



UL LLC  
1075 W Lambert Rd Suite B  
Brea, CA 92821

## Photometric Test Report

Relevant Standards  
IES LM-79-2008  
ANSI C82.77-2002

Prepared For  
**Auroralight Inc**  
2742 Loker Ave. West  
Carlsbad, CA 92010

Catalog Number  
**LML350-C11-30-N-BLP (3000K)**  
Order Number  
11263738  
Test Number  
1258676

Test Date

2016-06-08

Prepared By

Khang Nguyen, Technician

Approved By

Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Conical 11" copper shade with louvers, natural underside, frosted glass lens and BLP finish  
**Lamp:** One (1) Cree XHP 3000K LED  
**Mounting:** Pendant

#### Luminaire



#### Luminaire Characteristics

Luminous Diameter: 11.00 in.  
Luminous Height: 4.00 in.

#### Summary of Results

Roadway Classification: Type VS, Very Short  
Cutoff Classification: Semicutoff  
BUG Rating: B0 U1 G1

#### Test Conditions

Test Temperature: 24.6 °C  
Voltage: 12.08 VAC  
Current: 1.647 A  
Power: 19.85 W  
Power Factor: 0.997  
Frequency: 60 Hz  
Current THD: 4.76 %

Tested in 30 planes left side, 30 planes right side, left and right averaged  
Vertical test increments are 2.5 degrees  
Test distance exceeds five times the greatest luminous opening of luminaire

Laboratory results may not be representative of field performance  
Ballast factors have not been applied



## Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	12.08 VAC	1.647 A	19.85 W	0.997	60 Hz	4.76 %

### Summary of Results

#### Spacing Criteria

0-180: 0.81

90-270: 0.81

Total Lumen Output:

312.7 Lumens

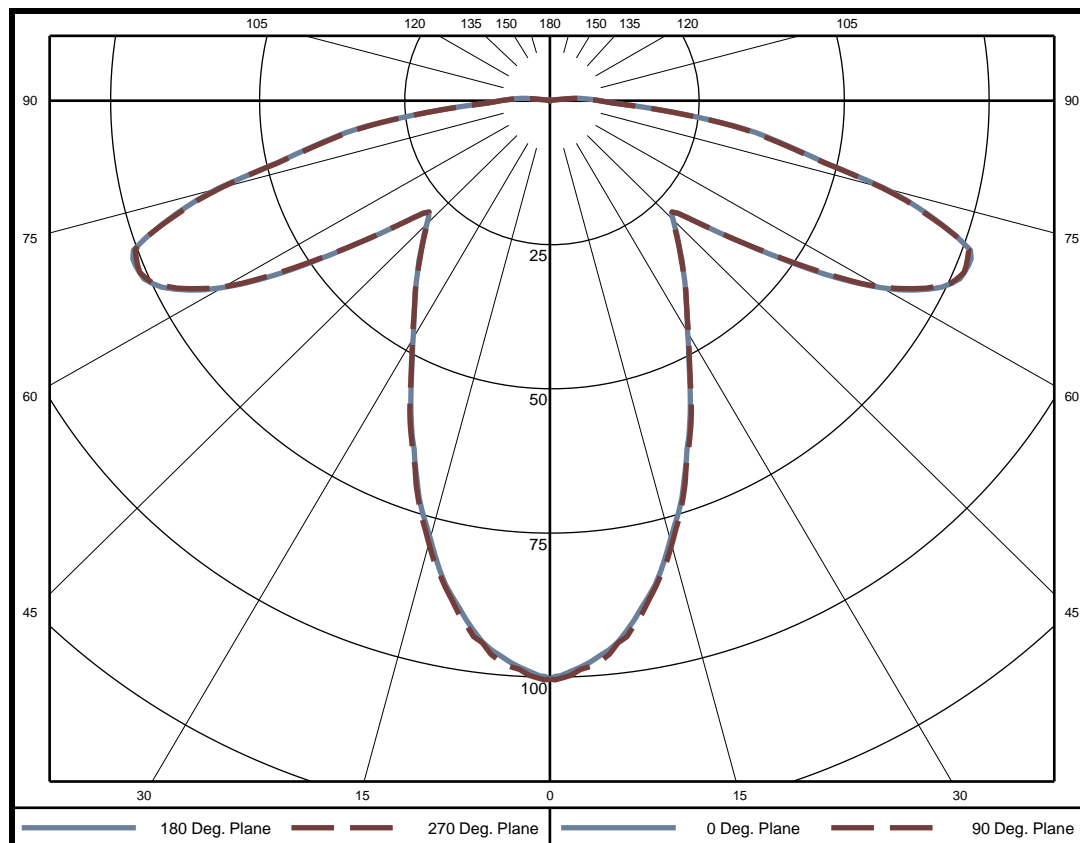
Luminaire Efficacy:

