



UL Verification Services Inc.  
7036 Snowdrift Road  
Allentown, PA 18106  
610-774-1300

## Photometric Test Report

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

**Prepared For**  
**Auroralight Inc**

2742 Loker Ave W  
#100  
Carlsbad, CA 92010-6619  
United States

**Catalog Number**  
**HDL11-AC6-6-M-27 (6W, 25° OPTIC, 2700K)**

Order Number  
12250114  
Test Number  
12250114.134

Report Date

2018-05-09

Prepared By

Sean Gregory, Project Handler

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Cylindrical metal housing with acrylic tube, lens and internal LED module

**Lamp:** One (1) Cree XHP 2700K LED with 25°, medium silicone optic

**Mounting:** Pendant

**Ballast/Driver:** Integrated

**Note:** This report has been pro-rated using data from report numbers 12250114.133, 12250114.01, 12250114.02, 12250114.03, 12250114.04, 12250114.05, and 12250114.06 to account for differences in color temperature.

#### Luminaire



#### Luminaire Characteristics

Luminous Diameter: 2.00 in.

Luminous Height: 6.250 in.

#### Summary of Results

Roadway Classification: Type V, Very Short  
Cutoff Classification: Noncutoff  
BUG Rating: B0 U3 G1

#### Test Conditions

Test Temperature: 24.2 °C  
Voltage: 12.03 VAC  
Current: 0.5191 A  
Power: 6.177 W  
Power Factor: 0.989  
Frequency: 60 Hz  
Current THD: 8.14 %

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
24.2 °C	12.03 VAC	0.5191 A	6.177 W	0.989	60 Hz	8.14 %

### Summary of Results

#### Spacing Criteria

0-180: 1.64

90-270: 1.64

#### Total Lumen Output:

350.5 Lumens

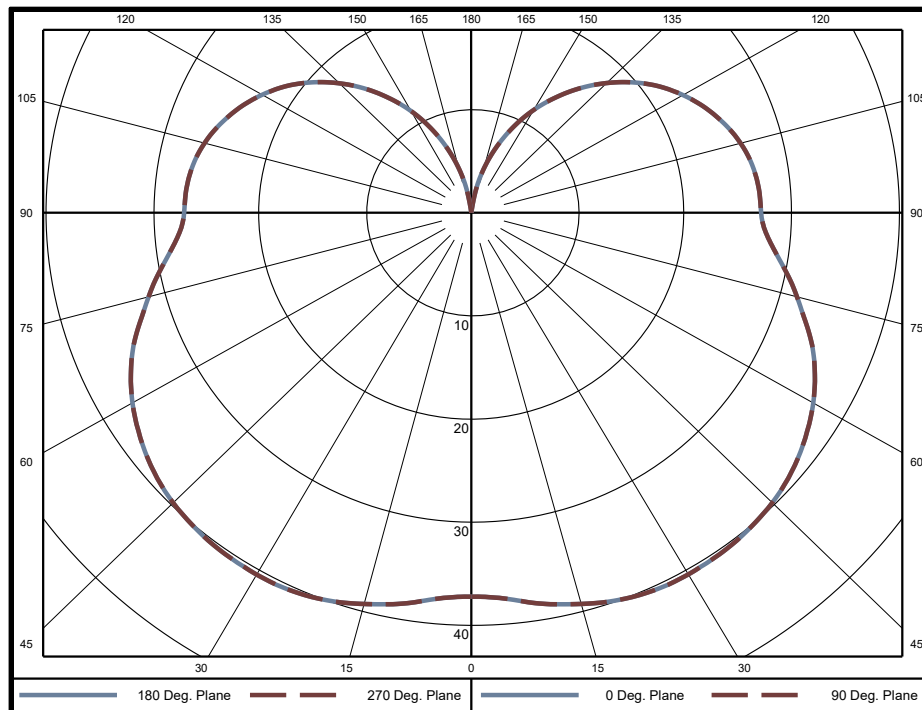
#### Luminaire Efficacy:

56.7 lm/w

#### Maximum Candela:

40 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.89	0.3%	60-65	17.57	5.0%	120-125	10.23	2.9%
5-10	2.72	0.8%	65-70	17.47	5.0%	125-130	8.94	2.6%
10-15	4.62	1.3%	70-75	16.97	4.8%	130-135	7.58	2.2%
15-20	6.54	1.9%	75-80	16.34	4.7%	135-140	6.22	1.8%
20-25	8.43	2.4%	80-85	15.56	4.4%	140-145	4.91	1.4%
25-30	10.24	2.9%	85-90	14.98	4.3%	145-150	3.69	1.1%
30-35	11.91	3.4%	90-95	14.79	4.2%	150-155	2.60	0.7%
35-40	13.45	3.8%	95-100	14.57	4.2%	155-160	1.66	0.5%
40-45	14.80	4.2%	100-105	14.11	4.0%	160-165	0.92	0.3%
45-50	15.93	4.5%	105-110	13.40	3.8%	165-170	0.37	0.1%
50-55	16.78	4.8%	110-115	12.49	3.6%	170-175	0.04	0.0%
55-60	17.33	4.9%	115-120	11.42	3.3%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	59	16.8%
0-60	124	35.3%
0-90	223	63.5%
90-180	128	36.5%



