

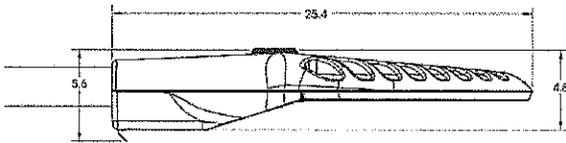
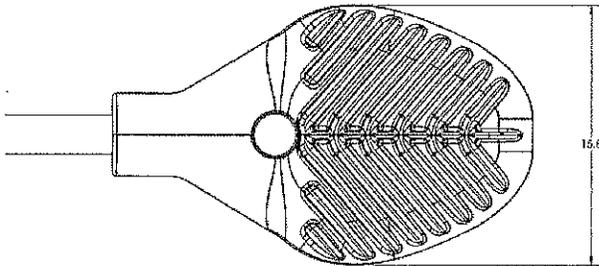
SITE LIGHT FIXTURE SCHEDULE

Type	Description	Manufacturer	Lamps	Mounting	Pole
AA	FULL CUTOFF ARCHITECTURAL AREA LED LIGHT FIXTURE WITH TYPE IV DISTRIBUTION. BRONZE FINISH.	PHILIPS HADCO RX164-H-4-N-A-5-N- N-S-N	115W LED 4000K	8" ARM	25' ROUND STEEL POLE W/BASE COVER
	208V				
BB	FULL CUTOFF ARCHITECTURAL AREA LED LIGHT FIXTURE WITH TYPE IV DISTRIBUTION AND HOUSE SIDE SHIELD. BRONZE FINISH.	PHILIPS HADCO RX164-H-4-N-A-5-N- N-S-H	115W LED 4000K	8" ARM	25' ROUND STEEL POLE W/BASE COVER
	208V				
CC	FULL CUTOFF ARCHITECTURAL AREA LED LIGHT FIXTURE WITH TYPE III DISTRIBUTION AND HOUSE SIDE SHIELD. BRONZE FINISH.	PHILIPS HADCO RX164-H-3-N-A-5-N- N-S-H	115W LED 4000K	8" ARM	25' ROUND STEEL POLE W/BASE COVER
	208V				
DD	6" LED DOWNLIGHT SPECULAR CLEAR WIDE REFLECTOR. WET LOCATION RATED.	COOPER LIGHTING PORTFOLIO LD615D010-ERW6- 840-6LW1L1	25W LED 4000K	RECESSED	N/A
	208V				
EE	ARCHITECTURAL LED WALLPACK WITH TYPE III DISTRIBUTION AND BACK LIGHT CONTROL. BRONZE FINISH.	COOPER LIGHTING INVUE ENC-B01-LED-E1-BL3- BZ	27W LED 4000K	WALL	N/A
	208V				
FF	ARCHITECTURAL LED CAST ALUMINUM BOLLARD WITH ASYMMETRIC LIGHT DISTRIBUTION. BRONZE FINISH.	US ARCHITECTURAL TNA-26LED208- RAL8019	26W LED 4000K	GRADE	N/A
	208V				
GG	ARCHITECTURAL VERTICAL METAL HALIDE FLOOD LIGHT WITH HEAVY DUTY KNUCKLE, ARCHITECTURAL J-BOX AND TOP VISOR. BRONZE FINISH.	COOPER LIGHTING LUMARK MPMS-K-VF-100-208	1 - 100W MH	GRADE	N/A
	208V				

TYPE AA

RX1 LEDGINE (64 LED's) (RX164) Specification Sheet

Project Name:	Location:	MFG: Philips Hadco
Fixture Type:	Catalog No.: RX164-H-4-N-A-5-N-N-S-N	



Ordering Guide

Example: RX164 A 2 W A 5 N N S N

Product Code	RX164	RX1 LEDGINE (64 LED's)
Finish	A	Black
	B	White
	H	Bronze
	I	Gray
Optics	2	Type II
	3	Type III
	4	Type IV
	5	Type V
Color Temperature	W	3000K
	N	4000K
	C	5700K
Voltage	A	120-277 VAC
	B	347-480 VAC
Drive Current	5	530 mA
Photo Control	N	None
	R	Twist-lock Receptacle
Dimming Control	N	None
	DA	4 Hrs 25% Reduction
	DB	4 Hrs 50% Reduction
	DC	4 Hrs 75% Reduction
	DD	6 Hrs 25% Reduction
	DE	6 Hrs 50% Reduction
	DF	6 Hrs 75% Reduction
	DG	8 Hrs 25% Reduction
	DH	8 Hrs 50% Reduction
	DJ	8 Hrs 75% Reduction
DZ	Custom Dimming Schedule	*3
W	Wireless Controls	*1
Surge Suppression	S	Standard Built In <3kV
	A	Additional 10kV/10kA
House Side Shield	N	None
	H	House Side Shield

*1 Consult Factory for W Wireless Controls.

*2 Dynadimmer Dimming Control (DA-DZ) only available with 120-277 VAC.

*3 Consult Factory for DZ Custom Dimming Schedule.

Specifications

APPLICATIONS:

The RX1 is the perfect LED solution for roadway lighting and is the ideal luminaire for both new and retrofit installations. Other application locations include: residential streets, city streets, campuses and parking lots. The performance, energy savings, and uniformity of this luminaire allow for it to be a one to one replacement for standard HID cobra-head style luminaires.

