

# EES KH45Q Large Stealth Area, Wall and Flood Light



|                            |               |
|----------------------------|---------------|
| <b>Project Information</b> |               |
| Project Name:              | Fixture Type: |
| Complete Catalog #:        | Date:         |
| Comments:                  |               |

The EnviroLux EES-KH45Q LED area, site, wall and flood luminaire combines optical performance, energy efficiency and long term reliability using a market proven contemporary design. Utilizing the latest LED technology, the EES-KH45 luminaire delivers unparalleled uniformity resulting in greater pole spacing. The fixture is available in multiple wattages with a wide choice of mounting configurations and optical distributions to serve the needs of lighting designers for varying project light level requirements. Applications include general area, parking, flood, security, and accent lighting for retail centers, automotive dealerships, industrial parks, schools and universities, public transit and airports, office buildings and medical facilities.

## SPECIFICATIONS AND FEATURES:

### HOUSING:

Die Cast Aluminum Housing and Front Frame, Integral Heat Sinking and Driver Compartment. Photocell Adaptable. Nickel-Plated Stainless Steel Hardware.

### LISTING & RATINGS:

CSA: Listed for Wet Locations, ANSI/UL 1598, 8750  
IP66 Sealed LED Compartment.

### FINISH:

Textured Architectural Bronze Powdercoat Finish Over a Chromate Conversion Coating. Custom Colors Available Upon Request.

### LENS:

Tempered Clear Flat, SoftLED Flat Glass Lens, or Tempered Clear Flat Prismatic Glass Lens.

### MOUNTING OPTIONS:

Mounts with Kitty Hawk Arm, Adjustable Slipfitter, 2 $\frac{3}{8}$ " Diameter Mounting Arm Adaptor, Yoke, Two-Piece Bracket or Wall Mount Bracket. (Factory Installed)

### LED:

Aluminum Metal Core Boards with 2oz Copper Inlay

### WATTAGES:

Multiple Wattages Available: 99w, 111w, 133w, 136w, 167w, 183w, 199w, 225w, 293w

### DRIVER:

Electronic Driver, 120-277V, 50/60Hz or 347-480V, 50/60Hz; Less Than 20% THD and PF>0.90. Standard Internal Surge Protection 6kV. 0-10V Dimming Standard for a Dimming Range of 100% to 10%; Dimming Source Current is 150 Microamps.

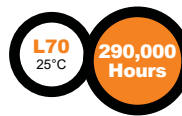
### CONTROLS:

Fixtures Ordered with Factory-Installed Photocell or Motion Sensor Controls are Internally Wired for Switching and/or 1-10V Dimming Within the Housing. Remote Direct Wired Interface of 1-10V Dimming is Not Implied and May Not Be Available, Please Consult Factory. Fixtures are Tested with EnviroLux Controls and May Not Function Properly With Controls Supplied by Others. Fixtures are NOT Designed for Use with Line Voltage Dimmers.

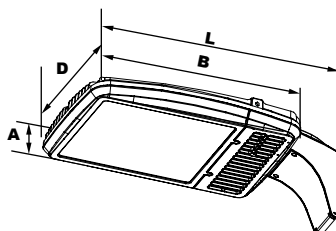
### WARRANTY:

7-Year Warranty for -40°C to +50°C Environment.

See Page 5 for Projected Lumen Maintenance Table.



**NEW**  
EXPANDED WATTAGES  
**OPTIMIZED** OPTICS  
AUTO DEALERSHIP ROTATED OPTICS



### Dimensions

|                   |                            |
|-------------------|----------------------------|
| <b>Width (D)</b>  | 15 $\frac{3}{4}$ " (400mm) |
| <b>Length (B)</b> | 22" (559mm)                |
| <b>Height (A)</b> | 4" (102mm)                 |

### Length with Mount (L)

|                                       |                             |
|---------------------------------------|-----------------------------|
| <b>Pole Mount Arm (KH45A):</b>        | 27 $\frac{1}{2}$ " (699mm)  |
| <b>Slipfitter (SSF):</b>              | 29 $\frac{1}{4}$ " (743mm)  |
| <b>Mounting Arm Adaptor (ALMAAA):</b> | 26 $\frac{1}{8}$ " (664mm)  |
| <b>Yoke (KH45Y):</b>                  | 26 $\frac{1}{4}$ " (667mm)  |
| <b>Bracket (SSB):</b>                 | 25 $\frac{1}{4}$ " (654mm)  |
| <b>Wall Mount Bracket (WM):</b>       | 605mm (23 $\frac{3}{4}$ " ) |



