

|            |  |
|------------|--|
| Project:   |  |
| Type:      |  |
| Catalog #: |  |

#### STANDARD



#### FEATURES

- Field selectable 3000k (warm white), 4000k (neutral white), and 5000k (cool white) color temperatures.\*
- Long-life LEDs provide at least 70% of initial lumen output ( $L_{70}$ ) for  $\geq 163,000$  hours of operation, and at least 90% of initial lumen output ( $L_{90}$ ) for  $\geq 50,000$  hours of operation.\*\*
- LED chromaticity based on  $\leq 5$ -step ANSI quadrangles.
- LED color maintenance  $\leq 0.003$  chromaticity shift ( $\Delta u'v'$ ) over the initial 6,000 hours of operation.
- Provides a range of 905 to 3,296 nominal lumens and 69 to 148 nominal lumens per watt (lm/W).
- 0-10vdc dimming drivers, are standard.
- Universal 120-277 AC voltage (50-60Hz) is standard.
- Power factor  $> 0.90$ .
- Total harmonic distortion  $< 20\%$ .
- Color rendering index ( $R_a$ )  $> 80$ .
- Cast aluminum housing with choice of dark bronze or black powder coat finish.
- High-impact, polycarbonate lens.
- Easy installation in new construction or retrofit applications.

#### WARRANTY & LISTINGS

- cULus listed for wet locations in ambient temperatures from  $-40^{\circ}\text{C}$  to  $55^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $131^{\circ}\text{F}$ ).
- IP65 rated for ingress protection.
- DLC premium approved.\*\*\*
- Complies with FCC Part 15, class A.
- Surge protection = 4kV.
- 5-year warranty of all electronics and housing.

\* Contact factory for other color temperatures and lumen packages.

\*\*  $L_{70}$  &  $L_{90}$  hours are IES TM-21-11 calculated hours.

\*\*\* Excluding BOL-RDL models. BOL-RDL models are not DLC listed.



#### DIMENSIONS



| MODEL   | L | W/Ø | H  | Weight (lbs) |
|---------|---|-----|----|--------------|
| BOL-S   | 6 | 6   | 42 | 12           |
| BOL-R   | 6 | 6   | 42 | 15           |
| BOL-RD  | 6 | 6   | 44 | 12           |
| BOL-RDL | 6 | 6   | 44 | 13           |

NOTE: All dimensions measured in inches.

#### ORDERING INFORMATION

Example: BOL-R-3L-LKFS-BLK

| Series | Model |                     | Nominal Lumen Output |          | Select | Housing Color |        | Required Mounting Means Order Separately |                                |  |
|--------|-------|---------------------|----------------------|----------|--------|---------------|--------|------------------------------------------|--------------------------------|--|
| BOL    | R     | Round               | 3L                   | 3,000 lm | LKFS   | BLK           | Black  | RMK                                      | Anchor bolt for round bollard  |  |
|        | S     | Square              |                      |          |        | Blank         | Bronze | SMK                                      | Anchor bolt for square bollard |  |
|        | RD    | Round Dome          | 2L                   | 2,000 lm |        |               |        |                                          |                                |  |
|        | RDL   | Round Dome Louvered |                      |          |        |               |        |                                          |                                |  |