CONSTRUCTION:

The housing is constructed of low copper die-cast aluminum with a traditional cobra-head style, low profile and EPA. The housing is a unique thermal dissipating design with wide angular channels that allow for natural removal of dirt and debris. Two tool-less clips allow for access to the driver and wiring compartment. The hinged door is removable for serviceability and upgradability. The Philips LEDGINE LED platform has precision designed, injection molded optic plates behind a single tempered glass lens. The lens and lens frame gaskets are robotically applied. The LED optics chamber is IP66 rated. The luminaire is designed to mount to a 1.5" to 2.5" O.D. or 1.25" to 2" NPS horizontal tenon or arm, minimum 6" long. Complies with ANSI C136.3 and ANSI C136.14. A bubble level is built in as well as mounting steps that allow for a +5° to -5° tilt, in 2.5° increments. There is a single clamp mounting system (NOTE: can be modified for two clamps - consult factory). Mounting clamps are made of HSLA steel and are zinc plated. Fasteners are made of stainless steel. A large terminal block is directly in line with incoming power wires and accepts up to 6 gauge wire. There is an option for a 360° rotatable twist lock photocell receptacle. Tenon guard protects against birds and similar intruders.

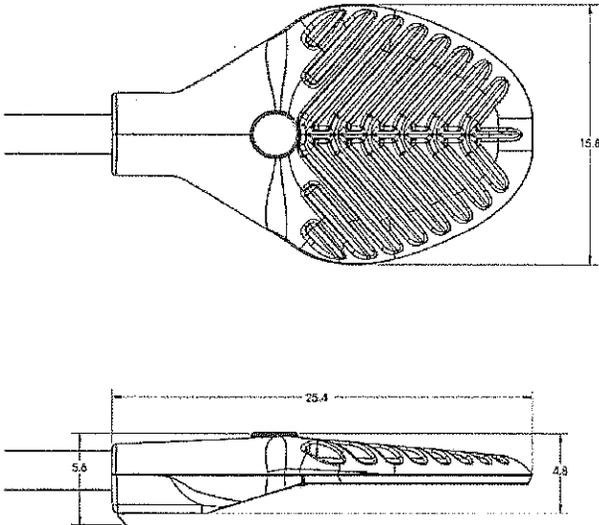
LED SPECIFICATIONS:

Refer to IES files for energy consumption and delivered lumens for each option. Based on in-situ thermal testing and data from Philips Lumileds and Philips Advance, expected to reach 80,000 hours with >L70 lumen maintenance @ 25°C. The Philips LEDGINE uses Philips Lumileds Rebel LEDs. Color temperatures available are ANSI Bins 3000K, 4000K, and 5700K CCT. Multiple distributions are available including Type 2, 3, 4 and 5.

RX1 LEDGINE (64 LED's) (RX164) Specification Sheet

TYPE BB

Project Name: _____ Location: _____ MFG: Philips Hadco
 Fixture Type: _____ Catalog No.: *RX164-H-4-N-A-5-N-N-S-H*



Ordering Guide

Example: RX164 A 2 W A 5 N N S N

Product Code	RX164	RX1 LEDGINE (64 LED's)
Finish	A B H I	Black White Bronze Gray
Optics	2 3 4 5	Type II Type III Type IV Type V
Color Temperature	W N C	3000K 4000K 5700K
Voltage	A B	120-277 VAC 347-480 VAC
Drive Current	5	530 mA
Photo Control	N R	None Twist-lock Receptacle
Dimming Control	N DA DB DC DD DE DF DG DH DJ DZ W	None 4 Hrs 25% Reduction 4 Hrs 50% Reduction 4 Hrs 75% Reduction 6 Hrs 25% Reduction 6 Hrs 50% Reduction 6 Hrs 75% Reduction 8 Hrs 25% Reduction 8 Hrs 50% Reduction 8 Hrs 75% Reduction Custom Dimming Schedule Wireless Controls
Surge Suppression	S A	Standard Built In <3kV Additional 10kV/10kA
House Side Shield	N H	None House Side Shield

*1 Consult Factory for W Wireless Controls.
 *2 Dynadimmer Dimming Control (DA-DZ) only available with 120-277 VAC.
 *3 Consult Factory for DZ Custom Dimming Schedule.

Specifications

APPLICATIONS:

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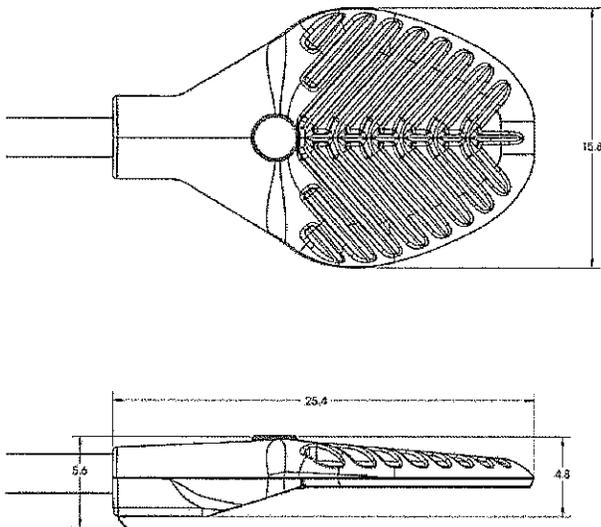
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RX1 LEDGINE (64 LED's) (RX164) Specification Sheet

TYPE CC

Project Name:	Location:	MFG: Philips Hadco
Fixture Type:	Catalog No.: RX164-H-3-N-A-5-N-N-S-H	



