



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**  
**LSL10-WF-27 (60° OPTIC, 2700K)**

Order Number  
12250114  
Test Number  
12250114.70

Report Date

2018-05-08

Prepared By

Sean Gregory, Project Handler

Approved By

Alexa Lambert, Project Handler

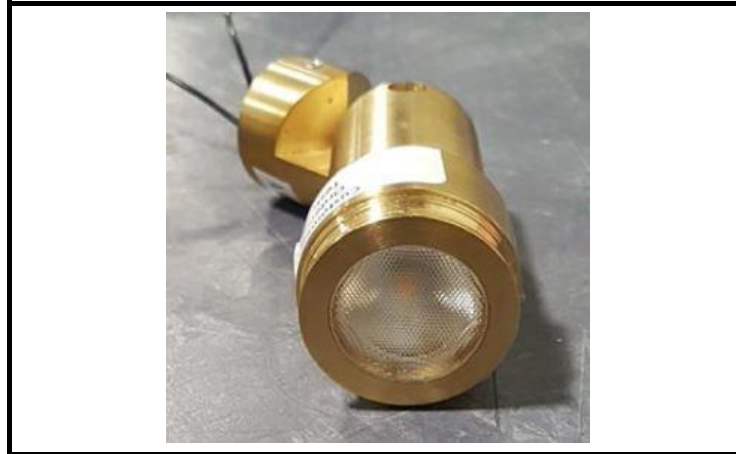
The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Cylindrical metal housing with adjustable knuckle  
**Lamp:** One (1) Cree XP-L 2700K LED with 60° wide flood optic  
**Mounting:** Flood  
**Ballast/Driver:** Integrated

**Note:** This report has been pro-rated using data from report numbers 12250114.69, 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: 1.00 in.

#### Summary of Results

Roadway Classification: Type V, Very Short  
Cutoff Classification: Full Cutoff  
BUG Rating: B0 U0 G0

#### Test Conditions

Test Temperature: 24.2 °C  
Voltage: 12.02 VAC  
Current: 0.4242 A  
Power: 3.198 W  
Power Factor: 0.627  
Frequency: 60 Hz  
Current THD: 92.0 %

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	12.02 VAC	0.4242 A	3.198 W	0.627	60 Hz	92.0 %

### Summary of Results

#### Spacing Criteria

0-180: 0.90

90-270: 0.90

#### Total Lumen Output:

216.2 Lumens

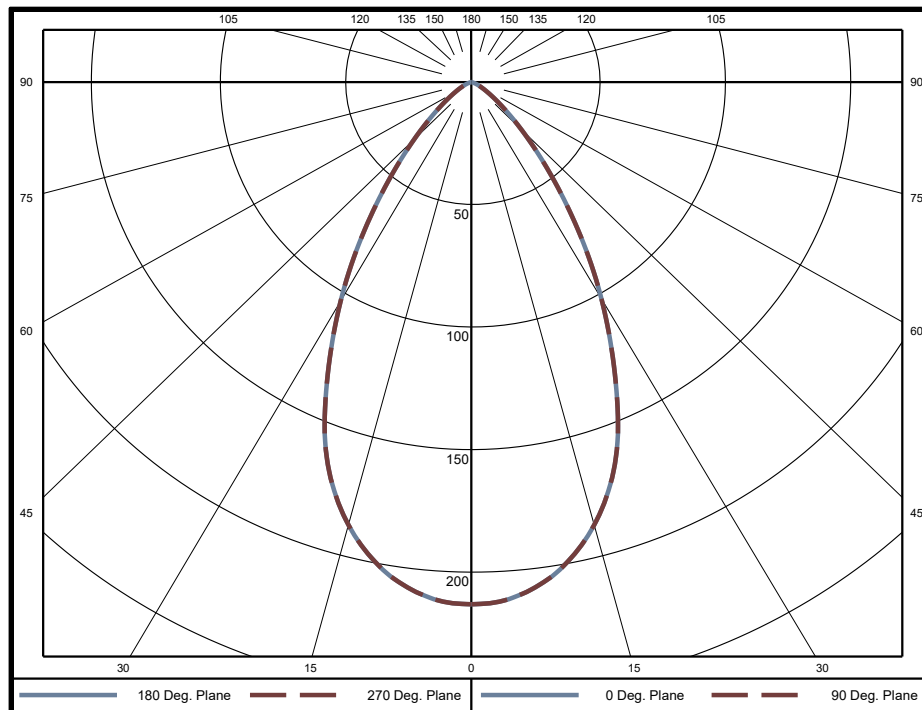
#### Luminaire Efficacy:

67.6 lm/w

#### Maximum Candela:

213 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	5.07	2.3%	60-65	2.07	1.0%	120-125	0	0.0%
5-10	14.76	6.8%	65-70	1.15	0.5%	125-130	0	0.0%
10-15	23.10	10.7%	70-75	0.51	0.2%	130-135	0	0.0%
15-20	29.15	13.5%	75-80	0.12	0.1%	135-140	0	0.0%
20-25	31.63	14.6%	80-85	0.00	0.0%	140-145	0	0.0%
25-30	30.05	13.9%	85-90	0	0.0%	145-150	0	0.0%
30-35	25.95	12.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	20.04	9.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	14.13	6.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	9.26	4.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	5.77	2.7%	110-115	0	0.0%	170-175	0	0.0%
55-60	3.48	1.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	180	83.1%
0-60	212	98.2%
0-90	216	100.0%
90-180	0	0.0%



**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	213.1	213.1	213.1	213.1	213.1	213.1	213.1	213.1	213.1	213.1	213.1	213.1	213.1	213.1	213.1
	5	210.5	210.5	210.5	210.5	210.5	210.5	210.5	210.5	210.5	210.5	210.5	210.5	210.5	210.5	210.5
	10	202.0	202.0	202.0	202.0	202.0	202.0	202.0	202.0	202.0	202.0	202.0	202.0	202.0	202.0	202.0
	15	187.4	187.4	187.4	187.4	187.4	187.4	187.4	187.4	187.4	187.4	187.4	187.4	187.4	187.4	187.4
	20	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0
	25	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2	135.2
	30	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6	103.6
	35	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
	40	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1
	45	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6
	50	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
	55	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
	60	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	65	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	70	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	75	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	80	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
	85	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
	90	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
	95	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
	100	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
	105	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
	110	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
	115	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
	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	0.0	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
	165	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
	170	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
	175	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
	180	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

**Average Luminance (cd/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	420600	420600
	45	82480	82480
	55	34030	34030
	65	14540	14540
	75	3725	3725
	85	0	0



### 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	257	257	257	257	251	251	251	251	240	240	240	230	230	230	221	221	221	216
1	244	238	232	227	239	233	228	223	224	220	216	216	213	210	209	206	204	200
2	231	219	210	202	226	216	207	199	208	201	195	202	196	191	196	191	187	183
3	218	203	191	181	213	199	189	180	194	185	177	188	181	174	183	177	172	168
4	205	188	175	165	201	185	173	164	180	170	162	176	167	160	172	164	158	154
5	194	174	160	150	190	172	159	150	168	157	148	164	155	147	161	152	146	142
6	183	162	148	138	180	161	147	138	157	145	137	154	144	136	151	142	135	131
7	173	152	138	128	170	150	137	127	147	135	127	145	134	126	142	132	125	122
8	164	142	128	118	161	141	127	118	138	126	118	136	125	117	134	124	117	113
9	156	133	120	110	153	132	119	110	130	118	110	128	117	109	126	116	109	106
10	148	126	112	103	146	125	112	103	123	111	103	121	110	102	119	109	102	99

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	213.1 Candela
Central Cone Intensity:	212 Candela
Beam Flux:	131.2 Lumens
Beam Angle (0-180):	59.0 Degrees
Beam Angle (90-270):	59.0 Degrees
Field Angle (0-180):	96.2 Degrees
Field Angle (90-270):	96.2 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		5.92	5.40
10.0		2.13	8.99
14.0		1.09	12.6
18.0		0.658	16.2
22.0		0.440	19.8
26.0		0.315	23.4
30.0		0.237	27.0



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	66.9	30.9%
FM	(30-60)	39.4	18.2%
FH	(60-80)	1.9	0.9%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	66.9	30.9%
BM	(30-60)	39.4	18.2%
BH	(60-80)	1.9	0.9%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		216.4	100.0%
<b>BUG Rating</b>	<b>B0 U0 G0</b>		