### ELECTRICAL DATA

| Series        | Measurements      | Low Lumens   |              |              | Mid Lumens   |              |              | High Lumens  |              |              |
|---------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|               |                   | 3000K        | 4000K        | 5000K        | 3000K        | 4000K        | 5000K        | 3000K        | 4000K        | 5000K        |
| BOL-R-3L-LKFS | Lumens            | 1827         | 1974         | 1942         | 2507         | 2686         | 2665         | 3090         | 3244         | 3296         |
|               | Watts             | 13           | 14           | 13           | 18           | 19           | 18           | 23           | 22           | 23           |
|               | Efficacy          | 139          | 144          | 148          | 138          | 145          | 146          | 134          | 145          | 144          |
|               | Input Current (A) | 120V = 0.11A | 120V = 0.12A | 120V = 0.11A | 120V = 0.15A | 120V = 0.16A | 120V = 0.15A | 120V = 0.19A | 120V = 0.18A | 120V = 0.19A |
|               |                   | 240V = 0.05A | 240V = 0.06A | 240V = 0.05A | 240V = 0.08A | 240V = 0.08A | 240V = 0.08A | 240V = 0.10A | 240V = 0.09A | 240V = 0.10A |
|               |                   | 277V = 0.05A | 277V = 0.05A | 277V = 0.05A | 277V = 0.06A | 277V = 0.07A | 277V = 0.06A | 277V = 0.08A | 277V = 0.08A | 277V = 0.08A |

| Series        | Measurements      | Low Lumens   |              |              | Mid Lumens   |              |              | High Lumens  |              |              |
|---------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|               |                   | 3000K        | 4000K        | 5000K        | 3000K        | 4000K        | 5000K        | 3000K        | 4000K        | 5000K        |
| BOL-S-3L-LKFS | Lumens            | 1702         | 1790         | 1805         | 2303         | 2450         | 2459         | 2887         | 3047         | 3041         |
|               | Watts             | 13           | 14           | 13           | 18           | 18           | 19           | 23           | 23           | 23           |
|               | Efficacy          | 128          | 132          | 135          | 125          | 134          | 133          | 125          | 135          | 131          |
|               | Input Current (A) | 120V = 0.11A | 120V = 0.12A | 120V = 0.11A | 120V = 0.15A | 120V = 0.15A | 120V = 0.16A | 120V = 0.19A | 120V = 0.19A | 120V = 0.19A |
|               |                   | 240V = 0.05A | 240V = 0.06A | 240V = 0.05A | 240V = 0.08A | 240V = 0.08A | 240V = 0.08A | 240V = 0.10A | 240V = 0.10A | 240V = 0.10A |
|               |                   | 277V = 0.05A | 277V = 0.05A | 277V = 0.05A | 277V = 0.06A | 277V = 0.06A | 277V = 0.07A | 277V = 0.08A | 277V = 0.08A | 277V = 0.08A |

| Series         | Measurements      | Low Lumens   |              |              | Mid Lumens   |              |              | High Lumens  |              |              |
|----------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                |                   | 3000K        | 4000K        | 5000K        | 3000K        | 4000K        | 5000K        | 3000K        | 4000K        | 5000K        |
| BOL-RD-3L-LKFS | Lumens            | 1819         | 1818         | 1895         | 2512         | 2530         | 2614         | 3103         | 3249         | 3251         |
|                | Watts             | 13           | 12           | 13           | 18           | 17           | 18           | 23           | 22           | 23           |
|                | Efficacy          | 140          | 148          | 146          | 138          | 147          | 144          | 136          | 146          | 143          |
|                | Input Current (A) | 120V = 0.11A | 120V = 0.10A | 120V = 0.11A | 120V = 0.15A | 120V = 0.14A | 120V = 0.15A | 120V = 0.19A | 120V = 0.18A | 120V = 0.19A |
|                |                   | 240V = 0.05A | 240V = 0.05A | 240V = 0.05A | 240V = 0.08A | 240V = 0.07A | 240V = 0.08A | 240V = 0.10A | 240V = 0.09A | 240V = 0.10A |
|                |                   | 277V = 0.05A | 277V = 0.04A | 277V = 0.05A | 277V = 0.06A | 277V = 0.06A | 277V = 0.06A | 277V = 0.08A | 277V = 0.08A | 277V = 0.08A |