15.8 lm/w

Maximum Candela:

100 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.36	0.8%	60-65	34.75	11.1%	120-125	0.01	0.0%
5-10	6.70	2.1%	65-70	38.93	12.4%	125-130	0.01	0.0%
10-15	10.04	3.2%	70-75	35.71	11.4%	130-135	0.00	0.0%
15-20	12.11	3.9%	75-80	25.00	8.0%	135-140	0.00	0.0%
20-25	12.96	4.1%	80-85	15.74	5.0%	140-145	0.00	0.0%
25-30	12.97	4.1%	85-90	6.81	2.2%	145-150	0.00	0.0%
30-35	12.75	4.1%	90-95	3.60	1.2%	150-155	0.01	0.0%
35-40	12.40	4.0%	95-100	1.36	0.4%	155-160	0.01	0.0%
40-45	11.83	3.8%	100-105	0.36	0.1%	160-165	0.01	0.0%
45-50	12.09	3.9%	105-110	0.12	0.0%	165-170	0.01	0.0%
50-55	17.52	5.6%	110-115	0.05	0.0%	170-175	0.01	0.0%
55-60	26.41	8.4%	115-120	0.03	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	82	26.3%
0-60	150	48.0%
0-90	307	98.2%
90-180	6	1.8%



### Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3
	5	96.7	97.4	97.4	97.7	97.6	97.7	97.4	97.4	96.7	97.4	97.4	97.7	97.6	97.7	97.4
	10	89.3	89.9	90.1	90.3	90.2	90.3	90.1	89.9	89.3	89.9	90.1	90.3	90.2	90.3	90.1
	15	78.8	79.5	79.6	79.7	79.8	79.7	79.6	79.5	78.8	79.5	79.6	79.7	79.8	79.7	79.6
	20	67.3	67.7	67.7	68.0	67.5	68.0	67.7	67.7	67.3	67.7	67.7	68.0	67.5	68.0	67.7
	25	56.2	56.3	56.6	56.5	56.6	56.5	56.6	56.3	56.2	56.3	56.6	56.5	56.6	56.5	56.6
	30	46.7	46.9	47.0	46.9	47.0	46.9	47.0	46.9	46.7	46.9	47.0	46.9	47.0	46.9	47.0
	35	40.0	40.3	40.2	40.1	40.2	40.1	40.2	40.3	40.0	40.3	40.2	40.1	40.2	40.1	40.2
	40	34.4	34.7	34.5	34.3	34.3	34.3	34.5	34.7	34.4	34.7	34.5	34.3	34.3	34.3	34.5
	45	29.6	29.9	29.8	29.6	29.5	29.6	29.8	29.9	29.6	29.9	29.8	29.6	29.5	29.6	29.8
	50	33.1	33.4	33.6	33.4	33.1	33.4	33.6	33.4	33.1	33.4	33.6	33.4	33.1	33.4	33.6
	55	47.6	48.4	48.4	48.1	47.2	48.1	48.4	48.4	47.6	48.4	48.4	48.1	47.2	48.1	48.4
	60	64.9	66.1	65.7	65.4	64.6	65.4	65.7	66.1	64.9	66.1	65.7	65.4	64.6	65.4	65.7
	65	75.0	76.6	76.1	75.7	74.9	75.7	76.1	76.6	75.0	76.6	76.1	75.7	74.9	75.7	76.1
	70	75.8	77.2	76.7	76.0	75.5	76.0	76.7	77.2	75.8	77.2	76.7	76.0	75.5	76.0	76.7
	75	58.8	59.3	58.9	58.5	58.1	58.5	58.9	59.3	58.8	59.3	58.9	58.5	58.1	58.5	58.9
	80	38.1	38.0	37.8	37.6	37.6	37.6	37.8	38.0	38.1	38.0	37.8	37.6	37.6	37.6	37.8
	85	19.4	19.3	19.1	19.0	19.1	19.0	19.1	19.3	19.4	19.3	19.1	19.0	19.1	19.0	19.3
	90	8.6	8.5	8.5	8.4	8.4	8.4	8.5	8.5	8.6	8.5	8.5	8.4	8.4	8.4	8.5
	95	4.9	4.9	4.8	4.8	4.8	4.8	4.8	4.9	4.9	4.9	4.8	4.8	4.8	4.8	4.9
	100	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	105	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	110	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	115	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	160	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	165	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1
	170	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	175	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	180	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

