

# LM16

LED MR16 Lamp

## Product Description

The Cree LM16 delivers up to 620 lumens while achieving over 68 lumens per watt. The LM16 LED MR16 lamp is available in a variety of beam angles with a color temperature of 3000K. Designed to halogen MR16 lamp standards, the LM16 LED lamp imitates the size, appearance and lumen performance of halogen lamps. This lamp saves 80 percent of annual energy savings and is suitable for open track fixtures and non-IC rated downlights. It is capable of dimming down to 5 percent and is perfect for down lighting, track and accent lighting use in both commercial and retail applications.

## Performance Summary

**Delivered Light Output:** 464 lumens (35W eq); 620 lumens (50W eq)

**Input Power:** 7 watts (35W eq); 9 watts (50W eq)

**CRI:** 83

**CCT:** 3000K

**Beam Angle:** 17°, 25° and 40°

**BCBP:** 35W eq 17°: 2862, 35W eq 25°: 1995, 35W eq 40°: 728  
50W eq 17°: 4152, 50W eq 25°: 2650, 50W eq 40°: 1057

**Warranty:** 3 year limited warranty†

**Lifetime:** Designed to last 25,000 hours in open track fixtures and non-IC downlights

**Dimming:** 5%\*

## Ordering Information

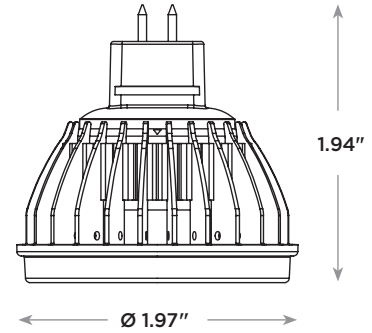
Example: LM16-50-30K-25D

| LM16    |                        | 30K                |  |                     |
|---------|------------------------|--------------------|--|---------------------|
| Product | Watt Equivalent        | CCT                | Beam Angle   | Base                |
| LM16    | 35<br>35W<br>50<br>50W | 30K<br>3000 Kelvin | 17D<br>17° Spot<br>25D<br>25° Flood<br>40D<br>40° Wide Flood | Blank<br>GU5.3 Base |

\*See compatible dimming controls page.

† See [www.cree.com/lighting](http://www.cree.com/lighting) for warranty terms.

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# LM16

## Product Specifications

### CONSTRUCTION & MATERIALS

- Durable die-cast aluminum housing with lens protects LEDs and optical system.
- Fanless housing design and smart thermal circuit design with embedded intelligent software properly monitors the operating temperature range.
- Housing is ANSI form factor compliant for halogen lamps.

### OPTICAL SYSTEM

- Single LED source.
- Proprietary in-house designed lens is available in three beam angles of 17° Spot, 25° Flood and 40° Wide Flood.
- Lens effectively eliminates surface glare and adds a pleasant touch of soft backlight.

### ELECTRICAL SYSTEM

- **Power Factor** > 0.9 nominal
- **Input Voltage:** 12Vac
- **Dimming:** 5%; see dimmer compatibility page

### REGULATORY & VOLUNTARY QUALIFICATIONS

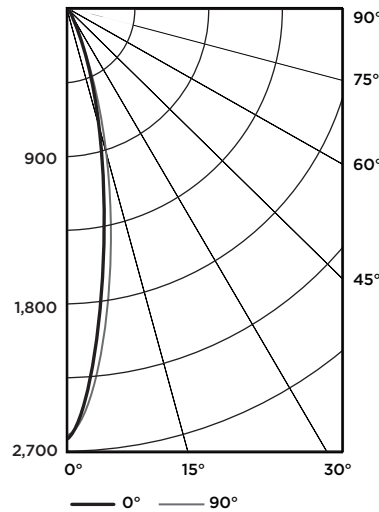
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## Transformer Compatibility

| TRANSFORMER<br>(Connected with one lamp) | LM16 50W EQ | LM16 35W EQ    |
|--|-------------|----------------|
| Ambiance Lighting 9454-12                | No Flicker  | No Flicker     |
| BEI B0344F-4 REV.5                       | No Flicker  | No Flicker     |
| Con-Tech LA2075N                         | No Flicker  | No Flicker     |
| Con-Tech LVT-300                         | No Flicker  | No Flicker     |
| DS&L WH-601E2N                           | No Flicker  | No Flicker     |
| Eurofase 0086                            | No Flicker  | No Flicker     |
| Fulham PET-120-12-60                     | No Flicker  | No Flicker     |
| Hatch IS12-75                            | No Flicker  | No Flicker     |
| Hatch RS12-60M                           | No Flicker  | No Flicker     |
| Hatch RS12-80M                           | No Flicker  | No Flicker     |
| Hatch RS12-300                           | No Flicker  | No Flicker     |
| Hopestar LT-60S                          | No Flicker  | No Flicker     |
| Juno TL601E-75                           | No Flicker  | No Flicker     |
| Juno TL601E-60                           | No Flicker  | No Flicker     |
| Lightech LET 60                          | No Flicker  | No Flicker     |
| Lightech LET 60-LW                       | No Flicker  | No Flicker     |
| Lightech LET 75                          | No Flicker  | No Flicker     |
| Lightech LET 105                         | No Flicker  | No Flicker     |
| Linogene WH601E6A3                       | No Flicker  | No Flicker     |
| MDL 316-0003                             | No Flicker  | No Flicker     |
| Sea Gull 96223S-15                       | No Flicker  | No Flicker     |
| Sebco EE052                              | No Flicker  | Not Compatible |
| Symban SY-75                             | No Flicker  | Not Compatible |

