LUMARK

Full Cutoff

Flat Solite® Glass

Borosilicate Glass / Polycarbonate Refractor

SustainabLEDesign™

Wal-Pak

Wall Mount Luminaire

COOPER Lighting

WP WAL-PAK WALL SERIES

WALL MOUNT LUMINAIRE

THE NEW STANDARD

The Wal-Pak Series of wall luminaires offers traditional architectural styling, rugged construction and superior performance. Coupled with available Light Emitting Diode [LED] technology, full cutoff removable door, standard IP65 Ingress Protection and emergency egress options, Wal-Pak is an exceptionally flexible platform that offers undisputed appeal for wall mount applications.

ENERGY SAVINGS

Conservation of energy, expertise in design and rigourous reliability testing ensure superior luminaire performance. With advancements in LED technology combined with Cooper Lighting's expertise in fixture and optical design, the Wal-Pak Series demonstrates that new technology saves energy without compromising performance.

FULL CUTOFF DOOR
[FC]

FLAT SOLITE® GLASS DOOR
[FL]

BOROSILICATE GLASS/
POLYCARBONATE REFRACTOR DOOR
[GL/PL]

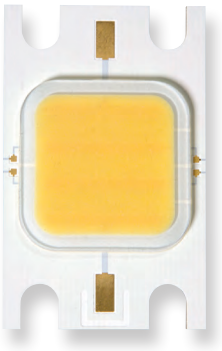
ABUNDANT SELECTION

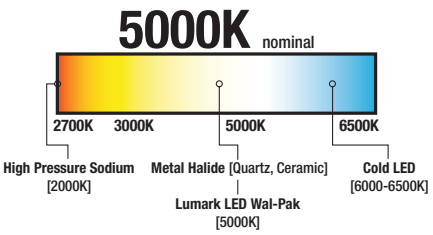
The Wal-Pak Series provides a choice of three [3] hinged, removable doors including IESNA full cutoff, Solite™ flat glass lens and refractive, tempered borosilicate glass along with six [6] unique lamp sources inclding energy efficient LED, pulse start metal halide, compact fluorescent, ceramic metal halide, standard metal halide and high pressure sodium.

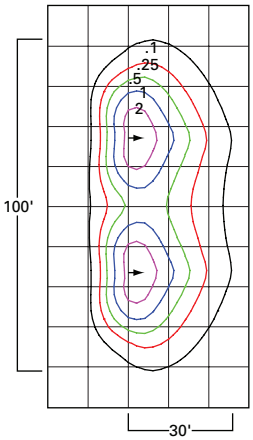
LED SPECIFICATION FEATURES

UNIFORM ILLUMINATION

Wal-Pak's patent pending LED light engine is optimized for energy efficient performance. With effective thermal management, precise positioning of the LED package assembly and a highly reflective anodized aluminum reflector; Wal-Pak LED provides glare free, uniform illumination while providing a safe and comfortable visual experience.







LED TECHNOLOGY

Light emitting diodes are solid state devices that offer uniform illumination, reliable long life, eco-friendly low maintenance, and superior energy savings. Over 70% of the initial light output is maintained after 50,000 hours of operation. In application, an LED fixture can last up to six [6] times longer than metal halide lamped sources.

SUPERIOR ILLUMINATION

Wal-Pak LED luminaires produce up to 4000 initial lumens. Brilliant white 5000K color temperature LED's provide uniform white light similar to traditional metal halide light sources. Combining excellent color rendering with superior thermal management, optimized reflector technology and premium glare-free Solite™ glass make the Wal-Pak LED luminaire a superior performer.

LED WAL-PAK FULL CUTOFF 4A MODEL TYPICAL APPLICATION:

- 100' Illumination Distribution Pattern [2 fixtures]
- 30' Forward Throw
- 75% Street Side Illumination
- IESNA Full Cutoff Compliant
- Replaces up to 175W Metal Halide

REDUCED ENERGY CONSUMPTION

Operating and maintenance costs of a lighting system are dramatically impacted by the specified lamp source and electrical system. Total system input watts and fixture operating life should be the driving considerations when addressing energy consumption and total cost of ownership. Energy savings increase when energy consumption is reduced and maintenance intervals are extended.