DesignLights Consortium™

Qualified Luminaires:

EESKH45QA1X[167 256][U

EESH]5KC\*\*\*

EESKH45QB1X[167 256][U H]5KC\*\*\*

EESKH45QC1X[167 256][U H]5KC\*\*\*

EESKH45QD1X[167 256][U H]5KC\*\*\*

EESKH45QF1X[167 256][U H]5KC\*\*\*



# EES KH45Q Large Stealth Area, Wall and Flood Light



**ENVIROLUX**  
ENERGY SYSTEMS

## STANDARD MODELS:

Complete Units Ordering Information Example: **KEES-KH45QF1X256U5KCZSSFSP**

| Model            | Optics/Beams   | Wattage   | Driver                                   | CCT   | Lens  | Color   | Mounting | Options |
|------------------|--|---|--|---|---|---|----------|---------|
| <b>EES-KH45Q</b> | <b>A</b> =Type I/NEMA 7H x 5V<br><b>B</b> =Type II/NEMA 7H x 6V<br><b>C</b> =Type III/NEMA 7H x 7V<br><b>D</b> =Type IV/NEMA 7H x 6V<br><b>F</b> =Type V/NEMA 7H x 7V<br><b>I</b> =Narrow Beam/NEMA 4H x 4V*<br><br>*Use with 5K Model Only.<br><br>See Page 5 for Distribution Information. | <b>1X99</b> =99w<br><b>1X111</b> =111w<br><b>1X133</b> =133w<br><br><b>OPTIMIZED</b><br><b>1X136</b> =136w*<br><br><b>1X167</b> =167w<br><b>1X183</b> =183w<br><b>1X199</b> =199w<br><br><b>OPTIMIZED</b><br><b>1X225</b> =225w*<br><br><b>1X293</b> =293w<br><br>*C, D & F Optics Only | <b>U</b> =120-277V<br><b>H</b> =347-480V | <b>3K</b> =3000K*<br><b>4K</b> =4000K<br><b>5K</b> =5000K<br><br>*Only for C & F Optics. Not available in 136 & 225w.<br><br><b>C</b> =Standard Clear Flat Glass Lens<br><b>S</b> =SoftLED Flat Glass Lens*<br><b>P</b> =Clear Flat Prismatic Glass Lens*<br>*Use with Type V Optic Only. | <b>Z</b> =Bronze<br><b>C</b> =Custom<br>(Consult Factory)<br><br><b>KH45A</b> =Kitty Hawk Arm<br><b>SSF</b> =Slipfitter<br><b>ALMAA</b> =Mounting Arm Adapter<br><b>KH45Y</b> =Yoke<br><b>SSB</b> =Two-Piece Swivel Bracket<br><b>WM</b> =Wall Mount Bracket<br><b>NM</b> =No Mount | <b>SF</b> =Single Fuse (120-277V Only)<br><b>DF</b> =Double Fuse (120-277V Only)<br><b>SP</b> =Surge Protection<br><b>M1</b> =Motion Sensor, IR for mounting heights of 20ft to 35ft<br><b>M2</b> =Motion Sensor, IR for mounting heights of 18ft or less<br><b>R3</b> =3-Pin Twist Lock Photocell Receptacle<br><b>R5</b> =5-Pin Twist Lock Photocell Receptacle<br><b>R7</b> =7-Pin ANSI C136.41—2013 Twist Lock Photocell Receptacle<br><b>S23</b> =Internal Microwave Sensor with Dimming for mounting heights of 35' or less. (120-277V Only)<br><b>S43</b> =Microwave On/Off Motion Sensor for Mounting Heights of 8' to 19', (120-277V Only) |          |         |

