



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

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

Catalog Number
HSL16/HSL20-LM-8-UF-30 (8W, 75° ULTRA FLOOD OPTIC, 3000K)

Order Number
13931356
Test Number
13931356.16

Test Date

2021-07-29

Prepared By

Josh Mitchell, Technician

Approved By

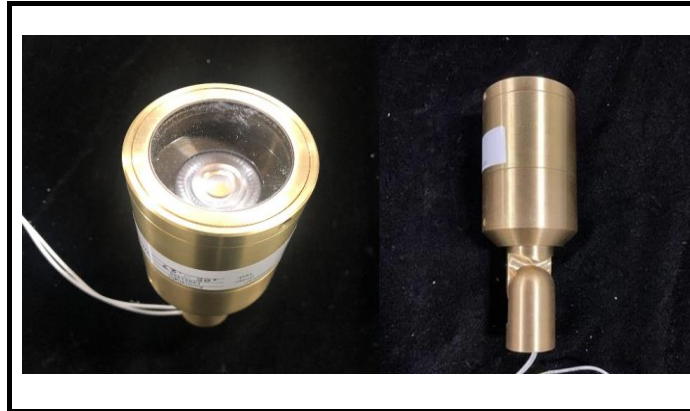
Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Cylindrical brass body with adjustable knuckle
Lamp: One white LED
Mounting: Flood
Ballast/Driver: Integral
Note: Report extrapolated using data from Test Numbers 13931356.07, 13931356.08, and 13931356.11

Luminaire



Luminaire Characteristics

Luminous Diameter: 1.88 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Full Cutoff
BUG Rating: B1 U0 G0

Test Conditions

Test Temperature: 24.1 °C
Voltage: 12.20 VAC
Current: 0.7024 A
Power: 7.824 W
Power Factor: 0.905
Frequency: 60 Hz
Current THD: 41.9 %

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
24.1 °C	12.20 VAC	0.7024 A	7.824 W	0.905	60 Hz	41.9 %

Summary of Results

Spacing Criteria

0-180: 1.15
90-270: 1.15

Total Lumen Output:

471.4 Lumens

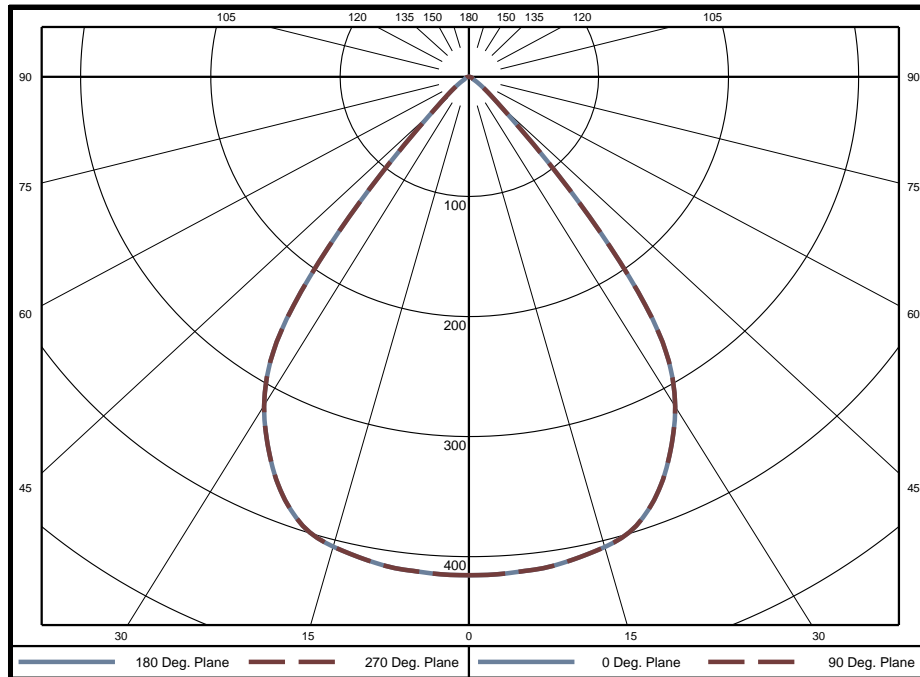
Luminaire Efficacy:

60.3 lm/w

Maximum Candela:

387 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	9.24	2.0%	60-65	1.46	0.3%	120-125	0	0.0%
5-10	27.52	5.8%	65-70	1.28	0.3%	125-130	0	0.0%
10-15	45.11	9.6%	70-75	1.07	0.2%	130-135	0	0.0%
15-20	61.29	13.0%	75-80	0.74	0.2%	135-140	0	0.0%
20-25	73.44	15.6%	80-85	0.38	0.1%	140-145	0	0.0%
25-30	79.80	16.9%	85-90	0.13	0.0%	145-150	0	0.0%
30-35	78.40	16.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	54.86	11.6%	95-100	0	0.0%	155-160	0	0.0%
40-45	21.33	4.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	8.73	1.9%	105-110	0	0.0%	165-170	0	0.0%
50-55	4.49	1.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	2.10	0.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	430	91.1%
0-60	466	98.9%
0-90	471	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	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7
	5	385.7	385.7	385.7	385.7	385.7	385.7	385.7	385.7	385.7	385.7	385.7	385.7	385.7	385.7	385.7
	10	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
	15	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5
	20	364.1	364.1	364.1	364.1	364.1	364.1	364.1	364.1	364.1	364.1	364.1	364.1	364.1	364.1	364.1
	25	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9
	30	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6	295.6
	35	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3	229.3
	40	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1
	45	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3
	50	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
	55	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
	60	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	65	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	70	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	75	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	80	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	85	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
	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)

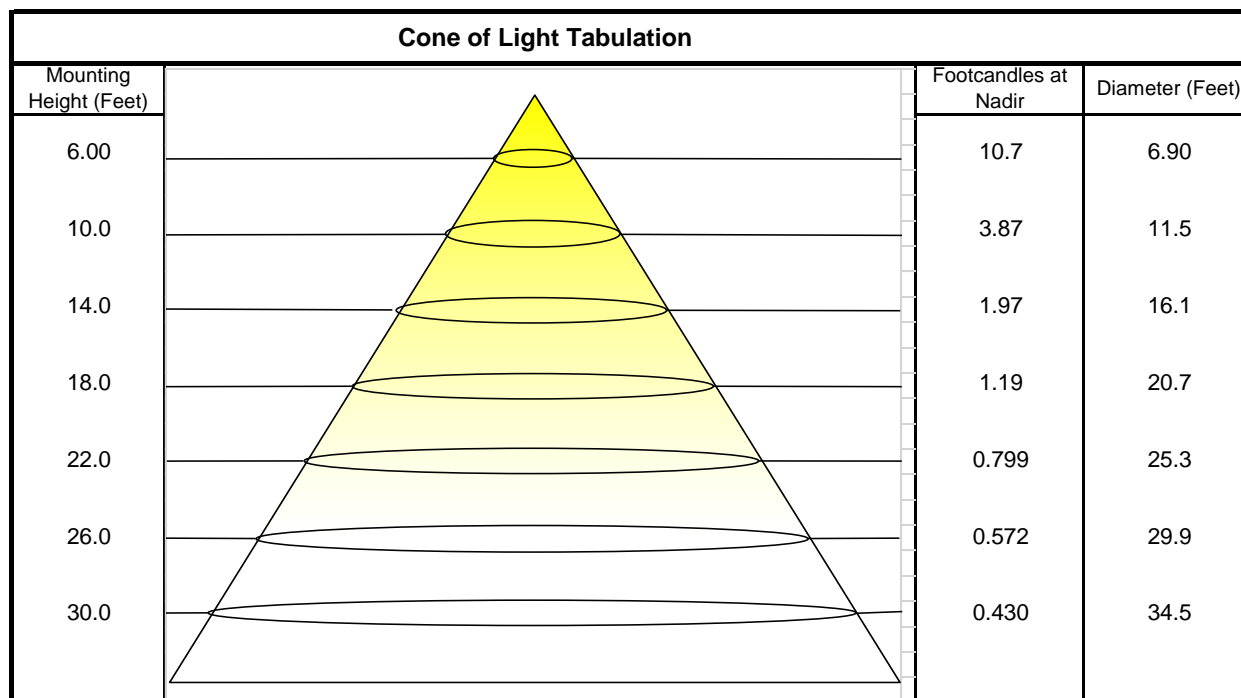
Vertical Angle (Degrees)	0	45	90
	0	215900	215900
	45	24750	24750
	55	6714	6714
	65	3621	3621
	75	3761	3761
	85	2713	2713



