IG Series LED Parking Garage Luminaire Advanced

# CREE 🗧 LIGHTING

# **Product Description**

Cree Lighting innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax<sup>®</sup> Technology, our innovative optical waveguide platform. Available in 33-, 60- and 76-watt, three lumen packages are offered to satisfy IES RP-8-21 and IES Security Zone G-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low-glare illumination.

Applications: Parking garages

### **Performance Summary**

Utilizes WaveMax® Technology

Initial Delivered Lumens: 3,860 - 10,350 lumens

Input Power: 33 - 76 watts

Efficacy: Up to 136 LPW

Optic: Type V Short Distribution

Assembled in the USA by Cree Lighting from US and imported parts

**CCT:** 3000K, 3500K, 4000K, 5700K

CRI: Minimum 80 CRI

Limited Warranty<sup>+</sup>: 10 years for luminaire; 1 year for luminaire accessories

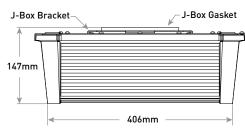
See https://www.creelighting.com/resources/warranties/ for warranty terms.

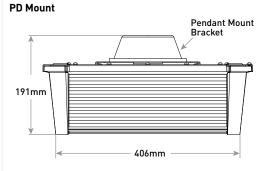
#### **Ordering Information**

Fully assembled luminaire is composed of two components that must be ordered separately: Example: Mount: IG-JBWH + Luminaire: IG-B-NM-5S-4L-40K8-UL-WH

| Mount (Luminaire must be ordered separately) |                         |  |  |  |  |  |  |
|--|-------------------------|--|--|--|--|--|--|
| IG- WH                                       |                         |  |  |  |  |  |  |
| IG-JB Junction Box<br>IG-PD Pendant          | Color Options: WH White |  |  |  |  |  |  |







### Weight

4.5kg

| Luminai | Luminaire (Mount must be ordered separately) |                |                       |   |  |                |             |  |  |  |
|---------|--|----------------|-----------------------|---|--|----------------|-------------|--|--|--|
| IG      | в  | NM             | 5S                    |   |  |                | WH          |  |  |  |
| Family  | Series                                       | Mounting       | Optic                 | Lumen<br>Package  | CCT/CRI  | Voltage        | Finish      |  |  |  |
| 16      | В  | NM<br>No Mount | 55<br>Type V<br>Short | 4L<br>4,000<br>Lumens<br>7L<br>7,000<br>Lumens<br>10L<br>10,000<br>Lumens | 30K8<br>3000K,<br>80 CRI<br>35K8<br>3500K,<br>80 CRI<br>40K8<br>4000K,<br>80 CRI<br>57K8<br>5700K,<br>80 CRI | UL<br>120-277V | WH<br>White |  |  |  |



WaveMax<sup>®</sup>

Technology

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# **IG** Series

LED Parking Garage Luminaire

#### **Product Specifications**

#### WAVEMAX® TECHNOLOGY

Featuring up to 90% optical efficiency and precise control, WaveMax® Technology provides unmatched comfort and decreased LED source luminance by smoothly spreading brightness over a broader area. When integrated with luminous surfaces made of a polymer medium engineered with DiamondFacet™ optical elements, extremely high efficacy luminaires are the result - ultimately creating more visually comfortable and appealing environments while exceeding illumination performance.

#### **CONSTRUCTION & MATERIALS**

- · Impact resistant white polycarbonate housing and acrylic lenses
- Corrosion resistant anodized aluminum top plate
- Low profile, lightweight design provides ease of installation ٠
- Standard luminaire can mount to both pendant or J-box (specify mount ٠ in ordering table above)
- ٠ J-Box mounting bracket mounts directly over existing 4" (102mm) square, rectangular or octagonal junction boxes only
- Pendant mount includes 6" (152mm) wires out of luminaire and provides a splice location for mounting to 3/4" IP pendant (by others)
- Weight: 10 lbs. (4.5kg)
- Includes QR code on top of luminaire housing which provides access to: Online installation instructions, Luminaire information (Part number, Serial number, Build date, and Warranty end date), and Warranty claim submission form
- Duplicate 1" and 2" QR code labels are included. 1" labels can be affixed next to fixtures, on site plans, or in maintenance records. 2"labels can be scanned from the ground when placed at an appropriate height

#### **OPTICAL SYSTEM**

- WaveMax® Technology that improves optical control, optical efficiency, energy efficiency and the overall visual experience
- Acrylic Lenses with DiamondFacet™ Microlenses
- Unmatched low-glare comfort and decreased LED source luminance by smoothly spreading brightness over the optical lenses
- 5.4% Uplight
- <15% (vs DLC's 25% maximum requirement) of the total lumens fall in the 70-80  $^\circ$  zone, reducing high angle brightness while providing superior vertical illumination
- Provides up to twice the vertical illumination recommended in RP-8-21