ANNUALIZED ENERGY SAVINGS/COST COMPARISON

FIXTURE	HOURS/ YEAR	LIFE [hrs.]	TOTAL INPUT WATTS	COST/YEAR @ $ .10 KWH	RELAMP/FIXTURE	TOTAL ANNUALIZED COST/FIXTURE	SAVINGS PER FIXTURE	OVERALL % SAVINGS
LED Wal-Pak [2400 Lumens]	11/4015	50,000	22	$8.83	$0	$8.83	$92.96	**91%**
100W MP Wall Pack		12,000	128	$51.79	$50	$101.79		
LED Wal-Pak [4000 Lumens]	11/4015	50,000	40	$16.06	$0	$16.06	$138.26	**90%**
175W MH Wall Pack		12,000	210	$84.32	$70	$154.32		

NOTES: Cost = (Watts x 11 Hours Per Day x 365 Days per Year) /1000 = Daily Kilowatt hour (kWh). kWh x $.10 cents/kWh = Cost/year at $.10 cents/kWh. Relamp is once per every 2.5 years, $125/100W and $175/175W averaged over 2.5 years.

HID/LED CROSS REFERENCE CHART

HID SYSTEMS	HID WATTAGE	RATED AVG. LIFE [hrs.]	WAL-PAK LED SYSTEM LUMEN PACKAGE[1]	LED WATTAGE[2]	LED LIFE [hrs.]	ENERGY SAVINGS
50W Pulse Start Metal Halide	72	12,000	2A	22	50,000	**69%**
70W Pulse Start Metal Halide	90	12,000	2A	22	50,000	**76%**
100W Pulse Start Metal Halide	128	12,000	2A	22	50,000	**83%**
150W Pulse Start Metal Halide	189	12,000	4A	40	50,000	**79%**
175W Probe Start Metal Halide	210	12,000	4A	40	50,000	**81%**
50W High Pressure Sodium	66	24,000	2A	22	50,000	**67%**
70W High Pressure Sodium	91	24,000	2A	22	50,000	**76%**
100W High Pressure Sodium	130	24,000	4A	40	50,000	**69%**
150W High Pressure Sodium	188	24,000	4A	40	50,000	**79%**

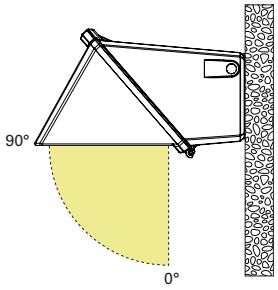
NOTES: 1 Nominal lumens prior to optical and configuration losses based on 67 CRI. 5000K package at 25°C ambient. 2A=2400 [Lumens], 4A=4000 [Lumens]. **2** LED Wattage varies by Wal-Pak configuration. Hours of life based on 70% lumen maintenance.

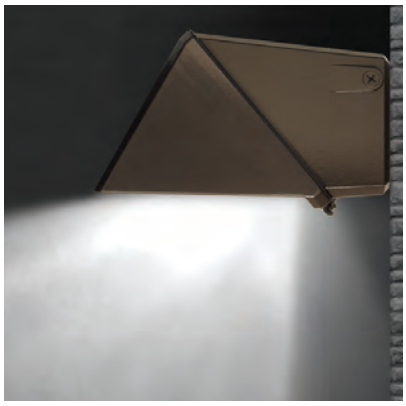
DARK SKY FRIENDLY + OPTIONS + ACCESSORIES

DARK SKY FRIENDLY ILLUMINATION

The Wal-Pak Series with full cutoff door meets The Illuminating Engineering Society of North American [IESNA] classification for full cutoff illumination [zero light at or above the 90° plane]. Full cutoff luminaires minimize light trespass and light pollution.

DARK SKY COMPLIANT FCO Full Cutoff





BACK-UP POWER OPTIONS

Wal-Pak solves the requirement for providing back-up power illumination along the path of egress during critical power outage situations. Select from LED or compact fluorescent integral NiCad battery packs, quartz restrike, low or line voltage DC remote or separate circuit emergency back-up options.

SINGLE OR DUAL LAMP COMPACT FLUORESCENT EMERGENCY BATTERY PACK OPTIONS [CF-EM, EMI40, CF-EM-2L, EMI40-2L]

Integral UL924 emergency lighting NiCad battery pack provides emergency lighting illumination for single or dual lamp compact fluorescent light sources. The CF-EM battery pack is designed for 0°C/32°F illumination for up to 70W. The EMI40 provides up to 70W of cold temperature -18°C/-4°F emergency back-up illumination. For two [2] 32W lamp operation use CF-EM-2L or EMI40-2L.

