off for easy lamp replacement.

Lamps: 12 series-parallel white LEDs per head. The typical life of the LED lamp is 10 years.

INSTALLATION

Universal mounting base for use with single- or twin-head applications. Mounts to a single-gang switch box.

LISTINGS

UL Listed. Damp location listed (ELA Q) 50°F to 104°F (10°C to 40°C). Wet location listed (ELA QWP) 14°F to 122°F (-10°C to 50 °C).

WARRANTY

Complete warranty terms located at
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Actual performance may differ as a result of end-user environment and application.

Note: Specifications subject to change without notice.

QUANTUM®

Thermoplastic Emergency Light

ELA Q

Remote Fixture
Adjustable LED Lamp Head

LED

ELA Q

ELA QWP

ELA T Q

ELA T QWP

Specifications

Q single:	6-5/8" W x 4-3/4" H
Q twin:	8-1/4" W x 4-1/4" H
QWP single:	4-1/2" W x 5-3/4" H
QWP twin:	8-1/2" W x 5-3/4" H

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: ELA Q L0304

ELA			QWP	L0309	GEB10PS
Family	**Housing**	**Number of heads**	**Fixture**	**Lamp type**	**Options**
ELA	(blank) White/gray[1] B Black	(blank) Single T Twin	Q Quantum LED series adjustable lamp head QWP Quantum LED series adjustable lamp head, weather-proof, cast aluminum	L0304 1.5W/3.6V LED lamps, per lamp head[2] L0309 1.5W/9.6V LED lamps, per lamp head[3]	SD For use with self-diagnostic fixtures[5]

Accessories: *Order as separate item.*	
ELA WG1	Wireguard, 15"W x 13-1/2" H x 6" D[4]

Notes

1 White standard for Q, gray standard for QWP.
2 For use with ELM2 LED only.
3 For use with LHQM LED only.
4 See spec sheet ELA_WG.
5 SD must be ordered in combination with ELM2 LED and LHQM LED fixtures.

ELA Q LED QUANTUM® Thermoplastic Emergency Light

The following information is provided to assist in planning layouts for emergency lighting systems. The National Electrical Code limits voltage drop to a maximum of 5% of nominal. Thus, circuit runs must be of sufficient size to maintain operating voltage when remote fixtures and/or exit signs are connected to the emergency lighting equipment. The table below shows the length of wire run based on system voltage, wire gauge and total wattage on the run.

ELA_ L0304 configurations (for use with ELM2 LED)

AWG	18	16	14	12	10
DC Resistance (ohms/ft)	0.0078	0.0049	0.0031	0.0019	0.0012

Watts	Length of Run				
1.5	26	42	67	106	170
3	13	21	33	53	85
4.5	9	14	22	35	57
6	7	10	17	27	42
7.5	5	8	13	21	34
9	4	7	11	18	28
10.5	4	6	10	15	24
12	3	5	8	13	21

ELA_ L0309 configurations (for use with LHQM LED)

AWG	18	16	14	12	10
DC Resistance (ohms/ft)	0.0078	0.0049	0.0031	0.0019	0.0012

Watts	Length of Run				
1.5	188	298	475	756	1206
3	94	149	238	378	603
4.5	63	99	158	252	402
6	47	75	119	189	301
7.5	38	60	95	151	241
9	31	50	79	126	201
10.5	27	43	68	108	172
12	23	37	59	95	151

EMERGENCY: One Lithonia Way Conyers, GA 30012 Phone: 800-334-8694 Fax: 770-981-8141 www.lithonia.com

LITHONIA LIGHTING®

Catalog Number	2RT5-28T5-MVOLT-GEB95
Notes	
Type	GR2

FEATURES & SPECIFICATIONS

INTENDED USE — RT5 is designed for applications that require the extremely energy efficient delivery of comfortable volumetric light from a lay-in fixture that is appealing and shallow in depth. Ideal for offices, schools, hospitals, retail and numerous other commercial applications. **Certain airborne contaminants can diminish integrity of acrylic.** Click here for Acrylic Environmental Compatibility table for suitable uses.

CONSTRUCTION — Impact modified acrylic prismatic refractor with polymer light-diffusing film.

Rugged, one-piece, cold-rolled steel reflector with embossed facets. Polyester powder paint after fabrication.

Rigid structure with ballast box and endplates with integral T-bar clips.

Fixtures may be mounted end-to-end.

OPTICS — Delivers volumetric lighting by filling the entire volume of space with light, delivering the ideal amount to walls, cubicles, work surfaces and people.

Luminous characteristics are carefully managed at high angles, providing just enough intensity to deliver the volumetric effect.

Regressed, two-piece refractive system obscures and softens the lamp and smoothly washes the reflector with light.

Linear faceted reflector softens and distributes light into the space and minimizes the luminance ratio between the fixture and the ceiling.

Mechanical cut-off across the reflector and fresnel refraction along the refractor provide high angle shielding and a quiet ceiling.

Sloped endplates provide a balanced fixture to ceiling ratio while enhancing the perception of fixture depth.

ELECTRICAL — Highly efficient program-start electronic ballasts, Class P, thermally protected, resetting, HPF, non-PCB, UL Listed, CSA Certified, sound rated A. Your choice of Premium or Premium XP T5 lamp with enhanced phosphors and 85 CRI. Ballast/lamp efficacy up to 100+ LPW. Lamp is TCLP compliant.

0.90 or 0.95 ballast factor standard for typical applications. 1.15 ballast factor or F54T5HO lamping available for higher ceiling height applications.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

S5 option available for use with SIMPLY5™ Lighting Intelligence system with multi-level dimming. See SYNERGY® Lighting Controls specification sheets for more information. Ballast Disconnect provided standard where required to comply with U.S. and Canadian electrical codes.

INSTALLATION — Side mounted ballast tray accessed by removing adjacent ceiling tile. Ballast tray may be removed from fixture during service.

Lamps accessed by squeezing refractor to release from retention tabs.

LISTING — UL Listed (standard). Optional: Canada CSA or cUL. Mexico NOM.

WARRANTY — 1-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

RT5

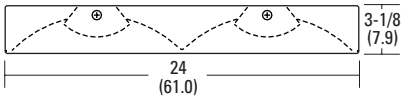
2RT5

2'X 4'
2 Lamps
Premier or Premier XP T5

SIMPLY5™
LIGHTING INTELLIGENCE

Specifications

Length:	48 (121.8)
Width:	24 (61.0)
Depth:	3-1/8 (7.9)



All dimensions are inches (centimeters) unless otherwise specified.

Protected by one or more of US Patents Nos. 7,229,192; D541,467; D541,468; D544,633; D544,634; D544,992; D544,933 and additional patent pending.

Note: Specifications subject to change without notice.

ORDERING INFORMATION

For shortest lead times, configure products using **bolded options**.

Example: 2RT5 28T5 MVOLT GEB95 LPM835P

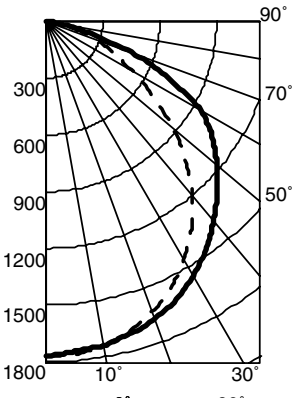
2RT5	28T5	MVOLT	GEB95		
Series	**Lamp type**	**Voltage**	**Ballast**	**Lamp[7]**	**Options**
2RT5 Recessed T5	**28T5** 28W T5 (46") 54T5HO 54W T5 (46")[1]	**MVOLT**[2] 347[3]	**GEB95** .95 ballast factor[4] **GEB95S** .95 ballast factor, step dimming[4] GEB115 1.15 ballast factor[4] GEB115S 1.15 ballast factor, step dimming[4] GEB10PS 1.0 ballast factor, programmed start[5] S5 .95 ballast factor SIMPLY5™ system[6] GEB80 .80 ballast factor[5] GEB80S .80 ballast factor, step dimming[5] GEB90 .90 ballast factor[4] GEB90S .90 ballast factor, step dimming[4]	**LPM835P** Premier 3500° K lamp[4] LPM830P Premier 3000° K lamp[4] LPM841P Premier 4100° K lamp[4] L835XP Premier XP 3500° K lamp[4] L830XP Premier XP 3000° K lamp[4] L841XP Premier XP 4100° K lamp[4] LP835 3500° K lamp[5] LP830 3000° K lamp[5] LP841 4100° K lamp[5]	GLR Internal fast-blow fuse[8] PWS1836 6' prewire, 3/8" diameter, 18-gauge, 3-wire (n/a with step dimming)[9] PWS1846 6' prewire, 3/8" diameter, 18-gauge, 4-wire[10] **EL14** Emergency battery pack[11] EL65 Emergency battery pack[11] HW Hardware for SIMPL5 system; replaces RELOC® CSA Listed and labeled to comply with Canadian standards BDP Ballast disconnect plug (meets codes that require in-fixture disconnect)

Notes

1 For T5HO applications, use GEB10PS, GEB80 or GEB80S ballast.
2 MVOLT (120-277 volts), 50-60HZ.
3 For 347V, use GEB95, GEB95S or GEB10PS.
4 28T5 only.
5 54T5HO only.
6 SIMPLY5 includes 13' S5 SSC RELOC® wiring system, specify voltage unless HW (hardwire) or PWS is ordered.
7 Required. All fixtures shipped with lamps installed.
8 Must specify voltage, 120 or 277.
9 For use with standard ballast.
10 For use with step dimming ballast.
11 See PS1400QD spec sheet for EL lumen output information.

2RT5 Volumetric Recessed Lighting 2' x 4'

2RT5 28T5 GEB95 LPM835P, (2) FP28/835/PM/ECO lamps, 2730 lumens per lamp, s/m 1.2 (along) 1.3 (across), test no. LTL13260



Coefficients of Utilization

CP Summary 0°	CP Summary 90°	RCR	pf 20% pc 80% pw 70%	80% 50%	80% 30%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0°	1770	0	107	107	107	105	105	105	100	100	100
5°	1766	1	98	94	91	92	89	86	88	86	83
15°	1695	2	89	82	76	81	75	70	77	73	69
25°	1555	3	82	72	65	71	64	59	68	63	58
35°	1339	4	75	64	56	63	56	50	61	54	49
45°	1044	5	69	57	49	56	49	43	54	48	43
55°	695	6	63	52	44	51	43	38	49	42	37
65°	393	7	59	47	39	46	39	33	45	38	33
75°	179	8	55	43	35	42	35	30	41	34	30
85°	30	9	51	39	32	39	32	27	38	31	27
90	0	10	48	36	29	36	29	24	35	28	24

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1383	25.3	28.2
0° - 40°	2264	41.5	46.1
0° - 60°	3976	72.8	81.0
0° - 90°	4908	89.9	100.0
90° - 180°	0	0.0	0.0
0° - 180°	4908	89.9	100.0

LER: 80.4 lpw

Efficiency: 89.9%

*The LER (Luminaire Efficacy Rating) is the lumens per watt rating for this fixture. It is used to compare the energy efficiency of various products. This photometric report is based upon IES testing procedures, as stated in LM-41-1998. The reported lumen rating is based upon lamp manufacturer's published lumen output for the cold spot temperature measured during lamp calibration.

Ballast	Input Wattage 120/277
GEB90 GEB90S	55/54
GEB90S @50% power mode	27
GEB95 GEB95S	60/58
GEB95S @50% power mode	28/28
GEB115 GEB115S	73/71
GEB115S @50% power mode	35/35
GEB80 GEB80S	96/93
GEB80S @50% power mode	52/51
S5	60/58

T5/T8 Energy Comparison

System	Lamp Type	Ballast Factor	Input Watts	Watts Saved Compared to T8
3-lamp T8	F32T8	0.88	88	–
2RT5 2-lamp T5	F28T5XP	0.90	54	34
2RT5 2-lamp T5	F28T5	0.95	58	30
2RT5 2-lamp T5	F28T5	1.15	71	17

LITHONIA LIGHTING®

Catalog Number	2RT5-28T5-MVOLT-GEB95S
Notes	
Type	GR2D

FEATURES & SPECIFICATIONS

INTENDED USE — RT5 is designed for applications that require the extremely energy efficient delivery of comfortable volumetric light from a lay-in fixture that is appealing and shallow in depth. Ideal for offices, schools, hospitals, retail and numerous other commercial applications. **Certain airborne contaminants can diminish integrity of acrylic.** Click here for Acrylic Environmental Compatibility table for suitable uses.

CONSTRUCTION — Impact modified acrylic prismatic refractor with polymer light-diffusing film.

Rugged, one-piece, cold-rolled steel reflector with embossed facets. Polyester powder paint after fabrication.

Rigid structure with ballast box and endplates with integral T-bar clips.

Fixtures may be mounted end-to-end.

OPTICS — Delivers volumetric lighting by filling the entire volume of space with light, delivering the ideal amount to walls, cubicles, work surfaces and people.

Luminous characteristics are carefully managed at high angles, providing just enough intensity to deliver the volumetric effect.

Regressed, two-piece refractive system obscures and softens the lamp and smoothly washes the reflector with light.

Linear faceted reflector softens and distributes light into the space and minimizes the luminance ratio between the fixture and the ceiling.

Mechanical cut-off across the reflector and fresnel refraction along the refractor provide high angle shielding and a quiet ceiling.

Sloped endplates provide a balanced fixture to ceiling ratio while enhancing the perception of fixture depth.

ELECTRICAL — Highly efficient program-start electronic ballasts, Class P, thermally protected, resetting, HPF, non-PCB, UL Listed, CSA Certified, sound rated A. Your choice of Premium or Premium XP T5 lamp with enhanced phosphors and 85 CRI. Ballast/lamp efficacy up to 100+ LPW. Lamp is TCLP compliant.

0.90 or 0.95 ballast factor standard for typical applications. 1.15 ballast factor or F54T5HO lamping available for higher ceiling height applications.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

S5 option available for use with SIMPLY5™ Lighting Intelligence system with multi-level dimming. See SYNERGY® Lighting Controls specification sheets for more information. Ballast Disconnect provided standard where required to comply with U.S. and Canadian electrical codes.

INSTALLATION — Side mounted ballast tray accessed by removing adjacent ceiling tile. Ballast tray may be removed from fixture during service.

Lamps accessed by squeezing refractor to release from retention tabs.

LISTING — UL Listed (standard). Optional: Canada CSA or cUL. Mexico NOM.

WARRANTY — 1-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

RT5

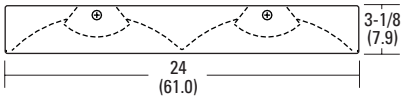
2RT5

2'X 4'
2 Lamps
Premier or Premier XP T5

SIMPLY5™
LIGHTING INTELLIGENCE

Specifications

Length:	48 (121.8)
Width:	24 (61.0)
Depth:	3-1/8 (7.9)



All dimensions are inches (centimeters) unless otherwise specified.

Protected by one or more of US Patents Nos. 7,229,192; D541,467; D541,468; D544,633; D544,634; D544,992; D544,933 and additional patent pending.

Note: Specifications subject to change without notice.

ORDERING INFORMATION

For shortest lead times, configure products using **bolded options**.

Example: 2RT5 28T5 MVOLT GEB95 LPM835P

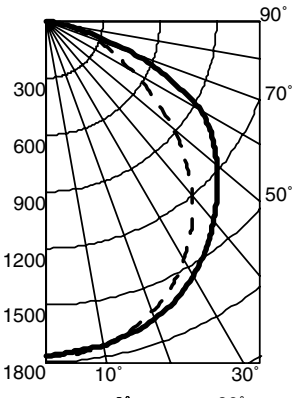
2RT5	28T5	MVOLT	GEB95S		
Series	**Lamp type**	**Voltage**	**Ballast**	**Lamp[7]**	**Options**
2RT5 Recessed T5	**28T5** 28W T5 (46") 54T5HO 54W T5 (46")[1]	**MVOLT**[2] 347[3]	**GEB95** .95 ballast factor[4] **GEB95S** .95 ballast factor, step dimming[4] GEB115 1.15 ballast factor[4] GEB115S 1.15 ballast factor, step dimming[4] GEB10PS 1.0 ballast factor, programmed start[5] S5 .95 ballast factor SIMPLY5™ system[6] GEB80 .80 ballast factor[5] GEB80S .80 ballast factor, step dimming[5] GEB90 .90 ballast factor[4] GEB90S .90 ballast factor, step dimming[4]	**LPM835P** Premier 3500° K lamp[4] LPM830P Premier 3000° K lamp[4] LPM841P Premier 4100° K lamp[4] L835XP Premier XP 3500° K lamp[4] L830XP Premier XP 3000° K lamp[4] L841XP Premier XP 4100° K lamp[4] LP835 3500° K lamp[5] LP830 3000° K lamp[5] LP841 4100° K lamp[5]	GLR Internal fast-blow fuse[8] PWS1836 6' prewire, 3/8" diameter, 18-gauge, 3-wire (n/a with step dimming)[9] PWS1846 6' prewire, 3/8" diameter, 18-gauge, 4-wire[10] **EL14** Emergency battery pack[11] EL65 Emergency battery pack[11] HW Hardware for SIMPL5 system; replaces RELOC® CSA Listed and labeled to comply with Canadian standards BDP Ballast disconnect plug (meets codes that require in-fixture disconnect)

Notes

1 For T5HO applications, use GEB10PS, GEB80 or GEB80S ballast.
2 MVOLT (120-277 volts), 50-60HZ.
3 For 347V, use GEB95, GEB95S or GEB10PS.
4 28T5 only.
5 54T5HO only.
6 SIMPLY5 includes 13' S5 SSC RELOC® wiring system, specify voltage unless HW (hardwire) or PWS is ordered.
7 Required. All fixtures shipped with lamps installed.
8 Must specify voltage, 120 or 277.
9 For use with standard ballast.
10 For use with step dimming ballast.
11 See PS1400QD spec sheet for EL lumen output information.

2RT5 Volumetric Recessed Lighting 2' x 4'

2RT5 28T5 GEB95 LPM835P, (2) FP28/835/PM/ECO lamps, 2730 lumens per lamp, s/m 1.2 (along) 1.3 (across), test no. LTL13260



Coefficients of Utilization

CP Summary 0°	CP Summary 90°	RCR	pf 20% pc 80% pw 70%	80% 50%	80% 30%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0°	1770	0	107	107	107	105	105	105	100	100	100
5°	1766	1	98	94	91	92	89	86	88	86	83
15°	1695	2	89	82	76	81	75	70	77	73	69
25°	1555	3	82	72	65	71	64	59	68	63	58
35°	1339	4	75	64	56	63	56	50	61	54	49
45°	1044	5	69	57	49	56	49	43	54	48	43
55°	695	6	63	52	44	51	43	38	49	42	37
65°	393	7	59	47	39	46	39	33	45	38	33
75°	179	8	55	43	35	42	35	30	41	34	30
85°	30	9	51	39	32	39	32	27	38	31	27
90	0	10	48	36	29	36	29	24	35	28	24

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1383	25.3	28.2
0° - 40°	2264	41.5	46.1
0° - 60°	3976	72.8	81.0
0° - 90°	4908	89.9	100.0
90° - 180°	0	0.0	0.0
0° - 180°	4908	89.9	100.0

LER: 80.4 lpw

Efficiency: 89.9%

*The LER (Luminaire Efficacy Rating) is the lumens per watt rating for this fixture. It is used to compare the energy efficiency of various products. This photometric report is based upon IES testing procedures, as stated in LM-41-1998. The reported lumen rating is based upon lamp manufacturer's published lumen output for the cold spot temperature measured during lamp calibration.

Ballast	Input Wattage 120/277
GEB90 GEB90S	55/54
GEB90S @50% power mode	27
GEB95 GEB95S	60/58
GEB95S @50% power mode	28/28
GEB115 GEB115S	73/71
GEB115S @50% power mode	35/35
GEB80 GEB80S	96/93
GEB80S @50% power mode	52/51
S5	60/58

T5/T8 Energy Comparison

System	Lamp Type	Ballast Factor	Input Watts	Watts Saved Compared to T8
3-lamp T8	F32T8	0.88	88	–
2RT5 2-lamp T5	F28T5XP	0.90	54	34
2RT5 2-lamp T5	F28T5	0.95	58	30
2RT5 2-lamp T5	F28T5	1.15	71	17

LITHONIA LIGHTING®

Catalog Number	LB-2-28T5-MVOLT-GEB10PS
Notes	
Type	LB2

FEATURES & SPECIFICATIONS

INTENDED USE — For applications that require the clean appearance of a low profile, brightness controlled wraparound. Provides broad distribution of light for offices, schools and corridors. **Certain airborne contaminants can diminish integrity of acrylic.** **Click here for Acrylic Environmental Compatibility table for suitable uses.**

CONSTRUCTION — Metal parts are die formed from code-gauge steel. Prismatic diffuser is 100% acrylic with sonically welded luminous ends. Continuous side flanges on fixture body provide light trap and continuous diffuser support to prevent accidental opening and simplify maintenance.

Finish: Five stage iron-phosphate pretreatment assure superior paint adhesion and rust resistance.

Painted parts finished with high-gloss, high-reflectivity baked white polyester enamel (low VOC).

OPTICS — Curved prismatic diffuser with linear side prisms minimize lamp image and provides high angle brightness control. Luminous end plates soften appearance for improved aesthetics.

ELECTRICAL — Thermally-protected, resetting, Class P, HPF, non-PCB, UL Listed, CSA certified ballast is standard. Luminaire is suitable for damp locations. AWM, TFN or THHN wire used throughout, rated for required temperatures.

UL/CSA listed ballast disconnect w/strain relief and leads provided standard.

LISTINGS — UL listed to U.S. and Canadian Safety Standards. Optional: Canada CSA or Mexico NOM

WARRANTY — 1-year limited warranty. Complete warranty terms located at

www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.

Low-Profile Wraparound

LB

T8/T5
NARROW BODY
2', 4' or 8' length
2 lamps

Specifications

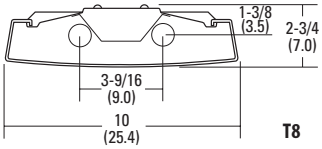
T8 Length: 24 (61.0)
48 (122.0)
96 (243.9)

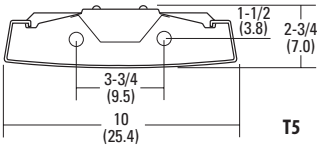
T5 Length: 22-1/2 (57.2)
46-1/2 (118.1)
92-1/2 (235.0)

Width: 10 (25.4)

Depth: 2-3/4 (7.0)

All dimensions are inches (centimeters) unless specified otherwise.





ORDERING INFORMATION For shortest lead times, configure products using standard options **(shown in bold.)**

Example: LB 2 32 MVOLT GEB10IS

LB	2	28T5	MVOLT	GEB10PS
Series	**Number of lamps**	**Lamp type**	**Voltage**	**Options**
LB 2 lamps, 10" wide For tandem double-length unit, add prefix T. Example: TLB	**2** Not included	17 17W T8 (24") **32** 32W T8 (48") 14T5 14W T5 (22-1/2") 28T5 28W T5 (46-1/2") 54T5HO 54W T5 HO (46-1/2")	120 277 347[1] **MVOLT**[2] Others available	**GEB10IS** Electronic ballast, ≤10% THD, instant start GEB10RS Electronic ballast, ≤10% THD, program rapid start GEB10PS Electronic ballast, ≤10% THD, programmed start GEB95 .95 ballast factor[3] GEB955 .95 ballast factor, step dimming[3] EL Emergency battery pack (nominal 300 lumens, see Life Safety Section)[4] EL14 Emergency battery pack (nominal 1400 lumens, see Life Safety Section)[4] GLR Internal fast-blow fuse[5] GMF Internal slow-blow fuse[5] CSA Listed and labeled to comply with Canadian Standards SSR Specular silver interior finish (95% reflective) NOM NOM certified

Accessories: *Order as separate catalog number.*

SQ	Swivel-stem hanger (specify in 2" increments)
1B	Ceiling spacer (adjusts from 1-1/2" to 2-1/2" from ceiling)

Notes

1. Not available with GEB10PS ballast.
2. Electronic ballast 120V through 277V only.
3. Only available with 14T5 or 28T5.
4. Not available with T5 2' configuration.
5. Must specify voltage.

