



## Uphoria™ LED MR16

### LED MR16 for Use in Enclosed Fixtures

Uphoria™ LED MR16 lamps incorporate the highest quality Cree LEDs, a customized optical design, and unsurpassed thermal management characteristics to provide outstanding efficiency, life, and quality. At 6.5 watts in a standard MR16 form factor, Uphoria series LED lamps incorporate a state-of-the-art Cool-Blade™ heat sink design that guarantees reliability and stability through proper thermal management.

Uphoria's Cool-Blade technology was originally developed for the aerospace industry and the military and as a way of providing superior heat transfer for computer servers and intricate electronics that require premium thermal management in a very lightweight product. This same technology is incorporated into every Uphoria MR16 lamp where individual, high-density aluminum cooling blades draw damaging heat away from the LED's creating an ideal operating environment for the chipsets. The thermal management is so superior that these lamps have been UL listed for use in fully enclosed fixtures. Less heat means a longer life for LED's and Ushio is proud to stand behind its high performance Uphoria lamps with a 3-year limited warranty and a rated life of 35,000 hours.

Rated at more than 10 times the life of standard halogen MR16 lamps on the market today, Uphoria is the intelligent choice for those applications where frequency of lamp changes and cost of ownership are significant factors. Uphoria LED MR16 lamps are available in Narrow Flood (20°), Flood (35°) and Wide Flood (60°) beam spreads and in Warm White (3000K) or Daylight (5700K) color temperatures.



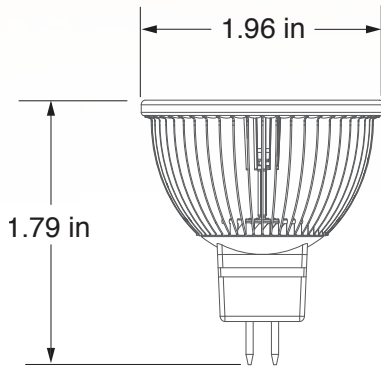
### FEATURES & BENEFITS

- 80% Energy Savings vs. Halogen MR16
- Proprietary Cool-Blade™ Aluminum Heat Sink
- Proprietary Driver Designed for Optimal Thermal Management
- Very Tight Color Binning for Lamp-to-Lamp Consistency
- Long Life: 35,000 Hours
- Application Friendly: UV Free & IR Free
- Environmentally Friendly: Mercury Free, Lead Free and RoHS Compliant
- For Use in Enclosed Fixtures
- 3-Year Limited Warranty

### APPLICATIONS

- Track Lighting
- Recessed Lighting
- Art Gallery & Museum Lighting
- Landscape Lighting
- Accent Lighting
- Display Case Lighting

# SPECIFICATIONS & PHOTOMETRICS



GU5.3 Base

### Item 1002483

ø(ft)	H(ft)	E(fc)
0.7	2.0	396.4
1.5	4.0	99.1
2.2	6.0	44.0
3.0	8.0	24.8
3.7	10.0	15.9
20°		6.5W
6.5W LED MR16, NFL20, WW30		

### Item 1002484

ø(ft)	H(ft)	E(fc)
1.1	2.0	221.2
2.2	4.0	55.3
3.3	6.0	24.6
4.4	8.0	13.8
5.5	10.0	8.8
35°		6.5W
6.5W LED MR16, FL35, WW30		

### Item 1002485

ø(ft)	H(ft)	E(fc)
2.2	2.0	71.1
4.5	4.0	17.9
6.7	6.0	8.0
9.0	8.0	4.5
11.2	10.0	2.9
60°		6.5W
6.5W LED MR16, WFL60, WW30		

### Item 1002486

ø(ft)	H(ft)	E(fc)
0.7	2.0	580.4
1.4	4.0	145.1
2.1	6.0	64.5
2.8	8.0	36.3
3.4	10.0	23.2
20°		6.5W
6.5W LED MR16, NFL20, DL57		

### Item 1002487

ø(ft)	H(ft)	E(fc)
1.2	2.0	281.7
2.3	4.0	70.4
3.5	6.0	31.3
4.6	8.0	17.6
5.8	10.0	11.3
35°		6.5W
6.5W LED MR16, FL35, DL57		

### Item 1002488

ø(ft)	H(ft)	E(fc)
2.2	2.0	97.8
4.5	4.0	24.5
6.7	6.0	10.9
8.9	8.0	6.1
11.2	10.0	3.9
60°		6.5W
6.5W LED MR16, WFL60, DL57		