LED BATTERY PACK OPTIONS [EM-LED, EM-LED-CD]

Integral NiCad battery pack provides battery back-up illumination for 4A models. The LED-EM battery pack is designed for 0°C/32°F applications. EM-LED-CD is designed for -18°C/-4°F cold temperature applications.

EMERGENCY LOW VOLTAGE 12V DC REMOTE OPTIONS [EM/SC/12V, 2EM/SC/12V]

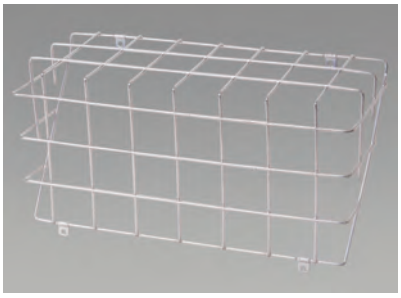
Single or dual lamp low voltage 12V DC bi-pin remote lamp provides fixture illumination in the emergency mode. The 12V DC lamps are energized from a remote DC battery source [provided by others].

SEPARATE CIRCUIT QUARTZ RESTRIKE AND EMERGENCY QUARTZ RESTRIKE OPTION [2QMR/SC]

MR16 halogen lamp source illuminates upon the reactivation of the HID lamp. The secondary source provides separate circuit emergency illumination upon loss of utility power.

QUARTZ RESTRIKE OPTIONS [Q, QMR, 2QMR, EM, EM/SC]

T4 quartz restrike [120V] and sngle or dual MR16 halogen lamps allow adequate time for main HID lamp to reignite to full brilliance. EM option allows for cold start of HID lamps as it includes a time delay relay. The EM/SC emergency separate circuit option allows for the quartz lamps to be wired to an independent emergency back-up power source.



WIRE GUARD [WG/ITM]

Galvanized coated steel wire guard option prevents lens damage due to projected elements.

SPECIFICATION FEATURES

CONSTRUCTION AND RATINGS

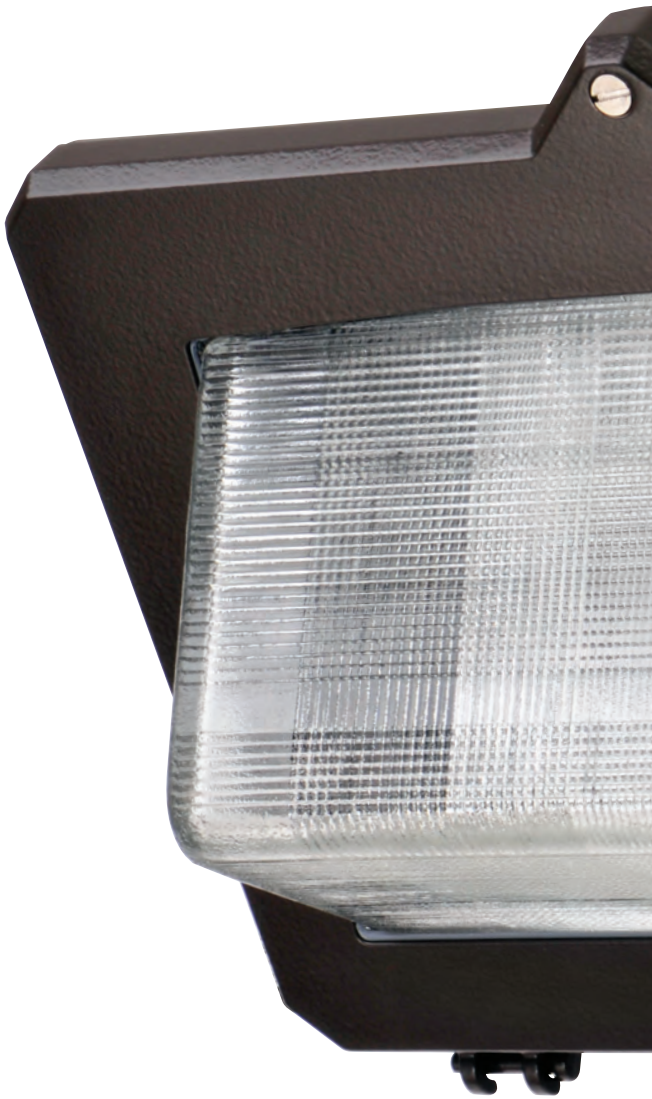
Rugged one-piece die-cast aluminum housing and hinged, removable die-cast aluminum door. One-piece silicone gasket seals the optical chamber against performance degrading contaminates. UL 1598 wet location listed and IP65 ingress protection provides complete defense against dust entry while virtually eliminating moisture. Single point, captive stainless steel hardware secures the removable hinged door allowing for ease of installation and maintenance.

