www.kahlerslater.com

Kahler Slater

Milwaukee
Madison
Richmond
Singapore

111 West Wisconsin Avenue
Milwaukee, WI 53203
P 414.272.2000

May 17, 2019

City of Madison Planning Division
Attn: Heather Stouder & Colin Punt
Madison Municipal Building
215 Martin Luther King, Jr. Blvd.
Madison, WI 53701-2985

RE: Letter of Intent, Land Use Application for PD Amendment at 760/780 Regent St

Dear Heather & Colin:

Mortenson Development, Inc. is pleased to submit this Land Use Application for the amendment to the existing PUD GDP/SIP (PD GDP/SIP) for a nationally recognized, full-service hotel located at 760 Regent Street adjacent to 780 Regent St. This new hotel is intended to increase density on an underdeveloped parcel and provide an activated use at an important gateway to the campus while providing unparalleled accommodations for guests to Madison and the University of Wisconsin.

The hotel features multiple entrances, a lobby, bar & restaurant, and supporting functions on the first floor; prefunction, meeting space, and a fitness room on the second floor; and 176 guestrooms on 4 levels above. A parking structure is embedded underneath part of the hotel tower and contains approximately 239 parking spaces which replace and supply additional capacity to the existing surface spaces.

The hotel will be operated by approximately 60 employees (45 full time and 15 part time) and will operate 24 hours a day, 7 days a week. The building supports connections to the East Campus Mall, the Southwest Commuter Bike Trail and the greater neighborhood through the use of landscaping and pedestrian connections.

Primary improvements to the project include:

- Strong entry connection to the hotel, restaurant, and bar from the bike trail.
- Exciting outdoor seating, dining and visual connections along the bike trail.
- Enhanced, well-lit entry to the building from the East Campus Mall.
- Activated gallery walk and pocket park wrapping the entire northwest corner.
- Significant reduction in EIFS, from 25% to 16%, arranged vertically to articulate the building facade and to accent the primary metal panel and precast materials.
- Simplified material palette and pedestrian scale features at all exterior elevations.
- Unique landscaping selections that integrate with the architecture.

Sincerely,

KAHLER SLATER, INC.

Glenn Roby, AIA
Executive Vice President

cc: Mortenson Development, Inc.
enc: Land Use Application
LUA supporting materials

URBAN DESIGN DEVELOPMENT PLANS CHECKLIST

UDC

The items listed below are minimal application requirements for the type of approval indicated. Please note that the UDC and/or staff may require additional information in order to have a complete understanding of the project.

1. Informational Presentation

- ☒ Locator Map
- ☒ Letter of Intent (If the project is within an Urban Design District, a summary of how the development proposal addresses the district criteria is required)
- ☒ Contextual site information, including photographs and layout of adjacent buildings/structures
- ☒ Site Plan
- ☒ Two-dimensional (2D) images of proposed buildings or structures.

Providing additional information beyond these minimums may generate a greater level of feedback from the Commission.

Requirements for All Plan Sheets

1. Title block
2. Sheet number
3. North arrow
4. Scale, both written and graphic
5. Date
6. Fully dimensioned plans, scaled at 1"= 40' or larger

*** All plans must be legible, including the full-sized landscape and lighting plans (if required)*

2. Initial Approval

- ☒ Locator Map
- ☒ Letter of Intent (If the project is within a Urban Design District, a summary of how the development proposal addresses the district criteria is required)
- ☒ Contextual site information, including photographs and layout of adjacent buildings/structures
- ☒ Site Plan showing location of existing and proposed buildings, walks, drives, bike lanes, bike parking, and existing trees over 18" diameter
- ☒ Landscape Plan and Plant List (*must be legible*)
- ☒ Building Elevations in both black & white and color for all building sides (include material callouts)
- ☒ PD text and Letter of Intent (if applicable)

Providing additional information beyond these minimums may generate a greater level of feedback from the Commission.

3. Final Approval

All the requirements of the Initial Approval (see above), **plus**:

- ☒ Grading Plan
- ☒ Proposed Signage (if applicable)
- ☒ Lighting Plan, including fixture cut sheets and photometrics plan (*must be legible*)
- ☒ Utility/HVAC equipment location and screening details (with a rooftop plan if roof-mounted)
- ☒ PD text and Letter of Intent (if applicable)
- ☒ Samples of the exterior building materials (presented at the UDC meeting)

4. Comprehensive Design Review (CDR) and Variance Requests (***Signage applications only***)

NA

- ☐ Locator Map
- ☐ Letter of Intent (a summary of how the proposed signage is consistent with the CDR or Signage Variance criteria is required)
- ☐ Contextual site information, including photographs of existing signage both on site and within proximity to the project site
- ☐ Site Plan showing the location of existing signage and proposed signage, dimensioned signage setbacks, sidewalks, driveways, and right-of-ways
- ☐ Proposed signage graphics (fully dimensioned, scaled drawings, including materials and colors, and night view)
- ☐ Perspective renderings (emphasis on pedestrian/automobile scale viewsheds)
- ☐ Illustration of the proposed signage that meets Ch. 31, MGO compared to what is being requested.
- ☐ Graphic of the proposed signage as it relates to what the Ch. 31, MGO would permit

LAND USE APPLICATION LND-B

City of Madison
Planning Division
126 S. Hamilton St.
P.O. Box 2985
Madison, WI 53701-2985
(608) 266-4635

FOR OFFICE USE ONLY:

Paid _____ Receipt # _____

Date received _____

Received by _____

Parcel # _____

Aldermanic district _____

Zoning district _____

Special requirements _____

Review required by _____

☐ UDC ☐ PC

☐ Common Council ☐ Other _____

Reviewed By _____

All Land Use Applications must be filed with the Zoning Office at the above address.

This completed form is required for all applications for Plan Commission review except subdivisions or land divisions, which should be filed using the Subdivision Application found on the City's web site.

1. Project Information

Address: 760 Regent Street (Requested)

Title: UW Campus Hotel

2. This is an application for (check all that apply)

☐ Zoning Map Amendment (rezoning) from _____ to _____

☒ Major Amendment to an Approved Planned Development-General Development Plan (PD-GDP) Zoning

☒ Major Amendment to an Approved Planned Development-Specific Implementation Plan (PD-SIP)

☐ Review of Alteration to Planned Development (PD) (by Plan Commission)

☐ Conditional Use or Major Alteration to an Approved Conditional Use

☐ Demolition Permit

☐ Other requests

3. Applicant, Agent and Property Owner Information

Applicant name Dave Merrick Company Mortenson

Street address 17975 Sarah Lane #200 City/State/Zip Brookfield, WI 53045

Telephone 262-879-2563 Email dave.merrick@mortenson.com

Project contact person Glenn Roby Company Kahler Slater

Street address 111 W Wisconsin, 3rd Floor City/State/Zip Milwaukee, WI 53203

Telephone 414-290-3770 Email groby@kahlerslater.com

Property owner (if not applicant) _____

Street address _____ City/State/Zip _____

Telephone _____ Email _____

4. Project Description

Provide a brief description of the project and all proposed uses of the site:

The UW Campus Hotel is planned to have meeting space, restaurant and bar area predominantly used by occupants fo the hotel. It includes shared parking with the 780 and 740 Regent Street Office Tenants.

Scheduled start date June 2019 Planned completion date August 2020

5. Required Submittal Materials

Refer to the Land Use Application Checklist for detailed submittal requirements.

☒ Filing fee	☒ Pre-application notification	☒ Land Use Application Checklist (LND-C)
☒ Land Use Application	☒ Vicinity map	☒ Supplemental Requirements
☒ Letter of intent	☒ Survey or existing conditions site plan	☒ Electronic Submittal*
☒ Legal description	☒ Development plans	

**Electronic copies of all items submitted in hard copy are required. Individual PDF files of each item submitted should be compiled on a CD or flash drive, or submitted via email to pcapplications@cityofmadison.com. The email must include the project address, project name, and applicant name. Electronic submittals via file hosting services (such as Dropbox.com) are not allowed. Applicants who are unable to provide the materials electronically should contact the Planning Division at (608) 266-4635 for assistance.*

For concurrent UDC applications a separate pre-application meeting with the UDC Secretary is required prior to submittal. Following the pre-application meeting, a complete UDC Application form and all other submittal requirements must be submitted to the UDC Secretary. An electronic submittal, as noted above, is required. Electronic submittals should be compiled on a CD or flash drive, or sent via email to udcapplications@cityofmadison.com.

6. Applicant Declarations

☒ **Pre-application meeting with staff.** Prior to preparation of this application, the applicant is strongly encouraged to discuss the proposed development and review process with Zoning and Planning Division staff. Note staff persons and date.

Planning staff Heather Stouder Date 2/13/2019

Zoning staff Matt Tucker Date 2/13/2019

☐ Demolition Listserv

☐ Public subsidy is being requested (indicate in letter of intent)

☒ **Pre-application notification:** The zoning code requires that the applicant notify the district alder and any nearby neighborhood and business associations **in writing** no later than **30 days prior to FILING this request.** List the alderperson, neighborhood association(s), business association(s), AND the dates you sent the notices:

Alder Zach Wood, Colin Bowden, and Chris Hoffman notified 1/23/2019.

The alderperson and the Director of Planning & Community & Economic Development may reduce the 30-day requirement or waive the pre-application notification requirement altogether. Evidence of the pre-application notification is required as part of the application materials. A copy of the notification letters or any correspondence granting a waiver is required as part of the application materials.

The applicant attests that this form is accurately completed and all required materials are submitted:

Name of applicant Dave Merrick Relationship to property Owner

Authorizing signature of property owner [signature] Date 5/16/2019

LAND USE APPLICATION — CHECKLIST LND-C

Use this checklist to prepare a complete Land Use Application that addresses the City's land use development project standards, requirements and review criteria. Pursuant to Section 28.181(4), MGO, no application is complete unless all required information is included and all application fees have been paid. **The Zoning Administrator may reject an incomplete application.**

City of Madison
Planning Division
126 S. Hamilton St.
P.O. Box 2985
Madison, WI 53701-2985
(608) 266-4635

Req.	Required Submittal Information		Contents	No. of Copies	✓
	Filing Fee ($ 1500) pd on 3.6.19		Refer to the Land Use Application Instructions and Fee Schedule. Make checks payable to City Treasurer.	1	X
	Land Use Application and completed Submittal Checklist		Form must include property owner's authorization.	1	X
	Letter of Intent		Narrative description of the proposal in detail, including, but not limited to, the existing site conditions, project schedule, phasing plan, proposed uses, hours of operation, number of employees, gross square footage, number of units and bedrooms, public subsidy requested, project team, etc.	32	X
	Legal Description		Legal description of the property, complete with the proposed zoning districts and project site area in square feet and acres.	2	X
	Pre-Application Notification		Proof of written 30-day notification to alder, neighborhood association, and business associations.	1	X
	Vicinity Map		Indicate site and adjacent streets.	32	X
	Survey or Existing Conditions Site Plan		Shows existing property boundaries and site conditions, including ease-ments and encumbrances of record. Completion by a registered land surveyor may be required.	2	X
	Supplemental Requirements (Based on Application Type)		Additional materials may be required for: demolition permit; lakefront development; outdoor eating areas; development adjacent to parks; development within downtown core and urban mixed-use districts; modifications to parking requirements; Planned Development; and master plan applications. Refer to Supplemental Requirements form.	Include in Plan Set as required	X
	Development Plans		Thirty-two (32)-11" x 17" legible copies; and One (1), 24" x 36" copy of the plan set are required.	33	
		Site Plan	See reverse side for specific sheet requirements.		X
		Grading Plan	See reverse side for specific sheet requirements.		X
		Utility Plan	See reverse side for specific sheet requirements.		X
		Landscape Plan and Landscape Worksheet	See reverse side for specific sheet requirements.		X
		Building Elevations	See reverse side for specific sheet requirements.		X
		Roof and Floor Plans	See reverse side for specific sheet requirements.		X
		Fire Access Plan and Fire Access Worksheet	See reverse side for specific sheet requirements.		X
		Supplemental Development Plan Requirements	As determined by staff through the Pre-application process. Land Use Application Checklist		X

Note: Not all development plan materials listed are required for all applications. Submittal materials are as determined by staff.

For electronic submittals, one copy of each item listed above and indexed accordingly, in PDF file format, is required. All development plan set sheets must be scalable to full- and half-size sheets.

☒ All Plan Sheets

1. Title block
2. Sheet number
3. North arrow
4. Scale, both written and graphic
5. Date
6. Fully dimensioned plans, scaled at 1"= 40' or larger

☒ Site Plan

1. Land Use Summary Table, including site area, building square footage, building footprint, number and size of each unit/tenant space, unit type breakdown by bedroom, lot coverage, useable open space, landscape area, paved area, etc.
2. Lot lines and easements, fully dimensioned
3. Utility locations
4. Existing and proposed topography at two-foot maximum intervals
5. Existing/proposed buildings and uses, dimensioned building footprint
6. Required yards and building setbacks
7. Fully dimensioned vehicle parking area, including detail and turning templates for large vehicles
8. Parking summary indicating the total number of parking stalls provided and type
9. Fully dimensioned bike parking, including rack style detail and dimensioned clearances
10. Vision triangles at driveways and intersections
11. Refuse and recycling, loading, outdoor storage and display areas
12. At grade HVAC and utilities, including transformer pedestals, back-up generators, etc.
13. Existing private trees 8" or more in diameter, including size, location, species, and driplines
14. Location, type, materials, height with detail of proposed fences, walls, and other screening materials
15. Hard surface materials
16. Site signage and lighting, including public trees
17. Proposed and existing public improvements adjacent to the project site
18. Phasing (if applicable)

☒ Grading Plan

1. Lot lines and easements, fully dimensioned
2. Existing and proposed contours (two-foot maximum interval), or sufficient spot elevations and drainage direction arrows to convey runoff directions, including proposed changes in terrace grade
3. Limits of excavation
4. Top of curb and sidewalk elevations
5. First floor elevations
6. Pedestrian and vehicle entrance elevations/grades
7. Lowest building opening elevations/grades
8. Existing and proposed retaining wall types, details, and top and bottom of wall elevations
9. Flood plain boundaries and elevations (if applicable)

☒ Utility Plan

1. Lot lines and easements, fully dimensioned
2. Existing and proposed sanitary sewer, storm sewer, and water laterals (include alignments, invert/rim elevations, pipe types, pipe sizes, and pipe slopes)
3. Pipe sizes and types, slopes, inverts, and alignments of public utilities to which proposed or existing services will be connected
4. Existing and proposed private drainage systems (include inlets, pipes, swales, ponds, etc.)
5. Stormwater management measures
6. Calculations for pipe and/or pump sizing for storm sewer systems serving enclosed depressions

☒ Fire Access Plan

1. Refer to Fire Hydrant Worksheet
2. Lot lines and easements, fully dimensioned
3. Fire lane location
4. Aerial access lanes (if building over 30')
5. Tree canopies at full mature size along aerial access lanes
6. Fire hydrant locations within 500' of fire lanes
7. Dimension from fire hydrant to fire truck following fire lanes
8. Dimension from fire truck to all exterior portions of the building following walkable path

☒ Roof and Floor Plans

1. Fully dimensioned roof and floor plans drawn to a common architectural scale
2. Layout of rooms
3. Roof mounted mechanical and screening
4. Detailed layout of structured parking
5. Storage and mechanical areas

☒ Building Elevations

1. Fully dimensioned elevations drawn to a common architectural scale
2. Overall building height and finished floor elevations
3. Exterior materials and colors
4. Existing and proposed grade
5. Roof-mounted mechanical equipment and screening methods
6. HVAC venting and penetrations, and architectural lighting
7. 3D renderings
8. Building sections (if applicable)
9. Include street profile rendering (if applicable)

☒ Landscape Plan

1. Completed Landscape Worksheet
2. Site plan and grading plan details
3. Existing private trees 8" or more in diameter, including size, location, species, and driplines
4. All existing public trees, including size, locations, species, and driplines. Note: The final street tree species selection will be determined by City Forestry
5. Proposed trees, including size, location, species, and dripline
6. Plant Schedule identifying the symbol, quantity, scientific and common name, height, spread, size, and points for each planting
7. Other landscape materials, including mulch type, ground plantings and shrubs, size and species, and hard surface materials including terrace
8. Site amenities, including bike parking, benches, trash receptacles, lighting and signage, etc. (if no lighting is proposed, note on plan)
9. Location, type, materials, height with detail of proposed fences, walls, and other screening materials
10. Areas of seeding and sodding or mulching, including terrace
11. Tree removal table indicating which trees, both public and private trees, will be removed. NOTE: All tree removals in the public right-of-way require separate permit and approval by City Forestry (if applicable)
12. Areas to remain undisturbed and limits of land disturbance, including terrace (if applicable)
13. NOTE: Plants shall be depicted at their size at 60% of growth
14. NOTE: Impacts to public trees should be considered when proposing private trees, including species and mature size
15. NOTE: For lots greater than 10,000 square-feet, a registered Landscape Architect stamp is required.

☒ Additional Plan Set Requirements (as required)

1. Demolition Plan (if demolition is proposed)
   - Existing conditions site plan indicating what improvements are to be demolished, including buildings, existing private trees 8" or more in diameter, existing public trees, including size, locations, and driplines, sidewalks, driveways, streets, alleys, curb and gutter, etc
2. Lighting/Photometric Plan (if exterior lighting is proposed)
   - Proposed exterior light fixtures, both freestanding and wall mounted
   - Luminaire schedule, including the type and number of each fixture, mounting or pole height and angle, the type of light (metal halide, etc.), wattage, initial lumen rating, uniformity ratio, operating controls, and light levels at the property line four feet above grade
   - Cut sheet of each proposed fixture providing a graphic of the fixtures concealment and light cutoff angle
3. Draft or recorded copies of agreements, easements or restrictions required to develop the project site as proposed
4. Management or operating plan
5. Transportation Demand Management Plan
6. Traffic Impact Study
7. Stormwater Report
8. Street Tree Plan (if significant impacts to existing street trees)
   - All existing and proposed public improvements, including fire hydrants, sidewalks, curb and gutter, streets, driveways, bus stops, lighting, etc.
   - All existing street trees, including size, locations, species and driplines. Note: The final street tree species selection will be determined by City Forestry
   - Aerial fire access zones
   - Indicate which trees are to be removed
   - Proposed changes in terrace including grade and treatment
   - Expected excavation limits in the terrace for soil retention (if applicable)

Bloedel, Chad

From: Miller, Thomas
Sent: Wednesday, January 23, 2019 5:10 PM
To: district8@cityofmadison.com; chhoffma@gmail.com; prezalex87@gmail.com
Subject: PD Amendment 780 (760) Regent Street

Alder Wood, Colin and Chris
Please let this serve as our official notice that we intend to file for an amendment to the PUD/SIP for a development of the 780 Regent St, Property. We will be presenting the project at an informational UDC meeting February 13th. Please call with questions or comments.
Best,
TM

Thomas Miller, AIA
Principal
Housing and Hospitality Team Leader

Kahler Slater
608-225-4040 Mobile
414-290-3748 Direct
tmiller@kahlerslater.com
kahlerslater.com

City of Madison Property Information
Property Address: 780 Regent St
Parcel Number: 070923230018

LEGAL DESCRIPTION

Information current as of: 3/5/19 12:00AM

Notice: This description may be abbreviated and is for assessment purposes only. It should not be used to transfer property

Lot Number:	0
Block:	0

WEST MADISON DEPOT, PRT OF LOTS 1 & 2 DESC AS FOL: BEG NW COR LOT 1, TH S 67 DEG 30 MIN 42 SEC E 384.5 FT, TH S 22 DEG 29 MIN 18 SEC W 259.81 FT, TH S 00 DEG 43 MIN 36 SEC W 72.28 FT, TH N 89 DEG 16 MIN 24 SEC W 103.4 FT, TH N 75 DEG 57 MIN 12 SEC W 50.2 FT, TH N 00 DEG 19 MIN 11 SEC E 12.21 FT, TH N 70 DEG 40 MIN 55 SEC W 116.45 FT, TH N 01 DEG 00 MIN 26 SEC E 395.23 FT TO POB.

Property Information Questions?

Assessor's Office
210 Martin Luther King, Jr. Boulevard, Room 101
Madison, Wisconsin 53703-3342
Phone: (608) 266-4531
Email: assessor@cityofmadison.com

City of Madison Fire Department

314 W Dayton Street, Madison, WI 53703-2506
Phone: 608-266-4420 • Fax: 608-267-1100 • E-mail: fire@cityofmadison.com

Project Address:	780 Regent St
Contact Name & Phone #:	Joe Goldsworthy 608-821-3977

FIRE APPARATUS ACCESS AND FIRE HYDRANT WORKSHEET

1. Is the building completely protected by an NFPA 13 or 13R automatic fire sprinkler system?	☒ Yes	☐ No	☐ N/A
If non-sprinklered, fire lanes extend to within 150-feet of all portions of the exterior wall?	☐ Yes	☐ No	☒ N/A
If sprinklered, fire lanes are within 250-feet of all portions of the exterior wall?	☒ Yes	☐ No	☐ N/A
2. Is the fire lane constructed of concrete or asphalt, designed to support a minimum load of 85,000 lbs?	☒ Yes	☐ No	☐ N/A
a) Is the fire lane a minimum unobstructed width of at least 20-feet?	☒ Yes	☐ No	☐ N/A
b) Is the fire lane unobstructed with a vertical clearance of at least 13½-feet?	☒ Yes	☐ No	☐ N/A
c) Is the minimum inside turning radius of the fire lane at least 28-feet?	☒ Yes	☐ No	☐ N/A
d) Is the grade of the fire lane not more than a slope of 8%?	☒ Yes	☐ No	☐ N/A
e) Is the fire lane posted as fire lane? (Provide detail of signage.)	☒ Yes	☐ No	☐ N/A
f) Is a roll-able curb used as part of the fire lane? (Provide detail of curb.)	☐ Yes	☒ No	☐ N/A
g) Is part of a sidewalk used as part of the required fire lane? (Must support +85,000 lbs.)	☐ Yes	☒ No	☐ N/A
3. Is the fire lane obstructed by security gates or barricades? If yes:	☐ Yes	☒ No	☐ N/A
a) Is the gate a minimum of 20-feet clear opening?	☐ Yes	☐ No	☒ N/A
b) Is an approved means of emergency operations installed, key vault, padlock or key switch?	☐ Yes	☐ No	☒ N/A
4. Is the Fire lane dead-ended with a length greater than 150-feet?	☒ Yes	☐ No	☐ N/A
If yes, does the area for turning around fire apparatus comply with IFC D103?	☒ Yes	☐ No	☐ N/A
5. Is any portion of the building to be used for high-piled storage in accordance with IFC Chapter 3206.6 If yes, see IFC 3206.6 for further requirements.	☐ Yes	☒ No	☐ N/A
6. Is any part of the building <u>greater than 30-feet</u> above the grade plane?	☒ Yes	☐ No	☐ N/A
If yes, answer the following questions:			
a) Is the aerial apparatus fire lane parallel to one entire side of the building and covering at least 25% of the perimeter?	☐ Yes	☒ No	☐ N/A
b) Is the near edge of the aerial apparatus fire lane between 15' and 30' from the building?	☒ Yes	☐ No	☐ N/A
c) Are there any overhead power or utility lines located across the aerial apparatus fire lane?	☐ Yes	☒ No	☐ N/A
d) Are there any tree canopies expected to grow across the aerial fire lane? (Based on mature canopy width of tree species)	☐ Yes	☒ No	☐ N/A
e) Does the aerial apparatus fire lane have a minimum unobstructed width of 26-feet?	☒ Yes	☐ No	☐ N/A
f) Is the space between the aerial lane and the building free of trees exceeding 20' in heights?	☐ Yes	☒ No	☐ N/A
7. Are all portions of the required fire lanes within 500-feet of at least (2) hydrants?	☒ Yes	☐ No	☐ N/A
Note: Distances shall be measured along the path of the hose lay as it comes off the fire apparatus.			
a) Is the fire lane at least 26' wide for at least 20-feet on each side of the hydrants?	☐ Yes	☐ No	☒ N/A
b) Is there at least 40' between a hydrant and the building?	☒ Yes	☐ No	☐ N/A
c) Are the hydrant(s) setback no less than 5-feet nor more than 10-feet from the curb or edge of the street or fire lane?	☒ Yes	☐ No	☐ N/A
d) Are hydrants located in parking lot islands a minimum of 3½-feet from the hydrant to the curb?	☐ Yes	☐ No	☒ N/A
e) Are there no obstructions, including but not limited to: power poles, trees, bushes, fences, posts located, or grade changes exceeding 1½-feet, within 5-feet of a fire hydrant?	☒ Yes	☐ No	☐ N/A
Note: Hydrants shall be installed and in-service prior to combustible construction on the project site.			