Ordering Guide

Example: RX164 A 2 W A 5 N N S N

Product Code	RX164	RX1 LEDGINE (64 LED's)
Finish	A B H I	Black White Bronze Gray
Optics	2 3 4 5	Type II Type III Type IV Type V
Color Temperature	W N C	3000K 4000K 5700K
Voltage	A B	120-277 VAC 347-480 VAC
Drive Current	5	530 mA
Photo Control	N R	None Twist-lock Receptacle
Dimming Control	N DA DB DC DD DE DF DG DH DJ DZ W	None 4 Hrs 25% Reduction 4 Hrs 50% Reduction 4 Hrs 75% Reduction 6 Hrs 25% Reduction 6 Hrs 50% Reduction 6 Hrs 75% Reduction 8 Hrs 25% Reduction 8 Hrs 50% Reduction 8 Hrs 75% Reduction Custom Dimming Schedule Wireless Controls
Surge Suppression	S A	Standard Built In <3kV Additional 10kV/10kA
House Side Shield	N H	None House Side Shield

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*2 Dynadimmer Dimming Control (DA-DZ) only available with 120-277 VAC.

*3 Consult Factory for DZ Custom Dimming Schedule.

Specifications

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RXI LEDGINE - IES FILE DATA

Model Number	mA	Wattage	Delivered Lumens	LPW	Color Temp	BUG (per TM-15-11)
RXI40 2H W A 3	350	45.4	2344	52	3000	B1-U0-G1
RXI40 3H W A 3	350	45.5	2317	51	3000	B1-U0-G1
RXI40 4H W A 3	350	47.1	2461	52	3000	B1-U0-G1
RXI40 5H W A 3	350	45.5	2214	49	3000	B2-U1-G0
RXI40 2H W A 5	530	69.9	3621	52	3000	B1-U0-G1
RXI40 3H W A 5	530	70	3605	52	3000	B1-U0-G1
RXI40 4H W A 5	530	69.7	3497	50	3000	B1-U0-G1
RXI40 5H W A 5	530	69.9	3470	50	3000	B2-U1-G1
RXI40 2H W A 7	700	93.1	3958	43	3000	B1-U0-G1
RXI40 3H W A 7	700	92.9	3906	42	3000	B1-U0-G1
RXI40 4H W A 7	700	92.5	3824	41	3000	B1-U0-G1
RXI40 5H W A 7	700	92.8	3730	40	3000	B2-U1-G1
RXI64 2H W A 5	530	111.8	5445	49	3000	B2-U0-G1
RXI64 3H W A 5	530	111.8	5386	48	3000	B1-U0-G1
RXI64 4H W A 5	530	112.5	5435	48	3000	B1-U0-G1
RXI64 5H W A 5	530	111.8	5173	46	3000	B3-U0-G1
RXI80 2H W A 5	530	138.9	6738	49	3000	B2-U0-G1
RXI80 3H W A 5	530	135.9	6614	49	3000	B2-U0-G1
RXI80 4H W A 5	530	137.2	6354	46	3000	B2-U0-G1
RXI80 5H W A 5	530	139.5	6427	46	3000	B3-U1-G1
RXI40 LM79 2H N A 3	350	46.1	3481	76	4000	B1-U0-G1
RXI40 3H N A 3	350	46.8	3551	76	4000	B1-U0-G1
RXI40 4H N A 3	350	46.6	3466	74	4000	B1-U0-G1
RXI40 5H N A 3	350	46.8	3436	73	4000	B2-U1-G1
RXI40 LM79 2H N A 5	530	72	4803	67	4000	B1-U0-G1
RXI40 3H N A 5	530	69.3	4807	69	4000	B1-U0-G1
RXI40 4H N A 5	530	69	4663	68	4000	B1-U0-G1
RXI40 5H N A 5	530	69.2	4627	67	4000	B3-U1-G1
RXI40 2H N A 7	700	96.3	5927	62	4000	B2-U0-G1
RXI40 3H N A 7	700	96.4	5936	62	4000	B2-U0-G1
RXI40 4H N A 7	700	95.7	5708	60	4000	B2-U0-G1
RXI40 5H N A 7	700	96.3	5706	59	4000	B3-U1-G1
RXI64 LM79 2H N A 5	530	109.2	7298	67	4000	B2-U1-G1
RXI64 LM79 3H N A 5	530	109.2	7189	66	4000	B2-U1-G1
RXI64 4H N A 5	530	109.8	7247	66	4000	B2-U0-G2
RXI64 LM79 5H N A 5	530	109.1	6724	62	4000	B3-U1-G2
RXI80 LM79 2H N A 5	530	135	8741	65	4000	B2-U1-G1
RXI80 LM79 3H N A 5	530	134.7	8711	65	4000	B2-U1-G1
RXI80 4H N A 5	530	135.8	8472	62	4000	B2-U0-G2
RXI80 5H N A 5	530	139.8	8886	64	4000	B3-U1-G2

TOLE

ORDERING INFORMATION

SAMPLE NUMBER: RSS4A20SF2XXG

Round	Straight	Steel	Shaft ³ Size	Wall Thickness	Mounting Height (ft.)	Base Type	Finish	Fixture Mounting & Type	No. & Location of Arms	Arm Lengths	Accessories (Ground Lug)
R	S	S	4	A	20	S	F	2	X	X	G