LB Low-Profile Wraparound, Narrow Body

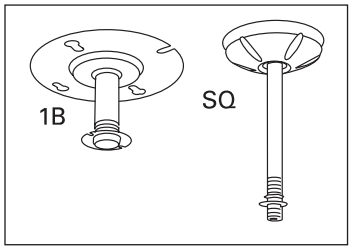
MOUNTING DATA

For unit or row installation, surface or stem mounting. Stem mounting not available on TLB units.

Individual installation — Two single-stem hangers required.

Row installation — One hanger per fixture plus one per row required.

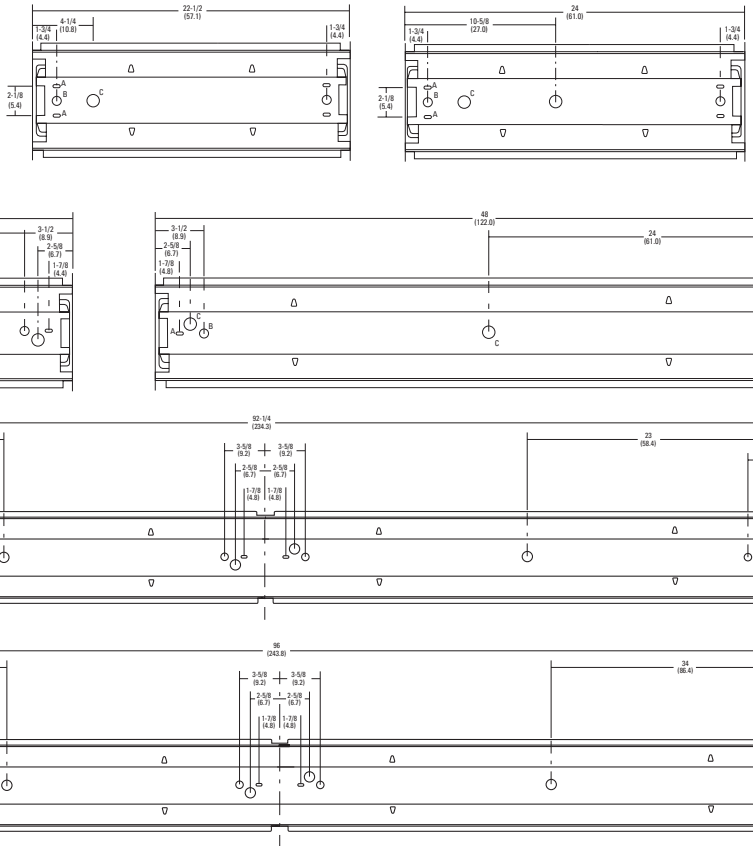
See ACCESSORIES below for hanging devices.



DIMENSIONS

Inches (centimeters). Subject to change without notice.

A = 1/4 x 1/2 (.635 x 1.27) Oval Hole
B = 11/16 (1.74) Dia. K.O.
C = 7/8 (2.22) Dia. K.O.



PHOTOMETRICS

Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%. Lamp configurations shown are typical. Full photometric data on these and other configurations available upon request.

Test # BAL16520 - LB 2 32 MVOLT

Coefficients of Utilization

pf													
pc	80%			50%			30%			10%			0%
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
RCR 0	103	103	103	92	92	92	86	86	86	80	80	80	77
1	89	86	82	80	77	75	75	73	70	70	68	66	64
2	79	73	68	71	66	63	66	63	59	62	59	56	54
3	70	63	57	63	58	53	59	54	51	55	52	48	46
4	62	55	49	56	51	46	53	48	44	50	46	42	40
5	56	48	42	51	45	40	48	43	39	45	41	37	35
6	50	43	37	46	40	35	43	38	34	41	36	33	31
7	46	38	33	42	36	31	40	34	30	38	33	29	28
8	42	35	30	39	32	28	36	31	27	35	30	26	25
9	38	31	27	35	30	25	34	28	25	32	27	24	22
10	35	29	24	33	27	23	31	26	23	30	25	22	20

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1383.1	23.4	26.3
0° - 40°	2263.3	38.4	43.1
0° - 60°	3676.3	62.3	69.9
0° - 90°	4533.6	76.8	86.3
90° - 180°	722.4	12.2	13.7
0° - 180°	5256.0	89.1	100.0

Test # LTL 19928 – LB 2 28T5 GEB95

Coefficient of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC%	80%				70%				50%			30%			10%			0%
RW%	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR 0	1.03	1.03	1.03	1.03	1.00	1.00	1.00	.77	.93	.93	.93	.86	.86	.86	.80	.80	.80	.77
1	.94	.90	.86	.82	.90	.86	.83	.65	.81	.78	.75	.75	.73	.71	.70	.68	.67	.64
2	.86	.79	.73	.68	.83	.76	.71	.55	.71	.67	.63	.66	.63	.60	.62	.59	.57	.54
3	.79	.70	.63	.57	.76	.67	.61	.48	.63	.58	.54	.59	.55	.51	.56	.52	.49	.46
4	.72	.62	.55	.49	.70	.60	.53	.42	.57	.51	.46	.53	.48	.44	.50	.46	.43	.40
5	.67	.56	.48	.43	.64	.54	.47	.37	.51	.45	.40	.48	.43	.39	.45	.41	.37	.35
6	.62	.51	.43	.37	.59	.49	.42	.33	.46	.40	.36	.44	.38	.34	.41	.37	.33	.31
7	.57	.46	.39	.33	.55	.45	.38	.29	.42	.36	.32	.40	.35	.31	.38	.33	.30	.28
8	.54	.42	.35	.30	.52	.41	.34	.26	.39	.33	.28	.37	.32	.28	.35	.30	.27	.25
9	.50	.39	.32	.27	.48	.38	.31	.24	.36	.30	.26	.34	.29	.25	.32	.28	.24	.23
10	.47	.36	.29	.24	.45	.35	.28	.22	.33	.27	.23	.32	.26	.23	.30	.25	.22	.21

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1,239.0	23.8	26.7
0-40	2,020.6	38.9	43.6
0-60	3,264.4	62.8	70.4
60-90	765.6	14.7	16.5
70-100	626.7	12.1	13.5
90-120	421.8	8.1	9.1
0-90	4,030.0	77.5	86.9
90-180	607.0	11.7	13.1
0-180	4,637.0	89.2	100

LITHONIA LIGHTING®
An AcuityBrands Company

FLUORESCENT: One Lithonia Way Conyers, GA 30012 Phone: 800-858-7763 Fax: 770-929-8789 www.lithonia.com

LITHONIA LIGHTING®

Catalog Number	
LB-3-28-MVOLT-GEB10PS	
Notes	Type: LB3

FEATURES & SPECIFICATIONS

INTENDED USE

For applications that require the clean appearance of a low-profile, brightness-controlled wraparound. Provides broad distribution of light for offices, schools and corridors. **Certain airborne contaminants can diminish integrity of acrylic.** Click here for Acrylic Environmental Compatibility table for suitable uses.

ATTRIBUTES

Curved prismatic diffuser with linear side prisms minimize lamp image and provides high angle brightness control. Luminous end plates soften appearance for improved aesthetics.

CONSTRUCTION

Metal parts are die formed from code-gauge steel. Prismatic diffuser is 100% acrylic with sonically welded luminous ends. Continuous side flanges on fixture body provide light trap and continuous diffuser support to prevent accidental opening and simplify maintenance.

FINISH

Five stage iron-phosphate pretreatment assure superior paint adhesion and rust resistance.

Painted parts finished with high-gloss, high-reflectivity baked white polyester enamel (low VOC).

ELECTRICAL SYSTEM

Thermally-protected, resetting, Class P, HPF, non-PCB, UL Listed, CSA Certified ballast is standard. Luminaire is suitable for damp locations. AWM, TFN or THHN wire used throughout, rated for required temperatures.

UL/CSA listed ballast disconnect w/strain relief and leads provided standard.

LISTING

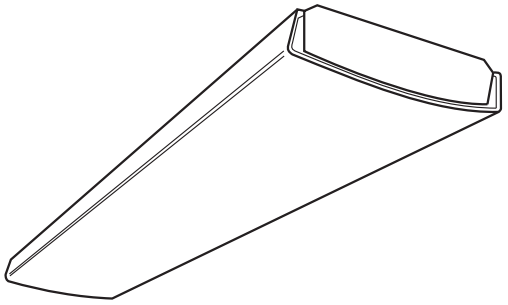
UL Listed (standard). Optional: Canada CSA or C-UL. Mexico NOM.

WARRANTY

Guaranteed for one year against mechanical defects in manufacture.

Low-Profile Wraparound

LB 3



T5 and T8
3 lamps
Wide body
4' or 8' length

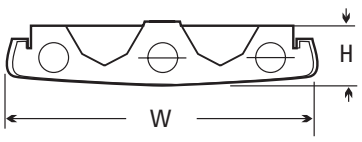
Specifications

T8 Length: 24 (61.00) 48 (122.00) or 96 (243.90)

T5 Length: 46.5 (118.1) 22.5 (57.2)

Width: 15-3/8 (39.05)

Depth: 3 (7.62)



All dimensions are inches (centimeters) .
Specifications subject to change without notice.

ORDERING INFORMATION

For shortest lead times, configure product using **standard options (shown in bold).**

Example: LB 3 32 MVOLT GEB10IS

LB	3	28	MVOLT	GEB10PS
Series	Number of lamps	Lamp type	Voltage	Options

LB **3 lamps, 15-3/8" wide**
For tandem, double-length unit, add prefix T. Example: TLB

3
Not included

32 **32W T8 (48")**
28 28W T5 (46.5")[2]

120
277
347
MVOLT
Others available

1/3 **One, three-lamp ballast**
GEB10IS **Electronic ballast, ≤10% THD, instant start**
GEB10PS Electronic ballast, ≤10% THD, program start
EL Emergency battery pack (nominal 300 lumens See Life Safety Section).
GLR Internal fast-blow fuse.[1]
GMF Internal slow-blow fuse.[1]
LSC Lens safety clips (2 per fixture).
LP_ Lamped; specify lamp type and color
CSA Listed and labeled to comply with Canadian Standards.
SSR Specular silver interior finish (95% reflective).

NOTES:
1 Must specify voltage.
2 All T5 lamp types use GEB10PS ballast only.

Accessories

Order as separate item
SQ Swivel-stem hanger (specify in 2" increments).
1B Ceiling spacer (adjusts from 1-1/2" to 2-1/2" from ceiling).

LB 3 Low-Profile Wraparound, Wide Body

MOUNTING DATA

For unit or row installation, surface or stem mounting. Stem mounting not available on TLB units.

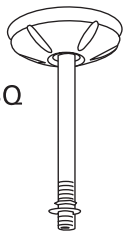
Individual installation — Four single-stem hangers required.

Row installation — Two hangers per fixture plus two per row required.

See ACCESSORIES below for hanging devices.

1B

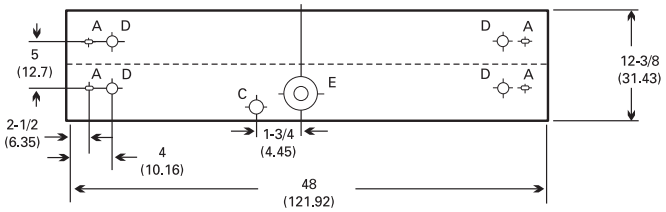
SQ

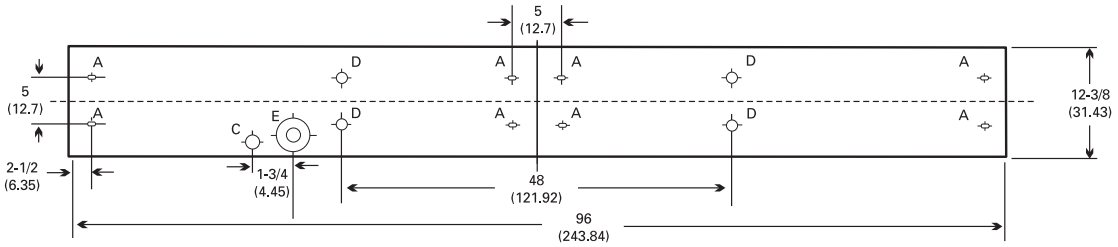


DIMENSIONS

Inches (centimeters). Subject to change without notice.

A = 1/4 x 1/2 (.635 x 1.27) hole
C = 7/8 (2.22) Dia.K.O.
D = 11/16 (1.74) Dia. K.O.
E = 2 (5.08) Dia. K.O. and 7/8 (2.22) Dia. K.O.





PHOTOMETRICS

Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%. Lamp configurations shown are typical. Full photometric data on these and other configurations available upon request.

LB 3 32

Report LTL 5638 – Lumens per lamp = 2900

S/MH (along) 1.2 (across) 1.3

Coefficient of Utilization

Ceiling	80%			70%			50%			0%
Wall	70%	50%	30%	70%	50%	30%	50%	30%	10%	0%
0	87	87	87	84	84	84	79	79	79	67
1	80	77	74	77	74	71	70	67	65	57
2	74	68	63	71	66	62	62	59	56	49
3	68	61	55	65	59	54	56	51	48	43
4	63	54	48	60	53	47	50	45	42	37
5	57	49	42	55	47	41	45	40	36	32
6	53	44	37	51	43	37	41	35	32	28
7	49	39	33	47	38	33	37	32	28	25
8	45	35	29	44	35	29	33	28	24	22
9	42	32	26	40	31	25	30	25	21	19
10	39	29	23	37	28	23	27	22	19	16

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1786	20.5	27.5
0-40	2935	33.7	45.1
0-60	4808	55.3	73.9
0-90	5835	67.1	89.7
90-180	668	7.7	10.3
0-180	6503	74.8	100.0

Energy (Calculated in accordance with NEMA standard LE-5)

LER.FW	ANNUAL ENERGY COST*	LAMP DESCRIPTION	LAMP LUMENS	BALLAST FACTOR	WATTS
65	**$3.69**	(3) 32W T8	2850	.88	87

*Calculated in accordance with NEMA Standard LE-5.

LITHONIA LIGHTING®

An AcuityBrands Company

Sheet #: LB 3 W

Lithonia Lighting
Fluorescent
One Lithonia Way, Conyers, GA 30012-3957
Phone: 800-858-7763 Fax: 770-929-8789
www.lithonia.com

TYPE 'SF2' #EX3B-A-0-T5-1-1-4-120

EDGE EVOLUTION EX3BA

T5, T5HO, & T8 Direct and Indirect Linear with Straight Lamp / Satine Lens

MADE IN USA | PowerDensity | MR16

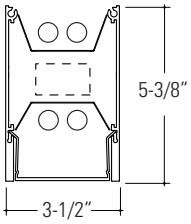
CONSTRUCTION 6063-T5 Extruded aluminum housing. Highly reflective die-formed white painted aluminum reflector, .125" diffuse snap-in acrylic lens with matte finish, removable for lamp replacement.

ELECTRICAL T5, T5HO: Standard programmed start UL listed Class P, T5 electronic, sound rated A, thermally protected, high power factor ballasts less than 10% THD, universal voltage (120-277) with 50/60Hz operation. T8: Standard instant start UL listed Class P, T8 electronic, Sound Rated A, thermally protected, high power factor ballasts less than 10% THD, universal voltage (120-277). Through wiring with quick connects standard. Standard single circuit. Integral battery packs with remote test switch are provided with 1B and 2B options on 2T5/2T5HO fixtures. Each ballast provided with disconnects to meet luminaire disconnect code requirement.

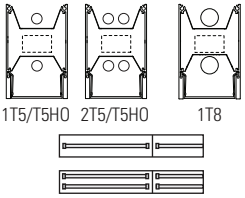
MOUNTING Aircraft cable, wall and surface mount available. Select from 2 aircraft cable options. Select the straight aircraft cable that mounts on 4'-0" and 8'-0" centers or the moveable adjustable Y-cable mount. The Y-Cable design allows for adjustable mounting locations. (See installation instructions for MR16 mounting detail). Aircraft Cable supplied with 5" power and 2" non-power canopies. Refer to installation instructions for appropriate ceiling detail. Canopies are painted white unless otherwise specified.

FINISH Standard powder-coat white painted finish. Consult factory for custom colors.

LABELS UL and cUL Listed, approved for dry/damp location unless otherwise noted.



(1) or (2) Straight Lamps



See Straight Lamp Guide for row configuration, wattage and number of lamps per run.

LUMINAIRE SPECIFICATION

Sample Catalog #: EX3B-A-0-T5-2-1-4-AC48G1-120-1C-W

EX3B- A- 0- ____- __- __- __'- _____- ___- __- __- __-

HOUSING	DIRECT	INDIRECT	LAMP TYPE	LAMPS DOWN	LAMP UP	LENGTH	MOUNTING	VOLTAGE	CIRCUITING	FINISH	OPTIONS

HOUSING
- **EX3B-** Edge EX 3 Bidirectional with Straight Lamps

DIRECT
- **A-** Satine Lens

INDIRECT
- **0-** Open

LAMP TYPE
- **T5-** T5
- **T5HO-** T5HO
- **T8-** T8

LAMPS DOWN
- **1-** 1 Lamp
- **2-** 2 Lamp[1]

LAMP UP
- **1-** 1 Lamp
- **2-** 2 Lamp[1]

LENGTH

Individual Units
- **4-** 4'
- **8-** 8'

Continuous Runs
- **xx'-** Specify nominal overall row length in 4' increments

MOUNTING

Single Aircraft Cable[2]
- **AC48G1-** 1" T-Bar[3]
- **AC48G9-** 9/16" T-Bar[3]
- **AC48GS-** Slotted T-Bar[3]
- **AC48JB-** Junction Box
- **AC48ST-** Structure
- **AC5__G_-** 5" Non-Power Canopy[4]
- **AC5__JB-** 5" Non-Power Canopy[4]
- **SQ48G_-** 5" Square Canopy[4]
- **SQ48JB-** 5" Square Canopy[4]

Moveable Aircraft Cable[5]
- **MAC48G1-** 1" T-Bar[3]
- **MAC48G9-** 9/16" T-Bar[3]
- **MAC48GS-** Slotted T-Bar[3]
- **MAC48JB-** Junction Box
- **MAC48ST-** Structure
- **MAC5__G_-** 5" Non-Power Canopy[4]
- **MAC5__JB-** 5" Non-Power Canopy[4]
- **MSQ48G_-** 5" Square Canopy[4]
- **MSQ48JB-** 5" Square Canopy[4]

Wall
- **WA-** Wall Mount

VOLTAGE
- **120-** 120 V
- **277-** 277 V
- **347-** 347 V
- **UNV-** UNV[6] (120-277)

CIRCUITING
- **1C-** Single Circuit
- **2C-** Dual Circuit[10]
- **1D-** Single Circuit Dimming[7]
- **2D-** Dual Circuit Dimming[7,10]
- **1B-** Single Circuit with Battery Pack[6,7,9]
- **2B-** Dual Circuit with Battery Pack[6,7,9,10]
- **1E-** Single Circuit Emergency[7]
- **2E-** Dual Circuit Emergency[7,10]

FINISH
- **W-** Matte White
- **CC-** Custom Color

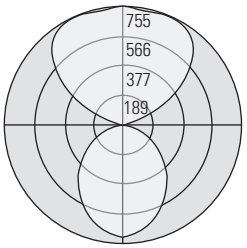
OPTIONS
- **DG-** Dust Guard
- **SR-** Specular Reflector
- **MRF-** Fixed MR16 Halogen[8]
- **LMRF-** Fixed MR16 LED[8]

[1]No T8 available. [2]Standard 48" adjustable aircraft cable. Consult factory for additional lengths. Single Aircraft Cable mounts 4' and 8' on center. Mount locations are not adjustable. [3]Consult factory for tegular edged tiles. [4]Replaces standard 2" canopy. [5]Standard 48" adjustable Y-cable mount provided. Consult factory for additional lengths. Moveable Aircraft Cable mount allows for flexible mounting locations. Maximum mounting locations are 12" from end of 4' fixture and 18" from end of 8' fixture. [6]347V and UNV not available with battery pack and MR16. [7]Some Edge configurations will not accommodate all electrical options. Consult factory. [8]Consult factory for configurations using MR16 units. 120 volt only available. [9]Integral battery packs with remote test switch are provided with 1B and 2B options on 2T5/2T5HO fixtures. [10]Dual circuit = top and bottom lamps are on separate circuits.

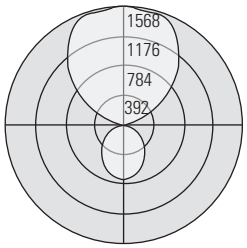
PINNACLE ARCHITECTURAL LIGHTING®

Pinnacle Architectural Lighting 12655 East 42nd Avenue, Suite 50 Denver, CO 80239
Phone 303.322.5570 Fax 303.322.5568 www.pinnacle-ltg.com

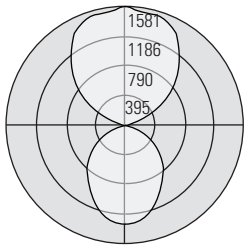
August 2013



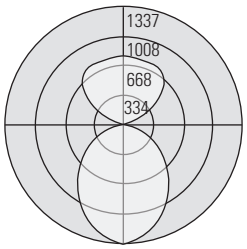
Test #: 205776
Part #: EX3B-A-O-T5-1-1-4'
Total Luminaire Efficiency: 79%



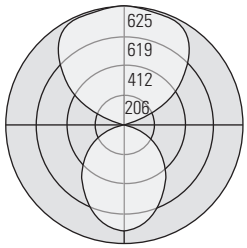
Test #: 205778
Part #: EX3B-A-O-T5-1-2-4'
Total Luminaire Efficiency: 79%



Test #: 205782
Part #: EX3B-A-O-T5-2-2-4'
Total Luminaire Efficiency: 73%

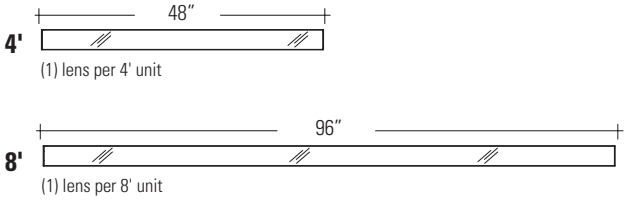


Test #: 205780
Part #: EX3B-A-O-T5-2-1-4'
Total Luminaire Efficiency: 71%



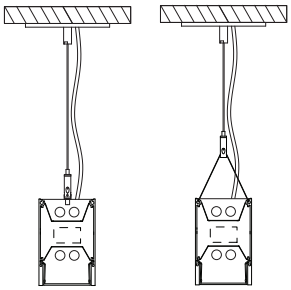
Test #: 205792
Part #: EX3B-A-O-T8-1-1-4'
Total Luminaire Efficiency: 75%

• INDIVIDUAL MODULES[1]



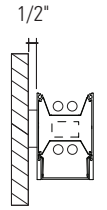
[1]Add 1/4" for each end plate or 1/2" to the overall length of the row.

• MOUNTING OPTIONS



AC - Single Aircraft Cable

MAC - Moveable Aircraft Cable



ADA Compliant

WA - Wall Mount

• MR16 LAMP

APPLICATION: MR16's are ideal for conference rooms, corridors, wall washing, retail spaces and training facilities where accent lighting is required.

TECHNICAL: MR16 fully enclosed compartment eliminates light from entering into other fixture areas. Available in 20, 35 and 50 watt halogen lamps, up to 12 watt LED lamps (lamps not included). Consult factory for other lamp types/ wattages.

