

Kahler Slater

Milwaukee
Madison
Richmond
Singapore

April 12, 2019

City of Madison Planning Division
Attn: Janine Glaeser
Madison Municipal Building
215 Martin Luther King, Jr. Blvd.
Madison, WI 53701-2985

111 West Wisconsin Avenue
Milwaukee, WI 53203
P 414.272.2000

RE: LOI for UDC Application for PD Amendment at 760/780 Regent St

Dear Janine:

Mortenson Development, Inc. is pleased to submit this UDC 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 guest to Madison and the University of Wisconsin.

The hotel features multiple entrances, a lobby, bar & restaurant, and supporting back of house function 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:

- Enhanced entry to the restaurant and bar adjacent to the lobby from the bike trail.
- Increased outdoor seating and dining adjacent to the bike trail.
- Enhanced entry to the building from the East Campus Mall.
- Added artwork at panels screening parking from bike path.
- Significant reduction in quantity from 25% to 16% of EIFS.
- Reduction in number of materials at the exterior elevations.

Sincerely,

KAHLER SLATER, INC.



Thomas Miller, AIA
Principal & Team Leader

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

URBAN DESIGN COMMISSION APPLICATION

UDC

City of Madison
Planning Division
Madison Municipal Building, Suite 017
215 Martin Luther King, Jr. Blvd.
P.O. Box 2985
Madison, WI 53701-2985
(608) 266-4635



FOR OFFICE USE ONLY:

Paid _____ Receipt # _____
Date received _____
Received by _____
Aldermanic District _____
Zoning District _____
Urban Design District _____
Submission reviewed by _____
Legistar # _____

Complete all sections of this application, including the desired meeting date and the action requested.

If you need an interpreter, translator, materials in alternate formats or other accommodations to access these forms, please call the phone number above immediately.

1. Project Information

Address: 760 Regent Street (Requested)

Title: UW Campus Hotel

2. Application Type (check all that apply) and Requested Date

UDC meeting date requested April 24

- New development Alteration to an existing or previously-approved development
 Informational Initial approval Final approval

3. Project Type

- Project in an Urban Design District
 Project in the Downtown Core District (DC), Urban Mixed-Use District (UMX), or Mixed-Use Center District (MXC)
 Project in the Suburban Employment Center District (SEC), Campus Institutional District (CI), or Employment Campus District (EC)
 Planned Development (PD)
 General Development Plan (GDP)
 Specific Implementation Plan (SIP)
 Planned Multi-Use Site or Residential Building Complex

Signage

- Comprehensive Design Review (CDR)
 Signage Variance (i.e. modification of signage height, area, and setback)

Other

- Please specify _____

4. Applicant, Agent, and Property Owner Information

Applicant name Dave Merrick
Street address 17975 Sarah Lane #200
Telephone 262-879-2563

Company Mortenson
City/State/Zip Brookfield, WI 53045
Email dave.merrick@mortenson.com

Project contact person Thomas Miller
Street address 111 W Wisconsin, 3rd Floor
Telephone 608-225-4040

Company Kahler Slater
City/State/Zip Milwaukee, WI 53203
Email tmiller@kahlerslater.com

Property owner (if not applicant) _____
Street address _____
Telephone _____

City/State/Zip _____
Email _____

5. Required Submittal Materials

- Application Form**
- 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
 - For signage applications, a summary of how the proposed signage is consistent with the applicable CDR or Signage Variance review criteria is required.
- Development plans** (Refer to checklist on Page 4 for plan details)
- NA **Filing fee**
- Electronic Submittal***

Each submittal must include fourteen (14) 11" x 17" **collated** paper copies. Landscape and Lighting plans (if required) must be **full-sized and legible**. Please refrain from using plastic covers or spiral binding.

Both the paper copies and electronic copies must be submitted prior to the application deadline before an application will be scheduled for a UDC meeting. Late materials will not be accepted. A completed application form is required for each UDC appearance.

For projects also requiring Plan Commission approval, applicants must also have submitted an accepted application for Plan Commission consideration prior to obtaining any formal action (initial or final approval) from the UDC. All plans must be legible when reduced.

**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 udcapplications@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.*

6. Applicant Declarations

1. Prior to submitting this application, the applicant is required to discuss the proposed project with Urban Design Commission staff. This application was discussed with Heather Stouder on 2/13/2019.
2. The applicant attests that all required materials are included in this submittal and understands that if any required information is not provided by the application deadline, the application will not be placed on an Urban Design Commission agenda for consideration.

Name of applicant Dave Merrick Relationship to property Owner
 Authorizing signature of property owner  Date 3/5/2019

7. Application Filing Fees

Fees are required to be paid with the first application for either initial or final approval of a project, unless the project is part of the combined application process involving the Urban Design Commission in conjunction with Plan Commission and/or Common Council consideration. Make checks payable to City Treasurer. Credit cards may be used for application fees of less than \$1,000.

Please consult the schedule below for the appropriate fee for your request:

- Urban Design Districts: \$350 (per §35.24(6) MGO).
- Minor Alteration in the Downtown Core District (DC) or Urban Mixed-Use District (UMX) : \$150 (per §33.24(6)(b) MGO)
- Comprehensive Design Review: \$500 (per §31.041(3)(d)(1)(a) MGO)
- Minor Alteration to a Comprehensive Sign Plan: \$100 (per §31.041(3)(d)(1)(c) MGO)
- All other sign requests to the Urban Design Commission, including, but not limited to: appeals from the decisions of the Zoning Administrator, requests for signage variances (i.e. modifications of signage height, area, and setback), and additional sign code approvals: \$300 (per §31.041(3)(d)(2) MGO)

A filing fee is not required for the following project applications if part of the combined application process involving both Urban Design Commission and Plan Commission:

- Project in the Downtown Core District (DC), Urban Mixed-Use District (UMX), or Mixed-Use Center District (MXC)
- Project in the Suburban Employment Center District (SEC), Campus Institutional District (CI), or Employment Campus District (EC)
- Planned Development (PD): General Development Plan (GDP) and/or Specific Implementation Plan (SIP)
- Planned Multi-Use Site or Residential Building Complex

Introduction

The City of Madison's Urban Design Commission (UDC) has been created to:

- Encourage and promote high quality in the design of new buildings, developments, remodeling, and additions so as to maintain and improve the established standards of property values within the City.
- Foster civic pride in the beauty and nobler assets of the City, and in all other ways possible assure a functionally efficient and visually attractive City in the future.

Types of Approvals

There are three types of requests considered by the UDC:

- Informational Presentation. Applicants may, at their discretion, request to make an Informational Presentation to the UDC prior to seeking any approvals to obtain early feedback and direction before undertaking detailed design. Applicants should provide details on the context of the site, design concept, site and building plans, and other relevant information to help the UDC understand the proposal and provide feedback. (Does not apply to CDR's or Signage Variance requests)
- Initial Approval. Applicants may, at their discretion, request initial approval of a proposal by presenting preliminary design information. As part of their review, the Commission will provide feedback on the design information that should be addressed at Final Approval stage.
- Final Approval. Applicants may request Final Approval of a proposal by presenting all final project details. Recommendations or concerns expressed by the UDC in the initial approval must be addressed at this time.

Presentations to the Commission

Primarily, the UDC is interested in the appearance and design quality of projects. Emphasis should be given to the site plan, landscape plan, lighting plan, building elevations, exterior building materials, color scheme, and graphics.