Mtg. Height	Catalog ^{1,2} Number	Wall Thickness (In.)	Base Square (In.)	Bolt Circle Dia. (In.)	Bolt Proj. (In.)	Shaft Size (In.)	Anchor Bolt Dia. & Length (In.)	Net. Wt. (Lbs.)	EPA (Sq. Ft.) ⁴ At Pole Top				EPA (Sq. Ft.) ⁴ 2' Above Pole Top				Max. Fixture Load—Include Bracket (Lbs.)
MH		S	BC	BP	B	AB			70	80	90	100	70	80	90	100	
10	RSS4A10SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	82	24.4	18.2	14.0	11.1	20.3	15.2	11.7	9.3	150
15	RSS4A15SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	113	11.3	8.1	6.0	4.5	10.0	7.2	5.3	4.0	150
20	RSS4A20SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	144	6.4	4.2	2.7	1.8	5.8	3.8	2.4	1.6	200
20	RSS5M20SF	.188	10 1/2	11.0	4 1/2	5	3/4 x 25 x 3	236	20.4	14.9	11.5	9.2	18.5	13.6	10.5	8.3	300
25	RSS5M25SF	.188	10 1/2	11.0	4 1/2	5	3/4 x 25 x 3	288	13.7	9.6	7.3	5.7	12.7	8.9	6.8	5.3	300
30	RSS6M30SF	.188	12 1/2	12.5	5	6	1 x 36 x 4	419	13.8	10.0	7.5	5.8	12.9	9.4	7.1	5.4	300

NOTES: 1 Catalog number includes pole with anchor bolts with double nuts (BEFORE INSTALLING ANCHOR BOLTS MAKE SURE PROPER ANCHOR BOLT TEMPLATE IS OBTAINED FROM COOPER LIGHTING HEADQUARTERS).

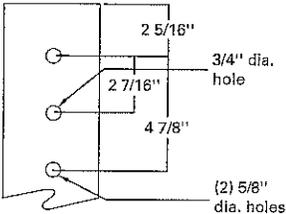
2 Tenon size or machining for rectangular arms must be specified, handhole is located 180° from single arm.

3 Shaft size, base plate, anchor bolts and projections may vary slightly—all dimensions nominal.

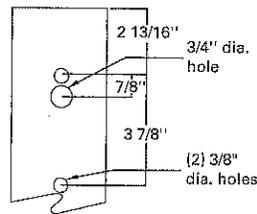
4 EPAs based on shaft properties with wind normal to flat. EPAs calculated using base wind velocity as indicated plus 30% gust factor.

DRILLING PATTERN

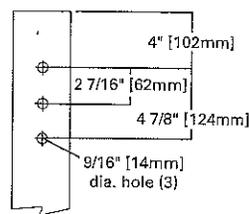
Type "M" [Talon, CLM, Galleria, Hammer, Landau]



Type "E" [Concourse III]



Type "Z" [Credenza and Cirrus]



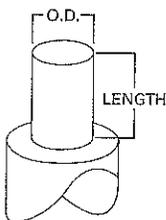
MACHINING FOR RECTANGULAR ARMS [Add as suffix]

Designation Letter & Number	Designation Letter & Number	Designation Letter & Number	Quantity & Location
M1	E1	Z1	Single
M2	E2	Z2	2 @ 180°
M3	E3	Z3	3 @ 120°
M4	E4	Z4	4 @ 90°
M5	E5	Z5	2 @ 90°
M6	E6	Z6	3 @ 90°
M7	E7	Z7	2 @ 120°

NOTES: Refer to Fixture Drilling Options on page 1204.

MOUNTING OPTIONS [add as suffix]

Fixed Tenon	Designation Number	O.D. (In.)	Length (In.)
	2	2 3/8"	4"
	3	3 1/2"	5"
	4	4"	6"
	9	3"	4"



ACCESSORIES

- A=1/2" tapped hub¹
- B=3/4" tapped hub¹
- C=Convenience outlet²
- G=Grounding lug (max. wire #8 AWG)
- H=Additional handhole and cover—
12" below pole top—90° from handhole.

NOTES: 1 Location is 3' above base—90° from handhole. Specify if desired otherwise.

2 Outlet is located 4' above base and on same side of pole as handhole, unless specified otherwise. Receptacle not included, provision only.

NOTE: Specifications and dimensions subject to change without notice.

DESCRIPTION

6 inch LED recessed wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 1000 and 1500 delivered lumens with color temperatures of 2700K, 3000K, 3500K, 4000K. Suitable for commercial construction and exceeds high efficacy requirements (with designated trims) for Energy Star, Title 24-2008 and IECC-2009.

Catalog #	LD615 D010-ERWG-	Type	
Project	040-6LWILI	Date	DD
Comments			
Prepared by			

SPECIFICATION FEATURES

Lower Shielding Reflector

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2". **Remodel Housing:** Galvanized steel plaster ring adjusts to accept up to 1" ceiling thickness.

Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling (new construction housing only).

Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

Thermal

Extruded aluminum heat sink conducts heat away from the LED module for improved performance and longer life.

LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling.

Driver

Driver can be serviced from above or through the aperture.

Environmental

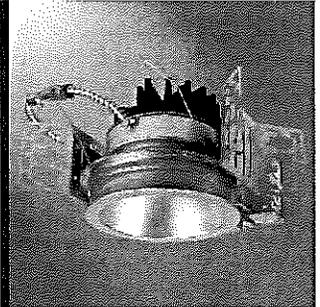
Fixture should not be operated in ambient temperatures above 40° C.

