



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**  
**LSR3-L-27 (2700K)**

Order Number  
12250114  
Test Number  
12250114.58

Test Date

2018-04-18

Prepared By

Cordaryl Cousar, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.  
This report must not be used by the client to claim product certification, approval, or endorsement by  
NVLAP, NIST, or any agency of the Federal Government.



**Luminaire Description:** Stainless steel housing with rectangular louvered metal faceplate and frosted glass lens  
**Lamp:** Three (3) Cree XP-G 2700K LEDs  
**Mounting:** Step/Wall  
**Ballast/Driver:** Integrated

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 2.50 in.  
Luminous Width: 0.2500 in.  
Luminous Height: 2.25 in.

**Summary of Results**

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

**Test Conditions**

Test Temperature: 24.0 °C  
Voltage: 12.03 VAC  
Current: 0.5325 A  
Power: 3.950 W  
Power Factor: 0.617  
Frequency: 60 Hz  
Current THD: 96.5 %

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
24.0 °C	12.03 VAC	0.5325 A	3.950 W	0.617	60 Hz	96.5 %

### Summary of Results

#### Spacing Criteria

0-180: 18.86

90-270: 6.97

#### Total Lumen Output:

44.18 Lumens

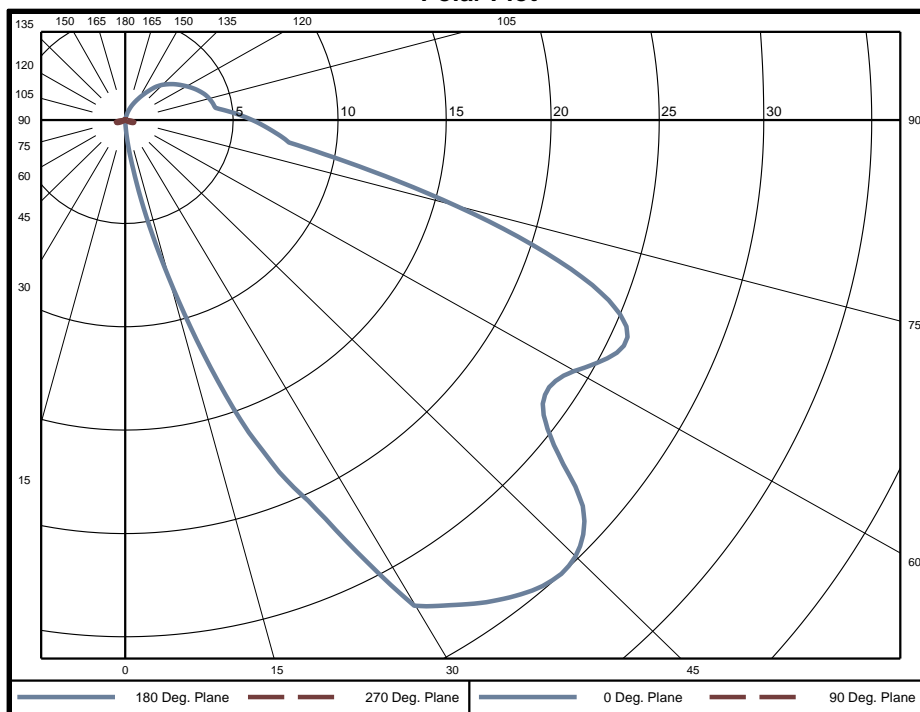
#### Luminaire Efficacy:

11.2 lm/w

#### Maximum Candela:

30 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.002	0.0%	60-65	3.859	8.7%	120-125	0.389	0.9%
5-10	0.036	0.1%	65-70	3.887	8.8%	125-130	0.334	0.8%
10-15	0.166	0.4%	70-75	3.341	7.6%	130-135	0.274	0.6%
15-20	0.469	1.1%	75-80	2.283	5.2%	135-140	0.211	0.5%
20-25	0.966	2.2%	80-85	1.385	3.1%	140-145	0.153	0.3%
25-30	1.603	3.6%	85-90	0.993	2.2%	145-150	0.105	0.2%
30-35	2.319	5.2%	90-95	0.763	1.7%	150-155	0.068	0.2%
35-40	2.944	6.7%	95-100	0.621	1.4%	155-160	0.042	0.1%
40-45	3.453	7.8%	100-105	0.582	1.3%	160-165	0.022	0.0%
45-50	3.776	8.5%	105-110	0.545	1.2%	165-170	0.006	0.0%
50-55	3.842	8.7%	110-115	0.498	1.1%	170-175	0.000	0.0%
55-60	3.800	8.6%	115-120	0.444	1.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	9	19.3%
0-60	23	52.9%
0-90	39	88.6%
90-180	5	11.4%