Attach an additional sheet if further explanation is required for any answers.

This worksheet is based on **MGO 34.503** and **IFC 2015 Edition Chapter 5 and Appendix D**; please see the codes for further information.

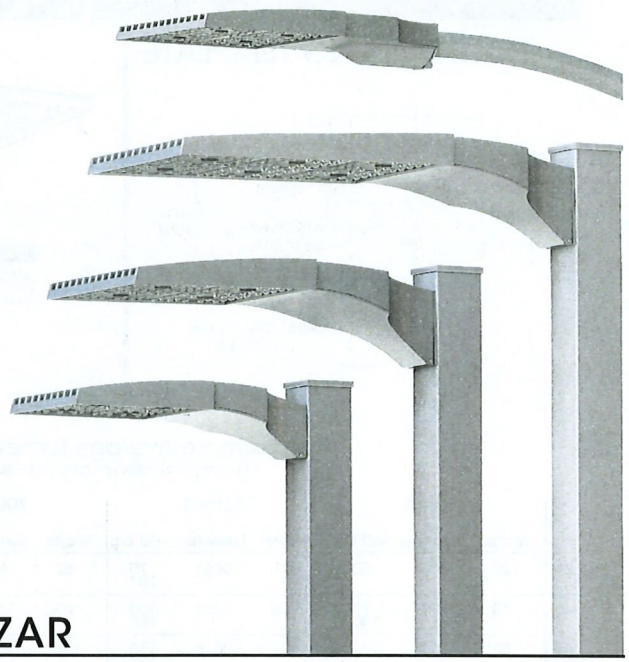
SOLID STATE AREA LIGHTING

RAZAR SERIES-LED

S P E C I F I C A T I O N S

PROJECT NAME:

PROJECT TYPE: P



RAZAR

(MODELS: RZRM, RZR, RZR-G & RZR-MAF*) PATENT PENDING

OPTICAL HOUSING
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance <± .002") to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ELECTRICAL HOUSING w/ INTEGRATED ARM
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED™ OPTICS
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments.

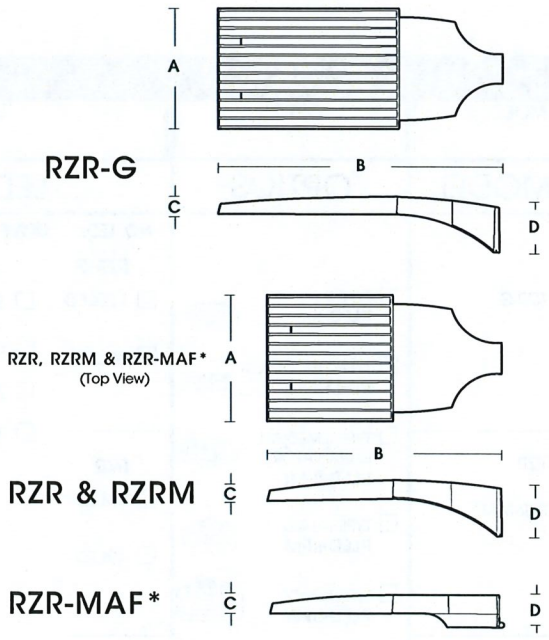
LED DRIVER(S)
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

LED EMITTERS
High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

AMBER LED's
PCA (Phosphor Converted Amber) LED's utilize phosphors to create color output similar to LPS lamps and have a slight output in the blue spectral bandwidth. **TRA** (True Amber) LED's utilize material that emits light in the amber spectral bandwidth only without the use of phosphors.

FINISH
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

MAST ARM FITTER/ELECTRICAL HOUSING
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5 or +3° up from the horizontal. All hardware is stainless steel.



FIXTURE	A	B	C	D
RZR-G	15" 381mm	36.5" 927mm	3" 76mm	7" 187mm
RZR	14.75" 375mm	28.25" 718mm	2.75" 70mm	6.5" 165mm
RZRM	11.5" 292mm	22" 559mm	2.5" 64mm	5.25" 133mm
RZR-MAF	15" 381mm	28.25" 724mm	2.5" 64mm	4" 102mm

*DLC PENDING AS OF 7/17

c UL us LISTED

MADE IN THE USA

2018358

U.S. Architectural Lighting

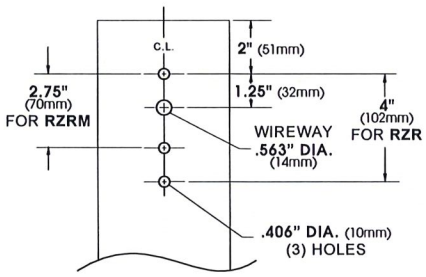
660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

U.S. ARCHITECTURAL LIGHTING

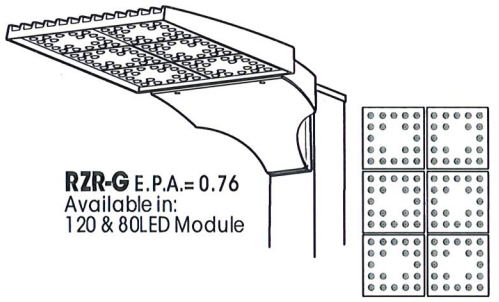
RAZAR SERIES-LED

SPECIFICATIONS

POLE DRILLING TEMPLATE

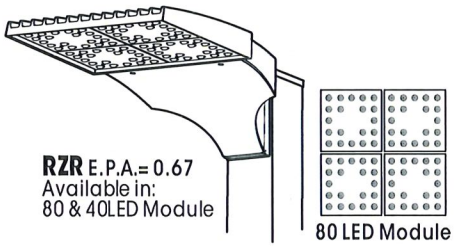


PLED® MODULES



RZR-G E.P.A.= 0.76
Available in:
120 & 80LED Module

120 LED Module

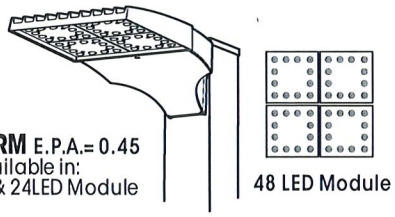


RZR E.P.A.= 0.67
Available in:
80 & 40LED Module

80 LED Module

Approximate Average Lumens – 4000K
(Lumens median of all distributions)

	350mA			525mA			700mA			1050mA		
	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.
24	28	3541	50	41	5058	70-100	53	6567	100	81	8773	150-175
40	45	5997	70-100	66	8653	100-150	87	10995	175	134	14647	200-250
48	55	7046	100	81	10018	150-175	105	12600	200	160	17566	250
80	87	11622	175-200	131	16736	200-250	174	21235	400	266	28190	450-575
120	127	17405	250	195	24860	450	260	31592	575-750	396	43323	750-1000



RZRM E.P.A.= 0.45
Available in:
48 & 24LED Module

48 LED Module

Spec/Order Example: RZR/PLED-IV/80LED-700mA/CW/277/RAL-8019-S

SPEC/ORDERING INFORMATION

MODEL	OPTICS	LED MODE	VOLTAGE	FINISH	OPTIONS

MODEL

- ☐ RZR-G
- ☐ RZR
- ☐ RZR-MAF[1]
- ☐ RZRM

NOTES:
1 - DLC PENDING AS OF 7/17

OPTICS

- ☐ TYPE II **PLED-II** .....
- ☐ TYPE II FRONT ROW **PLED-II-FR** .....
- ☐ TYPE II MEDIAN ILLUMINATOR **PLED-II-ML** .....
- ☐ TYPE III MED. **PLED-III-M** .....
- ☐ TYPE III WIDE **PLED-III-W** ....
- ☐ TYPE IV **PLED-IV** .....
- ☐ TYPE IV **PLED-IV-FT** .....
- ☐ TYPE V NARROW **PLED-VSQ-N** ....
- ☐ TYPE V MED. **PLED-V-SQ-M** ..
- ☐ TYPE V WIDE **PLED-V-SQ-W** ..

LED MODE

NO. LEDs

RZR-G
- ☐ 120LED
- ☐ 80LED

RZR
- ☐ 80LED
- ☐ 40LED

RZRM
- ☐ 48LED
- ☐ 24LED

DRIVE CURRENT
- ☐ 350mA
- ☐ 525mA
- ☐ 700mA[2]
- ☐ 1050mA[2]

COLOR TEMP - CCT
- ☐ NW (4000K)* *STANDARD
- ☐ CW (5000K)
- ☐ WW (3000K)

CONSULT FACTORY FOR OTHER LED COLORS

AMBER[3]
- ☐ PHOSPHOR CONVERTED AMBER **PCA**
- ☐ TRUE AMBER[4] **TRA**

NOTES:
2 - 700mA and 1050mA NOT FOR USE WITH TRA LED'S

3 - NARROW BAND AMBERS HAVE NO DEFINABLE CCT EQUIVALENT

4 - AVAILABLE IN 350mA & 525mA DRIVE CURRENTS ONLY

VOLTAGE
- ☐ 120
- ☐ 208
- ☐ 240
- ☐ 277
- ☐ 347
- ☐ 480

FINISH

STANDARD TEXTURED FINISH
- ☐ BLACK **RAL-9005-T**
- ☐ WHITE **RAL-9003-T**
- ☐ GREY **RAL-7004-T**
- ☐ DARK BRONZE **RAL-8019-T**
- ☐ GREEN **RAL-6005-T**

FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S)

CONSULT FACTORY FOR CUSTOM COLORS

OPTIONS
- ☐ HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR ..... **HLSW**
- ☐ INTERNAL HOUSE SIDE SHIELD ... **HS-PLED**
- ☐ PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) .. **PC+V**
- ☐ TWIST LOCK RECEPTACLE ONLY ... **TPR**
- ☐ 7-PIN TWIST LOCK RECEPTACLE ONLY ... **TPR7**
- ☐ SINGLE FUSE (120V, 277V, 347V) .. **SF**
- ☐ DOUBLE FUSE (208V, 240V, 480V) .. **DF**
- ☐ STEP DIM MOTION SENSOR (PROGRAMMED 50/100) **MS-F211**
- ☐ REMOTE MOTION SENSOR CONFIGURATOR **MS-FC10**

U.S. Architectural Lighting

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES-LED

LED/ELECTRICAL GUIDE

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K CCT	INITIAL LUMENS - 3000K CCT	INITIAL LUMENS - 5000K CCT	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
24	LED	24 PLED® Optical Module - 350mA	3,298 - 3,784	3,133 - 3,595	3,463 - 3,973	60,000+	-20°F	29	120 277	0.24 0.10
24	LED	24 PLED® Optical Module - 525mA	4,711 - 5,405	4,475 - 5,135	4,947 - 5,675	60,000+	-20°F	42	120 277	0.34 0.15
24	LED	24 PLED® Optical Module - 700mA	6,023 - 6,911	5,722 - 6,565	6,324 - 7,256	60,000+	-20°F	56	120 277	0.45 0.20
24	LED	24 PLED® Optical Module - 1050mA	8,171 - 9,375	7,762 - 8,906	8,580 - 9,844	60,000+	-20°F	82	120 277	0.68 0.30
40	LED	40 PLED Optical Module - 350mA	5,585 - 6,408	5,306 - 6,088	5,864 - 6,729	60,000+	-20°F	43	120 277	0.38 0.17
40	LED	40 PLED® Optical Module - 525mA	8,059 - 9,246	7,656 - 8,784	8,462 - 9,709	60,000+	-20°F	65	120 277	0.55 0.24
40	LED	40 PLED® Optical Module - 700mA	10,240 - 11,749	9,728 - 11,162	10,752 - 12,337	60,000+	-20°F	87	120 277	0.73 0.32
40	LED	40 PLED® Optical Module - 1050mA	13,642 - 15,652	12,960 - 14,870	14,324 - 16,435	60,000+	-20°F	128	120 277	1.12 0.49
48	LED	48 PLED® Optical Module - 350mA	6,562 - 7,529	6,234 - 7,153	6,890 - 7,909	60,000+	-20°F	53	120 277	0.46 0.20
48	LED	48 PLED® Optical Module - 525mA	9,330 - 10,705	8,864 - 10,170	9,797 - 11,240	60,000+	-20°F	79	120 277	0.68 0.29
48	LED	48 PLED® Optical Module - 700mA	11,735 - 13,464	11,148 - 12,791	12,322 - 14,137	60,000+	-20°F	106	120 277	0.88 0.38
48	LED	48 PLED® Optical Module - 1050mA	16,360 - 18,771	15,542 - 17,832	17,178 - 19,709	60,000+	-20°F	160	120 277	1.33 0.58
RZR										
80	LED	80 PLED® Optical Module - 350mA	10,824 - 12,419	10,283 - 11,798	11,365 - 13,040	60,000+	-20°F	86	120 277	0.75 0.33
80	LED	80 PLED® Optical Module - 525mA	15,587 - 17,884	14,808 - 16,990	16,366 - 18,778	60,000+	-20°F	130	120 277	1.10 0.48
80	LED	80 PLED® Optical Module - 700mA	19,767 - 22,680	18,779 - 21,546	20,755 - 23,814	60,000+	-20°F	174	120 277	1.45 0.63
80	LED	80 PLED® Optical Module - 1050mA	26,255 - 30,124	24,942 - 28,618	27,568 - 31,630	60,000+	-20°F	257	120 277	2.22 0.96
RZR-G										
80	LED	80 PLED® Optical Module - 350mA	10,950 - 12,564	10,403 - 11,936	11,498 - 13,192	60,000+	-20°F	87	120 277	0.75 0.33
80	LED	80 PLED® Optical Module - 525mA	15,735 - 18,054	14,948 - 17,151	16,522 - 18,957	60,000+	-20°F	129	120 277	1.10 0.48
80	LED	80 PLED® Optical Module - 700mA	20,074 - 23,032	19,071 - 21,881	21,078 - 24,184	60,000+	-20°F	174	120 277	1.45 0.63
80	LED	80 PLED® Optical Module - 1050mA	27,651 - 31,725	26,268 - 30,139	29,033 - 33,311	60,000+	-20°F	266	120 277	2.22 0.96
120	LED	120 PLED® Optical Module - 350mA	16,211 - 18,599	15,400 - 17,669	17,021 - 19,529	60,000+	-20°F	130	120 277	1.06 0.46
120	LED	120 PLED® Optical Module - 525mA	23,154 - 26,566	21996 - 25,238	24,312 - 27,894	60,000+	-20°F	192	120 277	1.63 0.70
120	LED	120 PLED® Optical Module - 700mA	29,424 - 33,760	27,953 - 32,072	30,895 - 35,448	60,000+	-20°F	260	120 277	2.17 0.94
120	LED	120 PLED® Optical Module - 1050mA	40,350 - 46,296	38,333 - 43,981	42,368 - 48,611	60,000+	-20°F	398	120 277	3.33 1.43

NOTES:
1. Max Input Amps is the highest of starting, operating, or open circuit currents.
2. Lumen values for LED Modules vary according to the distribution type. 80LED array appears in both the RZR and RZR-G models.
3. System Watts includes the source watts and all driver components.
4. Fuse value should be sufficient to protect all wiring components. For electronic driver and LED component protection, use surge suppressor supplied with luminaire. Note: Surge suppressors are considered a perishable device.
5. L70(10K) – TM-21 6x rule applied.

WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

SOLID STATE AREA LIGHTING

RAZAR SERIES-LED

S P E C I F I C A T I O N S

PROJECT NAME:

PROJECT TYPE: P

RAZAR

(MODELS: RZRM, RZR, RZR-G & RZR-MAF*) PATENT PENDING

OPTICAL HOUSING
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance <± .002") to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ELECTRICAL HOUSING w/ INTEGRATED ARM
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED™ OPTICS
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments.

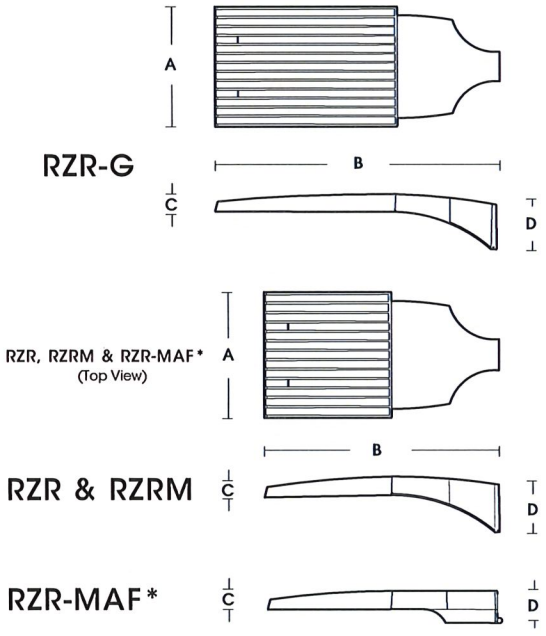
LED DRIVER(S)
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

LED EMITTERS
High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

AMBER LED's
PCA (Phosphor Converted Amber) LED's utilize phosphors to create color output similar to LPS lamps and have a slight output in the blue spectral bandwidth. **TRA** (True Amber) LED's utilize material that emits light in the amber spectral bandwidth only without the use of phosphors.

FINISH
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

MAST ARM FITTER/ELECTRICAL HOUSING
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5 or +3° up from the horizontal. All hardware is stainless steel.



FIXTURE	A	B	C	D
RZR-G	15" 381mm	36.5" 927mm	3" 76mm	7" 187mm
RZR	14.75" 375mm	28.25" 718mm	2.75" 70mm	6.5" 165mm
RZRM	11.5" 292mm	22" 559mm	2.5" 64mm	5.25" 133mm
RZR-MAF	15" 381mm	28.25" 724mm	2.5" 64mm	4" 102mm

*DLC PENDING AS OF 7/17

c UL us LISTED

MADE IN THE USA

2018358

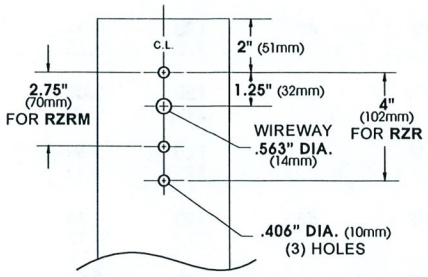
U.S. Architectural Lighting
660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usatlg.com

U.S. ARCHITECTURAL LIGHTING

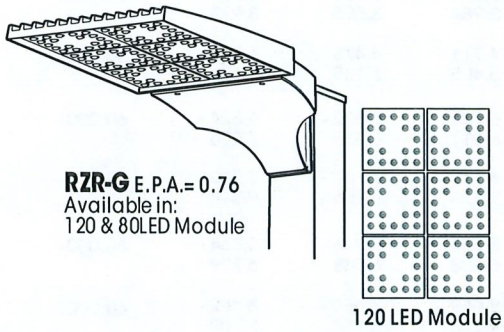
RAZAR SERIES-LED

SPECIFICATIONS

POLE DRILLING TEMPLATE

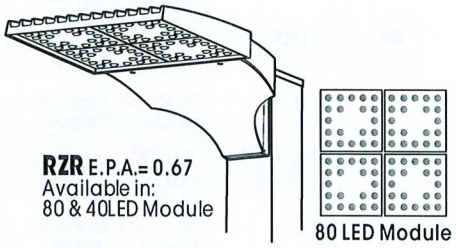


PLED® MODULES



RZR-G E.P.A.= 0.76
Available in:
120 & 80LED Module

120 LED Module



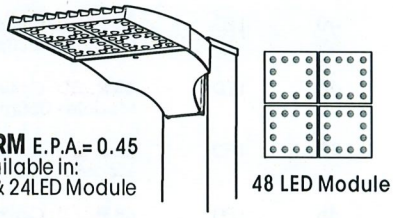
RZR E.P.A.= 0.67
Available in:
80 & 40LED Module

80 LED Module

Approximate Average Lumens – 4000K

(Lumens median of all distributions)

	350mA			525mA			700mA			1050mA		
	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.
24	28	3541	50	41	5058	70-100	53	6567	100	81	8773	150-175
40	45	5997	70-100	66	8653	100-150	87	10995	175	134	14647	200-250
48	55	7046	100	81	10018	150-175	105	12600	200	160	17566	250
80	87	11622	175-200	131	16736	200-250	174	21235	400	266	28190	450-575
120	127	17405	250	195	24860	450	260	31592	575-750	396	43323	750-1000



RZRM E.P.A.= 0.45
Available in:
48 & 24LED Module

48 LED Module

Spec/Order Example: RZR/PLED-IV/80LED-700mA/CW/277/RAL-8019-S

SPEC/ORDERING INFORMATION

MODEL	OPTICS	LED MODE	VOLTAGE	FINISH	OPTIONS

MODEL

- ☐ RZR-G
- ☐ RZR
- ☐ RZR-MAF[1]
- ☐ RZRM

NOTES:
1 - DLC PENDING AS OF 7/17

OPTICS

- ☐ TYPE II **PLED-II** .....
- ☐ TYPE II FRONT ROW **PLED-II-FR** .....
- ☐ TYPE II MEDIAN ILLUMINATOR **PLED-II-ML** .....
- ☐ TYPE III MED. **PLED-III-M** .....
- ☐ TYPE III WIDE **PLED-III-W** .....
- ☐ TYPE IV **PLED-IV** .....
- ☐ TYPE IV **PLED-IV-FT** .....
- ☐ TYPE V NARROW **PLED-VSQ-N** .....
- ☐ TYPE V MED. **PLED-V-SQ-M** ..
- ☐ TYPE V WIDE **PLED-V-SQ-W** ..