Case Quantity: 20

Watts (W)	Ordering Code	Lamp Description	Volts (V)	Color Temp (K)	Beam Angle	Beam Spread	Lumens* (lm)	CBCP* (cd)	CRI	Avg** Life (h)
6.5	1002483	UPHORIA LED MR16, NFL20, WW30	12	3000	20°	Narrow Flood	325	1586	80	35000
6.5	1002486	UPHORIA LED MR16, NFL20, DL57	12	5700	20°	Narrow Flood	450	2321	70	35000
6.5	1002484	UPHORIA LED MR16, FL35, WW30	12	3000	35°	Flood	350	885	80	35000
6.5	1002487	UPHORIA LED MR16, FL35, DL57	12	5700	35°	Flood	485	1130	70	35000
6.5	1002485	UPHORIA LED MR16, WFL60, WW30	12	3000	60°	Wide Flood	335	300	80	35000
6.5	1002488	UPHORIA LED MR16, WFL60, DL57	12	5700	60°	Wide Flood	470	400	70	35000

\* Photometric data is based on LM-79 tests performed at 12V AC.

\*\* Average life based on 70% lumen maintenance. LM-80 data available.

Not compliant with California Title 20.

Discontinued - For Reference Only

#### Electrical Specifications:

Driver: High Efficiency

Operating Voltage Range: 8V to 17V AC or DC

Power Factor: > 0.8

Dimming: Not designed for operation on dimming systems

#### CAUTIONS:

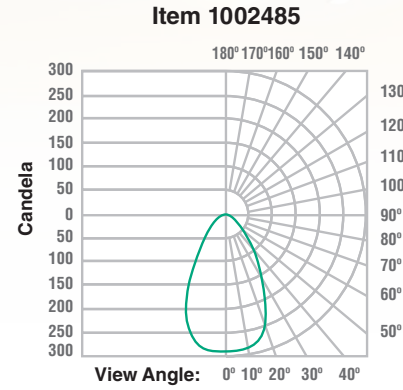
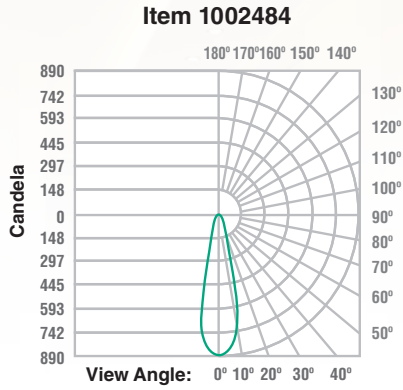
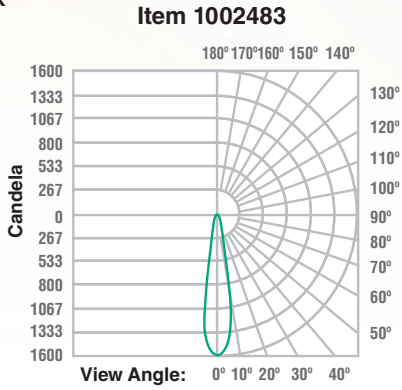
Not designed for dimming systems.

Suitable for dry and damp locations.

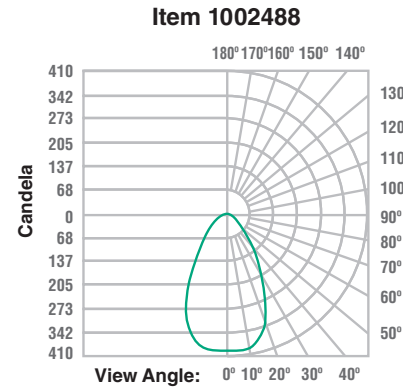
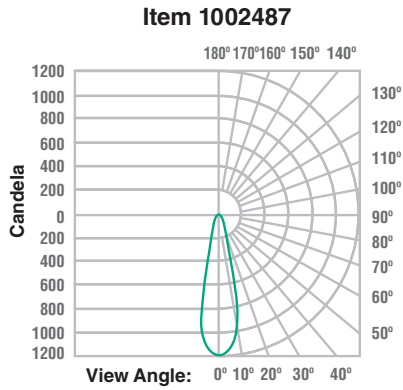
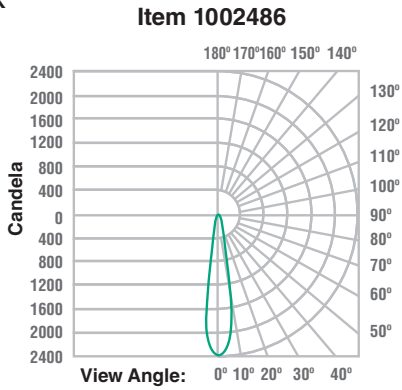
Not for use in emergency or exit lighting.

