

FEATURES & SPECIFICATIONS

INTENDED USE - Ideal for parking areas, street lighting, walkways and car lots.

CONSTRUCTION - Rugged, die-cast, soft corner aluminum housing with 0.12" nominal wall thickness. Die-cast door frame has impact-resistant, tempered, glass lens that is fully gasketed with one-piece tubular silicone.

Finish: Standard finish is dark bronze (DDB) polyester powder finish, with other architectural colors available.

OPTICS - Anodized, aluminum reflectors: IES full cutoff distributions R2 (asymmetric), R3 (asymmetric), R4 (forward throw) and RSS (square) are interchangeable. High-performance anodized, segmented aluminum reflectors IES full cutoff distributions SR2 (asymmetric), SR3 (asymmetric) and SR4SC (forward throw, sharp cutoff). High-performance reflectors attach with tool-less fasteners and are rotatable and interchangeable

ELECTRICAL - Ballast: High pressure sodium: 70-150W is high reactance, high power factor. Constant wattage autotransformer for 200-400W. Metal halide: 70-150W is high reactance, high power factor and is standard with pulse-start ignitor technology. "SCWA" not required. Constant wattage autotransformer for 175-400W. Super CWA (pulse start ballast), 88% efficient and EISA legislation compliant, is required for metal halide 151-400W (SCWA option) for US shipments only. CSA, NOM or INTL required for probe start shipments outside of the US. Pulse-start ballast (SCWA) required for 200W, 320W, or 350W. Ballast is 100% factory-tested.

Socket: Porcelain, horizontally oriented medium base socket for 70-150M. Mogul base socket for 175M and above, and 70-400S, with copper alloy, nickel-plated screw shell and center contact. UL listed 1500W, 600V.

LISTINGS - UL Listed (standard). CSA Certified (see Options). UL listed for 25°C ambient and wet locations. IP65 rated in accordance with standard IEC 529.

Specifications subject to change without notice.

Catalog RECEIVED Number Notes APR 0 2 2012 Type Rapid City Community Planning

& Development Sales **Soft Square Lighting**

KAD

Specifications

EPA: 1.2 ft.

*Weight: 35.9 lbs (16.28 kg)

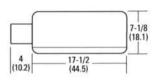
Length: 17-1/2 (44.5) Width: 17-1/2" (44.5)

Depth: 7-1/8 (18.1)

All dimensions are inches (centimeters) unless otherwise specified.

*Weight as configured in example below.

METAL HALIDE: 70-400W HIGH PRESSURE SODIUM: 70-400W 20'TO 35' MOUNTING



Example: KAD 400M R3 TB SCWA SPD04 LPI

ORDERINGINFORMATION

For shortest lead times, configure product using bolded options.

KAD									
Series	Wattage			Distribution		Voltage	Ballast	Mounting ¹²	MAN.
KAD	Metal halide 70M ^{1,2} 250M ⁵ 100M ¹ 320M ⁴ 150M 350M ^{3,4} 175M ³ 400M ^{5,4} 200M ⁴	High pressure sodium¹ 705 1005 1505 2505 4005	Ceramic metal halide 70MHC ¹² 100MHC ¹ 150MHC	R2 IES type II asymmetric? R3 IES type III asymmetric? R4 IES type IV forward throw? R55 IES type V square	High performance reflectors* SR2 IES type II asymmetric' SR3 IES type III asymmetric' SR4SC IES type IV forward throw	120 208° 240° 277 347 480° TB¹° 23050HZ¹¹	(blank) Magnetic ballast CWI Contant wattage isolated" Pulse Stort Super CWA pulse-start ballast NOTE For shipments to U.S. territories, SCWA must be specified to comply with EISA.	Ships in fixture carton SPD Square pole RPD Round pole WBD Wall bracket WWD Wood or pole wall Ships separately 13,344 DAD12P Degree arm (pole) DAD12WB Degree arm (wall) WBA Decorative wall bracket 155 KMA Mast arm external fitter KTMB Twin mounting bar	Arm length 04 4" arm 06 6" arm 09 9" arm 12 12" arm