### Average Luminance (cd/m<sup>2</sup>)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	1636	1636
	45	713	711
	55	1112	1104
	65	1772	1770
	75	1450	1434
	85	515	509



### Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	371	371	371	371	362	362	362	362	344	344	344	328	328	328	314	314	314	307
1	322	300	281	263	312	292	274	258	277	262	248	263	251	239	250	240	231	223
2	283	248	219	194	273	241	214	191	228	205	186	216	197	180	205	189	175	166
3	252	210	177	150	243	204	173	148	193	166	145	183	160	141	173	154	138	129
4	228	181	147	121	219	176	145	120	167	139	117	158	134	115	150	130	112	104
5	208	160	126	101	200	156	124	100	148	120	98	140	116	96	133	112	95	87
6	191	143	110	87	184	139	108	86	133	105	85	126	102	83	120	99	82	74
7	177	129	98	76	171	126	96	75	120	94	74	115	91	73	110	89	72	65
8	165	118	88	68	160	115	87	67	110	85	66	106	83	65	101	80	65	58
9	155	109	80	61	150	106	79	61	102	77	60	98	76	59	94	74	59	52
10	146	101	74	56	141	99	73	56	95	71	55	92	70	54	88	68	54	48

### Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	100.3 Candela
Central Cone Intensity:	99 Candela
Beam Flux:	194.2 Lumens
Beam Angle (0-180):	55.9 Degrees
Beam Angle (90-270):	56.2 Degrees
Field Angle (0-180):	177.0 Degrees
Field Angle (90-270):	176.8 Degrees