Code Compliance

Thermally protected and cULUS listed for protected wet locations. IP54 Certified. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Title 24 2008 Compliant with designated trims. ARRA Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

5 year warranty.



**LD610
LD615
LD6R10
LD6R15**

6LW

LED

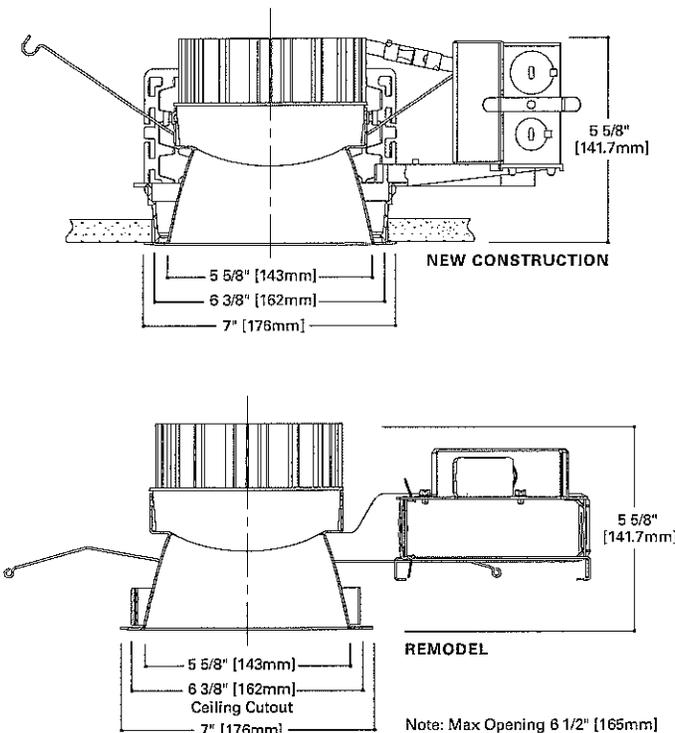
6 Inch

Wide Beam Downlight

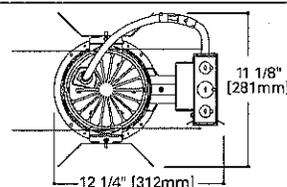
New Construction or Remodel



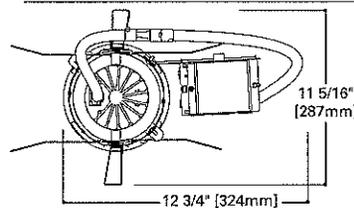
Qualified & Compliant with designated LED modules and trims.



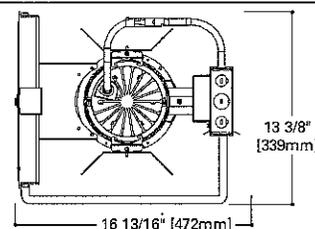
TOP VIEW - NEW CONSTRUCTION



TOP VIEW - REMODEL



TOP VIEW - NEW CONSTRUCTION WITH BATTERY



Energy Data	
Sound Rating:	Class A standards
Operating Temperature:	40°C (104°F)
1500 Lumen	
(Values at non-dimming line voltage)	
Minimum Starting Temp:	-30°C (-22°F)
EMI/RFI:	FCC Title 47 CFR, Part 18, Class B (Consumer)
Input Voltage:	UNV (90V - 305V)
Power Factor:	>0.90 (at nominal input 120/230/240/277 VAC & 100% of Rated Output Power)
Input Power:	24.5W THD: <21%
120V Input Current:	21A 277V Input Current: .08A
Maximum Non-IC Ambient Continuous	
Input Frequency:	47-63Hz
Rated Wattage:	24.5W
1000 Lumen D120 / D010	
(Values at non-dimming line voltage)	
Minimum Starting Temp:	-30°C (-22°F)
EMI/RFI:	FCC Title 47 CFR, Part 18, Class B (Consumer)
Input Voltage:	120/120-305V
Power Factor:	>0.90
Input Power:	14.3W THD: <20%
Input Frequency:	50/60Hz
Rated Wattage:	14.3W/17.5W

DESCRIPTION

Entri LED features a classic and stylish design with the added benefits of solid state lighting technology, offering outstanding uniformity and energy savings. Using Cooper Lighting's proprietary LED LightBAR™ technology and AccuLED Optics Entri LED offers designers vast versatility in system design, function and performance. Use Entri LED for wall mount architectural lighting applications and egress lighting requirements. UL/cUL listed for use in wet locations.

Catalog #	ENC-B01-LED-E1-	Type	
Project	BL3-B2	Date	EE
Comments			
Prepared by			

SPECIFICATION FEATURES

Construction

HOUSING: Heavy wall, one-piece, die-cast aluminum construction for precise tolerance control and repeatability in manufacturing. Integral extruded aluminum heat sink provides superior thermal heat transfer in +40°C ambient environments. Housing and heat sink are designed to offer various options for down lighting, up lighting or a combination of both up and down. **FACEPLATE / DOOR:** One-piece, die-cast aluminum construction. Captive, side hinged faceplate swings open via release of one (1) flush mount die-cast aluminum latch on housing side panel. Door closure and seal is ensured through a robust and positive retention bale latch which upon closing can be heard through distinct sound. **GASKET:** One-piece molded silicone gasket mates perfectly between the door and housing for repeatable seal. Silicone wire way plug on housing back wall seals incoming electrical leads to prevent moisture and dust entry. **LENS:** Uplight lens is impact-resistant, 5/32" thick tempered frosted glass sealed to housing with continuous bead silicone gasket. Downlight lens is LED board integrated acrylic over-optics, each individually sealed for IP66 rating. **HARDWARE:** Stainless steel mounting screws and latch hardware allow access to electrical components for installation and servicing.