| Series          | Measurements      | Low Lumens   |              |              | Mid Lumens   |              |              | High Lumens  |              |              |
|-----------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                 |                   | 3000K        | 4000K        | 5000K        | 3000K        | 4000K        | 5000K        | 3000K        | 4000K        | 5000K        |
| BOL-RDL-2L-LKFS | Lumens            | 905          | 973          | 983          | 1263         | 1351         | 1359         | 1573         | 1692         | 1687         |
|                 | Watts             | 13           | 12           | 13           | 18           | 17           | 18           | 23           | 22           | 23           |
|                 | Efficacy          | 71           | 79           | 77           | 71           | 78           | 76           | 69           | 76           | 74           |
|                 | Input Current (A) | 120V = 0.11A | 120V = 0.10A | 120V = 0.11A | 120V = 0.15A | 120V = 0.14A | 120V = 0.15A | 120V = 0.19A | 120V = 0.18A | 120V = 0.19A |
|                 |                   | 240V = 0.05A | 240V = 0.05A | 240V = 0.05A | 240V = 0.08A | 240V = 0.07A | 240V = 0.08A | 240V = 0.10A | 240V = 0.09A | 240V = 0.10A |
|                 |                   | 277V = 0.05A | 277V = 0.04A | 277V = 0.05A | 277V = 0.06A | 277V = 0.06A | 277V = 0.06A | 277V = 0.08A | 277V = 0.08A | 277V = 0.08A |

#### PHOTOMETRIC DATA

##### BOL-R-3L-LKFS

###### Luminaire Data

|                             |                                 |
|-----------------------------|---------------------------------|
| Description                 | BOLLARD (ROUND)<br>3L 5K - LKFS |
| Total Lumens                | 3,296                           |
| Input Wattage               | 23                              |
| Efficacy (lm/W)             | 144                             |
| Max. Cd.                    | 815.81 (67.5H, 53V)             |
| IES Classification          | Type VS                         |
| Longitudinal Classification | Short                           |

###### Zonal Lumen Summary

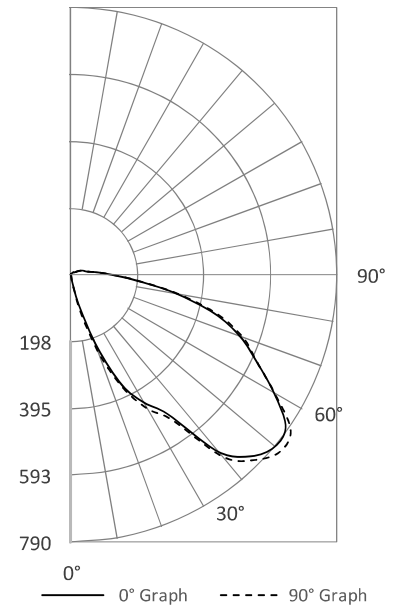
| Zone     | Lumens | %Fixt  |
|----------|--------|--------|
| 0-30°    | 201    | 6.1%   |
| 0-60°    | 1,823  | 55.3%  |
| 0-80°    | 2,890  | 87.7%  |
| 80-90°   | 225    | 6.8%   |
| 0-90°    | 3,115  | 94.5%  |
| 90-110°  | 134    | 4.1%   |
| 110-180° | 0      | 0.0%   |
| 0-180°   | 3,296  | 100.0% |

###### Luminaire Classification Systems (LCS)

| LCS Zone   |         | Lumens   | %Lum   |
|------------|---------|----------|--------|
| FL         | 0-30    | 99       | 3.0%   |
| FM         | 30-60   | 813      | 24.7%  |
| FH         | 60-80   | 540      | 16.4%  |
| FVH        | 80-90   | 116      | 3.5%   |
| BL         | 0-30    | 101      | 3.1%   |
| BM         | 30-60   | 809      | 24.5%  |
| BH         | 60-80   | 527      | 16.0%  |
| BVH        | 80-90   | 109      | 3.3%   |
| UL         | 90-100  | 89       | 2.7%   |
| UH         | 100-180 | 93       | 2.8%   |
| Total      |         | 3,296    | 100.0% |
| BUG Rating |         | B2-U3-G2 |        |

