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 rigorous 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.
ABUNDANT SELECTION

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 lanced 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-PACK 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

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

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

<table>
<thead>
<tr>
<th>HID SYSTEMS</th>
<th>HID WATTAGE</th>
<th>RATED AVG. LIFE [hrs.]</th>
<th>WAL-PACK LED SYSTEM LUMEN PACKAGE</th>
<th>LED WATTAGE</th>
<th>LED LIFE [hrs.]</th>
<th>ENERGY SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>50W Pulse Start Metal Halide</td>
<td>72</td>
<td>12,000</td>
<td>2A</td>
<td>22</td>
<td>50,000</td>
<td>69%</td>
</tr>
<tr>
<td>70W Pulse Start Metal Halide</td>
<td>90</td>
<td>12,000</td>
<td>2A</td>
<td>22</td>
<td>50,000</td>
<td>76%</td>
</tr>
<tr>
<td>100W Pulse Start Metal Halide</td>
<td>128</td>
<td>12,000</td>
<td>2A</td>
<td>22</td>
<td>50,000</td>
<td>83%</td>
</tr>
<tr>
<td>150W Pulse Start Metal Halide</td>
<td>189</td>
<td>12,000</td>
<td>4A</td>
<td>40</td>
<td>50,000</td>
<td>79%</td>
</tr>
<tr>
<td>175W Probe Start Metal Halide</td>
<td>210</td>
<td>12,000</td>
<td>4A</td>
<td>40</td>
<td>50,000</td>
<td>81%</td>
</tr>
<tr>
<td>50W High Pressure Sodium</td>
<td>66</td>
<td>24,000</td>
<td>2A</td>
<td>22</td>
<td>50,000</td>
<td>67%</td>
</tr>
<tr>
<td>70W High Pressure Sodium</td>
<td>91</td>
<td>24,000</td>
<td>2A</td>
<td>22</td>
<td>50,000</td>
<td>78%</td>
</tr>
<tr>
<td>100W High Pressure Sodium</td>
<td>130</td>
<td>24,000</td>
<td>4A</td>
<td>40</td>
<td>50,000</td>
<td>69%</td>
</tr>
<tr>
<td>150W High Pressure Sodium</td>
<td>188</td>
<td>24,000</td>
<td>4A</td>
<td>40</td>
<td>50,000</td>
<td>79%</td>
</tr>
</tbody>
</table>

NOTES: 1 Nominal lumens prior to optical and configuration losses based on 67 CRI, 5000K package at 25ºC 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 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.

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 single 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.
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 contaminants. 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 -18°C/0°F.
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.

**FINISH**

**STANDARD COLOR**

- BZ: Bronze

**OPTIONAL COLORS**

- BK: Black
- AP: Grey
- WH: White

**BOROSILICATE GLASS/ POLYCARBONATE REFRACTOR DOOR**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Borosilicate Glass Door</th>
<th>Flat Solite Glass Door</th>
<th>Full Cutoff Door</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-5/8&quot; (422mm)</td>
<td>16-5/8&quot; (422mm)</td>
<td>16-5/8&quot; (422mm)</td>
</tr>
<tr>
<td>1&quot; (25mm)</td>
<td>1&quot; (25mm)</td>
<td>1&quot; (25mm)</td>
</tr>
</tbody>
</table>

**WATTAGE TABLE**

<table>
<thead>
<tr>
<th>Lamp Type</th>
<th>Lamp Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse Start Metal Halide</td>
<td>50, 70, 100, 150, 200, 250, 320, 350, 400W</td>
</tr>
<tr>
<td>Metal Halide</td>
<td>175, 250, 400W</td>
</tr>
<tr>
<td>High Pressure Sodium</td>
<td>50, 70, 100, 150, 250, 400W</td>
</tr>
<tr>
<td>T6 Ceramic Metal Halide</td>
<td>39, 70, 100, 150W</td>
</tr>
<tr>
<td>LED</td>
<td>2400, 4000 [Lumens]</td>
</tr>
</tbody>
</table>

