



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
LSW8-FL-M-27 (25° OPTIC, 2700K)

Order Number
12250114
Test Number
12250114.90

Report Date

2018-05-08

Prepared By

Sean Gregory, Project Handler

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: Cylindrical copper housing with circular metal flush faceplate
Lamp: One (1) Cree XP-L 2700K LED with 25° medium optic
Mounting: Recessed Downlight
Ballast/Driver: Integrated
Note: This report has been pro-rated using data from report numbers 12250114.89, 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: Cutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 24.4 °C
Voltage: 12.01 VAC
Current: 0.1699 A
Power: 1.248 W
Power Factor: 0.611
Frequency: 60 Hz
Current THD: 80.5 %

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
24.4 °C	12.01 VAC	0.1699 A	1.248 W	0.611	60 Hz	80.5 %

Summary of Results

Spacing Criteria

0-180: 0.36

90-270: 0.36

Total Lumen Output:

116.6 Lumens

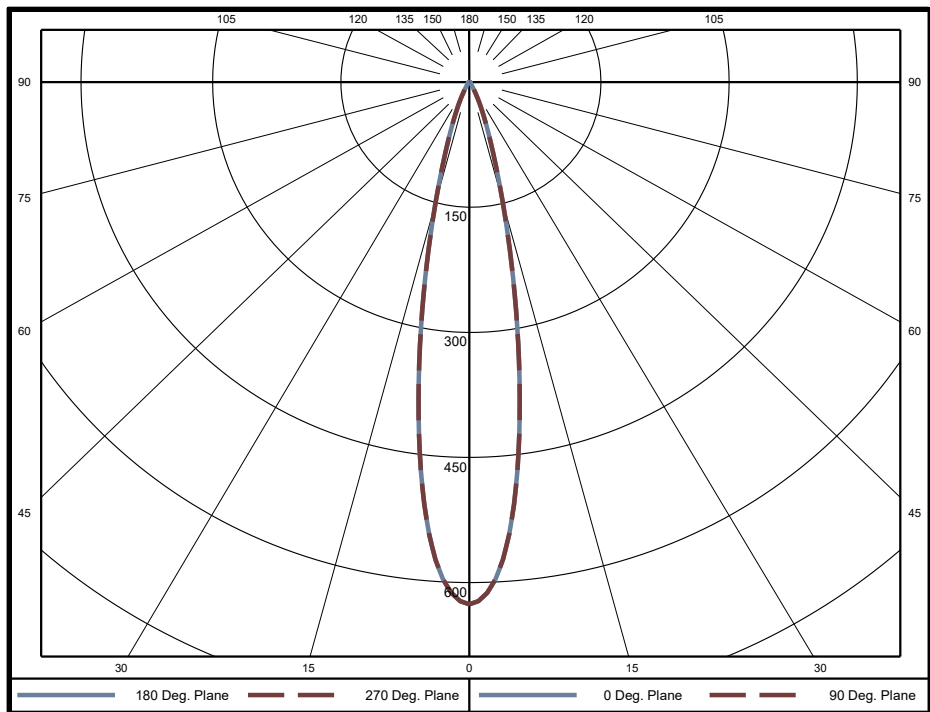
Luminaire Efficacy:

93.4 lm/w

Maximum Candela:

626 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	13.99	12.0%	60-65	0.73	0.6%	120-125	0	0.0%
5-10	31.14	26.7%	65-70	0.62	0.5%	125-130	0	0.0%
10-15	28.32	24.3%	70-75	0.49	0.4%	130-135	0	0.0%
15-20	17.56	15.1%	75-80	0.36	0.3%	135-140	0	0.0%
20-25	9.88	8.5%	80-85	0.22	0.2%	140-145	0	0.0%
25-30	5.15	4.4%	85-90	0.10	0.1%	145-150	0	0.0%
30-35	2.53	2.2%	90-95	0.00	0.0%	150-155	0	0.0%
35-40	1.56	1.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	1.19	1.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	1.02	0.9%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.91	0.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.82	0.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	110	94.5%
0-60	114	97.8%
0-90	117	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	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9
	5	544.1	544.1	544.1	544.1	544.1	544.1	544.1	544.1	544.1	544.1	544.1	544.1	544.1	544.1	544.1
	10	340.5	340.5	340.5	340.5	340.5	340.5	340.5	340.5	340.5	340.5	340.5	340.5	340.5	340.5	340.5
	15	160.8	160.8	160.8	160.8	160.8	160.8	160.8	160.8	160.8	160.8	160.8	160.8	160.8	160.8	160.8
	20	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
	25	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
	30	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
	35	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	40	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	45	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	50	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	55	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	60	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	65	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	70	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	75	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	80	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	90	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	1235000	1235000
	45	7852	7852
	55	6658	6658
	65	6356	6356
	75	6155	6155
	85	6429	6429