Optics

DISTRIBUTION: Primary downlight distribution offers a choice of six (6) patented, high efficiency AccuLED Optics™, that maximize light collection and directional distribution onto the application region. Each optical lens is precision manufactured via injection-molding, then precisely arranged and sealed on the board media. Optional uplight LED distribution features a diffuse soft glow for enhancing architectural scenes or accentuating structural features. **LEDs:** High output LEDs, 50,000+ hours life at >70% lumen maintenance, offered standard in 4000K (+/- 275K) CCT and nominal 70 CRI.

Electrical

DRIVER: LED drivers are potted and heat sunk for optimal performance and prolonged life. Standard drivers feature electronic universal voltage (120-277V/50-60hz), greater than 0.9 power factor, less than 20% harmonic distortion and feature ambient temperature range of +40°C (104°F) down to minimum starting temperature of -30°C (-22°F). Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. Options to control light levels, energy savings and egress capabilities (battery pack and separate circuit) are available. All LED LightBARs™ and drivers are mounted to a primary mounting plate and are easily replaced by use of quick disconnects for ease of wiring.

Mounting

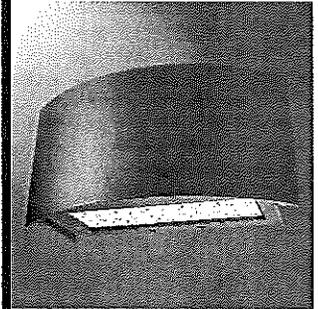
JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box. LightBARs mount facing downward. Fixture slides over mounting plate and is secured with two (2) stainless steel fasteners. Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates. Optional mounting arrangements utilize a die-cast mounting adaptor box to allow for LED battery pack, surface conduit and through branch wiring. Entri LED is approved for mounting on combustible surfaces.

Finish

Housing is finished in 5-stage Super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

Warranty

Entri LED features a five-year limited warranty.



**ENC
ENTRI LED
ROUND CLEAN**

1 - 2 LightBARs
Solid State LED

ARCHITECTURAL WALL
LUMINAIRE

SustainableLEDsign

CERTIFICATION DATA

UL/cUL Listed
ISO 9001
IP66 LightBARs
ARRA Compliant
LM79 / LM80 Compliant

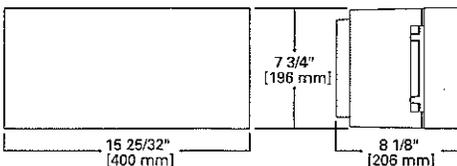
ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60hz, 347V/60hz,
480V/60hz
-30°C Minimum Temperature
40°C Ambient Temperature Rating

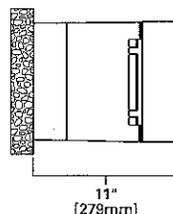
SHIPPING DATA

Approximate Net Weight:
16 lbs. (7.3 kgs.)

DIMENSIONS



CONDUIT MOUNT / BATTERY BACK BOX



TYPE FF

TNA- 26LED20B - RAL6019

Specifications

Housing Durable corrosion resistant low copper cast aluminum alloy A356 (<0.2% Cu) having a minimum wall thickness of 1/4". Body secures to Mounting Stanchion by means of a cast aluminum wedge lock secured by a single stainless steel bolt and accessed through the access panel.

Top Cover Durable corrosion resistant low copper cast aluminum alloy A356 (<0.2% Cu) having a minimum wall thickness of 1/4". Top is crowned for water run off, and retainer screw cavities are open for drainage. Top is fully gasketed and secured by (4) stainless steel allen screws.

Access Panel(s) Durable corrosion resistant low copper cast aluminum alloy A356 (<0.2% Cu) having a minimum wall thickness of 1/4". Panel(s) is fully gasketed and retained by (2) stainless steel allen screws located below the lens.

Lens Tempered Micro-Prism glass, fully gasketed, and retained by aluminum clips.

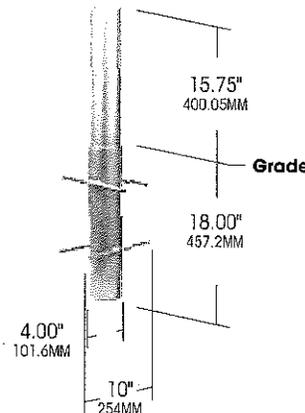
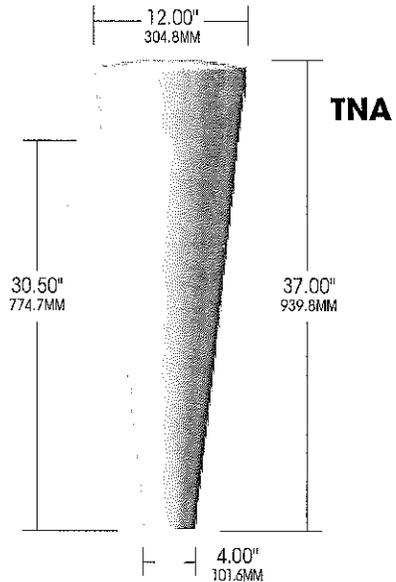
Reflector Assembly Fabricated from pre-finished reflector material, and includes a 4KV medium base or G12 socket for HID lamp modes. Fluorescent socket is universal for 26W, 32W, or 42W PL-T lamps. GX24-q5 base supplied for 57W PL-T lamp. Reflector assembly connects to ballast assembly via quick-disconnect plugs.