### 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	37.21	37.21	37.21	37.21	37.21	37.21	37.21	37.21	37.21	37.21	37.21	37.21	37.21	37.21	37.21
	5	37.56	37.56	37.56	37.56	37.56	37.56	37.56	37.56	37.56	37.56	37.56	37.56	37.56	37.56	37.56
	10	38.48	38.48	38.48	38.48	38.48	38.48	38.48	38.48	38.48	38.48	38.48	38.48	38.48	38.48	38.48
	15	39.26	39.26	39.26	39.26	39.26	39.26	39.26	39.26	39.26	39.26	39.26	39.26	39.26	39.26	39.26
	20	39.96	39.96	39.96	39.96	39.96	39.96	39.96	39.96	39.96	39.96	39.96	39.96	39.96	39.96	39.96
	25	40.38	40.38	40.38	40.38	40.38	40.38	40.38	40.38	40.38	40.38	40.38	40.38	40.38	40.38	40.38
	30	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49
	35	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41
	40	40.17	40.17	40.17	40.17	40.17	40.17	40.17	40.17	40.17	40.17	40.17	40.17	40.17	40.17	40.17
	45	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75
	50	39.05	39.05	39.05	39.05	39.05	39.05	39.05	39.05	39.05	39.05	39.05	39.05	39.05	39.05	39.05
	55	38.08	38.08	38.08	38.08	38.08	38.08	38.08	38.08	38.08	38.08	38.08	38.08	38.08	38.08	38.08
	60	36.88	36.88	36.88	36.88	36.88	36.88	36.88	36.88	36.88	36.88	36.88	36.88	36.88	36.88	36.88
	65	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38	35.38
	70	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52
	75	31.49	31.49	31.49	31.49	31.49	31.49	31.49	31.49	31.49	31.49	31.49	31.49	31.49	31.49	31.49
	80	29.55	29.55	29.55	29.55	29.55	29.55	29.55	29.55	29.55	29.55	29.55	29.55	29.55	29.55	29.55
	85	27.82	27.82	27.82	27.82	27.82	27.82	27.82	27.82	27.82	27.82	27.82	27.82	27.82	27.82	27.82
	90	27.07	27.07	27.07	27.07	27.07	27.07	27.07	27.07	27.07	27.07	27.07	27.07	27.07	27.07	27.07
	95	26.95	26.95	26.95	26.95	26.95	26.95	26.95	26.95	26.95	26.95	26.95	26.95	26.95	26.95	26.95
	100	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64	26.64
	105	26.04	26.04	26.04	26.04	26.04	26.04	26.04	26.04	26.04	26.04	26.04	26.04	26.04	26.04	26.04
	110	25.18	25.18	25.18	25.18	25.18	25.18	25.18	25.18	25.18	25.18	25.18	25.18	25.18	25.18	25.18
	115	24.11	24.11	24.11	24.11	24.11	24.11	24.11	24.11	24.11	24.11	24.11	24.11	24.11	24.11	24.11
	120	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83	22.83
	125	21.38	21.38	21.38	21.38	21.38	21.38	21.38	21.38	21.38	21.38	21.38	21.38	21.38	21.38	21.38
	130	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67
	135	17.78	17.78	17.78	17.78	17.78	17.78	17.78	17.78	17.78	17.78	17.78	17.78	17.78	17.78	17.78
	140	15.76	15.76	15.76	15.76	15.76	15.76	15.76	15.76	15.76	15.76	15.76	15.76	15.76	15.76	15.76
	145	13.61	13.61	13.61	13.61	13.61	13.61	13.61	13.61	13.61	13.61	13.61	13.61	13.61	13.61	13.61
	150	11.42	11.42	11.42	11.42	11.42	11.42	11.42	11.42	11.42	11.42	11.42	11.42	11.42	11.42	11.42
	155	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07
	160	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69
	165	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31
	170	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	18360	18360
	45	27740	27740
	55	32750	32750
	65	41300	41300
	75	60030	60030
	85	157500	157500



### 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	387	387	387	387	363	363	363	363	318	318	318	278	278	278	240	240	240	223
1	338	316	297	279	315	296	278	262	257	243	231	221	211	201	189	181	173	157
2	302	268	240	216	280	250	225	204	217	197	179	186	170	156	157	145	134	119
3	272	231	199	173	252	215	187	163	186	163	144	160	141	126	135	120	108	94
4	247	201	168	143	229	188	158	135	163	138	119	139	120	104	118	102	89	77
5	225	178	144	120	209	166	136	113	144	119	100	123	103	87	104	88	75	64
6	207	158	125	102	191	148	118	96	129	104	85	111	90	75	94	77	64	54
7	191	142	110	88	177	133	104	83	116	92	74	100	80	65	85	68	56	47
8	177	128	98	77	164	120	92	73	105	82	65	91	71	57	77	61	49	41
9	164	117	87	68	152	109	83	64	96	73	57	83	64	50	71	55	44	36
10	153	107	79	60	143	100	75	57	88	66	51	77	58	45	66	50	39	32

