

## DESCRIPTION

Cambria 230 is a small, low voltage dimmable LED and halogen MR16 luminaire. It features an integral mounting spike for easy installation of simple directional uplight. Various lenses, louvers and color or dichroic filters can be combined - up to three at once - to create multiple lighting effects. The Lumière exclusive Siphon Protection System (S.P.S.) prevents water from siphoning into the fixture through its own lead wires.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## SPECIFICATION FEATURES

### Material

Housing and hood are precision-machined from corrosion-resistant billet stock 6061-T6 aluminum, C360 brass, C932 bronze\*, C110 copper or 303/304 stainless steel.

### Finish

Fixtures constructed from 6061-T6 aluminum are double protected by an ROHS\* compliant chemical film undercoating and polyester powdercoat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available. Brass, Bronze\*, Copper or Stainless Steel Fixtures are left unpainted to reveal the natural beauty of the material. Brass, bronze\* and copper will patina naturally over time. Options to meet Buy American Act requirements.

### Hood

Hood is removable for easy relamping and accepts up to three

internal accessories at once (lenses, louvers, filters) to achieve multiple lighting effects. Weep holes prevent water and mineral stains from collecting on the lens, even in the straight-up position.

### Gasket

Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion.

### Lens

Tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.

### Mounting Spike

Cast zinc mounting spike is provided (model GS01). It is sealed around the lead wires for rigidity and a watertight seal.

### Hardware

Stainless steel hardware is standard to provide maximum corrosion-resistance.

### Socket

Ceramic socket with 250° C Teflon® coated lead wires and GU5.3 bi-pin base.

### Electrical

Remote 12V transformer required (not included). Initial power draw on LED equipped fixtures is 12 watts. When sizing transformer use 12 watts per LED fixture. Nominal power draw after start up is 8 watts. Also, LEDs are more voltage sensitive than standard halogen MR16 lamps. The LED module is designed to operate within the range 12V +/- 1.2V. Any less or more voltage can cause premature failures.

### Lamp

Halogen lamp not included. SORAA LED modules are included and are available in three color temperatures (2700, 3000 and 4000) or Amber (585-595nm) and three distributions (spot, narrow, and flood). Both color temperature and distribution must be specified when ordering. Sora lamp compatible (8W Max).

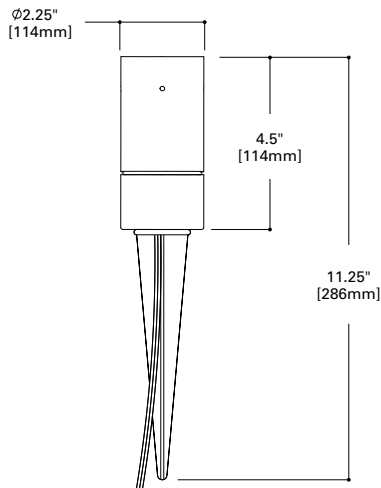
### Warranty

Lumière warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers and lamps carry the



## 230 CAMBRIA LED HALOGEN

**APPLICATIONS:  
ACCENT / FLOOD**



**CERTIFICATION DATA**  
UL and cUL Wet Location Listed  
LM79 / LM80 Compliant  
ROHS\* Compliant  
IP66 Ingressed Protection Rated

**TECHNICAL DATA**  
8W LED, L70/60,000 hours at 25°C  
Low Voltage: 50W Halogen MR16

## ORDERING INFORMATION

Sample Number: 230-8LED2710-12-CS

Domestic Preferences <sup>4</sup>	Series	Source (for LED, select from each column and combine)	Voltage	Finish		
[Blank]=Standard BAA=Buy American Act	230=LED or MR16 Cambria Uplight w/ Integral Ground Spike	50MR16=50W Max Halogen MR16, GU5.3 Base	12=12V	<b>Painted</b> BK=Black BZ=Bronze CS=City Silver VE=Verde WT=White  <b>Premium Finish</b> NBR=Natural Brass NCP=Natural Copper NBZ=Natural Bronze* NSS=Natural Stainless Steel		
		8LED=8W LED			27=2700K 30=3000K 40=4000K	10=10° Spot 25=25° Narrow 36=36° Wide
		5LED=4W LED			AM=Amber (585-595nm)	25=25° Narrow

NOTES: 1 Dimming is dependant on remote transformer compatibility with LED module. 2 Please see compatibility matrix for dimmer switch and transformer selection.

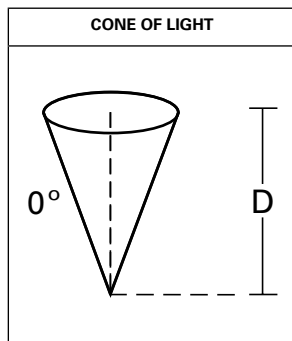
3 When using a magnetic dimmer switch there are two recommended LED compatible 120V magnetic dimming switches: Lutron Ariadni AVLV-600P and Lutron Diva DVLV-600P\* For natural bronze ROHS material consult factory. 4 Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to [DOMESTIC PREFERENCES](#) website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. 5 Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