## Photometry

### LM16-50-30K-25D BASED ON CESTL-2012-0075



### Intensity (Candlepower) Summary

| Angle | Mean CP |
|-------|---------|
| 0°    | 2650    |
| 5°    | 2265    |
| 15°   | 735     |
| 25°   | 191     |
| 35°   | 54      |
| 45°   | 15      |
| 55°   | 9       |
| 65°   | 6       |
| 75°   | 5       |
| 85°   | 4       |
| 90°   | 3       |

### Zonal Lumen Summary

| Zone | Lumens | % Lamp |
|------|--------|--------|
| 0-30 | 493    | 86%    |
| 0-40 | 535    | 93%    |
| 0-60 | 560    | 97%    |
| 0-90 | 600    | 3%     |

Reference [www.cree.com/lighting](http://www.cree.com/lighting) for detailed photometric data.

### Illuminance at a Distance

|         | Center Beam fc | Beam Width |
|---------|----------------|------------|
| 2.0 ft  | 642.7 fc       | 0.8 ft     |
| 4.0 ft  | 160.7 fc       | 1.5 ft     |
| 6.0 ft  | 71.4 fc        | 2.3 ft     |
| 8.0 ft  | 40.2 fc        | 3.1 ft     |
| 10.0 ft | 25.7 fc        | 3.8 ft     |

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# Transformer & Dimmer Compatibility for LM16 Lamp\*

Number of allowable connected lamps and dimming range, for 50W eq lamps only.

| DIMMER/SERIES                   | MODEL NUMBER | BEI<br>B0344F-4<br>REV.5 | Con-Tech<br>LA2075N                      | Con-Tech<br>LVT-300 | Fulham<br>PET-120-12-60                  | Hatch<br>RS12-60M                        | Hatch<br>RS12-300                     | Juno<br>TL601E-75                    | Lighttech<br>LET 60                      | Lighttech<br>LET 60-LW                     | Lighttech<br>LET 75                        | Sea Gull<br>96223S-15                 |
|---------------------------------|--------------|--------------------------|--|---------------------|--|--|---------------------------------------|--------------------------------------|--|--|--|---------------------------------------|
| Cooper                          | DI06P        | Not compatible           |  |                     |  |  |                                       |                                      |  |  |  |                                       |
| Cooper                          | DE06P        |                          | 84% to 4%                                |                     |  |  |                                       |                                      |  | 1 or 3 lamps only,<br>Dimming 87%<br>to 7% |  |                                       |
| Cooper                          | SI06P        |                          |  |                     |  |  |                                       |                                      |  |  |  |                                       |
| Cooper                          | 9531         |                          |  |                     | 3 lamps only,<br>Dimming 75%<br>to 1%    |  |                                       |                                      |  | 3 lamps only,<br>Dimming 63%<br>to 0%      |  |                                       |
| Leviton                         | IPE04-1LZ    |                          |  |                     |  | 1, 2 or 3 lamps,<br>Dimming 98%<br>to 9% |                                       |                                      | 1, 2 or 3 lamps,<br>Dimming 97%<br>to 8% |  | 1, 2 or 3 lamps,<br>Dimming 98%<br>to 8%   |                                       |
| Lutron                          | NLV-600      | 94% to 1%                |  |                     |  |  |                                       |                                      |  |  |  |                                       |
| Lutron                          | NTELV-600    |                          |  |                     |  | 1, 2 or 3 lamps,<br>Dimming 89%<br>to 3% |                                       |                                      | 1, 2 or 3 lamps,<br>Dimming 92%<br>to 2% |  | 1 or 3 lamps only,<br>Dimming 89%<br>to 1% |                                       |
| Lutron                          | RRD-6NA      |                          | 1, 2 or 3 lamps,<br>Dimming 88%<br>to 0% |                     | 1, 2 or 3 lamps,<br>Dimming 91%<br>to 0% |  | 1 lamp only,<br>Dimming 100%<br>to 0% | 1 lamp only,<br>Dimming 90%<br>to 0% | 1 lamp only,<br>Dimming 90%<br>to 0%     |  |  | 2 lamps only,<br>Dimming 86%<br>to 0% |
| Lutron Grafik Eye<br>GRX-3104-T | ELVI-1000    |                          |  |                     |  | 87% to 0%                                |                                       |                                      | 85% to 0%                                |  | 83% to 0%                                  |                                       |
| Lutron Grafik Eye<br>GRX-3104-T | PHPM-PA-120  |                          |  |                     |  |  |                                       |                                      | 2 or 3 lamps,<br>Dimming 94%<br>to 0%    |  | 2 or 3 lamps,<br>Dimming 93%<br>to 0%      |                                       |
| Wattstopper                     | SDMLV-603    |                          |  | 93% to 1%           |  |  |                                       |                                      |  |  |  |                                       |

\*The presence of a dimmer on this chart is not a guarantee or warranty of the compatibility of the LM16 in any particular installation. The absence of a dimmer from this chart does not necessarily imply incompatibility. Please reference the dimmer manufacturer's instructions for installation and further product information.

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