



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
HSL11-6-WF-30 (6W, 60° OPTIC, 3000K)

Order Number
12250114
Test Number
12250114.50

Report Date

2018-05-07

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, clear glass lens and internal LED module

Lamp: One (1) Cree XHP 3000K LED with 60°, wide flood optic

Mounting: Flood

Ballast/Driver: Integrated

Note: This report has been pro-rated using data from report numbers 12250114.51, 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: 1.50 in.
Luminous Height: 1.000 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Full Cutoff
BUG Rating: B0 U0 G0

Test Conditions

Test Temperature: 24.6 °C
Voltage: 12.00 VAC
Current: 0.5330 A
Power: 6.334 W
Power Factor: 0.990
Frequency: 60 Hz
Current THD: 7.20 %

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
24.6 °C	12.00 VAC	0.5330 A	6.334 W	0.990	60 Hz	7.20 %

Summary of Results

Spacing Criteria

0-180: 0.62

90-270: 0.62

Total Lumen Output:

197.9 Lumens

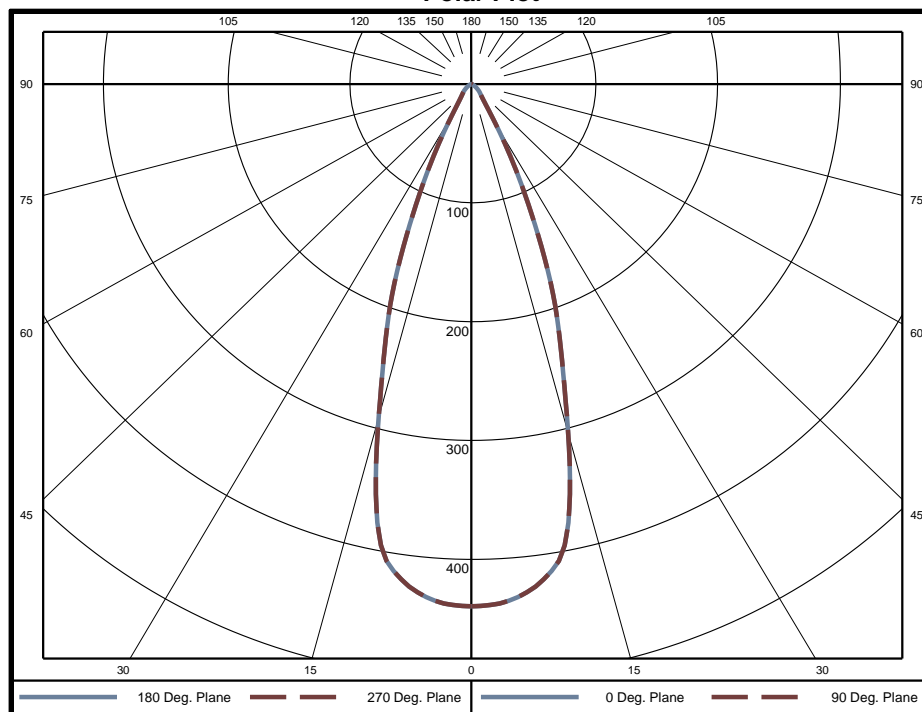
Luminaire Efficacy:

31.2 lm/w

Maximum Candela:

440 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	10.44	5.3%	60-65	1.11	0.6%	120-125	0	0.0%
5-10	30.13	15.2%	65-70	0.67	0.3%	125-130	0	0.0%
10-15	42.55	21.5%	70-75	0.31	0.2%	130-135	0	0.0%
15-20	40.16	20.3%	75-80	0.06	0.0%	135-140	0	0.0%
20-25	30.93	15.6%	80-85	0	0.0%	140-145	0	0.0%
25-30	17.39	8.8%	85-90	0	0.0%	145-150	0	0.0%
30-35	8.10	4.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	4.96	2.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	3.94	2.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	3.20	1.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	2.35	1.2%	110-115	0	0.0%	170-175	0.00	0.0%
55-60	1.64	0.8%	115-120	0	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	185	93.3%
0-60	196	98.9%
0-90	198	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	439.5	439.5	439.5	439.5	439.5	439.5	439.5	439.5	439.5	439.5	439.5	439.5	439.5	439.5	439.5
	5	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4
	10	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5	407.5
	15	301.9	301.9	301.9	301.9	301.9	301.9	301.9	301.9	301.9	301.9	301.9	301.9	301.9	301.9	301.9
	20	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0
	25	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
	30	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
	35	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
	40	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
	45	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
	50	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
	55	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	60	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	65	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	70	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	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	385500	385500
	45	11530	11530
	55	6703	6703
	65	3670	3670
	75	1055	1055
	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	236	236	236	236	230	230	230	230	220	220	220	211	211	211	202	202	202	198
1	226	221	217	213	221	217	213	209	209	206	203	202	199	197	195	193	191	188
2	217	208	201	195	212	205	198	193	198	193	189	193	188	185	187	184	181	178
3	208	197	188	181	204	194	186	180	189	182	177	184	179	174	180	175	172	169
4	199	186	177	170	196	184	175	169	180	173	167	176	170	165	173	167	163	160
5	191	177	167	160	188	175	166	159	172	164	158	169	162	157	166	160	155	153
6	184	169	159	152	181	167	158	151	165	156	150	162	155	149	160	153	148	146
7	177	161	151	144	175	160	151	144	158	149	143	156	148	142	154	147	142	139
8	170	155	145	138	168	154	144	137	152	143	137	150	142	136	148	141	136	133
9	164	148	138	132	162	147	138	132	146	137	131	144	136	131	143	136	130	128
10	159	143	133	126	157	142	133	126	140	132	126	139	131	126	138	130	125	123

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	439.5 Candela
Central Cone Intensity:	438 Candela
Beam Flux:	113.7 Lumens
Beam Angle (0-180):	37.6 Degrees
Beam Angle (90-270):	37.6 Degrees
Field Angle (0-180):	59.6 Degrees
Field Angle (90-270):	59.6 Degrees

Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		12.2	3.69
10.0		4.40	6.15
14.0		2.24	8.62
18.0		1.36	11.1
22.0		0.908	13.5
26.0		0.650	16.0
30.0		0.488	18.5



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	85.9	43.6%
FM	(30-60)	12.1	6.1%
FH	(60-80)	0.6	0.3%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	85.9	43.6%
BM	(30-60)	12.1	6.1%
BH	(60-80)	0.6	0.3%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		197.1	100.0%
BUG Rating	B0 U0 G0		