LED MODE

NO. LEDs

RZR-G
- ☐ 120LED
- ☐ 80LED

RZR
- ☐ 80LED
- ☐ 40LED

RZRM
- ☐ 48LED
- ☐ 24LED

DRIVE CURRENT
- ☐ 350mA
- ☐ 525mA
- ☐ 700mA[2]
- ☐ 1050mA[2]

COLOR TEMP - CCT
- ☐ NW (4000K)* *STANDARD
- ☐ CW (5000K)
- ☐ WW (3000K)

CONSULT FACTORY FOR OTHER LED COLORS

AMBER[3]
- ☐ PHOSPHOR CONVERTED AMBER **PCA**
- ☐ TRUE AMBER[4] **TRA**

NOTES:
2 - 700mA and 1050mA NOT FOR USE WITH TRA LED'S

3 - NARROW BAND AMBERS HAVE NO DEFINABLE CCT EQUIVALENT

4 - AVAILABLE IN 350mA & 525mA DRIVE CURRENTS ONLY

VOLTAGE

- ☐ 120
- ☐ 208
- ☐ 240
- ☐ 277
- ☐ 347
- ☐ 480

FINISH

STANDARD TEXTURED FINISH
- ☐ BLACK **RAL-9005-T**
- ☐ WHITE **RAL-9003-T**
- ☐ GREY **RAL-7004-T**
- ☐ DARK BRONZE **RAL-8019-T**
- ☐ GREEN **RAL-6005-T**

FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S)

CONSULT FACTORY FOR CUSTOM COLORS

OPTIONS

- ☐ HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR ..... **HLSW**
- ☐ INTERNAL HOUSE SIDE SHIELD ... **HS-PLED**
- ☐ PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) .. **PC+V**
- ☐ TWIST LOCK RECEPTACLE ONLY ... **TPR**
- ☐ 7-PIN TWIST LOCK RECEPTACLE ONLY ... **TPR7**
- ☐ SINGLE FUSE (120V, 277V, 347V) .. **SF**
- ☐ DOUBLE FUSE (208V, 240V, 480V) .. **DF**
- ☐ STEP DIM MOTION SENSOR (PROGRAMMED 50/100) **MS-F211**
- ☐ REMOTE MOTION SENSOR CONFIGURATOR **MS-FC10**

U.S. Architectural Lighting

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES-LED

LED/ELECTRICAL GUIDE

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K CCT	INITIAL LUMENS - 3000K CCT	INITIAL LUMENS - 5000K CCT	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
24	LED	24 **PLED**® Optical Module - 350mA	3,298 - 3,784	3,133 - 3,595	3,463 - 3,973	60,000+	-20°F	29	120 277	0.24 0.10
24	LED	24 **PLED**® Optical Module - 525mA	4,711 - 5,405	4,475 - 5,135	4,947 - 5,675	60,000+	-20°F	42	120 277	0.34 0.15
24	LED	24 **PLED**® Optical Module - 700mA	6,023 - 6,911	5,722 - 6,565	6,324 - 7,256	60,000+	-20°F	56	120 277	0.45 0.20
24	LED	24 **PLED**® Optical Module - 1050mA	8,171 - 9,375	7,762 - 8,906	8,580 - 9,844	60,000+	-20°F	82	120 277	0.68 0.30
40	LED	40 **PLED** Optical Module - 350mA	5,585 - 6,408	5,306 - 6,088	5,864 - 6,729	60,000+	-20°F	43	120 277	0.38 0.17
40	LED	40 **PLED**® Optical Module - 525mA	8,059 - 9,246	7,656 - 8,784	8,462 - 9,709	60,000+	-20°F	65	120 277	0.55 0.24
40	LED	40 **PLED**® Optical Module - 700mA	10,240 - 11,749	9,728 - 11,162	10,752 - 12,337	60,000+	-20°F	87	120 277	0.73 0.32
40	LED	40 **PLED**® Optical Module - 1050mA	13,642 - 15,652	12,960 - 14,870	14,324 - 16,435	60,000+	-20°F	128	120 277	1.12 0.49
48	LED	48 **PLED**® Optical Module - 350mA	6,562 - 7,529	6,234 - 7,153	6,890 - 7,909	60,000+	-20°F	53	120 277	0.46 0.20
48	LED	48 **PLED**® Optical Module - 525mA	9,330 - 10,705	8,864 - 10,170	9,797 - 11,240	60,000+	-20°F	79	120 277	0.68 0.29
48	LED	48 **PLED**® Optical Module - 700mA	11,735 - 13,464	11,148 - 12,791	12,322 - 14,137	60,000+	-20°F	106	120 277	0.88 0.38
48	LED	48 **PLED**® Optical Module - 1050mA	16,360 - 18,771	15,542 - 17,832	17,178 - 19,709	60,000+	-20°F	160	120 277	1.33 0.58
RZR										
80	LED	80 **PLED**® Optical Module - 350mA	10,824 - 12,419	10,283 - 11,798	11,365 - 13,040	60,000+	-20°F	86	120 277	0.75 0.33
80	LED	80 **PLED**® Optical Module - 525mA	15,587 - 17,884	14,808 - 16,990	16,366 - 18,778	60,000+	-20°F	130	120 277	1.10 0.48
80	LED	80 **PLED**® Optical Module - 700mA	19,767 - 22,680	18,779 - 21,546	20,755 - 23,814	60,000+	-20°F	174	120 277	1.45 0.63
80	LED	80 **PLED**® Optical Module - 1050mA	26,255 - 30,124	24,942 - 28,618	27,568 - 31,630	60,000+	-20°F	257	120 277	2.22 0.96
RZR-G										
80	LED	80 **PLED**® Optical Module - 350mA	10,950 - 12,564	10,403 - 11,936	11,498 - 13,192	60,000+	-20°F	87	120 277	0.75 0.33
80	LED	80 **PLED**® Optical Module - 525mA	15,735 - 18,054	14,948 - 17,151	16,522 - 18,957	60,000+	-20°F	129	120 277	1.10 0.48
80	LED	80 **PLED**® Optical Module - 700mA	20,074 - 23,032	19,071 - 21,881	21,078 - 24,184	60,000+	-20°F	174	120 277	1.45 0.63
80	LED	80 **PLED**® Optical Module - 1050mA	27,651 - 31,725	26,268 - 30,139	29,033 - 33,311	60,000+	-20°F	266	120 277	2.22 0.96
120	LED	120 **PLED**® Optical Module - 350mA	16,211 - 18,599	15,400 - 17,669	17,021 - 19,529	60,000+	-20°F	130	120 277	1.06 0.46
120	LED	120 **PLED**® Optical Module - 525mA	23,154 - 26,566	21996 - 25,238	24,312 - 27,894	60,000+	-20°F	192	120 277	1.63 0.70
120	LED	120 **PLED**® Optical Module - 700mA	29,424 - 33,760	27,953 - 32,072	30,895 - 35,448	60,000+	-20°F	260	120 277	2.17 0.94
120	LED	120 **PLED**® Optical Module - 1050mA	40,350 - 46,296	38,333 - 43,981	42,368 - 48,611	60,000+	-20°F	398	120 277	3.33 1.43

NOTES:
1. Max Input Amps is the highest of starting, operating, or open circuit currents.
2. Lumen values for LED Modules vary according to the distribution type. 80LED array appears in both the RZR and RZR-G models.
3. System Watts includes the source watts and all driver components.
4. Fuse value should be sufficient to protect all wiring components. For electronic driver and LED component protection, use surge suppressor supplied with luminaire. Note: Surge suppressors are considered a perishable device.
5. L70(10K) – TM-21 6x rule applied.

WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

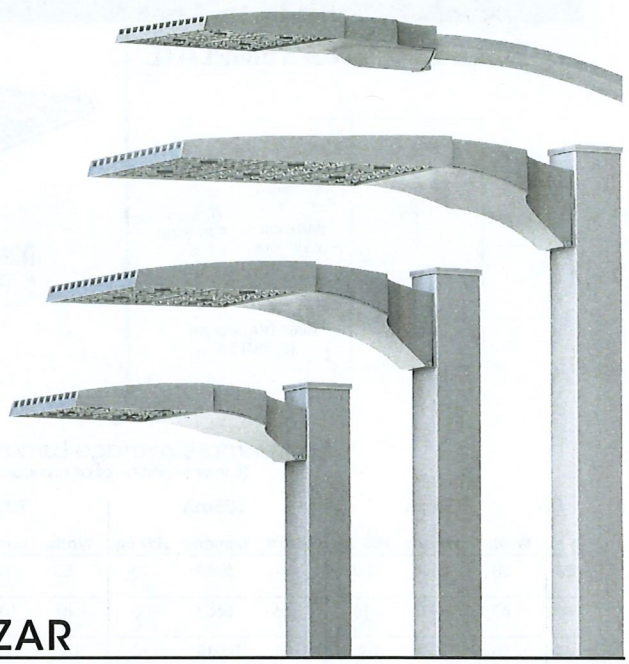
SOLID STATE AREA LIGHTING

RAZAR SERIES-LED

S P E C I F I C A T I O N S

PROJECT NAME: _____

PROJECT TYPE: P



RAZAR

(MODELS: RZRM, RZR, RZR-G & RZR-MAF*) PATENT PENDING

OPTICAL HOUSING
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance <± .002") to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ELECTRICAL HOUSING w/ INTEGRATED ARM
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED™ OPTICS
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments.

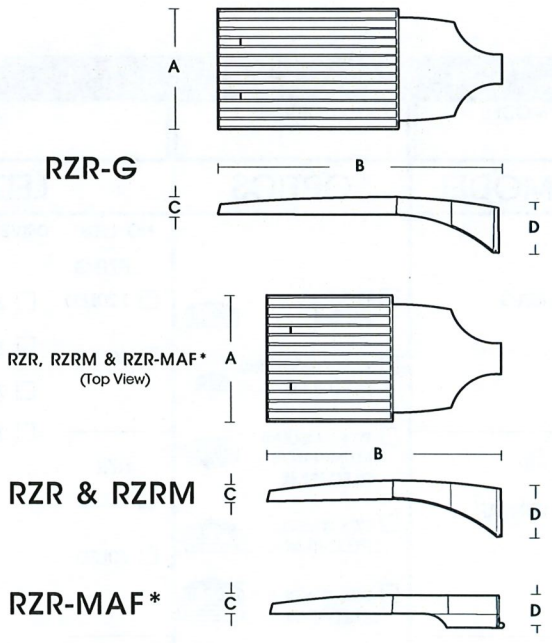
LED DRIVER(S)
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

LED EMITTERS
High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

AMBER LED's
PCA (Phosphor Converted Amber) LED's utilize phosphors to create color output similar to LPS lamps and have a slight output in the blue spectral bandwidth. **TRA** (True Amber) LED's utilize material that emits light in the amber spectral bandwidth only without the use of phosphors.

FINISH
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

MAST ARM FITTER/ELECTRICAL HOUSING
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5 or +3° up from the horizontal. All hardware is stainless steel.



FIXTURE	A	B	C	D
RZR-G	15" 381mm	36.5" 927mm	3" 76mm	7" 187mm
RZR	14.75" 375mm	28.25" 718mm	2.75" 70mm	6.5" 165mm
RZRM	11.5" 292mm	22" 559mm	2.5" 64mm	5.25" 133mm
RZR-MAF	15" 381mm	28.25" 724mm	2.5" 64mm	4" 102mm

*DLC PENDING AS OF 7/17

c UL us LISTED

MADE IN THE USA

2018358

U.S. Architectural Lighting

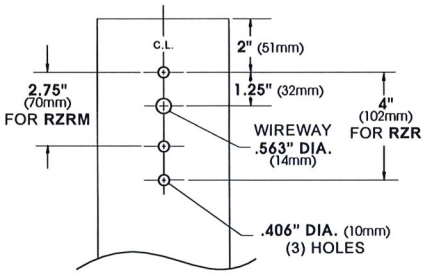
660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

U.S. ARCHITECTURAL LIGHTING

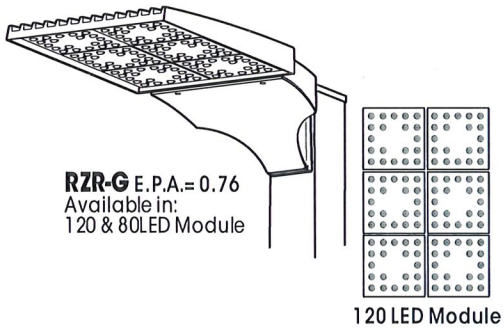
RAZAR SERIES-LED

SPECIFICATIONS

POLE DRILLING TEMPLATE

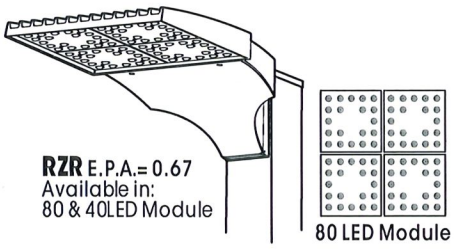


PLED® MODULES



RZR-G E.P.A.= 0.76
Available in:
120 & 80LED Module

120 LED Module



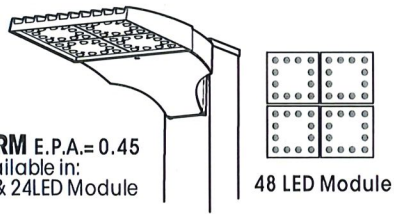
RZR E.P.A.= 0.67
Available in:
80 & 40LED Module

80 LED Module

Approximate Average Lumens – 4000K

(Lumens median of all distributions)

	350mA			525mA			700mA			1050mA		
	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.	Watts	Lumens	HID Eq.
24	28	3541	50	41	5058	70-100	53	6567	100	81	8773	150-175
40	45	5997	70-100	66	8653	100-150	87	10995	175	134	14647	200-250
48	55	7046	100	81	10018	150-175	105	12600	200	160	17566	250
80	87	11622	175-200	131	16736	200-250	174	21235	400	266	28190	450-575
120	127	17405	250	195	24860	450	260	31592	575-750	396	43323	750-1000



RZRM E.P.A.= 0.45
Available in:
48 & 24LED Module

48 LED Module

Spec/Order Example: RZR/PLED-IV/80LED-700mA/CW/277/RAL-8019-S

SPEC/ORDERING INFORMATION

MODEL	OPTICS	LED MODE	VOLTAGE	FINISH	OPTIONS

MODEL

- ☐ RZR-G
- ☐ RZR
- ☐ RZR-MAF[1]
- ☐ RZRM

NOTES:
1 - DLC PENDING AS OF 7/17

OPTICS

- ☐ TYPE II **PLED-II** .....
- ☐ TYPE II FRONT ROW **PLED-II-FR** .....
- ☐ TYPE II MEDIAN ILLUMINATOR **PLED-II-ML** .....
- ☐ TYPE III MED. **PLED-III-M** .....
- ☐ TYPE III WIDE **PLED-III-W** ....
- ☐ TYPE IV **PLED-IV** .....
- ☐ TYPE IV **PLED-IV-FT** .....
- ☐ TYPE V NARROW **PLED-VSQ-N** ....
- ☐ TYPE V MED. **PLED-V-SQ-M** ..
- ☐ TYPE V WIDE **PLED-V-SQ-W** ..

LED MODE

NO. LEDs

RZR-G
- ☐ 120LED
- ☐ 80LED

RZR
- ☐ 80LED
- ☐ 40LED

RZRM
- ☐ 48LED
- ☐ 24LED

DRIVE CURRENT
- ☐ 350mA
- ☐ 525mA
- ☐ 700mA[2]
- ☐ 1050mA[2]

COLOR TEMP - CCT
- ☐ NW (4000K)* *STANDARD
- ☐ CW (5000K)
- ☐ WW (3000K)

CONSULT FACTORY FOR OTHER LED COLORS

AMBER[3]
- ☐ PHOSPHOR CONVERTED AMBER **PCA**
- ☐ TRUE AMBER[4] **TRA**

NOTES:
2 - 700mA and 1050mA NOT FOR USE WITH TRA LED'S

3 - NARROW BAND AMBERS HAVE NO DEFINABLE CCT EQUIVALENT

4 - AVAILABLE IN 350mA & 525mA DRIVE CURRENTS ONLY

VOLTAGE

- ☐ 120
- ☐ 208
- ☐ 240
- ☐ 277
- ☐ 347
- ☐ 480

FINISH

STANDARD TEXTURED FINISH
- ☐ BLACK **RAL-9005-T**
- ☐ WHITE **RAL-9003-T**
- ☐ GREY **RAL-7004-T**
- ☐ DARK BRONZE **RAL-8019-T**
- ☐ GREEN **RAL-6005-T**

FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S)

CONSULT FACTORY FOR CUSTOM COLORS

OPTIONS

- ☐ HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR ..... **HLSW**
- ☐ INTERNAL HOUSE SIDE SHIELD ... **HS-PLED**
- ☐ PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) .. **PC+V**
- ☐ TWIST LOCK RECEPTACLE ONLY ... **TPR**
- ☐ 7-PIN TWIST LOCK RECEPTACLE ONLY ... **TPR7**
- ☐ SINGLE FUSE (120V, 277V, 347V) .. **SF**
- ☐ DOUBLE FUSE (208V, 240V, 480V) .. **DF**
- ☐ STEP DIM MOTION SENSOR (PROGRAMMED 50/100) **MS-F211**
- ☐ REMOTE MOTION SENSOR CONFIGURATOR **MS-FC10**

U.S. Architectural Lighting

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usalfg.com

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES-LED

LED/ELECTRICAL GUIDE

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K CCT	INITIAL LUMENS - 3000K CCT	INITIAL LUMENS - 5000K CCT	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
24	LED	24 PLED® Optical Module - 350mA	3,298 - 3,784	3,133 - 3,595	3,463 - 3,973	60,000+	-20°F	29	120 277	0.24 0.10
24	LED	24 PLED® Optical Module - 525mA	4,711 - 5,405	4,475 - 5,135	4,947 - 5,675	60,000+	-20°F	42	120 277	0.34 0.15
24	LED	24 PLED® Optical Module - 700mA	6,023 - 6,911	5,722 - 6,565	6,324 - 7,256	60,000+	-20°F	56	120 277	0.45 0.20
24	LED	24 PLED® Optical Module - 1050mA	8,171 - 9,375	7,762 - 8,906	8,580 - 9,844	60,000+	-20°F	82	120 277	0.68 0.30
40	LED	40 PLED Optical Module - 350mA	5,585 - 6,408	5,306 - 6,088	5,864 - 6,729	60,000+	-20°F	43	120 277	0.38 0.17
40	LED	40 PLED® Optical Module - 525mA	8,059 - 9,246	7,656 - 8,784	8,462 - 9,709	60,000+	-20°F	65	120 277	0.55 0.24
40	LED	40 PLED® Optical Module - 700mA	10,240 - 11,749	9,728 - 11,162	10,752 - 12,337	60,000+	-20°F	87	120 277	0.73 0.32
40	LED	40 PLED® Optical Module - 1050mA	13,642 - 15,652	12,960 - 14,870	14,324 - 16,435	60,000+	-20°F	128	120 277	1.12 0.49
48	LED	48 PLED® Optical Module - 350mA	6,562 - 7,529	6,234 - 7,153	6,890 - 7,909	60,000+	-20°F	53	120 277	0.46 0.20
48	LED	48 PLED® Optical Module - 525mA	9,330 - 10,705	8,864 - 10,170	9,797 - 11,240	60,000+	-20°F	79	120 277	0.68 0.29
48	LED	48 PLED® Optical Module - 700mA	11,735 - 13,464	11,148 - 12,791	12,322 - 14,137	60,000+	-20°F	106	120 277	0.88 0.38
48	LED	48 PLED® Optical Module - 1050mA	16,360 - 18,771	15,542 - 17,832	17,178 - 19,709	60,000+	-20°F	160	120 277	1.33 0.58
RZR										
80	LED	80 PLED® Optical Module - 350mA	10,824 - 12,419	10,283 - 11,798	11,365 - 13,040	60,000+	-20°F	86	120 277	0.75 0.33
80	LED	80 PLED® Optical Module - 525mA	15,587 - 17,884	14,808 - 16,990	16,366 - 18,778	60,000+	-20°F	130	120 277	1.10 0.48
80	LED	80 PLED® Optical Module - 700mA	19,767 - 22,680	18,779 - 21,546	20,755 - 23,814	60,000+	-20°F	174	120 277	1.45 0.63
80	LED	80 PLED® Optical Module - 1050mA	26,255 - 30,124	24,942 - 28,618	27,568 - 31,630	60,000+	-20°F	257	120 277	2.22 0.96
RZR-G										
80	LED	80 PLED® Optical Module - 350mA	10,950 - 12,564	10,403 - 11,936	11,498 - 13,192	60,000+	-20°F	87	120 277	0.75 0.33
80	LED	80 PLED® Optical Module - 525mA	15,735 - 18,054	14,948 - 17,151	16,522 - 18,957	60,000+	-20°F	129	120 277	1.10 0.48
80	LED	80 PLED® Optical Module - 700mA	20,074 - 23,032	19,071 - 21,881	21,078 - 24,184	60,000+	-20°F	174	120 277	1.45 0.63
80	LED	80 PLED® Optical Module - 1050mA	27,651 - 31,725	26,268 - 30,139	29,033 - 33,311	60,000+	-20°F	266	120 277	2.22 0.96
120	LED	120 PLED® Optical Module - 350mA	16,211 - 18,599	15,400 - 17,669	17,021 - 19,529	60,000+	-20°F	130	120 277	1.06 0.46
120	LED	120 PLED® Optical Module - 525mA	23,154 - 26,566	21996 - 25,238	24,312 - 27,894	60,000+	-20°F	192	120 277	1.63 0.70
120	LED	120 PLED® Optical Module - 700mA	29,424 - 33,760	27,953 - 32,072	30,895 - 35,448	60,000+	-20°F	260	120 277	2.17 0.94
120	LED	120 PLED® Optical Module - 1050mA	40,350 - 46,296	38,333 - 43,981	42,368 - 48,611	60,000+	-20°F	398	120 277	3.33 1.43

NOTES:
1. Max Input Amps is the highest of starting, operating, or open circuit currents.
2. Lumen values for LED Modules vary according to the distribution type. 80LED array appears in both the RZR and RZR-G models.
3. System Watts includes the source watts and all driver components.
4. Fuse value should be sufficient to protect all wiring components. For electronic driver and LED component protection, use surge suppressor supplied with luminaire. Note: Surge suppressors are considered a perishable device.
5. L70(10K) – TM-21 6x rule applied.

WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

SOLID STATE AREA LIGHTING

PROJECT NAME:

PROJECT TYPE: WM

RAZAR WALLMOUNT-LED

S P E C I F I C A T I O N S

OPTICAL HOUSING
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance <± .003") to facilitate thermal transfer of heat to housing and cooling fins. The Optical Housing bolts to the Electrical Housing forming a unified assembly.The minimum wall thickness is .188".