OPTICAL

Custom engineered highly reflective anodized aluminum reflectors provide high efficiency illumination. Impact resistant tempered borosilicate refractive glass provides maximum photometric performance and beam efficiency. Solite™ flat diamond patterned glass ensures smooth illumination coupled with a clean aesthetic appearance. Patent pending solid state LED luminaires are thermally optimized with 2400 or 4000 lumen package modules. Tradition light source optical assemblies are offered standard with horizontal medium or mogul-based metal halide [MH / MP] or high pressure sodium [HP] lamps. High efficiency T6 ceramic metal halide [CM] offers excellent color rendering and energy efficient 4-pin compact fluorescent [CF] lamps provide excellent lumen maintenance.

ELECTRICAL

Ballasts, LED driver and related electrical components are safely secured and hard mounted to the die-cast housing for optimal heat sinking and operating efficiency. All wiring is extended through a silicone gasket at the back of the housing to prevent entry of debris, moisture, dust and insects. Three 1/2" threaded conduit entry points allow for thru-branch wiring. Patent pending Wal-Pak LED thermal management system incorporates both conductive and natural convection to transfer heat rapidly away from the LED source. Integral LED electronic driver incorporates internal fusing designed to withstand a 3kV line surge and is Class 2 rated for 120-277V with an operating temperature of -30°C to 60°C. 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 [-30ºC /-20ºF], high pressure sodium: 50, 70, 100, 150, 250, 400W [-40ºC/-40ºF]. High efficiency HID ballasts are available in a multitude of voltage configurations including 120, 208, 240, 277, 347 and 480V. Compact fluorescent high power factor ballasts are Class P insulation rated for 120-277V and have a starting temperature of -18ºC/0ºF.



DARK SKY COMPLIANT FCO Full Cutoff

NOTE: In full cutoff door [FC] configuration only.

FLAT SOLITE® GLASS DOOR
[FL]

FULL CUTOFF DOOR
[FC]

BOROSILICATE GLASS/
POLYCARBONATE REFRACTOR DOOR
[GL/PL]

FINISH

Housing and door are protected with a 5-stage TGIC dark bronze polyester powder coat paint. Premium TGIC powder coat finishes withstand extreme climate changes while providing optimal color and gloss retention over the fixture's installed life. Optional premium colors include black, white and grey.

STANDARD COLOR

BZ
Bronze

OPTIONAL COLORS

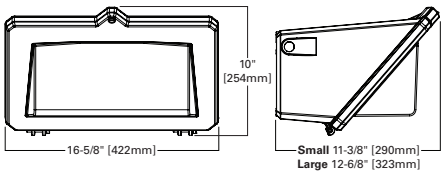
BK
Black

AP
Grey

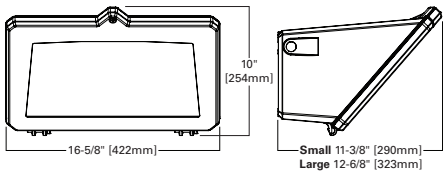
WH
White

DIMENSIONS

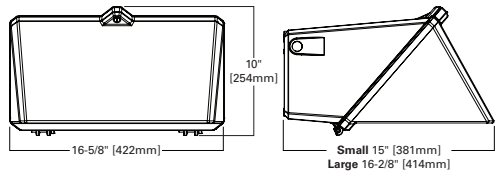
Borosilicate Glass Door



Flat Solite Glass Door



Full Cutoff Door



WATTAGE TABLE

Lamp Type	Lamp 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] 70W
LED	2400, 4000 [Lumens]

