



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-W-30 (40° OPTIC, 3000K)

Order Number
12250114
Test Number
12250114.105

Test Date

2018-05-04

Prepared By

Cordaryl Cousar, Technician

Approved By

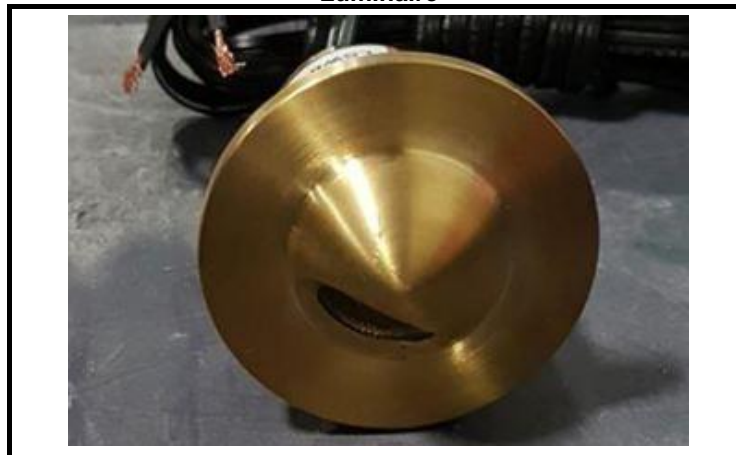
Alexa Lambert, Project Handler

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Luminaire Description: Cylindrical copper housing with circular metal domed faceplate
Lamp: One (1) Cree XP-L 3000K LED with 40° wide optic
Mounting: Step/Wall
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Length: 0.50 in.
Luminous Width: 0.5000 in.
Luminous Height: 1.00 in.

Summary of Results

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

Test Conditions

Test Temperature: 24.1 °C
Voltage: 12.01 VAC
Current: 0.1679 A
Power: 1.235 W
Power Factor: 0.613
Frequency: 60 Hz
Current THD: 81.0 %

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

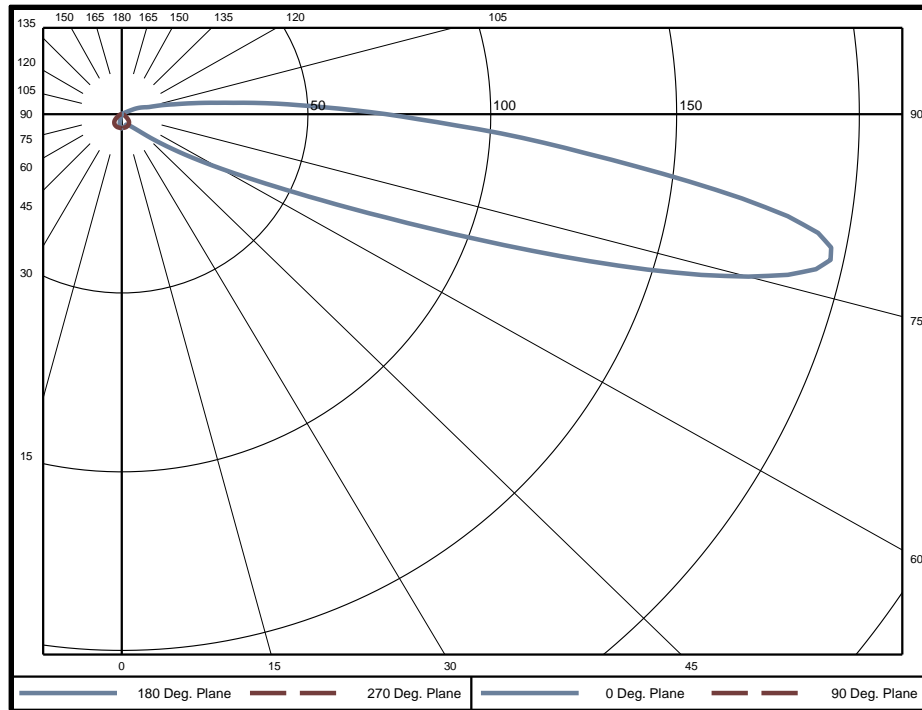
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.1 °C	12.01 VAC	0.1679 A	1.235 W	0.613	60 Hz	81.0 %