ELECTRICAL HOUSING
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly. Minimum wall thickness is .188". Fixture Mounting Plate affixes to mounting surface over a recessed j-box. Electrical Housing anchors on the top edge of the Mounting Plate and stainless steel recessed socket head screws tighten the Electrical Housing to the Mounting Plate from the bottom.

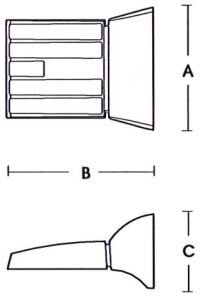
PLED™ OPTICAL MODULES
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. The asymmetric distributions, have a micro-reflector inside the refractor which re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce Type II, III, and Type IV site/area distributions as well as other specialty asymmetric distributions. Panels are field replaceable and field rotatable in 90° increments.

LED DRIVER(S)
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

LED EMITTERS
High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

AMBER LED's
PCA (Phosphor Converted Amber) LED's utilize phosphors to create color output similar to LPS lamps and have a slight output in the blue spectral bandwidth. **TRA** (True Amber) LED's utilize material that emits light in the amber spectral bandwidth only without the use of phosphors.

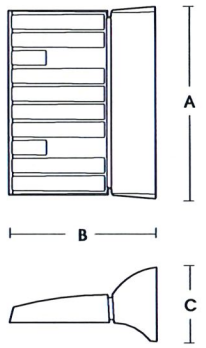
FINISH
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

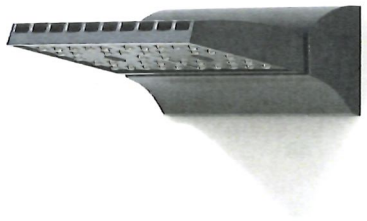


FIXTURE	A	B	C
RZRW1	8.75" (22mm)	12" (305mm)	6" (152mm)
RZRW1-EM	11" (279mm)	14" (356mm)	6.5" (165mm)

RZR-WM1

PATENT PENDING

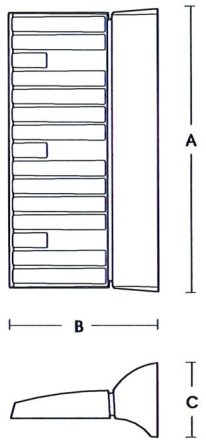


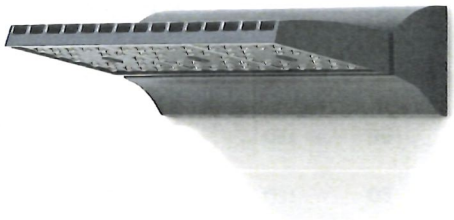


FIXTURE	A	B	C
RZRW2	16" (406mm)	12" (305mm)	6" (152mm)
RZRW2-EM	16" (406mm)	14" (356mm)	6.5" (165mm)

RZR-WM2

PATENT PENDING





FIXTURE	A	B	C
RZRW3	23" (584mm)	12" (305mm)	6" (152mm)
RZRW3-EM	23" (584mm)	14" (356mm)	6.5" (165mm)

RZR-WM3

PATENT PENDING

c UL us LISTED

MADE IN THE USA

2019093

U.S. Architectural Lighting

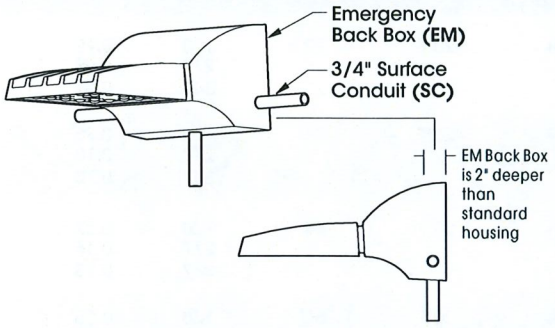
660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

U.S. ARCHITECTURAL LIGHTING

RAZAR WALLMOUNT SERIES-LED

SPECIFICATIONS

EMERGENCY OPTION



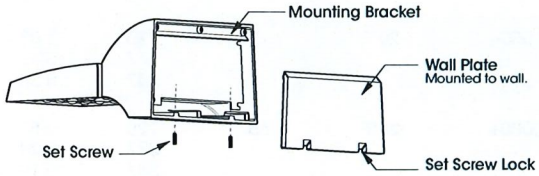
THE EMERGENCY OPTION BACK BOX EXTENDS 2" BEYOND THE STANDARD HOUSING AND CONTAINS THE EMERGENCY COMPONENTS (EC) INCLUDING BATTERIES OR CAN BE USED FOR SURFACE CONDUIT (SC) APPLICATIONS. THERE IS TO BE AN SC1, SC2, AND SC3 OPTION FOR THE DIFFERING HOUSING SIZES. SC SHIPS WITH THREADED CONDUIT PLUGS.

THE EM-LED SYSTEM PROVIDES POWER TO ALL LEDS IN THE ARRAY (20, 40, or 60) TO MEET THE FOLLOWING LIGHT LEVELS FOR A MINIMUM OF 90 MINUTES -

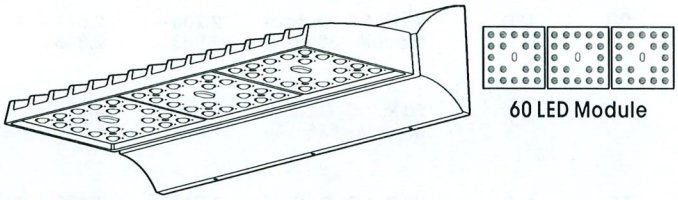
WM1 = 45% @ 350MA
WM2 = 36% @ 350MA
WM3 = 24% @ 350MA

*MULTIPLY THE % ABOVE BY THE LUMEN OUTPUT @ 350MA

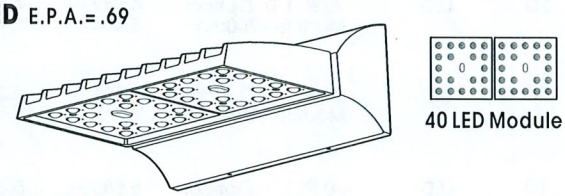
WALL MOUNTING



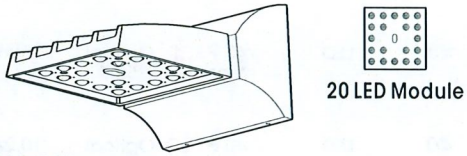
PLED® MODULES



RZR-WM3-LED E.P.A.= .69
Available in:
60 LED Module



RZR-WM2-LED E.P.A.= .47
Available in:
40 LED Module



RZR-WM1-LED E.P.A.= .33
Available in:
20LED Module

MAX INPUT WATTAGE

# OF LED's	DRIVE CURRENT 350mA	525mA	700mA	1050mA
60	68W	99W	131W	198W
40	45W	66W	87W	134W
20	23W	33W	44W	66W

Spec/Order Example: RZR-WM2/PLED-IV/40LED-700mA/CW/277/RAL-8019-S/SF

SPEC/ORDERING INFORMATION

MODEL	OPTICS	LED MODE	VOLTAGE	FINISH	OPTIONS

MODEL

- ☐ RZR-WM1
- ☐ RZR-WM2
- ☐ RZR-WM3

OPTICS

PLED® DISTRIBUTION TYPE

- ☐ TYPE II **PLED-II** .....
- ☐ TYPE II FRONT ROW **PLED-II-FR** .....
- ☐ TYPE III **PLED-III** .....
- ☐ TYPE III WIDE **PLED-III-W** ....
- ☐ TYPE IV **PLED-IV**.....
- ☐ TYPE IV-FT **PLED-IV-FT** ....

LED MODE

NO. LEDs

RZR-WM1
- ☐ 20LED

RZR-WM2
- ☐ 40LED

RZR-WM3
- ☐ 60LED

DRIVE CURRENT
- ☐ 350mA
- ☐ 525mA
- ☐ 700mA[1]
- ☐ 1050mA[1]

COLOR TEMP - CCT
- ☐ NW (4000K)* *STANDARD
- ☐ CW (5000K)
- ☐ WW (3000K)

CONSULT FACTORY FOR OTHER LED COLORS

AMBER[2]
- ☐ PHOSPHOR CONVERTED AMBER **PCA**
- ☐ TRUE AMBER[3] **TRA**

NOTES:
1 - 700mA and 1050mA NOT FOR USE WITH TRA LED'S
2 - NARROW BAND AMBERS HAVE NO DEFINABLE CCT EQUIVALENT
3 - AVAILABLE IN 350mA & 525mA DRIVE CURRENTS ONLY

VOLTAGE
- ☐ 120
- ☐ 208
- ☐ 240
- ☐ 277
- ☐ 347
- ☐ 480

FINISH

STANDARD TEXTURED FINISH
- ☐ BLACK **RAL-9005-T**
- ☐ WHITE **RAL-9003-T**
- ☐ GREY **RAL-7004-T**
- ☐ DARK BRONZE **RAL-8019-T**
- ☐ GREEN **RAL-6005-T**

FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S)

CONSULT FACTORY FOR CUSTOM COLORS

OPTIONS
- ☐ HIGH-LOW DIMMING FOR EXTERNAL CONTROL . . **HLSW**
- ☐ HOUSE SIDE SHIELDING ..... **HS-PLED**
- ☐ PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) . . . **PC+V**
- ☐ SINGLE FUSE (120V & 277V) ..... **SF**
- ☐ DOUBLE FUSE (208V & 240V) ..... **DF**
- ☐ STEP DIM MOTION SENSOR (PROGRAMMED 50/100) **MS-F211**
- ☐ REMOTE MOTION SENSOR CONFIGURATOR **MS-FC10**
- ☐ EMERGENCY BACKUP 1. .**EM1**
- ☐ EMERGENCY BACKUP 1 (HOUSING ONLY) **EMH1**
- ☐ EMERGENCY BACKUP 2. .**EM2**
- ☐ EMERGENCY BACKUP 3. .**EM3**
- ☐ SURFACE CONDUIT 1. . . **SC1**
- ☐ SURFACE CONDUIT 2 . . **SC2**
- ☐ SURFACE CONDUIT 3 . . **SC3**

U.S. Architectural Lighting
660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

U.S. ARCHITECTURAL LIGHTING

RAZAR WALLMOUNT-LED LAMP/ELECTRICAL GUIDE

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K	INITIAL LUMENS - 3000K	INITIAL LUMENS - 5000K	L70 GREATER THAN (HR)-TM21	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
20	LED	20 PLED® Optical Module - 350mA	2,706 - 2,993	2,571 - 2,843	2,841 - 3,143	60,000+	-20°F	22	120 277 347	0.19 0.08 0.07
20	LED	20 PLED® Optical Module - 525mA	3,897 - 4,310	3,702 - 4,095	4,092 - 4,526	60,000+	-20°F	33	120 277 347	0.28 0.12 0.10
20	LED	20 PLED® Optical Module - 700mA	4,942 - 5,466	4,695 - 5,193	5,189 - 5,739	60,000+	-20°F	44	120 277 347	0.37 0.16 0.13
20	LED	20 PLED® Optical Module - 1050mA	6,564 - 7,260	6,236 - 6,897	6,892 - 7,623	60,000+	-20°F	65	120 277 347	0.55 0.24 0.19
40	LED	40 PLED Optical Module - 350mA	5,585 - 6,178	5,206 - 5,869	5,864 - 6,487	60,000+	-20°F	43	120 277 347	0.36 0.16 0.13
40	LED	40 PLED® Optical Module - 525mA	8,059 - 8,914	7,656 - 8,468	8,462 - 9,360	60,000+	-20°F	65	120 277 347	0.55 0.24 0.19
40	LED	40 PLED® Optical Module - 700mA	10,240 - 11,327	9,728 - 10,761	10,752 - 11,893	60,000+	-20°F	87	120 277 347	0.73 0.32 0.26
40	LED	40 PLED® Optical Module - 1050mA	13,642 - 15,089	12,690 - 14,335	14,324 - 15,843	60,000+	-20°F	129	120 277 347	1.08 0.47 0.38
60	LED	60 PLED® Optical Module - 350mA	8,118 - 8,979	7,712 - 8,530	8,524 - 9,428	60,000+	-20°F	65	120 277 347	0.55 0.24 0.19
60	LED	60 PLED® Optical Module - 525mA	11,690 - 12,930	11,106 - 12,284	12,275 - 13,577	60,000+	-20°F	98	120 277 347	0.82 0.36 0.29
60	LED	60 PLED® Optical Module - 700mA	14,825 - 16,398	14,084 - 15,578	15,566 - 17,218	60,000+	-20°F	131	120 277 347	1.09 0.47 0.38
60	LED	60 PLED® Optical Module - 1050mA	19,691 - 21,780	18,706 - 20,691	20,676 - 22,869	60,000+	-20°F	193	120 277 347	1.61 0.70 0.56

NOTES:

1. Max Input Amps is the highest of starting, operating, or open circuit currents
2. Lumen values for LED Modules vary according to the distribution type
3. System Watts includes the source watts and all driver components.
4. Fuse value should be sufficient to protect all wiring components.
5. L70(10K) - TM-21 6x rule applied

   L70(10K) - Calculated = 244,000 @ 700mA
   = 102,000@ 1050mA

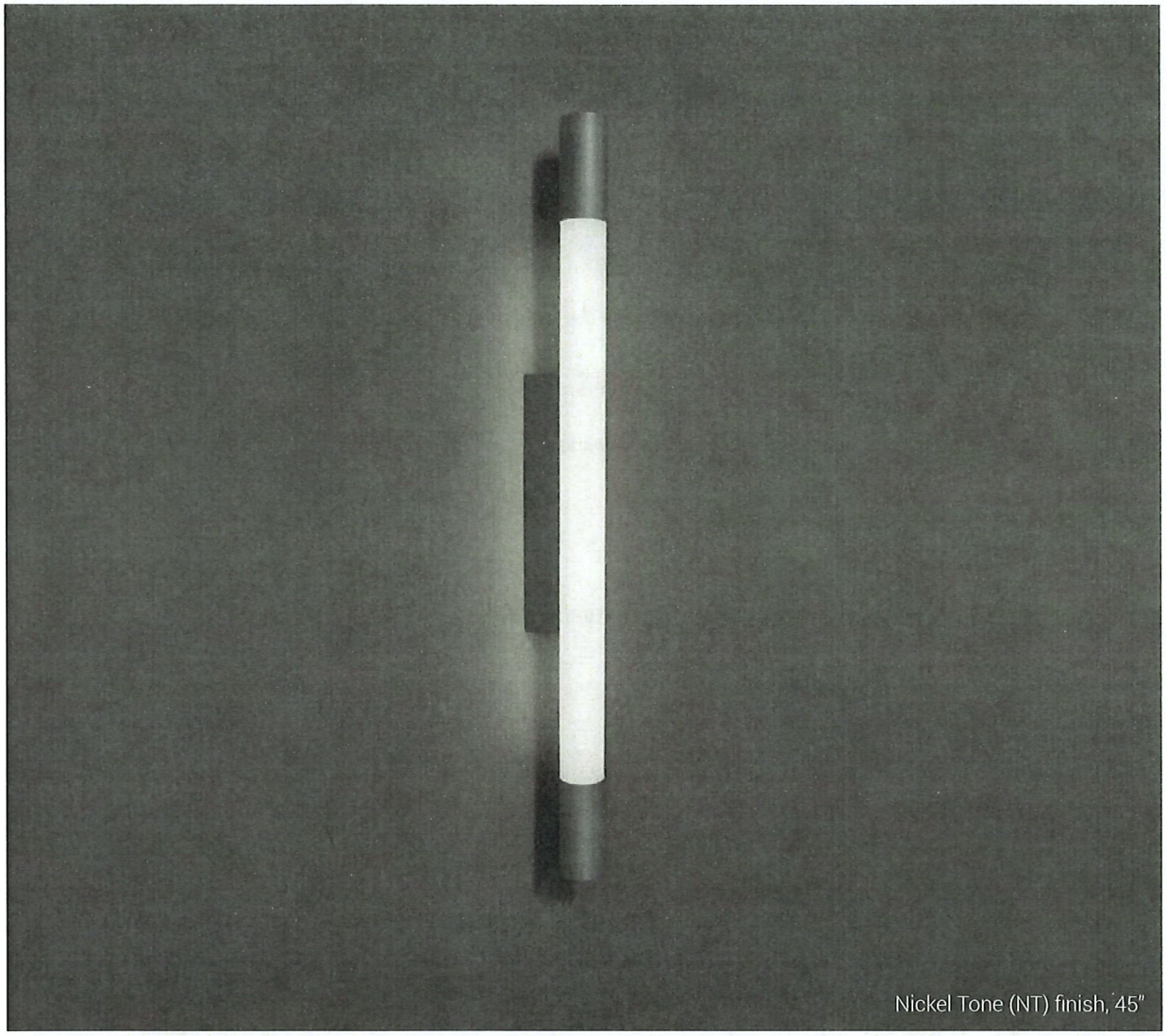
WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usaltg.com

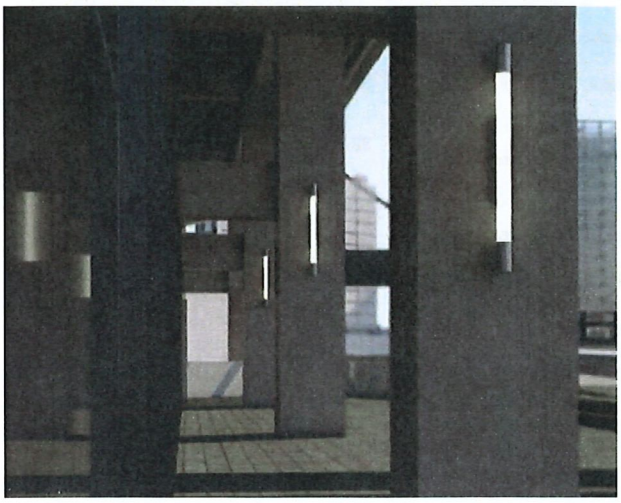
Job Name:	Catalog Number:	Type:
UW Hilton	SEE HIGHLIGHTED BELOW	XA

BEAM LED

BROWNLEE LIGHTING



Nickel Tone (NT) finish, 45"



BEAM LED

BEAM LED is a wet location rated product featuring a modern, architectural aesthetic. With four sizes available, this product is ideal for decorative exterior facades, breezeways, commercial interiors, bathrooms, healthcare and even stairwells (battery options available). Constructed of heavy duty aluminum with a stout, perfectly illuminated white acrylic diffuser.

FINISHES

BL BZ AS GM NT PL AB DB MB WH

BLU54 DISTRIBUTION - 651-393-6016

700 Meadow Lane North - Minneapolis - MN - 55422

BLU54™

Job Name:	Catalog Number:	Type:
UW Hilton	SEE HIGHLIGHTED BELOW	XA

BEAM LED

PROJECT:
MODEL #:
FIXTURE TYPE:

STANDARD SPECIFICATIONS

HOUSING
Heavy duty, commercial-grade assembly constructed of die-formed aluminum with welded ends. Tapered housing attaches to aluminum mounting plate to create wiring compartment. Hardware consists of tamper resistant, stainless steel flat head socket drive screws (5/64").

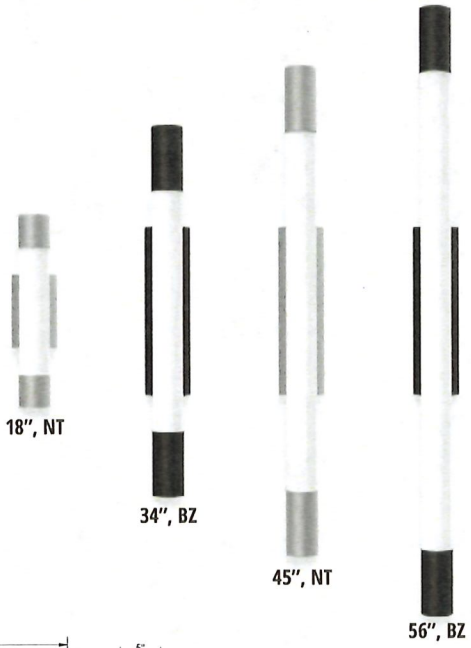
DIFFUSER
Sturdy, 0.100" thick, matte white acrylic cylinder (O.D. 2.75"). UV stabilized. The entire diffuser assembly is watertight and is bolted to the housing with stainless steel hardware. End cap assemblies are constructed of aluminum and are attached with tamper resistant, stainless steel flat head socket drive screws (5/64").

LED PERFORMANCE - 3500K STANDARD
120-277V - 3500K, 82 CRI - L80 rating - 60,000 hrs - L70 rating (projected) - 100,000 hrs
Amperage rated @ 110V input, 0-10V dimming compatible (all except H08)
Operating ambient temperature: -20°C / -4°F - 40°C / 104°F
Refer to Wattage section for lumen output. Consult Brownlee.com for performance of all CCTs.

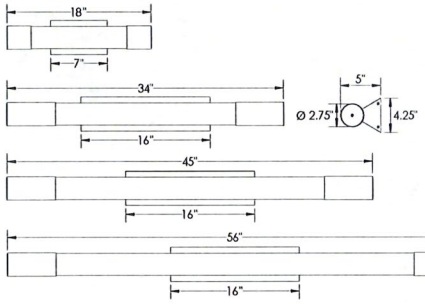
MOUNTING
Designed to be mounted directly to a standard j-box (by others). The mounting plate has additional holes at the ends for anchors if necessary. Can be mounted vertically, horizontally or on the ceiling.

FINISH
All 7176 parts are prepared using a three step pre-treatment/sealing process, followed by a powder coat primer prior to applying any of the Brownlee finishes.

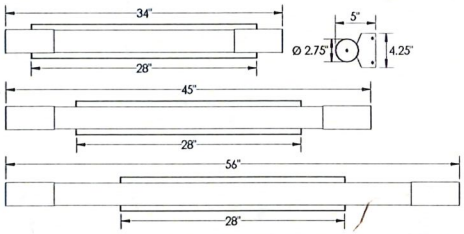
WARRANTY
5 year limited warranty on this LED product. Consult factory for details.



STANDARD DIMENSIONS



EXTENDED HOUSING*



*Products ordered with BBI, BBC or EXT utilize Extended Housing. Refer to web page for photo.

cSAus WET

ORDERING INFORMATION

7176 - _____ - _____ - _____ - _____ - _____

Model | 2. | 3. | 4. | 5. | 6. (if required)

2. SIZE

18	L: 18"
34	L: 34"
45	L: 45"
56	L: 56"

3. FINISH

STANDARD

AB	Antique Bronze
AS	Antique Silver
BL	Black
BZ	Bronze
DB	Desert Bronze
GM	Gun Metal
MB	Metallic Bronze
NT	Nickel Tone
PL	Platinum
WH	White

CUSTOM
Provide color sample or RAL code to match

4. WATTAGE

18 SIZE

H08	8W H Series LED, .07 A input, 698 delivered lumens. Dimmable (0-10V).

