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Allentown, PA 18106  
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## 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**  
**LSW8-N-27 (10° OPTIC, 2700K)**

Order Number  
12250114  
Test Number  
12250114.104

Report Date

2018-05-08

Prepared By

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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 copper housing with circular metal flush faceplate  
**Lamp:** One (1) Cree XP-L 2700K LED with 10°, narrow silicone optic  
**Mounting:** Recessed  
**Ballast/Driver:** Integrated  
**Note:** This report has been pro-rated using data from report numbers 11912334.03, 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: 24.6 °C  
Voltage: 11.95 VAC  
Current: 0.1693 A  
Power: 1.236 W  
Power Factor: 0.611  
Frequency: 60 Hz  
Current THD: 81.1 %

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
24.6 °C	11.95 VAC	0.1693 A	1.236 W	0.611	60 Hz	81.1 %

### Summary of Results

#### Spacing Criteria

0-180: 0.24

90-270: 0.24

#### Total Lumen Output:

105.7 Lumens

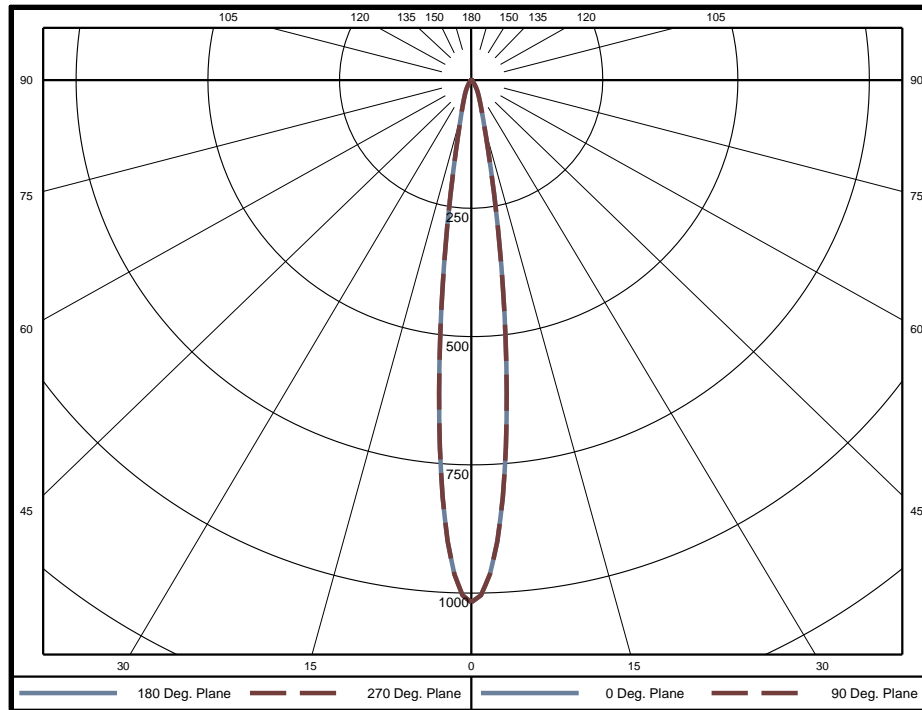
#### Luminaire Efficacy:

85.5 lm/w

#### Maximum Candela:

1018 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	20.59	19.5%	60-65	0.51	0.5%	120-125	0	0.0%
5-10	31.76	30.0%	65-70	0.41	0.4%	125-130	0	0.0%
10-15	17.36	16.4%	70-75	0.33	0.3%	130-135	0	0.0%
15-20	10.39	9.8%	75-80	0.24	0.2%	135-140	0	0.0%
20-25	7.66	7.2%	80-85	0.15	0.1%	140-145	0	0.0%
25-30	5.78	5.5%	85-90	0.05	0.0%	145-150	0	0.0%
30-35	3.98	3.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	2.49	2.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	1.53	1.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	1.03	1.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.78	0.7%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.62	0.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	100	94.6%
0-60	104	98.4%
0-90	106	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	1018	1018	1018	1018	1018	1018	1018	1018	1018	1018	1018	1018	1018	1018	1018
	5	717	717	717	717	717	717	717	717	717	717	717	717	717	717	717
	10	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
	15	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
	20	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
	25	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
	30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	35	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	40	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	45	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	50	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	55	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	60	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	65	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80	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
	90	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
	100	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
	110	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
	120	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
	130	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
	140	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
	150	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
	160	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
	170	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
	180	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	2009000	2009000
	45	8794	8794
	55	5303	5303
	65	4295	4295
	75	4003	4003
	85	4176	4176



