| Project | Catalog # | Туре | |
|-------------|-----------|------|--|
| Prepared by | Notes | Date | |



Lumière

BOCA 696

LED / Halogen **Ground-mount** Recessed

Typical Applications

- · Hospitality · Commerical Landscape · Outdoor Area/Site · Residential
- Architectural



Interactive Menu

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- Product Warranty

Product Certification







Product Features

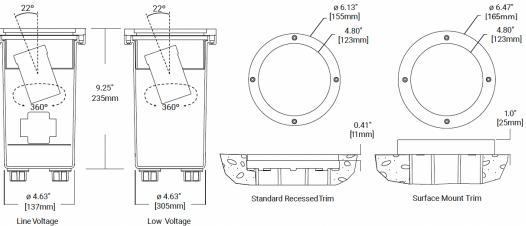




Top Product Features

- · Adjustable beam: 22° tilt, 360° rotation
- 12°, 21° and 41° beam spread options
- 2700K, 3000K, 4000K, 5700K and Amber, dimmable
- IP67 thermoplastic compression molded recessed housing
- · Suitable for indoor or outdoor use
- · Options to meet Buy American Act requirements

Dimensions



TECHNICAL DATA External Supply Wiring 90°C Minimum 8W LED



Integral Transformer

Order Information

SAMPLE ORDER NUMBER: 696-8LED2710-120/12-BK

| Domestic Preferences | Series | Trim | (select from | Source each column | and combine) | Voltage | Finish | Options |
|--|---|--|-------------------------|-----------------------------------|---|---|--|--|
| Domestic Preferences ⁽³⁾ | Series | Trim | Source (select fi | rom each colui | nn and combine) | Voltage | Finish (1,5) | Options (2) |
| [Blank]=Standard BAA=Buy American Act | 696-6 1/4" dia. Boca Inground LED Uplight, 22° Tilt, 360° Rotation | [Blank]=Standard Round Trim SM=Round Surface Mount Trim | 8LED=8W LED | 27=2700K 30=3000K 40=4000K* | 10 =10° Spot 25 =25° Narrow 36 =36° Wide | 12=12 Volt Remote Transformer Required (not included) 120/12=120V Integral Transformer 277/12=277V Integral Transformer | Painted BK=Black BZ=Bronze CS=City Silver VE=Verde WT=White | LBB=Less Back Box |
| Notes (3) Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to <u>DOMESTIC PREFERENCES</u> website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. | Notes | Notes | * Not Title 20 complian | Notes t. | | Notes | Notes (1) Custom and RAL color matching available upon request. Consult factory for further information. *For natural bronze ROHS material consult factory. (5) Consult factory for premium/natural metals material finish. | Notes (2) When specifying LBB option the back box needs to be ordered seperately 600-BB. |

Optical Accessories - Order Separately

| ters | | | |
|------|--|--|--|
| | | | |
| | | | |

Optical Lenses (2.00" Diameter)

Optical Louvers (2.00" Diameter)

| Filters (2.00" Diameter)(4) | Optical Lenses (2.00" Diameter)(4) | Optical Louvers (2.00" Diameter)(4) |
|--|---|---|
| F71=Peach Dichroic F72=Amber Dichroic F73=Green Dichroic F73-Green Dichroic F74=Medium Blue F75-Yellow Dichroic F76-Red Dichroic F77-Dark Blue Dichroic F78-Light Blue Dichroic F78-Light Blue Dichroic F79-Neutral Density Dichroic F80-Magenta Dichroic F80-Magenta Dichroic F33-Blue Color F34-Green Color F55-Yellow Color F66-Mercury Vapor | LSL=Linear Spread Lens (elongates standard beam spread) DIF=Diffused lens (provides even illumination) OSL=Overall Spread Lens (increases standard beam spread) | LVR=45° Hex Cell Louver (reduces glare) |
| Notes | Notes | Notes |
| (4) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. | | |

Product Specifications

Construction

- · Recessed housing is constructed from corrosionresistant, glass reinforced polyester BMC molding compond
- Includes two 1/2-14 NPSM conduit fittings for through wiring
- Recessed housing and trim ring are sealed with a high temperature silicone molded gasket to prevent water intrusion
- The painted trim ring is precision machined from corrosion resistant 6061-T6 aluminum
- The trim ring is also available in machined C360 brass, C932 bronze*, C10 copper or 303/304 stainless steel, brass, bronze* or machined copper.
 - *For natural bronze ROHS material consult factory.

- · The painted trim is double protected by a ROHS* compliant chemical film undercoating and polyester powder coat finish
- A variety of standard colors are available or RAL and custom color matches are available upon request
- Trims constructed from brass, bronze*, copper and stainless steel are left unpainted to reveal the natural beauty of the material
- Brass, bronze* and copper will patina naturally over time.

· *For natural bronze ROHS material consult factory.