Summary of Results

Spacing Criteria
 0-180: 9.11
 90-270: 1.33

Total Lumen Output: 40.40 Lumens
Luminaire Efficacy: 32.7 lm/w
Maximum Candela: 196 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.092	0.2%	60-65	2.189	5.4%	120-125	0.022	0.1%
5-10	0.265	0.7%	65-70	3.560	8.8%	125-130	0.006	0.0%
10-15	0.399	1.0%	70-75	5.748	14.2%	130-135	0.002	0.0%
15-20	0.469	1.2%	75-80	7.234	17.9%	135-140	0.000	0.0%
20-25	0.504	1.2%	80-85	6.046	15.0%	140-145	0.000	0.0%
25-30	0.554	1.4%	85-90	3.726	9.2%	145-150	0	0.0%
30-35	0.610	1.5%	90-95	2.067	5.1%	150-155	0	0.0%
35-40	0.669	1.7%	95-100	1.049	2.6%	155-160	0	0.0%
40-45	0.741	1.8%	100-105	0.543	1.3%	160-165	0	0.0%
45-50	0.854	2.1%	105-110	0.304	0.8%	165-170	0	0.0%
50-55	1.064	2.6%	110-115	0.174	0.4%	170-175	0	0.0%
55-60	1.459	3.6%	115-120	0.049	0.1%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	4	8.8%
0-60	8	19.0%
0-90	36	89.6%
90-180	4	10.4%



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	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	5	3.8	3.7	3.7	3.8	3.8	4.0	3.9	3.9	3.8	3.9	3.9	4.0	3.8	3.8	3.7
	10	3.6	3.6	3.6	3.7	3.8	3.9	3.5	3.2	3.0	3.2	3.5	3.9	3.8	3.7	3.6
	15	3.5	3.4	3.5	3.6	3.8	3.7	2.9	1.9	1.2	1.9	2.9	3.7	3.8	3.6	3.5
	20	3.2	3.1	3.3	3.5	3.7	3.4	1.7	0.5	0.2	0.5	1.7	3.4	3.7	3.5	3.3
	25	3.3	3.0	3.0	3.3	3.6	3.0	0.6	0.0	0.0	0.0	0.6	3.0	3.6	3.3	3.0
	30	3.6	3.2	2.8	3.1	3.5	2.6	0.1	0.0	0.0	0.0	0.1	2.6	3.5	3.1	2.8
	35	4.1	3.4	2.7	2.8	3.3	2.0	0.0	0.0	0.0	0.0	0.0	2.0	3.3	2.8	2.7
	40	5.0	3.8	2.7	2.5	3.0	1.4	0.0	0.0	0.0	0.0	0.0	1.4	3.0	2.5	2.7
	45	6.8	4.5	2.7	2.2	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.8	2.6	2.2	2.7
	50	10.6	5.6	2.7	1.8	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5	2.0	1.8	2.7
	55	17.4	7.3	2.6	1.5	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.2	1.5	1.5	2.6
	60	29.5	9.9	2.4	1.3	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.1	1.3	2.4
	65	52.0	13.9	2.1	1.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.1	2.1
	70	102.2	16.3	1.8	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.0	1.8
	75	175.4	12.6	1.6	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	1.6
	80	191.2	8.2	1.4	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	1.4
	85	126.2	5.1	1.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	1.2
	90	71.4	3.4	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0
	95	36.0	2.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8
	100	16.8	1.7	0.6	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.6
	105	7.6	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.4
	110	5.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
	115	1.3	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
	120	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
	125	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
	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	23780	23780
	45	20000	6258
	55	48890	5504
	65	144300	4313
	75	496500	3225
	85	376200	2503



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	47	47	47	47	46	46	46	46	43	43	43	40	40	40	37	37	37	36
1	38	33	30	26	36	32	28	25	29	26	24	27	24	22	24	22	21	19
2	32	26	21	17	30	25	20	16	22	19	15	20	17	14	18	16	13	12
3	28	21	16	12	26	20	16	12	18	14	11	16	13	10	15	12	9	8
4	25	18	13	9	24	17	13	9	16	12	8	14	11	8	13	10	7	6
5	23	16	11	7	22	15	11	7	14	10	7	12	9	6	11	8	6	4
6	21	14	10	6	20	14	9	6	12	8	6	11	8	5	10	7	5	4
7	20	13	8	5	19	12	8	5	11	7	5	10	7	4	9	6	4	3
8	18	12	8	5	17	11	7	5	10	7	4	9	6	4	9	6	4	3
9	17	11	7	4	16	10	7	4	9	6	4	9	6	4	8	5	3	2
10	16	10	6	4	15	10	6	4	9	6	3	8	5	3	7	5	3	2