Photometrics calculated at 5000k - high lumens setting

###### 180° Polar Graph



##### BOL-S-3L-LKFS

###### Luminaire Data

|                             |                                  |
|-----------------------------|----------------------------------|
| Description                 | BOLLARD (SQUARE)<br>3L 5K - LKFS |
| Total Lumens                | 3,041                            |
| Input Wattage               | 23                               |
| Efficacy (lm/W)             | 132                              |
| Max. Cd.                    | 843.54 (270H, 53V)               |
| IES Classification          | Type VS                          |
| Longitudinal Classification | Short                            |

###### Zonal Lumen Summary

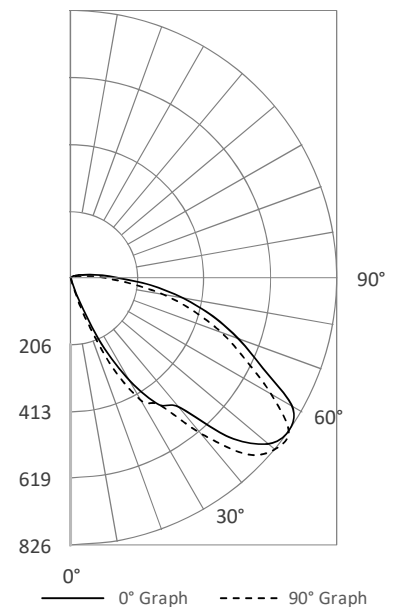
| Zone     | Lumens | %Fixt  |
|----------|--------|--------|
| 0-30°    | 114    | 3.8%   |
| 0-60°    | 1,611  | 53.0%  |
| 0-80°    | 2,646  | 87.0%  |
| 80-90°   | 230    | 7.6%   |
| 0-90°    | 2,876  | 94.6%  |
| 90-110°  | 126    | 4.1%   |
| 110-180° | 0      | 0.0%   |
| 0-180°   | 3,041  | 100.0% |

###### Luminaire Classification Systems (LCS)

| LCS Zone   |         | Lumens   | %Lum  |
|------------|---------|----------|-------|
| FL         | 0-30    | 47       | 1.6%  |
| FM         | 30-60   | 738      | 24.3% |
| FH         | 60-80   | 552      | 18.2% |
| FVH        | 80-90   | 132      | 4.3%  |
| BL         | 0-30    | 67       | 2.2%  |
| BM         | 30-60   | 760      | 25.0% |
| BH         | 60-80   | 482      | 15.9% |
| BVH        | 80-90   | 98       | 3.2%  |
| UL         | 90-100  | 89       | 2.9%  |
| UH         | 100-180 | 76       | 2.5%  |
| Total      |         | 3,041    | 99.9% |
| BUG Rating |         | B1-U3-G2 |       |

Photometrics calculated at 5000k - high lumens setting

###### 180° Polar Graph



#### PHOTOMETRIC DATA

##### BOL-RD-3L-LKFS

###### Luminaire Data

|                             |                                      |
|-----------------------------|--------------------------------------|
| Description                 | BOLLARD (ROUND DOME)<br>3L 5K - LKFS |
| Total Lumens                | 3,251                                |
| Input Wattage               | 23                                   |
| Efficacy (lm/W)             | 143                                  |
| Max. Cd.                    | 765.57 (45H, 52V)                    |
| IES Classification          | Type VS                              |
| Longitudinal Classification | Very Short                           |

