



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

LWL5-SF-30

Order Number

12790877

Test Number

12790877.05

Test Date

2019-04-05

Prepared By

Josh Mitchell, Technician

Approved By

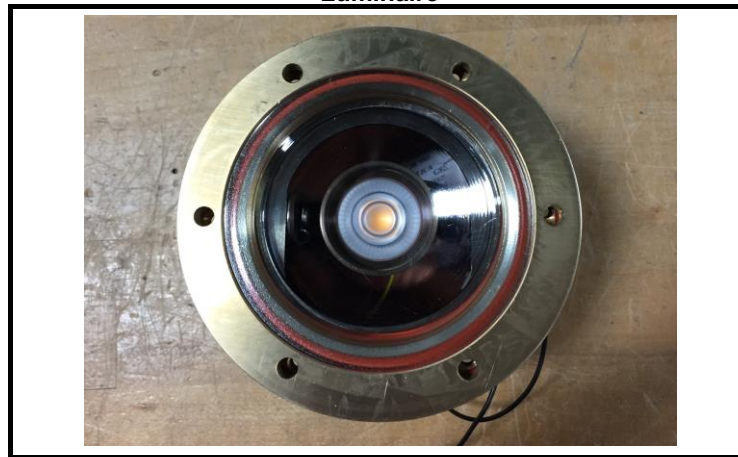
Alexa Lambert, Project Handler

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Luminaire Description: Cylindrical copper housing with circular brass faceplate and clear glass lens
Lamp: One (1) Cree MHD-E 3000K LED with 60° super flood acrylic optic
Mounting: Recessed

Luminaire



Luminaire Characteristics

Luminous Diameter: 3.25 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Cutoff
BUG Rating: B1 U1 G0

Test Conditions

Test Temperature: 25.1 °C
Voltage: 12.05 VAC
Current: 0.7338 A
Power: 8.777 W
Power Factor: 0.992
Frequency: 60 Hz
Current THD: 7.80 %

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
25.1 °C	12.05 VAC	0.7338 A	8.777 W	0.992	60 Hz	7.80 %

Summary of Results

Spacing Criteria

0-180: 1.14

90-270: 1.14

Total Lumen Output:

495.5 Lumens

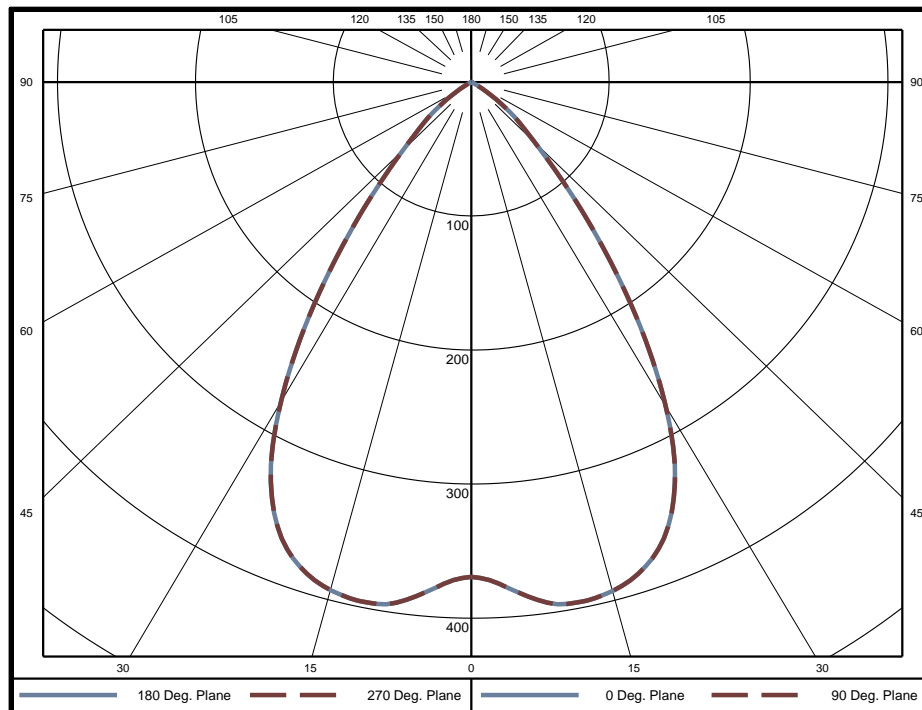
Luminaire Efficacy:

56.5 lm/w

Maximum Candela:

396 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	9.00	1.8%	60-65	1.08	0.2%	120-125	0	0.0%
5-10	27.97	5.6%	65-70	0.47	0.1%	125-130	0	0.0%
10-15	46.84	9.5%	70-75	0.33	0.1%	130-135	0	0.0%
15-20	63.68	12.9%	75-80	0.23	0.0%	135-140	0	0.0%
20-25	75.93	15.3%	80-85	0.18	0.0%	140-145	0	0.0%
25-30	78.82	15.9%	85-90	0.13	0.0%	145-150	0	0.0%
30-35	69.11	13.9%	90-95	0.01	0.0%	150-155	0	0.0%
35-40	51.00	10.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	32.79	6.6%	100-105	0	0.0%	160-165	0	0.0%
45-50	20.77	4.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	12.36	2.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	4.77	1.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	422	85.2%
0-60	493	99.5%
0-90	495	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	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2
	5	382.1	382.1	382.1	382.1	382.1	382.1	382.1	382.1	382.1	382.1	382.1	382.1	382.1	382.1	382.1
	10	395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4	395.4
	15	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8	392.8
	20	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2
	25	342.4	342.4	342.4	342.4	342.4	342.4	342.4	342.4	342.4	342.4	342.4	342.4	342.4	342.4	342.4
	30	276.9	276.9	276.9	276.9	276.9	276.9	276.9	276.9	276.9	276.9	276.9	276.9	276.9	276.9	276.9
	35	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2
	40	117.2	117.2	117.2	117.2	117.2	117.2	117.2	117.2	117.2	117.2	117.2	117.2	117.2	117.2	117.2
	45	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
	50	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	55	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	60	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	65	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	70	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	75	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	80	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	85	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
	90	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	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	68980	68980
	45	17340	17340
	55	5855	5855
	65	484	484
	75	346	346
	85	632	632



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	590	590	590	590	576	576	576	576	551	551	551	527	527	527	506	506	506	495
1	560	545	532	520	548	535	523	512	514	505	496	496	488	481	479	473	467	458
2	529	503	482	463	518	495	475	458	478	462	448	463	450	438	450	439	429	421
3	499	465	438	417	489	458	433	413	445	424	407	432	415	400	421	406	394	386
4	471	430	400	378	462	424	397	375	413	390	371	403	383	366	394	376	362	354
5	444	399	367	344	436	394	365	343	385	359	339	376	354	336	369	349	333	325
6	419	371	339	315	411	367	336	314	359	332	312	352	328	310	345	324	308	300
7	396	346	313	290	389	342	311	290	335	308	288	329	305	286	324	302	285	277
8	374	323	291	268	368	320	289	268	314	286	267	309	284	265	304	281	264	257
9	354	302	271	249	348	300	269	249	295	267	248	290	265	247	286	263	246	239
10	336	284	253	232	330	281	252	232	277	250	231	273	248	230	269	246	229	222

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	369.2 Candela
Central Cone Intensity:	374 Candela
Beam Flux:	377.9 Lumens
Beam Angle (0-180):	71.0 Degrees
Beam Angle (90-270):	71.0 Degrees
Field Angle (0-180):	101.3 Degrees
Field Angle (90-270):	101.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		10.3	6.84
10.0		3.69	11.4
14.0		1.88	16.0
18.0		1.14	20.5
22.0		0.763	25.1
26.0		0.546	29.7
30.0		0.410	34.2



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	151.0	30.5%
FM	(30-60)	95.5	19.3%
FH	(60-80)	1.1	0.2%
FVH	(80-90)	0.2	0.0%
BL	(0-30)	151.0	30.5%
BM	(30-60)	95.5	19.3%
BH	(60-80)	1.1	0.2%
BVH	(80-90)	0.2	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		495.5	100.0%
BUG Rating	B1 U1 G0		