Mounting Stanchion 3 1/2" SCH40 steel pipe (below grade) welded to 3" SCH 40 steel pipe (above grade). (4) sections of reinforcing bar welded to lower pipe for tie-in to paving and footing steel by others. Entire assembly is hot dipped galvanized.

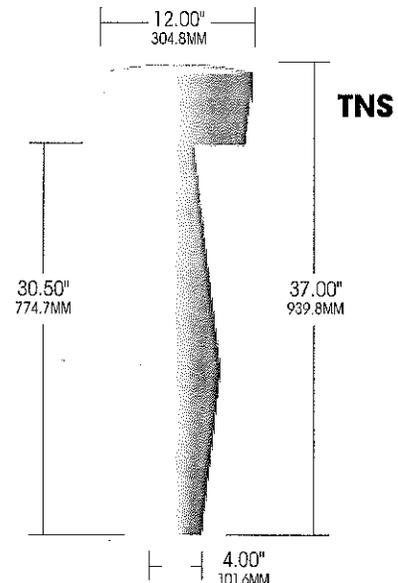
Electrical Components All electrical components are UL recognized. **Electronic MH ballasts** are high power factor, -20F starting, 120-277V, 50Hz/60Hz, 347V option utilizes a step down transformer to the electronic ballast. **Magnetic MH ballasts** are high power factor, -20F starting, multi-tap 120-277V, 60Hz. All **HPS ballasts** are core and coil, reactor-style, high power factor, -40F starting, 120V. **Compact Fluorescent ballast** is electronic, 120-277V, 50Hz/60Hz. Electrical components are mounted to a unitized ballast tray inside the body, and factory installed. Ballast assembly connects to reflector assembly via quick disconnects. (Consult factory for LED electrical specifications).

Note: Consult factory for CFL battery back-up specifications.

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



Mounting Stanchion
Supplied with each Bollard



COOPER LIGHTING - LUMARK®

DESCRIPTION

Impact Flood's cylindrical form blends effortlessly to architectural and landscape environments. Available in wattages up to 175W Metal Halide and High Pressure Sodium, and up to 42W Compact Fluorescent. Impact Flood offers properly scaled solutions for any floodlighting application.

Catalog #	MPMS-K-VF-100-	Type	GG
Project	208	Date	
Comments			
Prepared by			

SPECIFICATION FEATURES

Construction

HOUSING: Rugged one-piece die-cast aluminum housing will endure the toughest environments while maintaining precise tolerance control. Housing incorporates a one-piece extruded silicone gasket that seals the optical/electrical compartment from external moisture and contaminants. **DOOR:** Die-cast aluminum door features integral hinging to the housing. Door is secured with two (2) tamper resistant stainless steel allen head fasteners. Door frame features an integral accessory channel for the mounting of a wide array of optional vandal and light control accessories. The door lens is 0.2" thick, impact resistant, clear flat tempered glass sealed to the door with a one-piece silicone gasket.

Electrical

ELECTRICAL COMPONENTS: High Power Factor (HPF) ballast components are strategically located and heat sunk to the housing for cooler operation and longer life.

Optical

OPTICAL ASSEMBLY: Available in horizontal or vertical lamp orientations, high efficiency optical systems are formed from premium 95% reflective sheet aluminum. Optics feature medium-base lampholders.

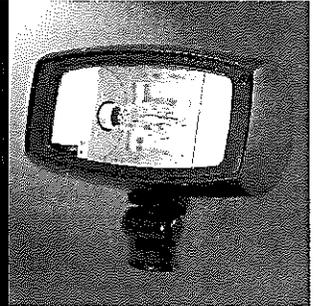
Mounting

Heavy-duty die-cast aluminum knuckle utilizes tooth-lock adjustment mechanism for both solid engagement and easy aiming adjustment. Knuckle adjustment is made via one (1) captive stainless

steel allen head fastener consistent with door frame fasteners. Knuckle tested to safely sustain 3G of vibration. Knuckle features a 3/4" NPT nipple for rigid attachment to available mounting accessories. Optional heavy-gauge adjustable steel trunnion mount provides additional durability when required.

Finish

Fixture is finished in a 5 stage premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is bronze. Optional white, black, and grey finishes are available.



