



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**  
**LWW-1-27 (2700K)**

Order Number  
12250114  
Test Number  
12250114.02

Test Date

2018-04-11

Prepared By

Samuel DePue, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Brass housing with brass glare shield, single light source and adjustable knuckle  
**Lamp:** One (1) XP-L 2700K LED with one (1) acrylic optic  
**Mounting:** Flood  
**Ballast/Driver:** Integrated

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 2.00 in.  
Luminous Width: 3.250 in.  
Luminous Height: 1.00 in.

**Summary of Results**

Roadway Classification: Type II, Very Short  
Cutoff Classification: Cutoff  
BUG Rating: B0 U1 G0

**Test Conditions**

Test Temperature: 25.0 °C  
Voltage: 12.03 VAC  
Current: 0.4054 A  
Power: 3.049 W  
Power Factor: 0.625  
Frequency: 60 Hz  
Current THD: 92.3 %

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
25.0 °C	12.03 VAC	0.4054 A	3.049 W	0.625	60 Hz	92.3 %

### Summary of Results

#### Spacing Criteria

0-180: 1.24

90-270: 1.11

#### Total Lumen Output:

129.8 Lumens

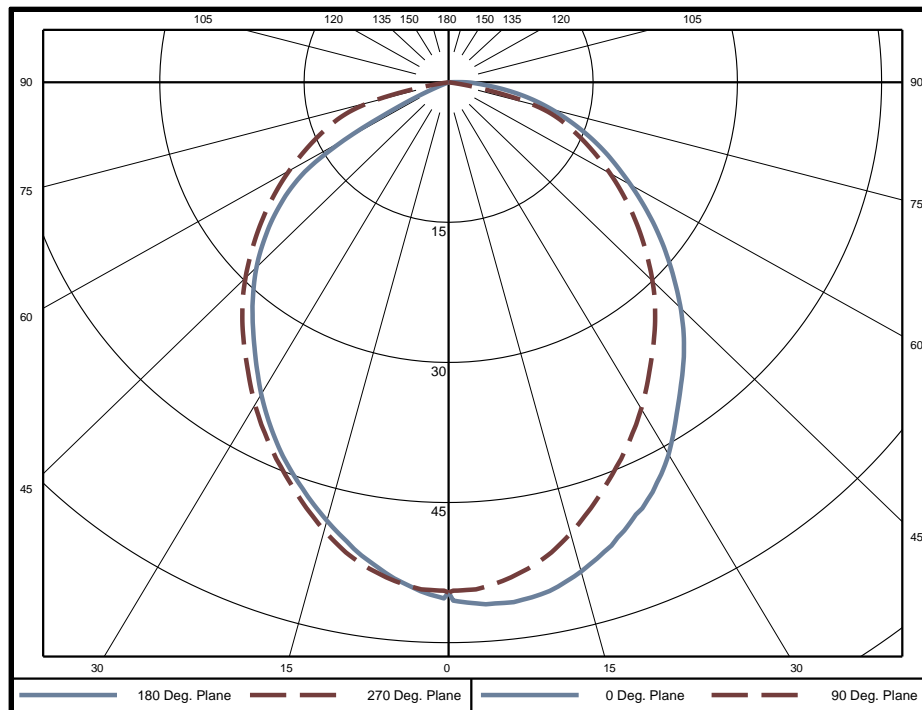
#### Luminaire Efficacy:

42.6 lm/w

#### Maximum Candela:

56 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.30	1.0%	60-65	7.94	6.1%	120-125	0	0.0%
5-10	3.82	2.9%	65-70	6.17	4.8%	125-130	0	0.0%
10-15	6.11	4.7%	70-75	4.54	3.5%	130-135	0	0.0%
15-20	8.05	6.2%	75-80	2.70	2.1%	135-140	0	0.0%
20-25	9.60	7.4%	80-85	1.39	1.1%	140-145	0	0.0%
25-30	10.76	8.3%	85-90	0.62	0.5%	145-150	0	0.0%
30-35	11.47	8.8%	90-95	0.17	0.1%	150-155	0	0.0%
35-40	11.80	9.1%	95-100	0.01	0.0%	155-160	0	0.0%
40-45	11.79	9.1%	100-105	0	0.0%	160-165	0	0.0%
45-50	11.38	8.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	10.63	8.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	9.54	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	63	48.5%
0-60	106	81.9%
0-90	130	99.9%
90-180	0	0.1%



