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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
LSL10-N-40 (15° OPTIC, 4000K)

Order Number
12250114
Test Number
12250114.62

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 metal housing with adjustable knuckle
Lamp: One (1) Cree XP-L 4000K LED with 15° narrow optic
Mounting: Flood
Ballast/Driver: Integrated

Note: This report has been pro-rated using data from report numbers 12250114.60, 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: 24.2 °C
Voltage: 12.02 VAC
Current: 0.4246 A
Power: 3.202 W
Power Factor: 0.627
Frequency: 60 Hz
Current THD: 91.9 %

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

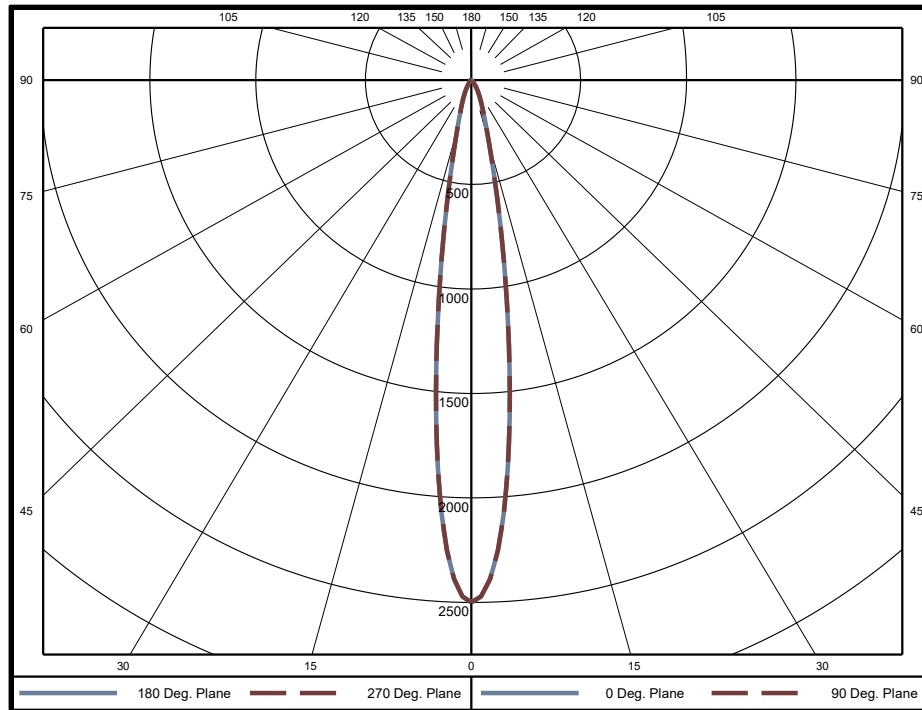
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.2 °C	12.02 VAC	0.4246 A	3.202 W	0.627	60 Hz	91.9 %

Summary of Results

Spacing Criteria
 0-180: 0.26
 90-270: 0.26

Total Lumen Output: 298.6 Lumens
Luminaire Efficacy: 93.2 lm/w
Maximum Candela: 2499 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	51.87	17.4%	60-65	0.73	0.2%	120-125	0	0.0%
5-10	88.57	29.7%	65-70	0.42	0.1%	125-130	0	0.0%
10-15	56.75	19.0%	70-75	0.16	0.1%	130-135	0	0.0%
15-20	33.62	11.3%	75-80	0.02	0.0%	135-140	0	0.0%
20-25	23.57	7.9%	80-85	0	0.0%	140-145	0	0.0%
25-30	16.80	5.6%	85-90	0	0.0%	145-150	0	0.0%
30-35	11.03	3.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	6.47	2.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	3.72	1.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	2.29	0.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	1.53	0.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	1.08	0.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	289	96.7%
0-60	297	99.6%
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	2499	2499	2499	2499	2499	2499	2499	2499	2499	2499	2499	2499	2499	2499	2499
	5	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860
	10	789	789	789	789	789	789	789	789	789	789	789	789	789	789	789
	15	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292
	20	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
	25	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
	30	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	35	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
	40	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	45	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	50	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	55	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	60	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	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	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/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	4932000	4932000
	45	20460	20460
	55	9754	9754
	65	5434	5434
	75	990	990
	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	356	356	356	356	347	347	347	347	332	332	332	318	318	318	305	305	305	299
1	344	337	332	327	337	331	326	322	319	315	312	308	305	303	298	296	294	289
2	333	322	313	306	326	317	309	302	308	301	296	299	294	290	291	287	284	279
3	322	309	298	290	317	305	295	287	297	289	283	291	284	279	284	279	274	271
4	313	297	285	277	308	294	283	275	288	279	272	282	275	269	277	271	266	262
5	304	287	275	266	300	284	273	265	279	270	262	275	267	260	271	264	258	255
6	296	277	265	257	292	275	264	256	272	262	254	268	259	253	264	257	251	248
7	288	269	257	249	285	268	256	248	264	254	247	261	252	246	258	251	245	242
8	281	262	250	242	278	260	249	241	258	248	240	255	246	240	253	245	239	236
9	274	255	243	236	272	254	243	235	252	242	235	249	240	234	247	239	233	231
10	268	249	238	230	266	248	237	230	246	236	229	244	235	229	242	234	228	226

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	2499 Candela
Central Cone Intensity:	2265 Candela
Beam Flux:	100.8 Lumens
Beam Angle (0-180):	15.3 Degrees
Beam Angle (90-270):	15.3 Degrees
Field Angle (0-180):	31.9 Degrees
Field Angle (90-270):	31.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		69.4	1.58
10.0		25.0	2.63
14.0		12.8	3.68
18.0		7.71	4.73
22.0		5.16	5.79
26.0		3.70	6.84
30.0		2.78	7.89



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	135.7	45.4%
FM	(30-60)	13.1	4.4%
FH	(60-80)	0.7	0.2%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	135.7	45.4%
BM	(30-60)	13.1	4.4%
BH	(60-80)	0.7	0.2%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		298.9	100.0%
BUG Rating	B1 U0 G0		