



UL Verification Services Inc.
7036 Snowdrift Road
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
HDL11-P1-6-M-27 (6W, 25° OPTIC, 2700K)

Order Number
12250114
Test Number
12250114.137

Report Date

2018-05-09

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 perforated metal tube, clear glass lens and internal LED module

Lamp: One (1) Cree XHP 2700K LED with 25°, medium silicone optic

Mounting: Pendant

Ballast/Driver: Integrated

Note: This report has been pro-rated using data from report numbers 12250114.136, 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: 1.25 in.

Luminous Height: 3.250 in.

Summary of Results

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

Test Conditions

Test Temperature: 24.3 °C
Voltage: 12.02 VAC
Current: 0.5312 A
Power: 6.322 W
Power Factor: 0.990
Frequency: 60 Hz
Current THD: 7.52 %

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

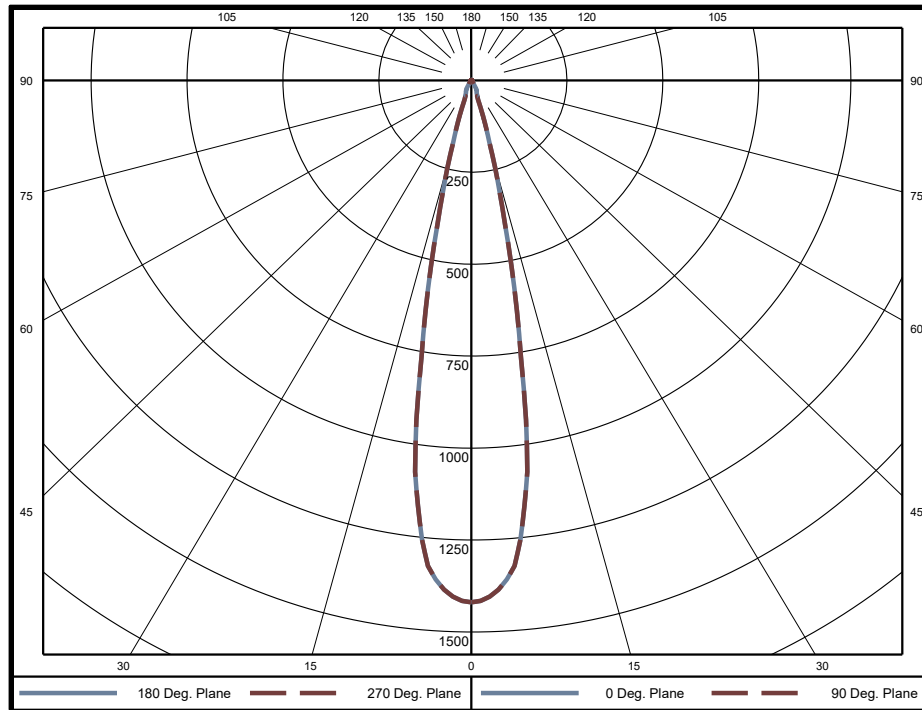
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.3 °C	12.02 VAC	0.5312 A	6.322 W	0.990	60 Hz	7.52 %

Summary of Results

Spacing Criteria
 0-180: 0.36
 90-270: 0.36

Total Lumen Output: 218.7 Lumens
Luminaire Efficacy: 34.6 lm/w
Maximum Candela: 1419 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	32.83	15.0%	60-65	0.99	0.5%	120-125	0.25	0.1%
5-10	76.27	34.9%	65-70	0.75	0.3%	125-130	0.24	0.1%
10-15	54.23	24.8%	70-75	0.62	0.3%	130-135	0.22	0.1%
15-20	19.43	8.9%	75-80	0.62	0.3%	135-140	0.22	0.1%
20-25	8.18	3.7%	80-85	0.48	0.2%	140-145	0.21	0.1%
25-30	7.34	3.4%	85-90	0.30	0.1%	145-150	0.21	0.1%
30-35	4.08	1.9%	90-95	0.30	0.1%	150-155	0.22	0.1%
35-40	2.48	1.1%	95-100	0.38	0.2%	155-160	0.20	0.1%
40-45	2.00	0.9%	100-105	0.35	0.2%	160-165	0.14	0.1%
45-50	1.61	0.7%	105-110	0.29	0.1%	165-170	0.05	0.0%
50-55	1.40	0.6%	110-115	0.30	0.1%	170-175	0.00	0.0%
55-60	1.24	0.6%	115-120	0.30	0.1%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	205	93.7%
0-60	211	96.5%
0-90	215	98.2%
90-180	4	1.8%



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	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419
	5	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325	1325
	10	763	763	763	763	763	763	763	763	763	763	763	763	763	763	763
	15	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246
	20	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
	25	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
	30	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
	35	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	40	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	45	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	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	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	105	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	110	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	115	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	120	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	125	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	130	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	135	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	140	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	145	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	150	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	155	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	160	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	165	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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	1792000	1792000
	45	8397	8397
	55	6615	6615
	65	5126	5126
	75	5800	5800
	85	10100	10100