## AUTO DEALERSHIP FRONT LINE MODELS:

Complete Units Ordering Information Example: **EES-KH45QF1X256U5KCZKARDSP**

| Model           | Optics/Beams  | Wattage  | Driver                                   | CCT              | Lens                                     | Color   | Mounting  | Options   |
|-----------------|---|--|--|------------------|--|---|---|---|
| <b>EESKH45Q</b> | <b>C</b> =Type III<br><b>D</b> =Type IV<br><br>See Page 5 for Distribution Information. | <b>OPTIMIZED</b><br><b>1X225</b> =225w<br><br><b>1X293</b> =256w | <b>U</b> =120-277V<br><b>H</b> =347-480V | <b>5K</b> =5000K | <b>C</b> =Standard Clear Flat Glass Lens | <b>Z</b> =Bronze<br><b>C</b> =Custom<br>(Consult Factory) | <b>KARD</b> =Kitty Hawk Arm, Optics Rotated Right Auto Dealership Mount<br><b>KALD</b> =Kitty Hawk Arm, Optics Rotated Left Auto Dealership Mount<br><b>SFRD</b> =Slipfitter, Optics Rotated Right Auto Dealership Mount<br><b>SFLD</b> =Slipfitter, Optics Rotated Left Auto Dealership Mount<br><b>MARD</b> =Mounting Arm Adapter, Optics Rotated Right Auto Dealership Mount<br><b>MALD</b> =Mounting Arm Adapter, Optics Rotated Left Auto Dealership Mount | <b>SF</b> =Single Fuse (120-277V Only)<br><b>DF</b> =Double Fuse (120-277V Only)<br><b>SP</b> =Surge Protection<br><b>R3</b> =3-Pin Twist Lock Photocell Receptacle<br><b>R5</b> =5-Pin Twist Lock Photocell Receptacle<br><b>R7</b> =7-Pin ANSI C136.41—2013 Twist Lock Photocell Receptacle |

## MOUNTING OPTIONS:



**EES-KH45Q Shown with "KH45A" Kitty Hawk Arm,** Kitty Hawk Die-Cast Mounting Arm, Bronze Powdercoat Finish. Includes Hardware. Mounts Directly to Square Poles. Replacement Model KH45AZ.



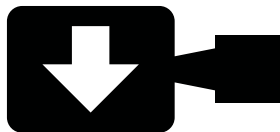
**EES-KH45Q Shown with "ALMAA" Pole Mounting Arm Adaptor,** Die-Cast Adaptor for 2 1/2" Horizontal Mounting Arms, Bronze Powdercoat Finish, Includes Hardware. Replacement Model ALMAAZ.



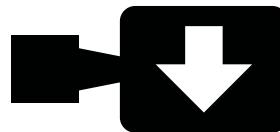
**EES-KH45Q Shown with "SSF" External Mount Slipfitter,** External Mount Die-Cast Adjustable Slipfitter for 2 1/2" Tenons, Bronze Powdercoat Finish, Includes Hardware. Replacement Model SSFZ.

## AUTO DEALERSHIP FRONT LINE ROTATED OPTICS

(FACTORY CONFIGURED MOUNTING OPTION)



**ROTATE OPTICS LEFT**



**ROTATE OPTICS RIGHT**

Available for Stealth Arm (KALD, KARD); Mounting Arm Adapter (MALD, MARD); and Slipfitter (SFLD, SFRD) above



**EES-KH45Q Shown with "KH45Y" Yoke,** Stamped Heavy-Duty Steel Yoke, Bronze Powdercoat Finish, Includes Hardware. Replacement Model KH45YZ.



**EES-KH45Q Shown with "SSB" Two-Piece Swivel Bracket,** Two-Piece Stamped Steel Adjustable Bracket, Bronze Powdercoat Finish, Includes Hardware. Replacement Model SSBZ.



**EES-KH45Q Shown with "WM" Wall Mount Bracket,** Wall Bracket, Heavy-Duty Stamped Steel, Bronze Powdercoat Finish, Includes Hardware. Replacement Model WBR2Z

## EPA (EFFECTIVE PROJECTED AREA) SHOWN WITH LARGE STEALTH ARM MOUNTING

| Configuration | EPA (Sq. Ft.) | Weight (Lbs.) | Configuration | EPA (Sq. Ft.) | Weight (Lbs.) | Configuration | EPA (Sq. Ft.) | Weight (Lbs.) | Configuration | EPA (Sq. Ft.) | Weight (Lbs.) |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1             | 1.00          | 33 Lbs        | 2@180° Mount  | 2.00          | 66 Lbs        | 3@90° Mount   | 2.20          | 99 Lbs        | 4@90° Mount   | 2.20          | 132 Lbs       |
|               |               |               | 2@90° Mount   | 1.36          | 66 Lbs        | 3@120° Mount  | 2.00          | 99 Lbs        |               |               |               |

## ACCESSORIES & REPLACEMENT PARTS:



### ROUND POLE & WALL ADAPTORS FOR KA ARM



**KH40RPZ**

Die-Cast Adaptor for 4" to 6" Round Poles, Bronze Powdercoat Finish.