ptions					Finish ²⁰		Lamp	21
Shipped installed in fixture SF Single fuse (120, 277, 347V) ¹⁶ DF Double fuse (208, 240, 480V) ¹⁶ PD Power tray ¹⁷ PER NEMA twist-lock receptacle only (no photocontrol) QRS Quartz restrike system ¹⁸	QRSTD WTB CSA INTL REGC1	QRS time delay ¹⁸ Terminal wiring block ¹⁷ CSA Certified Available MH for probe start shipping outside the U.S. California Title 20, effective 1/1/2010	Ship HS PE1 PE3 PE4 PE7 SC VG	House side shield NEMA twist-lock PE (120, 208, 240V) NEMA twist-lock PE (347V) NEMA twist-lock PE (480V) NEMA twist-lock PE (277V) Shorting cap for PER option Vandal guard ¹⁹ Wire quard ¹⁹	(blank) DWH DBL DMB	Dark bronze White Black Medium bronze Natural aluminum	Con	Lamp included Less lamp NG-HTME FRIENDLY reagent was LEED for Steen Blober 3 steen Left Journal medical

- Not available with SCWA
- Not available with 480V.
- These wattages do not comply with California Title 20 regulations.
- Must be ordered with SCWA
- These wattages require the REGC1 option to be chosen for shipments into California for Title 20 compliance. 250M REGC1 in not available in 347 or 480V.
- Reduced jacket ED28 required for SR2, SR3 and SR4SC optics.
- House-side shield available.
- High performance reflectors not available with QRSTD.
- 9 Must specify CWI for use in Canada.
- 10 Optional multi-tap ballast (120, 208, 240, 277V; in Canada: 120, 277, 347V).
- 11 Consult factory for available wattages.

- 12 9" arm is required when two or more luminaires are oriented on a 90° drilling pattern.
- 13 May be ordered as an accessory.
- 14 Must specify finish when ordered as an accessory.
- 15 Available with SPD04 and SPD09.
- 16 Must specicy voltage, N/A with TB.
- 17 Only available with SR2, SR3 and SR4SC optics.
- 18 Max allowable wattage lamp included. 19 Prefix with KAD when ordered as an accessory.
- 20 See www.lithonia.com/archcolors for additional color options.
- 21 Must be specified. L/LP not available with MHC.
- 22 Must use RPD09.

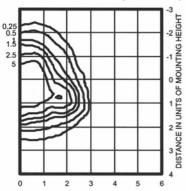
Accessories: Tenon Mounting Slipfitter (RPxx required.) Order as seperate catalog number. Must be used with pole mounting.

Number of fixtures									
Tenon O.D.	One	Two@180°	Two@90°	Three@120°	Three@90°	Four@90°			
2-3/8"	T20-190	T20-280	T20-290 ²²	T20-320 ²²	T20-390 ²²	T20-490 ²²			
2-7/8"	T25-190	T25-280	T25-290 ²²	T25-320	T25-390 ²²	T25-490 ²²			
4	T35-190	T35-280	T35-290 ²²	T35-320	T35-390 ²²	T35-490 ²²			

KAD Metal Halide, Arm-mounted Soft Square Cutoff

Coefficient of Utilization **Initial Footcandles**

KAD 400M R2 Test no. 1193083101P **ISOILLUMINANCE PLOT (Footcandle)**

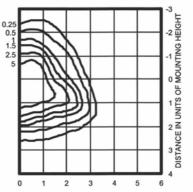


400W pulse start metal halide lamp, rated 38000 lumens. Footcandle values based on 20' mounting height.

Classification: Type II, Short, Full Cutoff

KAD 400M R3 Test no. 1192040902P

ISOILLUMINANCE PLOT (Footcandle)



400W pulse start metal halide lamp, rated 38,000 lumens. Footcandle values based on 20' mounting height.

Classification: Type II, Short, Full Cutoff

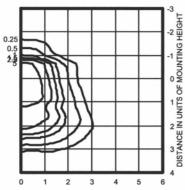
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Rapid City Community Planning & Development Services

KAD 400M R4 Test no. 1191110101P

ISOILLUMINANCE PLOT (Footcandle)

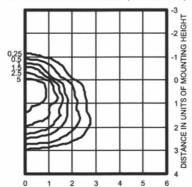


400W pulse start metal halide lamp, rated 38,000 lumens. Footcandle values based on 20' mounting height.

Classification: Unclassified (Type III, Very Short), Full Cutoff

KAD 400M R4HS Test no. 1192061101P

ISOILLUMINANCE PLOT (Footcandle)

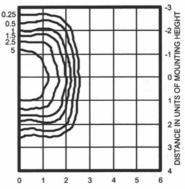


400W pulse start metal halide lamp, rated 38,000 lumens. Footcandle values based on 20' mounting height.