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	259	259	259	259	253	253	253	253	241	241	241	230	230	230	220	220	220	215
1	250	246	242	238	245	241	237	234	231	228	226	223	220	218	215	213	211	208
2	242	235	228	222	238	231	225	220	223	218	214	216	213	209	210	207	205	201
3	235	225	217	211	231	222	215	209	216	210	206	211	206	202	205	202	199	196
4	228	217	209	202	225	215	207	201	210	203	198	205	200	196	201	197	193	191
5	222	210	202	195	219	208	200	194	204	197	192	201	195	190	197	192	188	186
6	217	204	195	189	214	202	194	188	199	192	187	196	190	186	193	188	184	182
7	212	199	190	184	209	197	189	184	195	188	182	192	186	181	190	184	180	178
8	207	194	185	180	205	193	185	179	190	183	178	188	182	177	186	181	177	175
9	203	189	181	176	201	188	181	175	186	179	175	185	178	174	183	177	173	171
10	199	185	177	172	197	184	177	172	183	176	171	181	175	171	180	174	170	168

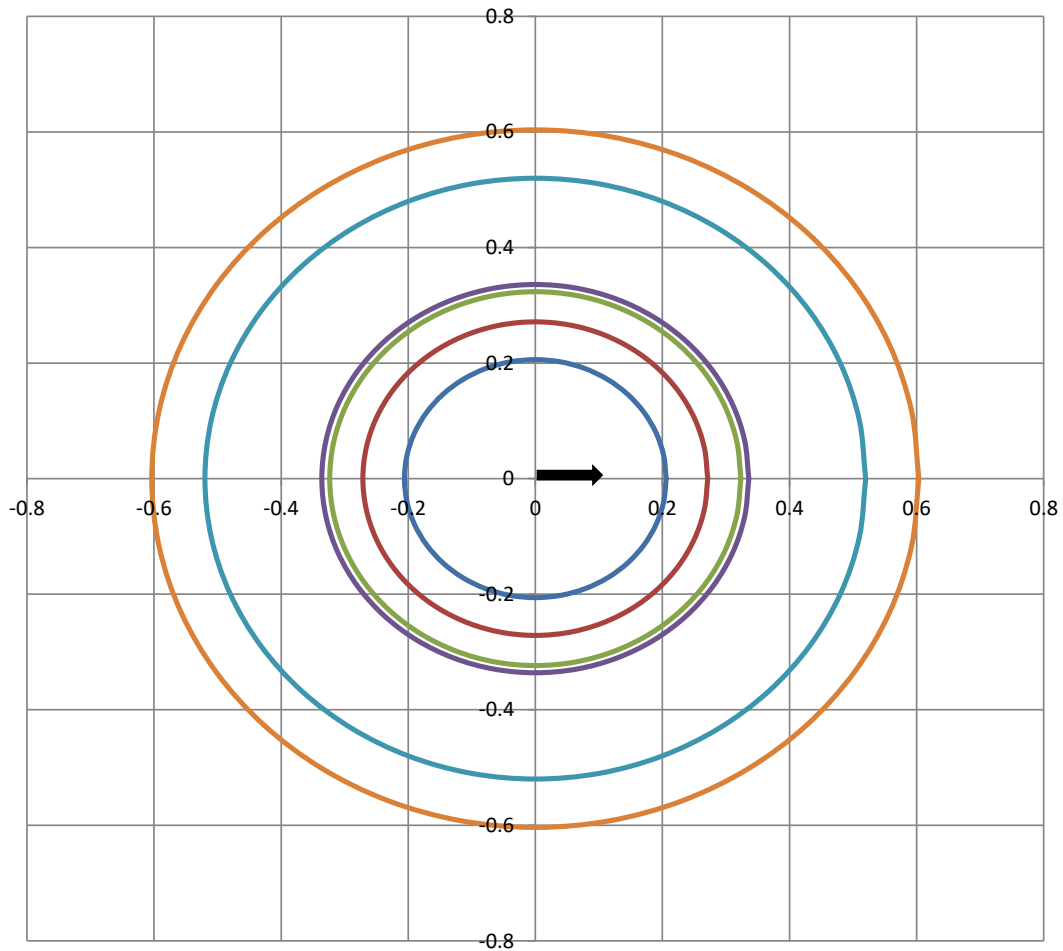
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1419 Candela
Central Cone Intensity:	1386 Candela
Beam Flux:	115.4 Lumens
Beam Angle (0-180):	20.9 Degrees
Beam Angle (90-270):	20.9 Degrees
Field Angle (0-180):	33.7 Degrees
Field Angle (90-270):	33.7 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		88.7	1.43
6.00		39.4	2.15
8.00		22.2	2.87
10.0		14.2	3.58
12.0		9.86	4.30
14.0		7.24	5.01
16.0		5.54	5.73



ISOFootcandle Plot

Mounting Height - 10 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)	99.3	45.3%
FM	(30-60)	6.5	3.0%
FH	(60-80)	1.5	0.7%
FVH	(80-90)	0.4	0.2%
BL	(0-30)	99.3	45.3%
BM	(30-60)	6.5	3.0%
BH	(60-80)	1.5	0.7%
BVH	(80-90)	0.4	0.2%
UL	(90-100)	0.7	0.3%
UH	(100-180)	3.3	1.5%
Total		219.2	100.0%
BUG Rating	B0 U1 G0		