**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	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
	5	0.71	0.74	0.37	0.04	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02	0.04	0.37
	10	3.11	2.89	1.61	0.43	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02	0.43	1.61
	15	7.87	7.08	3.87	1.04	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.03	1.04	3.87
	20	14.83	13.04	7.19	1.83	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.03	1.83	7.19
	25	20.32	18.67	11.50	2.95	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.03	2.95	11.50
	30	27.13	24.22	15.80	4.40	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.04	4.40	15.80
	35	28.56	26.95	19.54	6.06	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.04	6.06	19.54
	40	29.71	27.60	23.14	7.80	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.04	7.80	23.14
	45	29.87	27.71	23.03	9.47	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.04	9.47	23.03
	50	27.58	26.32	22.42	11.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	11.03	22.42
	55	23.92	22.94	21.25	11.54	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11	11.54	21.25	22.94
	60	24.30	22.40	19.03	10.29	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20	10.29	19.03	22.40
	65	25.82	23.32	17.94	8.71	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.31	8.71	17.94	23.32
	70	23.33	21.29	17.24	7.49	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.39	7.49	17.24	21.29
	75	16.15	15.08	13.30	6.14	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.41	6.14	13.30	15.08
	80	9.50	8.90	7.88	4.02	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.39	4.02	7.88	8.90
	85	7.09	6.39	4.42	1.96	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25	1.96	4.42	6.39
	90	5.98	5.24	3.36	1.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	1.04	3.36	5.24
	95	4.87	4.19	2.49	0.66	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.66	2.49	4.19
	100	4.22	3.76	2.31	0.61	0.03	0.00	0.00	0.01	0.01	0.00	0.00	0.03	0.61	2.31	3.76
	105	4.07	3.62	2.21	0.59	0.04	0.00	0.01	0.02	0.02	0.01	0.00	0.04	0.59	2.21	3.62
	110	3.86	3.41	2.08	0.59	0.05	0.00	0.01	0.02	0.02	0.01	0.00	0.05	0.59	2.08	3.41
	115	3.59	3.16	1.95	0.58	0.05	0.00	0.02	0.02	0.03	0.02	0.00	0.05	0.58	1.95	3.16
	120	3.29	2.89	1.82	0.54	0.06	0.00	0.02	0.03	0.03	0.02	0.00	0.06	0.54	1.82	2.89
	125	3.01	2.63	1.70	0.51	0.06	0.00	0.02	0.02	0.03	0.02	0.00	0.06	0.51	1.70	2.63
	130	2.71	2.38	1.49	0.47	0.04	0.00	0.02	0.03	0.03	0.02	0.00	0.04	0.47	1.49	2.38
	135	2.41	2.08	1.23	0.42	0.03	0.00	0.01	0.02	0.03	0.02	0.01	0.00	0.03	0.42	1.23
	140	2.00	1.67	1.00	0.36	0.02	0.00	0.01	0.02	0.03	0.02	0.01	0.00	0.02	0.36	1.00
	145	1.54	1.31	0.80	0.31	0.01	0.00	0.01	0.01	0.02	0.01	0.01	0.00	0.01	0.80	1.31
	150	1.16	0.99	0.63	0.26	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.26	0.63
	155	0.85	0.73	0.48	0.21	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.21	0.48
	160	0.56	0.52	0.35	0.15	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.15	0.35
	165	0.25	0.34	0.24	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.24
	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	43	43
	45	55140	10100
	55	45260	8353
	65	51720	6574
	75	35500	4698
	85	17880	1552



### 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	51	51	51	51	50	50	50	50	46	46	46	43	43	43	40	40	40	39
1	45	42	40	38	43	41	39	37	38	36	35	35	34	33	33	32	31	29
2	40	35	32	28	38	34	31	28	32	29	26	29	27	25	27	25	24	22
3	36	30	26	22	34	29	25	22	27	23	20	25	22	19	23	21	18	17
4	32	26	21	18	30	25	20	17	23	19	16	21	18	16	20	17	15	13
5	29	22	18	14	28	21	17	14	20	16	13	18	15	13	17	14	12	11
6	26	20	15	12	25	19	15	11	17	14	11	16	13	10	15	12	10	9
7	24	17	13	10	23	17	13	10	15	12	9	14	11	9	13	10	8	7
8	22	15	11	8	21	15	11	8	14	10	8	13	10	7	12	9	7	6
9	20	14	10	7	20	13	10	7	13	9	7	12	9	6	11	8	6	5
10	19	13	9	6	18	12	9	6	11	8	6	11	8	6	10	7	5	4

