



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**  
**LMWL-N-27 (15° OPTIC, 2700K)**

Order Number  
12043087  
Test Number  
12043087.05

Report Date

2018-02-13

Prepared By

Alexa Lambert, Project Handler

Approved By

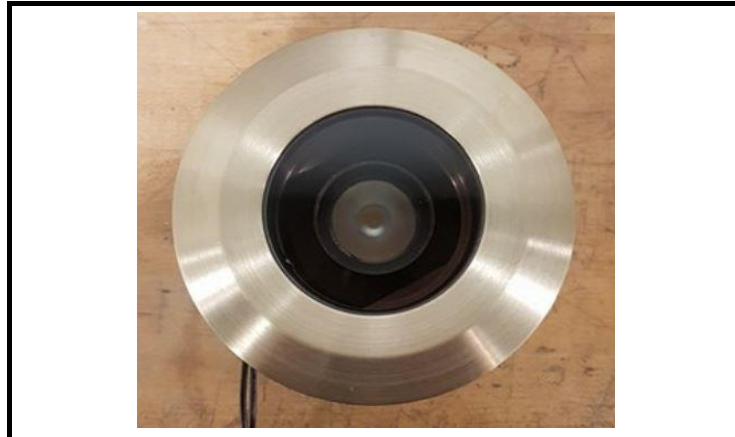
Kevin Rodriguez, Project Handler

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:** Cylindrical brass housing with circular brass faceplate, clear glass lens and PVC sleeve  
**Lamp:** One (1) Cree XP-L 2700K LED with 15° narrow silicone optic  
**Mounting:** Ground recessed  
**Ballast/Driver:** Integrated  
**Note:** This report has been pro-rated using data from report number 12043087.01, 12043087.02, 12043087.03, and 12043087.04 to account for differences in color temperature.

#### Luminaire



#### Luminaire Characteristics

Luminous Diameter: 2.00 in.

#### Summary of Results

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

#### Test Conditions

Test Temperature: 24.7 °C  
Voltage: 11.99 VAC  
Current: 0.4336 A  
Power: 3.143 W  
Power Factor: 0.605  
Frequency: 60 Hz  
Current THD: 80.8 %

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
24.7 °C	11.99 VAC	0.4336 A	3.143 W	0.605	60 Hz	80.8 %

### Summary of Results

#### Spacing Criteria

0-180: 0.25

90-270: 0.25

Total Lumen Output:

166.3 Lumens

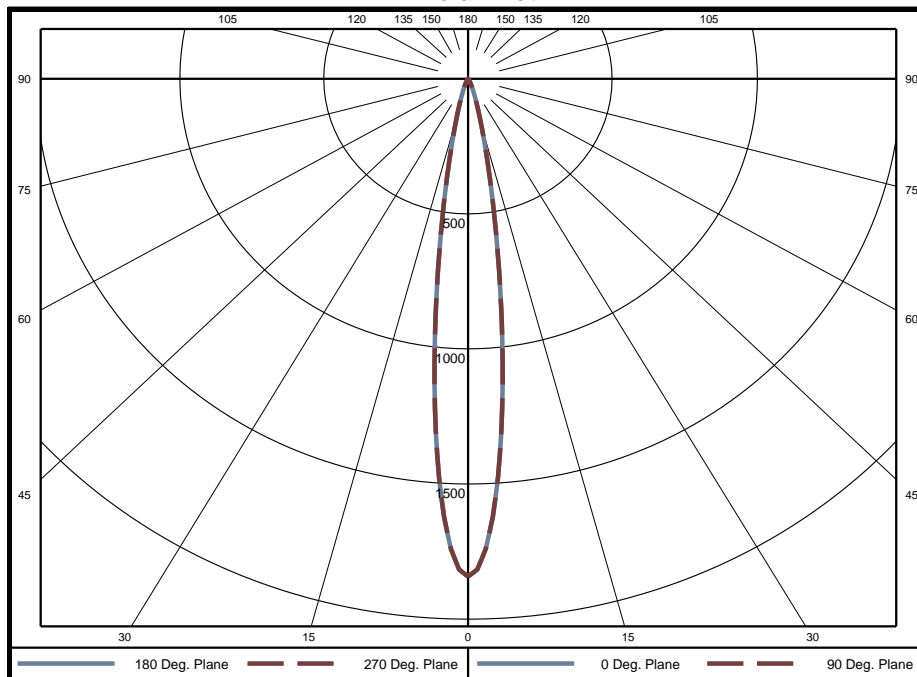
Luminaire Efficacy:

52.9 lm/w

Maximum Candela:

1842 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	37.25	22.4%	60-65	0	0.0%	120-125	0	0.0%
5-10	60.68	36.5%	65-70	0	0.0%	125-130	0	0.0%
10-15	36.07	21.7%	70-75	0	0.0%	130-135	0	0.0%
15-20	17.28	10.4%	75-80	0	0.0%	135-140	0	0.0%
20-25	8.62	5.2%	80-85	0	0.0%	140-145	0	0.0%
25-30	4.15	2.5%	85-90	0	0.0%	145-150	0	0.0%
30-35	1.83	1.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	0.40	0.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	0	0.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	0	0.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	0	0.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	0	0.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	166	100.0%
0-60	166	100.0%
0-90	166	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	1842	1842	1842	1842	1842	1842	1842	1842	1842	1842	1842	1842	1842	1842	1842
	5	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309	1309
	10	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522
	15	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
	20	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	30	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	35	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	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	908800	908800
	45	0	0
	55	0	0
	65	0	0
	75	0	0
	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	198	198	198	198	193	193	193	193	185	185	185	177	177	177	170	170	170	166
1	192	189	187	184	189	186	183	181	179	177	176	173	172	171	168	167	166	163
2	187	182	178	175	184	180	176	173	175	172	169	170	168	166	166	164	162	160
3	183	177	172	168	180	174	170	166	170	167	164	167	164	161	163	161	159	157
4	179	172	166	162	176	170	165	161	167	163	159	164	160	158	161	158	156	154
5	175	167	162	158	173	166	161	157	163	159	156	161	157	154	159	156	153	152
6	172	163	158	154	170	162	157	153	160	156	152	158	154	151	156	153	151	149
7	168	160	154	151	167	159	154	150	157	153	149	156	152	149	154	151	148	147
8	165	157	151	148	164	156	151	147	155	150	147	153	149	146	152	148	146	145
9	162	154	149	145	161	153	148	145	152	148	144	151	147	144	150	146	144	142
10	160	151	146	143	159	151	146	142	150	145	142	149	145	142	148	144	142	140

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1842 Candela
Central Cone Intensity:	1640 Candela
Beam Flux:	66.1 Lumens
Beam Angle (0-180):	14.5 Degrees
Beam Angle (90-270):	14.5 Degrees
Field Angle (0-180):	29.4 Degrees
Field Angle (90-270):	29.4 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		51.2	1.50
10.0		18.4	2.49
14.0		9.40	3.49
18.0		5.69	4.49
22.0		3.81	5.48
26.0		2.72	6.48
30.0		2.05	7.48



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	82.2	49.3%
FM	(30-60)	1.1	0.7%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	82.2	49.3%
BM	(30-60)	1.1	0.7%
BH	(60-80)	0.0	0.0%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		166.8	100.0%
<b>BUG Rating</b>	<b>B0 U0 G0</b>		