- Minimum 1/4" thick tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion
- Suitable for drive-over** applications up to 5000
 - **Drive over fixtures not qualified for roadway or heavy traffic applications.

Hardware

 Stainless steel hardware is standard to provide maximum corrosion-resistance

Electrical

- When ordered as a line voltage fixture, an integral 12V magnetic transformer is included for connection to 120V or 277V line voltage
- When ordered as a low voltage fixture, a remote 12V transformer is required (not included)
- Initial power draw on LED equipped fixtures is 12
- When sizing transformer use 12 watts per LED fixture
- Nominal power draw after startup is 8 watts
- The LED module is designed to operate within the range 12V +/- 1.2V. Any less or more voltage can

- cause premature failures
- · Dimming only available for 120V option
- · See technical notes for compatible dimmer switches

LED Modules

- LED modules are included and are available in three color temperatures (2700,3000,4000)
- Or and three distributions (spot, narrow, and flood)
- Both color temperature and distribution must be specified when ordering
- Module has a L70 / 60,000 hour rating

Recessed Housing

- Recessed housing is available to ship in advance of complete fixture for rough-in purposes.
- Equipped with 1/2" conduit hub
- Specify option -LBB and order separately the accompanying recessed housing from below
- Recessed Housing 600-BB

Warranty

- · Lumière warrants its fixtures against defects in materials & workmanship for three (3) years.
- Auxiliary equipment such as transformers carry the original manufacturer's warranty

**Drive over fixtures not qualified for roadway or heavy traffic applications.

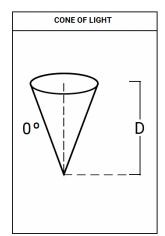


BOCA 696 LED Photometric Data LED Lumen and CBCP Table - 3000K



| | | Flush Hood | | Regressed Hood (Black) | | | Regressed Hood (Silver) | | | |
|----|-------|------------|--------|------------------------|------|--------|-------------------------|------|--------|------|
| | | CBCP | LUMENS | LPW | CBCP | LUMENS | LPW | CBCP | LUMENS | LPW |
| | BASE | 7758 | 456 | 57 | 7188 | 387 | 48.4 | 6554 | 385 | 51.4 |
| | +DIFF | 1278 | 372 | 46.5 | 1256 | 286 | 35.7 | 1206 | 303 | 40.3 |
| 10 | +LSL | 1700 | 402 | 50.3 | 1685 | 328 | 41 | 1557 | 328 | 43.7 |
| | +LVR | 6837 | 315 | 39.9 | 6276 | 305 | 38.2 | 6010 | 292 | 38.9 |
| | +OSL | 1700 | 402 | 50.3 | 1685 | 328 | 41 | 1557 | 328 | 43.7 |
| | BASE | 3454 | 536 | 68.7 | 3285 | 480 | 60.8 | 3026 | 465 | 63.6 |
| | +DIFF | 977 | 435 | 55.7 | 936 | 344 | 43.5 | 924 | 361 | 46.3 |
| 25 | +LSL | 1021 | 482 | 61.8 | 999 | 406 | 51.4 | 923 | 401 | 54.1 |
| | +LVR | 1864 | 492 | 63.1 | 1815 | 443 | 56.1 | 1705 | 438 | 57.6 |
| | +OSL | 1864 | 492 | 63.1 | 1815 | 443 | 56.1 | 1705 | 438 | 57.6 |
| | BASE | 1469 | 525 | 68.2 | 683 | 339 | 43.5 | 1444 | 474 | 60.8 |
| | +DIFF | 696 | 432 | 56.1 | 616 | 392 | 50.3 | 645 | 345 | 44.8 |
| 36 | +LSL | 624 | 476 | 61.9 | 1279 | 324 | 41.5 | 622 | 408 | 53.6 |
| | +LVR | 1322 | 344 | 44.7 | 1197 | 434 | 56.3 | 1242 | 323 | 42.5 |
| | +OSL | 624 | 476 | 61.9 | 1279 | 324 | 41.5 | 622 | 408 | 53.6 |

Horizontal Illuminance on Surface - Boca 696 Flush Lens Hood - 3000K



| Filename: 696-FL-8LED3010-12-BK.ies | | | | | | |
|-------------------------------------|-------------------|---------------|--|--|--|--|
| 1 | Test No.: P349420 | | | | | |
| Distance | FC | Beam Diameter | | | | |
| 2' | 1939.5 | 0.4 | | | | |
| 4' | 484.9 | 0.8 | | | | |
| 6' | 215.5 | 1.2 | | | | |
| 8' | 121.2 | 1.6 | | | | |
| 10' | 77.6 | 2 | | | | |
| 15' | 34.5 | 3 | | | | |
| 20' | 19.4 | 4.2 | | | | |
| 30' | 8.6 | 6.2 | | | | |
| 40' | 4.8 | 8.4 | | | | |