ELECTRICAL: Standard 50 watt max halogen lamp transformer (120v or 277v), 60 watt max LED electronic transformer (120v only). MR16 installed as independent circuit. MR16 voltage to match fluorescent voltage.

LABELS: UL and cUL Listed, approved for dry/damp location unless otherwise noted.

ORDERING INFORMATION: MR16's should be specified utilizing MR16 layout guide.

PINNACLE ARCHITECTURAL LIGHTING®

Pinnacle Architectural Lighting 12655 East 42nd Avenue, Suite 50 Denver, CO 80239
Phone 303.322.5570 Fax 303.322.5568 www.pinnacle-ltg.com

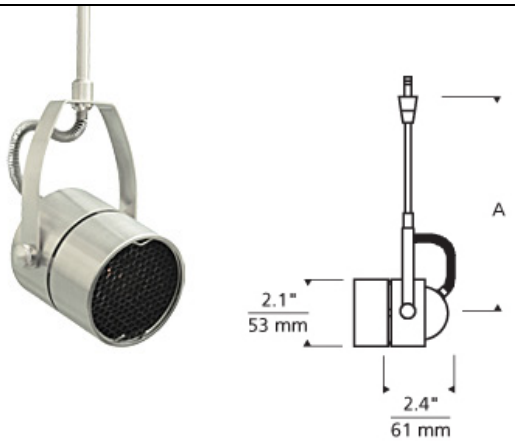
TYPE 'T1' HEAD
#700MO-SPT6-06-S

Spot Head

DESCRIPTION
Classic head rotates 360° around stem, pivots 290°. Can hold one lens or louver (sold separately). Low-voltage, MR16 lamp of up to 50 watts (not included).

INSTALLATION
Socket terminates with FreeJack male connector, which may be installed into a system connector. Elements ordered with a system prefix include a connector for that system.

WEIGHT
0.84lb / 0.38kg ±



ORDERING INFORMATION

700 SYSTEM	**SPT6**	LENGTH	FINISH
FJ	FREEJACK (MONO POINT)	**04** 4.5"	**C** CHROME
MO	MONORAIL	**06** 6"	**S** SATIN NICKEL
MO2	TWO-CIRCUIT MONORAIL	**12** 12"	
WMO	WALL MONORAIL	**18** 18"	

TECH LIGHTING®
7400 Linder Avenue
Skokie, Illinois 60077
T 847.410.4400
F 847.410.4500

www.techlighting.com

700 ____ SPT6 ____ ____

FIXTURE TYPE: _____

JOB NAME: _____

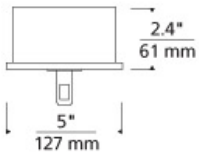
NOTES: _____

_____

_____

TYPE 'T1' POWER FEED
#700MOSRR30E-S

MonoRail Remodel Recessed Transformer-300W Electronic



DESCRIPTION
This single-feed remodel recessed transformer converts standard 120 line-voltage to 12 volts to provide the necessary voltage for powering a MonoRail low-voltage lighting system. It can power lamps totaling up to 300 watts. The transformer installs in similar fashion as a remodel recessed downlight and is concealed inside a housing that recesses above the ceiling. The decorative housing is the only visible portion of the transformer once installed. Should a short occur a fast acting secondary circuit breaker that will safely turn the system off. Once the short has been removed the unit can be reset by simply flipping the wall switch off and back on. Dimmable with a 600 watt low-voltage electronic dimmer.

INSTALLATION
In remodel applications, install the Remodel Recessed Transformer in close proximity to an existing junction box, drill through the finished ceiling in the location where the Remodel Recessed Transformer will be installed, and cover the existing junction box with a thin, field-paintable metal cover (included) as the NEC requires. In new construction, bring power to the Remodel Recessed Transformer directly. Insulation must be kept at least 3" from the transformer and housing (non-IC).

OTHER
White finish has satin nickel feed. The shortest rigid standoff that can be used with this surface transformer is the 2" rigid standoff (sold separately). If dropping the rail more than 2" below the ceiling, order the desired rigid standoff length and one compatible power extender (sold separately). 12 volt transformers require the use of 12 volt lamps.

WEIGHT
2.02lb / 0.92kg ±

ORDERING INFORMATION

700MOSRR30E FINISH

Z ANTIQUE BRONZE
C CHROME
S SATIN NICKEL
W WHITE

TECH LIGHTING®
7400 Linder Avenue
Skokie, Illinois 60077
T 847.410.4400
F 847.410.4500

www.techlighting.com

700MOSRR30E ____

FIXTURE TYPE: _____

JOB NAME: _____

NOTES: _____

_____

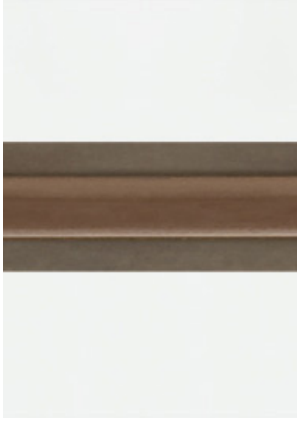
_____

TYPE 'T1' TRACK
#700MOA-96-S

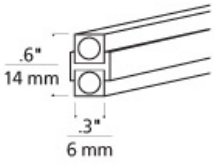
MonoRail

DESCRIPTION
Low-voltage conductor of two individual conductive metal pieces fused together by a plastic separator. Hand-bendable, field-cuttable MonoRail is rated for 300 watts at 12 volts, 600 watts at 24 volts. Each piece of rail is shipped with conductive connectors to join rail pieces end to end. Order additional connectors if cutting and rejoining rails. Standard

WEIGHT
0.27-1.1lb / 0.12-0.5kg ±



brown



COLOR OPTIONS

brown clear

ORDERING INFORMATION

700MOA LENGTH	COLOR	FINISH
24 24"	**BR** BROWN	**Z** ANTIQUE BRONZE
48 48"	CLEAR	**C** CHROME
96 96"		**S** SATIN NICKEL

TECH LIGHTING®
7400 Linder Avenue
Skokie, Illinois 60077
T 847.410.4400
F 847.410.4500
www.techlighting.com

700MOA ____ ____ ____

FIXTURE TYPE: _____

JOB NAME: _____

NOTES: _____

_____

_____

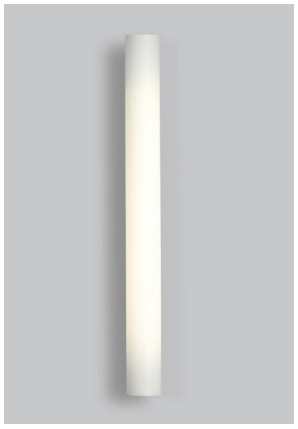
MOONRISE CLASSIC 3530-23

TYPE 'WF1' #3530-23-F.T5.24-120-SC-WH

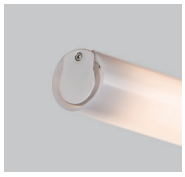
PROJECT PROJET

SPEC TYPE

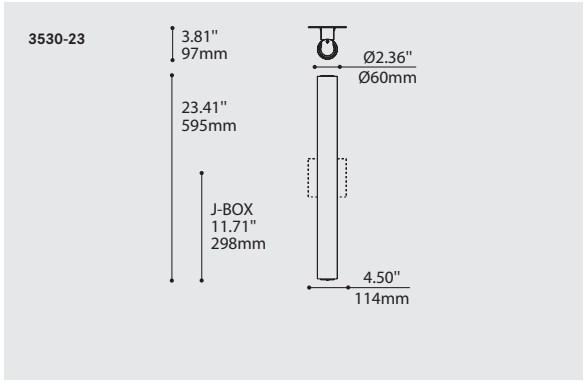
NOTES



END CAP EMBOUT



ROUND / ROND



ORDERING SPECIFICATION SPÉCIFICATION DE COMMANDE		CODE
MODEL MODÈLE		3530-23
3530-23	MOONRISE CLASSIC (ROUND)	
LIGHT SOURCE SOURCE LUMINEUSE		F.T5.24
(WATTAGE, LAMP TYPE, LAMP FORM, BASE TYPE, OTHER INFO)		
F.T5.14	14W, T5	
F.T5.24	24W, T5 HO	
LED.9.30	9W, LED 3000K (WARM) (120V ONLY)	
LED.9.40	9W, LED 4000K (NEUTRAL) (120V ONLY)	
VOLTAGE VOLTAGE		120
120V	120 VOLT	
277V	277 VOLT	
347V	347V	
	* ONLY AVAILABLE WITH T5 (NON-DIMMING BALLAST)	
DIMMING OPTION OPTION DE GRADATION		
AVAILABLE WITH F.T5.14 ONLY		
DM7	ADVANCE MARK 7 ELECTRONIC DIMMING BALLAST	
AVAILABLE WITH F.T5.14 AND F.T5.24 ONLY		
D3D	LUTRON HI-LUME 3D ELECTRONIC DIMMING BALLAST (ECO SYSTEM DIGITAL LI NK WIRING)	
D33	LUTRON HI-LUME 3D ELECTRONIC DIMMING BALLAST (3-WIRE WIRING)	
AVAILABLE WITH ALL LED LIGHT SOURCES		
DXT	ADVANCE XITANIUM ELECTRONIC DIMMING CONTROLER	
EMERGENCY BATTERY BATTERIE D'URGENCE		
AVAILABLE WITH ALL T5 LIGHT SOURCES, 120V OR 277V ONLY		
NOT AVAILABLE WITH A DIMMING BALLAST OR WITH A 3980 ACCESSORY (MINI JUNCTION BOX)		
VERTICAL INSTALLATION ONLY. J-BOX COVER PLATE (8.50" X 4.50") REQUIRED, SUPPLIED WITH THE PRODUCT.		
REM [1]	REMOTE EMERGENCY BATTERY	
	[1] 3981B ACCESSORY IS REQUIRED FOR THIS OPTION	
STRUCTURE FINISH FINI STRUCTURE		SC
CHR	CHROME	
S C	SATIN CHROME	
DIFFUSER FINISH FINI DIFFUSEUR		WH
WH	WHITE	
ACCESSORY ACCESSOIRE		
3980	MINI JUNCTION BOX	
3981B	JUNCTION BOX FOR T5 REMOTE EMERGENCY BATTERY	

PRODUCT CHARACTERISTICS CARACTÉRISTIQUES DU PRODUIT

Design:	Modern classic round profile wall sconce or surface mounted fixture. ADA compliant
Light Source:	LED in 3000k (Warm) or 4000K (Neutral), T5/HO and dimmable light sources available. Dimming and Emergency packs available
Structure:	Machined aluminium end caps & die-stamped steel structure with plated finish
Diffuser:	Hand blown white triplex glass
Certified:	c-UL-us
Conception:	Conforme à la norme ADA. Applique ou plafonnier cylindrique classique et contemporain
Source lumineuse:	DEL disponible en 3000k (blanc chaud) ou 4000K (blanc neutre) et T5/HO; Ballasts à gradation et d'urgence disponibles
Structure:	Embout d'aluminium usiné et acier embouti plaqués
Diffuseur:	Verre triplex blanc soufflé à la main
Certifié:	c-UL-us

ADA BIM DIM IES REM LED

TYPE 'WF2' #EX3B-A-0-T5-1-1-4-WA-120

EDGE EVOLUTION EX3BA

T5, T5HO, & T8 Direct and Indirect Linear with Straight Lamp / Satine Lens

MADE IN USA | PowerDensity | MR16

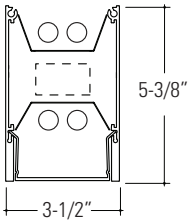
CONSTRUCTION 6063-T5 Extruded aluminum housing. Highly reflective die-formed white painted aluminum reflector, .125" diffuse snap-in acrylic lens with matte finish, removable for lamp replacement.

ELECTRICAL T5, T5HO: Standard programmed start UL listed Class P, T5 electronic, sound rated A, thermally protected, high power factor ballasts less than 10% THD, universal voltage (120-277) with 50/60Hz operation. T8: Standard instant start UL listed Class P, T8 electronic, Sound Rated A, thermally protected, high power factor ballasts less than 10% THD, universal voltage (120-277). Through wiring with quick connects standard. Standard single circuit. Integral battery packs with remote test switch are provided with 1B and 2B options on 2T5/2T5HO fixtures. Each ballast provided with disconnects to meet luminaire disconnect code requirement.

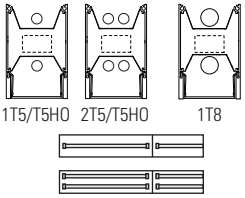
MOUNTING Aircraft cable, wall and surface mount available. Select from 2 aircraft cable options. Select the straight aircraft cable that mounts on 4'-0" and 8'-0" centers or the moveable adjustable Y-cable mount. The Y-Cable design allows for adjustable mounting locations. (See installation instructions for MR16 mounting detail). Aircraft Cable supplied with 5" power and 2" non-power canopies. Refer to installation instructions for appropriate ceiling detail. Canopies are painted white unless otherwise specified.

FINISH Standard powder-coat white painted finish. Consult factory for custom colors.

LABELS UL and cUL Listed, approved for dry/damp location unless otherwise noted.



(1) or (2) Straight Lamps



See Straight Lamp Guide for row configuration, wattage and number of lamps per run.

LUMINAIRE SPECIFICATION

Sample Catalog #: EX3B-A-0-T5-2-1-4-AC48G1-120-1C-W

EX3B- A- 0- ____- __- __- __'- _____- ___- __- __- __-

HOUSING	DIRECT	INDIRECT	LAMP TYPE	LAMPS DOWN	LAMP UP	LENGTH	MOUNTING	VOLTAGE	CIRCUITING	FINISH	OPTIONS

HOUSING
- **EX3B-** Edge EX 3 Bidirectional with Straight Lamps

DIRECT
- **A-** Satine Lens

INDIRECT
- **0-** Open

LAMP TYPE
- **T5-** T5
- **T5HO-** T5HO
- **T8-** T8

LAMPS DOWN
- **1-** 1 Lamp
- **2-** 2 Lamp[1]

LAMP UP
- **1-** 1 Lamp
- **2-** 2 Lamp[1]

LENGTH

Individual Units
- **4-** 4'
- **8-** 8'

Continuous Runs
- **xx'-** Specify nominal overall row length in 4' increments

MOUNTING

Single Aircraft Cable[2]
- **AC48G1-** 1" T-Bar[3]
- **AC48G9-** 9/16" T-Bar[3]
- **AC48GS-** Slotted T-Bar[3]
- **AC48JB-** Junction Box
- **AC48ST-** Structure
- **AC5__G_-** 5" Non-Power Canopy[4]
- **AC5__JB-** 5" Non-Power Canopy[4]
- **SQ48G_-** 5" Square Canopy[4]
- **SQ48JB-** 5" Square Canopy[4]

Moveable Aircraft Cable[5]
- **MAC48G1-** 1" T-Bar[3]
- **MAC48G9-** 9/16" T-Bar[3]
- **MAC48GS-** Slotted T-Bar[3]
- **MAC48JB-** Junction Box
- **MAC48ST-** Structure
- **MAC5__G_-** 5" Non-Power Canopy[4]
- **MAC5__JB-** 5" Non-Power Canopy[4]
- **MSQ48G_-** 5" Square Canopy[4]
- **MSQ48JB-** 5" Square Canopy[4]

Wall
- **WA-** Wall Mount

VOLTAGE
- **120-** 120 V
- **277-** 277 V
- **347-** 347 V
- **UNV-** UNV[6] (120-277)

CIRCUITING
- **1C-** Single Circuit
- **2C-** Dual Circuit[10]
- **1D-** Single Circuit Dimming[7]
- **2D-** Dual Circuit Dimming[7,10]
- **1B-** Single Circuit with Battery Pack[6,7,9]
- **2B-** Dual Circuit with Battery Pack[6,7,9,10]
- **1E-** Single Circuit Emergency[7]
- **2E-** Dual Circuit Emergency[7,10]

FINISH
- **W-** Matte White
- **CC-** Custom Color

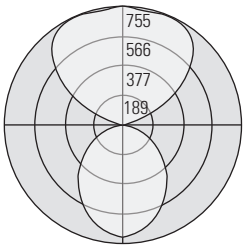
OPTIONS
- **DG-** Dust Guard
- **SR-** Specular Reflector
- **MRF-** Fixed MR16 Halogen[8]
- **LMRF-** Fixed MR16 LED[8]

[1]No T8 available. [2]Standard 48" adjustable aircraft cable. Consult factory for additional lengths. Single Aircraft Cable mounts 4' and 8' on center. Mount locations are not adjustable. [3]Consult factory for tegular edged tiles. [4]Replaces standard 2" canopy. [5]Standard 48" adjustable Y-cable mount provided. Consult factory for additional lengths. Moveable Aircraft Cable mount allows for flexible mounting locations. Maximum mounting locations are 12" from end of 4' fixture and 18" from end of 8' fixture. [6]347V and UNV not available with battery pack and MR16. [7]Some Edge configurations will not accommodate all electrical options. Consult factory. [8]Consult factory for configurations using MR16 units. 120 volt only available. [9]Integral battery packs with remote test switch are provided with 1B and 2B options on 2T5/2T5HO fixtures. [10]Dual circuit = top and bottom lamps are on separate circuits.

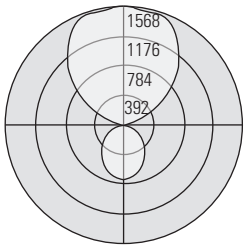
PINNACLE ARCHITECTURAL LIGHTING®

Pinnacle Architectural Lighting 12655 East 42nd Avenue, Suite 50 Denver, CO 80239
Phone 303.322.5570 Fax 303.322.5568 www.pinnacle-ltg.com

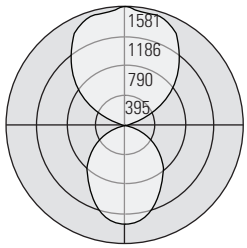
August 2013



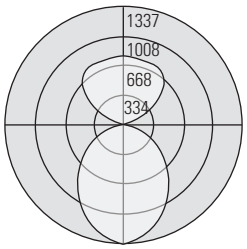
Test #: 205776
Part #: EX3B-A-O-T5-1-1-4'
Total Luminaire Efficiency: 79%



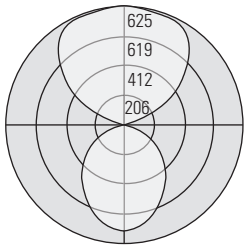
Test #: 205778
Part #: EX3B-A-O-T5-1-2-4'
Total Luminaire Efficiency: 79%



Test #: 205782
Part #: EX3B-A-O-T5-2-2-4'
Total Luminaire Efficiency: 73%

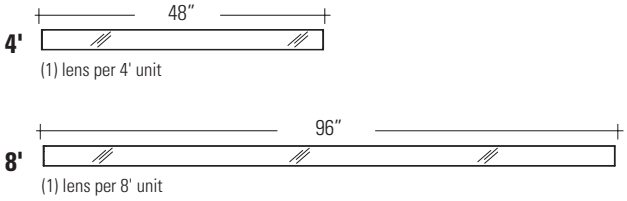


Test #: 205780
Part #: EX3B-A-O-T5-2-1-4'
Total Luminaire Efficiency: 71%



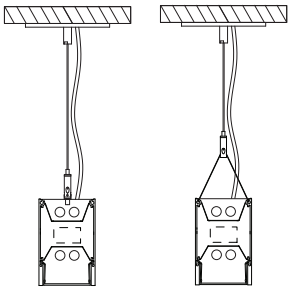
Test #: 205792
Part #: EX3B-A-O-T8-1-1-4'
Total Luminaire Efficiency: 75%

• INDIVIDUAL MODULES[1]



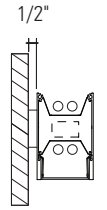
[1]Add 1/4" for each end plate or 1/2" to the overall length of the row.

• MOUNTING OPTIONS



AC - Single Aircraft Cable

MAC - Moveable Aircraft Cable



ADA Compliant

WA - Wall Mount

• MR16 LAMP

APPLICATION: MR16's are ideal for conference rooms, corridors, wall washing, retail spaces and training facilities where accent lighting is required.

TECHNICAL: MR16 fully enclosed compartment eliminates light from entering into other fixture areas. Available in 20, 35 and 50 watt halogen lamps, up to 12 watt LED lamps (lamps not included). Consult factory for other lamp types/ wattages.

ELECTRICAL: Standard 50 watt max halogen lamp transformer (120v or 277v), 60 watt max LED electronic transformer (120v only). MR16 installed as independent circuit. MR16 voltage to match fluorescent voltage.

LABELS: UL and cUL Listed, approved for dry/damp location unless otherwise noted.

ORDERING INFORMATION: MR16's should be specified utilizing MR16 layout guide.

PINNACLE ARCHITECTURAL LIGHTING®

Pinnacle Architectural Lighting 12655 East 42nd Avenue, Suite 50 Denver, CO 80239
Phone 303.322.5570 Fax 303.322.5568 www.pinnacle-ltg.com

LITHONIA LIGHTING®

Catalog Number	LQM-S-W-3-G-120/277-ELN
Notes	
Type	X

FEATURES & SPECIFICATIONS

INTENDED USE — Ideal for applications requiring attractive, quick-installation exit signs and low energy consumption.

CONSTRUCTION — Engineering-grade thermoplastic housing is impact-resistant, scratch-resistant, and corrosion-proof. UL94V-0 flame rating. UV-stable resin resists discoloration from natural and man-made light sources.

Rugged unibody housing snaps together with no additional mechanical fasteners. Faceplate and back cover are interchangeable on housing. Positive snap-fit tabs hold faceplate securely, yet easily removable for lamp compartment access.

Universal directional Chevron inserts are easily removed and reinserted. Uniform illumination without shadows or hot spots. Reinforced, impact-resistant color panels. Letters 6" high with 3/4" stroke, with 100 ft. viewing distance rating, based upon UL924 standards.

U.S. Patent No. 5,526,251; 5,611,163; 5,739,639; 5,954,423; D495,751 and 6,502,044. Other patents pending.

OPTICS — LEDs mounted on printed circuit boards. Low energy consumption – less than one watt. LED lamp operates in normal (AC input) and emergency (DC input) modes.

The typical life of the exit LED lamp is 10 years.

ELECTRICAL — Low-voltage disconnect prevents excessively deep discharge that can permanently damage battery. Conveniently located test switch and LED provide visual and manual means of monitoring system.

Constant-current series charger minimizes energy consumption and provides low operating costs. Printed circuit boards are 100% quality tested during manufacturing. Current-limiting charger circuitry protects printed circuit boards from shorts.

AC/LV reset (line latch) allows battery connection before AC power is applied and aids in preventing battery damage from deep discharge.

Crystal oscillator timing system with watchdog protection for precision accuracy.

Brownout protection is automatically switched to emergency mode when supply voltage drops below 80% of nominal.

Battery: Sealed, maintenance-free nickel-cadmium battery delivers 90-minutes capacity to emergency lamps. Two-state constant-current charge maximizes battery life and automatically recharges after battery discharge.

Diagnostics: Single-point microcomputer control for all electronic features.

Single multi-chromatic LED indicator to display two-state charging, test activation and three-state diagnostic status.

Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection. Self-diagnostic testing for five minutes every 30 days and 30 minutes every six months.

Diagnostic evaluation of LED light source, AC to DC transfer, charging and battery condition. Continuously monitors AC functionality.

INSTALLATION — Universal (top-, end-, or back-) mounting. Easily removed mounting knockouts. J-box pattern on back panel. Housing snaps to canopy with four positive-locking tabs. Cam-locking pin tightly secures housing to canopy.

LISTINGS — UL damp location listed 50°-104°F (10°-40°C) standard. Meets UL924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards. NEMA Premium certified.

WARRANTY — Five-year limited warranty, including the LED lamps.

Note: Specifications subject to change without notice.

Actual performance may differ as a result of end-user environment and application.