VOLTAGE CHART

DT=Dual-Tap	120/277V [wired 277V]
MT=Multi-Tap	120/208/240/277V [wired 277V]
TT=Tri-Tap	120/277/347V [wired 347V]
5T=5 Tap	120/208/240/277/480V [wired 480V]
E=Electronic Ballast	120-277V [Universal, 50/60Hz]
ED=Electronic LED Driver	120-277V [Universal, 50/60Hz]

CERTIFICATIONS

- 40°C Ambient Temperature Rating
- UL and cUL Listed
- IP65 Rated
- ISO 9001
- FCO [Full Cutoff]
- EISA, ARRA and Title 20 Compliant

SHIPPING DATA

Approximate Net Weight: 32-42 [15-19 kgs.]

WAL-PAK

ORDERING INFORMATION

SAMPLE NUMBER: LDWP-FC-4A-ED-EM-LED

LAMP TYPE
MP=Pulse Start Metal Halide
HP=High Pressure Sodium
LD=Solid State Light Emitting Diodes [LED]
CF=Compact Fluorescent [1]
CM=Ceramic Metal Halide [2]
MH=Metal Halide [3]

SERIES
WP=Wal-Pak

DOOR TYPE [4]
GL=Borosilicate Glass Door
FC=Full Cutoff Door
FL=Flat Solite Glass Door
PL=Polycarbonate Refractor Door

LAMP WATTAGE [5]
LED
2A=[2400 Initial Lumens]
4A=[4000 Initial Lumens]

MP
50=50W
70=70W
100=100W
150=150W
200=200W
250=250W
320=320W
350=350W
400=400W

HP
50=50W
70=70W
100=100W
150=150W
250=250W
400=400W

CF
32=32W
42=42W
57=57W
70=70W
64=[2] 32W
84=[2] 42W
114=[2] 57W
140=[2] 70W

CM
39=39W
70=70W
100=100W
150=150W

MH
175=175W
250=250W
400=400W

VOLTAGE [6]
120V=120V
277V=277V
347V=347V [7]
480V=480V
DT=Dual-Tap
MT=Multi-Tap
TT=Triple-Tap
5T=5-Tap
E=Electronic Ballast [8]
ED=Electronic LED Driver

OPTIONS + ACCESSORIES
[see below]

STOCK ORDERING INFORMATION

SAMPLE NUMBER: WPP40C

SERIES	LAMP TYPE	LAMP WATTAGE	DOOR/GLASS TYPE
WP=Wal-Pak	**P**=Pulse Start Metal Halide **S**=High Pressure Sodium	**10**=100W **15**=150W **25**=250W **32**=320W **40**=400W	__=Standard **C**=Full Cutoff Door

NOTES: 1 Options not available with stock products. Refer to standard ordering information to add options. MT is standard. MP not available in 100W. HPS not available in 320W. Borosilicate glass door standard.

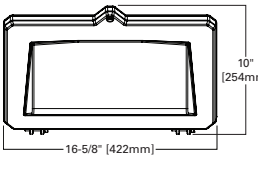
OPTIONS AND ACCESSORIES [Must be listed in the order shown and separated by a dash]

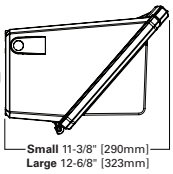
OPTIONS [add as suffix] [9]
F1=Single Fuse [10]
F2=Double Fuse [10]
PE=Photocontrol Button [10]
LL=Includes Lamp [2]
BK=Black
WH=White
AP=Grey
DIMA=CF Dimming Ballast [11]
DIMB=CF Dimming Ballast [11]
SGL=Solite Glass Lens [12]
Q=Quartz Restrike T4 Lamp [10, 13]
EM=Emergency Quartz Restrike T4 Lamp with Time Delay Relay [10, 13]
EM/SC=Emergency Separate Circuit T4 Lamp [10, 13, 16]
QMR=Emergency Back-Up [1] MR16 Lamp [14,15]
2QMR=Emergency Back-Up [2] MR16 Lamps [14,15]
2QMR/SC=Emergency Back-Up MR16 and EM Separate Circuit [2] MR16 Lamp [14,15]
EMMR=Emergency Back-Up [1] MR16 Lamp with Time Delay Relay [14,15]
2EMMR=Emergency Back-Up [2] MR16 Lamps with Time Delay Relay [14,15]
2EMMR/SC=Emergency Back-Up [1] MR16 Lamp with Time Delay Relay and EM Separate Circuit [14, 15, 16]
EM/SC/MR=Emergency Back-Up Separate Circuit [1] MR16 Lamp [14, 15, 16]
2EM/SC/MR=Emergency Back-Up Separate Circuit [2] MR16 Lamps [14, 15, 16]
EM/SC/12V=Emergency Separate Circuit 12V [1] MR16 Lamp [14, 16, 17]
2EM/SC/12V=Emergency Separate Circuit 12V [2] MR16 Lamps [14, 16, 17]
EMI40=Emergency Cold Temperature UL 924 CF Power Pack [1] Lamp [18]
EMI40/2L=Emergency Cold Temperature UL 924 CF Power Pack [2] Lamp [18]
CF-EM=Emergency UL924 CF Power Pack [1] Lamp [19]
CF-EM/2L=Emergency UL924 CF Power Pack [1] Lamp [19]
EM-LED=LED Battery Back-up [20]
EMLED-CD=LED Battery Back-Up Cold Temperature [20]