MS IMPACT FLOOD SMALL

50 - 175W

Pulse Start Metal Halide

Metal Halide

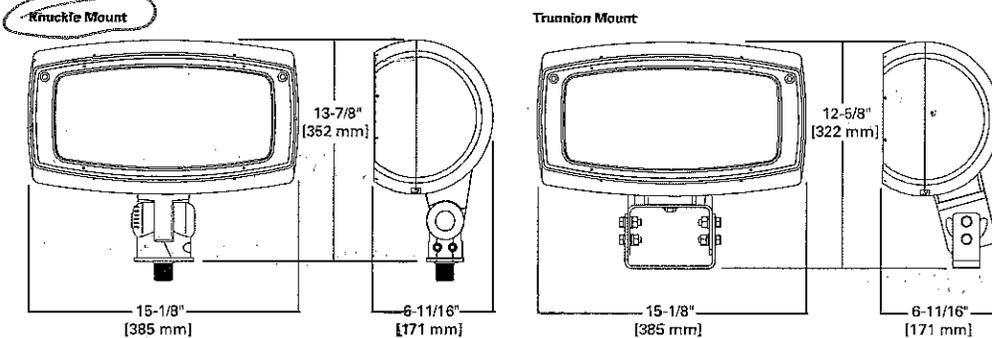
High Pressure Sodium

28 - 42W

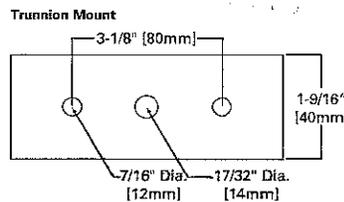
Compact Fluorescent

ARCHITECTURAL
FLOOD LUMINAIRE

DIMENSIONS



DRILLING DIMENSIONS



LAMP TYPE	WATTAGE
Pulse Start Metal Halide (MP)	50, 70, 100, 150W
Metal Halide (MH)	175W
High Pressure Sodium (HP)	50, 70, 100, 150W
Compact Fluorescent (CF)	26, 32, 42W

TECHNICAL DATA

UL Wet Location Listed
 CSA Certified
 25°C Maximum Ambient Temperature
 External Supply Wiring 60°C Minimum

ENERGY DATA

High Reactance Ballast Input Watts

50W HPS HPF (66 Watts)
 50W MP HPF (72 Watts)
 70W HPS HPF (91 Watts)
 70W MP HPF (90 Watts)
 100W HPS HPF (130 Watts)
 100W MP HPF (129 Watts)
 150W HPS HPF (188 Watts)
 150W MP HPF (185 Watts)

Electronic Ballast Input Watts

26W CF HPF (29 Watts)
 32W CF HPF (36 Watts)
 42W CF HPF (46 Watts)

EPA (effected projected area)
 1.12

SHIPPING DATA (Approx.)
 Net Weight (lbs.): 25

ORDERING INFORMATION

Sample Number: MHMS-K-HF-175-MT-LL

MP	MS	K	VF	100	208			
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Lamp Type ¹
MP=Pulse Start Metal Halide
MHF=Metal Halide²
HP=High Pressure Sodium
CF= Compact Fluorescent

Series
MS= Impact Flood Small

Mounting
T=Trunnion
K=Knuckle

Distribution
HF=Horizontal Flood
VF=Vertical Flood

Lamp Wattage ¹
MP
50= 50W
70= 70W
100= 100W
150= 150W
MH
175= 175W²
HP
50= 50W
70= 70W
100= 100W
150= 150W
CF
26= 26W
32= 32W
42= 42W

Voltage ³
120V
208V
240V
277V
347V
480V
DT
MT
TT
E ⁴

Options
Q=Quartz Restrike (Hot Strike Only)
EM=Quartz Restrike with "Delay Relay" (Quartz lamp strikes at both hot and cold starts)
EM/SC= Emergency Separate Circuit
LL= Lamp Included (Must Specify Wattage with Fluorescent)
PE= Internal Photocontrol (Specify Voltage)
PC= Button Type Photocontrol
F= Single Fuse (120, 277 or 347V. Specify Voltage)
FF= Double Fuse (208, 240 or 480V. Specify Voltage)

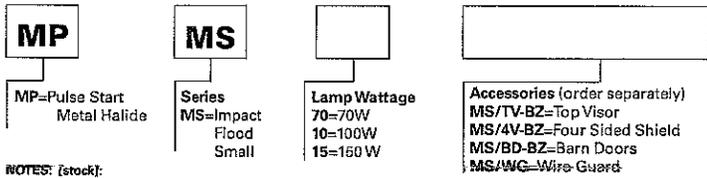
Accessories ⁶
MS/JB-XX=Architectural J-Box
MS/SF-XX=Slipfitter
MS/TMA-XX=Twin Mount Arm (EPA 0.35)
MS/WMA-XX= Wall Mount Arm (EPA 0.22)
MS/WM-XX= Wall Mount
MS/BD-XX= Barn Doors (EPA 1.03)
MS/TV-XX= Top Visor (EPA 0.51)
MS/4V-XX= Four-Sided Shield (EPA 0.87)
MS/VS= Vandal Shield
MS/WG= Wire Guard

Standard Color ⁵
— = Bronze (Standard)
WH= White
BK= Black
AP= Grey

Notes: 1 All HID lamps are medium-base. 2 175W MH available in non-U.S. markets only. 3 Products also available in non-US voltages and 50HZ for international markets. 4 Compact Fluorescent lamps only, 120-277V with internal fusing. In cold temperatures, compact fluorescent lamps produce lower illumination levels. 5 Other finish colors available. Consult your Cooper Lighting representative. 6 Order separately, replace XX with color designation.

STOCK SAMPLE NUMBER (LAMP INCLUDED):

Sample Number: MPMS15



NOTES: (stock):
 Horizontal flood optics, knuckle mount, multi-tap ballast and bronze paint are standard for stock products. Add "W" to the end of the catalog logic to specify white finish (available on small housing 150W only). Stock accessories only available in bronze finish. Options not available with stock products. Refer to standard ordering information. Refer to In-Stock Guide for availability.

VOLTAGE CHART	
DT=Dual-Tap	120/277 (wired 277V)
MT=Multi-Tap	120/208/240/277 (wired 277V)
TT=Triple-Tap	120/277/347 (wired 347V)
E=Electronic Ballast (CF only)	120-277V (wired 277V) (50/60 HZ)