**VOLTAGE CHART**

<table>
<thead>
<tr>
<th>Lamp Wattage</th>
<th>Voltage Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/277V [wired 277V]</td>
<td>DT=Dual-Tap</td>
</tr>
<tr>
<td>120/208/240/277V [wired 277V]</td>
<td>MT=Multi-Tap</td>
</tr>
<tr>
<td>120/277/347V [wired 347V]</td>
<td>TT=Tri-Tap</td>
</tr>
<tr>
<td>120/208/240/277/480V [wired 480V]</td>
<td>ST=5 Tap</td>
</tr>
<tr>
<td>120-277V [Universal, 50/60Hz]</td>
<td>E=Electronic Ballast</td>
</tr>
<tr>
<td>120-277V [Universal, 50/60Hz]</td>
<td>ED=Electronic LED Driver</td>
</tr>
</tbody>
</table>

**CERTIFICATIONS**

- 40°C Ambient Temperature Rating
- UL and cUL Listed
- IP65 Rated
- ISO 9001
- FC0 [Full Cutoff]
- ESA, ARRA and Title 20 Compliant

**SHIPPING DATA**

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

**ORDERING INFORMATION**

**SAMPLE NUMBER:** LOW-FC-4A-ED-EM-LED

**LAMP TYPE**

- **MP=** Pulse Start Metal Halide
- **HP=** High Pressure Sodium
- **LD=** Solid State Light Emitting Diodes (LED)
- **CM=** Ceramic Metal Halide
- **MH=** Metal Halide

**SERIES**

- **WP=** Wal-Pak
- **WP=** Waldorf

**DOOR TYPE**

- **GC=** Glass Door
- **PL=** Polycarbonate Door

**LED WATTAGE**

- **2A=** [2400 Initial Lumens]
- **4A=** [4000 Initial Lumens]

**MP**

- 50-50W
- 70-70W
- 100-100W
- 150-150W
- 200-200W
- 250-250W
- 300-300W
- 350-350W
- 400-400W

**HP**

- 32-32W
- 42-42W
- 70-70W
- 100-100W
- 150-150W
- 200-200W
- 250-250W
- 300-300W
- 350-350W
- 400-400W

**CF**

- 39-39W
- 70-70W
- 100-100W
- 150-150W
- 200-200W
- 250-250W
- 300-300W
- 350-350W
- 400-400W

**CM**

- 39-39W
- 70-70W
- 100-100W
- 150-150W
- 200-200W
- 250-250W
- 300-300W
- 350-350W
- 400-400W

**VOLTAGE**

- 120V-120V
- 277V-277V
- 347V-347V
- 480V-480V

**OPTIONS +**

- DT=Dual-Tap
- MT=Muti-Tap
- TT=Tri-Tap
- FT=Full Tap

**ACCESSORIES**

- E=Electronic Ballast
- ED=Electronic LED Driver

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**OPTIONS AND ACCESSORIES**

- **F1=** Single Fuse
- **F2=** Double Fuse
- **PE=** Photocell Button
- **LL=** Includes Lampholder
- **BK=** Black
- **WH=** White
- **AP=** Grey

**DIMENSIONS**

- 16-5/8" [422mm]
- 16-2/8" [414mm]
- 13-3/4" [350mm]

**WATTAGE TABLE**

<table>
<thead>
<tr>
<th>Lamp Type</th>
<th>Lamp Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse Start Metal Halide</td>
<td>50, 70, 100, 150, 200, 250, 320, 350, 400W</td>
</tr>
<tr>
<td>Metal Halide</td>
<td>175, 250, 400W</td>
</tr>
<tr>
<td>High Pressure Sodium</td>
<td>50, 70, 100, 150, 200, 250W</td>
</tr>
<tr>
<td>T6 Ceramic Metal Halide</td>
<td>39, 70, 100, 150W</td>
</tr>
<tr>
<td>Compact Fluorescent</td>
<td>1, 2, 3, 4, 5, 7, 10, 20, 25, 32, 42, 48, 57, 70, 100, 150W</td>
</tr>
<tr>
<td>LED</td>
<td>2A=2400 Initial Lumens, 4A=4000 Initial Lumens</td>
</tr>
</tbody>
</table>

**NOTE:**

- **MP** includes Internal Transformer. **HP** and **CM** can be used in conjunction with **EM** or **ED** models. Please refer to Voltage Chart for specific voltage requirements.

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ADH092058 Printed in USA