**KH40WMZ**

Die-Cast Wall Mount Adaptor, Bronze Powdercoat Finish.

### POLE TENON SPOKE BRACKETS



**PTSB1SZ**



**PTSB290SZ**



**PTSB2180SZ**



**PTSB390SZ\***



**PTSB3120SZ\***



**PTSB490SZ\***

2 3/4" Horizontal Mounting Arms, Bronze Powdercoat Finish, Includes Hardware. Mounts to 2 3/4" Vertical Pole Top Tenons. \*Non-stock item. Consult factory for lead time

| Accessories<br>(Order Separately, Field Installed) |  |
|--|--|
| P18131   | Twist Lock Non-Shorting (Open) Cap Disconnects Service to Fixture for Temporary or Permanent Disabling (Fixture Always Off). IP65, 480V Maximum. |
| P18132   | Twist Lock Shorting Cap Provides Fixed Service to Fixture (Fixture Always on). IP65, Rated Load 7200w Tungsten.                                  |
| P18140   | 110-120VAC Instant Twist Lock Photocell  |
| P18150   | 120VAC Time Delay Twist Lock Photocell   |
| P18152   | 277VAC Time Delay Twist Lock Photocell   |
| P18156   | 120-277VAC Universal Twist Lock Photocell  |
| P18157   | 480VAC Time Delay Twist Lock Photocell. For 480V use only.   |
| ACCHSG1Z   | Die Cast Accessory Housing for Installing Sensors or Other Lighting Controls, Bronze Powdercoat Finish   |
| ACCHSG3  | Bronze UV-Stabilized Polycarbonate Housing for Installing Sensors, Includes Sensor Bracket and Gasket.   |
| KH45GSZ  | Aluminum Glare/House Side Shield, Bronze Powdercoat Finish, Includes Hardware.   |
| KH45WG   | Wire Guard, Stainless Steel Construction, Includes Hardware.   |

| Replacement Parts<br>(Order Separately, Field Installed) |  |
|--|--|
| KH45GL   | Tempered Clear Flat Glass Lens.  |
| KH45GLSS   | SoftLED Flat Glass Lens  |
| KH45GLP  | Tempered Prismatic Flat Glass Lens.  |
| P17117   | Internal Microwave Sensor with Dimming, 120-277VAC, 50/60Hz. See P17117 Specification Page for Details.  |
| P17123   | Internally Mounted Microwave On/Off Motion Sensor for Mounting Heights of 8' to 19', 120-277VAC, 50/60Hz |