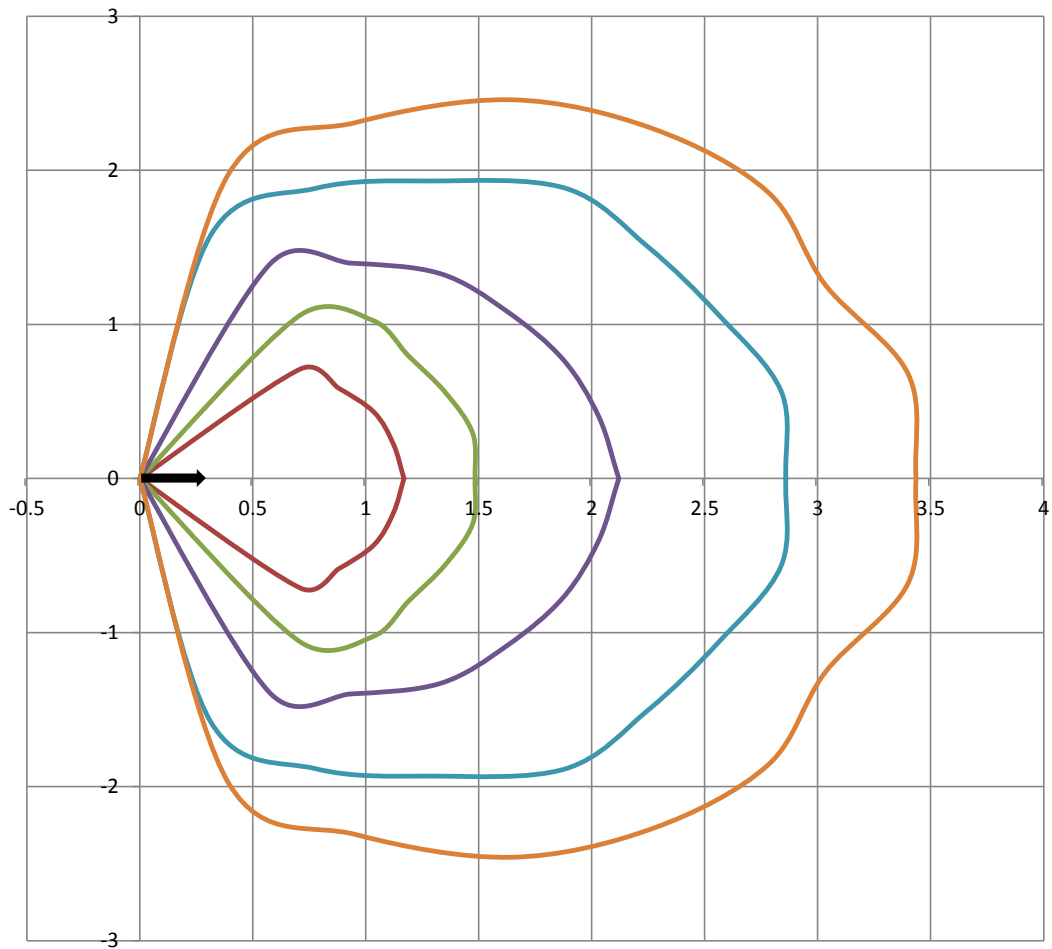
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	0.02 Candela
Central Cone Intensity:	0 Candela
Beam Flux:	44.2 Lumens
Beam Angle (0-180):	169.2 Degrees
Beam Angle (90-270):	288.2 Degrees
Field Angle (0-180):	171.3 Degrees
Field Angle (90-270):	296.2 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		0.00108	53.9
6.00		0.000480	80.9
8.00		0.000270	108
10.0		0.000173	135
12.0		0.000120	162
14.0		0.0000881	189
16.0		0.0000675	216



## ISOFootcandle Plot

Mounting Height - 2 Feet



Grid Lines in Units of Mounting Height

5 fc    2 fc    1 fc    0.5 fc    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)	3.3	7.4%
FM	(30-60)	20.0	45.5%
FH	(60-80)	13.2	30.2%
FVH	(80-90)	2.4	5.4%
BL	(0-30)	0.0	0.0%
BM	(30-60)	0.0	0.0%
BH	(60-80)	0.0	0.0%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	1.4	3.1%
UH	(100-180)	3.7	8.3%
Total		43.9	100.0%
<b>BUG Rating</b>	<b>B0 U1 G0</b>		