



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 Avenue W  
Carlsbad, CA 92010  
United States

Catalog Number  
**LSW3-SQ-6-27 (6W, 2700K)**  
Order Number  
13430084  
Test Number  
13430084.01A

Test Date

2020-07-14

Prepared By

Cordaryl Cousar, Technician

Approved By

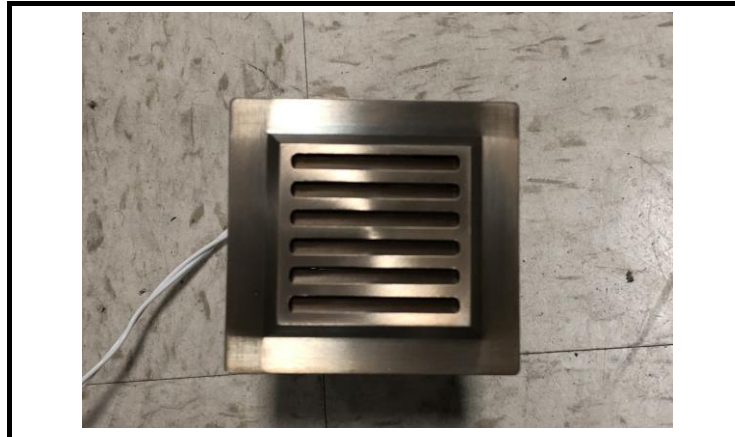
Jeffrey Lockner, Project Engineer

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**Luminaire Description:** Cylindrical brass housing with 3" square brass louvered faceplate, and PVC sleeve  
**Lamp:** One White LED  
**Mounting:** Path/Area Light  
**Ballast/Driver:** Integrated

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 0.25 in.  
Luminous Width: 2.000 in.  
Luminous Height: 1.75 in.

**Summary of Results**

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

**Test Conditions**

Test Temperature: 24.2 °C  
Voltage: 12.03 VAC  
Current: 0.5262 A  
Power: 6.316 W  
Power Factor: 0.998  
Frequency: 60 Hz  
Current THD: 4.02 %

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	0.5262 A	6.316 W	0.998	60 Hz	4.02 %

### Summary of Results

#### Spacing Criteria

0-180: 2.01

90-270: 1.01

Total Lumen Output:

34.27 Lumens

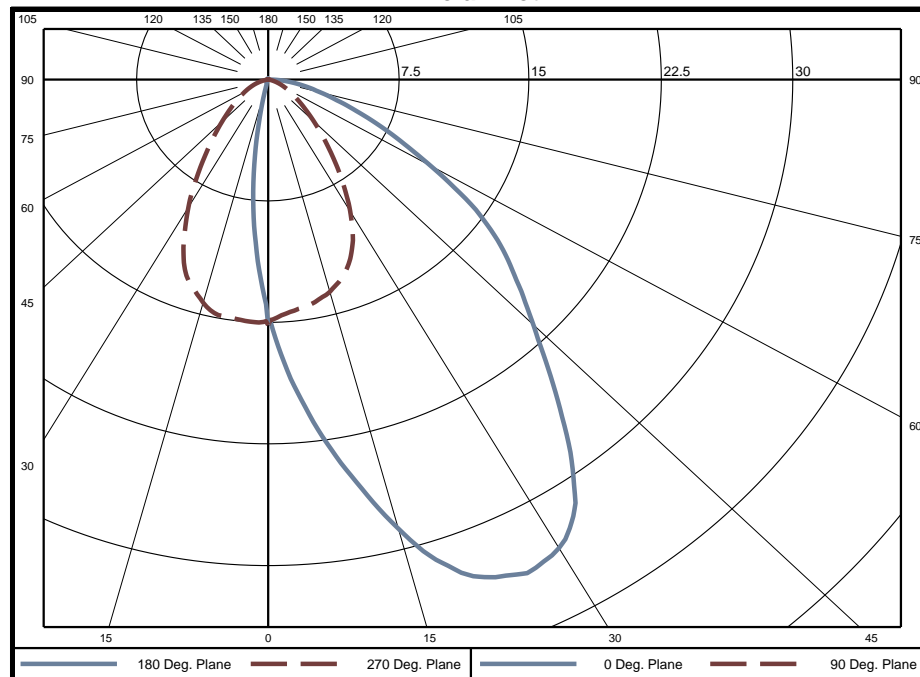
Luminaire Efficacy:

5.4 lm/w

Maximum Candela:

34 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.359	1.0%	60-65	1.701	5.0%	120-125	0.003	0.0%
5-10	1.057	3.1%	65-70	1.222	3.6%	125-130	0.004	0.0%
10-15	1.719	5.0%	70-75	0.780	2.3%	130-135	0.004	0.0%
15-20	2.359	6.9%	75-80	0.437	1.3%	135-140	0.005	0.0%
20-25	2.982	8.7%	80-85	0.208	0.6%	140-145	0.005	0.0%
25-30	3.414	10.0%	85-90	0.056	0.2%	145-150	0.005	0.0%
30-35	3.600	10.5%	90-95	0.002	0.0%	150-155	0.005	0.0%
35-40	3.498	10.2%	95-100	0.001	0.0%	155-160	0.004	0.0%
40-45	3.218	9.4%	100-105	0.002	0.0%	160-165	0.003	0.0%
45-50	2.881	8.4%	105-110	0.002	0.0%	165-170	0.003	0.0%
50-55	2.555	7.5%	110-115	0.003	0.0%	170-175	0.002	0.0%
55-60	2.168	6.3%	115-120	0.003	0.0%	175-180	0.001	0.0%

Zone	Lumens	% of Luminaire
0-40	19	55.4%
0-60	30	87.0%
0-90	34	99.8%
90-180	0	0.2%



### 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	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15
	5	19.40	20.04	18.56	16.68	14.67	12.91	11.51	10.85	9.09	10.85	11.51	12.91	14.67	16.68	18.56
	10	24.04	24.09	21.73	18.29	14.45	10.84	7.90	6.04	3.80	6.04	7.90	10.84	14.45	18.29	21.73
	15	28.64	28.17	24.35	19.43	13.92	8.57	3.99	1.75	0.59	1.75	3.99	8.57	13.92	19.43	24.35
	20	32.40	31.19	26.54	20.02	12.98	6.19	1.13	0.34	0.28	0.34	1.13	6.19	12.98	20.02	26.54
	25	33.71	32.17	27.48	19.52	11.39	3.74	0.30	0.25	0.22	0.25	0.30	3.74	11.39	19.52	27.48
	30	33.38	31.29	26.56	17.83	9.21	1.71	0.22	0.19	0.17	0.19	0.22	1.71	9.21	17.83	26.56
	35	30.60	28.52	24.23	15.24	6.99	0.59	0.17	0.15	0.13	0.15	0.17	0.59	6.99	15.24	24.23
	40	25.85	24.41	21.13	12.47	5.13	0.22	0.13	0.11	0.10	0.11	0.13	0.22	5.13	12.47	21.13
	45	21.56	20.27	17.67	10.05	3.75	0.15	0.10	0.09	0.08	0.09	0.10	0.15	3.75	10.05	17.67
	50	18.28	16.96	14.49	8.13	2.73	0.11	0.08	0.07	0.07	0.08	0.11	2.73	8.13	14.49	16.96
	55	15.07	13.91	12.06	6.68	2.00	0.09	0.06	0.06	0.05	0.06	0.09	2.00	6.68	12.06	13.91
	60	10.94	10.22	9.85	5.54	1.45	0.06	0.04	0.04	0.03	0.04	0.06	1.45	5.54	9.85	10.22
	65	7.58	6.85	7.17	4.57	1.01	0.05	0.03	0.03	0.03	0.03	0.05	1.01	4.57	7.17	6.85
	70	4.99	4.36	4.24	3.53	0.65	0.03	0.02	0.02	0.03	0.02	0.03	0.65	3.53	4.24	4.36
	75	3.16	2.65	2.14	2.16	0.34	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.34	2.16	2.14
	80	1.93	1.47	1.04	0.90	0.12	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.12	0.90	1.04
	85	0.92	0.56	0.39	0.33	0.04	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.04	0.33	0.39
	90	0.03	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01
	95	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
	110	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.00
	120	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00
	130	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.00	0.00
	135	0.00	0.00	0.00	0.01	0.00	0.02	0.03	0.02	0.04	0.02	0.03	0.02	0.00	0.01	0.00
	140	0.00	0.00	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.01	0.01	0.01
	145	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.01	0.00	0.00
	150	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.05	0.03	0.03	0.02	0.01	0.01	0.00
	155	0.00	0.00	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.04	0.03	0.02	0.02	0.01	0.01
	160	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.02	0.01	0.01
	165	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.02	0.02
	170	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.01
	175	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.02
	180	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