QUANTUM®

Thermoplastic Exits

LQM EL N

LED LAMPS
Emergency Operation
Nickel-Cadmium Battery

LED

NEMA Premium

Specifications

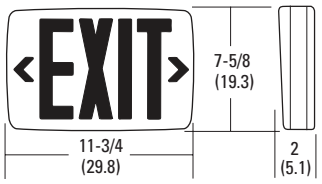
Length: 11-3/4 (29.8)

Depth: 2 (5.1)

Height: 7-5/8 (19.3)

Weight: 2.6 lbs (1.2 kgs)

All dimensions are inches (centimeters) unless otherwise specified.



ORDERING INFORMATION

For shortest lead times, configure product using **standard options (shown in bold).** **Example**: LQM S W 3 R 120/277 EL N

LQM	S	W	3	G	120/277	EL N	
Family	**Face type**	**Housing color**	**Number of faces**	**Letter color**	**Input voltage[2]**	**Emergency operation**	**Options**
LQM	**S** Stencil P Panel[1]	**(blank)** Black **W** White	**3** Single face with extra faceplate and color panel	**R** Red **G** Green	**120/277** Dual voltage	**EL N** Nickel cadmium battery	**(blank)** None NOM NOM certified for Mexico[3] SD Self-diagnostics SDFIFA Self-diagnostics, fire alarm flashing interface and flashing emergency operation and intermittent audible alarm (one flash/one second)

Accessories: Order as separate item.

ELA WG1	Back-mount wireguard[4]
ELA WGEXT	Top-mount wireguard[4]
ELA WGEXE	End-mount wireguard[4]
ELA LQMUS12	12" stem kit[5]

Notes

1 Only available in custom signage. See spec sheet, Custom-Signage.

2 Some special voltages available. Consult factory.

3 Available with stencil or panel faces in white housing, red letters only.

4 See spec sheet ELA-WG.

5 See spec sheet ELA-Stemkits.

SPECIFICATIONS

ELECTRICAL

Primary Circuit

Type[1]	Typical LED life[2]	Supply voltage	Input watts	Max. amps
Red LED	10 years	120	.71	.05
		277	.92	.06
Green LED	10 years	120	.66	.05
		277	.70	.06

BATTERY

Nickel Cadmium

Voltage	Shelf life[3]	Typical life[3]	Maintenance[4]	Optimum temperature[5]
1.2	3 years	7-9 years	none	10°C - 40°C

Notes

1 LED lamps operate in normal (AC input) and emergency (DC input) modes.

2 Based on continuous operation. The typical life of the exit LED lamp is 10 years.

3 At 77°F (25°C).

4 All life safety equipment, including emergency lighting for path of egress must be maintained, serviced and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.

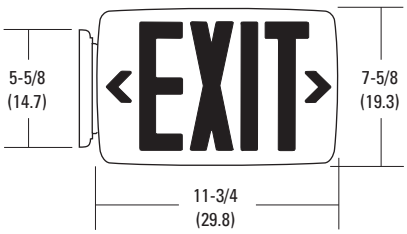
5 Optimum ambient temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity. Consult factory for detailed information.

MOUNTING

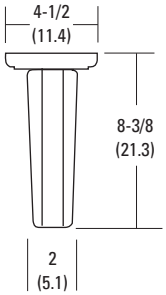
All dimensions are inches (centimeters) unless otherwise specified.

Shipping weight: 2.6 lbs. (1.2 kgs.)

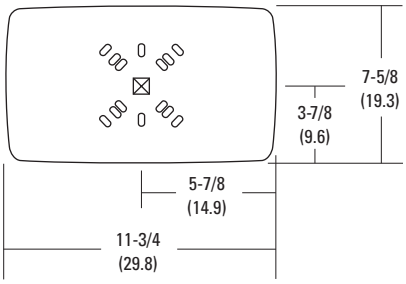
End Mounting



Top Mounting



Back Mounting



EMERGENCY: One Lithonia Way Conyers, GA 30012 Phone: 800.334.8694 Fax: 770.981.8141 www.lithonia.com

LITHONIA LIGHTING

Catalog Number	LHQM-LED-G
Notes	W
Type	XE

FEATURES & SPECIFICATIONS

INTENDED USE — Suitable for applications requiring both exit sign and unit equipment. Attractive, 8" tall, streamlined design is great for above-the-door applications and other tight fits. Optional high-output version with remote lamps are ideal for emergency egress lighting. **Certain airborne contaminants can diminish integrity of acrylic.** **Click here for Acrylic Environmental Compatibility table, for suitable uses.**

CONSTRUCTION — Engineering-grade thermoplastic housing is impact-resistant, scratch-resistant and corrosion-proof. UL94V-O flame rating. UV-stable resin resists discoloration from natural and man-made light sources.

Rugged unibody housing snaps together with no additional fasteners. Faceplate and back cover are interchangeable on housing. Positive snap-fit tabs hold faceplate securely, yet are easily removable for lamp compartment access. Universal, directional chevron inserts are easily removed and reinserted.

Uniform graphics illumination without shadows or hot spots. Letters are 6" high with 3/4" stroke, with 100 ft. viewing distance rating, based upon UL924 standard.

LEDs mounted on primary circuit boards for sign illumination. The typical life of the exit LED lamp is 10 years. Low-energy LED lamp in sign operates in normal (AC input) and emergency (DC input) modes.

Twin LED lamp heads operate in emergency (DC input) mode with 12 series-parallel white LEDs in each head. Provides redundant light sources to ensure emergency lighting performance.

Dual-voltage input capability (120/277V). Edge connector on printed circuit board ensures long-term durability.

Low-profile, integrated test switch/pilot light. Easily viewed bright red status indicator.

Unique track-and-swivel arrangement permits full range of direction of lamp head adjustment. Universal J-box mounting pattern. Tool-less access for maintenance. Conduit entry position on top of unit.

U.S. Patent No. 6,848,798; 6,499,866; 6,142,648; 5,797,673; D379,373; 5,526,251; D484,272; D473,672; 5,611,163; 5,646,502.

ELECTRICAL — Current-limiting charger maximizes battery life and minimizes energy consumption. Provides low operating costs.

Short-circuit protection — current-limiting charger circuitry protects printed circuit board from shorts.

Thermal compensation adjusts charger output to provide optimum charge voltage relative to ambient temperature.

Regulated charge voltage maintains constant-charge voltage over a wide range of line voltages. Prevents over/undercharging that shortens battery life and reduces capacity.

Filtered charger input minimizes charge voltage ripple and extends battery life.

AC/LVD reset allows battery connection before AC power is applied and prevents battery damage from deep discharge.

Single multi-color LED indicator to display two-state charging, test activation and three-state diagnostic test. Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection. Self-diagnostic testing for 30 seconds every 30 days, and for 30 minutes every 180 days, and for 90 minutes annually. Diagnostic evaluation of LED light source, AC-to-DC transfer, charging and battery condition.

Battery: Sealed, maintenance-free nickel-cadmium battery delivers 90-minute capacity to emergency lamps. Two-state constant-current charge maximizes battery life and automatically recharges after battery discharge.

QUANTUM®

Thermoplastic Exits

LHQM LED

LED LAMP HEAD
Nickel-Cadmium Battery

LED

Low-voltage disconnect prevents excessively deep discharge that can permanently damage the battery. Optional high-output battery to power both local and optional LED remote lamp heads simultaneously.

INSTALLATION — Quick-mount installation - less than 5 minutes. Top, end or back mounting. Housing snaps to canopy with positive-locking tabs. Cam locking pin secures housing to canopy.

Easily removed mounting knockouts. Conduit entry knockout for 1/2" flexible conduit. J-box pattern on back panel.

LISTINGS — UL damp location listed standard 50-104°F (10-40°C). Meets UL 924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Actual performance may differ as a result of end-user environment and application.

Note: Specifications subject to change without notice.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: LHQM LED G

LHQM	LED		G	HO
Family	**Lamp type**	**Housing color**	**Letter color**	**Options**
LHQM Stencil face, single face plate with extra face plate	LED Two 1.5W/9.6V white LED	(blank) White B Black	R Red G Green	HO High-output Ni-cad battery HO R0 High-output option, less lamp heads[1] SD Self-diagnostics NOM Meets Mexican standards[2] SALIDA NOM Salida signage (non-UL)[3]

Accessories: *Order as separate catalog number.*

ELA Q L0309	Single LED indoor remote head, white[4,5,7]	ELA LQMUS12	12" brushed aluminum stem kit[8]
ELA T Q L0309	Twin LED indoor remote head, white[4,5,7]	ELA LED M12	Single LED remote lamp [9,10]
ELA QWP L0309	Single LED weather-proof remote head, gray[4,5,7]	ELA LED T M12	Double LED remote lamp[9,10]
ELA T QWP L0309	Twin LED weather-proof remote head, gray[4,5,7]	ELA LED WP M12	Single LED Weather proof remote lamp [9,10]
ELA WG3	Wireguard, 30"W x 13-1/2"H x 6"D[6]	ELA LED T WP M12	Double LED Weather proof remote lamp [9,10]
ELA WG2M	Wireguard, 21-1/4"W x 15"H x 12"D[6]		

Notes
1 Only available with HO option.
2 Available in black or white. Consult factory for options.
3 Only available in white. NOM standard.
4 Only compatible with Quantum LED series. For use with self-diagnostic fixture, add SD to end of catalog number. Example: ELA Q L0309 SD.
5 Also available in black. Add "B" after ELA to order black finish. Example: ELA B Q L0309.
6 See spec sheet ELA-WG.
7 See spec sheet ELA-Q-LED.
8 See spec sheet ELA-Stemkits.
9 See spec sheet ELA LED (Contractor Select LED Remotes).
10 Not available with SD.

LHQM LED QUANTUM® Exit/Unit Combo

SPECIFICATIONS

ELECTRICAL

Primary Circuit

	Typical LED life[1]	Supply voltage	Max. amps	Max. watts
	10	120	.04	4.3
Red & Green LED	years	277	.02	5.2

BATTERY

	Voltage	Shelf life[2]	Typical life[2]	Maintenance[3]	Optimum temperature[4]
Ni-cad (N)	9.6	3 years	7-9 years	none	50-104°F (10-40°C)

Notes

1 Based on continuous operation. The typical life of the exit LED lamp is 10 years.

2 At 77°F (25°C).

3 All life safety equipment, including emergency lighting path of egress, must be maintained, serviced and tested in accordance with all National Fire Protection Association and local codes. Failure to perform the required maintenance, service or testing could jeopardize the safety of occupants and will void all warranties.

4 Optimum ambient temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity. Consult factory for detailed information.

REMOTE OUTPUT CAPACITY

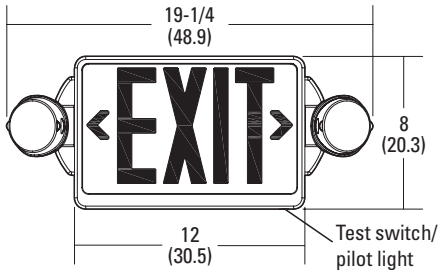
Standard combo	Combo	Combo\ high-output battery (HO)	Combo \ high-output (HO) & no heads (RO)
NA	NA	6W	12W

MOUNTING

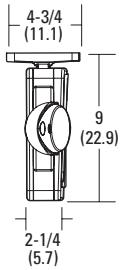
All dimensions are inches (centimeters).

Shipping weight: 3.6 lbs. (1.6 kgs.).

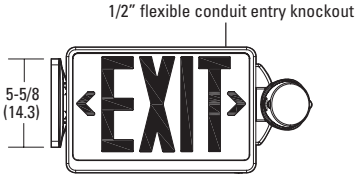
Face



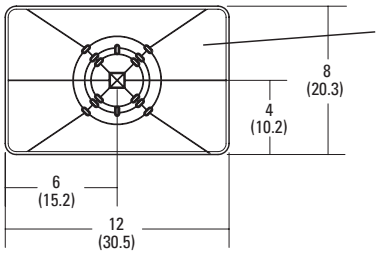
Top



End

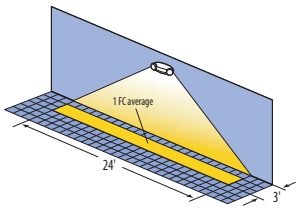


Backplate

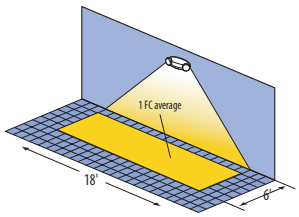


LAMP PHOTOMETRICS

QUANTUM LED SERIES – SINGLE COVERAGE
3W Total White LEDs
Using a single unit at a typical 7.5' mounting height delivers an average illuminance of 1.0 FC over a distance of 24' on a 3' path of egress and 18' on a 6' path of egress.

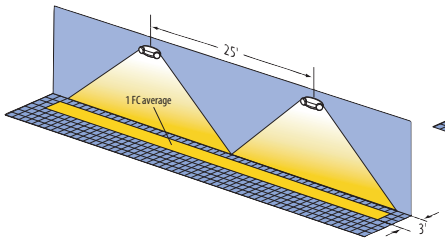


Example of single LHQM LED exit illuminating a 3' path of egress

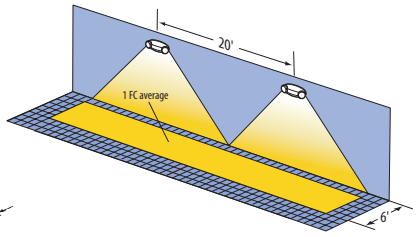


Example of single LHQM LED exit illuminating a 6' path of egress

QUANTUM LED SERIES – MULTIPLE COVERAGE
3W Total White LEDs
Using multiple units at a typical 7.5' mounting height delivers 25' center-to-center spacing on a 3' path of egress and 20' center-to-center spacing on a 6' path of egress.



Example of multiple LHQM LED exits illuminating a 3' path of egress



Example of multiple LHQM LED exits illuminating a 6' path of egress

EXTENDED RUN-TIME FOR HIGH-OUTPUT EXITS

Product	Run time
LHQM LED HO (no remotes)	3.8 hours
LHQM LED HO RO (no remotes)	7.5 hours

LITHONIA LIGHTING®
An AcuityBrands Company

EMERGENCY: One Lithonia Way Conyers, GA 30012 Phone: 800-334-8694 Fax: 770-981-8141 www.lithonia.com

LITHONIA LIGHTING

Catalog Number	LHQM-LED-G-HO
Notes	W
Type	XER

QUANTUM®

Thermoplastic Exits

LHQM LED

LED LAMP HEAD
Nickel-Cadmium Battery

FEATURES & SPECIFICATIONS

INTENDED USE — Suitable for applications requiring both exit sign and unit equipment. Attractive, 8" tall, streamlined design is great for above-the-door applications and other tight fits. Optional high-output version with remote lamps are ideal for emergency egress lighting. **Certain airborne contaminants can diminish integrity of acrylic. Click here for Acrylic Environmental Compatibility table, for suitable uses.**

CONSTRUCTION — Engineering-grade thermoplastic housing is impact-resistant, scratch-resistant and corrosion-proof. UL94V-0 flame rating. UV-stable resin resists discoloration from natural and man-made light sources.

Rugged unibody housing snaps together with no additional fasteners. Faceplate and back cover are interchangeable on housing. Positive snap-fit tabs hold faceplate securely, yet are easily removable for lamp compartment access. Universal, directional chevron inserts are easily removed and reinserted.

Uniform graphics illumination without shadows or hot spots. Letters are 6" high with 3/4" stroke, with 100 ft. viewing distance rating, based upon UL924 standard.

LEDs mounted on primary circuit boards for sign illumination. The typical life of the exit LED lamp is 10 years. Low-energy LED lamp in sign operates in normal (AC input) and emergency (DC input) modes.

Twin LED lamp heads operate in emergency (DC input) mode with 12 series-parallel white LEDs in each head. Provides redundant light sources to ensure emergency lighting performance.

Dual-voltage input capability (120/277V). Edge connector on printed circuit board ensures long-term durability.

Low-profile, integrated test switch/pilot light. Easily viewed bright red status indicator.

Unique track-and-swivel arrangement permits full range of direction of lamp head adjustment. Universal J-box mounting pattern. Tool-less access for maintenance. Conduit entry position on top of unit.

U.S. Patent No. 6,848,798; 6,499,866; 6,142,648; 5,797,673; D379,373; 5,526,251; D484,272; D473,672; 5,611,163; 5,646,502.

ELECTRICAL — Current-limiting charger maximizes battery life and minimizes energy consumption. Provides low operating costs.

Short-circuit protection — current-limiting charger circuitry protects printed circuit board from shorts.

Thermal compensation adjusts charger output to provide optimum charge voltage relative to ambient temperature.

Regulated charge voltage maintains constant-charge voltage over a wide range of line voltages. Prevents over/undercharging that shortens battery life and reduces capacity.

Filtered charger input minimizes charge voltage ripple and extends battery life.

AC/LVD reset allows battery connection before AC power is applied and prevents battery damage from deep discharge.

Single multi-color LED indicator to display two-state charging, test activation and three-state diagnostic test. Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection. Self-diagnostic testing for 30 seconds every 30 days, and for 30 minutes every 180 days, and for 90 minutes annually. Diagnostic evaluation of LED light source, AC-to-DC transfer, charging and battery condition.

Battery: Sealed, maintenance-free nickel-cadmium battery delivers 90-minute capacity to emergency lamps. Two-state constant-current charge maximizes battery life and automatically recharges after battery discharge. Low-voltage disconnect prevents excessively deep discharge that can permanently damage the battery. Optional high-output battery to power both local and optional LED remote lamp heads simultaneously.

INSTALLATION — Quick-mount installation - less than 5 minutes. Top, end or back mounting. Housing snaps to canopy with positive-locking tabs. Cam locking pin secures housing to canopy.

Easily removed mounting knockouts. Conduit entry knockout for 1/2" flexible conduit. J-box pattern on back panel.

LISTINGS — UL damp location listed standard 50-104°F (10-40°C). Meets UL 924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Actual performance may differ as a result of end-user environment and application.

Note: Specifications subject to change without notice.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: LHQM LED G

LHQM	LED		G	HO
Family	**Lamp type**	**Housing color**	**Letter color**	**Options**
LHQM Stencil face, single face plate with extra face plate	LED Two 1.5W/9.6V white LED	(blank) White B Black	R Red G Green	HO High-output Ni-cad battery HO R0 High-output option, less lamp heads[1] SD Self-diagnostics NOM Meets Mexican standards[2] SALIDA NOM Salida signage (non-UL)[3]

Accessories: *Order as separate catalog number.*

ELA Q L0309	Single LED indoor remote head, white[4,5,7]	ELA LQMUS12	12" brushed aluminum stem kit[8]
ELA T Q L0309	Twin LED indoor remote head, white[4,5,7]	ELA LED M12	Single LED remote lamp [9,10]
ELA QWP L0309	Single LED weather-proof remote head, gray[4,5,7]	ELA LED T M12	Double LED remote lamp[9,10]
ELA T QWP L0309	Twin LED weather-proof remote head, gray[4,5,7]	ELA LED WP M12	Single LED Weather proof remote lamp [9,10]
ELA WG3	Wireguard, 30"W x 13-1/2"H x 6"D[6]	ELA LED T WP M12	Double LED Weather proof remote lamp [9,10]
ELA WG2M	Wireguard, 21-1/4"W x 15"H x 12"D[6]		

Notes
1. Only available with HO option.
2. Available in black or white. Consult factory for options.
3. Only available in white. NOM standard.
4. Only compatible with Quantum LED series. For use with self-diagnostic fixture, add SD to end of catalog number. Example: ELA Q L0309 SD.
5. Also available in black. Add "B" after ELA to order black finish. Example: ELA B Q L0309.
6. See spec sheet ELA-WG.
7. See spec sheet ELA-Q-LED.
8. See spec sheet ELA-Stemkits.
9. See spec sheet ELA LED (Contractor Select LED Remotes).
10. Not available with SD.

LHQM LED QUANTUM® Exit/Unit Combo

SPECIFICATIONS

ELECTRICAL

Primary Circuit

	Typical LED life[1]	Supply voltage	Max. amps	Max. watts
	10	120	.04	4.3
Red & Green LED	years	277	.02	5.2

BATTERY

	Voltage	Shelf life[2]	Typical life[2]	Maintenance[3]	Optimum temperature[4]
Ni-cad (N)	9.6	3 years	7-9 years	none	50-104°F (10-40°C)

Notes

1 Based on continuous operation. The typical life of the exit LED lamp is 10 years.

2 At 77°F (25°C).

3 All life safety equipment, including emergency lighting path of egress, must be maintained, serviced and tested in accordance with all National Fire Protection Association and local codes. Failure to perform the required maintenance, service or testing could jeopardize the safety of occupants and will void all warranties.

4 Optimum ambient temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity. Consult factory for detailed information.

REMOTE OUTPUT CAPACITY

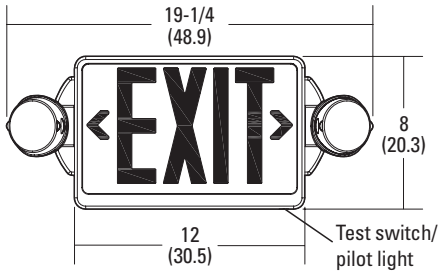
Standard combo	Combo	Combo\ high-output battery (HO)	Combo \ high-output (HO) & no heads (RO)
NA	NA	6W	12W

MOUNTING

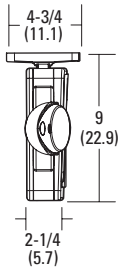
All dimensions are inches (centimeters).

Shipping weight: 3.6 lbs. (1.6 kgs.).

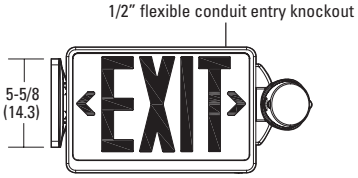
Face



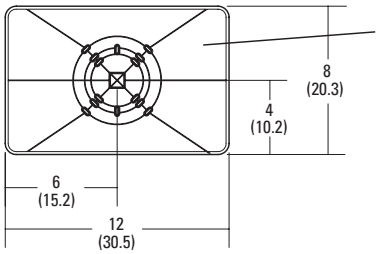
Top



End

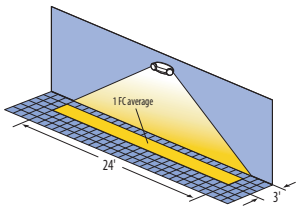


Backplate

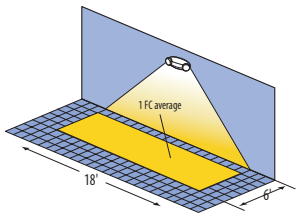


LAMP PHOTOMETRICS

QUANTUM LED SERIES – SINGLE COVERAGE
3W Total White LEDs
Using a single unit at a typical 7.5' mounting height delivers an average illuminance of 1.0 FC over a distance of 24' on a 3' path of egress and 18' on a 6' path of egress.

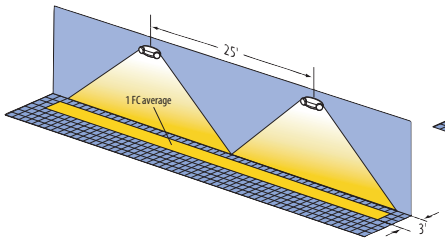


Example of single LHQM LED exit illuminating a 3' path of egress

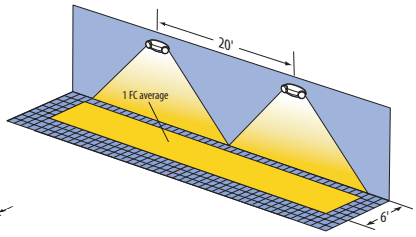


Example of single LHQM LED exit illuminating a 6' path of egress

QUANTUM LED SERIES – MULTIPLE COVERAGE
3W Total White LEDs
Using multiple units at a typical 7.5' mounting height delivers 25' center-to-center spacing on a 3' path of egress and 20' center-to-center spacing on a 6' path of egress.