When presenting projects to the UDC, applicants must fill out a registration slip provided in the meeting room and present it to the Secretary. Presentations should generally be limited to 5 minutes or as extended by motion by consent of the Commission. The Commission will withhold questions until the end of the presentation.

Applicants are encouraged to consider the use of various graphic presentation material including a locator map, photographs, renderings/model, scale drawings of the proposal in context with adjacent buildings/uses/signs, etc., as may be deemed appropriate to describe the project and its surroundings. Graphics should be mounted on rigid boards so that they may be easily displayed. **Applicants/presenters are responsible for all presentation materials, AV equipment and easels.**

URBAN DESIGN DEVELOPMENT PLANS CHECKLIST

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)

- 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

Kahler Slater

Milwaukee
Madison
Richmond
Singapore

Memorandum

111 West Wisconsin Avenue
Milwaukee, WI 53203
P 414.272.2000

Date 3/14/2018

To Janine Glaeser

From Chad Bloedel

Project UW Campus Hotel

Project Number 218051

Re UDC Submittal | Comments & Responses
from Informational Meeting

Distribution

Kahler Slater, Mortenson, Vierbicher

The Commission discussed the following:

- Kahler Slater responses (in black) are from the meeting are bulleted beneath each item.
- **Kahler Slater responses (in red) with this submittal are bulleted beneath each item.**

Will you have venting panels under the windows?

- Yes. We will add them to the renderings. We are trying to integrate the PTAC unit within the window frame; using a dark metal helps integrate it very well.
- **There are louver panels that are glazed into the window frame. This strategy is in place in many other downtown Madison hotels. The louvers and the window framing are both painted black which will help minimize their presence. Please see attached detailed cut sheet from the window manufacturer.**

With the use of wood look siding I'm wondering if it would be more successful on this view in particular, if it continues back to meet from masonry pier to masonry pier. Rather than have EIFS on the prominent corners the whole thing becomes wood. Make it more of an entry feature. That might help you have not quite so much EIFS on that façade too.

- We are starting to look at other options to break up the south side of the building.
- **We have limited the use of the wood-look siding material to three distinct sections – at the main entry volume framed in by a ribbon of metal panel, the inset bays of rooms on the north elevation, and a new portion of the façade on the western half of the south façade. The rationale for doing this is to help break down the scale of each façade and add interest. The newest section will be visible from Regent Street at East Campus Mall.**

I wondered why this wood is just here? It's so random with brick, slate, wood and metal. It's too many materials; it the wood is not going to be prominent I would take it off altogether. This is a modern building with the white metal, it's dynamic.

- **The wood-look siding was chosen to respond to the Hotel brand's identity which does feature that material. The warm tones of the wood are a pleasing contrast with the cool tones of the brick, metal, and EIFS cladding.**

To me it warms up the building.

- **Agreed. See prior response.**

I know we're not talking about signage right now, but they're so concentrated and close to each other. I would explore different places for those.

- The signage has been and is still a placeholder for intent as signage is not part of the submittal. There is a separate sign design package which is being prepared to meet the hotel brand standards and the City of Madison's zoning code which will govern size and locations. The point about closeness and concentration has been noted and communicated with the sign designer.

Regent Street goes from two lanes to one right where you're entering. That's something to consider.

- We are engaging in a TIA and putting that together.
- This is still in process.

When you park your car is there a way to get into the hotel without going outside?

- Yes, there's a door right here.
- This experience has been studied further and a micro-café is being considered in the lobby to help the connectivity.

The building is fine but I have some fundamental urban design concerns about the project. It has a Regent Street address but it's not really on Regent Street. In fact it's on two pretty prominent public ways, the bike path and East Campus Mall, both of which it pretty much turns its back on. You're missing an opportunity for people to look out over the campus mall and bike path. Fundamentally there's a big huge missed opportunity here.

- The nature of the site and use of the building requires vehicular access (both from a user/guest arrival experience and the City of Madison Fire Department) to the primary facades which both East Campus Mall and the bike trail cannot provide. We have done what we believe is possible to activate those facades which face the bike path and Mall with some additional detailing and windows.

I had a similar reaction, I want to take the lobby and all that activity and face it towards campus mall.

- See above response.

If these were streets with cars on them Planning would be insisting on it.

- See above response.

There's a lot of EIFS on this building. I don't think painting it on top gives it a different top. I'm not fond of wood looking materials that aren't actually wood. I don't have a problem with warming up the façade.

- We have limited the EIFS to a minimum of 28' above grade and to the main body of the guest room tower and created some variety within that façade by using other materials and manipulations of the façade in depth and height. All of the EIFS will be carefully detailed to last and is articulated to look and feel like precast concrete on the adjacent Kohl Center and LaBahn arena facades.

Have you run a rendition without the white top? I would like to see that. A fake top doesn't do it for me.

- Good suggestion. We have studied it further and removed the white top, simplifying the material palette.

If this whole section was a different type of wood like material, not this plank looking thing, it would be successful.

- See prior responses for discussion on wood-look cladding.

The southwest corner is tucked up against the property line where the east has more space. You're pressing on the campus mall with the parking structure.

- The property lines are being created and will be splitting the existing drive.

- The above comment is still true and has been the result of lengthy negotiations between the developer and land seller.
- There is a generous zone of landscaping at the northwest corner of the site where East Campus Mall passes under the bike trail.

Is it possible to mirror the building?

- We looked at that but there are challenges from a site perspective in terms of access.
- This is still the case as we are not able to get vehicular traffic on East Campus Mall.

Think about how to engage the public, think more about what you see from the bike path view.

- We replanned the building service rooms to carve out a space for an outdoor terrace on the northeast corner of our building. With this, we were able to add additional windows and a steel and wood trellis element to help activate this corner of the building.
- The parking structure which fronts the bike trail can be perceived as a good neighbor to the mall as it steps down the massing from the height of the hotel tower beyond. The parking structure is articulated with a series of brick piers and translucent mesh screening panels, creating a visual rhythm for people traveling along the trail.

There's a missed opportunity not addressing East Campus Mall. You're sending pedestrians to the East Campus Mall anyway to get to the Kohl Center.

- In addition to the response above, we have created a dedicated pedestrian walkway across the drive aisles and parking lot to get up to the East Campus Mall.

How will you remove snow from the top of the parking structure?

- We are reviewing that right now; possibly a snow chute.
- No snow chute will be provided. The hotel operator believes that they will be able to use small front end loaders to lift the snow over the deck and down onto trucks to haul away.

