



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
LSL10-W-40 (40° OPTIC, 4000K)

Order Number
12250114
Test Number
12250114.68

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.
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Luminaire Description: Cylindrical metal housing with adjustable knuckle
Lamp: One (1) Cree XP-L 4000K LED with 40° wide optic
Mounting: Flood
Ballast/Driver: Integrated

Note: This report has been pro-rated using data from report numbers 12250114.66, 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: B1 U0 G0

Test Conditions

Test Temperature: 24.3 °C
Voltage: 12.02 VAC
Current: 0.4243 A
Power: 3.207 W
Power Factor: 0.629
Frequency: 60 Hz
Current THD: 91.8 %

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

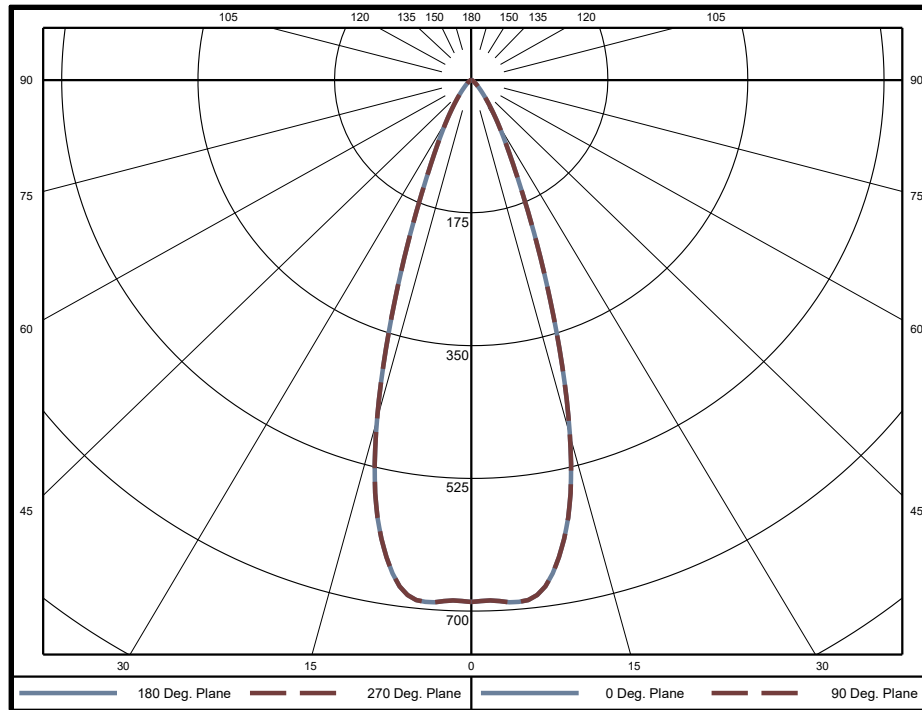
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.3 °C	12.02 VAC	0.4243 A	3.207 W	0.629	60 Hz	91.8 %

Summary of Results

Spacing Criteria
 0-180: 0.61
 90-270: 0.61

Total Lumen Output: 298.7 Lumens
Luminaire Efficacy: 93.1 lm/w
Maximum Candela: 690 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	16.46	5.5%	60-65	1.29	0.4%	120-125	0	0.0%
5-10	48.02	16.1%	65-70	0.88	0.3%	125-130	0	0.0%
10-15	66.95	22.4%	70-75	0.53	0.2%	130-135	0	0.0%
15-20	60.57	20.3%	75-80	0.22	0.1%	135-140	0	0.0%
20-25	39.70	13.3%	80-85	0.04	0.0%	140-145	0	0.0%
25-30	24.47	8.2%	85-90	0	0.0%	145-150	0	0.0%
30-35	15.63	5.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	9.70	3.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	5.97	2.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	3.85	1.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	2.60	0.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	1.81	0.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	282	94.2%
0-60	296	99.0%
0-90	299	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	687.8	687.8	687.8	687.8	687.8	687.8	687.8	687.8	687.8	687.8	687.8	687.8	687.8	687.8	687.8
	5	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3
	10	638.6	638.6	638.6	638.6	638.6	638.6	638.6	638.6	638.6	638.6	638.6	638.6	638.6	638.6	638.6
	15	481.3	481.3	481.3	481.3	481.3	481.3	481.3	481.3	481.3	481.3	481.3	481.3	481.3	481.3	481.3
	20	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0	268.0
	25	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1	131.1
	30	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
	35	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
	40	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
	45	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
	50	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
	55	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	60	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	3.2
	65	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	70	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
	75	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	80	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	85	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
	90	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
	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	1357000	1357000
	45	33800	33800
	55	16460	16460
	65	10070	10070
	75	5307	5307
	85	10	10



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	356	356	356	356	347	347	347	347	332	332	332	318	318	318	305	305	305	299
1	341	334	327	321	334	328	322	316	316	311	307	305	301	298	294	292	289	284
2	327	315	304	295	321	310	300	292	300	292	286	291	285	280	283	278	274	269
3	314	298	285	275	308	293	282	272	286	276	268	279	271	264	272	266	260	256
4	301	282	268	258	296	279	266	256	273	262	253	267	258	250	262	254	247	243
5	290	269	254	243	285	266	252	242	261	249	240	256	246	238	252	243	236	232
6	279	256	241	231	275	254	240	230	250	238	228	246	235	227	242	233	225	222
7	268	245	230	220	265	243	229	219	240	227	218	237	225	217	233	224	216	212
8	259	235	220	210	256	234	219	210	231	218	209	228	216	208	225	215	207	204
9	250	226	211	201	247	224	210	201	222	209	200	219	208	200	217	207	199	196
10	241	217	203	193	239	216	202	193	214	201	192	212	200	192	210	199	191	188

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	687.8 Candela
Central Cone Intensity:	688 Candela
Beam Flux:	171.8 Lumens
Beam Angle (0-180):	36.2 Degrees
Beam Angle (90-270):	36.2 Degrees
Field Angle (0-180):	60.6 Degrees
Field Angle (90-270):	60.6 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		19.1	3.67
10.0		6.88	6.11
14.0		3.51	8.56
18.0		2.12	11.0
22.0		1.42	13.5
26.0		1.02	15.9
30.0		0.764	18.3



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	128.1	42.9%
FM	(30-60)	19.8	6.6%
FH	(60-80)	1.5	0.5%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	128.1	42.9%
BM	(30-60)	19.8	6.6%
BH	(60-80)	1.5	0.5%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		298.7	100.0%
BUG Rating	B1 U0 G0		