Example of multiple LHQM LED exits illuminating a 3' path of egress



Example of multiple LHQM LED exits illuminating a 6' path of egress

EXTENDED RUN-TIME FOR HIGH-OUTPUT EXITS

Product	Run time
LHQM LED HO (no remotes)	3.8 hours
LHQM LED HO RO (no remotes)	7.5 hours

LITHONIA LIGHTING®
An AcuityBrands Company

EMERGENCY: One Lithonia Way Conyers, GA 30012 Phone: 800-334-8694 Fax: 770-981-8141 www.lithonia.com

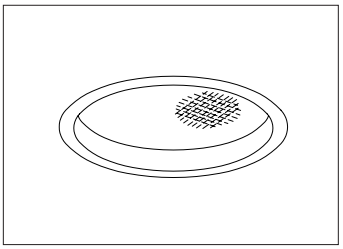
KIRLIN
Lighting Since 1895

CATALOG # *LRR-06018-41K*		TYPE *ZDL6*
JOB NAME	WATTAGE *20*	VOLTAGE *120*

6" LED 1250 LUMENS 20 SYSTEM WATTS **LRR-06018**

LED • Lensed Downlight • Specular Trim

Up to 90,000 Hour Life • Type IC • Air Tight Optional
LM-80 Qualified • LM-79 Certified Photometry • Wet Location



Specifications

LED Light Engine*
- 1250* lumens, 63 LPW (total system).
- 20 watt LED array. 3500°K standard (or see Options -30K or -41K).
- Up to 83 CRI and 90,000 hour life (L70**). For 90+ CRI, see Option -HC.
- Fully sustainable: removable for servicing.

Thermal Management System
- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

LED Power Supply
- **0-10V CCR dimming standard. (10-100%)**
- 120-277V / 50-60Hz standard. Load insensitive.
- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).
- For Lutron HiLume dimming, see -39.
- Kirlin remote SmartSupply™ driver instead, see Option -SS.

Trim and Optical Assembly
- Seamless tapered low brightness clear aluminum self-flanged trim.
- Regressed tempered prismatic C#73 spread lens. Standard MFL distribution (0.7 SC).
- See Options for -NFL (0.5 SC) with tempered microprismatic glass lens.

Acrylic Enameled Aluminum Housing
- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.
- Air Tight design available, see Option -AT.

Outlet Box
- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

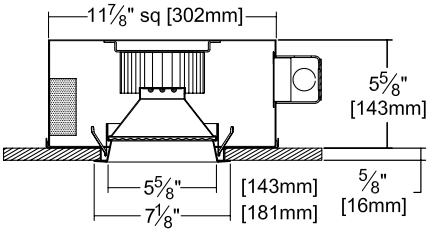
Installation
- Recess indoor or outdoor.
- Accommodates ceilings up to 1¼" thick or see Option -79.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.
- For residential mounting hardware for wood joist ceilings, see Option -RH.

UL, C-UL (Canada) Listings
- Wet, damp or dry locations, covered ceilings.
- Type IC: for direct contact with insulation.
- Through-branch conductors (4 #12 AWG 90°C) for Type IC Listing.

CE & FCC Compliance
- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

FIVE YEAR Limited Warranty
- Complete standard fixture.

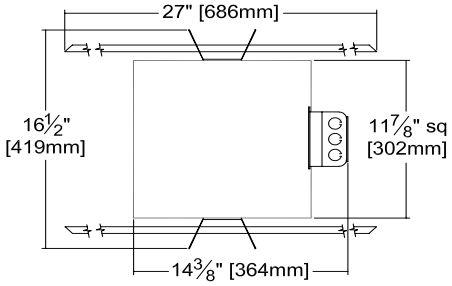
Performance at a Glance



Ceiling Cut-out
6¾" Dia.

Projected L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

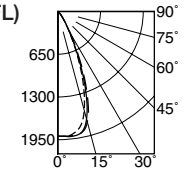
**Hours at 70% lumen maintenance



Exceptional Energy Efficiency

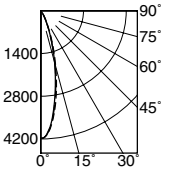
STANDARD (MFL) DISTRIBUTION

Lumens: 1166
Beam: ~43°
SC: 0.7
Effic: 93.8%
ITL Test: 72733



Option -NFL

Lumens: 1176
Beam: ~28°
SC: 0.5
Effic: 94.6%
ITL Test: 72732



Air Tight Optional

THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-9409 OR (313) 259-3121 • www.kirlinlighting.com

*See note next page

	MAX. LUMENS	MAX. SYSTEM WATTS	CATALOG NUMBER
LED LIGHTING	1250	20	**LRR-06018**

LED LIGHTING
REV SEPT 2013

LRR-06018 6" LED 1250 LUMENS 20 SYSTEM WATTS

KIRLIN Since 1895

Detailed Photometry - Installed Fixture

Photometry from I.T.L., Boulder, CO

Photometric testing done in accordance with IESNA LM-79-08

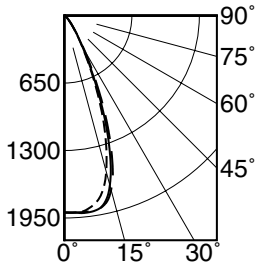
STANDARD (MFL)

Lumens: 1166
Beam: ~43°
SC: 0.7
Effic: 93.8%
ITL Test: 72733

EEE

Cone of Light▲

Dist.	FC	Dia.
6	52.7	4.5
8	29.6	6.0
10	19.0	7.5
12	13.2	9.1
14	9.7	10.6
16	7.4	12.1



CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	1897	1897	1897	1897	1897
5	1897	1897	1897	1897	1897
15	1556	1556	1556	1556	1556
25	650	650	650	650	650
35	176	176	176	176	176
45	53	53	53	53	53
55	20	20	20	20	20
65	9	9	9	9	9
75	2	2	2	2	2
85	0	0	0	0	0
90	0	0	0	0	0

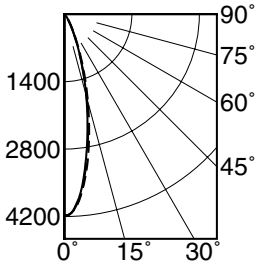
Option -NFL

Lumens: 1176
Beam: ~28°
SC: 0.5
Effic: 94.6%
ITL Test: 72732

EEE

Cone of Light▲

Dist.	FC	Dia.
6	116.1	2.7
8	65.3	3.6
10	41.8	4.5
12	29.0	5.4
14	21.3	6.3
16	16.3	7.2



CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	4180	4180	4180	4180	4180
5	3809	3809	3809	3809	3809
15	1883	1883	1883	1883	1883
25	549	549	549	549	549
35	132	132	132	132	132
45	30	30	30	30	30
55	10	10	10	10	10
65	5	5	5	5	5
75	1	1	1	1	1
85	0	0	0	0	0
90	0	0	0	0	0

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 1243 lumen light engines (within the established tolerance).

▲Cone of Light Key
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

Dia. (in ft.) shown is where FC value is half the FC at nadir.

Options

LED Power Supply

-39 Specify "-39(Lutron)" for Hi-Lume 3 wire full range (0-100%) PWM dimming instead.
-97 Specify other voltage. Consult factory.
-EI Remote emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage. Not for use with -SS SmartSupply™ driver.
-SS Remote mounted Kirlin SmartSupply™ driver, sold separately. Drives up to 12 (20W) luminaires. Order LPS-1220A (0-10V analog for 0-100% PWM dimming). Consult factory or see www.kirlinlighting.com for more information.

Color (CCT and CRI)

-30K Color temperature 3000°K instead.
-41K Color temperature 4100°K instead.
-HC 90+ CRI instead. 3000°K only. Consult factory for availability.

Optics

-NFL Narrow flood distribution. (0.5 SC)

Trims

-31 White acrylic enameled trim flange.
-32 White oversize trim ring. Specify O.D.
-45 Gasket between trim flange and ceiling.
-46 Gasket between trim and lens.
-94 Custom color/finish. Specify. Consult factory.
-DF Electrically isolated "dead front" gasketed trim.

Other

-79 Extension collar for up to 2" thick ceilings.
-99 Special modification. Consult factory.
-AT Air tight version. Meets ASTM E283 restricted airflow of 2 CFM maximum. Option -RH required.
-RH Residential mounting hardware instead. Suitable for wood joist ceilings with spacing from 14⅛" to 25⅞" with ⅝" vertical adjustability.

SUBMITTAL DATA

JOB NAME

TYPE ***ZDL6***

WATTAGE ***20*** VOLTAGE ***120***

CATALOG NUMBER ***LRR-06018-41K***

APPROVAL STAMP

D-Series Size 1
LED Wall Luminaire

Catalog Number	DSXW1-LED-10C-350-40K-TFTM-MVOLT
Notes	
Type	ZW1

Hit the Tab key or mouse over the page to see all interactive elements.

d-series

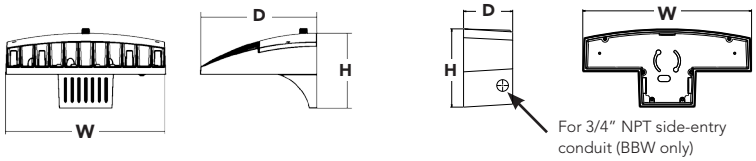
Specifications

Luminaire

Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, ELCW)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**ELCW Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		



Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED	10C 350 40K	TFTM	MVOLT				
Series	**Performance Package**	**Distribution**	**Voltage**	**Mounting**	**Control Options**	**Other Options**	**Finish** *(required)*
DSXW1 LED	**LEDs** 10C 10 LEDs (one engine) 20C 20 LEDs (two engines) **Drive current** 350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) **Color temperature** 30K 3000K 40K 4000K 50K 5000K	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium	MVOLT [1] 120 [1] 208 [1] 240 [1] 277 [1]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [2]	**Shipped installed** PE Photoelectric cell, button type [3] DMG 0-10V dimming driver (no controls) PIR 180° motion/ambient light sensor, <15' mtg ht [4,6] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [5,6] ELCW Emergency battery backup (includes external component enclosure) [7]	**Shipped installed** SF Single fuse (120, 277V) [8] DF Double fuse (208, 240V) [8] HS House-side shield [9] SPD Separate surge protection [10] **Shipped separately** BSW Bird-deterrent spikes [9] WG Wire guard [9] VG Vandal guard [9]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

NOTES

1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
2 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
3 Photocontrol (PE) requires 120, 208, 240 or 277 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
4 Specifies the Sensor Switch SBR-10-ODP control; see Motion Sensor Guide for details. Includes ambient light sensor. Not available with "PE" option (button type photocell). Dimming driver standard.
5 Specifies the Sensor Switch SBR-6-ODP control; see Motion Sensor Guide for details. Includes ambient light sensor. Not available with "PE" option (button type photocell). Dimming driver standard.
6 Not available with 20 LED/1000 mA configuration (DSXW1 LED 20C 1000).
7 Not compatible with conduit entry applications. Not available with BBW mounting option.
8 Single fuse (SF) requires 120 or 277 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
9 Also available as a separate accessory; see Accessories information.
10 See the electrical section on page 2 for more details.

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1WG U	Wire guard accessory
DSXW1VG U	Vandal guard accessory

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	Performance Package	System Watts	Dist. Type	40K (4000K, 70 CRI)					50K (5000K, 65 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	530	10C 530 --K	20 W	T2S	1724	1	0	1	86	1807	1	0	1	90
				T2M	1729	1	0	1	86	1812	1	0	1	91
				T3S	1709	1	0	1	85	1792	1	0	1	90
				T3M	1753	1	0	1	88	1838	1	0	1	92
				T4M	1753	1	0	1	88	1837	1	0	1	92
				TFTM	1766	1	0	1	88	1851	1	0	1	93
	700	10C 700 --K	27 W	T2S	2234	1	0	1	83	2341	1	0	1	87
				T2M	2241	1	0	1	83	2349	1	0	1	87
				T3S	2216	1	0	1	82	2322	1	0	1	86
				T3M	2272	1	0	1	84	2381	1	0	1	88
				T4M	2272	1	0	1	84	2381	1	0	1	88
				TFTM	2289	1	0	1	85	2399	1	0	1	89
	1000	10C 1000 --K	40 W	T2S	2992	1	0	1	75	3136	1	0	1	78
				T2M	3001	1	0	1	75	3146	1	0	1	79
				T3S	2967	1	0	1	74	3110	1	0	1	78
				T3M	3043	1	0	1	76	3189	1	0	1	80
				T4M	3043	1	0	1	76	3189	1	0	1	80
				TFTM	3066	1	0	1	77	3213	1	0	1	80
20C (20 LEDs)	530	20C 530 --K	36 W	T2S	3545	1	0	1	98	3715	1	0	1	103
				T2M	3556	1	0	1	99	3727	1	0	1	104
				T3S	3515	1	0	1	98	3685	1	0	1	102
				T3M	3606	1	0	2	100	3779	1	0	2	105
				T4M	3605	1	0	1	100	3779	1	0	1	105
				TFTM	3632	1	0	1	101	3807	1	0	1	106
	700	20C 700 --K	47 W	T2S	4357	1	0	1	93	4566	1	0	1	97
				T2M	4370	1	0	1	93	4580	1	0	1	97
				T3S	4320	1	0	1	92	4528	1	0	1	96
				T3M	4431	1	0	2	94	4644	1	0	2	99
				T4M	4430	1	0	1	94	4644	1	0	2	99
				TFTM	4464	1	0	1	95	4678	1	0	1	100
	1000	20C 1000 --K	75 W	T2S	5745	2	0	2	77	6020	2	0	2	80
				T2M	5763	1	0	2	77	6039	2	0	2	81
				T3S	5697	1	0	1	76	5970	1	0	2	80
				T3M	5843	1	0	2	78	6123	2	0	2	82
				T4M	5843	1	0	2	78	6123	1	0	2	82
				TFTM	5887	1	0	2	78	6169	1	0	2	82

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

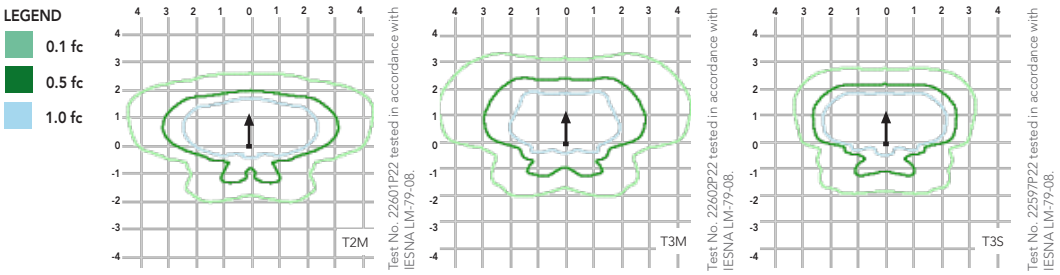
Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	25 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	-	-
	1000	75 W	0.69	0.40	0.35	0.30	-	-

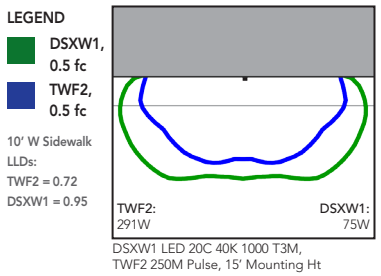
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000K (80 min. CRI), 4000K (70 min. CRI) or 5000K (65 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

WARRANTY

Five year limited warranty. Full warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Specifications subject to change without notice.

LITHONIA LIGHTING

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com

D-Series Size 1
LED Wall Luminaire

Catalog Number	DSXW1-LED-10C-350-40K-T2S-MVOLT
Notes	
Type	ZW2

Hit the Tab key or mouse over the page to see all interactive elements.

d-series

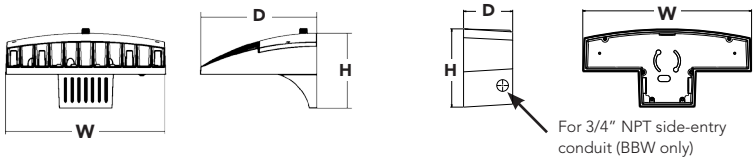
Specifications

Luminaire

Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, ELCW)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**ELCW Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		



Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED	10C 350 40K	T2S	MVOLT				
Series	**Performance Package**	**Distribution**	**Voltage**	**Mounting**	**Control Options**	**Other Options**	**Finish** *(required)*
DSXW1 LED	**LEDs** 10C 10 LEDs (one engine) 20C 20 LEDs (two engines) **Drive current** 350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) **Color temperature** 30K 3000K 40K 4000K 50K 5000K	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium	MVOLT [1] 120 [1] 208 [1] 240 [1] 277 [1]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [2]	**Shipped installed** PE Photoelectric cell, button type [3] DMG 0-10V dimming driver (no controls) PIR 180° motion/ambient light sensor, <15' mtg ht [4,6] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [5,6] ELCW Emergency battery backup (includes external component enclosure) [7]	**Shipped installed** SF Single fuse (120, 277V) [8] DF Double fuse (208, 240V) [8] HS House-side shield [9] SPD Separate surge protection [10] **Shipped separately** BSW Bird-deterrent spikes [9] WG Wire guard [9] VG Vandal guard [9]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

NOTES

1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
2 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
3 Photocontrol (PE) requires 120, 208, 240 or 277 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
4 Specifies the Sensor Switch SBR-10-ODP control; see Motion Sensor Guide for details. Includes ambient light sensor. Not available with "PE" option (button type photocell). Dimming driver standard.
5 Specifies the Sensor Switch SBR-6-ODP control; see Motion Sensor Guide for details. Includes ambient light sensor. Not available with "PE" option (button type photocell). Dimming driver standard.
6 Not available with 20 LED/1000 mA configuration (DSXW1 LED 20C 1000).
7 Not compatible with conduit entry applications. Not available with BBW mounting option.
8 Single fuse (SF) requires 120 or 277 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
9 Also available as a separate accessory; see Accessories information.
10 See the electrical section on page 2 for more details.

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1WG U	Wire guard accessory
DSXW1VG U	Vandal guard accessory

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	Performance Package	System Watts	Dist. Type	40K (4000K, 70 CRI)					50K (5000K, 65 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	530	10C 530 --K	20 W	T2S	1724	1	0	1	86	1807	1	0	1	90
				T2M	1729	1	0	1	86	1812	1	0	1	91
				T3S	1709	1	0	1	85	1792	1	0	1	90
				T3M	1753	1	0	1	88	1838	1	0	1	92
				T4M	1753	1	0	1	88	1837	1	0	1	92
				TFTM	1766	1	0	1	88	1851	1	0	1	93
	700	10C 700 --K	27 W	T2S	2234	1	0	1	83	2341	1	0	1	87
				T2M	2241	1	0	1	83	2349	1	0	1	87
				T3S	2216	1	0	1	82	2322	1	0	1	86
				T3M	2272	1	0	1	84	2381	1	0	1	88
				T4M	2272	1	0	1	84	2381	1	0	1	88
				TFTM	2289	1	0	1	85	2399	1	0	1	89
	1000	10C 1000 --K	40 W	T2S	2992	1	0	1	75	3136	1	0	1	78
				T2M	3001	1	0	1	75	3146	1	0	1	79
				T3S	2967	1	0	1	74	3110	1	0	1	78
				T3M	3043	1	0	1	76	3189	1	0	1	80
				T4M	3043	1	0	1	76	3189	1	0	1	80
				TFTM	3066	1	0	1	77	3213	1	0	1	80
20C (20 LEDs)	530	20C 530 --K	36 W	T2S	3545	1	0	1	98	3715	1	0	1	103
				T2M	3556	1	0	1	99	3727	1	0	1	104
				T3S	3515	1	0	1	98	3685	1	0	1	102
				T3M	3606	1	0	2	100	3779	1	0	2	105
				T4M	3605	1	0	1	100	3779	1	0	1	105
				TFTM	3632	1	0	1	101	3807	1	0	1	106
	700	20C 700 --K	47 W	T2S	4357	1	0	1	93	4566	1	0	1	97
				T2M	4370	1	0	1	93	4580	1	0	1	97
				T3S	4320	1	0	1	92	4528	1	0	1	96
				T3M	4431	1	0	2	94	4644	1	0	2	99
				T4M	4430	1	0	1	94	4644	1	0	2	99
				TFTM	4464	1	0	1	95	4678	1	0	1	100
	1000	20C 1000 --K	75 W	T2S	5745	2	0	2	77	6020	2	0	2	80
				T2M	5763	1	0	2	77	6039	2	0	2	81
				T3S	5697	1	0	1	76	5970	1	0	2	80
				T3M	5843	1	0	2	78	6123	2	0	2	82
				T4M	5843	1	0	2	78	6123	1	0	2	82
				TFTM	5887	1	0	2	78	6169	1	0	2	82

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

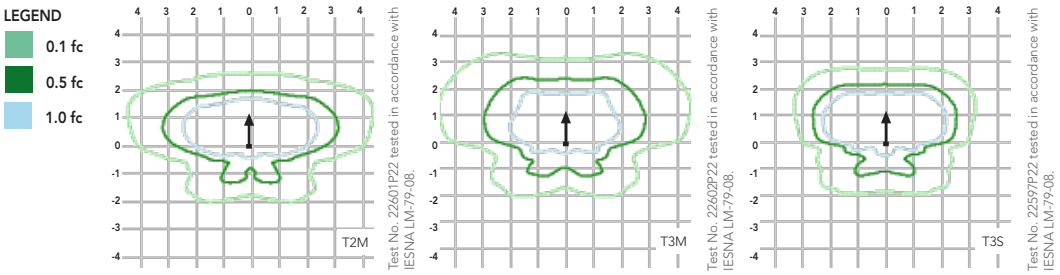
Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	25 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	-	-
	1000	75 W	0.69	0.40	0.35	0.30	-	-

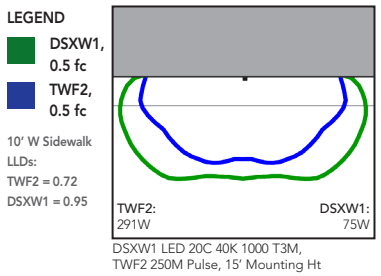
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000K (80 min. CRI), 4000K (70 min. CRI) or 5000K (65 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

WARRANTY

Five year limited warranty. Full warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Specifications subject to change without notice.

LITHONIA LIGHTING

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com

X. Submittals

(Due within two (2) days after bid)

CONTRACTOR'S QUESTIONNAIRE
NOTICE TO CONTRACTORS

Prior to Award, this questionnaire shall be completely filled out for the project upon which a bid is submitted.

A. FINANCIAL

1. Have you ever failed to complete a contract on account of insufficient resources? _____

2. Have you made sufficient arrangements to finance the work? _____

   If so, with whom and for what amount? _____

   _____

   If so, with what company? _____

B. EQUIPMENT

1. Set forth below the equipment which you have available for the work which you propose to do. This equipment should be listed in detail (General statements will not be accepted).

NO.	ITEMS	TYPE	SIZE/CAPACITY	PRESENT VALUE

2. Do you thoroughly understand that in case the contract is awarded to you, you may be required to use any or all of the equipment listed on the work covered by this contract?
   _____

3. Do you propose to purchase any equipment for use on this project should contract be awarded to you? If so, state type, quantity and approximate cost.
   _____

4. Do you propose to rent any equipment for this work? _____
   If so, state type, quantity, and reason for renting. _____
   _____
   _____

5. Have you made contracts or received firm offers for all necessary materials with the prices used in preparing your proposal? _____

6. Do you intend to plan to subcontract any of the work? _____
If so, what types or portions of the work. _____
_____
Approximate value $_____ Percent of total bid _____

C. EXPERIENCE

1. How many years has your organization been in business as a general contractor under your present business name? _____

2. How many years experience in construction work has your organization had:

a) as a General Contractor _____.
b) as a Subcontractor _____.

3. List previous contracts you have completed of a similar nature to this proposed contract:

a) _____
b) _____
c) _____
d) _____
e) _____

4. List projects which you currently have under contract or expect to have under contract during the life of this contract:

a) _____
b) _____
c) _____

Use additional sheets as necessary.