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

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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 Goldworthy 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? If non-sprinklered , fire lanes extend to within 150-feet of all portions of the exterior wall? If sprinklered , fire lanes are within 250-feet of all portions of the exterior wall?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
2. Is the fire lane constructed of concrete or asphalt, designed to support a minimum load of 85,000 lbs? a) Is the fire lane a minimum unobstructed width of at least 20-feet? b) Is the fire lane unobstructed with a vertical clearance of at least 13½-feet? c) Is the minimum inside turning radius of the fire lane at least 28-feet? d) Is the grade of the fire lane not more than a slope of 8%? e) Is the fire lane posted as fire lane? (Provide detail of signage.) f) Is a roll-able curb used as part of the fire lane? (Provide detail of curb.) g) Is part of a sidewalk used as part of the required fire lane? (Must support +85,000 lbs.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
3. Is the fire lane obstructed by security gates or barricades? If yes: a) Is the gate a minimum of 20-feet clear opening? b) Is an approved means of emergency operations installed, key vault, padlock or key switch?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
4. Is the Fire lane dead-ended with a length greater than 150-feet? If yes, does the area for turning around fire apparatus comply with IFC D103?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
6. Is any part of the building greater than 30-feet above the grade plane? 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? b) Is the near edge of the aerial apparatus fire lane between 15' and 30' from the building? c) Are there any overhead power or utility lines located across the aerial apparatus fire lane? d) Are there any tree canopies expected to grow across the aerial fire lane? (Based on mature canopy width of tree species) e) Does the aerial apparatus fire lane have a minimum unobstructed width of 26-feet? f) Is the space between the aerial lane and the building free of trees exceeding 20' in heights?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
7. Are all portions of the required fire lanes within 500-feet of at least (2) hydrants? <i>Note: Distances shall be measured along the path of the hose lay as it comes off the fire apparatus.</i> a) Is the fire lane at least 26' wide for at least 20-feet on each side of the hydrants? b) Is there at least 40' between a hydrant and the building? 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? d) Are hydrants located in parking lot islands a minimum of 3½-feet from the hydrant to the curb? 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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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

SPECIFICATIONS

PROJECT NAME: _____

PROJECT TYPE: _____

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 $\leq \pm .002"$) 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

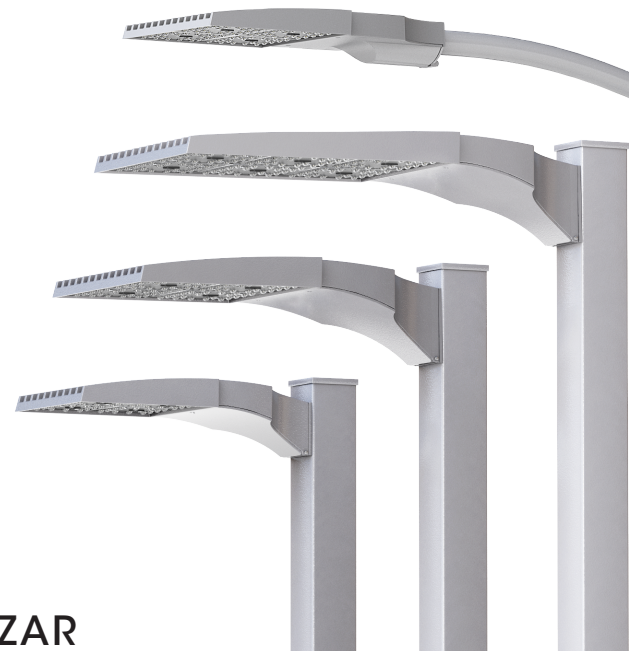
PCA (Phosphor Converted Amber) LED's utilize phosphors to create color output similar to LPS lamps and have a slight output in the blue spectral bandwidth. **TRA** (True Amber) LED's utilize material that emits light in the amber spectral bandwidth only without the use of phosphors.

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

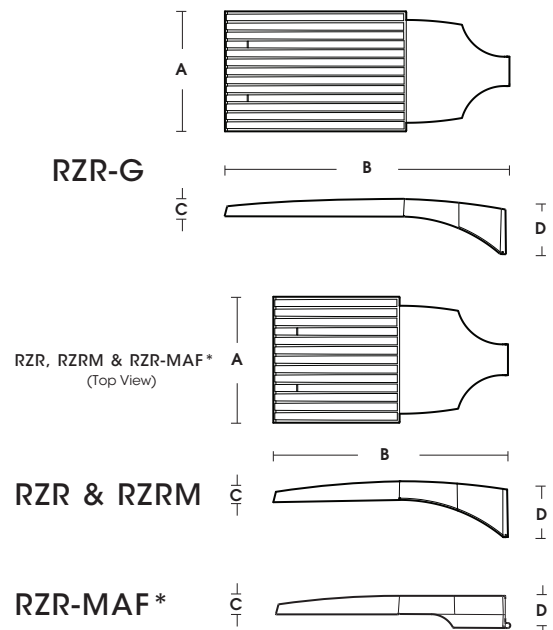
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5 or +3° up from the horizontal.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



RAZAR

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

PATENT PENDING



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



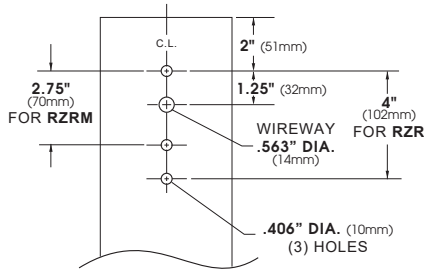
2018358



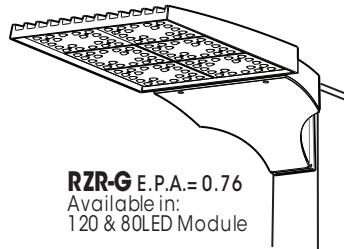
RAZAR SERIES-LED

SPECIFICATIONS

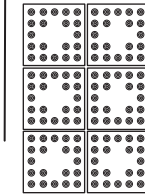
POLE DRILLING TEMPLATE



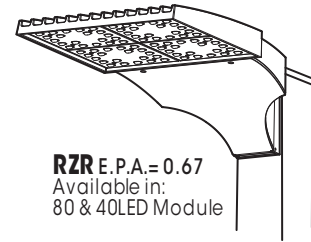
PLED® MODULES



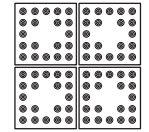
RZR-G E.P.A.= 0.76
Available in:
120 & 80LED Module



120 LED Module



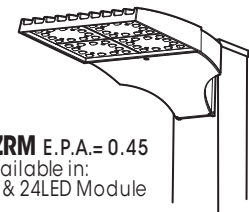
RZR E.P.A.= 0.67
Available in:
80 & 40LED Module