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																	
Ceiling Cavity Reflectance	80				70				50			30			10		
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																
0	139	139	139	139	136	136	136	136	130	130	130	124	124	124	119	119	119
1	134	131	129	126	131	129	126	124	124	122	121	120	118	117	116	115	114
2	129	124	121	118	126	122	119	116	119	116	114	115	113	111	112	111	109
3	125	119	114	111	122	117	113	110	114	111	108	112	109	107	109	107	105
4	121	114	109	105	119	113	108	105	110	107	104	108	105	102	106	104	101
5	117	110	105	101	115	109	104	101	107	103	100	105	102	99	103	100	98
6	113	106	101	97	112	105	100	97	104	99	96	102	98	96	101	98	95
7	110	103	98	94	109	102	97	94	101	96	93	99	96	93	98	95	92
8	107	99	95	91	106	99	94	91	98	94	91	97	93	90	96	92	90
9	105	97	92	89	104	96	92	88	95	91	88	94	91	88	94	90	88
10	102	94	89	86	101	94	89	86	93	89	86	92	88	86	91	88	86

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	625.9 Candela
Central Cone Intensity:	597 Candela
Beam Flux:	49.3 Lumens
Beam Angle (0-180):	21.3 Degrees
Beam Angle (90-270):	21.3 Degrees
Field Angle (0-180):	41.3 Degrees
Field Angle (90-270):	41.3 Degrees

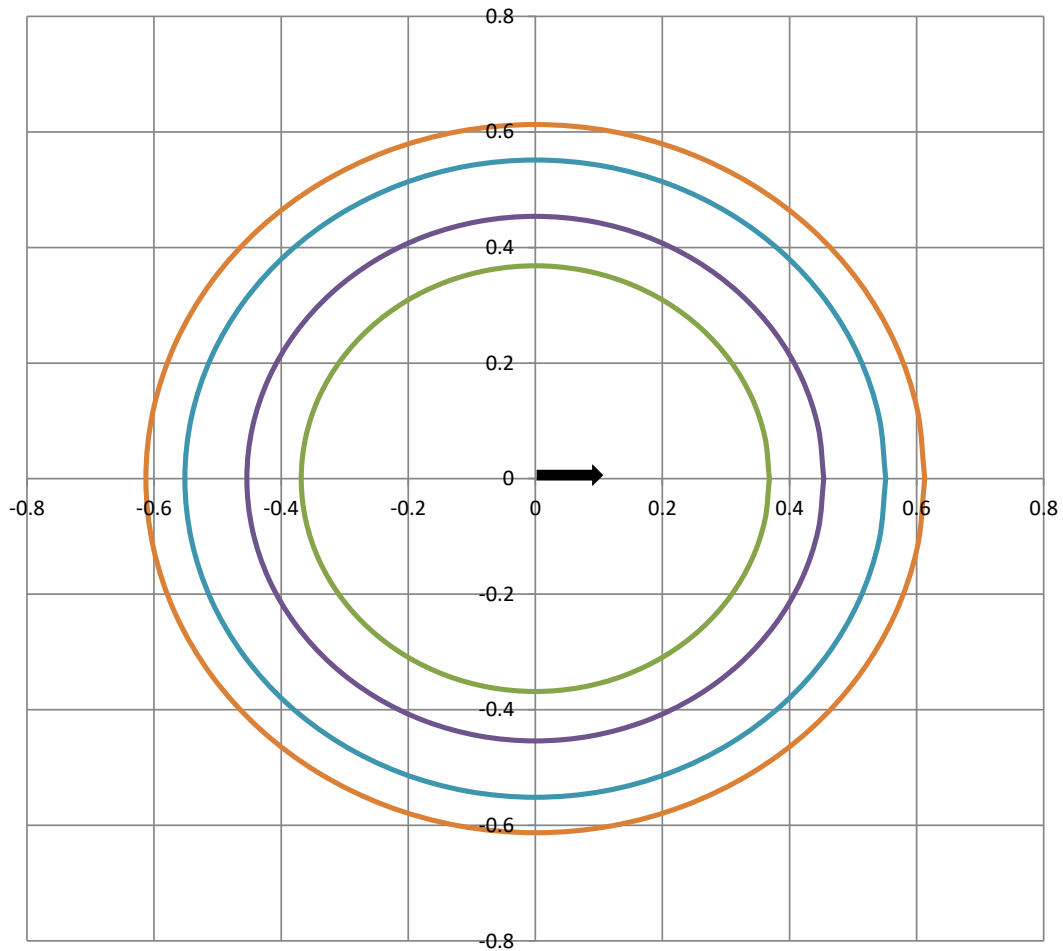
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		39.1	1.45
6.00		17.4	2.18
8.00		9.78	2.90
10.0		6.26	3.63
12.0		4.35	4.36
14.0		3.19	5.08
16.0		2.44	5.81



ISOFootcandle Plot

Mounting Height - 8 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)	53.1	45.5%
FM	(30-60)	4.0	3.5%
FH	(60-80)	1.1	0.9%
FVH	(80-90)	0.2	0.1%
BL	(0-30)	53.1	45.5%
BM	(30-60)	4.0	3.5%
BH	(60-80)	1.1	0.9%
BVH	(80-90)	0.2	0.1%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		116.8	100.0%
BUG Rating	B0 U1 G0		