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

Horizontal Angle (Degrees)

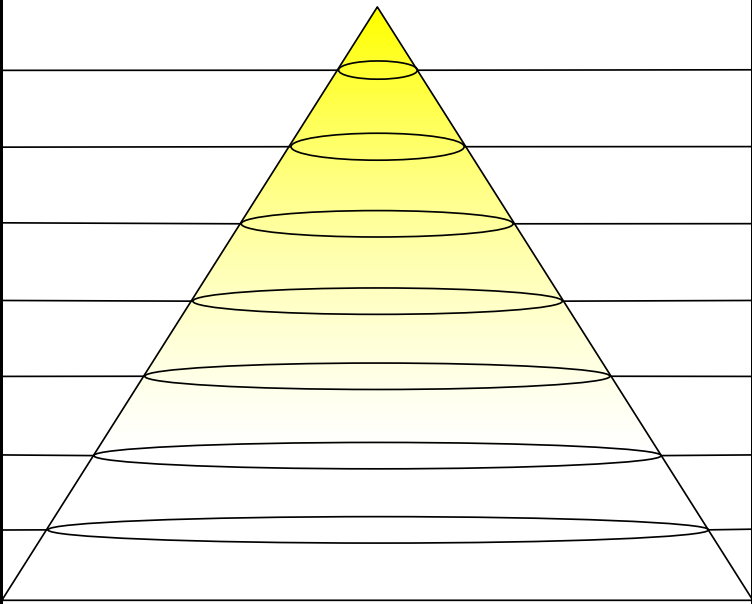
Vertical Angle (Degrees)	0	45	90
	0	46950	46950
	45	94540	77490
	55	81470	65180
	65	55570	52600
	75	37840	25590
	85	32880	13790



### 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	41	41	41	41	40	40	40	40	38	38	38	36	36	36	35	35	35	34
1	38	36	35	34	37	36	34	33	34	33	32	33	32	31	32	31	30	30
2	35	32	30	28	34	32	30	28	30	29	27	29	28	27	28	27	26	26
3	32	29	26	24	31	28	26	24	27	25	24	26	25	23	25	24	23	22
4	30	26	23	21	29	25	23	21	24	22	21	24	22	20	23	21	20	19
5	27	23	20	18	27	23	20	18	22	20	18	22	19	18	21	19	18	17
6	25	21	18	16	25	21	18	16	20	18	16	20	17	16	19	17	16	15
7	24	19	16	14	23	19	16	14	18	16	14	18	16	14	18	16	14	13
8	22	18	15	13	21	17	15	13	17	15	13	17	14	13	16	14	13	12
9	21	16	14	12	20	16	14	12	16	13	12	15	13	12	15	13	12	11
10	19	15	12	11	19	15	12	11	15	12	11	14	12	11	14	12	11	10