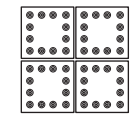
80 LED Module

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



RZR-M 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	OPTICS	LED MODE			VOLTAGE	FINISH	OPTIONS
<input type="checkbox"/> RZR-G	<input type="checkbox"/> TYPE II PLED-II	<input type="checkbox"/> RZR-G <input type="checkbox"/> 120LED <input type="checkbox"/> 80LED	<input type="checkbox"/> 350mA <input type="checkbox"/> 525mA <input type="checkbox"/> 700mA ² <input type="checkbox"/> 1050mA ²	<input type="checkbox"/> NW (4000K)* *STANDARD <input type="checkbox"/> CW (5000K) <input type="checkbox"/> WW (3000K)	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	STANDARD TEXTURED FINISH <input type="checkbox"/> BLACK RAL-9005-T <input type="checkbox"/> WHITE RAL-9003-T <input type="checkbox"/> GREY RAL-7004-T <input type="checkbox"/> DARK BRONZE RAL-8019-T <input type="checkbox"/> GREEN RAL-6005-T	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR HL5W <input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD ... HS-PLED <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) ... PC+V <input type="checkbox"/> TWIST LOCK RECEPTACLE ONLY ... TPR <input type="checkbox"/> 7-PIN TWIST LOCK RECEPTACLE ONLY ... TPR7 <input type="checkbox"/> SINGLE FUSE (120V, 277V, 347V) ... SF <input type="checkbox"/> DOUBLE FUSE (208V, 240V, 480V) ... DF <input type="checkbox"/> STEP DIM MOTION SENSOR (PROGRAMMED 50/100) MS-F211 <input type="checkbox"/> REMOTE MOTION SENSOR CONFIGURATOR MS-FC10
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE II FRONT ROW PLED-II-FR	<input type="checkbox"/> RZR <input type="checkbox"/> 80LED <input type="checkbox"/> 40LED	CONSULT FACTORY FOR OTHER LED COLORS	<input type="checkbox"/> PHOSPHOR CONVERTED AMBER PCA <input type="checkbox"/> TRUE AMBER ⁴ TRA	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	<input type="checkbox"/> GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S) CONSULT FACTORY FOR CUSTOM COLORS	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR HL5W <input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD ... HS-PLED <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) ... PC+V <input type="checkbox"/> TWIST LOCK RECEPTACLE ONLY ... TPR <input type="checkbox"/> 7-PIN TWIST LOCK RECEPTACLE ONLY ... TPR7 <input type="checkbox"/> SINGLE FUSE (120V, 277V, 347V) ... SF <input type="checkbox"/> DOUBLE FUSE (208V, 240V, 480V) ... DF <input type="checkbox"/> STEP DIM MOTION SENSOR (PROGRAMMED 50/100) MS-F211 <input type="checkbox"/> REMOTE MOTION SENSOR CONFIGURATOR MS-FC10
<input type="checkbox"/> RZR-MAF ¹	<input type="checkbox"/> TYPE II MEDIAN ILLUMINATOR PLED-II-ML						
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE III MED. PLED-III-M	<input type="checkbox"/> RZR <input type="checkbox"/> 80LED <input type="checkbox"/> 40LED	CONSULT FACTORY FOR OTHER LED COLORS	<input type="checkbox"/> PHOSPHOR CONVERTED AMBER PCA <input type="checkbox"/> TRUE AMBER ⁴ TRA	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	<input type="checkbox"/> GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S) CONSULT FACTORY FOR CUSTOM COLORS	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR HL5W <input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD ... HS-PLED <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) ... PC+V <input type="checkbox"/> TWIST LOCK RECEPTACLE ONLY ... TPR <input type="checkbox"/> 7-PIN TWIST LOCK RECEPTACLE ONLY ... TPR7 <input type="checkbox"/> SINGLE FUSE (120V, 277V, 347V) ... SF <input type="checkbox"/> DOUBLE FUSE (208V, 240V, 480V) ... DF <input type="checkbox"/> STEP DIM MOTION SENSOR (PROGRAMMED 50/100) MS-F211 <input type="checkbox"/> REMOTE MOTION SENSOR CONFIGURATOR MS-FC10
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE III WIDE PLED-III-W						
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE IV PLED-IV	<input type="checkbox"/> RZR <input type="checkbox"/> 48LED <input type="checkbox"/> 24LED	CONSULT FACTORY FOR OTHER LED COLORS	<input type="checkbox"/> PHOSPHOR CONVERTED AMBER PCA <input type="checkbox"/> TRUE AMBER ⁴ TRA	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	<input type="checkbox"/> GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S) CONSULT FACTORY FOR CUSTOM COLORS	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR HL5W <input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD ... HS-PLED <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) ... PC+V <input type="checkbox"/> TWIST LOCK RECEPTACLE ONLY ... TPR <input type="checkbox"/> 7-PIN TWIST LOCK RECEPTACLE ONLY ... TPR7 <input type="checkbox"/> SINGLE FUSE (120V, 277V, 347V) ... SF <input type="checkbox"/> DOUBLE FUSE (208V, 240V, 480V) ... DF <input type="checkbox"/> STEP DIM MOTION SENSOR (PROGRAMMED 50/100) MS-F211 <input type="checkbox"/> REMOTE MOTION SENSOR CONFIGURATOR MS-FC10
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE IV FT PLED-IV-FT						
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE V NARROW PLED-V-SQ-N	<input type="checkbox"/> RZR <input type="checkbox"/> 48LED <input type="checkbox"/> 24LED	CONSULT FACTORY FOR OTHER LED COLORS	<input type="checkbox"/> PHOSPHOR CONVERTED AMBER PCA <input type="checkbox"/> TRUE AMBER ⁴ TRA	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	<input type="checkbox"/> GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S) CONSULT FACTORY FOR CUSTOM COLORS	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR HL5W <input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD ... HS-PLED <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) ... PC+V <input type="checkbox"/> TWIST LOCK RECEPTACLE ONLY ... TPR <input type="checkbox"/> 7-PIN TWIST LOCK RECEPTACLE ONLY ... TPR7 <input type="checkbox"/> SINGLE FUSE (120V, 277V, 347V) ... SF <input type="checkbox"/> DOUBLE FUSE (208V, 240V, 480V) ... DF <input type="checkbox"/> STEP DIM MOTION SENSOR (PROGRAMMED 50/100) MS-F211 <input type="checkbox"/> REMOTE MOTION SENSOR CONFIGURATOR MS-FC10
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE V MED. PLED-V-SQ-M						
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE V WIDE PLED-V-SQ-W	<input type="checkbox"/> RZR <input type="checkbox"/> 48LED <input type="checkbox"/> 24LED	CONSULT FACTORY FOR OTHER LED COLORS	<input type="checkbox"/> PHOSPHOR CONVERTED AMBER PCA <input type="checkbox"/> TRUE AMBER ⁴ TRA	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	<input type="checkbox"/> GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S) CONSULT FACTORY FOR CUSTOM COLORS	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR HL5W <input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD ... HS-PLED <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) ... PC+V <input type="checkbox"/> TWIST LOCK RECEPTACLE ONLY ... TPR <input type="checkbox"/> 7-PIN TWIST LOCK RECEPTACLE ONLY ... TPR7 <input type="checkbox"/> SINGLE FUSE (120V, 277V, 347V) ... SF <input type="checkbox"/> DOUBLE FUSE (208V, 240V, 480V) ... DF <input type="checkbox"/> STEP DIM MOTION SENSOR (PROGRAMMED 50/100) MS-F211 <input type="checkbox"/> REMOTE MOTION SENSOR CONFIGURATOR MS-FC10
<input type="checkbox"/> RZR	<input type="checkbox"/> TYPE V WIDE PLED-V-SQ-W						