Classification: Unclassified (Type III, Very Short), Full

KAD 400M R5S Test no. 1194040801P

ISOILLUMINANCE PLOT (Footcandle)



400W pulse start metal halide lamp, rated 38000 lumens. Footcandle values based on 20' mounting height.

Classification: Unclassified (Type NC, Very Short), Full Cutoff

- metric data for other distributions can be accessed at www.lithonia.com
- 2 Tested to current IES and NEMA standards under stabilized laboratory conditions. Various operating factors can cause differences between laboratory data and actual field measurements. Dimensions and specifications on this sheet are based on the most current available data and are subject to change without notice.
- 3 For electrical characteristics, consult outdoor technical data specification sheets on www.lithonia.com

Mounting Height Correction Factor

(Multiply the fc level by the correction factor)

 $25 \, \text{ft.} = 0.64$

35 ft. = 0.32

40 ft. = 0.25

Existing Mounting Height \ = Correction Factor New Mounting Height

(E) COOPER LIGHTING - LUMARK®



DESCRIPTION

The Lumark Wal-Pak Series of wall luminaires provides traditional architectural style with high performance energy efficient illumination. Rugged die-cast aluminum construction, stainless steel hardware along with a sealed and gasketed optical compartment make the Wal-Pak virtually impenetrable to contaminants. IP65 Rated. Six available lamp sources including patent pending energy efficient LED, pulse start metal halide, compact fluorescent, ceramic metal halide, standard metal halide and high pressure sodium.UL/cUL wet location listed. The Wal-Pak wall luminaire is ideal for pathway illumination, building entrances, vehicle ramps, schools, tunnels, stairways and loading docks.

Catalog #	Туре
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

Housing

Rugged one-piece die-cast aluminum housing and hinged, removable die-cast aluminum door. One-piece silicone gasket seals the optical chamber. UL 1598 wet location listed and IP65 ingress protection rated. Not recommended for car wash applications.

Electrical

Ballasts, LED driver and related electrical components are hard mounted to the die-cast housing for optimal heat sinking and operating efficiency. Wiring is extended through a silicone gasket at the back of the housing. Three 1/2" threaded conduit entry points allow for thru-branch wiring. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from LED source. Integral LED electronic driver incorporates internal fusing designed to withstand a 3kV surge test and is Class 2 rated for 120-277V with an operating temperature of -30° to 60°C.

COOPER Lighting

www.cooperlighting.com

Wal-Pak LED systems maintain greater than 70% of the initial light output after 50,000 hours of operation. UL listed HID high power factor ballasts are Class H insulation rated (metal halide: 150, 175, 200, 250, 320, 350, 400W [-30°C / -20°F], (high pressure sodium: 50, 70, 100, 150, 250, 400W [-40°C / -40°F]. High efficiency HID ballasts are available in 120V, 208V, 240V, 277V, 347V and 480V. Compact fluorescent high power factor ballasts are Class P insulation rated for 120-277V and have a starting temperature of -18°C / 0°F.

Optical

Highly reflective anodized aluminum reflectors provide high efficiency illumination. Optical assemblies include impact resistant borosilicate refractive glass, Solite™ flat diamond patterned glass and full cutoff IESNA compliant configurations. Patent pending, solid state LED luminaires are thermally optimized with 2400 or 4000 sourced lumen package modules. HID models are offered in

horizontal medium or mogul-based metal halide [MH / MP] or high pressure sodium [HP] lamps. T6 ceramic metal halide [CM] and 4-pin compact fluorescent [CF] lamp models offer high efficiency energy saving illumination.

Door Assembly

Single point, captive stainless steel hardware secures the removable hinged door allowing for ease of installation and maintenance. Door assembly is hinged at the bottom for easy removal, installation and re-lamping.

Finish

Housing and door are protected with 5-stage TGIC dark bronze polyester powder coat paint. Premium TGIC power coat finishes withstand extreme climate changes while providing optimal color and gloss retention. Optional premium colors are available.