#### ELECTRICAL SYSTEM

- Input Voltage: 120-277V, 50/60Hz
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion: < 20% at full load
- Input Power: Stays constant over life
- Operating Temperature Range: -40°C + 40°C (-40°F + 104°F)
- Designed with 0-10V dimming capabilities standard. Controls by others
- Integral 6kV/3kA surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker be used to address inrush current

#### **REGULATORY & VOLUNTARY QUALIFICATIONS**

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60598

WaveMax<sup>®</sup>

- ANSI C136.2 6kV/3kA surge protection, tested in accordance with IEEE/ ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaires with SWC and SWS options meet FCC Part 15, Subpart C limits for conducted and radiated emissions
- · Assembled in the USA by Cree Lighting from US and imported parts
- · RoHS compliant. Consult factory for additional details



# CREE 🔶 LIGHTING

#### Electrical Data\*

|                  | System Watts<br>120-480V** | Total Current (A) |      |      |      |        |        |  |  |
|------------------|----------------------------|-------------------|------|------|------|--------|--------|--|--|
| Lumen<br>Package |                            | 120V              | 208V | 240V | 277V | 347V** | 480V** |  |  |
| 4L               | 33                         | 0.28              | 0.16 | 0.14 | 0.12 | 0.10   | 0.07   |  |  |
| 7L               | 60                         | 0.52              | 0.30 | 0.26 | 0.22 | 0.17   | 0.13   |  |  |
| 10L              | 76                         | 0.64              | 0.37 | 0.32 | 0.28 | 0.22   | 0.16   |  |  |

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%
\*\* Synapse wireless options available with 120-277V only

### IG Series (Version B) Ambient Adjusted Lumen Maintenance<sup>1</sup>

|              | Initial LMF | 25K hr<br>Reported <sup>2</sup><br>LMF | 50K hr<br>Reported <sup>2</sup><br>LMF | 75K hr<br>Estimated³<br>LMF | 100K hr<br>Estimated³<br>LMF |
|--------------|-------------|--|--|-----------------------------|------------------------------|
| 0°C (32°F)   | 1.04        | 0.99                                   | 0.97                                   | 0.94                        | 0.92                         |
| 5°C (41°F)   | 1.03        | 0.99                                   | 0.96                                   | 0.94                        | 0.91                         |
| 10°C (50°F)  | 1.02        | 0.98                                   | 0.95                                   | 0.93                        | 0.90                         |
| 15°C (59°F)  | 1.02        | 0.97                                   | 0.95                                   | 0.92                        | 0.90                         |
| 20°C (68°F)  | 1.01        | 0.96                                   | 0.94                                   | 0.91                        | 0.89                         |
| 25°C (77°F)  | 1.00        | 0.96                                   | 0.93                                   | 0.91                        | 0.89                         |
| 30°C (86°F)  | 0.99        | 0.95                                   | 0.92                                   | 0.90                        | 0.88                         |
| 35°C (95°F)  | 0.99        | 0.94                                   | 0.91                                   | 0.89                        | 0.86                         |
| 40°C (104°F) | 0.98        | 0.93                                   | 0.91                                   | 0.88                        | 0.86                         |

<sup>1</sup>Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the <u>Temperature Zone Reference Document</u> for outdoor average nighttime ambient conditions.

21 na accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

Snap-On Side Light Shield

<sup>3</sup> Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED

IG-SLS

# Accessories

# Field-Installed

**Bird Shroud Kit** IG-BG

- For use only with pendant mount

- 22ga. aluminum construction w/clear anodized finish
- May not be used in combination with the
- IG-SLS accessory

#### structure/ig-series/ Pendant Mount Kits

- IES files available at

XA-PS12KIT\* – 5" (127mm) pendant XA-PS18KIT\* – 11" (279mm) pendant

XA-PS22KIT\* - 15" (381mm) pendant

Order one shield per side as needed

- Includes two conduit fittings and 3/4-14 NPT pipe threaded on

two ends

16ga. aluminum construction w/clear anodized finish

- May not be used in combination with the IG-BG accessory

https://www.creelighting.com/products/outdoor/parking-

\* Must specify color: BK (Black), BZ (Bronze), SV (Silver) or WH (White)

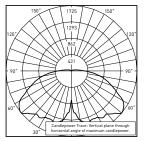




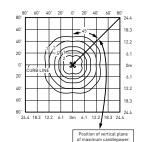
# Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <a href="http://creelighting.com/products/outdoor/parking-structure/ig-series">http://creelighting.com/products/outdoor/parking-structure/ig-series</a>

#### 5S



CESTL Test Report #: PL14554-001B IG-B-NM-5S-7L-40K8-UL-WH Initial Delivered Lumens: 7,587