NOTES:
1 - DLC PENDING AS OF 7/17

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



RAZAR SERIES-LED

LED/ELECTRICAL GUIDE

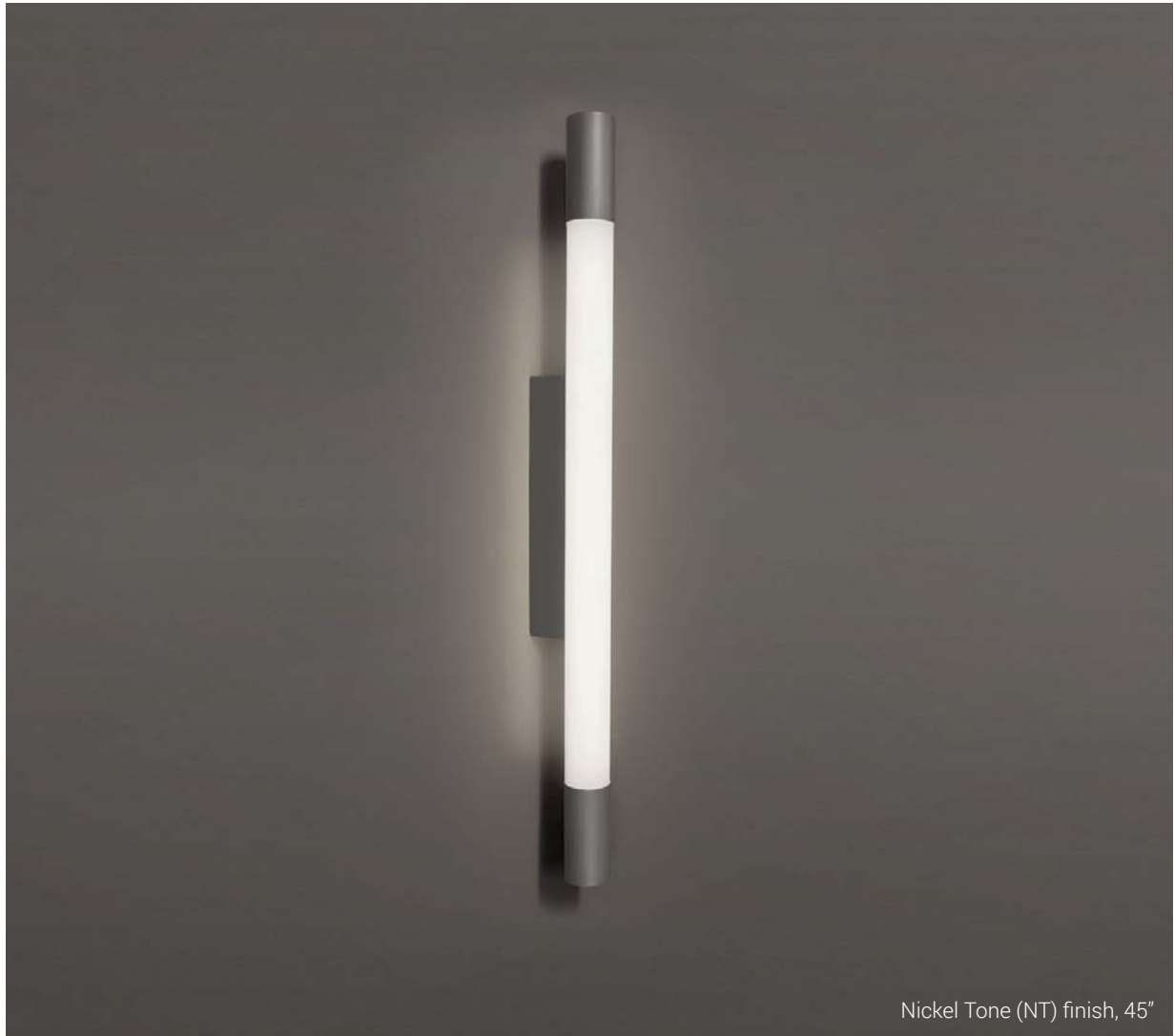
LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K CCT	INITIAL LUMENS - 3000K CCT	INITIAL LUMENS - 5000K CCT	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
24	LED	24 PLED® Optical Module - 350mA	3,298 - 3,784	3,133 - 3,595	3,463 - 3,973	60,000+	-20°F	29	120 277	0.24 0.10
24	LED	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	21,996 - 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.



BEAM LED



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





Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: XA

BEAM LED

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.

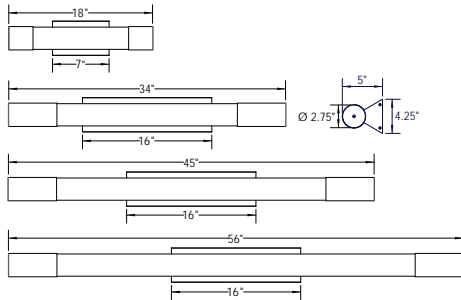
FINISH

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.

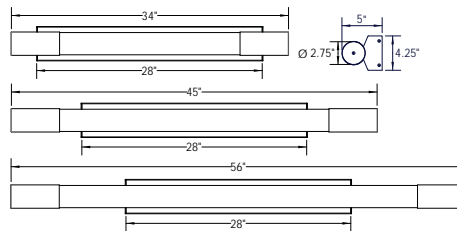
WARRANTY

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

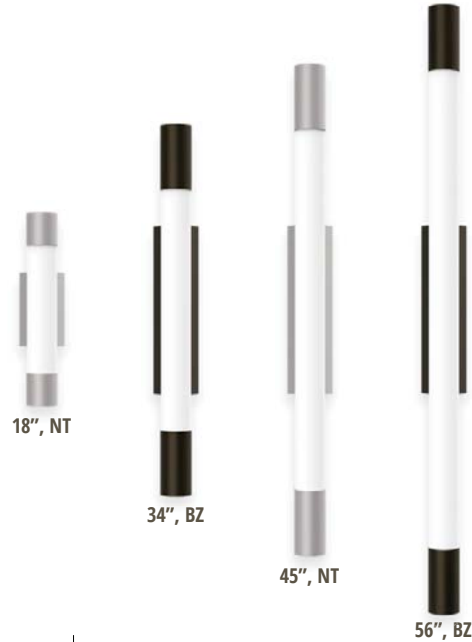
STANDARD DIMENSIONS



EXTENDED HOUSING*



PROJECT:
MODEL #:
FIXTURE TYPE:



ORDERING INFORMATION

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



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**
- BAC¹ 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)
- DTR⁴ Triac Dimming (H Series only)
- ES⁵ ENERGY STAR[®] (All except H08)
- EXT Extended Housing (Intended to match BBI/BBIc aesthetic) (not available in 18 size)
- FCL⁷ 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 BLD 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.



ISSUED 2018.11.05



Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: FLAG
LIGHT - IN GRADE



**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 3/4" NPT bottom **B34** tapped holes. 3/4" NPT front **F34**, 3/4" NPT side **S34** and 3/4" NPT all **A34** conduit entry holes optional (Consult Factory).

OPTIC HOUSING:

Die-cast A360 aluminum. Finned for maximum heat disipation. 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:

1/4" 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 **O10** 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 **O10** 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:

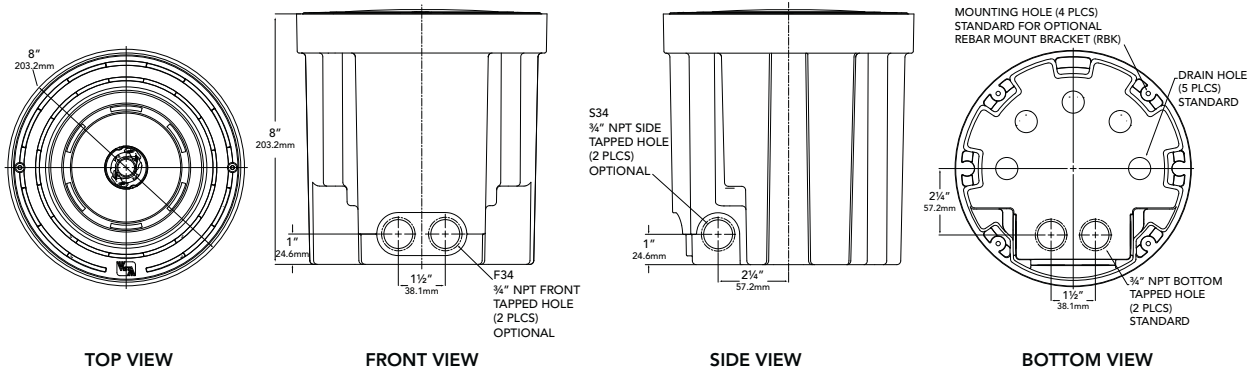
Fixture suitable for direct burial in earth or poured concrete applications.