Utilization of Lumens - Zonal Cavity Method

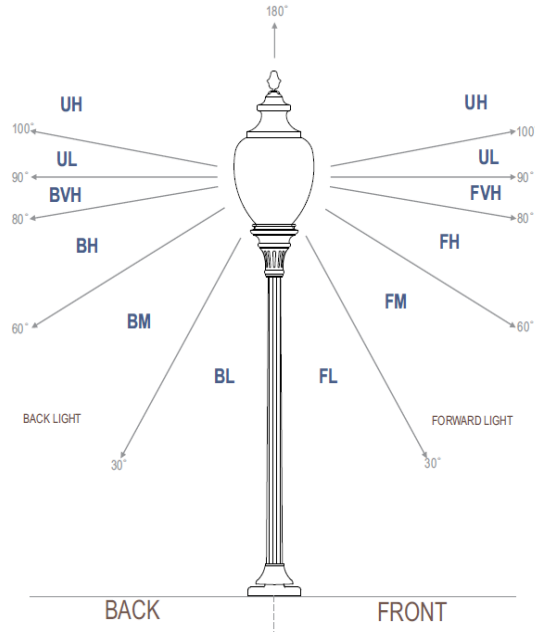
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	561	561	561	561	548	548	548	548	524	524	524	501	501	501	481	481	481	471
1	533	519	507	496	522	509	498	488	490	481	473	472	465	459	456	451	446	437
2	505	481	460	443	494	472	454	438	457	442	429	443	430	420	430	420	411	403
3	477	445	420	401	468	439	416	397	426	407	391	414	398	385	404	390	379	371
4	451	413	386	364	442	408	382	362	397	375	358	388	369	354	379	363	350	342
5	426	384	355	334	418	380	353	332	371	347	329	363	342	326	356	338	323	316
6	403	358	328	307	396	354	326	306	347	322	304	340	318	301	334	315	299	292
7	381	335	304	283	374	331	303	283	325	300	281	319	296	279	314	293	278	271
8	361	313	283	263	355	310	282	262	305	279	261	300	277	260	295	274	258	252
9	342	294	264	244	336	291	263	244	287	261	243	282	259	242	278	257	241	234
10	324	276	247	228	319	274	246	227	270	244	226	266	242	226	262	241	225	219

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	386.7 Candela
Central Cone Intensity:	386 Candela
Beam Flux:	394.5 Lumens
Beam Angle (0-180):	73.0 Degrees
Beam Angle (90-270):	73.0 Degrees
Field Angle (0-180):	87.9 Degrees
Field Angle (90-270):	87.9 Degrees





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	159.4	31.4%
FM	(30-60)	91.3	18.0%
FH	(60-80)	2.4	0.5%
FVH	(80-90)	0.3	0.1%
BL	(0-30)	159.4	31.4%
BM	(30-60)	91.3	18.0%
BH	(60-80)	2.4	0.5%
BVH	(80-90)	0.3	0.1%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		506.8	100.0%
BUG Rating	B1 U0 G0		