34 SIZE

H16	16W H Series LED, .14 A input, 1624 delivered lumens Dimmable (0-10V).
F23	23W F Series LED, .30 A input, 2150 delivered lumens Dimmable (0-10V).

45 SIZE

H25	25W H Series LED, .20 A input, 2444 delivered lumens Dimmable (0-10V).

56 SIZE

H32	32W H Series LED, .26 A input, 3104 delivered lumens Dimmable (0-10V).
F45	45W F Series LED, .60 A input, 4222 delivered lumens Dimmable (0-10V).

*Delivered lumens noted in 4000K.

5. COLOR TEMPERATURE

35K	3500K standard color temperature
30K	3000K color temperature
40K	4000K color temperature

6. AVAILABLE OPTIONS

BAC[1]	Buy American Compliant
BBI[2*]	Integral Battery Backup (Indoor only) (H Series only, not available in 18 size. Utilizes Extended Housing)
BBC[2*]	Integral Battery Backup, Cold Weather (H Series only, not available in 18 size. Utilizes Extended Housing)
DTR[4]	Triac Dimming (H Series only)
ES[6]	ENERGY STAR® (All except H08)
EXT	Extended Housing (Intended to match BBI/BBIC aesthetic) (not available in 18 size)
FCL[7]	French Canadian Labels

Notes: (0) 90R - cannot be combined with ES or T24 **(1) BAC** - cannot be combined with FCL **(2) BBI/BBS/BBC** - cannot be combined with DTR, ECW, EXT, or T24 **(3) BLD** - cannot be combined with DTR, OCC, or T24 **(4) DTR** - cannot be combined with BBI, BBC, BBS, BLD or T24 **(5) ECW** - cannot be combined with BBI, BBC, or DTR **(6) ES** - cannot be combined with 90R, DTR, FCL, or T24 **(7) FCL** - cannot be combined with BAC, ES, or T24 **(8) OCC** - cannot be combined with BLD **(9) T24** - cannot be combined with 90R, BBI, BBC, BBS, BLD, DTR, ES, or FCL **(10) BBS** - cannot be combined with BLD, DTR, ECW, EXT, OCC, or T24 **(11) PCH/PC4** cannot be combined with BL D or OCC
Add'l Notes: *BBI/BBS/BBC - standard BBI (and BBS) option has a minimum operating temperature of 10C/50F. BBC option has a minimum operating temperature of -20C/-4F. ****BLD** - Bi-Level Dimming is field adjustable from 100% to a dimmed light level of 10, 20, 30, or 50%. All units are factory set at 50%.

Specifications and dimensions subject to change without notice.
Consult your Brownlee Lighting representative for availability and ordering information.

BROWNLEE LIGHTING
www.brownlee.com

ISSUED 2018.11.05

BLU54™

Job Name:	Catalog Number:	Type:
UW Hilton	SEE HIGHLIGHTED BELOW	TREE

VISTA **PROFESSIONAL** OUTDOOR LIGHTING

Type:

Model:

Project:

SPECIFICATION SHEET

MODEL 1045 Architectural Series • Up & Accent

FIXTURE SPECIFICATIONS:

DOOR:
Die-cast, low copper content, A360 aluminum offers maximum corrosion protection. Stainless steel fasteners affixed to a minimalistic styled flat door (standard). Door is designed to shed water from the lens surface.Also available as an accessory is a die-cast medium shield **CS**.

HOUSING:
Die-cast A360 aluminum. Optic and driver compartment separately sealed while being electrically connected. Housing aiming achieved via a Vista patented Infinity Knuckle (see MOUNTING).

FINISH:
Durable powder coat finish available in Black, Architectural Bronze, Dark Bronze, Granite, White, Architectural Brick, Light Bronze, Special Bronze, Glossy Gray, Rust, Hunter Green, Weathered Bronze, Weathered Iron, Graphite Metallic, Verde, Pewter, Mocha and Olde Finish. Custom Powder coat finishes available on request.

LED:
Cree® CXA 1830 COB driven at 350mA, 500mA, or 620mA.

COLOR TEMPERATURE:
LED's are offered in 2700°K, 3000°K, 3500°K, 4000°K, or 5000°K CCT ANSI white 4 step Cree® Easy White™ bins

LIGHT DISTRIBUTION:
Very Narrow Spot **VNS** (NEMA 3x3) (17° FWHM), Narrow Spot **NS** (NEMA 3x3) (18° FWHM), Medium Flood **MF** (NEMA 4x4) (30° FWHM), and Wide Flood **WF** (NEMA 5x5) (50° FWHM).

REFLECTOR:
High-purity, vacuum metalized, specular or semi-specular optics designed for maximum performance and uniformity. Very Narrow Spot **VNS** optic incorporates an internal source shield to eliminate unwanted glare outside the beam pattern.

LENS/SEAL:
4.0 mm thick tempered and seamed clear glass sealed with a closed cell molded silicone gasket.

WIRING:
Prewired with 150° C-rated wire.

DRIVER:
Integral CUL listed LED driver, either non-dimmable **ND** or dimmable. Dimming: 0-10VDC **010** and Phase Cut TRIAC (120V only) **PCT** options available. Multi-Volt **MV** 120V-277V driver input standard.

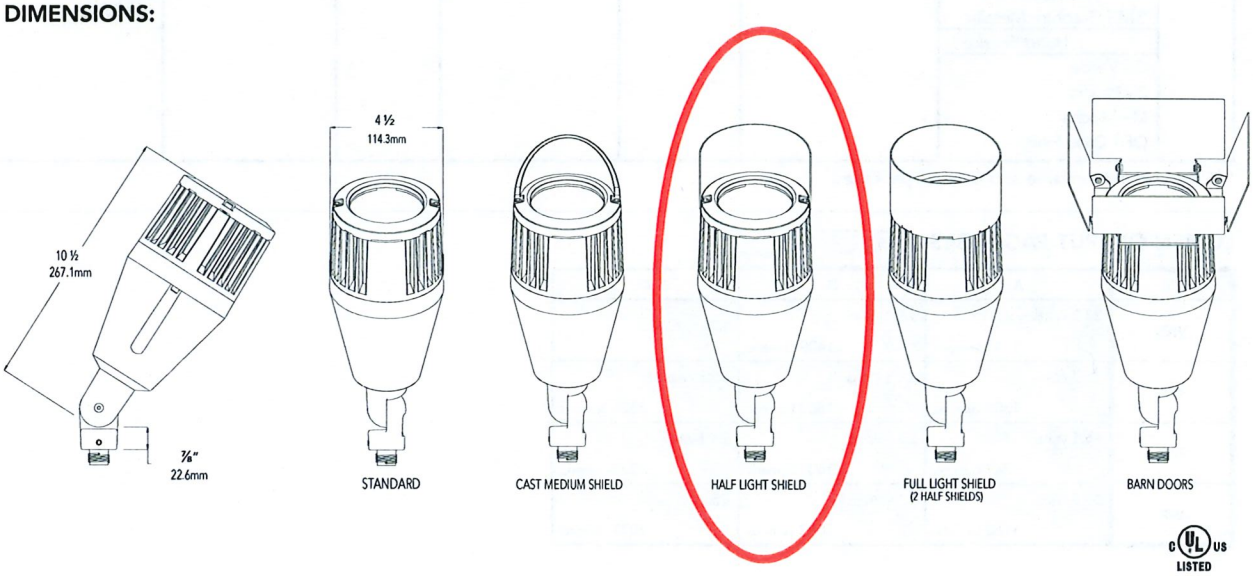
ACCESSORIES:
Barn Doors **BD**, Full Shield **FS**, and Half Shield **HS** available. Accessories are attached into pre-existing slots located on the underside of the fixture door providing for a fastener free appearance.

MOUNTING:
Infinity Knuckle - Die-cast, copper-free aluminum, stainless steel stem with 1/2" NPT thread. A fully sealed spherical grommet allows infinite adjustment capabilities.

CERTIFICATION:
UL & CUL wet location certified. *IP66*

All Vista Architectural luminaires are MADE IN THE U.S.A.

DIMENSIONS:



Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.

1625 Surveyor Avenue • Simi Valley, CA 93063 • (805) 527-0987 • (800) 766-VISTA (8478)
FAX: (888) 670-VISTA (8478) • email@vistapro.com • www.vistapro.com

BLU54™

Job Name:	Catalog Number:	Type:
UW Hilton	SEE HIGHLIGHTED BELOW	TREE

VISTA PROFESSIONAL OUTDOOR LIGHTING

SPECIFICATION SHEET

MODEL 1045 Architectural Series • Up & Accent Lights

LAMP SPECIFICATIONS

LED:

- High lumen output LED powered for high efficacy
- Cree® CXA 1830 COB driven at 350mA, 500mA, or 620mA
- 2700°K, 3000°K, 3500°K, 4000°K, or 5000°K CCT ANSI white 4 step Cree® Easy White™ bins.
- 1100-2400 Delivered Lumens
- 15-25 Watts

OPTICS/AIMING:

- High-purity, vacuum metalized, specular or semi-specular optics designed for maximum performance and uniformity.
- Very Narrow Spot **VNS** (17° FWHM), Narrow Spot **NS** (18° FWHM), Medium Flood **MF** (30° FWHM), and Wide Flood **WF** (50° FWHM).
- Housing aiming achieved via a Vista patented Infinity Knuckle (see MOUNTING).

ELECTRICAL:

- Constant current 350mA, 500mA, or 620mA output driver.
- Multi-Volt **MV** 120V-277V universal input.
- Prewired with 150° C-rated wire.

FIXTURE ORDERING INFORMATION

TO ORDER FIXTURE: Select appropriate choice from each column as in the following example.

EXAMPLE: 1045-GG-NS-40-C-MV-ND-HS

MODEL	FINISH	DISTRIBUTION	COLOR TEMP	DELIVERED LUMENS	VOLTAGE	DIMMING	ACCESSORIES
1045	**Standard** B - Black Z - Architectural Bronze DZ - Dark Bronze GT - Granite W - White **Premium** BR - Architectural Brick LZ - Light Bronze SB - Special Bronze GG - Glossy Gray R - Rust HG - Hunter Green WB - Weathered Bronze WI - Weathered Iron GM - Graphite Metallic **Hand Finished** G - Verde P - Pewter M - Mocha OF - Olde Finish	**VNS** - Very Narrow Spot* **NS** - Narrow Spot **MF** - Medium Flood **WF** - Wide Flood	**27** - 2700°K **30** - 3000°K **35** - 3500°K **40** - 4000°K **50** - 5000°K	**A** - 1100-1500 **B** - 1500-1900 **C** - 1900-2400	**MV** - Multi-Volt (120V-277V)	**ND** - No Dimming **010** - 0-10V **PCT** - Phase Cut TRIAC (120V only)	**BD** - Barn Doors **FS** - Full Light Shield **HS** - Half Light Shield **CS** - Cast Shield **5** - 5' Wire Lead **HL** - Honeycomb Louver **NOTE:** * If fixture to be used with Extended Arm Mount (EAM) - must order with extended wire length

* 1045-VNS not available with C lumen packages.

LUMEN OUTPUT PACKAGES

Beam Spread	A (Watts / Lumens)	B (Watts / Lumens)	C (Watts / Lumens)
VNS	23.2 Watts / 1141 Lumens	26.0 Watts / 1409 Lumens	
NS	15.7 Watts / 1302 Lumens	22.8 Watts / 1883 Lumens	25.5 Watts / 2325 Lumens
MF	16.1 Watts / 1249 Lumens	23.3 Watts / 1807 Lumens	26.1 Watts / 2230 Lumens
WF	15.8 Watts / 1163 Lumens	22.9 Watts / 1682 Lumens	25.7 Watts / 2077 Lumens

Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.

1625 Surveyor Avenue • Simi Valley, CA 93063 • (805) 527-0987 • (800) 766-VISTA (8478)
FAX: (888) 670-VISTA (8478) • email@vistapro.com • www.vistapro.com

BLU54™

Job Name:	Catalog Number:	Type:
UW Hilton	SEE HIGHLIGHTED BELOW	TREE

PROFESSIONAL
OUTDOOR LIGHTING

Type: _____

Model: _____

Project: _____

SPECIFICATION SHEET

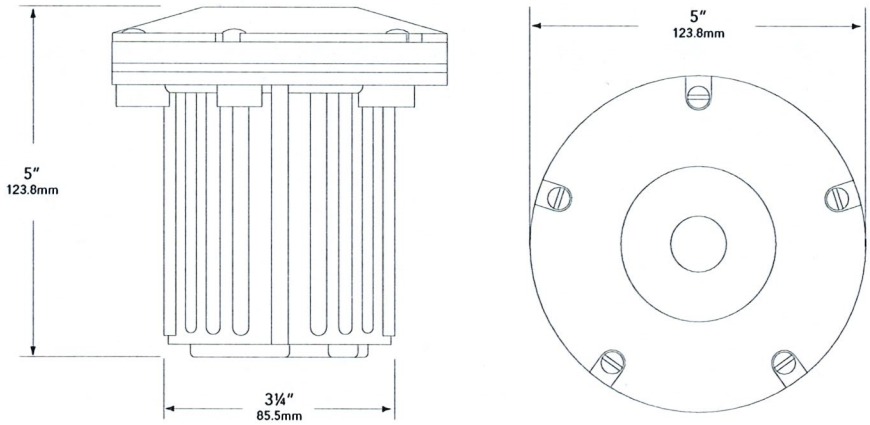
MODEL JB-250 Landscape Series • Accessories • Junction Box

SPECIFICATIONS:

CONSTRUCTION:
Injection-molded, fiber-reincorced polymer.
FINISH:
Polyester powder-coat finish available in Black, Verde, Architectural Brick, Architectural Bronze, Light Bronze, Dark Bronze, Granite, Pewter, Terracotta, Rust, Hunter Green, Mocha, Weathered Bronze, Weathered Iron, White and Special Bronze.
MOUNTING:
½" NPT for fixture mounting, two ½" NPT side inlets, and two ½" NPT bottom inlets.

All Vista accessories are MADE IN THE U.S.A.

DIMENSIONS:



Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.

1625 Surveyor Avenue • Simi Valley, CA 93063 • (805) 527-0987 • (800) 766-VISTA (8478)
FAX: (888) 670-VISTA (8478) • email@vistapro.com • www.vistapro.com

BLU54™

Job Name:	Catalog Number:	Type:
UW Hilton	SEE HIGHLIGHTED BELOW	TREE

VISTA PROFESSIONAL OUTDOOR LIGHTING

SPECIFICATION SHEET

MODEL JB-250 Landscape Series • Accessories • Junction Box

ORDERING INFORMATION

TO ORDER FIXTURE: Select appropriate choice from each column as in the following example.

EXAMPLE: JB-250-B

MODEL	FINISH
JB-250	B - Black G - Verde BR - Architectural Brick Z - Architectural Bronze LZ - Light Bronze DZ - Dark Bronze GT - Granite P - Pewter TC - Terracotta R - Rust HG - Hunter Green M - Mocha WB - Weathered Bronze WI - Weathered Iron W - White SB - Special Bronze

1625 Surveyor Avenue • Simi Valley, CA 93063 • (805) 527-0987 • (800) 766-VISTA (8478)
FAX: (888) 670-VISTA (8478) • email@vistapro.com • www.vistapro.com

BLU54™

Job Name:	Catalog Number:	Type:
UW Hilton	SEE HIGHLIGHTED BELOW	XC

NLS LIGHTING

TRAC BOLLARD

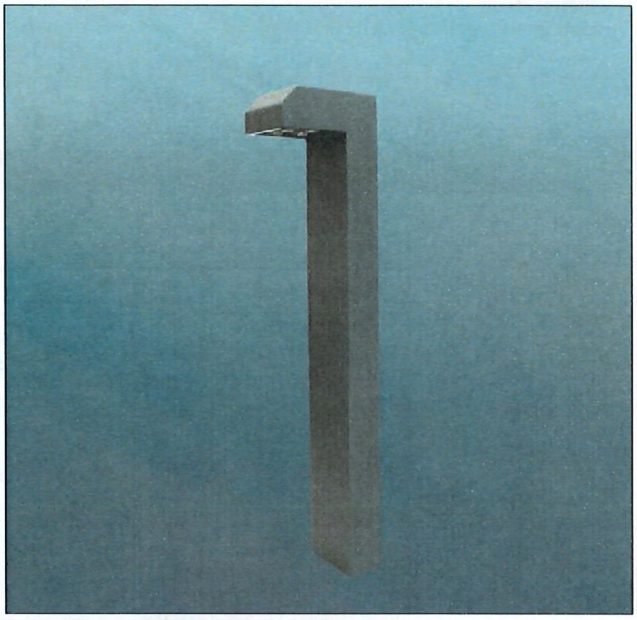
BOLLARD + LANDSCAPE LIGHTING

Trac Bollard is a combination of security and vandal resistance that blends beautifully into any pathway environment.

Designed as a slim bollard. A beautiful performance is created while combining uniform illumination for pathways or landscape at 36" or 42" heights.

The Trac Bollard offers Kelvin temperatures of (warm) 3000, (neutral) 4000 and (cool) 5000 in Type 2, 3, 4 and 5 light distribution.

Conforms to the strictest Made in America standards—designed, tooled, fabricated and assembled in the USA.



PROUDLY MADE IN THE USA

MICRO OPTIC SYSTEM

Our new cell-enclosed, micro optic silicone modules produce high clarity and outstanding performance.

LED WATTAGE CHART

	16L
175 milliamps	10w
350 milliamps	17w
530 milliamps	26w
700 milliamps	35w
1050 milliamps	56w

Project Name	Type:

Cat #	Length	Light Dist	No of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
Trac Bollard (TRC-B)	36 in (36)	Type 2 (T2)	16 (16L)	175 (175)	3000K (30K)	120-277 (UNV)	Anchor Base (AB)	Bronze (BRZ)	Surge Protector (10K)
	42 in (42)	Type 3 (T3)		350 (35)	4000K (40K)			White (WHT)	Marine Grade Finish (MGF)
		Type 4 (T4)		530 (53)	5000K (50K)			Silver (SVR)	Dual Head (DH)
		Type 5 (T5)		700 (7)				Hunter Green (HGN)	
				1050 (1)				Black (BLK)	
								Graphite (GPH)	
								Grey (GRY)	
								Custom (CS)	

BLU54™

Job Name: UW Hilton

Catalog Number: SEE HIGHLIGHTED BELOW

Type: XC

PRODUCT SPECIFICATIONS

Material: Extruded Aluminum
LED: Lumileds Luxeon MX. CRI 70
Optics: Micro Optic T2, T3, T4 and T5
Watts: 10-56
Listings: Conforms to UL 1598 Standards

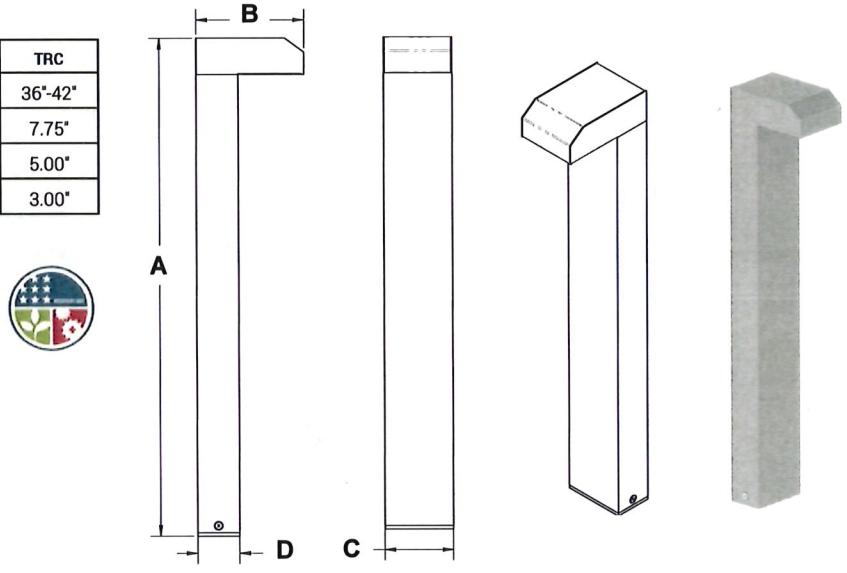
Driver: 0-10V Dimming driver as standard by Philips Advance
THD @ Max Load < 15%
Power Factor @ Max Load < 0.95
Kelvin: 3000, 4000, or 5000
Finish: 5 mils Powder Coat
Hardware: Stainless Steel
Warranty: Standard Warranty is 5 years for Driver and LEDs

PRODUCT DIMENSIONS

LUMENS

PART NUMBER	T2 LUMENS	T2 LM/W	T3 LUMENS	T3 LM/W	T4 LUMENS	T4 LM/W	T5 LUMENS	T5 LM/W	Watts
TRC-B-16L-175-30K	774	77	765	77	799	80	808	81	10
TRC-B-16L-175-40K	799	80	791	79	825	83	833	83	10
TRC-B-16L-175-50K	833	73	816	82	850	85	859	86	10
TRC-B-16L-35-30K	1547	91	1530	90	1598	94	1615	95	17
TRC-B-16L-35-40K	1598	94	1581	93	1649	97	1666	98	17
TRC-B-16L-35-50K	1666	98	1632	96	1700	100	1717	101	17
TRC-B-16L-53-30K	2366	91	2340	90	2444	94	2470	95	26
TRC-B-16L-53-40K	2444	94	2418	93	2522	97	2548	98	26
TRC-B-16L-53-50K	2548	98	2496	96	2600	100	2626	101	26
TRC-B-16L-7-30K	3185	91	3150	90	3290	94	3325	95	35
TRC-B-16L-7-40K	3290	94	3255	93	3395	97	3430	98	35
TRC-B-16L-7-50K	3430	98	3360	96	3500	100	3535	101	35
TRC-B-16L-1-30K	5096	91	5040	90	5264	94	5320	95	56
TRC-B-16L-1-40K	5264	94	5208	93	5432	97	5488	98	56
TRC-B-16L-1-50K	5488	98	5376	96	5600	100	5656	101	56

DIMENSION	TRC
A	36"-42"
B	7.75"
C	5.00"
D	3.00"



NLS LIGHTING
701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037
nlslighting.com

BLU54™

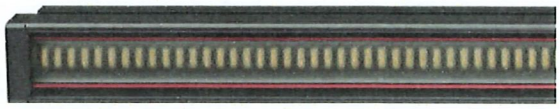
Job Name:
UW Campus Hotel

Catalog Number:
SEE HIGHLIGHTED BELOW

Type:
ART

i2 | Gen2™

An architectural-grade, wet-location LED luminaire engineered for the illumination and grazing of walls and surfaces, with perfect continuous light and plug-together design.