CERTIFICATION:

C ETL US wet location listed. *IP68*

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

DIMENSIONS:



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


Job Name:
 UW Hilton

Catalog Number:
 SEE HIGHLIGHTED BELOW

Type: FLAG
 LIGHT - IN GRADE

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	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.
	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				

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)	TO5 - Tilt Optic 5° TO10 - Tilt Optic 10° TO15 - Tilt Optic 15° TO25 - Tilt Optic 25° DF - Diffuse Filter LSF - Linear Spread Filter
			F34 - Front ¾" S34 - Sides ¾" A34 - All ¾" (available as an option) (Consult Factory)	

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Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: FLAG
LIGHT - IN GRADE



**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	22.9 Watts	25.7 Watts
	981 Lumens	1407 Lumens	1738 Lumens
MF	16.1 Watts	23.1 Watts	25.9 Watts
	997 Lumens	1431 Lumens	1766 Lumens
WF	16.1 Watts	23.1 Watts	25.9 Watts
	917 Lumens	1317 Lumens	1625 Lumens

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1185 02.19



Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: STRING LIGHT

TOKISTAR Exhibitor



TOKISTAR LIGHTING



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.

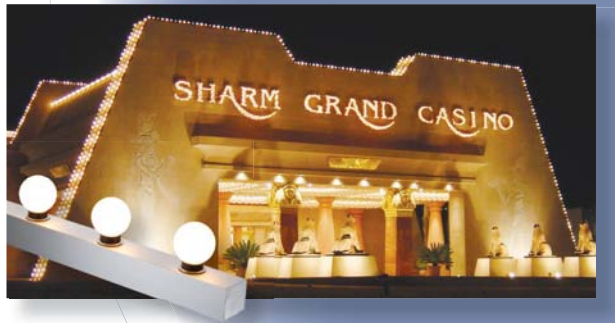
The EXC Series incorporates Exhibitor Series into a 2" x 2" aluminum profile suitable for painting and use in all environments. This series can be wired for single circuit or chasing effects.

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

- [Introduction | 2-3](#)
- [Design Guidelines | 4](#)
- [How to Specify Basic System / EXC Series | 5](#)
- [Accessories / Sizes & Lengths | 6](#)
- [Transformers / Specifications | 7](#)



Cover:
Exhibitor with LEDs along the River Thames.

Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: STRING LIGHT



Exhibitor fills this open-air space with a spectacular canopy of light.
Design: JK Design Group



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.
Dollywood Theme Park, Photo, Courtesy of Bandit Lites



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.
Lighting Design: Illumination City Environment (ICE)



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.



Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: STRING LIGHT



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 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

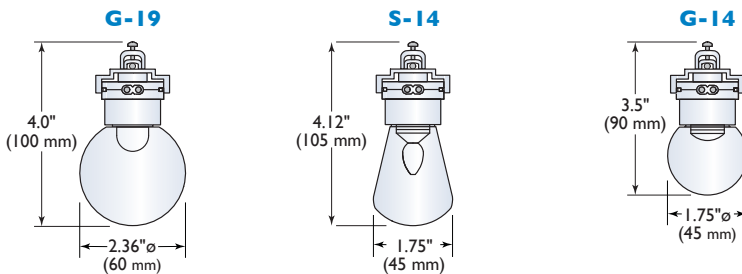
Tokistar's Exhibitor Series was originally introduced with incandescent xenon lamps, and we still offer them as an option. Due to the efficiency and exceptional life of LED sources, xenon lamps are no longer the most popular choice.



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.



Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: STRING LIGHT



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			
		Custom spacing is available.		Virtual Incandescent (VILW & VI) not for use with Frosted Globes						
				WW	2500K White	0.48 W / 24 VAC				
				WH	5500K White	0.48 W / 24 VAC				
				BL	Blue	0.48 W / 24 VAC				
				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

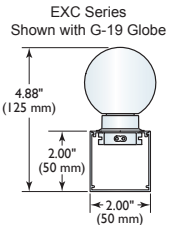
EXC Series incorporates Exhibitor Series into a 2" x 2" satin aluminum profile for use in all environments. Custom finishes are available upon request. Fixtures can be wired for single circuit or chasing effects.

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			
		12C	12" Chase (300 mm)	Virtual Incandescent (VILW & VI) not for use with Frosted Globes						
		Custom spacing is available.		WW	2500K White	0.48 W / 24 VAC				
				WH	5500K White	0.48 W / 24 VAC				
				BL	Blue	0.48 W / 24 VAC				
				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										



Custom curving available upon request.



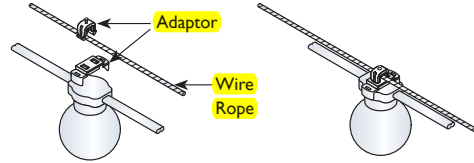


Mounting Options

Festoon Mounting

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

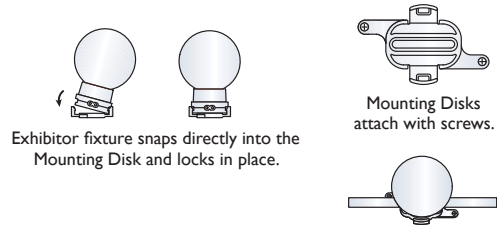
For festoon applications to a catenary cable, our wire-rope adaptors securely hold each socket in place to a 1/16" or 1/8" diameter wire rope. Wire rope and all of its associated mounting hardware is not provided with the system.



Surface Mounting with Disks

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

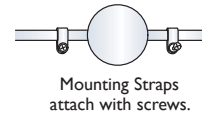
Exhibitor Series can be surface mounted to structures using mounting disks. One disk is required for mounting each socket. The socket can be snapped into the disk first, and the entire assembly screwed in place to the structure.



Surface Mounting with Straps

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

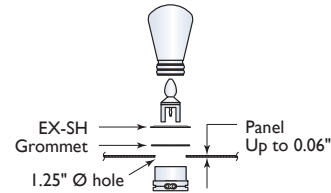
Exhibitor Series may be surface mounted to structures using our mounting straps. Two straps are required for mounting each socket. Straps are positioned on either side of the socket, and then screwed securely to the structure.



Panel-Extrusion Mounting

Part# EX-SH

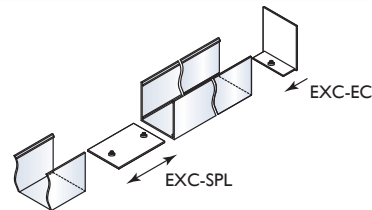
For installations to flat panels or extrusions up to 0.06", we offer stainless-steel panel fasteners. The socket assembly is inserted from below, then the panel fastener and grommet are pressed in place from above.



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.

Socket Spacing	Maximum Run Lengths		
	LEDs	UB & VI LEDs	Xenon Lamp
6" (150 mm)	0.48 Watt / 24 VAC 250' (76 M)	1.8 Watt / 24 VAC 125' (38 M)	7.5 Watt / 24 VAC 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)

Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

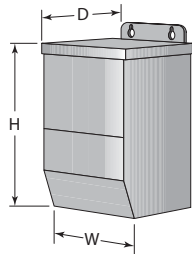
Type: STRING
LIGHT



Transformers

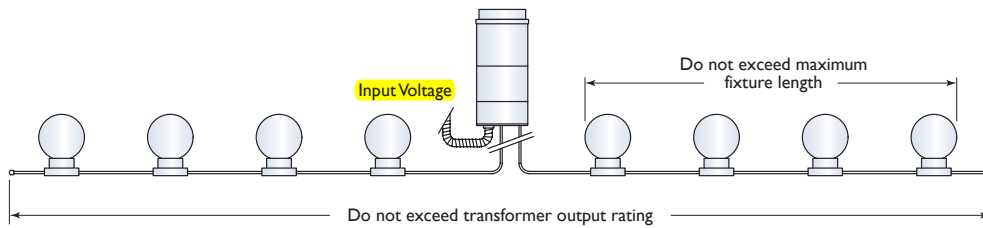
Tokistar transformers operate from a 120 VAC / 60 Hz input and are fully dimmable. They are provided in a Nema 3R enclosure suitable for wet locations. The secondary outputs are protected by circuit breakers. Transformers should be installed in an accessible location where there is free air circulation.