5. List your staff you plan to use on this project and the position they will fill for this project (include managerial and clerical personnel that will provide support services).

STAFF MEMBER POSITION

_____

_____

_____

_____

_____

Signature: _____ Title: _____

JOINT VENTURE

1. Joint Venture Agreement

2. A statement signed by authorized person of each party to the joint venture.

3. Each party to the joint venture shall comply with the requirements for corporations, partnerships or individuals, as applicable.

PARTNERSHIP

1. Partnership Agreement

2. Statement signed by all partners granting authority to the partner signing the Bid.

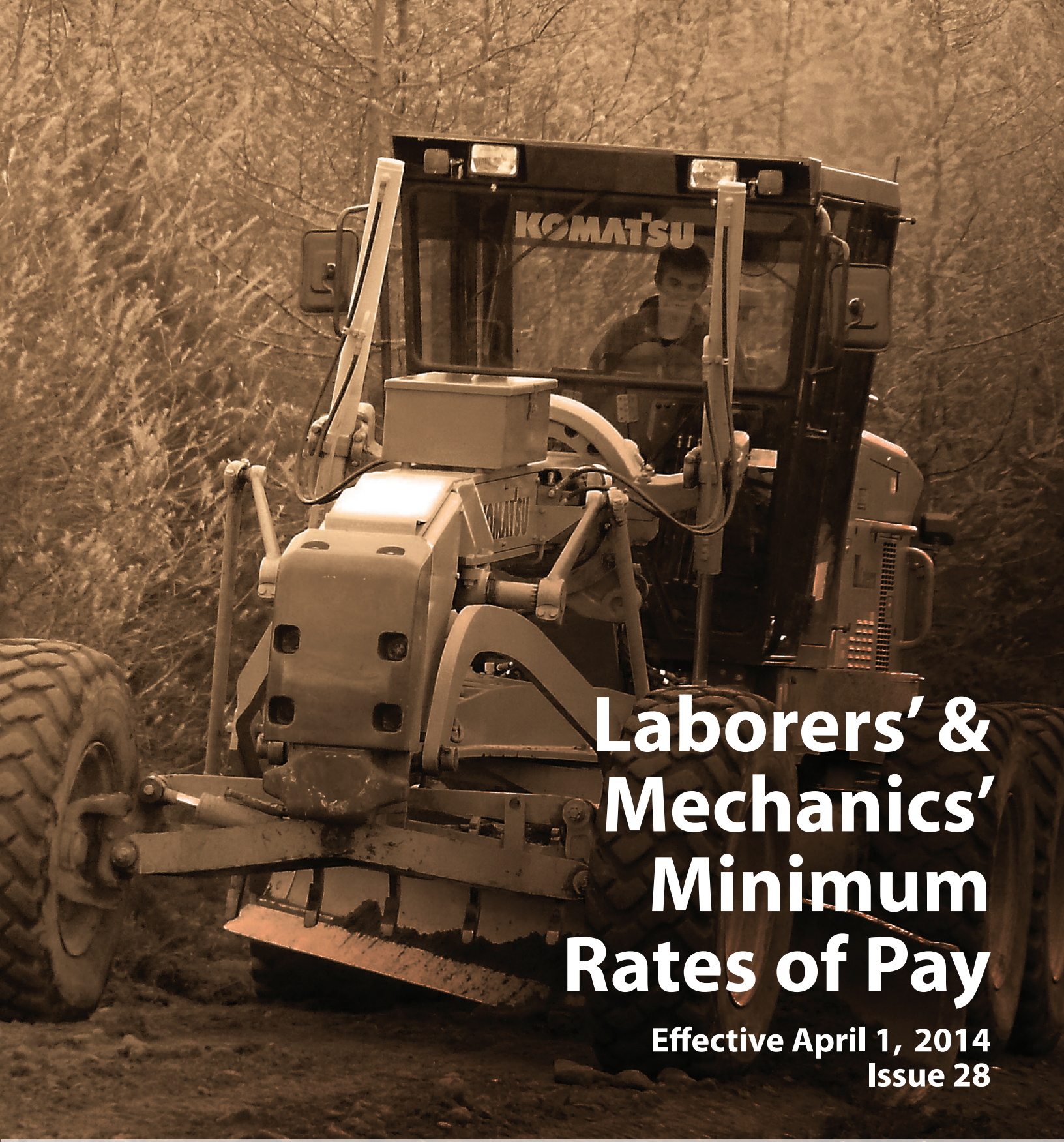
CORPORATIONS

1. Articles of Incorporation – most recent.

2. By-Laws – most recent.

3. Resolution of the Board of Directors granting the authority to the officer signing on behalf of the corporation.

XI. State of Alaska Labor Rates



Laborers' & Mechanics' Minimum Rates of Pay

Effective April 1, 2014
Issue 28

Title 36. Public Contracts
AS 36.05 & AS 36.10
Wage & Hour Administration
Pamphlet No. 600

jobs
ALASKA DEPARTMENT OF LABOR
& WORKFORCE DEVELOPMENT

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Labor and Workforce Development

Office of the Commissioner

Post Office Box 111149
Juneau, Alaska 99811
Main: 907.465.2700
fax: 907.465-2784

April 1, 2014

TO ALL CONTRACTING AGENCIES:

At the Alaska Department of Labor and Workforce Development, our goal is putting Alaskans to work. This pamphlet is designed to help contractors awarded public construction contracts understand the most significant laws of the State of Alaska pertaining to prevailing wage and resident hire requirements.

This pamphlet identifies current prevailing wage rates and resident hire classifications for public construction contracts (any construction projects awarded by the State of Alaska or its political subdivisions, such as local governments and certain non-profit organizations).

Because these rates may change, this publication is printed in the spring and fall of every year, so please be sure you are using the appropriate rates. The rates published in this edition become effective April 1, 2014.

All projects with a final bid date of April 11, 2014, or later, must pay the prevailing wage rates contained in this pamphlet. As the law now provides, these rates will remain stable during the life of a contract or for 24 calendar months, whichever is shorter. **The date the prime contract is awarded is the date from which the 24 months will be counted.** Upon expiration of the initial 24-month period, the latest wage rates issued by the department shall become effective for a subsequent 24-month period or until the original contract is completed, whichever occurs first. This process shall be repeated until the original contract is completed.

The term "original contract", as used herein, means the signed contract that resulted from the original bid and any amendments, including changes of work scope, additions, extensions, change orders, and other instruments agreed to by the parties that have not been subject to subsequent open bid procedures.

If a higher federal rate is required due to partial federal funding or other federal participation, the higher rate must be paid.

For additional copies of this pamphlet, contact the nearest office of the Division of Labor Standards and Safety, Wage and Hour office or visit the Internet site at:

http://labor.state.ak.us/lss/pamp600.htm

For questions regarding prevailing wage or resident hire requirements, please contact the nearest Wage and Hour office. These offices are listed on Page xi.

Sincerely,

Dianne Blumer

Dianne Blumer
Commissioner

Table of Contents

Excerpts from Alaska Law

Additional Information

Note to Readers: The statutes and administrative regulations listed in this publication were taken from the official codes, as of the effective date of the publication. However, there may be errors or omissions that have not been identified and changes that occurred after the publication was printed. This publication is intended as an informational guide only and is not intended to serve as a precise statement of the statutes and regulations of the State of Alaska. To be certain of the current laws and regulations, please refer to the official codes.

On the cover: Road Grader
Photo by flickr user Duncan Brown

EXCERPTS FROM ALASKA LAW

(The following statute (36.05.005) applies to projects bid on or after October 20, 2011)

Sec. 36.05.005. Applicability.

This chapter applies only to a public construction contract that exceeds $25,000.

Sec. 36.05.010. Wage rates on public construction.

A contractor or subcontractor who performs work on a public construction contract in the state shall pay not less than the current prevailing rate of wages for work of a similar nature in the region in which the work is done. The current prevailing rate of wages is that contained in the latest determination of prevailing rate of wages issued by the Department of Labor and Workforce Development at least 10 days before the final date for submission of bids for the contract. The rate shall remain in effect for the life of the contract or for 24 calendar months, whichever is shorter. At the end of the initial 24-month period, if new wage determinations have been issued by the department, the latest wage determination shall become effective for the next 24-month period or until the contract is completed, whichever occurs first. This process shall be repeated until the contract is completed.

Sec. 36.05.040. Filing schedule of employees, wages paid, and other information.

All contractors or subcontractors who perform work on a public construction contract for the state or for a political subdivision of the state shall, before the Friday of every second week, file with the Department of Labor and Workforce Development a sworn affidavit for the previous reporting period, setting out in detail the number of persons employed, wages paid, job classification of each employee, hours worked each day and week, and other information on a form provided by the Department of Labor and Workforce Development.

Sec. 36.05.045. Notice of work and completion; withholding of payment.

(a) Before commencing work on a public construction contract, the person entering into the contract with a contracting agency shall designate a primary contractor for purposes of this section. Before work commences, the primary contractor shall file a notice of work with the Department of Labor and Workforce Development. The notice of work must list work to be performed under the public construction contract by each contractor who will perform any portion of work on the contract and the contract price being paid to each contractor. The primary contractor shall pay all filing fees for each contractor performing work on the contract, including a filing fee based on the contract price being paid for work performed by the primary contractor's employees. The filing fee payable shall be the sum of all fees calculated for each contractor. The filing fee shall be one percent of each contractor's contract price. The total filing fee payable by the primary contractor under this subsection may not exceed $5,000. In this subsection, "contractor" means an employer who is using employees to perform work on the public construction contract under the contract or a subcontract.

(b) Upon completion of all work on the public construction contract, the primary contractor shall file with the Department of Labor and Workforce Development a notice of completion together with payment of any additional filing fees owed due to increased contract amounts. Within 30 days after the department's receipt of the primary contractor's notice of completion, the department shall inform the contracting agency of the amount, if any, to be withheld from the final payment.

(c) A contracting agency

(1) may release final payment of a public construction contract to the extent that the agency has received verification from the Department of Labor and Workforce Development that

(A) the primary contractor has complied with (a) and (b) of this section;

(B) the Department of Labor and Workforce Development is not conducting an investigation under this title; and

(C) the Department of Labor and Workforce Development has not issued a notice of a violation of this chapter to the primary contractor or any other contractors working on the public construction contract; and

(2) shall withhold from the final payment an amount sufficient to pay the department's estimate of what may be needed to compensate the employees of any contractors under investigation on this construction contract, and any unpaid filing fees.

(d) The notice and filing fee required under (a) of this section may be filed after work has begun if
   (1) The public construction contract is for work undertaken in immediate response to an emergency; and
   (2) The notice and fees are filed not later than 14 days after the work has begun.

(e) A false statement made on a notice required by this section is punishable under AS 11.56.210.

Sec. 36.05.060. Penalty for violation of this chapter.

A contractor who violates this chapter is guilty of a misdemeanor and upon conviction is punishable by a fine of not less than $100 nor more than $1,000, or by imprisonment for not less than 10 days nor more than 90 days, or by both. Each day a violation exists constitutes a separate offense.

Sec. 36.05.070. Wage rates in specifications and contracts for public works.

(a) The advertised specifications for a public construction contract that requires or involves the employment of mechanics, laborers, or field surveyors must contain a provision stating the minimum wages to be paid various classes of laborers, mechanics, or field surveyors and that the rate of wages shall be adjusted to the wage rate under AS 36.05.010.

(b) Repealed by §17 ch 142 SLA 1972.

(c) A public construction contract under (a) of this section must contain provisions that
   (1) the contractor or subcontractors of the contractor shall pay all employees unconditionally and not less than once a week;
   (2) wages may not be less than those stated in the advertised specifications, regardless of the contractual relationship between the contractor or subcontractors and laborers, mechanics, or field surveyors;
   (3) the scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
   (4) the state or a political subdivision shall withhold so much of the accrued payments as is necessary to pay to laborers, mechanics, or field surveyors employed by the contractor or subcontractors the difference between
      (A) the rates of wages required by the contract to be paid laborers, mechanics, or field surveyors on the work; and
      (B) the rates of wages in fact received by laborers, mechanics, or field surveyors.

Sec. 36.05.080. Failure to pay agreed wages.

Every contract within the scope of AS 36.05.070 shall contain a provision that if it is found that a laborer, mechanic, or field surveyor employed by the contractor or subcontractor has been or is being paid a rate of wages less than the rate of wages required by the contract to be paid, the state or its political subdivision may, by written notice to the contractor, terminate the contractor's right to proceed with the work or the part of the work for which there is a failure to pay the required wages and to prosecute the work to completion by contract or otherwise, and the contractor and the contractor's sureties are liable to the state or its political subdivision for excess costs for completing the work.

Sec. 36.05.090. Payment of wages from withheld payments and listing contractors who violate contracts.

(a) The state disbursing officer in the case of a state public construction contract and the local fiscal officer in the case of a political subdivision public construction contract shall pay directly to laborers, mechanics, or field surveyors from accrued payments withheld under the terms of the contract the wages due laborers, mechanics, or field surveyors under AS 36.05.070.

(b) The state disbursing officer or the local fiscal officer shall distribute to all departments of the state government and to all political subdivisions of the state a list giving the names of persons who have disregarded their obligations to employees. A person appearing on this list and a firm, corporation,

partnership, or association in which the person has an interest may not work as a contractor or subcontractor on a public construction contract for the state or a political subdivision of the state until three years after the date of publication of the list. If the accrued payments withheld under the contract are insufficient to reimburse all the laborers, mechanics, or field surveyors with respect to whom there has been a failure to pay the wages required under AS 36.05.070, the laborers, mechanics, or field surveyors have the right of action or intervention or both against the contractor and the contractor's sureties conferred by law upon persons furnishing labor or materials, and in the proceedings it is not a defense that the laborers, mechanics, or field surveyors accepted or agreed to accept less than the required rate of wages or voluntarily made refunds.

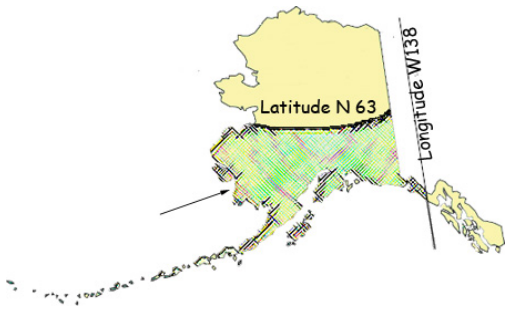
Sec. 36.05.900. Definition.
In this chapter, "contracting agency" means the state or a political subdivision of the state that has entered into a public construction contract with a contractor.

ADDITIONAL INFORMATION

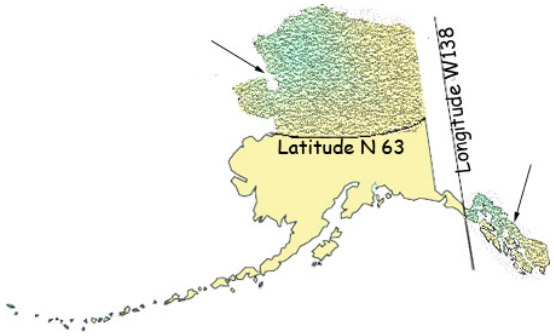
LABORER CLASSIFICATION CLARIFICATION

The laborer rates categorized in class code S1201-S1206 apply in one area of Alaska; the area that is south of N63 latitude and west of W138 Longitude. The laborer rates categorized in class code N1201-N1206 apply in two areas of Alaska; the Alaska areas north of N63 latitude and east of W138 longitude. The following graphic representations should assist with clarifying the applicable wage rate categories:

S1201-
S1206



N1201-
N1206



ACCOMMODATIONS AND PER DIEM

The Alaska Department of Labor and Workforce Development has adopted a per diem requirement for blocklayers, bricklayers, carpenters, dredgemen, heat & frost insulators/asbestos workers, ironworkers, laborers, operative plasterers & cement masons, painters, piledrivers, power equipment operators, roofers, surveyors, truck

drivers/surveyors, and tunnel workers. This per diem rate creates an allowable alternative to providing board and lodging under the following conditions:

Employer-Provided Camp or Suitable Accommodations

Unless otherwise approved by the Commissioner, the employer shall ensure that a worker who is employed on a project that is 65 road miles or more from the international airport in either Fairbanks, Juneau or Anchorage or is inaccessible by road in a 2-wheel drive vehicle and who is not a domiciled resident of the locality of the project shall receive meals and lodging. Lodging shall be in accordance with all applicable state and federal laws. In cases where the project site is not road accessible, but the employee can reasonably get to the project worksite from their permanent residence within one hour, the Commissioner may waive these requirements for that employee upon a written request from the employer.

The term "domiciled resident" means a person living within 65 road miles of the project, or in the case of a highway project, the mid-point of the project, for at least 12 consecutive months prior to the award of the project. However, if the employer or person provides sufficient evidence to convince the department that a person has established a permanent residence and an intent to remain indefinitely within the distance to be considered a "domiciled resident," the employer shall not be required to provide meals and lodging or pay per diem.

Where the employer provides or furnishes board, lodging or any other facility, the cost or amount thereof shall not be considered or included as part of the required prevailing wage basic hourly rate and cannot be applied to meet other fringe benefit requirements. The taxability of employer provided board and lodging shall be determined by the appropriate taxation enforcement authority.

Per Diem

Employers are encouraged to use commercial facilities and lodges; however, when such facilities are not available, per diem in lieu of meals and lodging must be paid at the basic rate of $75.00 per day, or part thereof, the worker is employed on the project. Per diem shall not be allowed on highway projects west of Livengood on the Elliott Highway, at Mile 0 of the Dalton Highway to the North Slope of Alaska, north of Mile 20 on the Taylor Highway, east of Chicken, Alaska, on the Top of the World Highway and south of Tetlin Junction to the Alaska-Canada border.

The above-listed standards for room and board and per diem only apply to the crafts as identified in Pamphlet 600, *Laborers' and Mechanics' Minimum Rates of Pay*. Other crafts working on public construction projects shall be provided room and board at remote sites based on the department's existing policy guidelines. In the event that a contractor provides lodging facilities, but no meals, the department will accept payment of $36 per day for meals to meet the per diem requirements.

APPRENTICE HIRING REQUIREMENTS

On July 24, 2005, Administrative Order No. 226 established a 15 percent goal for hiring apprentices in certain job categories on highway, airport, harbor, dam, tunnel, utility or dredging projects awarded by the Alaska Department of Transportation and Public Facilities that exceed $2.5 million. This Order will apply to all projects in the referenced categories that are advertised after September 1, 2005. On these projects, the hours worked by apprentices will be compared to the hours worked by journeyman level workers to determine if the 15 percent goal has been met. This on-the-job training goal is critical to ensure that the Alaska work force is prepared for the future. For additional details, contact the nearest Wage and Hour office at the address listed on Page xi of this publication. Administrative Order No. 226 may be viewed in its entirety on the Internet at http://www.gov.state.ak.us/admin-orders/226.html or call any Wage and Hour office to receive a copy.

APPRENTICE RATES

Apprentice rates at less than the minimum prevailing rates may be paid to apprentices according to an apprentice program which has been registered and approved by the Commissioner of the Alaska Department of Labor and Workforce Development in writing or according to a bona fide apprenticeship program registered with the U.S. Department of Labor, Office of Apprenticeship. **Any employee listed on a payroll at an apprentice wage rate who is not registered as above shall be paid the journeyman prevailing minimum wage in that work classification.** Wage rates are based on prevailing crew makeup practices in Alaska and apply to work performed regardless of either the quality of the work performed by the employee or the titles or classifications which may be assigned to individual employees.

FRINGE BENEFIT PLANS

Contractors/subcontractors may compensate fringe benefits to their employees in any one of three methods. The fringe benefits may be paid into a union trust fund, into an approved benefit plan, or paid directly on the paycheck as gross wages.

Where fringe benefits are paid into approved plans, funds, or programs including union trust funds, the payments must be contributed at least monthly. If contractors submit their own payroll forms and are paying fringe benefits into approved plans, funds, or programs, the employer's certification must include, in addition to those requirements of 8 AAC 30.020(c), a statement that fringe benefit payments have been or will be paid at least monthly. Contractors who pay fringe benefits to a plan must ensure the plan is one approved by the Internal Revenue Service and that the plan meets the requirements of 8 AAC 30.025 (eff. 3/2/08) in order for payments to be credited toward the prevailing wage obligation.

SPECIAL PREVAILING WAGE RATE DETERMINATION

Special prevailing wage rate determinations may be requested for special projects or a special worker classification if the work to be performed does not conform to traditional public construction for which a prevailing wage rate has been established under 8 AAC 30.050(a) of this section. Requests for special wage rate determinations must be in writing and filed with the Commissioner at least 30 days before the award of the contract. An applicant for a special wage rate determination shall have the responsibility to support the necessity for the special rate. An application for a special wage rate determination filed under this section must contain:

(1) a specification of the contract or project on which the special rates will apply and a description of the work to be performed;
(2) a brief narrative explaining why special wage rates are necessary;
(3) the job class or classes involved;
(4) the special wage rates the applicant is requesting, including survey or other relevant wage data to support the requested rates;
(5) the approximate number of employees who would be affected; and
(6) any other information which might be helpful in determining if special wage rates are appropriate.

Requests made pursuant to the above should be addressed to:

Director
Alaska Department of Labor and Workforce Development
Labor Standards & Safety Division
Wage and Hour Administration
P.O. Box 111149
Juneau, AK 99811-1149
-or-
Email: anchorage.lss-wh@alaska.gov

LABOR STANDARDS REGULATIONS
NOTICE REQUEST

If you would like to receive ***notices of proposed changes to regulations*** for Wage and Hour or Mechanical Inspection, please indicate below the programs for which you are interested in receiving such notices, print your name and email or mailing address in the space provided, and send this page to:

Alaska Department of Labor and Workforce Development
Labor Standards & Safety Division
Wage and Hour Administration
1251 Muldoon Road, Suite 113
Anchorage, AK 99504-2098
Email: anchorage.lss-wh@alaska.gov

For *REGULATIONS* information relating to any of the following:

❒ Wage and Hour Title 23 Employment Practices
❒ Wage and Hour Title 36 Public Works
❒ Employment Agencies
❒ Child Labor
❒ Employment Preference (Local Hire)
❒ Plumbing Code
❒ Electrical Code
❒ Boiler/Pressure Vessel Construction Code
❒ Elevator Code
❒ Certificates of Fitness
❒ Recreational Devices

Request any of the following *PUBLICATIONS* by checking below:

❒ Wage and Hour Title 23 Employment Practices
❒ Minimum Wage & Overtime Poster
❒ Child Labor Poster
❒ Public Construction Pamphlet
❒ Public Construction Wage Rates
❒ Child Labor Pamphlet

PLEASE NOTE: DUE TO INCREASED MAILING AND PRINTING COSTS, ONLY ONE OF EACH PUBLICATION REQUESTED WILL BE MAILED TO YOU. IF YOU WISH TO RECEIVE ADDITIONAL COPIES OR SUBSEQUENT PUBLICATIONS, PLEASE CONTACT OUR OFFICE AT (907) 269-4900.

Name: _____

Mailing Address: _____

_____

_____

_____

Email Address: _____

EMPLOYMENT PREFERENCE INFORMATION
(EFFECTIVE August 16, 2013)

By authority of AS 36.10.150 and 8 AAC 30.064, the Commissioner of Labor and Workforce Development has determined the 15 boroughs and census areas listed below to be Zones of Underemployment. A Zone of Underemployment requires that Alaska residents who are eligible under AS 36.10.140 be given a minimum of 90 percent employment preference on public works contracts throughout the state in certain job classifications. This hiring preference applies on a project-by-project, craft-by-craft or occupational basis and must be met each workweek by each contractor/subcontractor.

For additional information about the Alaska resident hire requirements, contact the nearest Wage and Hour Office in Anchorage at (907) 269-4900, in Fairbanks at (907) 451-2886 or in Juneau at (907) 465-4248.