## Polar Candela Distribution Charts

3000K

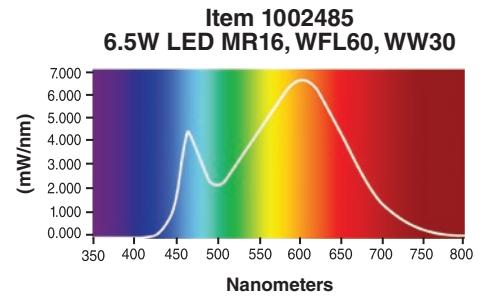
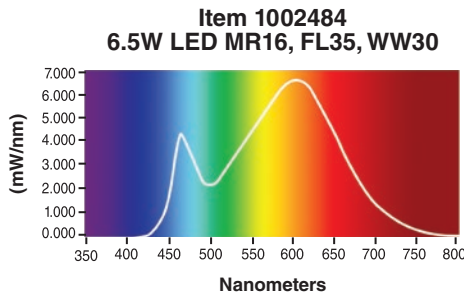
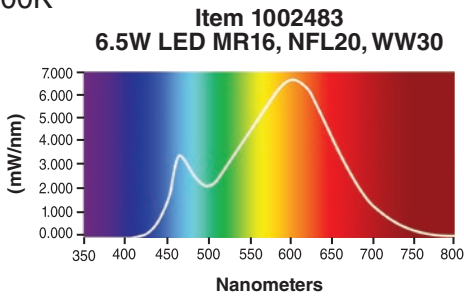


5700K

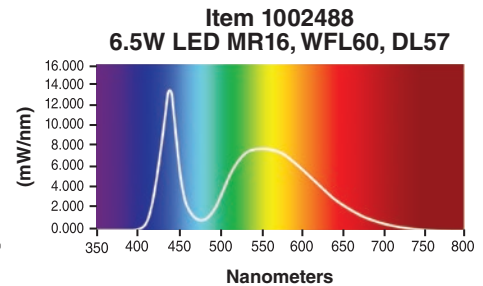
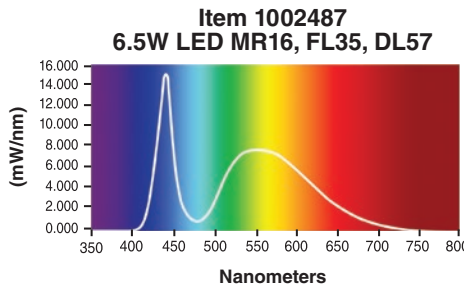
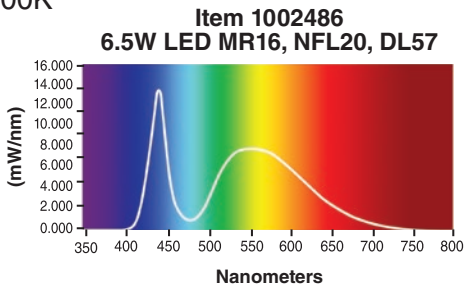


## Spectral Distribution Charts

3000K



5700K



# LIGHTING FACTS

3000K

**Item 1002483**  
6.5W LED MR16, NFL20, WW30

Lighting Facts/ Faits d'éclairage	
Per Bulb/Par l'ampoule	
<b>Brightness/Luminosité</b>	<b>325 lumens</b>
<b>Estimated Yearly Energy Cost/ Coût énergétique annuel estimé</b>	<b>\$0.78</b>
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use. /Basé sur 3 heures/jour, 11¢/kWh. Les coûts dépendent du tarif et de la fréquence d'utilisation.	
<b>Life/Vie</b>	<b>32 years/ans</b>
Based on 3 hrs/day. /Basé sur 3 heures/jour.	
<b>Light Appearance/Apparence de l'éclairage</b>	
Warm/Chaud	Cool/Froid
3000K	
<b>Energy Used/Énergie utilisée</b>	<b>6.5 watts</b>

**Item 1002484**  
6.5W LED MR16, FL35, WW30

Lighting Facts/ Faits d'éclairage	
Per Bulb/Par l'ampoule	
<b>Brightness/Luminosité</b>	<b>350 lumens</b>
<b>Estimated Yearly Energy Cost/ Coût énergétique annuel estimé</b>	<b>\$0.78</b>
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use. /Basé sur 3 heures/jour, 11¢/kWh. Les coûts dépendent du tarif et de la fréquence d'utilisation.	
<b>Life/Vie</b>	<b>32 years/ans</b>
Based on 3 hrs/day. /Basé sur 3 heures/jour.	
<b>Light Appearance/Apparence de l'éclairage</b>	
Warm/Chaud	Cool/Froid
3000K	
<b>Energy Used/Énergie utilisée</b>	<b>6.5 watts</b>