ACCESSORIES [order separately]
WG/WPGL=Wire Guard Borosilicate Glass Lens Door
WG/WPFC=Wire Guard Full Cutoff Door
WG/WPFL=Wire Guard Flat Glass Lens Door
TR/WP=Tamper Resistant Screw and Bit

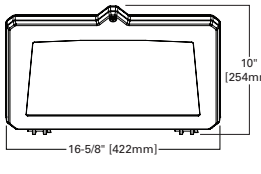
DIMENSIONS

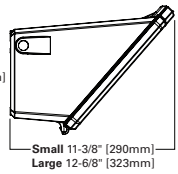
Borosilicate Glass Door



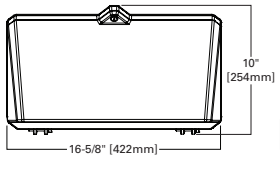


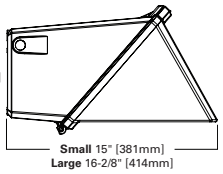
Flat Solite Glass Door





Full Cutoff Door





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LED	2400, 4000 [Lumens]

VOLTAGE CHART

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CERTIFICATIONS

40°C Ambient Temperature Rating
UL and cUL Listed
IP65 Rated
ISO 9001
FCO [Full Cutoff]
EISA, ARRA and Title 20 Compliant

SHIPPING DATA

Approximate Net Weight: 32-42 [15-19 kgs.]

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. **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. 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. LD full cutoff door is standard with solite glass. **5** LD nominal initial lumens prior to optical and configuration losses based on 67 CRI/5000K package at 25°C ambient. MH and MP 175W and below are medium base all others are mogul base. CF 64, 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. **6** 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 200W and higher. Thru-branch wiring is rated for 40°C for LD and 175W and below. Higher wattage thru-branch wiring is rated for use in 25°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 lamps. **8** Available with 70-150W 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. **10** Specify voltage. F1 - 120, 277 or 347V, F2 - 208 or 240V, PE - 120, 208, 240, 277V. Q, EM, EM/SC available in 120V only. **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 4. **13** Max 100W, T4 Quartz lamp. Lamp supplied by others. **14** Not available with LD. Lamps supplied by others. **15** 1 or 2 GU10 base 50 watt max - 120V Halogen lamps supplied by others. **16** Emergency lamp leads out of the back of the unit to auxiliary power. Lamps independently wired to separate circuits. **17** Low Voltage 1 or 2 GU5.3 MR16 base, 12V DC, 35W max. Lamp 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 supports 2-32W CF max. Minimum -18°C/-4°F. **19** For use in 25°C ambient operating temperature environments. Specify 120 or 277V, CF-EM supports up to 1-57W CF. CF-EM/2L supports 2-18W CF, 18W lamps supplied by others. Minimum temperature is 0°F/32°C. **20** EM-LED and EMLED-CD available with 4A models only. For use in 25°C ambient operating temperature environments. Specify 120 or 277V EM-LED minimum 0°C/32°F, EMLED-CD minimum -20°C/-4°F. Battery pack is a UL recognized component. **21** Specifications and dimensions subject to change without notice.

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