The following classifications qualify for a minimum of 90 percent Alaska resident hire preference:

Aleutians East Borough: Plumbers and Pipefitters
Aleutians West Borough: Painters
Bethel Census Area: Culinary Workers, Foremen and Supervisors, Mechanics, Painters, Surveyors, Tug Boat Workers
Denali Borough: Carpenters
Dillingham Census Area: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Laborers, Mechanics, Truck Drivers, Tug Boat Workers
Hoonah-Angoon Census Area: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Laborers, Mechanics, Painters, Truck Drivers
Nome Census Area: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Laborers, Mechanics, Surveyors, Truck Drivers, Tug Boat Workers, Welders
Northwest Arctic Borough: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Plumbers and Pipefitters, Surveyors, Truck Drivers, Tug Boat Workers, Welders
Petersburg Borough: Culinary Workers, Engineers and Architects, Foremen and Supervisors, Laborers
Prince of Wales-Hyder Census Area: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Laborers, Mechanics, Surveyors, Truck Drivers, Welders
Skagway: None
Southeast Fairbanks Census Area: Carpenters, Culinary Workers, Equipment Operators, Laborers, Painters, Truck Drivers
Wade Hampton Census Area: Carpenters, Electricians, Engineers and Architects, Mechanics, Roofers
Yakutat: None
Yukon-Koyukuk Census Area: Culinary Workers, Electricians, Foremen and Supervisors, Painters, Plumbers and Pipefitters, Surveyors, Truck Drivers, Tug Boat Workers, Welders

This determination is effective August 16, 2013, and remains in effect until June 30, 2015.

The first person on a certified payroll in any classification is called the "first worker" and is not required to be an Alaskan resident. However, once the contractor adds any more workers in the classification, then all workers in the classification are counted, and the 90 percent is applied to compute the number of required Alaskans to be in compliance. To compute the number of Alaskan residents required in a workweek in a particular classification, multiply the number of workers in the classification by 90 percent. The result is then rounded down to the nearest whole number to determine the number of Alaskans that must be employed.

If a worker works in more than one classification during a week, the classification in which they spent the most time would be counted for employment preference purposes. If the time is split evenly between two classifications, the worker is counted in both classifications.

If you have difficulty meeting the 90 percent requirement, an approved waiver must be obtained before a non-Alaskan resident is hired who would put the contractor/subcontractor out of compliance (8 AAC 30.081 (e) (f)). The waiver process requires proof of an intensive search for qualified Alaskan workers. To apply for a waiver, contact the nearest Wage and Hour Office for instructions.

Here is an example to apply the 90 percent requirement to four carpenter workers. Multiply four workers by 90% and drop the fraction (.90 X 4 = 3.6 - .6 = 3). The remaining number is the number of Alaskan resident carpenters required to be in compliance in that particular classification for that week.

The penalties for being out of compliance are serious. AS 36.10.100 (a) states "A contractor who violates a provision of this chapter shall have deducted from amounts due to the contractor under the contract the prevailing wages which should have been paid to a displaced resident, and these amounts shall be retained by the contracting agency." If a contractor/subcontractor is found to be out of compliance, penalties accumulate until they come into compliance.

If you have difficulty determining whether a worker is an Alaska resident, you should contact the nearest Wage and Hour Office. Contact Wage and Hour in Anchorage at (907) 269-4900, in Fairbanks at (907) 451-2886, or in Juneau at (907) 465-4842.

Alaska Department of Labor and Workforce Development
Labor Standards & Safety Division
Wage and Hour Administration
Web site: http://labor.state.ak.us/lss/pamp600.htm

Anchorage	Juneau	Fairbanks
1251 Muldoon Road, Suite 113 Anchorage, Alaska 99504-2098 Phone: (907) 269-4900 Email: anchorage.lss-wh@alaska.gov	1111 W. 8th Street, Suite 302 Juneau, Alaska 99801 Phone: (907) 465-4842 Email: juneau.lss-wh@alaska.gov	Regional State Office Building 675 7th Ave., Station J-1 Fairbanks, Alaska 99701-4593 Phone: (907) 451-2886 Email: fairbanks.lss@alaska.gov

DEBARMENT LIST

AS 36.05.090(b) states that "the state disbursing officer or the local fiscal officer shall distribute to all departments of the state government and to all political subdivisions of the state a list giving the names of persons who have disregarded their obligations to employees."

A person appearing on the following debarment list and a firm, corporation, partnership, or association in which the person has an interest may not work as a contractor or subcontractor on a public construction contract for the state or a political subdivision of the state for three years from the date of debarment.

Company Name	Date of Debarment	Debarment Expires

No companies are currently debarred.

Laborers' & Mechanics' Minimum Rates of Pay

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Boilermakers								
						VAC	**SAF**	
A0101	Boilermaker (journeyman)	44.01	8.57	15.34	0.75	3.00	0.34	72.01
Bricklayers & Blocklayers								
	**See note on last page if remote site							
						L&M		
A0201	Blocklayer	39.03	9.53	8.50	0.55	0.15	0.28	58.04
	Bricklayer							
	Marble or Stone Mason							
	Refractory Worker (Firebrick, Plastic, Castable, and Gunite Refractory Applications)							
	Terrazzo Worker							
	Tile Setter							
						L&M		
A0202	Tuck Pointer Caulker	39.03	9.53	8.50	0.55	0.15	0.28	58.04
	Cleaner (PCC)							
						L&M		
A0203	Marble & Tile Finisher	33.27	9.53	8.50	0.55	0.15	0.28	52.28
	Terrazzo Finisher							
						L&M		
A0204	Torginal Applicator	37.14	9.53	8.50	0.55	0.15	0.28	56.15
Carpenters, Statewide								
	**See note on last page if remote site							
						L&M	**SAF**	
A0301	Carpenter (journeyman)	36.59	9.78	12.11	0.70	0.10	0.15	59.43
	Lather/Drywall/Acoustical							
Cement Masons, Region I (North of N63 latitude)								
	**See note on last page if remote site							
						L&M		
N0401	Group I, including:	35.69	7.24	11.80	0.85	0.10		55.68
	Application of Sealing Compound							
	Application of Underlayment							
	Building, General							
	Cement Mason (journeyman)							
	Concrete							
	Concrete Paving							
	Curb & Gutter, Sidewalk							
	Curing of All Concrete							
	Grouting & Caulking of Tilt-Up Panels							

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Cement Masons, Region I (North of N63 latitude)							
	**See note on last page if remote site						
						L&M	
N0401	Group I, including:	35.69	7.24	11.80	0.85	0.10	55.68
	Grouting of All Plates						
	Patching Concrete						
	Screed Pin Setter						
	Spackling/Skim Coating						
						L&M	
N0402	Group II, including:	35.69	7.24	11.80	0.85	0.10	55.68
	Form Setter						
						L&M	
N0403	Group III, including:	35.69	7.24	11.80	0.85	0.10	55.68
	Concrete Saw (self-powered)						
	Curb & Gutter Machine						
	Floor Grinder						
	Pneumatic Power Tools						
	Power Chipping & Bushing						
	Sand Blasting Architectural Finish						
	Screed & Rodding Machine Operator						
	Troweling Machine Operator						
						L&M	
N0404	Group IV, including:	35.69	7.24	11.80	0.85	0.10	55.68
	Application of All Composition Mastic						
	Application of All Epoxy Material						
	Application of All Plastic Material						
	Finish Colored Concrete						
	Gunite Nozzleman						
	Hand Powered Grinder						
	Tunnel Worker						
						L&M	
N0405	Group V, including:	35.94	7.24	11.80	0.85	0.10	55.93
	Plasterer						
Cement Masons, Region II (South of N63 latitude)							
	**See note on last page if remote site						
						L&M	
S0401	Group I, including:	35.44	7.24	11.80	0.85	0.10	55.43
	Application of Sealing Compound						
	Application of Underlayment						
	Building, General						
	Cement Mason (journeyman)						
	Concrete						
	Concrete Paving						
	Curb & Gutter, Sidewalk						
	Curing of All Concrete						

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Cement Masons, Region II (South of N63 latitude)							
	**See note on last page if remote site						
						L&M	
S0401	Group I, including:	35.44	7.24	11.80	0.85	0.10	55.43
	Grouting & Caulking of Tilt-Up Panels						
	Grouting of All Plates						
	Patching Concrete						
	Screed Pin Setter						
	Spackling/Skim Coating						
						L&M	
S0402	Group II, including:	35.44	7.24	11.80	0.85	0.10	55.43
	Form Setter						
						L&M	
S0403	Group III, including:	35.44	7.24	11.80	0.85	0.10	55.43
	Concrete Saw (self-powered)						
	Curb & Gutter Machine						
	Floor Grinder						
	Pneumatic Power Tools						
	Power Chipping & Bushing						
	Sand Blasting Architectural Finish						
	Screed & Rodding Machine Operator						
	Troweling Machine Operator						
						L&M	
S0404	Group IV, including:	35.44	7.24	11.80	0.85	0.10	55.43
	Application of All Composition Mastic						
	Application of All Epoxy Material						
	Application of All Plastic Material						
	Finish Colored Concrete						
	Gunite Nozzleman						
	Hand Powered Grinder						
	Tunnel Worker						
						L&M	
S0405	Group V, including:	35.69	7.24	11.80	0.85	0.10	55.68
	Plasterer						
Culinary Workers * See note on last page							
						LEG	
A0501	Baker/Cook	24.67	5.37	5.73		0.05	35.82
						LEG	
A0503	General Helper	21.62	5.37	5.73		0.05	32.77
	Housekeeper						
	Janitor						
	Kitchen Helper						
						LEG	
A0504	Head Cook	25.22	5.37	5.73		0.05	36.37

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Culinary Workers * See note on last page								
						LEG		
A0505	Head Housekeeper	22.04	5.37	5.73		0.05		33.19
	Head Kitchen Help							
Dredgemen								
	**See note on last page if remote site							
						L&M		
A0601	Assistant Engineer, including:	38.51	9.35	10.00	1.00	0.10		58.96
	Craneman							
	Electrical Generator Operator (primary pump/power barge/dredge)							
	Engineer							
	Welder							
						L&M		
A0602	Assistant Mate (deckhand)	37.35	9.35	10.00	1.00	0.10		57.80
						L&M		
A0603	Fireman	37.79	9.35	10.00	1.00	0.10		58.24
						L&M		
A0605	Leverman Clamshell	41.04	9.35	10.00	1.00	0.10		61.49
						L&M		
A0606	Leverman Hydraulic	39.28	9.35	10.00	1.00	0.10		59.73
						L&M		
A0607	Mate & Boatman	38.51	9.35	10.00	1.00	0.10		58.96
						L&M		
A0608	Oiler (dredge)	37.79	9.35	10.00	1.00	0.10		58.24
Electricians								
						L&M	LEG	
A0701	Inside Cable Splicer	39.82	11.06	12.59	0.95	0.20	0.15	64.77
						L&M	LEG	
A0702	Inside Journeyman Wireman, including:	38.79	11.06	12.81	0.95	0.20	0.15	63.96
	Technicians							
						LML	SAF	
A0703	Power Cable Splicer	51.52	11.06	16.62	0.95	0.35	0.50	81.00
						L&M	LEG	
A0704	Tele Com Cable Splicer	47.45	11.06	14.57	0.95	0.20	0.15	74.38
						LML	SAF	
A0705	Power Journeyman Lineman, including:	49.77	11.06	16.56	0.95	0.35	0.50	79.19
	Power Equipment Operator							
	Technician							
						L&M	LEG	
A0706	Tele Com Journeyman Lineman, including:	45.70	11.06	14.52	0.95	0.20	0.15	72.58
	Technician							
	Tele Com Equipment Operator							

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Electricians								
						L&M	**LEG**	
A0707	Straight Line Installer - Repairman	45.70	11.06	14.52	0.95	0.20	0.15	72.58
						LML	**SAF**	
A0708	Powderman	47.77	11.06	16.50	0.95	0.35	0.50	77.13
						L&M	**LEG**	
A0710	Material Handler	26.28	10.26	4.54	0.15	0.15	0.15	41.53
						L&M	**LEG**	
A0712	Tree Trimmer Groundman	26.67	11.06	9.45	0.15	0.15	0.15	47.63
						L&M	**LEG**	
A0713	Journeyman Tree Trimmer	35.34	11.06	9.71	0.15	0.15	0.15	56.56
						L&M	**LEG**	
A0714	Vegetation Control Sprayer	38.79	11.06	9.81	0.15	0.15	0.15	60.11
						L&M		
A0715	Inside Journeyman Communications CO/PBX	38.07	11.06	12.54	0.95	0.20	0.15	62.97
Elevator Workers								
						L&M	**VAC**	
A0802	Elevator Constructor	35.29	12.73	13.46	0.60	0.30	3.21	65.59
						L&M	**VAC**	
A0803	Elevator Constructor Mechanic	50.42	12.73	13.46	0.60	0.30	5.59	83.10
Heat & Frost Insulators/Asbestos Workers								
	**See note on last page if remote site							
						SAF		
A0902	Asbestos Abatement-Mechanical Systems	34.88	8.44	9.51	0.60	0.12		53.55
						SAF		
A0903	Asbestos Abatement/General Demolition All Systems	34.88	8.44	9.51	0.60	0.12		53.55
						SAF		
A0904	Insulator, Group II	34.88	8.44	9.51	0.60	0.12		53.55
						SAF		
A0905	Fire Stop	34.88	8.44	9.51	0.60	0.12		53.55
IronWorkers								
	**See note on last page if remote site							
						L&M	**IAF**	
A1101	Ironworkers, including:	33.55	7.58	17.00	0.95	0.43	0.10	59.61
	Bender Operators							
	Bridge & Structural							
	Machinery Mover							
	Ornamental							
	Reinforcing							
	Rigger							
	Sheeter							

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
IronWorkers								
	**See note on last page if remote site							
						L&M	**IAF**	
A1101	Ironworkers, including:	33.55	7.58	17.00	0.95	0.43	0.10	59.61
	Signalman							
	Stage Rigger							
	Toxic Haz-Mat Work							
	Welder							
						L&M	**IAF**	
A1102	Helicopter	34.55	7.58	17.00	0.95	0.43	0.10	60.61
	Tower (energy producing windmill type towers to include nacelle and blades)							
						L&M	**IAF**	
A1103	Fence/Barrier Installer	30.05	7.58	16.75	0.95	0.43	0.10	55.86
	Guard Rail Installer							
						L&M	**IAF**	
A1104	Guard Rail Layout Man	30.79	7.58	16.75	0.95	0.43	0.10	56.60
Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)								
	**See note on last page if remote site							
						L&M	**LEG**	
N1201	Group I, including:	29.25	7.24	13.73	1.20	0.20	0.15	51.77
	Asphalt Worker (shovelman, plant crew)							
	Brush Cutter							
	Camp Maintenance Laborer							
	Carpenter Tender or Helper							
	Choke Setter, Hook Tender, Rigger, Signalman							
	Concrete Labor (curb & gutter, chute handler, grouting, curing, screeding)							
	Crusher Plant Laborer							
	Demolition Laborer							
	Ditch Digger							
	Dumpman							
	Environmental Laborer (hazard/toxic waste, oil spill)							
	Fence Installer							
	Fire Watch Laborer							
	Flagman							
	Form Stripper							
	General Laborer							
	Guardrail Laborer, Bridge Rail Installer							
	Hydro-seeder Nozzleman							
	Laborer, Building							
	Landscaper or Planter							
	Laying of Mortarless Decorative Block (retaining walls, flowered decorative block 4 feet or less - highway or landscape work)							
	Material Handler							

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
						L&M	LEG	
Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)								
	**See note on last page if remote site							
N1201	Group I, including:	29.25	7.24	13.73	1.20	0.20	0.15	51.77
	Pneumatic or Power Tools							
	Portable or Chemical Toilet Serviceman							
	Pump Man or Mixer Man							
	Railroad Track Laborer							
	Sandblast, Pot Tender							
	Saw Tender							
	Slurry Work							
	Stake Hopper							
	Steam Cleaner Operator							
	Steam Point or Water Jet Operator							
	Tank Cleaning							
	Utiliwalk & Utilidor Laborer							
	Watchman (construction projects)							
	Window Cleaner							
						L&M	LEG	
N1202	Group II, including:	30.25	7.24	13.73	1.20	0.20	0.15	52.77
	Burning & Cutting Torch							
	Cement or Lime Dumper or Handler (sack or bulk)							
	Choker Splicer							
	Chucktender (wagon, air-track & hydraulic drills)							
	Concrete Laborer (power buggy, concrete saws, pumpcrete nozzleman, vibratorman)							
	Culvert Pipe Laborer							
	Cured Inplace Pipelayer							
	Environmental Laborer (asbestos, marine work)							
	Foam Gun or Foam Machine Operator							
	Green Cutter (dam work)							
	Gunite Operator							
	Hod Carrier							
	Jackhammer or Pavement Breaker (more than 45 pounds)							
	Laser Instrument Operator							
	Laying of Mortarless Decorative Block (retaining walls, flowered decorative block over 4 feet - highway or landscape work)							
	Mason Tender & Mud Mixer (sewer work)							
	Pilot Car							
	Pipelayer Helper							
	Plasterer, Bricklayer & Cement Finisher Tender							
	Powderman Helper							
	Power Saw Operator							
	Railroad Switch Layout Laborer							
	Sandblaster							
	Scaffold Building & Erecting							

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)								
	**See note on last page if remote site							
						L&M	LEG	
N1202	Group II, including:	30.25	7.24	13.73	1.20	0.20	0.15	52.77
	Sewer Caulker							
	Sewer Plant Maintenance Man							
	Thermal Plastic Applicator							
	Timber Faller, Chainsaw Operator, Filer							
	Timberman							
						L&M	LEG	
N1203	Group III, including:	31.15	7.24	13.73	1.20	0.20	0.15	53.67
	Bit Grinder							
	Camera/Tool/Video Operator							
	Guardrail Machine Operator							
	High Rigger & Tree Topper							
	High Scaler							
	Multiplate							
	Plastic Welding							
	Slurry Seal Squeegee Man							
	Traffic Control Supervisor							
	Welding Certified (in connection with laborer's work)							
						L&M	LEG	
N1204	Group IIIA	34.43	7.24	13.73	1.20	0.20	0.15	56.95
	Asphalt Raker, Asphalt Belly Dump Lay Down							
	Drill Doctor (in the field)							
	Driller (including, but not limited to, wagon drills, air-track drills, hydraulic drills)							
	Licensed Powderman							
	Pioneer Drilling & Drilling Off Tugger (all type drills)							
	Pipelayers							
						L&M	LEG	
N1205	Group IV	18.82	7.24	13.73	1.20	0.20	0.15	41.34
	Final Building Cleanup							
	Permanent Yard Worker							
						L&M	LEG	
N1206	Group IIIB	35.26	7.24	13.73	1.20	0.20	0.15	57.78
	Federally Licensed Powderman (Responsible Person in Charge)							
	Grade Checking (setting or transferring of grade marks, line and grade)							
Laborers (The area that is south of N63 latitude and west of W138 longitude)								
	**See note on last page if remote site							
						L&M	LEG	
S1201	Group I, including:	29.25	7.24	13.73	1.20	0.20	0.15	51.77
	Asphalt Worker (shovelman, plant crew)							
	Brush Cutter							
	Camp Maintenance Laborer							

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
						L&M	LEG	
Laborers (The area that is south of N63 latitude and west of W138 longitude)								
	**See note on last page if remote site							
S1201	Group I, including:	29.25	7.24	13.73	1.20	0.20	0.15	51.77
	Carpenter Tender or Helper							
	Choke Setter, Hook Tender, Rigger, Signalman							
	Concrete Labor (curb & gutter, chute handler, grouting, curing, screeding)							
	Crusher Plant Laborer							
	Demolition Laborer							
	Ditch Digger							
	Dumpman							
	Environmental Laborer (hazard/toxic waste, oil spill)							
	Fence Installer							
	Fire Watch Laborer							
	Flagman							
	Form Stripper							
	General Laborer							
	Guardrail Laborer, Bridge Rail Installer							
	Hydro-seeder Nozzleman							
	Laborer, Building							
	Landscaper or Planter							
	Laying of Mortarless Decorative Block (retaining walls, flowered decorative block 4 feet or less - highway or landscape work)							
	Material Handler							
	Pneumatic or Power Tools							
	Portable or Chemical Toilet Serviceman							
	Pump Man or Mixer Man							
	Railroad Track Laborer							
	Sandblast, Pot Tender							
	Saw Tender							
	Slurry Work							
	Stake Hopper							
	Steam Cleaner Operator							
	Steam Point or Water Jet Operator							
	Tank Cleaning							
	Utiliwalk & Utilidor Laborer							
	Watchman (construction projects)							
	Window Cleaner							
						L&M	LEG	
S1202	Group II, including:	30.25	7.24	13.73	1.20	0.20	0.15	52.77
	Burning & Cutting Torch							
	Cement or Lime Dumper or Handler (sack or bulk)							
	Choker Splicer							
	Chucktender (wagon, air-track & hydraulic drills)							

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Laborers (The area that is south of N63 latitude and west of W138 longitude)								
	**See note on last page if remote site							
						L&M	LEG	
S1202	Group II, including:	30.25	7.24	13.73	1.20	0.20	0.15	52.77
	Concrete Laborer (power buggy, concrete saws, pumpcrete nozzleman, vibratorman)							
	Culvert Pipe Laborer							
	Cured Inplace Pipelayer							
	Environmental Laborer (asbestos, marine work)							
	Foam Gun or Foam Machine Operator							
	Green Cutter (dam work)							
	Gunite Operator							
	Hod Carrier							
	Jackhammer or Pavement Breaker (more than 45 pounds)							
	Laser Instrument Operator							
	Laying of Mortarless Decorative Block (retaining walls, flowered decorative block over 4 feet - highway or landscape work)							
	Mason Tender & Mud Mixer (sewer work)							
	Pilot Car							
	Pipelayer Helper							
	Plasterer, Bricklayer & Cement Finisher Tender							
	Powderman Helper							
	Power Saw Operator							
	Railroad Switch Layout Laborer							
	Sandblaster							
	Scaffold Building & Erecting							
	Sewer Caulker							
	Sewer Plant Maintenance Man							
	Thermal Plastic Applicator							
	Timber Faller, Chainsaw Operator, Filer							
	Timberman							
						L&M	LEG	
S1203	Group III, including:	31.15	7.24	13.73	1.20	0.20	0.15	53.67
	Bit Grinder							
	Camera/Tool/Video Operator							
	Guardrail Machine Operator							
	High Rigger & Tree Topper							
	High Scaler							
	Multiplate							
	Plastic Welding							
	Slurry Seal Squeegee Man							
	Traffic Control Supervisor							
	Welding Certified (in connection with laborer's work)							
						L&M	LEG	
S1204	Group IIIA	34.43	7.24	13.73	1.20	0.20	0.15	56.95
	Asphalt Raker, Asphalt Belly Dump Lay Down							

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Laborers (The area that is south of N63 latitude and west of W138 longitude)								
	**See note on last page if remote site							
						L&M	**LEG**	
S1204	Group IIIA	34.43	7.24	13.73	1.20	0.20	0.15	56.95
	Drill Doctor (in the field)							
	Driller (including, but not limited to, wagon drills, air-track drills, hydraulic drills)							
	Licensed Powderman							
	Pioneer Drilling & Drilling Off Tugger (all type drills)							
	Pipelayers							
						L&M	**LEG**	
S1205	Group IV	18.82	7.24	13.73	1.20	0.20	0.15	41.34
	Final Building Cleanup							
	Permanent Yard Worker							
						L&M	**LEG**	
S1206	Group IIIB	35.26	7.24	13.73	1.20	0.20	0.15	57.78
	Federally Licensed Powderman (Responsible Person in Charge)							
	Grade Checking (setting or transferring of grade marks, line and grade)							
Millwrights								
						L&M		
A1251	Millwright (journeyman)	34.99	9.78	9.76	1.00	0.25	0.15	55.93
						L&M		
A1252	Millwright Welder	35.58	9.78	9.76	1.00	0.25	0.15	56.52
Painters, Region I (North of N63 latitude)								
	**See note on last page if remote site							
						L&M		
N1301	Group I, including:	31.10	7.55	11.10	0.83	0.07		50.65
	Brush							
	General Painter							
	Hand Taping							
	Hazardous Material Handler							
	Lead-Based Paint Abatement							
	Roll							
						L&M		
N1302	Group II, including:	31.62	7.55	11.10	0.83	0.07		51.17
	Bridge Painter							
	Epoxy Applicator							
	General Drywall Finisher							
	Hand/Spray Texturing							
	Industrial Coatings Specialist							
	Machine/Automatic Taping							
	Pot Tender							
	Sandblasting							