**P17117**



**P17123**

### Sensors not available for 480V.



**ACCHSG1Z**

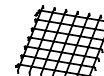


**ACCHSG3**



**KH45GSZ**

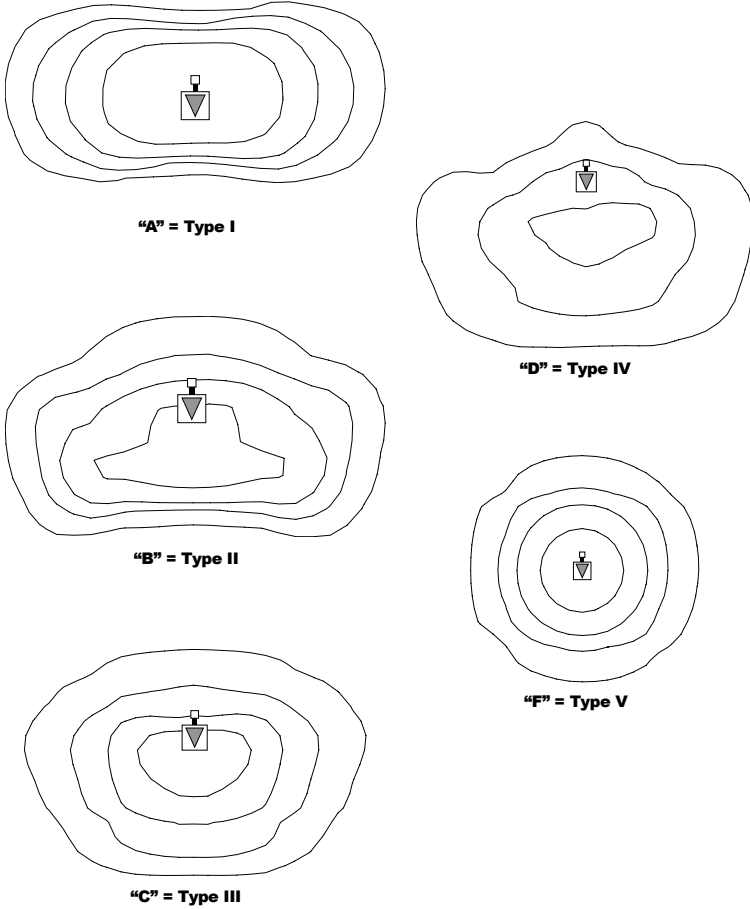
Aluminum Glare/House Side Shield



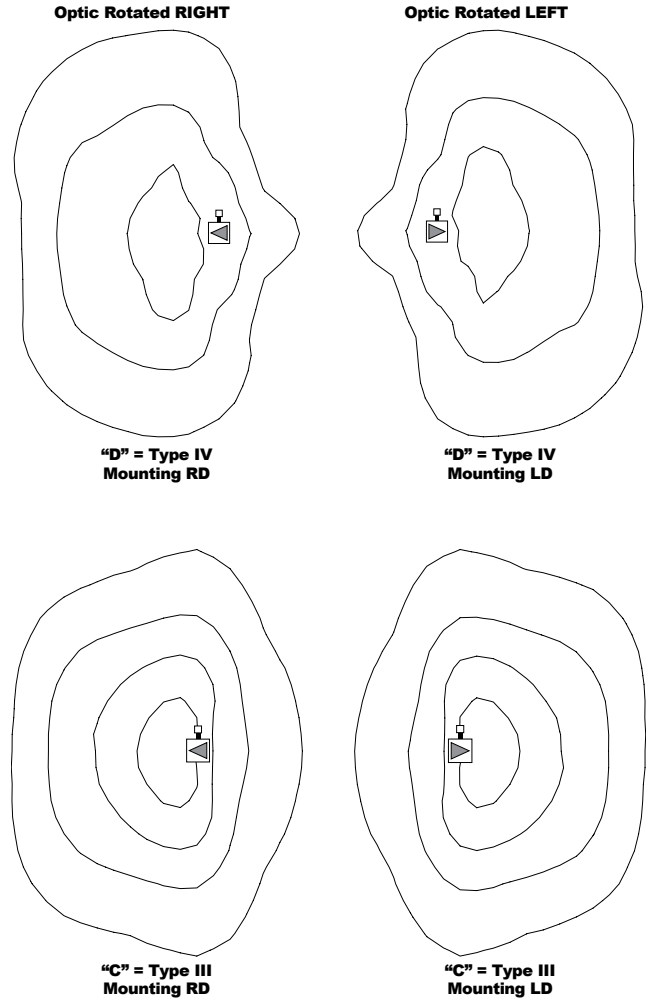