FEATURES

- Plug-and-play design allows for any combination of 1, 2, 3 and 4FT modules to be installed for up to 20Ft from a single power feed.
- 1% Low-Level Flicker Free Dimming.
- Active Thermal Management Monitors Fixture Case Temperature and Discreetly Dims Fixture Upon Signs of Possible Overheat.
- SmartDriver Technology Integrated in Every Fixture, Maintaining Continuous Output Regadless of Voltage Drop, Temperature or Voltage Fluctuations.
- Actively Managed ANSI Sub-Binning to Ensure Accurate and Consistent Color Matching for Each Fixture.

PHYSICAL

- Mil-Spec Anodized Aluminum Housing/UV Resistant Acrylic Lens.
- Weight: 1Ft: 1.7 lbs, 2Ft: 3.1 lbs, 3Ft: 4.5 lbs. 4Ft: 5.7 lbs.
- Protection Rating: IP66
- Warranty: 3 Years

ELECTRICAL SPECIFICATIONS

Input Voltage	20-30V DC Use with E10PW280W/560W
Input Power	7W/FT-14W/Ft, For More Wattage Options Contact Factory
Max. Load	20Ft @ 14W/Ft & 40Ft @ 7W/Ft
Max. Wire Distance	50Ft from Last Light to Power Box using 12 AWG
Temperature	Startup /Operating: -20°C to +40°C Relative Humidity: 0-95% (non-condensing)
Dimming	1% via 0 - 10 VDC
Life	60,000 hours to L70

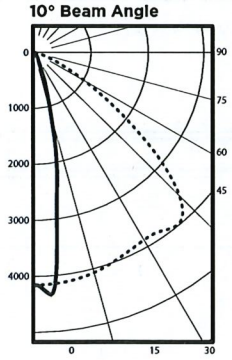
LIGHTLINK · cULus · FC · RoHS compliant · AMERICAN DESIGNED & MANUFACTURED

PERFORMANCE

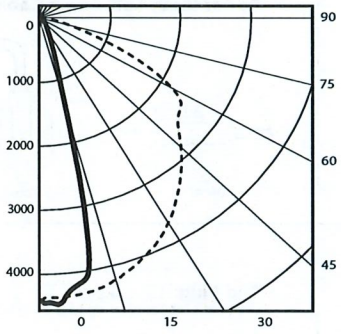
EFFICACY: **68lms/W High Output, 14W/Ft**

POLAR PLOT — 0 Deg. Plane ------ 90 Deg. Plane

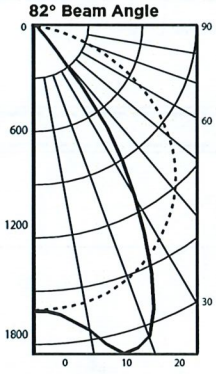
10° Beam Angle



30° Beam Angle



82° Beam Angle



LED MODULE PART CODE TABLE

Product	Output		Length	Beam Angle	LED Color	Location		Finsish
V2355		-					-	
	A = 14W/Ft		1 = 12.57"	1 = 10°	CBA = 2700K	*Blank* = Outdoor		*Blank* = Black Anodize
	B = 07W/Ft		2 = 24.38"	3 = 30°	CBB = 3000K	1 = Indoor		2 = Clear Anodize
			3 = 36.19"	8 = 82°	CBC = 3500K			3 = White
			4 = 48.00"		BBD = 4000K			C = Custom*
V2355					BBE = 4500K			
					AAF = 5000K			
					AAG = 5700K			
					AAH = 6500K			

+For More Wattage Options Contact Factory
EXAMPLE: V2355A-11CBB

*For Additional Colors Including Solid Colors Contact Factory

i2 Integrated Illumination Systems, Inc.
355 Bantam Lake Road
Morris, CT 06763 USA

tel +1.860.567.0708
sales@i2systems.com

www.i2systems.com
RevB

BLU54™

Job Name:
UW Campus Hotel

Catalog Number:
SEE HIGHLIGHTED BELOW

Type:
ART

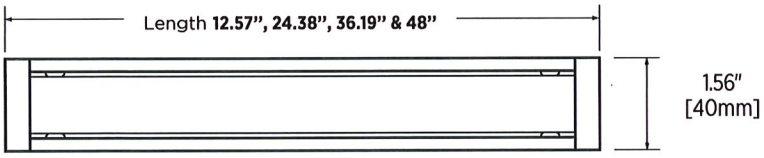
i2 | Gen2™

An architectural-grade, wet-location LED luminaire engineered for the illumination and grazing of walls and surfaces, with perfect continuous light and plug-together design.

ACTIVE-THERMAL MANAGEMENT · PATENTED OPTICS · ALUMINUM HOUSING · WATERPROOF (IP66)

LED MODULE DIMENSIONS

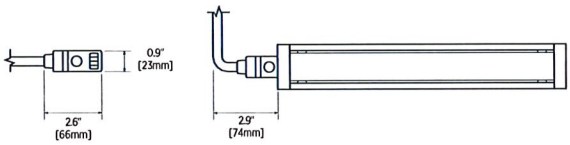
Available in 4 lengths "A":



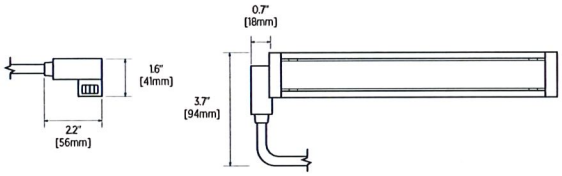
SELECT ALL THAT APPLY

CABLE OPTIONS

Power Input Straight Cable: ☐ VLAK2-C1-06

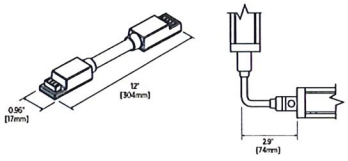


Power Input Right Angle Cable: ☐ VLAK2-C1-06R

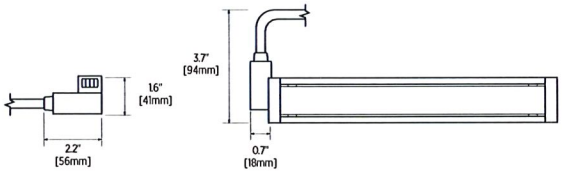


EXTENSION CABLES ☐ VLAK2-C2-xx

06"	☐ VLAK2-C2-6IN
12"	☐ VLAK2-C2-01
24"	☐ VLAK2-C2-02
36"	☐ VLAK2-C2-03
72"	☐ VLAK2-C2-06
120"	☐ VLAK2-C2-10
240"	☐ VLAK2-C2-20
360"	☐ VLAK2-C2-30

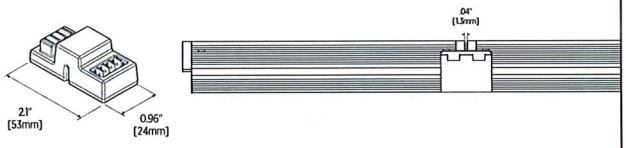


Power Input Left Angle Cable: ☐ VLAK2-C1-06L

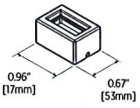


STRAIGHT CONNECTOR

End-to-End Jumper: ☐ VLAK2-J1



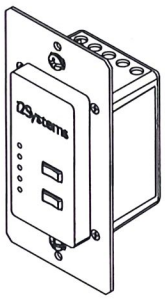
End Plug: ☐ VLAK2-P1
(Required for Terminating LED Module)



DIMMING CONTROL

LightLink: ☐ LL-205-10V

Indoor Dimming Cable: ☐ 685-01561-100
Outdoor Dimming Cable: ☐ 685-02026-100

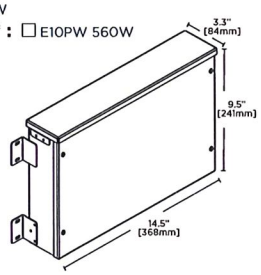


POWER BOXES

280W Power Box* : ☐ E10PW 280W
560W Dual Output Power Box :** ☐ E10PW 560W

*Powers up to 20 Ft of Gen2 HO, 40 Ft of Gen2 SO

**Powers up to 40 Feet of Gen2 HO (2 runs of 20 Ft) and 80 Ft of Gen2 SO (2 runs of 40 Ft)



Integrated Illumination Systems, Inc.
355 Bantam Lake Road
Morris, CT 06763 USA

tel +1.860.567.0708
sales@i2systems.com

www.i2systems.com
RevB

BLU54™

Job Name: UW Campus Hotel

Catalog Number: SEE HIGHLIGHTED BELOW

Type: ART

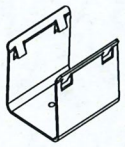
i2 | Gen2™

An architectural-grade, wet-location LED luminaire engineered for the illumination and grazing of walls and surfaces, with perfect continuous light and plug-together design.

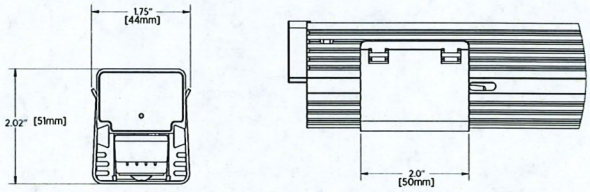
ACTIVE-THERMAL MANAGEMENT · PATENTED OPTICS · ALUMINUM HOUSING · WATERPROOF (IP66)

BRACKETS

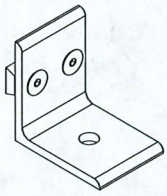
Fixed U Clip ☐ VLA-20

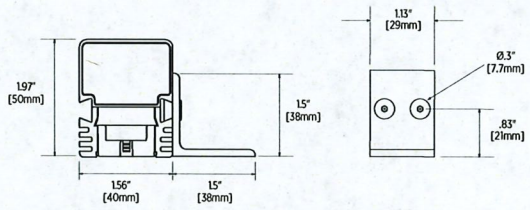


SELECT ONE OPTION

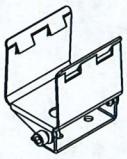


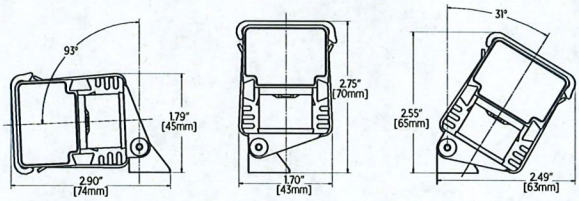
Fixed L Clip ☐ VLA-9





Adjustable U Clip ☐ VLA-17





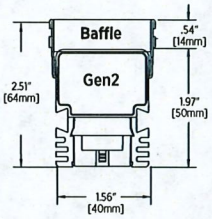
ACCESSORIES

☐ Baffle Black ☐ 810-02305-xxB

12": ___810-02305-12B
24": ___810-02305-24B
36": ___810-02305-36B
48": ___810-02305-48B

☐ Baffle White ☐ 810-02305-xxW

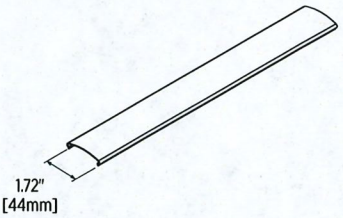
12": ___810-02305-12W
24": ___810-02305-24W
36": ___810-02305-36W
48": ___810-02305-48W



ACCESSORIES

Debris Guard ☐ V2-DBG-xx

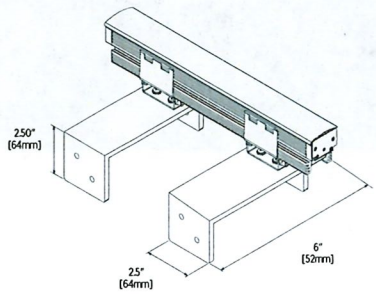
12": ___V2-DBG-12
24": ___V2-DBG-24
36": ___V2-DBG-36
48": ___V2-DBG-48



ACCESSORIES

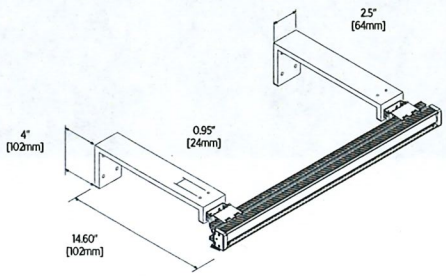
6" Extension Arm: ☐ VLAX3-6

PROVIDED WITH VLA-17



12" Extension Arm: ☐ VLAX3-12

PROVIDED WITH VLA-17



VLAX3-XX can be mounted to either set of mounting screw holes.

i2 | Integrated Illumination Systems, Inc.
355 Bantam Lake Road
Morris, CT 06763 USA

tel +1.860.567.0708
sales@i2systems.com

www.i2systems.com

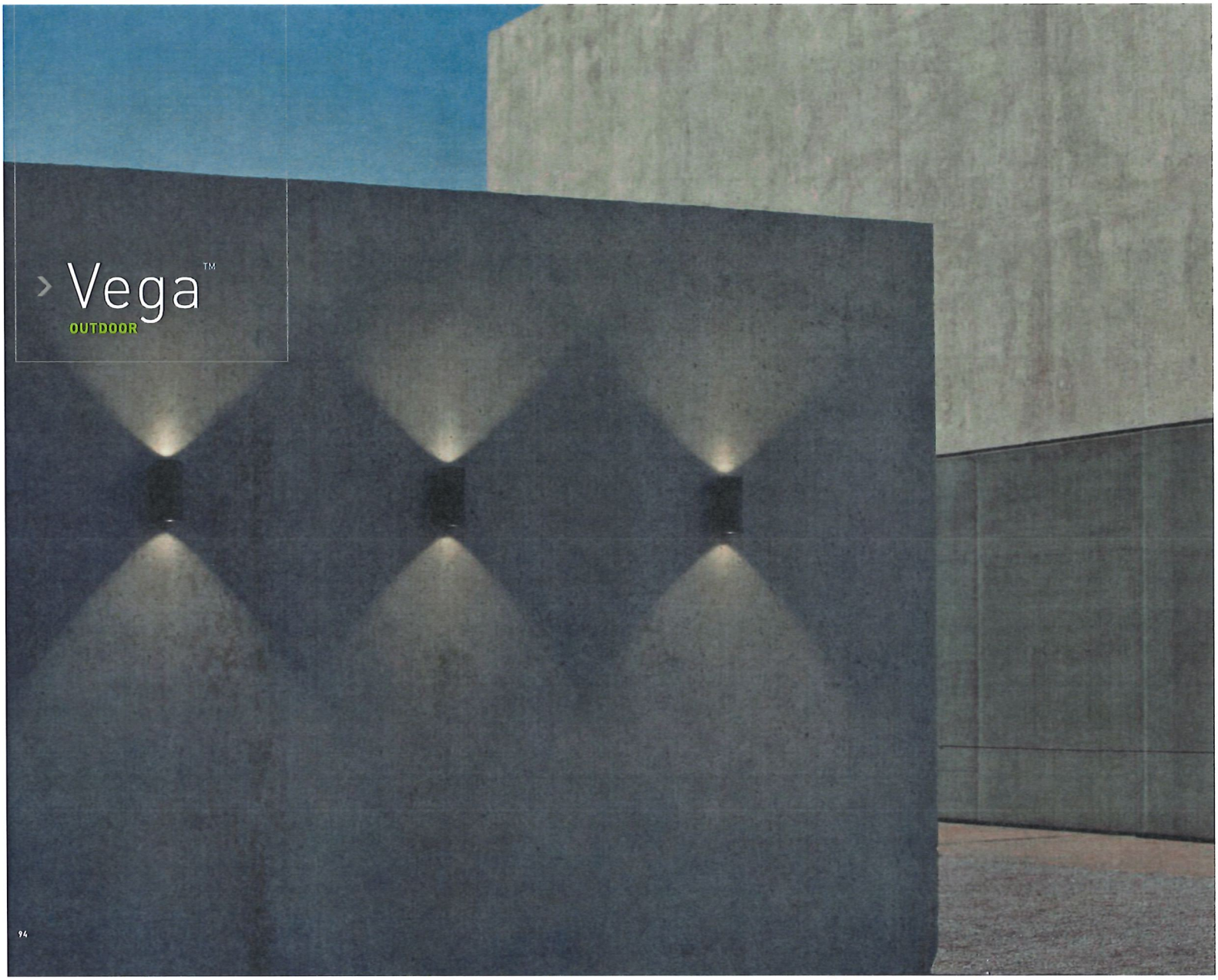
RevB

BLU54™

Job Name:
UW Campus Hotel

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: COLUMN

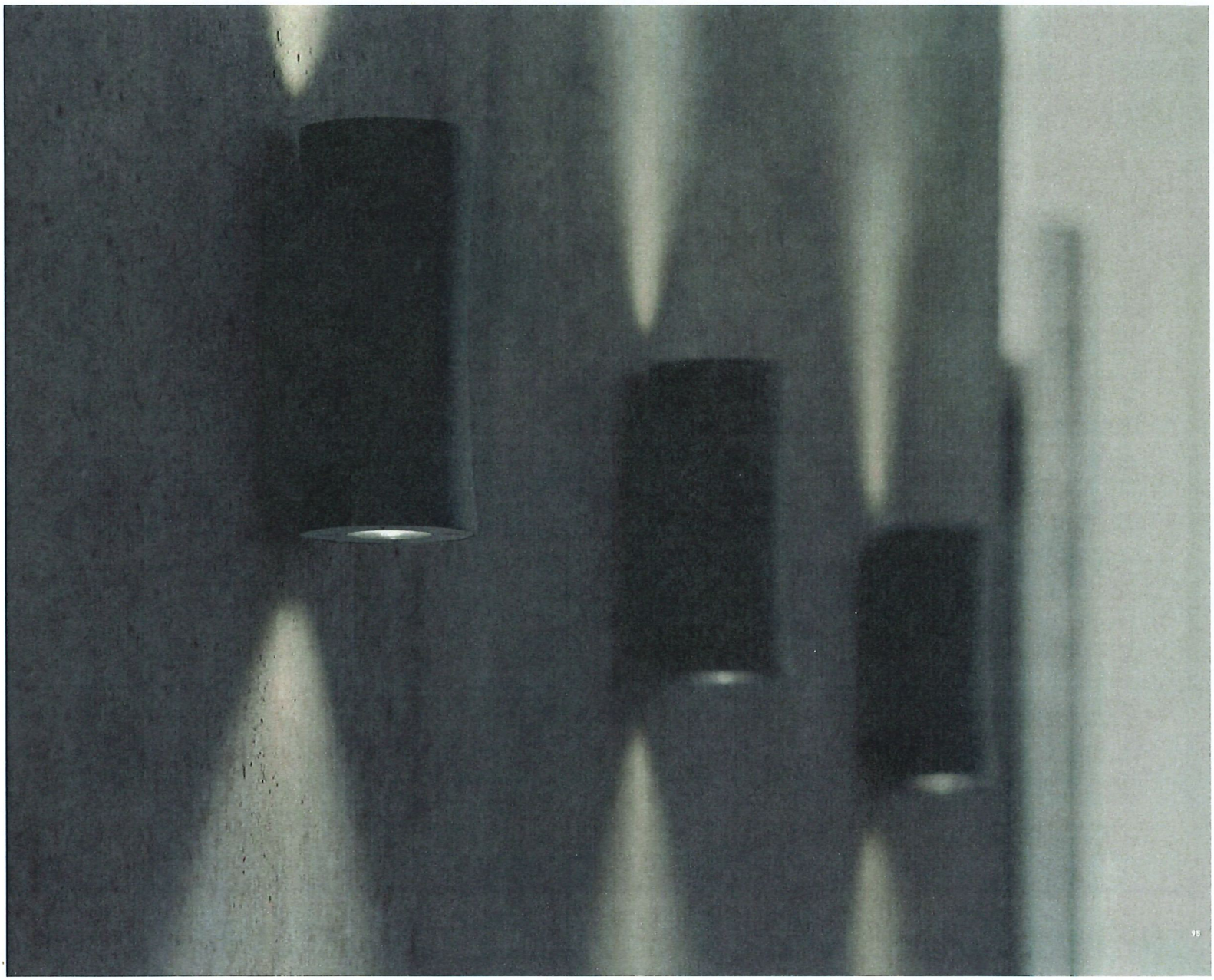


BLU54™

Job Name:
UW Campus Hotel

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: COLUMN



BLU54™

Job Name:
UW Campus Hotel

Catalog Number:
SEE HIGHLIGHTED BELOW

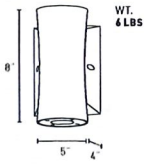
Type: COLUMN

Vega™
OUTDOOR

FEATURES

- IP66 protection rating and ETL listed for wet location.
- Field replacement for LED array and driver is simple and requires minimal effort.
- Excellent thermal management is achieved through a precision-engineered die-cast aluminum fixture body.
- LED luminaire reliability, L70 >50,000 hours at 70% lumen maintenance.
- LED light source exceeds 94.1% 6000 hour lumen maintenance, as required for commercial fixtures per LM-80 testing methodology.
- Fixture and LED light source are tested to LM-79 standards.
- Varying beam spread options are available: Narrow Flood (24 degree) or Wide Flood (50 degree).
- 3 step MacAdam ellipse color binning and 90+ CRI are available (contact factory for details).
- Injection molded diffuser seamlessly threads into fixture body; acrylic is UV stable, F1 rated and UL-94 HB flame rated.
- Quality construction includes heavy gauge sheet metal, die-cast aluminum, and injection molded acrylic.
- 24 standard powder coat paints offered, however all RAL colors available.
- Contact factory for additional modifications or options.

MEASUREMENTS



MATCHING FIXTURES

Sconce p.68

BLU54™

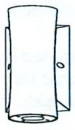
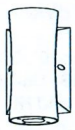
Job Name: UW Campus Hotel

Catalog Number: SEE HIGHLIGHTED BELOW

Type: COLUMN

BEGIN HERE

> FOR ADDITIONAL INFORMATION GO TO WWW.OCL.COM AND SEARCH: VEGA OUTDOOR

SERIES	HANGING SYSTEM	SIZE	REFLECTOR	FINISH	LAMPING (PHOTOMETRIC TEST #)	VOLTAGE	OPTIONS
 VA1	010A OUTDOOR ADA COMPLIANT SCONCE 	08	NF NARROW FLOOD (24 DEGREE) WF WIDE FLOOD (50 DEGREE)	PTD PAINTED – SPECIFY CODE (EX. BKP FOR BLACK PAINT, SEE PAGE 122 FOR PAINT OPTIONS)	8" ADA 1LD10/30K 1@10W LED 3000K 1LD15/30K 1@15W LED 3000K 1LD25/30K 1@25W LED 3000K 1LD10/35K 1@10W LED 3500K 1LD15/35K 1@15W LED 3500K 1LD25/35K 1@25W LED 3500K *(17816) **(17817) 1LD10/40K 1@10W LED 4000K 1LD15/40K 1@15W LED 4000K 1LD25/40K 1@25W LED 4000K	120 277	DMO 0-10V DIMMING DRIVER DML LUTRON® DIMMING FUS FUSED TPS TAMPER PROOF SCREWS
NOTE: UP OR DOWN ILLUMINATION							
 VA2	010A OUTDOOR ADA COMPLIANT SCONCE 	08	NF NARROW FLOOD (24 DEGREE) WF WIDE FLOOD (50 DEGREE) NOTE: CLEAR ACRYLIC DIFFUSER IS STANDARD	PTD PAINTED – SPECIFY CODE (EX. BKP FOR BLACK PAINT, SEE PAGE 122 FOR PAINT OPTIONS)	8" ADA 2LD10/30K 2@10W LED 3000K 2LD15/30K 2@15W LED 3000K 2LD10/35K 2@10W LED 3500K 2LD15/35K 2@15W LED 3500K *(17814) **(17815) 2LD10/40K 2@10W LED 4000K 2LD15/40K 2@15W LED 4000K TEST # REPRESENTS REFLECTOR * 24 DEGREE REFLECTOR ** 50 DEGREE REFLECTOR	120 277	DMO 0-10V DIMMING DRIVER FUS FUSED TPS TAMPER PROOF SCREWS
NOTE: UP AND DOWN ILLUMINATION							

SPECIFY CATALOG CODE

SAMPLE CODE: VA2-010A-08-WF-BTP-2LD10/30K-120

PHOTOMETRIC INFORMATION AVAILABLE AT WWW.OCL.COM

FIXTURE SPECIFICATIONS

- IP66 protection rating and ETL listed for wet location.
- Fixture mounts to a standard 4" octagon J-box (supplied by others).
- Lutron® (3D) and various (0-10V) dimming drivers available. Controls not included.
- Integral Class II driver (3-5 year driver warranty depending on driver specification).
- Fixture is ADA compliant.
- For photometric data, please visit www.ocl.com.
- For specific mounting instructions, please contact factory.
- Five year product warranty.