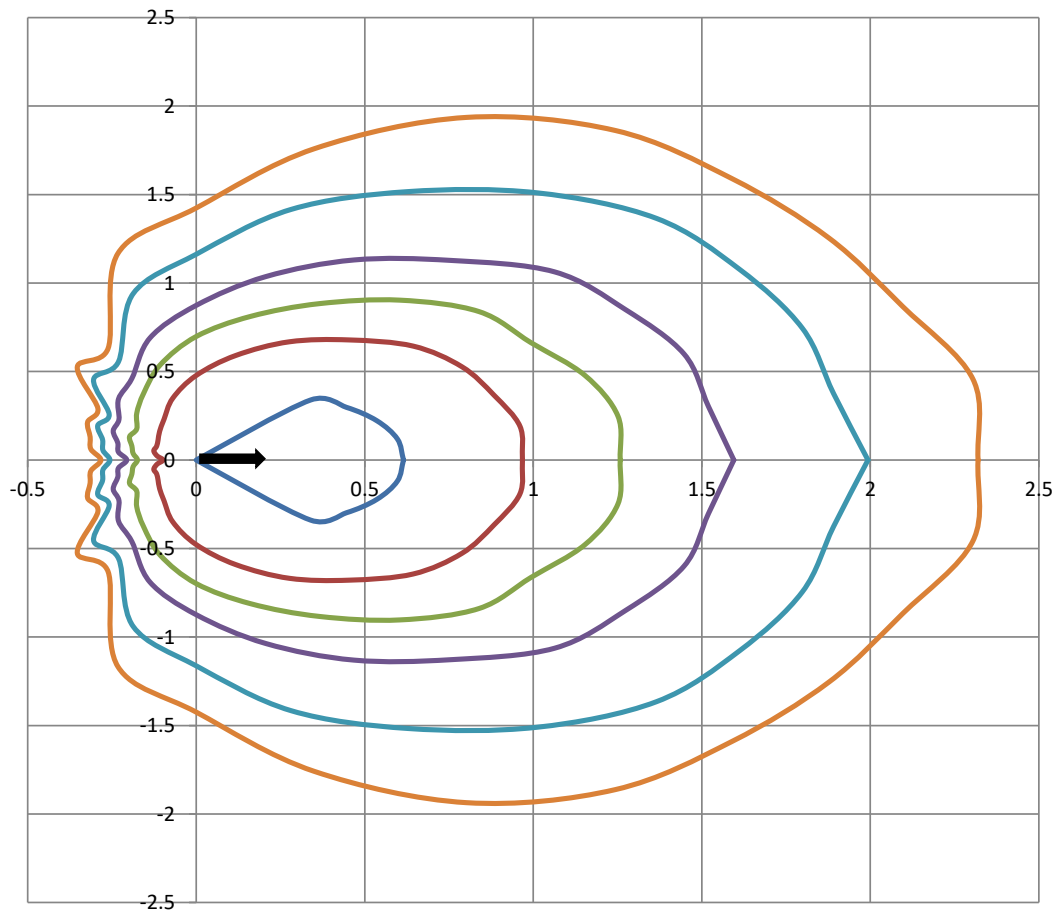
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	15.15 Candela
Central Cone Intensity:	15 Candela
Beam Flux:	28.7 Lumens
Beam Angle (0-180):	71.4 Degrees
Beam Angle (90-270):	67.3 Degrees
Field Angle (0-180):	94.7 Degrees
Field Angle (90-270):	118.6 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		0.947	5.00
6.00		0.421	7.50
8.00		0.237	10.00
10.0		0.151	12.5
12.0		0.105	15.0
14.0		0.0773	17.5
16.0		0.0592	20.0



## ISOFootcandle Plot

Mounting Height - 2 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)	10.1	29.7%
FM	(30-60)	17.1	50.4%
FH	(60-80)	4.0	11.8%
FVH	(80-90)	0.3	0.7%
BL	(0-30)	1.8	5.3%
BM	(30-60)	0.6	1.7%
BH	(60-80)	0.1	0.2%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.1	0.1%
Total		34.0	100.0%
<b>BUG Rating</b>	<b>B0 U1 G0</b>		