**KH45WG**

## PHOTOMETRIC DATA

### IES ROADWAY DISTRIBUTION OPTICS

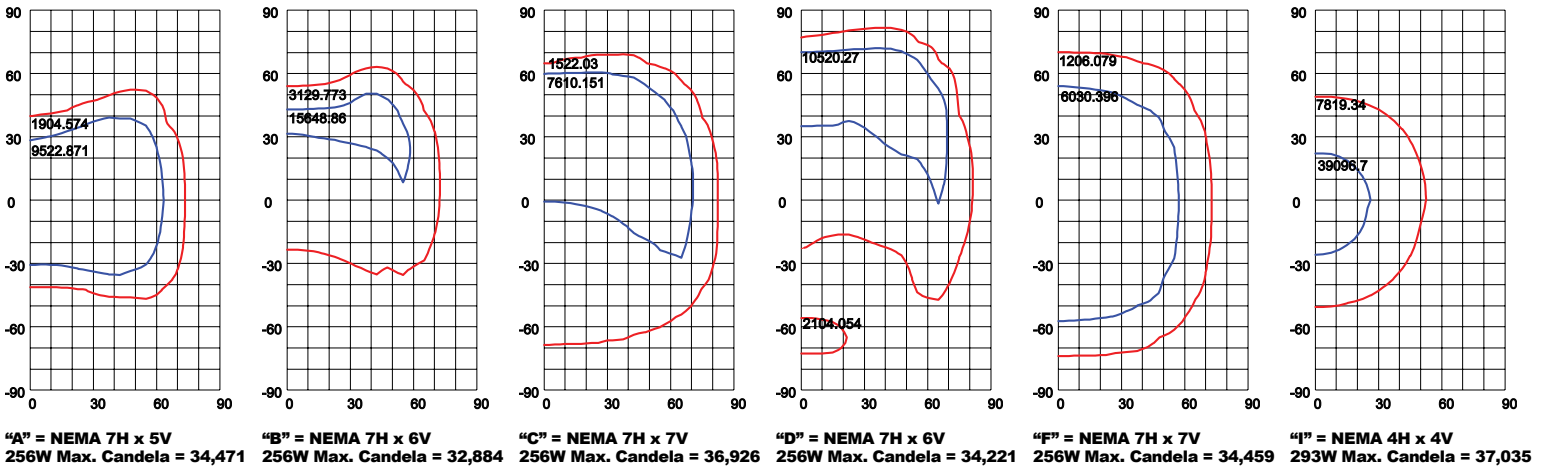


### AUTO DEALERSHIP FRONT LINE ROTATED OPTICS (FACTORY CONFIGURED MOUNTING OPTION)



AVAILABLE FOR Stealth Arm (KALD, KARD); MOUNTING ARM ADAPTER (MALD, MARD); AND SLIPFITTER (SFLD, SFRD).