###### Zonal Lumen Summary

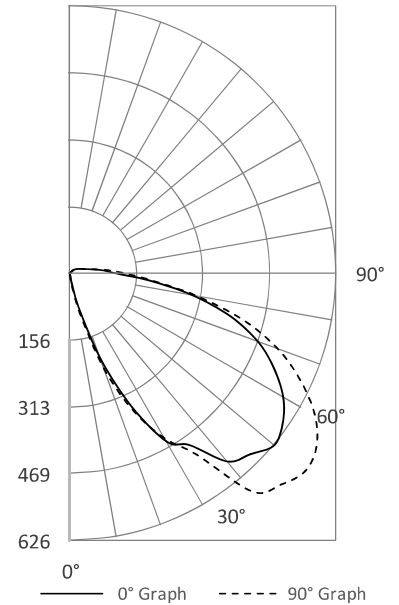
| Zone     | Lumens | %Fixt  |
|----------|--------|--------|
| 0-30°    | 200    | 6.2%   |
| 0-60°    | 1,724  | 53.0%  |
| 0-80°    | 2,790  | 85.8%  |
| 80-90°   | 240    | 7.4%   |
| 0-90°    | 3,030  | 93.2%  |
| 90-110°  | 161    | 5.0%   |
| 110-180° | 0      | 0.0%   |
| 0-180°   | 3,251  | 100.0% |

###### Luminaire Classification Systems (LCS)

| LCS Zone   |         | Lumens   | %Lum   |
|------------|---------|----------|--------|
| FL         | 0-30    | 96       | 3.0%   |
| FM         | 30-60   | 756      | 23.3%  |
| FH         | 60-80   | 539      | 16.6%  |
| FVH        | 80-90   | 124      | 3.8%   |
| BL         | 0-30    | 104      | 3.2%   |
| BM         | 30-60   | 768      | 23.6%  |
| BH         | 60-80   | 528      | 16.2%  |
| BVH        | 80-90   | 116      | 3.6%   |
| UL         | 90-100  | 110      | 3.4%   |
| UH         | 100-180 | 111      | 3.4%   |
| Total      |         | 3,251    | 100.0% |
| BUG Rating |         | B2-U3-G2 |        |

Photometrics calculated at 5000k - high lumens setting

###### 180° Polar Graph



##### BOL-RDL-2L-LKFS

###### Luminaire Data

|                             |                               |
|-----------------------------|-------------------------------|
| Description                 | BOLLARD (RDL)<br>2L 5K - LKFS |
| Total Lumens                | 1,688                         |
| Input Wattage               | 23                            |
| Efficacy (lm/W)             | 74                            |
| Max. Cd.                    | 292.72 (225H, 67V)            |
| IES Classification          | Type VS                       |
| Longitudinal Classification | Short                         |

###### Zonal Lumen Summary

| Zone     | Lumens | %Fixt  |
|----------|--------|--------|
| 0-30°    | 61     | 3.6%   |
| 0-60°    | 455    | 27.0%  |
| 0-80°    | 959    | 56.8%  |
| 80-90°   | 231    | 13.7%  |
| 0-90°    | 1,190  | 70.5%  |
| 90-110°  | 345    | 20.4%  |
| 110-180° | 0      | 0.0%   |
| 0-180°   | 1,688  | 100.0% |

###### Luminaire Classification Systems (LCS)

| LCS Zone   |         | Lumens   | %Lum   |
|------------|---------|----------|--------|
| FL         | 0-30    | 32       | 1.9%   |
| FM         | 30-60   | 201      | 11.9%  |
| FH         | 60-80   | 253      | 15.0%  |
| FVH        | 80-90   | 115      | 6.8%   |
| BL         | 0-30    | 29       | 1.7%   |
| BM         | 30-60   | 192      | 11.4%  |
| BH         | 60-80   | 250      | 14.8%  |
| BVH        | 80-90   | 116      | 6.9%   |
| UL         | 90-100  | 202      | 12.0%  |
| UH         | 100-180 | 296      | 17.5%  |
| Total      |         | 1,688    | 100.0% |
| BUG Rating |         | B1-U3-G2 |        |

Photometrics calculated at 5000k - high lumens setting

###### 180° Polar Graph