**Item 1002485**  
6.5W LED MR16, WFL60, WW30

Lighting Facts/ Faits d'éclairage	
Per Bulb/Par l'ampoule	
<b>Brightness/Luminosité</b>	<b>335 lumens</b>
<b>Estimated Yearly Energy Cost/ Coût énergétique annuel estimé</b>	<b>\$0.78</b>
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use. /Basé sur 3 heures/jour, 11¢/kWh. Les coûts dépendent du tarif et de la fréquence d'utilisation.	
<b>Life/Vie</b>	<b>32 years/ans</b>
Based on 3 hrs/day. /Basé sur 3 heures/jour.	
<b>Light Appearance/Apparence de l'éclairage</b>	
Warm/Chaud	Cool/Froid
3000K	
<b>Energy Used/Énergie utilisée</b>	<b>6.5 watts</b>

5700K

**Item 1002486**  
6.5W LED MR16, NFL20, DL57

Lighting Facts/ Faits d'éclairage	
Per Bulb/Par l'ampoule	
<b>Brightness/Luminosité</b>	<b>450 lumens</b>
<b>Estimated Yearly Energy Cost/ Coût énergétique annuel estimé</b>	<b>\$0.78</b>
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use. /Basé sur 3 heures/jour, 11¢/kWh. Les coûts dépendent du tarif et de la fréquence d'utilisation.	
<b>Life/Vie</b>	<b>32 years/ans</b>
Based on 3 hrs/day. /Basé sur 3 heures/jour.	
<b>Light Appearance/Apparence de l'éclairage</b>	
Warm/Chaud	Cool/Froid
5700K	
<b>Energy Used/Énergie utilisée</b>	<b>6.5 watts</b>

**Item 1002487**  
6.5W LED MR16, FL35, DL57

Lighting Facts/ Faits d'éclairage	
Per Bulb/Par l'ampoule	
<b>Brightness/Luminosité</b>	<b>485 lumens</b>
<b>Estimated Yearly Energy Cost/ Coût énergétique annuel estimé</b>	<b>\$0.78</b>
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use. /Basé sur 3 heures/jour, 11¢/kWh. Les coûts dépendent du tarif et de la fréquence d'utilisation.	
<b>Life/Vie</b>	<b>32 years/ans</b>
Based on 3 hrs/day. /Basé sur 3 heures/jour.	
<b>Light Appearance/Apparence de l'éclairage</b>	
Warm/Chaud	Cool/Froid
5700K	
<b>Energy Used/Énergie utilisée</b>	<b>6.5 watts</b>

**Item 1002488**  
6.5W LED MR16, WFL60, DL57

Lighting Facts/ Faits d'éclairage	
Per Bulb/Par l'ampoule	
<b>Brightness/Luminosité</b>	<b>470 lumens</b>
<b>Estimated Yearly Energy Cost/ Coût énergétique annuel estimé</b>	<b>\$0.78</b>
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use. /Basé sur 3 heures/jour, 11¢/kWh. Les coûts dépendent du tarif et de la fréquence d'utilisation.	
<b>Life/Vie</b>	<b>32 years/ans</b>
Based on 3 hrs/day. /Basé sur 3 heures/jour.	
<b>Light Appearance/Apparence de l'éclairage</b>	
Warm/Chaud	Cool/Froid
5700K	
<b>Energy Used/Énergie utilisée</b>	<b>6.5 watts</b>

## CAUTION:

Lamp may not be compatible with all dimmers and transformers. Check [www.ushio.com](http://www.ushio.com) to find up to date dimmer and transformer compatibility options. Use only 12V AC circuits. Do not open. No user serviceable parts inside. Suitable for damp locations. Use is not recommended where exposed to weather. Outdoor usage requires an enclosed fixture. Meets UL 1993 safety rating for totally enclosed fixtures. Recommended lamp housing temperature is 170°F or below. Reliable operating environment temperature is -4°F to 113°F. Lamp is not intended for use with emergency exit fixtures, emergency exit lights, photo controls or electric timers. Lamp complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) device may not cause harmful interference, and (2) device must accept any interference received, including interference that may cause undesired operation.

# USHIO