### NEMA FLOOD LIGHT DISTRIBUTION OPTICS



## PHOTOMETRIC PERFORMANCE

|   |            | Optimized        |              |              |              |              | Optimized    |              |              |              |
|---|------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| "Wattage (Catalog Logic)"   |            | 99W (1X99)       | 111W (1X111) | 133W (1X133) | 136W (1X136) | 167W (1X167) | 183W (1X183) | 199W (1X199) | 225W (1X225) | 293W (1X256) |
| Input Watts   |            | 104.8            | 116.5        | 139.5        | 148.1        | 178.8        | 193.7        | 210.6        | 241.1        | 298.2        |
| Optic   | CCT        | Delivered Lumens |              |              |              |              |              |              |              |              |
| <b>A = Type I</b><br>NEMA 7H x 5V<br>(130"H x 70"V)                         | 3000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 4000K      | 18,052           | 17,072       | 23,364       | -            | 29,726       | 32,574       | 35,442       | -            | 49,546       |
|   | 5000K      | 18,052           | 17,072       | 23,364       | -            | 29,726       | 32,574       | 35,442       | -            | 49,546       |
|   | BUG Rating | B3-U0-G2         | B3-U0-G2     | B4-U0-G2     | -            | B4-U0-G3     | B4-U0-G3     | B4-U0-G3     | -            | B5-U0-G3     |
| <b>B = Type II</b><br>NEMA 7H x 6V<br>(110"H x 30"V)                        | 3000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 4000K      | 17,540           | 16,224       | 24,738       | -            | 30,876       | 34,038       | 37,014       | -            | 51,773       |
|   | 5000K      | 12,540           | 16,224       | 24,738       | -            | 30,876       | 34,038       | 37,014       | -            | 51,773       |
|   | BUG Rating | B2-U0-G2         | B2-U0-G2     | B3-U0-G2     | -            | B3-U0-G3     | B3-U0-G3     | B3-U0-G3     | -            | B3-U0-G3     |
| <b>C = Type III</b><br>NEMA 7H x 7V<br>(120"H x 70"V)                       | 3000K      | 17,822           | 17,244       | 24,790       | -            | 31,498       | 34,887       | 36,975       | -            | 52,645       |
|   | 4000K      | 18,044           | 17,752       | 25,802       | 26,384       | 32,204       | 35,502       | 38,606       | 41,467       | 53,999       |
|   | 5000K      | 18,044           | 15,752       | 25,802       | 26,384       | 32,204       | 35,502       | 38,606       | 41,467       | 53,999       |
|   | BUG Rating | B3-U0-G3         | B3-U0-G3     | B3-U0-G3     | B3-U0-G3     | B3-U0-G3     | B3-U0-G3     | B3-U0-G3     | B4-U0-G4     | B4-U0-G4     |
| <b>C-xRD or C-xLD</b><br>= Type III, Auto<br>Front Rotated<br>RIGHT or LEFT | 3000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 4000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 5000K      | -                | -            | -            | -            | -            | -            | -            | 42,200       | 54,443       |
|   | BUG Rating | -                | -            | -            | -            | -            | -            | -            | B5-U1-G5     | B5-U1-G5     |
| <b>D = Type IV</b><br>NEMA 7H x 6V<br>(110"H x 50"V)                        | 3000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 4000K      | 17,857           | 19,420       | 25,270       | 25,840       | 31,540       | 34,770       | 37,810       | 40,251       | 52,886       |
|   | 5000K      | 17,857           | 19,420       | 25,270       | 25,840       | 31,540       | 34,770       | 37,810       | 40,251       | 52,886       |
|   | BUG Rating | B2-U0-G3         | B3-U0-G3     | B3-U0-G4     | B3-U0-G4     | B3-U0-G4     | B3-U0-G4     | B3-U0-G4     | B3-U0-G5     | B3-U0-G5     |
| <b>D-xRD or D-xLD</b><br>= Type IV, Auto<br>Front Rotated<br>RIGHT or LEFT  | 3000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 4000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 5000K      | -                | -            | -            | -            | -            | -            | -            | 39,980       | 51,537       |
|   | BUG Rating | -                | -            | -            | -            | -            | -            | -            | B5-U1-G5     | B5-U1-G5     |
| <b>F = Type V</b><br>NEMA 7H x 7V<br>(115"H x 110"V)                        | 3000K      | 17,480           | 17,883       | 24,580       | -            | 30,793       | 32,785       | 36,778       | -            | 51,181       |
|   | 4000K      | 17,557           | 18,423       | 25,004       | 25,568       | 31,208       | 34,404       | 37,412       | 40,185       | 52,329       |
|   | 5000K      | 17,557           | 18,423       | 25,004       | 25,568       | 31,208       | 34,404       | 37,412       | 40,185       | 52,329       |
|   | BUG Rating | B3-U0-G1         | B3-U0-G1     | B4-U0-G2     | B4-U0-G1     | B4-U0-G2     | B4-U0-G2     | B4-U0-G2     | B5-U0-G2     | B5-U0-G2     |
| <b>I = Narrow<br/>Beam</b><br>NEMA 4H x 4V<br>(30"H x 30"V)                 | 3000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 4000K      | -                | -            | -            | -            | -            | -            | -            | -            | -            |
|   | 5000K      | 18,057           | 20,246       | 19,238       | -            | 32,204       | 36,051       | 39,203       | -            | 54,834       |
|   | BUG Rating | N/A              | N/A          | N/A          | -            | N/A          | N/A          | N/A          | -            | N/A          |

## PROJECTED LUMEN MAINTENANCE

| Data shown for 5000 CCT                     | Compare to MH |         |            |            |             |                     |
|---|---------------|---------|------------|------------|-------------|---------------------|
|   | TM-21-11      | Initial | 25,000 Hrs | 50,000 Hrs | 100,000 Hrs | Calculated LED Life |
| <b>L70 Lumen Maintenance @ 25°C / 77°F</b>  |               | 1.00    | 0.97       | 0.95       | 0.90        | 290,000             |
| <b>L70 Lumen Maintenance @ 50°C / 122°F</b> |               | 1.00    | 0.94       | 0.88       | 0.76        | 84,000              |
| <b>L80 Lumen Maintenance @ 40°C / 104°F</b> |               | 1.00    | 0.95       | 0.91       | 0.81        | 108,000             |

### NOTES:

1. Projected per IESNA TM-21-11. Data references the extrapolated performance projections for the 525mA base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.
2. Compare to MH box indicates suggested Light Loss Factor (LLF) to be used when comparing to Metal Halide (MH) systems.