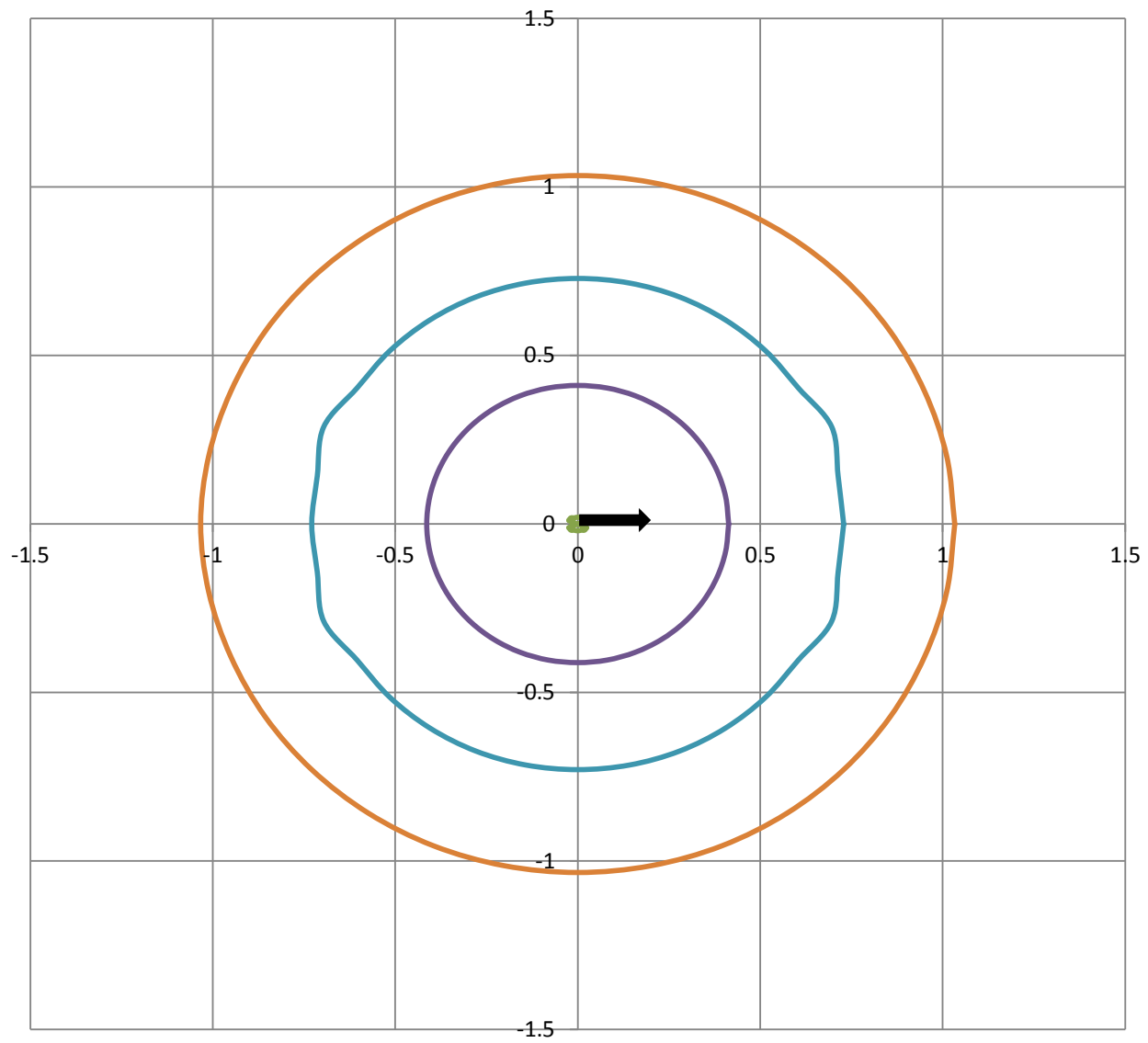
### Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		6.27	3.24
6.00		2.79	4.85
8.00		1.57	6.47
10.0		1.00	8.09
12.0		0.697	9.71
14.0		0.512	11.3
16.0		0.392	12.9



# ISOFootcandle Plot

Mounting Height - 10 Feet



Grid Lines in Units of Mounting Height





**IES "BUG" Rating**  
(Back Light, Uplight, Glare)  
Per IES TM-15-11



**Luminaire Classification System (LCS)**

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	28.6	9.1%
FM	(30-60)	46.6	14.9%
FH	(60-80)	67.1	21.4%
FVH	(80-90)	11.3	3.6%
BL	(0-30)	28.6	9.1%
BM	(30-60)	46.6	14.9%
BH	(60-80)	67.1	21.4%
BVH	(80-90)	11.3	3.6%
UL	(90-100)	5.0	1.6%
UH	(100-180)	0.6	0.2%
Total		313.0	100.0%
BUG Rating	B0 U1 G1		