### 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	126	126	126	126	123	123	123	123	117	117	117	112	112	112	108	108	108	106
1	121	119	117	115	119	117	115	113	113	111	110	109	108	107	105	104	104	102
2	117	113	110	107	115	112	109	106	108	106	104	105	103	102	102	101	100	98
3	114	109	105	102	112	107	104	101	105	102	99	102	100	98	100	98	96	95
4	110	104	100	97	108	103	99	96	101	98	95	99	96	94	97	95	93	92
5	107	101	96	93	106	100	96	93	98	95	92	97	94	91	95	93	91	89
6	104	98	93	90	103	97	93	90	95	92	89	94	91	89	93	90	88	87
7	101	95	90	87	100	94	90	87	93	89	87	92	89	86	91	88	86	85
8	99	92	88	85	98	92	88	85	91	87	84	90	87	84	89	86	84	83
9	97	90	86	83	96	89	85	83	89	85	82	88	85	82	87	84	82	81
10	94	88	84	81	94	87	83	81	87	83	81	86	83	80	85	82	80	79

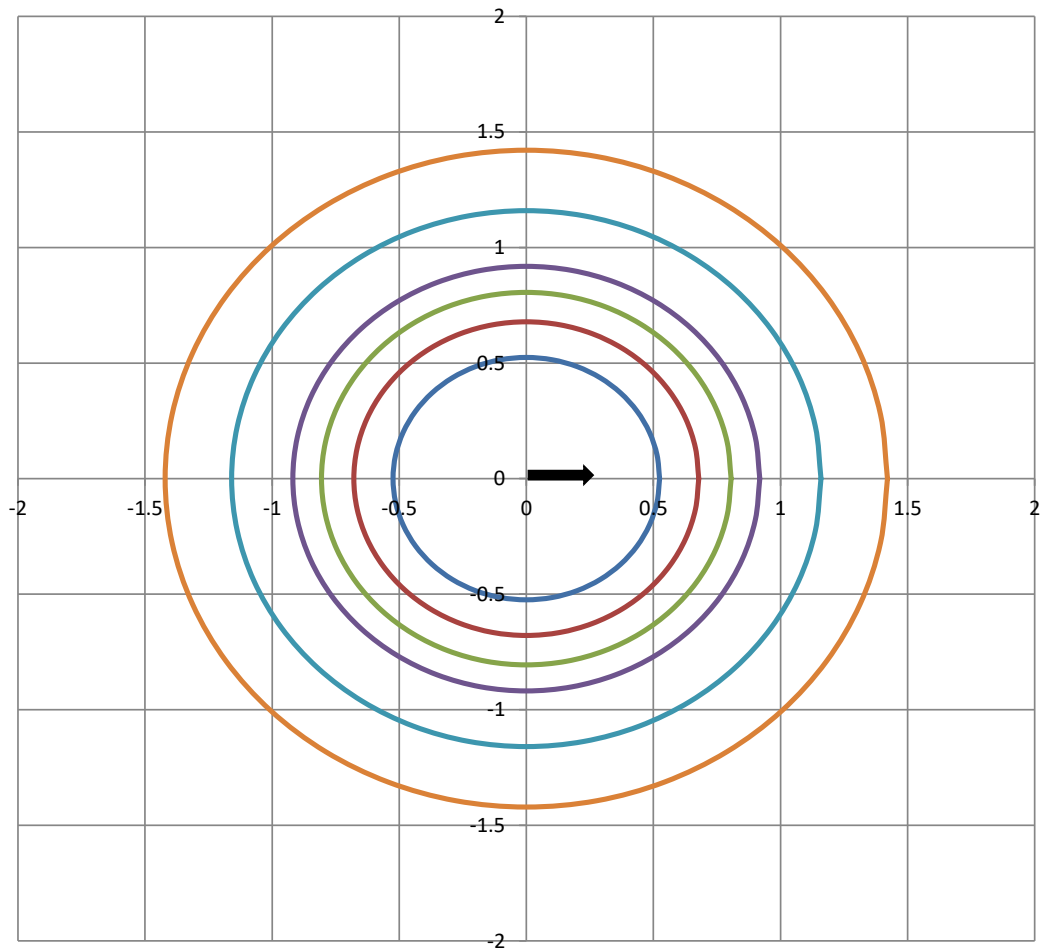
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1018 Candela
Central Cone Intensity:	906 Candela
Beam Flux:	34.1 Lumens
Beam Angle (0-180):	14.0 Degrees
Beam Angle (90-270):	14.0 Degrees
Field Angle (0-180):	28.3 Degrees
Field Angle (90-270):	28.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		63.6	0.966
6.00		28.3	1.45
8.00		15.9	1.93
10.0		10.2	2.42
12.0		7.07	2.90
14.0		5.19	3.38
16.0		3.98	3.87



## 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)	46.9	44.3%
FM	(30-60)	5.2	4.9%
FH	(60-80)	0.7	0.7%
FVH	(80-90)	0.1	0.1%
BL	(0-30)	46.9	44.3%
BM	(30-60)	5.2	4.9%
BH	(60-80)	0.7	0.7%
BVH	(80-90)	0.1	0.1%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		105.9	100.0%
<b>BUG Rating</b>	<b>B0 U0 G0</b>		