MADE IN USA

Phone: 314.863.1895 | Fax: 314.863.3278 | www.ocl.com OCL 97

BLU54™

Job Name: UW Campus Hotel	Catalog Number: SEE HIGHLIGHTED BELOW	Type: XH FLAG LIGHT - IN GRADE

VISTA PROFESSIONAL OUTDOOR LIGHTING

Type:

Model:

Project:

SPECIFICATION SHEET

MODEL 1185 Architectural Series • Inground & Well Lights

FIXTURE SPECIFICATIONS:

DOOR:
Die-cast, low copper content, A360 aluminum. Post anodized Type III (hard anodized) and powder coated for maximum corrosion protection. Captive stainless steel fasteners affixed to a ventilated door. Inner vents allow hot air to escape from around optic housing while outer vents allow cool air to enter fixture housing.

FIXTURE HOUSING:
Compression-molded, glass-reinforced polymer for strength and high UV stability. Molded with integral junction box. Unibody construction allows for superior door and optic housing support. J-box comes standard with two ¾" NPT bottom **B34** tapped holes. ¾" NPT front **F34**, ¾" NPT side **S34** and ¾" NPT all **A34** conduit entry holes optional (Consult Factory).

OPTIC HOUSING:
Die-cast A360 aluminum. Finned for maximum heat disapation. Type III hard anodized and Henderlubed for maximum corrosion protection. Optic and driver compartment separately sealed while being electrically connected.

DRIVER COMPARTMENT:
Injection molded PPS for maximum corrosion protection. Driver compartment houses electronic LED driver and thermostat which cuts power to fixture in abnormal ambient temperature conditions. Driver compartment is completely epoxy potted to protect electronics from moisture.

DOOR FINISH:
Durable powder coat finish available in Black, Architectural Bronze, Dark Bronze, Granite, White, Architectural Brick, Light Bronze, Special Bronze, Glossy Gray, Rust, Hunter Green, Weathered Bronze, Weathered Iron, Graphite Metallic, Verde, Pewter, Mocha and Olde Finish. Custom Powder coat finishes available on request.

LED:
Cree® CXA 1830 COB driven at 350mA, 500mA, or 620mA.

COLOR TEMPERATURE:
LED's are offered in 2700°K, 3000°K, 3500°K, 4000°K, or 5000°K CCT ANSI white 4 step Cree® East White™ bins

LIGHT DISTRIBUTION:
Very Narrow Spot **VNS** (NEMA 2x2), Narrow Spot **NS** (NEMA 2x2), Medium Flood **MF** (NEMA 4x4), and Wide Flood **WF** (NEMA 6x6).

REFLECTOR:
Specular or semi-specular optics designed for maximum performance and uniformity. Very Narrow Spot **VNS** optic incorporates an internal source shield to eliminate unwanted glare outside the beam pattern.

LENS/SEAL:
¼" thick tempered pressed clear glass sealed with a solid molded silicone gasket.

WIRING:
3' 18/3 outdoor-rated hard usage cable standard for non-dimming **ND** and Phase Cut TRIAC (120V only) dimming **PCT** fixtures. 3' 18/5 outdoor-rated hard usage cable standard for 0-10V dimming **010** fixtures. Cable exits fixture housing through a liquid tight cable fitting.

DRIVER:
Integral CUL listed LED driver, either non-dimmable **ND** or dimmable. Dimming: 0-10VDC **010** and Phase Cut TRIAC (120V only) **PCT** options available. Multi-Volt **MV** 120V-277V driver input standard.

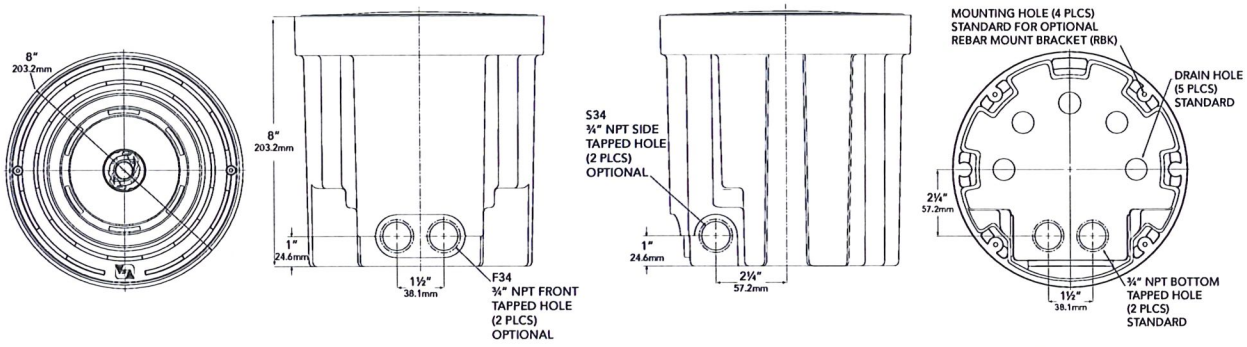
ACCESSORIES:
TO5 - Tilt Optic 5°, **TO10** - Tilt Optic 10°, **TO15** - Tilt Optic 15°, **TO25** - Tilt Optic 25°, **DF** - Diffuse Filter, **LSF** - Linear Spread Filter, **RBK** - Rebar Bracket Kit, **STR** Stainless Trim Ring, and **HS** - Half Glare Shield.
Dichroic Lenses: **YL** - Yellow, **RL** - Red, **BL** - Blue, **GL** - Green.

MOUNTING:
Fixture suitable for direct burial in earth or poured concrete applications.

CERTIFICATION:
C ETL US wet location listed. *IP68*

All Vista Architectural luminaires are MADE IN THE U.S.A.

DIMENSIONS:



TOP VIEW | FRONT VIEW | SIDE VIEW | BOTTOM VIEW

Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.

1625 Surveyor Avenue • Simi Valley, CA 93063 • (805) 527-0987 • (800) 766-VISTA (8478)
FAX: (888) 670-VISTA (8478) • email@vistapro.com • www.vistapro.com

BLU54™

Job Name:	Catalog Number:	Type:
UW Campus Hotel	SEE HIGHLIGHTED BELOW	XH FLAG LIGHT - IN GRADE

VISTA PROFESSIONAL OUTDOOR LIGHTING

SPECIFICATION SHEET

MODEL 1185 Architectural Series • Inground & Well Lights

LAMP SPECIFICATIONS

LED:
- High lumen output LED powered for high efficacy
- Cree® CXA 1830 COB driven at 350mA, 500mA, or 620mA
- 2700°K, 3000°K, 3500°K, 4000°K, or 5000°K CCT ANSI white 4 step Cree® Easy White™ bins.
- 800-2000 Delivered Lumens
- 15-25 Watts

OPTICS/AIMING:
- Specular or semi-specular optics designed for maximum performance and uniformity.
- Very Narrow Spot **VNS** (NEMA 2x2), Narrow Spot **NS** (NEMA 2x2), Medium Flood **MF** (NEMA 4x4), and Wide Flood **WF** (NEMA 6x6).
- Fixture aiming achieved via a series of tilt optic lenses and patent pending magnetic aiming system.

ELECTRICAL:
- Constant current 350mA, 500mA, or 620mA output driver.
- Multi-Volt **MV** 120V-277V universal input.
- 3' 18/3 outdoor-rated hard usage cable standard for non-dimming fixtures and Phase Cut TRIAC PCT dimming fixtures.
- 3' 18/5 outdoor-rated hard usage cable standard for 0-10V dimming fixtures.

1185 SERIES-LOAD RATING:
- Peak compressive force of **2,000 lbs.** Tests performed by SGS US Testing Company, Inc. Tested in accordance with ISO/IEC 17025. (this represents 94% of max load to load failure on the average)

FIXTURE ORDERING INFORMATION

TO ORDER FIXTURE: Select appropriate choice from each column as in the following example.

EXAMPLE: 1185-GG-NS-30-A-MV-CX-ND-F34-TO5

MODEL	DOOR FINISH	DISTRIBUTION	COLOR TEMPERATURE	DELIVERED LUMENS
1185	Standard B - Black Z - Architectural Bronze DZ - Dark Bronze GT - Granite W - White Premium BR - Architectural Brick LZ - Light Bronze SB - Special Bronze GG - Glossy Gray R - Rust HG - Hunter Green WB - Weathered Bronze WI - Weathered Iron GM - Graphite Metallic Hand Finished G - Verde P - Pewter M - Mocha OF - Olde Finish	VNS - Very Narrow Spot NS - Narrow Spot MF - Medium Flood WF - Wide Flood	27 - 2700°K 30 - 3000°K 35 - 3500°K 40 - 4000°K 50 - 5000°K	A - 800-1200 B - 1200-1600 C - 1600-2000 1185-VNS not available with B & C lumen packages.

VOLTAGE	LENS	DIMMING	CONDUIT ENTRIES	ACCESSORIES	
MV - Multi-Volt (120V-277V)	CX - Crowned Clear AX - Anti Slip Clear	ND - No Dimming 010 - 0-10V PCT - Phase Cut TRIAC (120V only)	B34 - Bottom ¾ " (standard) F34 - Front ¾" S34 - Sides ¾" A34 - All ¾" (available as an option) (Consult Factory)	TO5 - Tilt Optic 5° TO10 - Tilt Optic 10° TO15 - Tilt Optic 15° TO25 - Tilt Optic 25° DF - Diffuse Filter LSF - Linear Spread Filter	RBK - Rebar Bracket Kit STR - Stainless Trim Ring HS - Half Glare Shield YL - Yellow Lens RL - Red Lens BL - Blue Lens GL - Green Lens *Colored Lenses not available with B & C Lumen packages.

Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.

1625 Surveyor Avenue • Simi Valley, CA 93063 • (805) 527-0987 • (800) 766-VISTA (8478)
FAX: (888) 670-VISTA (8478) • email@vistapro.com • www.vistapro.com

BLU54™

Job Name:	Catalog Number:	Type:
UW Campus Hotel	SEE HIGHLIGHTED BELOW	XH FLAG LIGHT - IN GRADE

VISTA PROFESSIONAL OUTDOOR LIGHTING

SPECIFICATION SHEET

MODEL 1185 Architectural Series • Inground & Well Lights

LUMEN OUTPUT PACKAGES

Watts / Lumens

Beam Spread	A	B	C
NS	15.9 Watts 981 Lumens	22.9 Watts 1407 Lumens	25.7 Watts 1738 Lumens
MF	16.1 Watts 997 Lumens	23.1 Watts 1431 Lumens	25.9 Watts 1766 Lumens
WF	16.1 Watts 917 Lumens	23.1 Watts 1317 Lumens	25.9 Watts 1625 Lumens

Vista Professional Outdoor Lighting reserves the right to modify the design and/or construction of the fixture shown without further notification.

1625 Surveyor Avenue • Simi Valley, CA 93063 • (805) 527-0987 • (800) 766-VISTA (8478)
FAX: (888) 670-VISTA (8478) • email@vistapro.com • www.vistapro.com

BLU54™

Job Name:	Catalog Number:	Type: XI
UW Campus Hotel	SEE HIGHLIGHTED BELOW	STRING LIGHT

Exhibitor




TOKISTAR LIGHTING

BLU54™

Job Name: UW Campus Hotel	Catalog Number: SEE HIGHLIGHTED BELOW	Type: XI STRING LIGHT

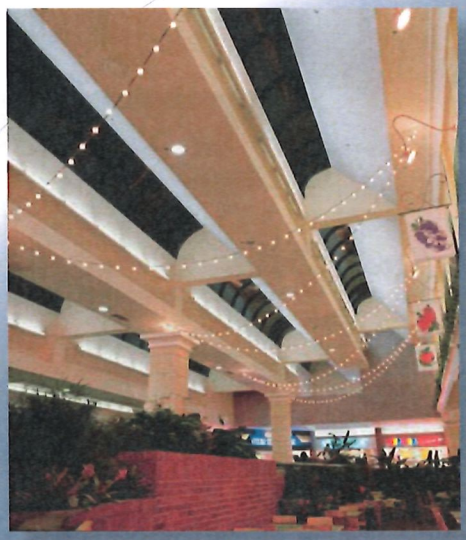
Exhibitor™

Tokistar® Exhibitor Series is a wet-location festoon lighting system used in amusement parks, shopping centers, street decorations and promenades. Exhibitor fixtures may also be incorporated into signs or surface mounted to accent rooflines and other architectural features.

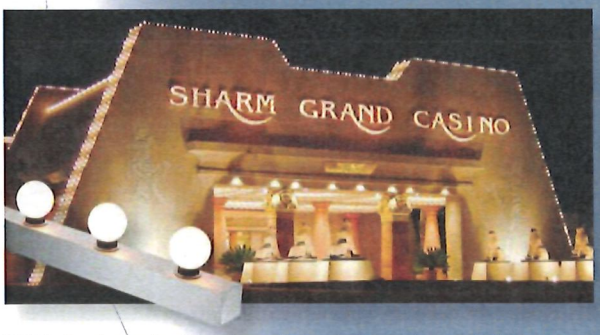
The EXC Series incorporates Exhibitor Series into a 2" x 2" aluminum profile suitable for painting and use in all environments. This series can be wired for single circuit or chasing effects.

A wide selection of LEDs allow you to create a system to complement any theme, setting or ambient light level.

Light sources include our new Virtual Incandescent™ and Ultra Bright LEDs. We also offer 0.48 watt LEDs in a variety of colors.



Exhibitor festoon lighting spans large areas of open-air space.

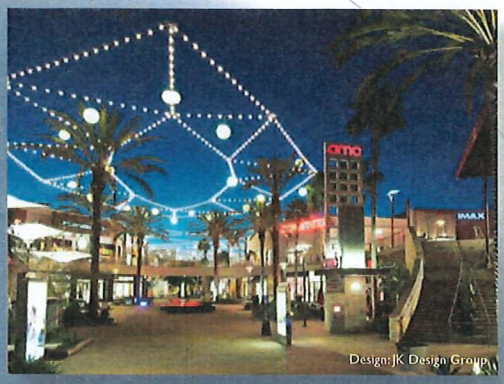


EXC Series wired for four-channel chase dramatically highlights the contours of this casino perimeter.

Contents

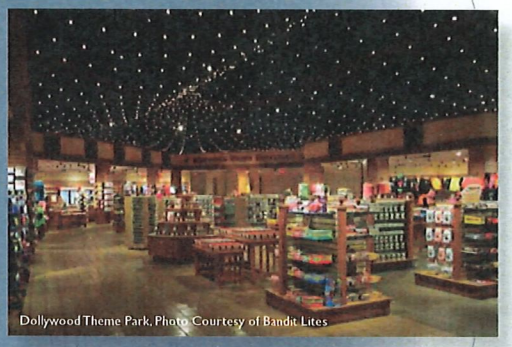
Cover:
Exhibitor with LEDs along the River Thames.

BLU54	Job Name: UW Campus Hotel	Catalog Number: SEE HIGHLIGHTED BELOW	Type: XI STRING LIGHT

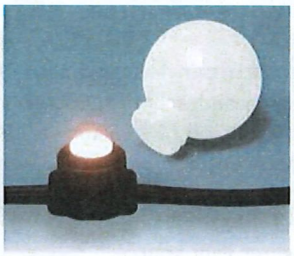


Exhibitor fills this open-air space with a spectacular canopy of light.

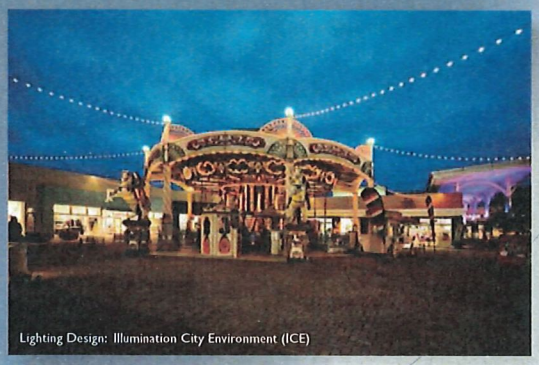
Virtual Incandescent™ LED
1.8 watts /24 VAC
Virtual Incandescent LEDs do a remarkable job of emulating traditional incandescent lamps.



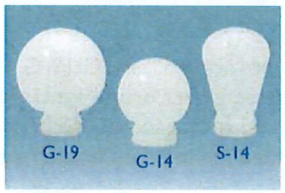
Exhibitor adds a canopy of lights and interest to this open ceiling.



Ultra Bright LED
1.8 watts /24 VAC
These LEDs have the same apparent brightness as 7.5 watt xenon lamps, with over 4 times the life rating.



Exhibitor with our Virtual Incandescent LEDs draws attention to this carousel.



Three Exhibitor Globe Shapes
All styles are available in clear and frosted. The G-19 is also available in transparent Green, Amber, Blue, Red and Violet.

Design Guidelines

Socket Spacing

Consider line of sight and viewing perspective when deciding on socket spacing. More distant spacings (18"-24") are the best choice for most festoon applications. Closer spacings (6"-12") are appropriate for applications at closer viewing range. Any custom spacing is available on request.

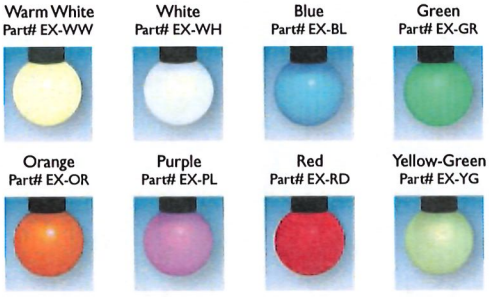
Light Sources

0.48 Watt LEDs

With incredible life ratings, all Tokistar LEDs are ideally suited for continuous operation in commercial applications. LEDs rated at 0.48 watts provide a softer lighting effect and are the most energy-efficient choice. These LEDs consume so little energy they can span much greater distances from a single feed point.

0.48 Watt LEDs				
Part#	Watts/Volts	Hours	Lumens	Color
EX-WW	0.48 Watts / 24 VAC	40K - 50K	12.5	2500K
EX-WH	0.48 Watts / 24 VAC	40K - 50K	18.0	5500K
EX-BL	0.48 Watts / 24 VAC	40K - 50K	1.4	Blue
EX-GR	0.48 Watts / 24 VAC	40K - 50K	4.6	Green
EX-OR	0.48 Watts / 24 VAC	40K - 50K	2.5	Orange
EX-PL	0.48 Watts / 24 VAC	40K - 50K	3.8	Purple
EX-RD	0.48 Watts / 24 VAC	40K - 50K	2.6	Red
EX-YG	0.48 Watts / 24 VAC	40K - 50K	8.0	Yellow-Green

LEDs Shown with Frosted Globes



Virtual Incandescent and Ultra Bright LEDs

Virtual Incandescent™ LEDs do a remarkable job of emulating traditional incandescent filaments. Ultra Bright LEDs do the same, while providing a brighter light source. Both LEDs are rated at 1.8 watts.

Ultra-Bright LED

Virtual Incandescent™ LED

Ultra Bright and Virtual Incandescent LEDs				
Part#	Watts/Volts	Hours	Lumens	Color
EX-UB-LW	1.8 Watts / 24 VAC	40K - 50K	41	2000K
EX-UB	1.8 Watts / 24 VAC	40K - 50K	45	2400K
EX-VI-LW	1.8 Watts / 24 VAC	40K - 50K	36	2000K
EX-VI	1.8 Watts / 24 VAC	40K - 50K	40	2400K

Xenon Lamp

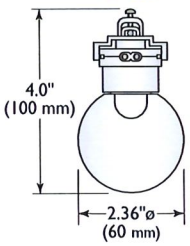
Tokistar's Exhibitor Series was originally introduced with incandescent xenon lamps, and we still offer them as an option. Due to the efficiency and exceptional life of LED sources, xenon lamps are no longer the most popular choice.

Xenon Lamp				
Part#	Watts/Volts	Hours	Lumens	Color
EX-124	7.5 Watts / 24 VAC	10K	65	2500K

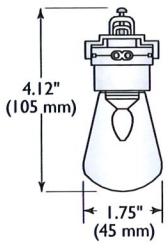
Globe Selection

Three different shapes are available: G-19, G-14 and S-14. Clear globes have excellent clarity and will emphasize distinct points of light. Frosted globes diffuse light and have a softer appearance. Each globe includes two O-rings for a secure and weatherproof seal to the socket. G-19 transparent colored globes create vibrant color. Virtual Incandescent LEDs are not recommended for use with frosted globes, and our xenon lamp is not for use with G-14 globes.

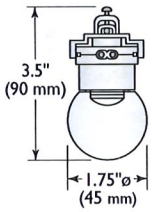
G-19



S-14



G-14



G-19 globes are also available in transparent Green, Amber, Blue, Red and Violet.

How to Specify

When specifying an Exhibitor Lighting System, take into consideration: Socket Spacing, LED Style and Globe Selection.

The Basic System

The Exhibitor Series consists of sockets permanently sealed to flexible cable. All components are rated for wet location use.