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Painters, Region I (North of N63 latitude)							
	**See note on last page if remote site						
						L&M	
N1302	Group II, including:	31.62	7.55	11.10	0.83	0.07	51.17
	Specialty Painter						
	Spray						
	Structural Steel Painter						
	Wallpaper/Vinyl Hanger						
N1304	Group IV, including:	36.51	7.55	10.96	0.80	0.05	55.87
	Glazier						
	Storefront/Automatic Door Mechanic						
N1305	Group V, including:	29.79	7.55	5.02	0.83	0.07	43.26
	Carpet Installer						
	Floor Coverer						
	Heat Weld/Cove Base						
	Linoleum/Soft Tile Installer						
Painters, Region II (South of N63 latitude)							
	**See note on last page if remote site						
						L&M	
S1301	Group I, including :	29.34	7.55	10.85	0.83	0.07	48.64
	Brush						
	General Painter						
	Hand Taping						
	Hazardous Material Handler						
	Lead-Based Paint Abatement						
	Roll						
	Spray						
						L&M	
S1302	Group II, including :	30.59	7.55	10.85	0.83	0.07	49.89
	General Drywall Finisher						
	Hand/Spray Texturing						
	Machine/Automatic Taping						
	Wallpaper/Vinyl Hanger						
						L&M	
S1303	Group III, including :	30.69	7.55	10.85	0.83	0.07	49.99
	Bridge Painter						
	Epoxy Applicator						
	Industrial Coatings Specialist						
	Pot Tender						
	Sandblasting						
	Specialty Painter						
	Structural Steel Painter						

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Painters, Region II (South of N63 latitude)								
	**See note on last page if remote site							
						L&M		
S1304	Group IV, including:	36.51	7.55	10.21	0.83	0.07		55.17
	Glazier							
	Storefront/Automatic Door Mechanic							
						L&M		
S1305	Group V, including:	29.79	7.55	5.02	0.83	0.07		43.26
	Carpet Installer							
	Floor Coverer							
	Heat Weld/Cove Base							
	Linoleum/Soft Tile Installer							
Piledrivers								
	**See note on last page if remote site							
						L&M	IAF	
A1401	Piledriver	36.59	9.78	12.11	0.70	0.10	0.15	59.43
	Assistant Dive Tender							
	Carpenter/Piledriver							
	Rigger							
	Sheet Stabber							
	Skiff Operator							
						L&M	IAF	
A1402	Piledriver-Welder/Toxic Worker	37.59	9.78	12.11	0.70	0.10	0.15	60.43
						L&M	IAF	
A1403	Remotely Operated Vehicle Pilot/Technician	40.90	9.78	12.11	0.70	0.10	0.15	63.74
	Single Atmosphere Suit, Bell or Submersible Pilot							
						L&M	IAF	
A1404	Diver (working) ***See note on last page	80.70	9.78	12.11	0.70	0.10	0.15	103.54
						L&M	IAF	
A1405	Diver (standby) ***See note on last page	40.90	9.78	12.11	0.70	0.10	0.15	63.74
						L&M	IAF	
A1406	Dive Tender ***See note on last page	39.90	9.78	12.11	0.70	0.10	0.15	62.74
						L&M	IAF	
A1407	Welder (American Welding Society, Certified Welding Inspector)	42.15	9.78	12.11	0.70	0.10	0.15	64.99
Plumbers, Region I (North of N63 latitude)								
						L&M	S&L	
N1501	Journeyman Pipefitter	39.96	7.05	12.70	0.95	1.10		61.76
	Plumber							
	Welder							
Plumbers, Region II (South of N63 latitude)								

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Plumbers, Region II (South of N63 latitude)							
						L&M	
S1501	Journeyman Pipefitter	38.46	8.42	10.82	1.50	0.20	59.40
	Plumber						
	Welder						
Plumbers, Region IIA (1st Judicial District)							
						L&M	
X1501	Journeyman Pipefitter	36.52	12.47	11.00	2.50	0.24	62.73
	Plumber						
	Welder						
Power Equipment Operators							
	**See note on last page if remote site						
						L&M	
A1601	Group I, including:	39.28	9.35	10.00	1.00	0.10	59.73
	Asphalt Roller: Breakdown, Intermediate, and Finish						
	Back Filler						
	Barrier Machine (Zipper)						
	Beltcrete with Power Pack & similar conveyors						
	Bending Machine						
	Boat Coxswain						
	Bulldozer						
	Cableways, Highlines & Cablecars						
	Cleaning Machine						
	Coating Machine						
	Concrete Hydro Blaster						
	Cranes (45 tons & under or 150 feet of boom & under (including jib & attachments))						
	(a) Hydralifts or Transporters, (all track or truck type)						
	(b) Derricks						
	Crushers						
	Deck Winches, Double Drum						
	Ditching or Trenching Machine (16 inch or over)						
	Drag Scraper, Yarder, and similar types						
	Drilling Machines, Core, Cable, Rotary and Exploration						
	Finishing Machine Operator, Concrete Paving, Laser Screed, Sidewalk, Curb & Gutter Machine						
	Helicopters						
	Hover Craft, Flex Craft, Loadmaster, Air Cushion, All-Terrain Vehicle, Rollagon, Bargecable, Nodwell, & Snow Cat						
	Hydro Ax, Feller Buncher & similar						
	Licensed Line & Grade						
	Loaders (2 1/2 yards through 5 yards, including all attachments):						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Power Equipment Operators							
	**See note on last page if remote site						
						L&M	
A1601	Group I, including:	39.28	9.35	10.00	1.00	0.10	59.73
	(a) Forklifts (with telescopic boom & swing attachment)						
	(b) Front End & Overhead, (2-1/2 yards through 5 yards)						
	(c) Loaders, (with forks or pipe clamp)						
	(d) Loaders, (elevating belt type, Euclid & similar types)						
	Mechanic, Welder, Bodyman, Electrical, Camp & Maintenance Engineer						
	Micro Tunneling Machine						
	Mixers: Mobile type with hoist combination						
	Motor Patrol Grader						
	Mucking Machine: Mole, Tunnel Drill, Horizontal/Directional Drill Operator and/or Shield						
	Operator on Dredges						
	Piledriver Engineer, L.B. Foster, Puller or similar paving breaker						
	Plant Operator (Asphalt & Concrete)						
	Power Plant, Turbine Operator 200 k.w & over (power plants or combination of power units over 300 k.w.)						
	Remote Controlled Equipment						
	Scraper (through 40 yards)						
	Service Oiler/Service Engineer						
	Shot Blast Machine						
	Shovels, Backhoes, Excavators with all attachments, and Gradealls (3 yards & under)						
	Sideboom (under 45 tons)						
	Spreaders, Blaw Knox, Cedarapids, Barber Greene, Slurry Machine						
	Sub Grader (Gurries, Reclaimer & similar types)						
	Tack Tractor						
	Truck Mounted Concrete Pump, Conveyor & Creter						
	Unlicensed Off-Road Hauler						
	Wate Kote Machine						
						L&M	
A1602	Group IA, including:	41.04	9.35	10.00	1.00	0.10	61.49
	Camera/Tool/Video Operator (Slipline)						
	Certified Welder, Electrical Mechanic, Camp Maintenance Engineer, Mechanic (over 10,000 hours)						
	Cranes (over 45 tons or 150 feet including jib & attachments)						
	(a) Clamshells & Draglines (over 3 yards)						
	(b) Tower Cranes						
	Licensed Water/Waste Water Treatment Operator						
	Loaders (over 5 yards)						
	Motor Patrol Grader, Dozer, Grade Tractor, Roto-Mill/Profiler (finish: when finishing to final grade and/or to hubs, or for asphalt)						
	Power Plants (1000 k.w. & over)						
	Quad						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Power Equipment Operators							
	**See note on last page if remote site						
						L&M	
A1602	Group IA, including:	41.04	9.35	10.00	1.00	0.10	61.49
	Scrapers (over 40 yards)						
	Screed						
	Shovels, Backhoes, Excavators with all attachments (over 3 yards)						
	Sidebooms (over 45 tons)						
	Slip Form Paver, C.M.I. & similar types						
						L&M	
A1603	Group II, including:	38.51	9.35	10.00	1.00	0.10	58.96
	Boiler - Fireman						
	Cement Hogs & Concrete Pump Operator						
	Conveyors (except those listed in Group I)						
	Hoists on Steel Erection, Towermobiles & Air Tuggers						
	Horizontal/Directional Drill Locator						
	Licensed Grade Technician						
	Loaders (i.e., Elevating Grader & Material Transfer Vehicle)						
	Locomotives, Rod & Geared Engines						
	Mixers						
	Screening, Washing Plant						
	Sideboom (cradling rock drill, regardless of size)						
	Skidder						
	Trenching Machines (under 16 inches)						
	Water/Waste Water Treatment Operator						
						L&M	
A1604	Group III, including:	37.79	9.35	10.00	1.00	0.10	58.24
	"A" Frame Trucks, Deck Winches						
	Bombardier (tack or tow rig)						
	Boring Machine						
	Brooms, Power						
	Bump Cutter						
	Compressor						
	Farm Tractor						
	Forklift, Industrial Type						
	Gin Truck or Winch Truck (with poles when used for hoisting)						
	Grade Checker & Stake Hopper						
	Hoists, Air Tuggers, Elevators						
	Loaders:						
	(a) Elevating-Athey, Barber Greene & similar types						
	(b) Forklifts or Lumber Carrier (on construction job sites)						
	(c) Forklifts, (with tower)						
	(d) Overhead & Front End, (under 2-l/2 yards)						
	Locomotives: Dinkey (air, steam, gas & electric) Speeders						
	Mechanics, Light Duty						
	Oil, Blower Distribution						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Power Equipment Operators								
	**See note on last page if remote site							
						L&M		
A1604	Group III, including:	37.79	9.35	10.00	1.00	0.10		58.24
	Posthole Digger, Mechanical							
	Pot Fireman (power agitated)							
	Power Plant, Turbine Operator, (under 200 k.w.)							
	Pumps, Water							
	Roller (other than Asphalt)							
	Saws, Concrete							
	Skid Hustler							
	Skid Steer (with all attachments)							
	Straightening Machine							
	Tow Tractor							
						L&M		
A1605	Group IV, including:	31.58	9.35	10.00	1.00	0.10		52.03
	Crane Assistant Engineer/Rig Oiler							
	Drill Helper							
	Parts & Equipment Coordinator							
	Spotter							
	Steam Cleaner							
	Swamper (on trenching machines or shovel type equipment)							
Roofers								
	**See note on last page if remote site							
						L&M		
A1701	Roofer & Waterproofer	41.45	7.43	2.91	0.81	0.10	0.02	52.72
						L&M		
A1702	Roofer Material Handler	29.02	7.43	2.91	0.81	0.10	0.02	40.29
Sheet Metal Workers, Region I (North of N63 latitude)								
						L&M		
N1801	Sheet Metal Journeyman	44.93	8.30	10.34	1.32	0.25		65.14
	Air Balancing and duct cleaning of HVAC systems							
	Brazing, soldering or welding of metals							
	Demolition of sheet metal HVAC systems							
	Fabrication and installation of exterior wall sheathing, siding, metal roofing, flashing, decking and architectural sheet metal work							
	Fabrication and installation of heating, ventilation and air conditioning ducts and equipment							
	Fabrication and installation of louvers and hoods							
	Fabrication and installation of sheet metal lagging							
	Fabrication and installation of stainless steel commercial or industrial food service equipment							
	Manufacture, fabrication assembly, installation and alteration of all ferrous and nonferrous metal work							

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Sheet Metal Workers, Region I (North of N63 latitude)							
						L&M	
N1801	Sheet Metal Journeyman	44.93	8.30	10.34	1.32	0.25	65.14
	Metal lavatory partitions						
	Preparation of drawings taken from architectural and engineering plans required for fabrication and erection of sheet metal work						
	Sheet Metal shelving						
	Sheet Metal venting, chimneys and breaching						
	Skylight installation						
Sheet Metal Workers, Region II (South of N63 latitude)							
						L&M	
S1801	Sheet Metal Journeyman	39.99	8.30	11.20	1.10	0.33	60.92
	Air Balancing and duct cleaning of HVAC systems						
	Brazing, soldering or welding of metals						
	Demolition of sheet metal HVAC systems						
	Fabrication and installation of exterior wall sheathing, siding, metal roofing, flashing, decking and architectural sheet metal work						
	Fabrication and installation of heating, ventilation and air conditioning ducts and equipment						
	Fabrication and installation of louvers and hoods						
	Fabrication and installation of sheet metal lagging						
	Fabrication and installation of stainless steel commercial or industrial food service equipment						
	Manufacture, fabrication assembly, installation and alteration of all ferrous and nonferrous metal work						
	Metal lavatory partitions						
	Preparation of drawings taken from architectural and engineering plans required for fabrication and erection of sheet metal work						
	Sheet Metal shelving						
	Sheet Metal venting, chimneys and breaching						
	Skylight installation						
Sprinkler Fitters							
						L&M	
A1901	Sprinkler Fitter	42.89	8.52	13.05	0.45	0.25	65.16
Surveyors							
	**See note on last page if remote site						
						L&M	
A2001	Chief of Parties	42.11	7.38	9.99	1.20	0.10	60.78
						L&M	
A2002	Party Chief	40.52	7.38	9.99	1.20	0.10	59.19

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Surveyors							
	**See note on last page if remote site						
						L&M	
A2003	Line & Grade Technician/Office Technician	39.92	7.38	9.99	1.20	0.10	58.59
						L&M	
A2004	Associate Party Chief (including Instrument Person & Head Chain Person)	37.80	7.38	9.99	1.20	0.10	56.47
						L&M	
A2005	Stake Hop/Grademan	34.87	7.38	9.99	1.20	0.10	53.54
						L&M	
A2006	Chain Person (for crews with more than 2 people)	33.46	7.38	9.99	1.20	0.10	52.13
Truck Drivers							
	**See note on last page if remote site						
						L&M	
A2101	Group I, including:	38.89	7.38	9.99	1.20	0.10	57.56
	Air/Sea Traffic Controllers						
	Ambulance/Fire Truck Driver (EMT certified)						
	Boat Coxswain						
	Captains & Pilots (air & water)						
	Deltas, Commanders, Rollagons, & similar equipment (when pulling sleds, trailers or similar equipment)						
	Dump Trucks (including rockbuggy & trucks with pups) over 40 yards up to & including 60 yards						
	Helicopter Transporter						
	Lowboys, including attached trailers & jeeps, up to & including 12 axles (over 12 axles or 150 tons to be negotiated)						
	Material Coordinator and Purchasing Agent						
	Ready-mix (over 12 yards up to & including 15 yards) (over 15 yards to be negotiated)						
	Semi with Double Box Mixer						
	Tireman, Heavy Duty/Fueler						
	Water Wagon (250 Bbls and above)						
						L&M	
A2102	Group 1A including:	40.16	7.38	9.99	1.20	0.10	58.83
	Dump Trucks (including rockbuggy & trucks with pups) over 60 yards up to & including 100 yards (over 100 yards to be negotiated)						
	Jeeps (driver under load)						
						L&M	
A2103	Group II, including:	37.63	7.38	9.99	1.20	0.10	56.30
	All Deltas, Commanders, Rollagons, & similar equipment						
	Construction and Material Safety Technician						
	Dump Trucks (including rockbuggy & trucks with pups) over 20 yards up to & including 40 yards						
	Lowboys (including attached trailers & jeeps up to & including 8 axles)						
	Mechanics						
	Partsman						

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Truck Drivers							
	**See note on last page if remote site						
						L&M	
A2103	Group II, including:	37.63	7.38	9.99	1.20	0.10	56.30
	Ready-mix (over 7 yards up to & including 12 yards)						
	Stringing Truck						
	Super Vac Truck/Cacasco Truck/Heat Stress Truck						
	Turn-O-Wagon or DW-10 (not self loading)						
						L&M	
A2104	Group III, including:	36.81	7.38	9.99	1.20	0.10	55.48
	Batch Trucks (8 yards & up)						
	Dump Trucks (including rockbuggy & trucks with pups) over 10 yards up to & including 20 yards						
	Expeditor (electrical & pipefitting materials)						
	Greaser - Shop						
	Oil Distributor Driver						
	Thermal Plastic Layout Technician						
	Traffic Control Technician						
	Trucks/Jeeps (push or pull)						
						L&M	
A2105	Group IV, including:	36.23	7.38	9.99	1.20	0.10	54.90
	Air Cushion or similar type vehicle						
	All Terrain Vehicle						
	Boom Truck/Knuckle Truck (over 5 tons)						
	Buggymobile						
	Bull Lift & Fork Lift, Fork Lift with Power Boom & Swing Attachment (over 5 tons)						
	Bus Operator (over 30 passengers)						
	Combination Truck-Fuel & Grease						
	Compactor (when pulled by rubber tired equipment)						
	Dump Trucks (including Rockbuggy & trucks with pups up to & including 10 yards)						
	Dumpster						
	Expeditor (general)						
	Fire Truck/Ambulance Driver						
	Flat Beds, Dual Rear Axle						
	Foam Distributor Truck Dual Axle						
	Front End Loader with Fork						
	Gin Pole Truck, Winch Truck, Wrecker (truck mounted "A" frame manufactured rating over 5 tons)						
	Grease Truck						
	Hydro Seeder, Dual Axle						
	Hyster Operators (handling bulk aggregate)						
	Loadmaster (air & water operations)						
	Lumber Carrier						
	Ready-mix, (up to & including 7 yards)						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Truck Drivers							
	**See note on last page if remote site						
						L&M	
A2105	Group IV, including:	36.23	7.38	9.99	1.20	0.10	54.90
	Rigger (air/water/oilfield)						
	Semi or Truck & Trailer						
	Tireman, Light Duty						
	Track Truck Equipment						
	Vacuum Truck, Truck Vacuum Sweeper						
	Warehouseperson						
	Water Truck, Dual Axle						
	Water Wagon, Semi						
						L&M	
A2106	Group V, including:	35.47	7.38	9.99	1.20	0.10	54.14
	Batch Truck (up to & including 7 yards)						
	Boom Truck/Knuckle Truck (up to & including 5 tons)						
	Buffer Truck						
	Bull Lifts & Fork Lifts, Fork Lifts with Power Boom & Swing Attachments (up to & including 5 tons)						
	Bus Operator (up to 30 passengers)						
	Farm Type Rubber Tired Tractor (when material handling or pulling wagons on a construction project)						
	Flat Beds, Single Rear Axle						
	Foam Distributor Truck Single Axle						
	Fuel Handler (station/bulk attendant)						
	Gear/Supply Truck						
	Gin Pole Truck, Winch Truck, Wrecker (truck mounted "A" frame manufactured rating 5 tons & under)						
	Gravel Spreader Box Operator on Truck						
	Hydro Seeders, Single axle						
	Pickups (pilot cars & all light-duty vehicles)						
	Rigger/Swamper						
	Tack Truck						
	Team Drivers (horses, mules, & similar equipment)						
	Water Truck (Below 250 Bbls)						
Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)							
	**See note on last page if remote site						
						L&M	LEG
N2201	Group I, including:	32.18	7.24	13.73	1.20	0.20	0.15	54.70
	Brakeman						
	Mucker						
	Nipper						
	Topman & Bull Gang						
	Tunnel Track Laborer						

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; LML=labor/management fund & LEG combined; ONT=overnight; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)								
	**See note on last page if remote site							
						L&M	LEG	
N2202	Group II, including:	33.28	7.24	13.73	1.20	0.20	0.15	55.80
	Burning & Cutting Torch							
	Concrete Laborer							
	Jackhammer							
	Laser Instrument Operator							
	Nozzlemen, Pumpcrete or Shotcrete							
	Pipelayer Helper							
						L&M	LEG	
N2203	Group III, including:	34.27	7.24	13.73	1.20	0.20	0.15	56.79
	Miner							
	Retimberman							
						L&M	LEG	
N2204	Group IIIA, including:	37.87	7.24	13.73	1.20	0.20	0.15	60.39
	Asphalt Raker, Asphalt Belly Dump Lay Down							
	Drill Doctor (in the field)							
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)							
	Licensed Powderman							
	Pioneer Drilling & Drilling Off Tugger (all type drills)							
	Pipelayer							
						L&M	LEG	
N2206	Group IIIB, including:	38.79	7.24	13.73	1.20	0.20	0.15	61.31
	Federally Licensed Powderman (Responsible Person in Charge)							
	Grade Checking (setting or transferring of grade marks, line and grade)							
Tunnel Workers, Laborers (The area that is south of N63 latitude and west of W138 longitude)								
	**See note on last page if remote site							
						L&M	LEG	
S2201	Group I, including:	32.18	7.24	13.73	1.20	0.20	0.15	54.70
	Brakeman							
	Mucker							
	Nipper							
	Topman & Bull Gang							
	Tunnel Track Laborer							
						L&M	LEG	
S2202	Group II, including:	33.28	7.24	13.73	1.20	0.20	0.15	55.80
	Burning & Cutting Torch							
	Concrete Laborer							
	Jackhammer							
	Laser Instrument Operator							
	Nozzlemen, Pumpcrete or Shotcrete							
	Pipelayer Helper							

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Tunnel Workers, Laborers (The area that is south of N63 latitude and west of W138 longitude)								
	**See note on last page if remote site							
						L&M	**LEG**	
S2203	Group III, including:	34.27	7.24	13.73	1.20	0.20	0.15	56.79
	Miner							
	Retimberman							
						L&M	**LEG**	
S2204	Group IIIA, including:	37.87	7.24	13.73	1.20	0.20	0.15	60.39
	Asphalt Raker, Asphalt Belly Dump Lay Down							
	Drill Doctor (in the field)							
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)							
	Licensed Powderman							
	Pioneer Drilling & Drilling Off Tugger (all type drills)							
	Pipelayer							
						L&M	**LEG**	
S2206	Group IIIB, including:	38.79	7.24	13.73	1.20	0.20	0.15	61.31
	Federally Licensed Powderman (Responsible Person in Charge)							
	Grade Checking (setting or transferring of grade marks, line and grade)							
Tunnel Workers, Power Equipment Operators								
	**See note on last page if remote site							
						L&M		
A2207	Group I	43.21	9.35	10.00	1.00	0.10		63.66
						L&M		
A2208	Group IA	45.14	9.35	10.00	1.00	0.10		65.59
						L&M		
A2209	Group II	42.36	9.35	10.00	1.00	0.10		62.81
						L&M		
A2210	Group III	41.57	9.35	10.00	1.00	0.10		62.02
						L&M		
A2211	Group IV	34.74	9.35	10.00	1.00	0.10		55.19

*** A remote site is isolated and relatively distant from the amenities of civilization, and usually far from the employee's home. As a condition of employment, the workers must eat, sleep, and socialize at the worksite and remain there for extended periods.**

**** This classification must receive board and lodging under certain conditions. A per diem option of $75 is an alternative to providing meals and lodging. See Page v for an explanation.**

***** Work in combination of classifications: Employees working in any combination of classifications within the diving crew (working diver, standby diver, and tender) in a shift are paid in the classification with the highest rate for a minimum of 8 hours per shift.**