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

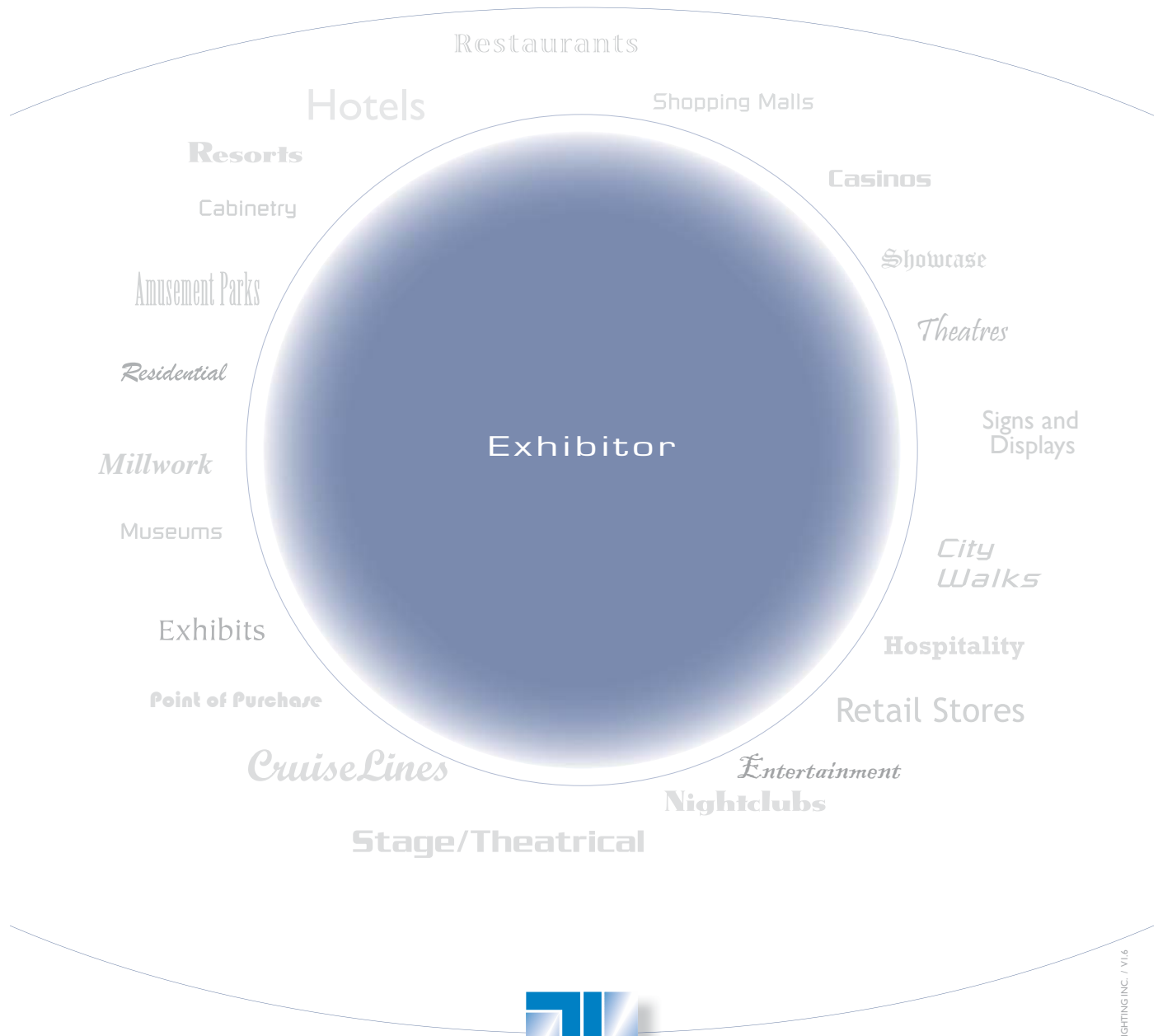




Job Name:
UW Hilton

Catalog Number:
SEE HIGHLIGHTED BELOW

Type: STRING LIGHT



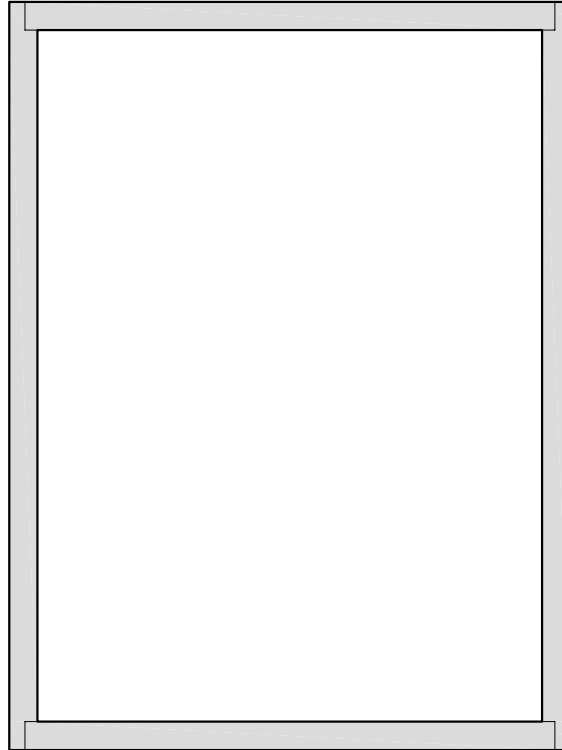
TOKISTAR® LIGHTING INC.

1015 E. Discovery Lane • Anaheim, CA 92801

Tel: 714.772.7005 • Fax: 714.772.7014 • Toll free in USA: 877.340.7633

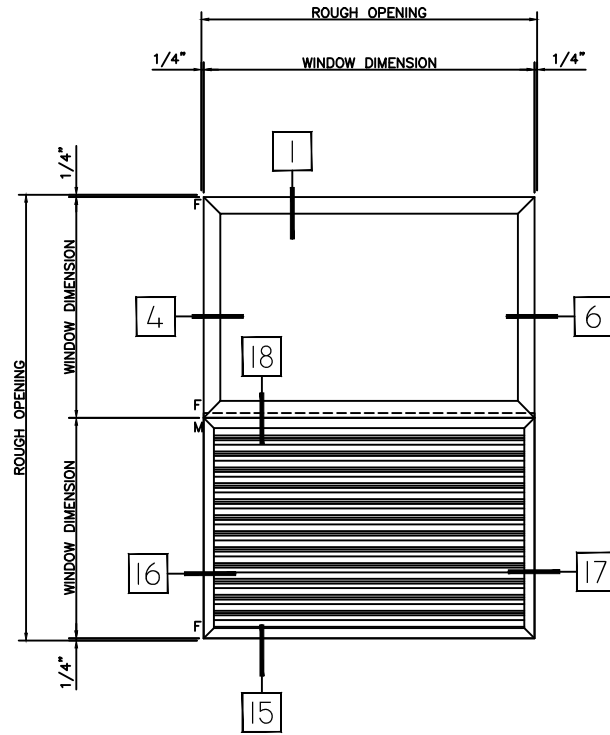
Email: info@tokistar.com • Website: www.tokistar.com