**OPTICAL ACCESSORIES - ORDER SEPARATELY <sup>5</sup>**

Filters (2.00" Diameter)	Optical Lenses (2.00" Diameter)	Optical Louvers (2.00" Diameter)
<b>F71</b> = Peach Dichroic <b>F72</b> = Amber Dichroic <b>F73</b> = Green Dichroic <b>F74</b> = Medium Blue <b>F75</b> = Yellow Dichroic <b>F76</b> = Red Dichroic <b>F77</b> = Dark Blue Dichroic <b>F78</b> = Light Blue Dichroic <b>F79</b> = Neutral Density Dichroic <b>F80</b> = Magenta Dichroic <b>F22</b> = Red Color <b>F33</b> = Blue Color <b>F44</b> = Green Color <b>F55</b> = Yellow Color <b>F66</b> = Mercury Vapor	<b>LSL</b> =Linear Spread Lens (elongates standard beam spread) <b>DIF</b> =Diffused Lens (provides even illumination) <b>OSL</b> =Overall Spread Lens (increases standard beam spread)	<b>LVR</b> =45° Hex Cell Louver (reduces glare)

**CAMBRIA 230 MR16 HALOGEN PHOTOMETRY DATA**

**Horizontal Illuminance on Surface - Cambria 230 Standard Recessed Hood - 50W MR16**



Filename	230-50MR16-12-BK-NSP.ies	
Lamp	50W MR16 NSP	
CBCP	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	230-50MR16-12-BK-NFL.ies	
Lamp	50W MR16 NFL	
CBCP	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	230-50MR16-12-BK-FL.ies	
Lamp	50W MR16 FL	
CBCP	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	230-50MR16-12-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**

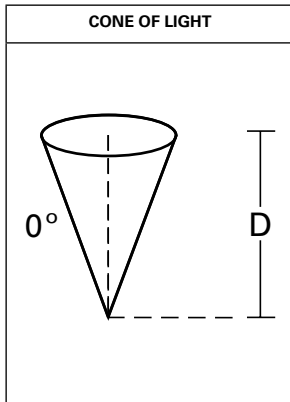
- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.
- Footcandle values are initial. Apply appropriate light loss factors where necessary.
- Bare lamp data shown. Consult lamp manufacturers to obtain detailed specifications for their lamps.

**CAMBRIA 230 LED PHOTOMETRY DATA**

LED Lumen and CBCP Table - 4000K  
8W LED

		Flush Hood			Regressed Hood (black)			Regressed Hood (silver)		
		CBCP	LUMENS	LPW	CBCP	LUMENS	LPW	CBCP	LUMENS	LPW
10	BASE	5980	351.3	43.6	5541	298.5	37.1	5052	296.9	39.7
	+DIFF	985	286.9	35.8	968	220.4	27.4	930	233.2	31.2
	+LSL	1310	309.9	38.6	1299	253.1	31.4	1200	252.7	33.8
	+LVR	5270	243.0	30.6	4838	235.3	29.2	4633	225.1	30.1
	+OSL	1686	328.6	41.4	1700	285.7	35.5	1609	291.1	39
25	BASE	2690	417.2	53.5	2559	374.2	47.4	2357	361.8	49.4
	+DIFF	761	338.6	43.4	729	267.7	33.9	720	281.4	36.2
	+LSL	795	375.1	48.1	778	316.3	40.2	719	312.0	42.2
	+LVR	2396	285.9	36.7	2294	272.4	34.1	2092	253.3	35.3
	+OSL	1452	383.4	49.1	1414	345.0	43.8	1328	341.2	45.2
36	BASE	1144	409.2	53.1	1125	369.1	47.6	1080	371.7	49
	+DIFF	542	336.3	43.6	532	264.3	34.1	502	268.6	35.1
	+LSL	486	371.1	48.2	480	305.6	39.4	484	317.4	41.7
	+LVR	1030	267.9	34.8	996	252.1	32.4	967	251.8	33.1
	+OSL	930	384.3	49.9	932	337.8	43.6	910	348.6	45.7

**Horizontal Illuminance on Surface - Cambria 230 Standard Recessed Hood -4000K**



Filename: 230-SS-8LED4010-12-BK.IES			
Test No.: G2-1802-569-4			
Distance	FC	Beam Diameter	
2'	1385.2	0.4	
4'	346.3	0.8	
6'	153.9	1.2	
8'	86.6	1.6	
10'	55.4	2	
15'	24.6	3.2	
20'	13.9	4.2	
30'	6.2	6.4	
40'	3.5	8.4	

Filename: 230-SS-8LED4025-12-BK.ies			
Test No.: G2-1802-569-5			
Distance	FC	Beam Diameter	
2'	639.8	0.6	
4'	159.9	1.2	
6'	71.1	1.8	
8'	40	2.4	
10'	25.6	3	
15'	11.4	4.6	
20'	6.4	6	
30'	2.8	9.2	
40'	1.6	12.2	

Filename: 230-SS-8LED4036-12-BK.ies			
Test No.: G2-1802-569-6			
Distance	FC	Beam Diameter	
2'	281.2	1	
4'	70.3	2.2	
6'	31.2	3.4	
8'	17.6	4.6	
10'	11.2	5.8	
15'	5	8.6	
20'	2.8	11.6	
30'	1.2	17.4	
40'	0.7	23.2	

**CCT MULTIPLIER TABLE**

CCT(K) / COLOR	MULTIPLIER
2700K	0.91
3000K	0.89
4000K	1.00

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. 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.