WP WAL-PAK 2400 - 4000 Lumen LED

39 - 400W High Pressure Sodium Pulse Start Metal Halide Metal Halide Ceramic Metal Halide 32 - 140W

Compact Fluorescent

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& Development Services DIMENSIONS FL LENS BOROSILICATE **FULL CUTOFF** 10" 10 [254mm] [254mm] [254mm] 16-5/8" [422mm] 16-5/8" [422mm] 16-5/8" [422mm] mall 11-3/8" [290mm] Small 15" [381mm] Small 11-3/8" [290mm] arge 12-6/8" [323mm] Large 16-2/8" [414mm] Large 12-6/8" [323mm]

WALL MOUNT LUMINAIRE

TECHNICAL DATA

UL/cUL Wet Location Listed IP65 Rated

40°C Maximum Ambient Temperature External Supply Wiring 90°C Minimum EISA ®, ARRA, Title 20 Compliant LM79 / LM80 Compliant

ENERGY DATA

Reactor Ballast Input Watts 50W HPS NPF (58 Watts) 70W HPS NPF (82 Watts) 100W HPS NPF (118 Watts) 150W HPS NPF (175 Watts)

High Reactance Ballast Input Watts

50W MP HPF (69 Watts) 70W MP HPF (94 Watts) 100W MP HPF (129 Watts) 150W MP HPF (185 Watts)

150W MP HPF (185 Watts) CWA Ballast Input Watts

200W HPS HPF (250 Watts) 200W MP HPF (227 Watts) ®

250W MP HPF (283 Watts) ® 320W MP HPF (365 Watts) ®

350W MP HPF (400 Watts) ® 400W HPS HPF (465 Watts)

400W MP HPF (452 Watts) ®

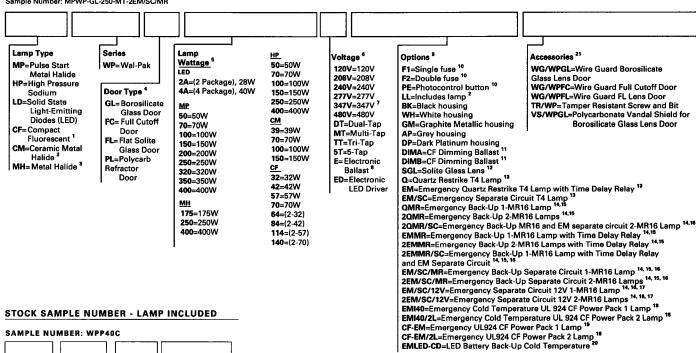
SHIPPING DATA

Approximate Net Weight: 32-42 lbs. (15-19 kgs.)

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ORDERING INFORMATION

Sample Number: MPWP-GL-250-MT-2EM/SC/MR



Series Door/Glass Type Lamp Type Lamp WP=Wal-Pak Wattage 2A=28W L⇒LED Blank=Standard C =Full Cutoff Door P=Pulse 4A=40W Start 10=100W Metal 15=150W Halide S=High 25 ≠250W Pressure 32=320W Sodium 40=400W

NOTES: Options not available with stock products. Refer to standard order information to add options. MT is standard. Lamp Type: MP not available in 100W. HPS not available in 320W or Full Cutoff [C] Door. Borosilicate glass door is standard. 2A and 4A models available in LED only. LED models are 120-277V.

LED LUMEN TABLE

BUG RATING	В	U	G	Delivered Lumens ²²		В	U	G	Delivered Lumens 22
Borosilicate Glass Door (GL)					Flat Lens Door (FL)				
LDWP-GL-2A-ED	0	3	2	1836	LDWP-FL-2A-ED	0	2	1	1454
LDWP-GL-4A-ED	1	3	2	2795	LDWP-FL-4A-ED	0	3	1	2084
Polycarbonate Lens (PL)					Full Cutoff Door (FC)				
LDWP-PL-2A-ED	0	3	2	1508	LDWP-FC-2A-ED	0	1	1	1090
LDWP-PL-4A-ED	1	3	2	2297	LDWP-FC-4A-ED	0	1	1	1313

For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.iesna.org/PDF/Erratas/TM-15-07BugRatingsAddendum.pdf

NOTES: 1 CF Single lamp offered in all door configurations. CF dual lamp models not offered with FL door type. 70W models not available with EMI40-2L, CF-EM, CF-EM-2L. CF not available in 347V.

2 All CM models offered with T6 envelope G12 lamp base. T6 Lamp included with CM models. Order LL with CM models. Ceramic Metal Halide (CM) is available with (MP) pulse start metal halide or E - Electronic Ballast.

400W MP must be ordered with LL option to be Title 20 Complaint.

400W MP must be ordered with LL option to be Title 20 Complaint.

3 MH products available for non-US markets only.

4 Small housing offered for 175W and below, CF and LD models. Large housing for 200W-400W. FL door not available with CF or 200-400W models.