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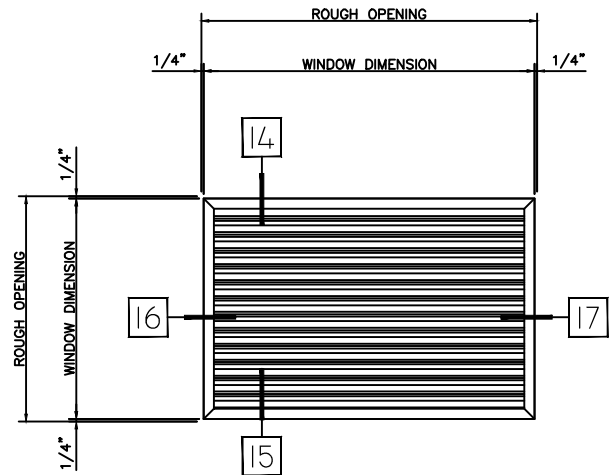


**S251 FIXED PERFORMANCE DATA:
AAMA/WDMA/CSA 101/I.S.2/A440-08
AAMA/WDMA/CSA 101/I.S.2/A440-11**

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"



TYPE:	QTY:
S250	ARCH MK:
PRODUCT:	
FX IG/FX OG LOUVER	



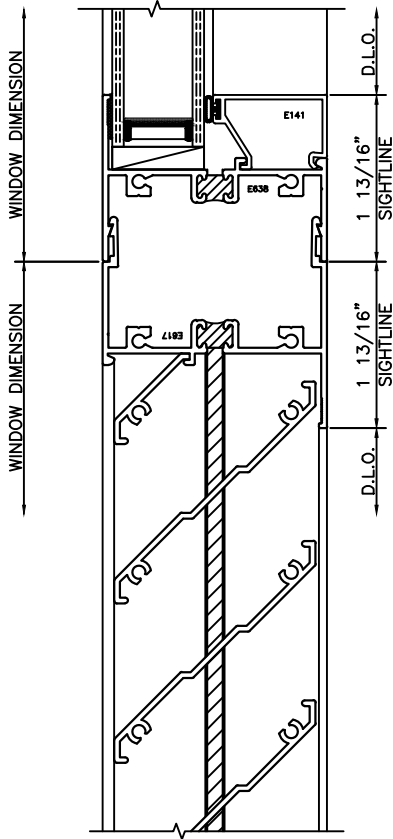
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S250	ARCH MK:
PRODUCT:	
FX OG LOUVER	

HALF SCALE DETAILS

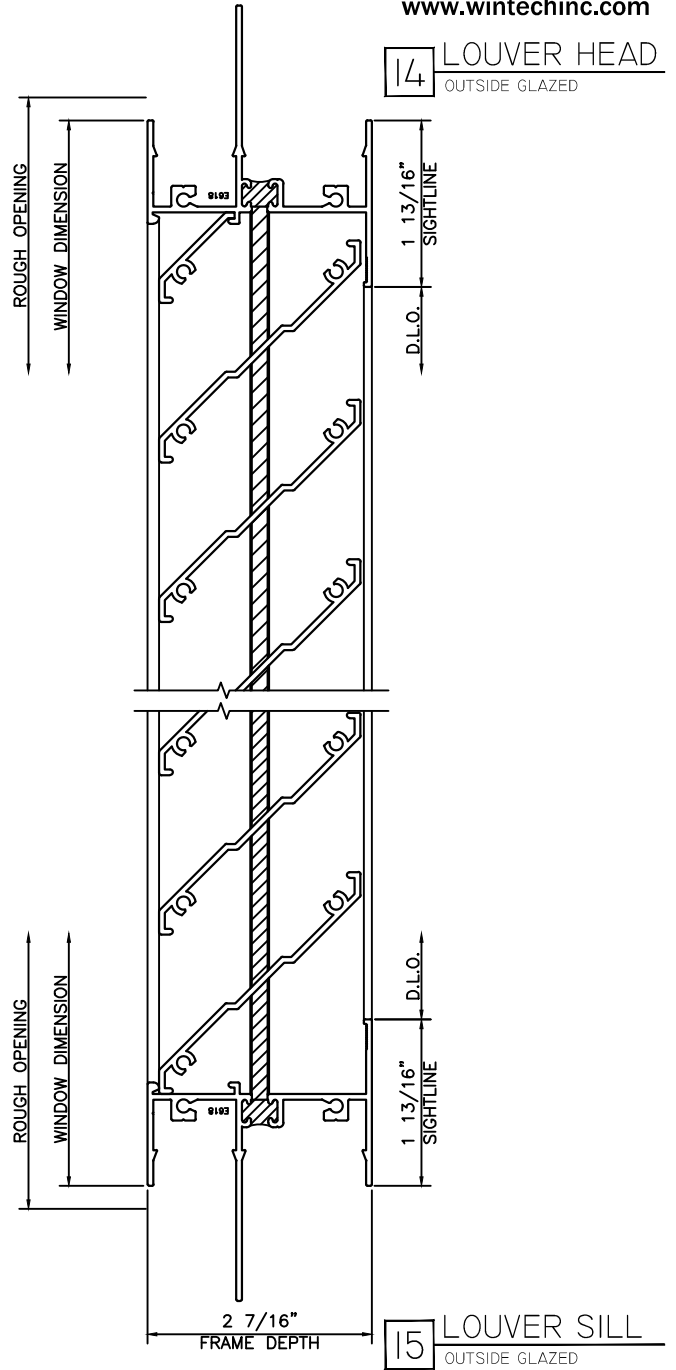
WINTeCH

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

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



18 LOUVER HEAD
OUTSIDE GLAZED

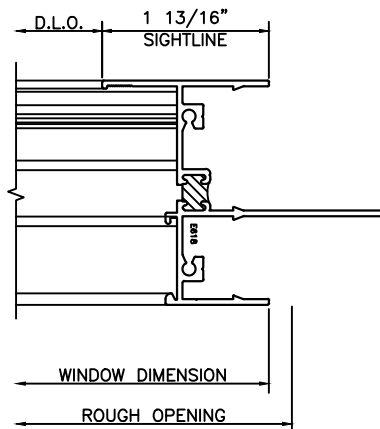
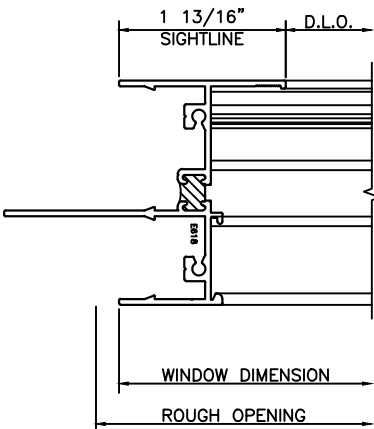


14 LOUVER HEAD
OUTSIDE GLAZED

15 LOUVER SILL
OUTSIDE GLAZED

16 LOUVER JAMB
OUTSIDE GLAZED

17 LOUVER JAMB
OUTSIDE GLAZED



HALF SCALE DETAILS