



UL Verification Services Inc.
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Allentown, PA 18106
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Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002, IES LM-35-2002 (Withdrawn)

Prepared For
Auroralight Inc

2742 Loker Ave W
#100
Carlsbad, CA 92010-6619
United States

Catalog Number
LSL8-60-M-30 (25 degree optic, 3000k)

Order Number
13001850
Test Number
13001850.05

Test Date

2019-08-23

Prepared By

Derek Smarr, Technician

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 brass housing with 60 degree angled shield and adjustable brass knuckle
Lamp: One (1) Cree XP-L 3000K LED WITH 25 Degree, medium optic
Mounting: Ground recessed
Ballast/Driver: Proprietary

Luminaire



Luminaire Characteristics

Luminous Diameter: 1.00 in.
Luminous Height: 0.750 in.

Summary of Results

Total Luminaire Output:	134.9 Lumens
Luminaire Efficacy:	44.4 lm/w
Maximum Candela:	393 Candela

Test Conditions

Test Temperature:	25.3 °C
Voltage:	12.01 VAC
Current:	0.4195 A
Power:	3.042 W
Power Factor:	0.604
Frequency:	60 Hz
Current THD:	83.5 %

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
25.3 °C	12.01 VAC	0.4195 A	3.042 W	0.604	60 Hz	83.5 %

Summary of Results

Spacing Criteria

0-180: 0.46

90-270: 0.39

Total Lumen Output:

134.5 Lumens

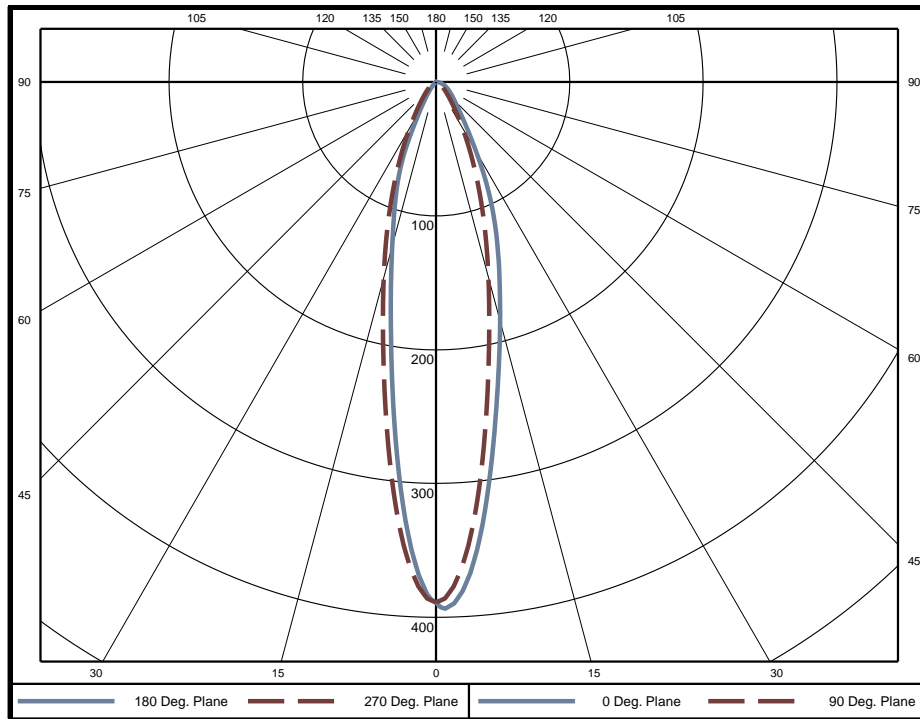
Luminaire Efficacy:

44.2 lm/w

Maximum Candela:

393 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	8.51	6.3%	60-65	1.63	1.2%	120-125	0	0.0%
5-10	19.25	14.3%	65-70	1.20	0.9%	125-130	0	0.0%
10-15	21.88	16.3%	70-75	0.82	0.6%	130-135	0	0.0%
15-20	21.05	15.7%	75-80	0.49	0.4%	135-140	0	0.0%
20-25	18.15	13.5%	80-85	0.22	0.2%	140-145	0	0.0%
25-30	13.37	9.9%	85-90	0.05	0.0%	145-150	0	0.0%
30-35	8.93	6.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	6.18	4.6%	95-100	0	0.0%	155-160	0	0.0%
40-45	4.53	3.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	3.47	2.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	2.69	2.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	2.11	1.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	117	87.2%
0-60	130	96.7%
0-90	135	100.0%
90-180	0	0.0%



Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal 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	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3	388.3
5	350.5	351.7	346.2	337.7	327.2	316.6	307.8	300.6	303.9	300.6	307.8	316.6	327.2	337.7	346.2	351.7
10	255.2	258.1	250.6	237.9	223.9	211.0	199.7	191.9	193.4	191.9	199.7	211.0	223.9	237.9	250.6	258.1
15	184.5	185.7	179.8	166.7	150.9	137.8	129.0	124.3	126.2	124.3	129.0	137.8	150.9	166.7	179.8	185.7
20	134.8	135.1	129.8	116.2	100.6	90.0	84.2	83.3	86.3	83.3	84.2	90.0	100.6	116.2	129.8	135.1
25	95.0	93.8	87.9	77.0	63.9	55.9	51.7	49.0	50.4	49.0	51.7	55.9	63.9	77.0	87.9	93.8
30	59.2	58.4	53.9	46.7	38.8	31.9	25.4	21.4	21.3	21.4	25.4	31.9	38.8	46.7	53.9	58.4
35	37.0	36.4	33.3	28.7	23.4	17.4	12.7	10.4	10.3	10.4	12.7	17.4	23.4	28.7	33.3	36.4
40	25.2	24.8	22.7	19.3	14.8	10.1	6.7	5.0	4.7	5.0	6.7	10.1	14.8	19.3	22.7	24.8
45	18.9	18.4	16.7	13.8	9.8	6.2	3.6	2.2	1.9	2.2	3.6	6.2	9.8	13.8	16.7	18.4
50	14.8	14.3	12.8	10.1	6.8	4.0	1.8	0.5	0.2	0.5	1.8	4.0	6.8	10.1	12.8	14.3
55	11.8	11.3	9.9	7.5	4.8	2.4	0.6	0.0	0.0	0.0	0.6	2.4	4.8	7.5	9.9	11.3
60	9.4	9.0	7.7	5.6	3.2	1.1	0.0	0.0	0.0	0.0	0.0	1.1	3.2	5.6	7.7	9.0
65	7.4	7.0	5.8	4.0	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.4	1.9	4.0	5.8	7.0
70	5.5	5.2	4.2	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.6	4.2	5.2
75	3.9	3.6	2.7	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3	2.7	3.6
80	2.4	2.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4	2.1
85	1.0	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.0

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	766300	766300	766300
45	37580	33320	19570
55	23900	20170	9664
65	15490	12230	3950
75	8522	5941	363
85	2450	762	0



Utilization of Lumens - Zonal Cavity Method

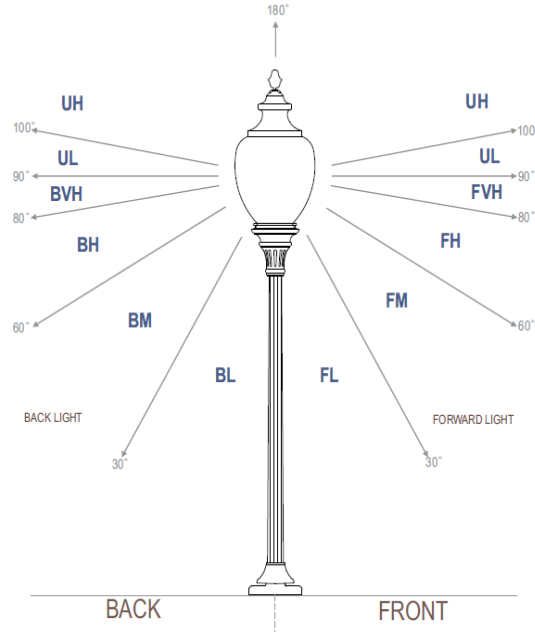
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	160	160	160	160	156	156	156	156	149	149	149	143	143	143	137	137	137	135
1	153	149	146	143	149	146	143	140	141	138	136	136	134	132	131	130	128	126
2	145	139	134	129	142	137	132	128	132	128	125	128	125	122	125	122	120	117
3	138	130	124	118	136	128	122	117	125	120	116	121	117	114	118	115	112	110
4	132	122	115	110	130	121	114	109	118	112	108	115	110	107	113	109	105	103
5	126	116	108	103	124	114	107	102	112	106	101	110	104	100	108	103	99	98
6	121	109	102	96	119	108	101	96	106	100	95	105	99	95	103	98	94	92
7	116	104	96	91	114	103	96	91	101	95	90	100	94	90	98	93	90	88
8	111	99	92	87	109	98	91	86	97	91	86	96	90	86	94	89	85	84
9	107	95	87	82	105	94	87	82	93	87	82	92	86	82	91	85	82	80
10	103	91	84	79	101	90	83	79	89	83	79	88	82	78	87	82	78	76

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	388.3 Candela
Central Cone Intensity:	365 Candela
Beam Flux:	37.4 Lumens
Beam Angle (0-180):	24.2 Degrees
Beam Angle (90-270):	23.6 Degrees
Field Angle (0-180):	61.0 Degrees
Field Angle (90-270):	60.0 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		10.8	2.36
10.0		3.88	3.94
14.0		1.98	5.52
18.0		1.20	7.09
22.0		0.802	8.67
26.0		0.574	10.2
30.0		0.431	11.8



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	#N/A	#N/A
FM	(30-60)	#N/A	#N/A
FH	(60-80)	#N/A	#N/A
FVH	(80-90)	#N/A	#N/A
BL	(0-30)	#N/A	#N/A
BM	(30-60)	#N/A	#N/A
BH	(60-80)	#N/A	#N/A
BVH	(80-90)	#N/A	#N/A
UL	(90-100)	#N/A	#N/A
UH	(100-180)	#N/A	#N/A
Total		#N/A	#N/A
BUG Rating	#N/A		