EXBK - 6 - VI - S14 - C

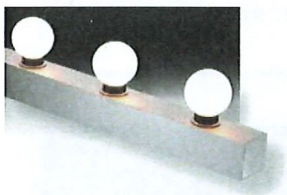
Cable / Socket Color		Socket Spacing		LED			Globe Style		Globe Color	
Code	Color	Code	Inches (mm)	Code	Color	Watts/Volts	Code	Style	Code	Color
BK	Black	**6**	6" (150 mm)	**UBLW**	2000K White	1.8 W / 24 VAC	**G19**	G-19	**C**	Clear
WH	White	**12**	12" (300 mm)	**UB**	2400K White	1.8 W / 24 VAC	**G14**	G-14	**F**	Frosted
		18	18" (450 mm)	**VILW**	2000K White	1.8 W / 24 VAC	**S14**	S-14	**G**	Green
		24	24" (600 mm)	**VI**	2400K White	1.8 W / 24 VAC	G-14 & S-14 in clear and frosted only		**A**	Amber
		Custom spacing is available.		Virtual Incandescent (VILW & VI) not for use with Frosted Globes					**B**	Blue
				WW	2500K White	0.48 W / 24 VAC			**R**	Red
				WH	5500K White	0.48 W / 24 VAC			**V**	Violet
				BL	Blue	0.48 W / 24 VAC			**M**	Multi-Color
				GR	Green	0.48 W / 24 VAC				
				OR	Orange	0.48 W / 24 VAC				
				PL	Purple	0.48 W / 24 VAC				
				RD	Red	0.48 W / 24 VAC				
				YG	Yellow-Green	0.48 W / 24 VAC				
				(Any Combination of 0.48 Watt Colors is Possible)						
				Xenon Lamp						
				124	2500K	7.5 W / 24 VAC				
				Xenon lamp not for use with G-14 globes						

EXC Series

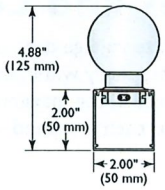
EXC Series incorporates Exhibitor Series into a 2" x 2" satin aluminum profile for use in all environments. Custom finishes are available upon request. Fixtures can be wired for single circuit or chasing effects.

EXC - 6 - UB - G19 - F

Extrusion Finish		Socket Spacing		LED			Globe Style		Globe Color	
Code	Color	Code	Inches (mm)	Code	Color	Watts/Volts	Code	Style	Code	Color
EXC	Satin Aluminum	**6**	6" (150 mm)	**UBLW**	2000K White	1.8 W / 24 VAC	**G19**	G-19	**C**	Clear
		12	12" (300 mm)	**UB**	2400K White	1.8 W / 24 VAC	**G14**	G-14	**F**	Frosted
		18	18" (450 mm)	**VILW**	2000K White	1.8 W / 24 VAC	**S14**	S-14	**G**	Green
		6C	6" Chase (150 mm)	**VI**	2400K White	1.8 W / 24 VAC	G-14 & S-14 in clear and frosted only		**A**	Amber
		12C	12" Chase (300 mm)	Virtual Incandescent (VILW & VI) not for use with Frosted Globes					**B**	Blue
		Custom spacing is available.		**WW**	2500K White	0.48 W / 24 VAC			**R**	Red
				WH	5500K White	0.48 W / 24 VAC			**V**	Violet
				BL	Blue	0.48 W / 24 VAC			**M**	Multi-Color
				GR	Green	0.48 W / 24 VAC				
				OR	Orange	0.48 W / 24 VAC				
				PL	Purple	0.48 W / 24 VAC				
				RD	Red	0.48 W / 24 VAC				
				YG	Yellow-Green	0.48 W / 24 VAC				
				(Any Combination of 0.48 Watt Colors is Possible)						
				Xenon Lamp						
				124	2500K	7.5 W / 24 VAC				
				Xenon lamp not for use with G-14 globes						



EXC Series
Shown with G-19 Globe

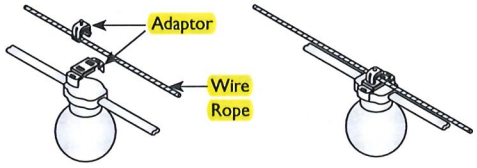


Mounting Options

Festoon Mounting

Part# EX-MDA-WH (White)
Part# EX-MDA-BK (Black)

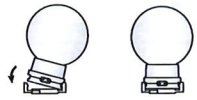
For festoon applications to a catenary cable, our wire-rope adaptors securely hold each socket in place to a 1/16" or 1/8" diameter wire rope. Wire rope and all of its associated mounting hardware is not provided with the system.



Surface Mounting with Disks

Part# EX-MD-WH (White)
Part# EX-MD-BK (Black)

Exhibitor Series can be surface mounted to structures using mounting disks. One disk is required for mounting each socket. The socket can be snapped into the disk first, and the entire assembly screwed in place to the structure.



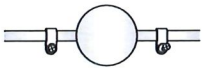
Exhibitor fixture snaps directly into the Mounting Disk and locks in place.

Mounting Disks attach with screws.

Surface Mounting with Straps

Part# EX-MS-WH (White)
Part# EX-MS-BK (Black)

Exhibitor Series may be surface mounted to structures using our mounting straps. Two straps are required for mounting each socket. Straps are positioned on either side of the socket, and then screwed securely to the structure.

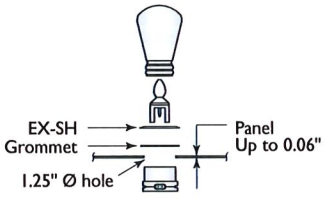


Mounting Straps attach with screws.

Panel-Extrusion Mounting

Part# EX-SH

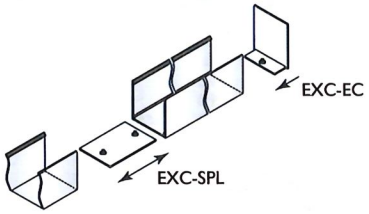
For installations to flat panels or extrusions up to 0.06", we offer stainless-steel panel fasteners. The socket assembly is inserted from below, then the panel fastener and grommet are pressed in place from above.



EXC Series

Part# EXC-SPL (Exhibitor Splice)
Part# EXC-EC (Exhibitor End Caps)

End Caps are required at the end and beginning of each run of fixture. When EXC fixtures are positioned end-to-end, a splice is needed to seam them together.



Sizes and Lengths

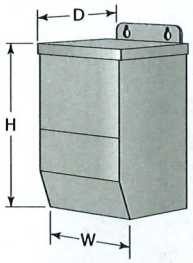
To minimize voltage drop and keep conductors safely within their ratings, do not exceed the maximum lengths shown for each independent fixture.

Maximum Run Lengths			
	LEDs	UB & VI LEDs	Xenon Lamp
Socket Spacing	0.48 Watt / 24 VAC	1.8 Watt / 24 VAC	7.5 Watt / 24 VAC
6" (150 mm)	250' (76 M)	125' (38 M)	32' (10 M)
12" (300 mm)	350' (106 M)	200' (60 M)	56' (17 M)
18" (450 mm)	420' (128 M)	225' (68 M)	72' (22 M)
24" (600 mm)	500' (152 M)	250' (76 M)	80' (24 M)

Transformers

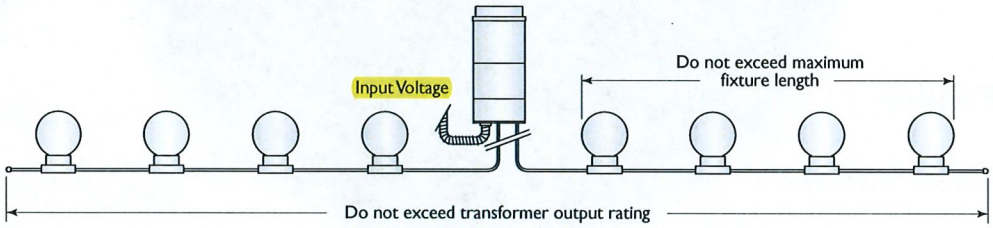
Tokistar transformers operate from a 120 VAC / 60 Hz input and are fully dimmable. They are provided in a Nema 3R enclosure suitable for wet locations. The secondary outputs are protected by circuit breakers. Transformers should be installed in an accessible location where there is free air circulation.

24 VAC Transformers					
Number	Outputs	D	H	W	Weight
C2-40-24V	1 @ 40 Watt / 24 VAC	2.25"	5.75"	2.25"	2 lbs
C2-96-24V	1 @ 96 Watt / 24 VAC	2.5"	6.5"	3.0"	3 lbs
T24-150	1 @ 150 Watt / 24 VAC	3.0"	9.0"	3.0"	5 lbs
T24-300	1 @ 300 Watt / 24 VAC	3.5"	9.5"	4.5"	8 lbs
T24-600	1 @ 600 Watt / 24 VAC	4.5"	10.5"	4.5"	15 lbs
T24-1200	2 @ 600 Watt / 24 VAC	5.0"	11.5"	7.0"	28 lbs

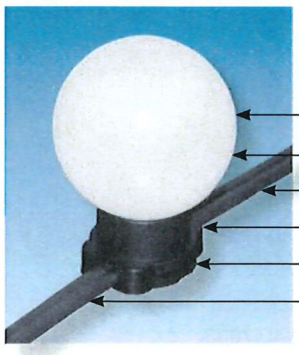


Consult factory for transformers with input voltages of 230 or 277 VAC. Sizes and weights shown are approximate and subject to change without notice.

Transformers can be centrally located and feed fixtures in either direction.



Specifications



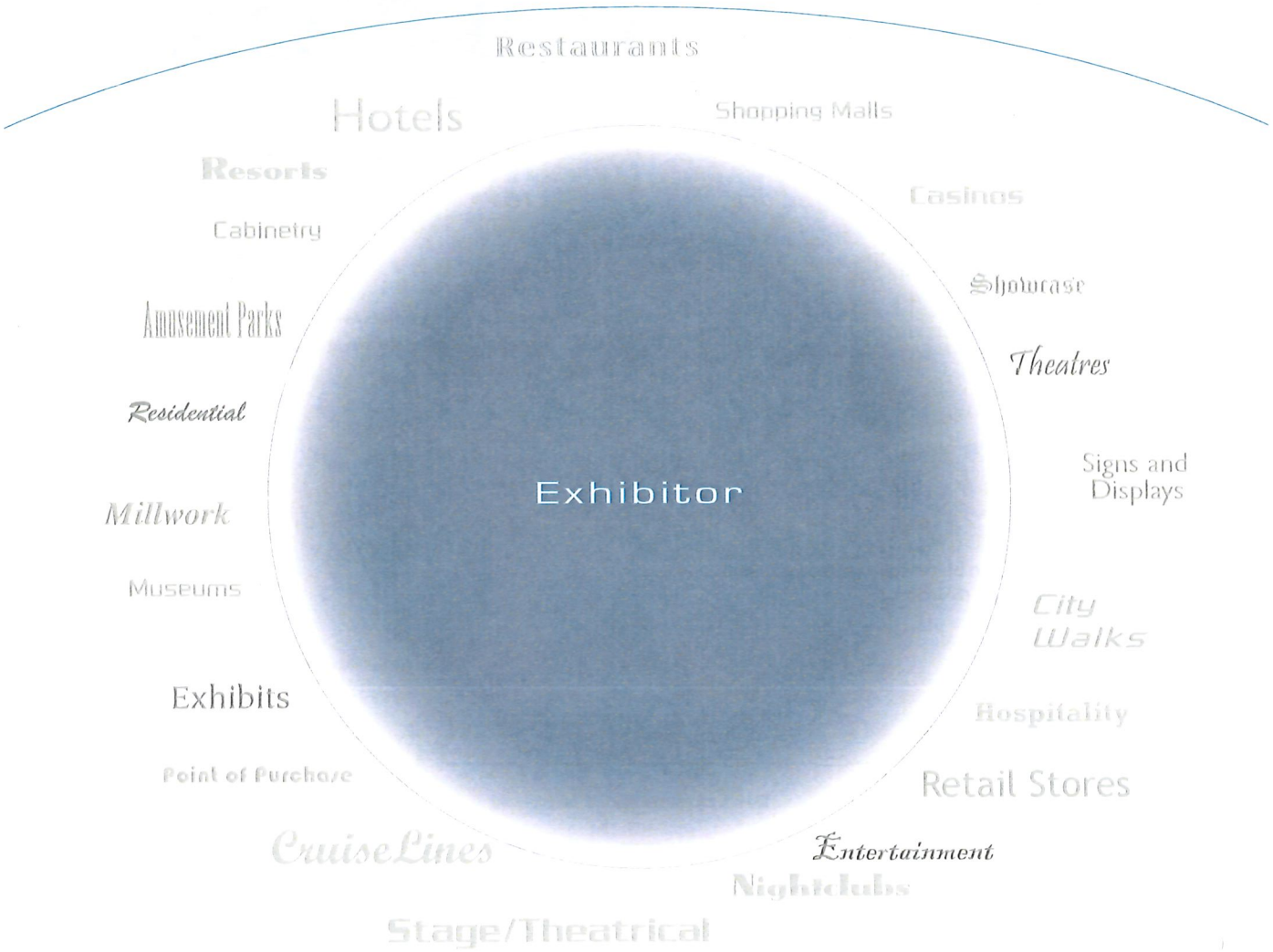
All plastic components comply with UL746C in respect to Ultraviolet Light and Water Absorption testing.

- **Light Sources** include LED and Xenon lamps
- **Polycarbonate Globe** with flammability rating UL 94V-2
- **Flexible Conductors** #12 AWG stranded and plated wire
- **Two O-Rings** on each globe for weatherproof seal
- **Sockets** permanently fastened to cable with sealant
- **Insulation** is flexible PVC with flammability rating UL 94 HB

Intertek
Wet Location Listed

BLU54™

Job Name:	Catalog Number:	Type:
UW Campus Hotel	SEE HIGHLIGHTED BELOW	XI STRING LIGHT

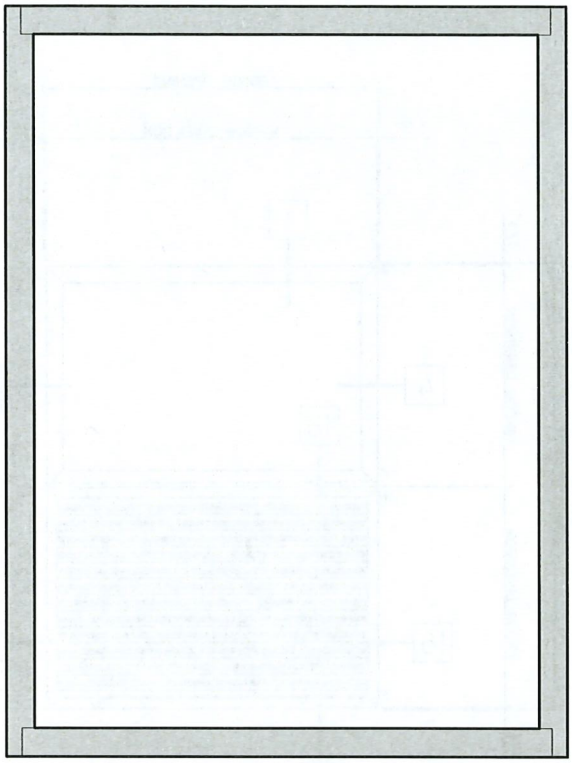


TOKISTAR® LIGHTING INC.
1015 E. Discovery Lane • Anaheim, CA 92801
Tel: 714.772.7005 • Fax: 714.772.7014 • Toll free in USA: 877.340.7633
Email: info@tokistar.com • Website: www.tokistar.com

WINTECH

P.O. BOX 480
MONETT, MO 65708-0480

P: 417-235-7821
F: 417-737-7140
www.wintechinc.com



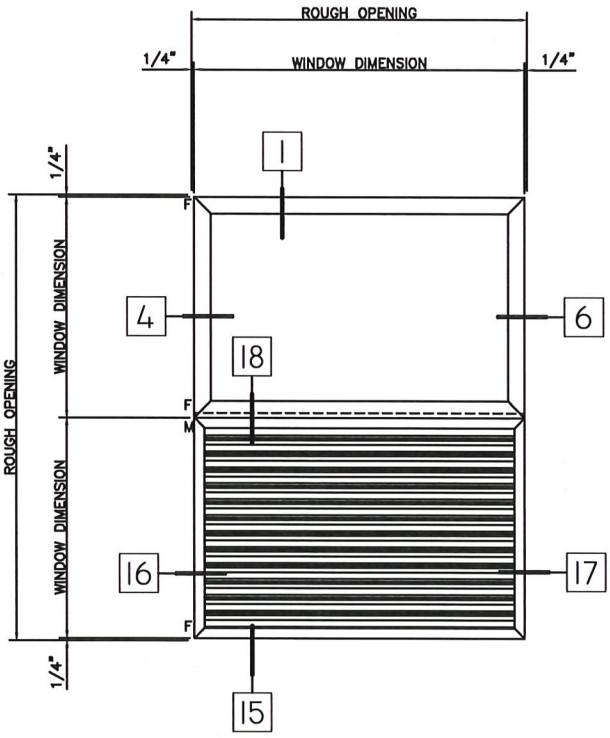
S251 FIXED PERFORMANCE DATA:
AAMA/WDMA/CSA 101/I.S.2/A440-08
AAMA/WDMA/CSA 101/I.S.2/A440-11

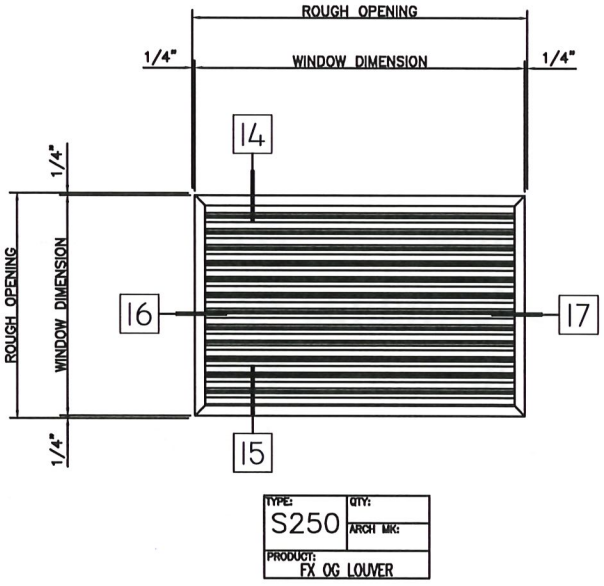
Rating	CW-PG60-FW
Air Infiltration	<0.01 cfm/ft @ 1.57 psf
Water Resistance	0 leakage at 12.0 lb
Structural Performance	+/- 90.00 psf
Thermally Broken	Yes
Frame Depth	2-1/2"
Infill Options	Maximum 1"

WINTECH

P.O. BOX 480
MONETT, MO 65708-0480

P: 417-235-7821
F: 417-737-7140
www.wintechinc.com



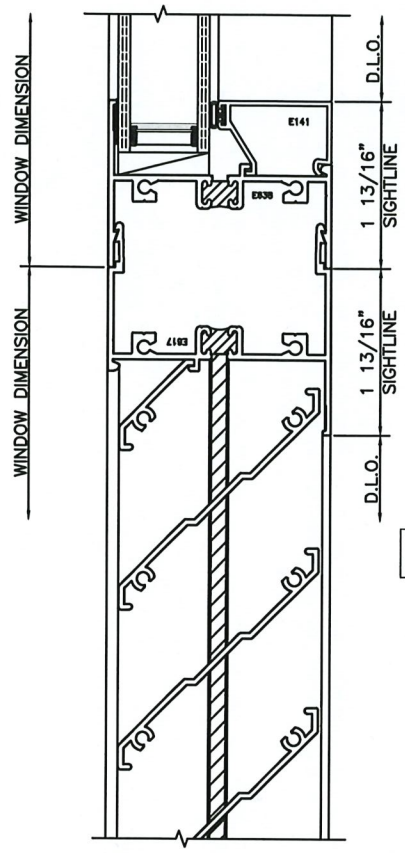


HALF SCALE DETAILS

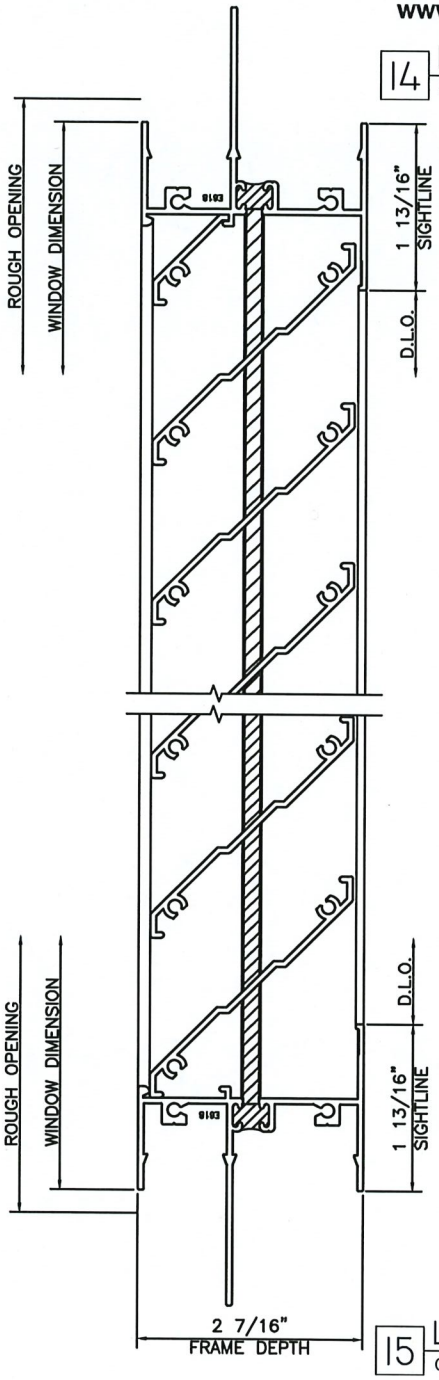
WINTECH

P.O. BOX 480
MONETT, MO 65708-0480

P: 417-235-7821
F: 417-737-7140
www.wintechinc.com



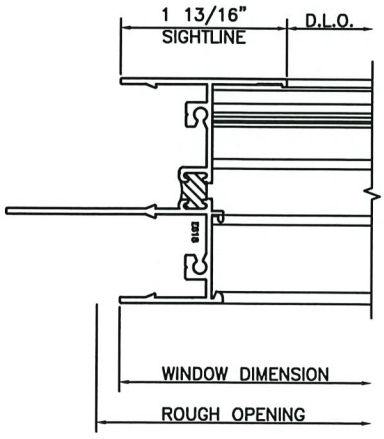
18 LOUVER HEAD
OUTSIDE GLAZED



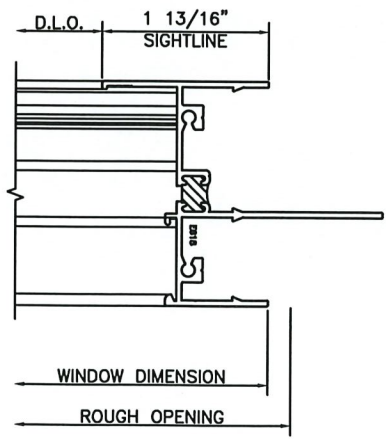
14 LOUVER HEAD
OUTSIDE GLAZED

15 LOUVER SILL
OUTSIDE GLAZED

16 LOUVER JAMB
OUTSIDE GLAZED



17 LOUVER JAMB
OUTSIDE GLAZED



HALF SCALE DETAILS