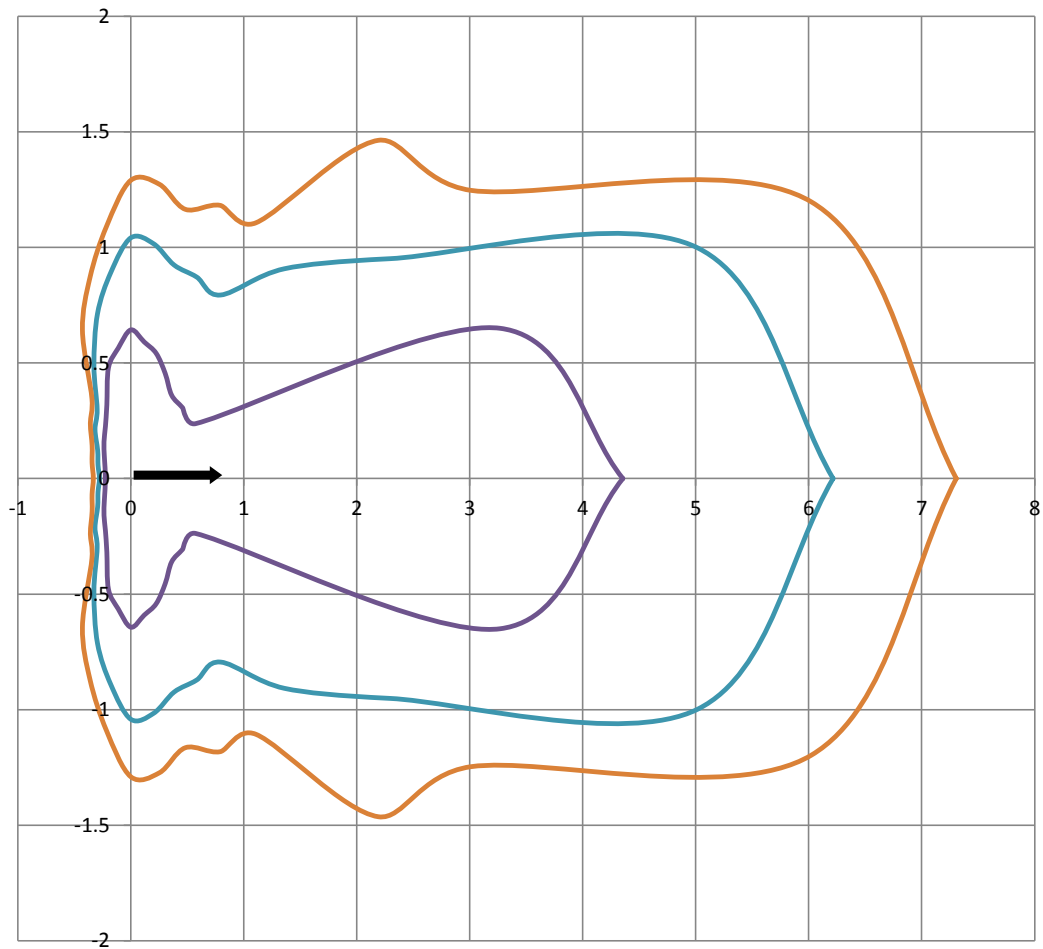
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	3.8 Candela
Central Cone Intensity:	4 Candela
Beam Flux:	38.3 Lumens
Beam Angle (0-180):	127.8 Degrees
Beam Angle (90-270):	101.4 Degrees
Field Angle (0-180):	140.0 Degrees
Field Angle (90-270):	152.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		0.240	3.26
6.00		0.107	4.90
8.00		0.0599	6.53
10.0		0.0384	8.16
12.0		0.0266	9.79
14.0		0.0196	11.4
16.0		0.0150	13.1



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)	1.4	3.7%
FM	(30-60)	4.8	12.9%
FH	(60-80)	17.8	47.4%
FVH	(80-90)	8.5	22.6%
BL	(0-30)	0.9	2.4%
BM	(30-60)	0.6	1.7%
BH	(60-80)	0.1	0.2%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	2.4	6.5%
UH	(100-180)	1.0	2.6%
Total		37.6	100.0%
BUG Rating	B0 U1 G0		