| FileHallie. 090-FL-0LED3023-12-DK.les | | | | | |
|---------------------------------------|-------|---------------|--|--|--|
| Test No.: P349500 | | | | | |
| Distance | FC | Beam Diameter | | | |
| 2' | 863.4 | 0.6 | | | |
| 4' | 215.9 | 1.2 | | | |
| 6' | 95.9 | 1.8 | | | |
| 8' | 54 | 2.4 | | | |
| 10' | 34.5 | 3 | | | |
| 15' | 15.3 | 4.6 | | | |
| 20' | 8.6 | 6.2 | | | |
| 30' | 3.8 | 9.2 | | | |
| 40' | 2.2 | 12.4 | | | |

| Filename: 6 | Filename: 696-FL-8LED3036-12-BK.ies | | | | |
|-------------|-------------------------------------|---------------|--|--|--|
| 1 | Test No.: P | 349485 | | | |
| Distance | FC | Beam Diameter | | | |
| 2' | 367.2 | 1 | | | |
| 4' | 91.8 | 2.2 | | | |
| 6' | 40.8 | 3.4 | | | |
| 8' | 22.9 | 4.6 | | | |
| 10' | 14.7 | 5.8 | | | |
| 15' | 6.5 | 8.6 | | | |
| 20' | 3.7 | 11.6 | | | |
| 30' | 1.6 | 17.4 | | | |
| 40' | 0.9 | 23.2 | | | |

CCT MULTIPLIER TABLE

| CCT (K) / COLOR | MULTIPLIER |
|-----------------|------------|
| 2700K | 1.04 |
| 3000K | 1.00 |
| 4000K | 0.78 |

Note: Multiplier can be used to calculate center beam candle power (CBCP), Lumens and footcandle (FC) values.

TECHNICAL INFORMATION

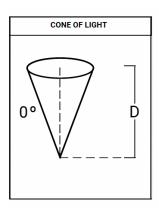
- 1.Dimming is dependant on remote transformer compatibility with LED module. Please see compatibility matrix for dimmer switch and transformer selection.
- 2. When using a magnetic dimmer switch there are two recommended LED compatible 120V magnetic dimming switches. Lutron Ariadni AVLV-600P and Lutron Diva DVLV-600P
- 3.IMPORTANT: When sizing transformer use 12 watts per LED fixture. Nominal power draw after start up is 8 watts. Any less or more voltage can cause premature failures.



BOCA 696 MR16 Halogen Photometric Data







| Filename | 696-501 | 696-50MR16-12-BK-NSP.ies | | | | |
|----------|---------|--------------------------|--|--|--|--|
| Lamp | 50W MR | 16 NSP | | | | |
| CBCP | 11,000 | 11,000 | | | | |
| D | FC | Beam Diameter | | | | |
| 2' | 2550 | 1'6" | | | | |
| 4' | 638 | 1'0" | | | | |
| 6' | 283 | 1'6" | | | | |
| 8' | 159 | 2'0" | | | | |
| 10' | 102 | 3'0" | | | | |
| 15' | 45 | 4'0" | | | | |

| Filename | 696-50MR16-12-BK-NFL.ies | | | | | |
|----------|--------------------------|---------------|--|--|--|--|
| Lamp | 50W MF | R16 NFL | | | | |
| CBCP | 3,200 | 3,200 | | | | |
| D | FC | Beam Diameter | | | | |
| 2' | 725 | 1'0" | | | | |
| 4' | 181 | 2'6" | | | | |
| 6' | 81 | 4'0" | | | | |
| 8' | 45 | 5'0" | | | | |
| 10' | 29 | 6'6" | | | | |
| 15' | 13 | 10'0" | | | | |

CCT MULTIPLIER TABLE

| LAMP WATTAGE | MULTIPLIER |
|--------------|------------|
| 20W | 0.32 |
| 35W | 0.57 |

| Filename | 696-50MR16-12-BK-FL.ies | |
|----------|-------------------------|---------------|
| Lamp | 50W MR16 FL | |
| СВСР | 2,000 | |
| D | FC | Beam Diameter |
| 2' | 431 | 1'6" |
| 4' | 106 | 3'0" |
| 6' | 48 | 5'0" |
| 8' | 27 | 6'6" |
| 10' | 17 | 8'0" |
| 15' | 7 | 12'0" |

| Filename | 696-50MR16-12-BK-WFL.ies | |
|----------|--------------------------|---------------|
| Lamp | 50W MR16 WFL | |
| CBCP | 1,200 | |
| D | FC | Beam Diameter |
| 2' | 269 | 2'0" |
| 4' | 67 | 4'6" |
| 6' | 30 | 7'6" |
| 8' | 17 | 9'0" |
| 10' | 11 | 11'6" |
| 15' | 5 | 17'0" |

NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.
- Footcandle values are initial. Apply appropriate light loss factors where necessary.
 Bare lamp data shown. Consult lamp manufacturers to obtain detailed specifications for their lamps.