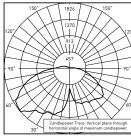


IG-B-NM-5S-7L-40K8-UL-WH Mounting Height: 15' (4.6m) A.F.G. Initial Delivered Lumens: 7,550 Initial FC at grade

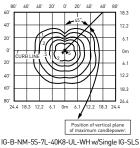
| Type V Short Distribution |                                 |                                     |                                 |                                     |                                 |                                     |                                 |                                     |  |  |  |
|---------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|--|--|--|
|                           | 3000K                           |                                     |                                 |                                     | 3500K/4000K/5700K               |                                     |                                 |                                     |  |  |  |
|                           | UL Voltage                      |                                     | UH Voltage                      |                                     | UL Voltage                      |                                     | UH Voltage                      |                                     |  |  |  |
| Lumen<br>Package          | Initial<br>Delivered<br>Lumens* | BUG<br>Ratings**<br>Per<br>TM-15-20 | Initial<br>Delivered<br>Lumens* | BUG<br>Ratings**<br>Per<br>TM-15-20 | Initial<br>Delivered<br>Lumens* | BUG<br>Ratings**<br>Per<br>TM-15-20 | Initial<br>Delivered<br>Lumens* | BUG<br>Ratings**<br>Per<br>TM-15-20 |  |  |  |
| 4L                        | 4,100                           | B2 U3 G2                            | 3,860                           | B2 U3 G2                            | 4,480                           | B2 U3 G2                            | 3,860                           | B2 U3 G2                            |  |  |  |
| 7L                        | 7,550                           | B3 U3 G2                            |  |  |  |
| 10L                       | 10,350                          | B3 U3 G3                            |  |  |  |

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <u>https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf</u>.

#### 5S w/IG-SLS ACCESSORY



CESTL Test Report #: PL12228-002C IG-\*\*-5S-J-40K-UL w/Single IG-SLS Initial Delivered Lumens: 6,540



Mounting Height: 15' (4.6m) A.F.G. Initial Delivered Lumens: 6,800 Initial FC at grade

| Type V Short Distribution w/Side Light Shield |              |                              |                                  |                              |                                  |                              |                                  |                              |                                  |  |  |
|---|--------------|------------------------------|----------------------------------|------------------------------|----------------------------------|------------------------------|----------------------------------|------------------------------|----------------------------------|--|--|
|   |              | 3000K                        |                                  |                              |                                  | 3500K/4000K/5700K            |                                  |                              |                                  |  |  |
| Lumen   | Shields      | UL Voltage                   |                                  | UH Voltage                   |                                  | UL Voltage                   |                                  | UH Voltage                   |                                  |  |  |
| Package                                       |              | Initial Delivered<br>Lumens* | BUG<br>Ratings**<br>Per TM-15-20 |  |  |
|   | Single       | 3,690                        | B2 U3 G2                         | 3,470                        | B2 U3 G2                         | 4,030                        | B2 U3 G2                         | 3,470                        | B2 U3 G2                         |  |  |
|   | Two Opposite | 3,240                        | B1 U3 G1                         | 3,050                        | B1 U3 G1                         | 3,540                        | B2 U3 G2                         | 3,050                        | B1 U3 G1                         |  |  |
| 4L  | Two Adjacent | 3,240                        | B2 U3 G2                         | 3,050                        | B2 U3 G2                         | 3,540                        | B2 U3 G2                         | 3,050                        | B2 U3 G2                         |  |  |
|   | Three        | 2,710                        | B1 U3 G1                         | 2,550                        | B1 U3 G1                         | 2,960                        | B1 U3 G1                         | 2,550                        | B1 U3 G1                         |  |  |
|   | Four         | 2,130                        | B1 U1 G1                         | 2,010                        | B1 U1 G1                         | 2,330                        | B1 U1 G1                         | 2,010                        | B1 U1 G1                         |  |  |
|   | Single       | 6,800                        | B3 U3 G3                         |  |  |
|   | Two Opposite | 5,975                        | B2 U3 G2                         |  |  |
| 7L  | Two Adjacent | 5,975                        | B3 U3 G3                         |  |  |
|   | Three        | 4,980                        | B2 U3 G2                         |  |  |
|   | Four         | 3,930                        | B2 U1 G1                         |  |  |
|   | Single       | 9,325                        | B3 U3 G3                         |  |  |
|   | Two Opposite | 8,175                        | B3 U3 G3                         |  |  |
| 10L   | Two Adjacent | 8,175                        | B3 U3 G3                         |  |  |
|   | Three        | 6,825                        | B2 U3 G2                         |  |  |
|   | Four         | 5,375                        | B2 U1 G2                         |  |  |

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <a href="https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf">https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf</a>

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