5 Polycarbonate lens available in models up to 175W max including LD. Polycarbonate lens not available with full cutoff door or FL models. Solite stipple glass is standard for FL lens. Clear glass is standard for full cutoff door types except for LD. Dull cutoff door is standard with solite glass.

5 LED packages based on 67 CRI/5000K package at 25°C ambient. MH and MP 175W and below are medium base all others are mogul base.

6 Fe4, 84, 114 and 140 models are offered in borosilicate glass and full cutoff doors only. In cold temperatures, compact fluorescent lamps produce lower illumination levels. CF 140 models and 400W HPS rated for 25°C.

8 See Voltage Chart for descriptions. 5T available in 400W MH models only. 90°C Rated wire required for thru-branch wiring for units 175W and lower. 105°C Rated wire required for thru-branch wiring for units 20°C ambient operating environments.

7 347V not available with thru-branch wiring. For 347 or 480V LD specify voltage. ED will be supplied with integral step down transformer. 347V not available with CF lam 8 Available with 70-150W MP or CM lamps. E is standard for all CF models. All electronic ballasts are universal 120-277V.

7 34/V not available with fro-150W MP or CM lamps. E is standard for all CF models. All electronic ballasts are universal 120-277V.

9 Not all options can be combined. Only one emergency or battery back-up option available within the fixture. CF Models utilize EMI40, EMI40/2L, CF/EM or CF-EM/2L options can be combined. Only one emergency or battery back-up option available within the fixture. CF Models utilize EMI40, EMI40/2L, CF/EM or CF-EM/2L options can be combined. EM-LED or EMLED-CD options only for battery back-up.

10 Must specify voltage. F1=120, 277 or 347V. F2=208, 240 or 480V. PE=120, 208, 240 or 277V.

10 Must specify voltage. F1=120, 277 or 347V. F2=208, 240 or 480V. PE=120, 208, 240 or 277V.

11 DIMA dimming ballast, specify number of lamps, available for 1 or 2-26W or 1-32W, 1-42W. DIMB available for 2-42W, 1-57W or 1-70W.

12 SGL optional on HID and CF models only. See note number 4.

13 O or EM not available with LD or E electronic ballast. Q or EM Minimum HID wattage is 70 watts. EM/SC available in 120V only, EM/SC not available with LD. Maximum 100W 126V F4 BC Bayong Quarta lamps.

14 QMR, 2GMR, EMMR, 2EMMR & 2EMMR/SC not available with LD or E electronic ballast. Minimum HID wattage is 70 watts.

15 1 or 2 GU10 base 50W max - 120V Halogen. Lamps supplied by others. EM/SC/MR, 2EM/SC/MR, EM/SC/12V, 2EM/SC/12V not available with LD.

16 Emergency lamp leads out of the back of the unit to auxillary power. Lamps supplied by others.

17 Low Voltage 1 or 2 GU/5 adds out of the back of the unit to auxillary power. Lamps supplied by others.

18 For use in 25°C ambient operating temperature environments. EMI40, EMI40/2L used for CF lamps. Specify 120 or 277V. EMI40 supports 1-70W CF max, EMI40/2L subgroups 22/WCF max, Minimum 115/4°F.

19 For use in 25°C ambient operating temperature environments. Specify 120 or 277V. CF-EM/2L supports 2-18W CF, 18W lamps supplied to 15 the 15°C ambient operating temperature environments. Specify 120 or 277V. EMILED-CD minimum -20°C/-4°F. Battery pack is a ULT-scale and composition.

21 Order separately.

22 Delivered lumens subject to change. Consult IES file for details.

120/277 (wired 277V)
120/208/240/277 (wired 277V)
120/277/347 (wired 347V)
120/208/240/277/480 (wired 480V)
120-277V (Universal) (50/60 HZ)
120-277V (Universal) (50/60 HZ)

LAMP TYPE	WATTAGE	
Pulse Start Metal Halide	50, 70, 100, 150, 200, 250, 320, 350, 400W	
Metal Halide	175, 250, 400W	
High Pressure Sodium	50, 70, 100, 150, 250, 400W	
T6 Ceramic Metal Halide	39, 70, 100, 150W	
Compact Fluorescent	(1) 32, (1) 42, (1) 57, (1) 70, (2) 32, (2) 42, (2) 57, (2) 70	
LED	2A (2 Package) 28W, 4A (4 Package) 40W	