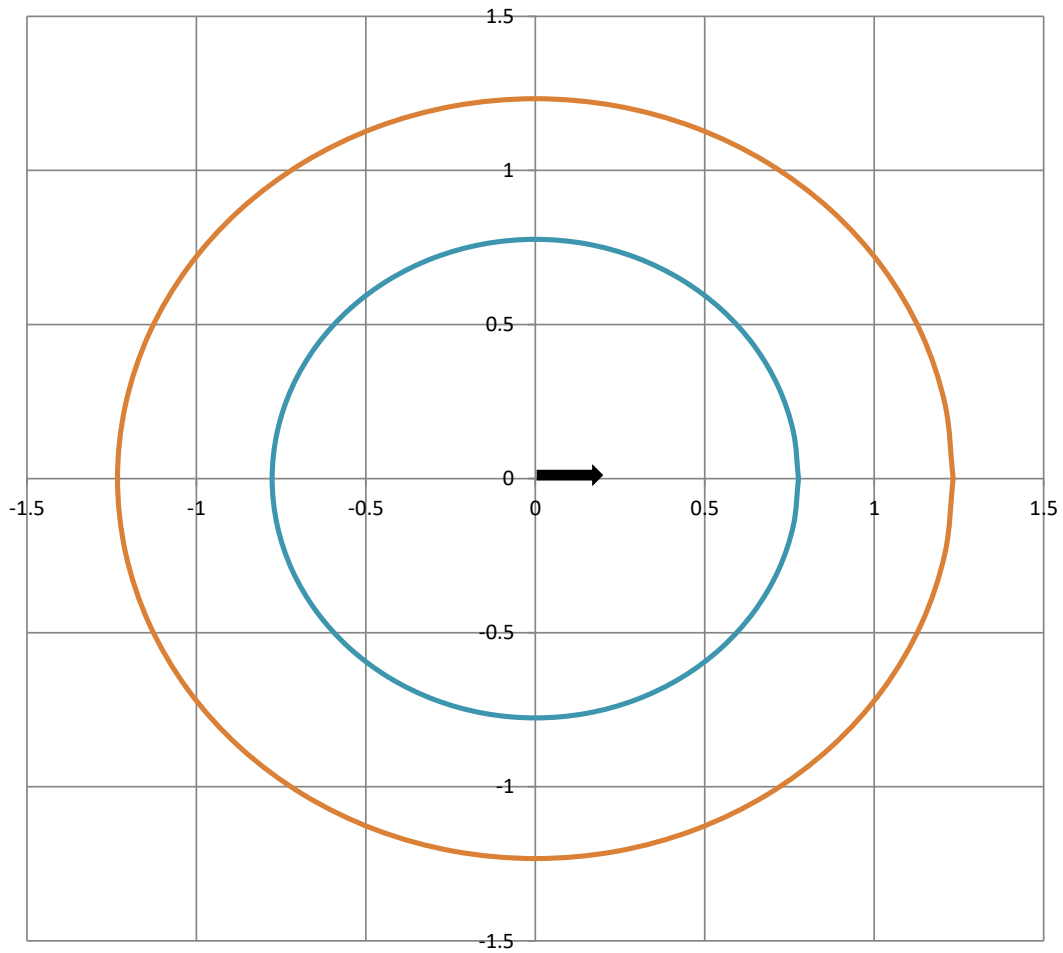
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	37.21 Candela
Central Cone Intensity:	37 Candela
Beam Flux:	327.0 Lumens
Beam Angle (0-180):	265.7 Degrees
Beam Angle (90-270):	265.7 Degrees
Field Angle (0-180):	332.5 Degrees
Field Angle (90-270):	332.5 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		2.33	6.56
6.00		1.03	9.83
8.00		0.581	13.1
10.0		0.372	16.4
12.0		0.258	19.7
14.0		0.190	22.9
16.0		0.145	26.2



## ISOFootcandle Plot

Mounting Height - 10 Feet



Grid Lines in Units of Mounting Height

— 0.2 fc

— 0.1 fc



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	16.7	4.8%
FM	(30-60)	45.1	12.9%
FH	(60-80)	34.2	9.7%
FVH	(80-90)	15.3	4.4%
BL	(0-30)	16.7	4.8%
BM	(30-60)	45.1	12.9%
BH	(60-80)	34.2	9.7%
BVH	(80-90)	15.3	4.4%
UL	(90-100)	29.4	8.4%
UH	(100-180)	98.6	28.1%
Total		350.5	100.0%
<b>BUG Rating</b>	<b>B0 U3 G1</b>		