



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
HSL11-4-M-30 (4W, 25° OPTIC, 3000K)

Order Number
12250114
Test Number
12250114.29

Test Date

2018-04-25

Prepared By

Cordaryl Cousar, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



Luminaire Description: Cylindrical metal housing, with adjustable knuckle, clear glass lens and internal LED module
Lamp: One (1) Cree XHP 3000K LED with 25°, medium optic
Mounting: Flood
Ballast/Driver: Integrated

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: B1 U0 G0

Test Conditions

Test Temperature: 24.7 °C
Voltage: 12.02 VAC
Current: 0.3500 A
Power: 4.125 W
Power Factor: 0.980
Frequency: 60 Hz
Current THD: 10.6 %

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
24.7 °C	12.02 VAC	0.3500 A	4.125 W	0.980	60 Hz	10.6 %

Summary of Results

Spacing Criteria

0-180: 0.44

90-270: 0.44

Total Lumen Output:

252.9 Lumens

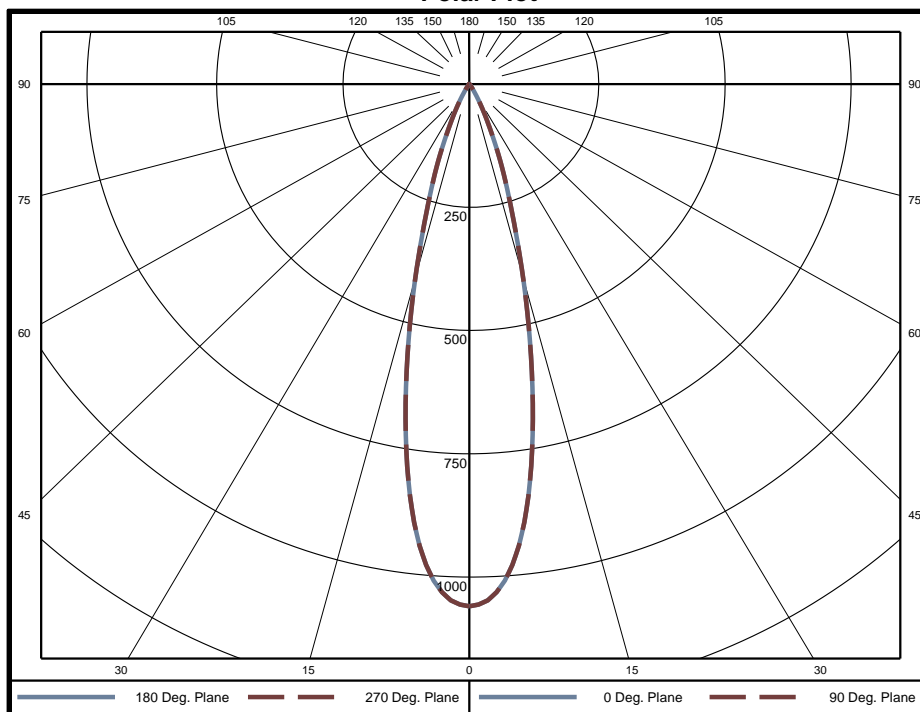
Luminaire Efficacy:

61.3 lm/w

Maximum Candela:

1059 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	24.40	9.6%	60-65	0	0.0%	120-125	0	0.0%
5-10	60.77	24.0%	65-70	0	0.0%	125-130	0	0.0%
10-15	66.09	26.1%	70-75	0	0.0%	130-135	0	0.0%
15-20	48.88	19.3%	75-80	0	0.0%	135-140	0	0.0%
20-25	29.76	11.8%	80-85	0	0.0%	140-145	0	0.0%
25-30	14.20	5.6%	85-90	0	0.0%	145-150	0	0.0%
30-35	5.22	2.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	2.05	0.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	0.96	0.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	0.43	0.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.13	0.1%	110-115	0	0.0%	170-175	0.00	0.0%
55-60	0.01	0.0%	115-120	0	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	251	99.4%
0-60	253	100.0%
0-90	253	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	1059	1059	1059	1059	1059	1059	1059	1059	1059	1059	1059	1059	1059	1059	1059
	5	979	979	979	979	979	979	979	979	979	979	979	979	979	979	979
	10	723	723	723	723	723	723	723	723	723	723	723	723	723	723	723
	15	417	417	417	417	417	417	417	417	417	417	417	417	417	417	417
	20	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
	25	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89
	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	35	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	40	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	45	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	50	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	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	929100	929100
	45	1491	1491
	55	78	78
	65	0	0
	75	0	0
	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	301	301	301	301	294	294	294	294	281	281	281	269	269	269	258	258	258	253
1	291	286	281	276	285	280	276	272	270	267	264	261	258	256	252	250	249	244
2	281	272	265	258	276	268	261	256	260	255	250	253	249	245	246	243	240	236
3	272	261	252	244	268	257	249	243	251	244	239	245	240	235	240	236	232	228
4	264	250	241	233	260	248	239	232	243	235	229	238	232	227	234	229	224	221
5	256	241	231	223	253	239	230	222	235	227	220	231	224	219	228	222	217	214
6	249	233	222	215	246	231	221	214	228	219	213	225	217	212	222	215	210	208
7	242	225	215	207	239	224	214	207	221	212	206	218	211	205	216	209	204	201
8	235	218	208	201	233	217	207	200	215	206	200	213	205	199	210	203	198	196
9	229	212	201	195	226	211	201	194	209	200	194	207	199	193	205	198	193	190
10	223	206	196	189	221	205	195	189	203	194	188	202	193	188	200	193	187	185

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1059 Candela
Central Cone Intensity:	1032 Candela
Beam Flux:	126.7 Lumens
Beam Angle (0-180):	26.1 Degrees
Beam Angle (90-270):	26.1 Degrees
Field Angle (0-180):	48.1 Degrees
Field Angle (90-270):	48.1 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		29.4	2.65
10.0		10.6	4.41
14.0		5.40	6.18
18.0		3.27	7.94
22.0		2.19	9.71
26.0		1.57	11.5
30.0		1.18	13.2



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	122.2	48.3%
FM	(30-60)	4.2	1.7%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	122.2	48.3%
BM	(30-60)	4.2	1.7%
BH	(60-80)	0.0	0.0%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		252.7	100.0%
BUG Rating	B1 U0 G0		