**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	54.64	54.64	54.64	54.64	54.64	54.64	54.64	54.64	54.64	54.64	54.64	54.64	54.64	54.64	54.64
	5	56.03	55.43	54.84	54.44	53.95	53.48	53.17	53.18	53.81	53.18	53.17	53.48	53.95	54.44	54.84
	10	55.69	55.05	54.10	53.25	52.35	51.50	50.89	50.80	51.47	50.80	50.89	51.50	52.35	53.25	54.10
	15	54.15	53.48	52.21	50.94	49.78	48.85	48.33	47.94	48.53	47.94	48.33	48.85	49.78	50.94	52.21
	20	51.87	50.92	49.24	47.92	46.64	45.61	45.37	44.84	45.43	44.84	45.37	45.61	46.64	47.92	49.24
	25	49.36	47.90	45.92	44.84	43.44	42.20	42.12	41.62	42.11	41.62	42.12	42.20	43.44	44.84	45.92
	30	46.12	44.45	42.81	41.64	40.18	38.67	38.54	37.97	38.49	37.97	38.54	38.67	40.18	41.64	42.81
	35	42.02	40.57	39.62	38.09	36.68	35.07	34.67	34.14	34.72	34.14	34.67	35.07	36.68	38.09	39.62
	40	38.39	36.82	36.16	34.49	33.42	31.76	31.04	30.62	31.31	30.62	31.04	31.76	33.42	34.49	36.16
	45	34.49	33.11	32.23	30.90	29.97	28.41	27.46	27.16	27.84	27.16	27.46	28.41	29.97	30.90	32.23
	50	30.30	29.33	28.19	27.30	26.35	24.90	23.86	23.49	24.03	23.49	23.86	24.90	26.35	27.30	28.19
	55	26.20	25.47	24.36	23.63	22.80	21.48	20.32	19.76	19.72	19.76	20.32	21.48	22.80	23.63	24.36
	60	22.12	21.61	20.70	19.98	19.31	18.13	16.97	14.90	12.39	14.90	16.97	18.13	19.31	19.98	20.70
	65	18.42	18.04	17.20	16.53	15.97	14.97	13.58	5.92	2.91	5.92	13.58	14.97	15.97	16.53	17.20
	70	14.75	14.66	13.92	13.37	12.85	11.98	8.89	0.26	0.00	0.26	8.89	11.98	12.85	13.37	13.92
	75	11.18	11.25	10.82	10.53	8.83	6.13	1.42	0.00	0.00	0.00	1.42	6.13	8.83	10.53	10.82
	80	7.65	7.85	7.90	6.93	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16	6.93	7.90
	85	4.17	4.50	5.16	2.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.07	5.16
	90	1.84	1.95	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57
	95	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58
	100	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
	105	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
	110	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
	115	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
	120	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
	125	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
	130	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
	135	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
	140	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
	145	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
	150	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
	155	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
	160	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
	165	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
	170	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
	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	13030	13030
	45	7753	6918
	55	6354	5579
	65	5015	4363
	75	3596	3183
	85	1698	1876



### 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	154	154	154	154	151	151	151	151	144	144	144	138	138	138	132	132	132	130
1	142	136	131	126	138	133	128	124	127	123	120	122	119	116	118	115	113	110
2	130	119	111	104	126	117	109	102	112	106	100	108	103	98	104	100	96	93
3	119	105	95	87	115	103	94	86	99	91	85	96	89	83	93	87	82	79
4	109	94	83	74	106	92	82	74	89	80	73	86	78	72	83	76	71	68
5	100	84	73	64	98	83	72	64	80	71	63	77	69	63	75	68	62	59
6	93	76	65	57	90	75	64	56	72	63	56	70	62	55	68	61	55	52
7	86	69	58	50	84	68	57	50	66	57	50	64	56	49	62	55	49	46
8	80	63	52	45	78	62	52	45	61	51	45	59	50	44	57	50	44	42
9	75	58	48	41	73	57	47	41	56	47	40	55	46	40	53	46	40	38
10	71	54	44	37	69	53	43	37	52	43	37	51	42	37	49	42	36	34

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	54.64 Candela
Central Cone Intensity:	54 Candela
Beam Flux:	83.3 Lumens
Beam Angle (0-180):	99.3 Degrees
Beam Angle (90-270):	97.3 Degrees
Field Angle (0-180):	146.3 Degrees
Field Angle (90-270):	154.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		1.52	6.75
10.0		0.546	11.3
14.0		0.279	15.8
18.0		0.169	20.3
22.0		0.113	24.8
26.0		0.0808	29.3
30.0		0.0607	33.8



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	20.6	15.9%
FM	(30-60)	35.7	27.5%
FH	(60-80)	14.2	10.9%
FVH	(80-90)	2.1	1.6%
BL	(0-30)	19.0	14.7%
BM	(30-60)	30.8	23.7%
BH	(60-80)	7.2	5.5%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.2	0.2%
UH	(100-180)	0.0	0.0%
Total		129.8	100.0%
<b>BUG Rating</b>	<b>B0 U1 G0</b>		