



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-6-SF-30 (6W, 60° SUPER FLOOD OPTIC, 3000K)

Order Number
13931356
Test Number
13931356.20

Test Date

2021-07-29

Prepared By

Josh Mitchell, Technician

Approved By

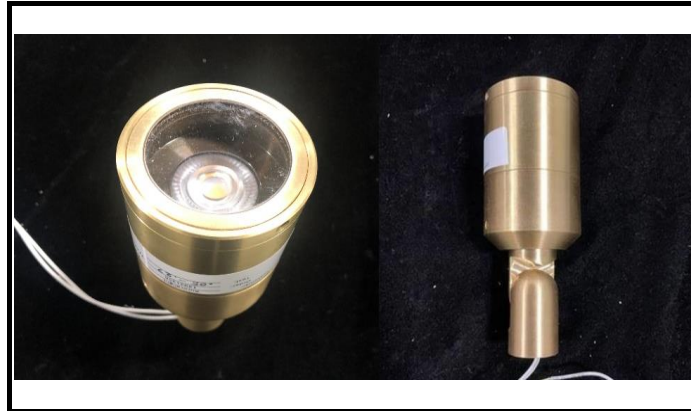
Alexa Lambert, Project Handler

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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 13931356.06, 13931356.08, and 13931356.10

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: 24.8 °C
Voltage: 12.00 VAC
Current: 0.5259 A
Power: 5.547 W
Power Factor: 0.889
Frequency: 60 Hz
Current THD: 45.1 %

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
24.8 °C	12.00 VAC	0.5259 A	5.547 W	0.889	60 Hz	45.1 %

Summary of Results

Spacing Criteria

0-180: 1.01

90-270: 1.01

Total Lumen Output:

405.7 Lumens

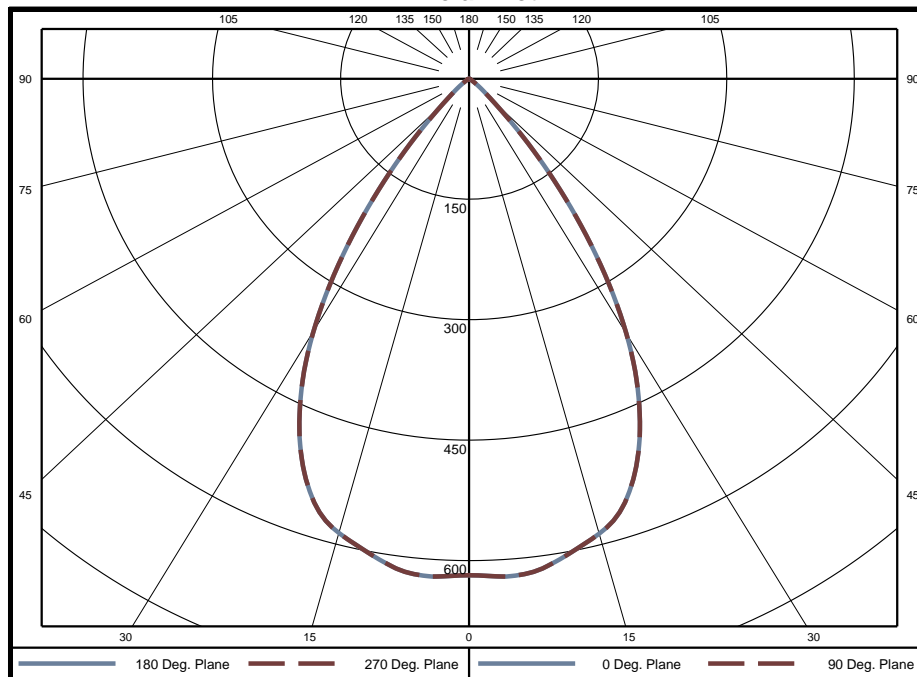
Luminaire Efficacy:

73.1 lm/w

Maximum Candela:

401 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	9.58	2.4%	60-65	0.48	0.1%	120-125	0	0.0%
5-10	28.44	7.0%	65-70	0.40	0.1%	125-130	0	0.0%
10-15	45.69	11.3%	70-75	0.32	0.1%	130-135	0	0.0%
15-20	60.56	14.9%	75-80	0.22	0.1%	135-140	0	0.0%
20-25	69.11	17.0%	80-85	0.11	0.0%	140-145	0	0.0%
25-30	68.64	16.9%	85-90	0.04	0.0%	145-150	0	0.0%
30-35	57.43	14.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	37.57	9.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	17.12	4.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	6.42	1.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	2.62	0.6%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.91	0.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	377	92.9%
0-60	404	99.6%
0-90	406	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	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2	399.2
	5	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1	401.1
	10	392.5	392.5	392.5	392.5	392.5	392.5	392.5	392.5	392.5	392.5	392.5	392.5	392.5	392.5	392.5
	15	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7
	20	353.0	353.0	353.0	353.0	353.0	353.0	353.0	353.0	353.0	353.0	353.0	353.0	353.0	353.0	353.0
	25	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3	304.3
	30	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9
	35	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9
	40	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
	45	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8
	50	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
	55	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
	60	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	65	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
	70	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	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	0.3	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
	85	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	0.1
	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)

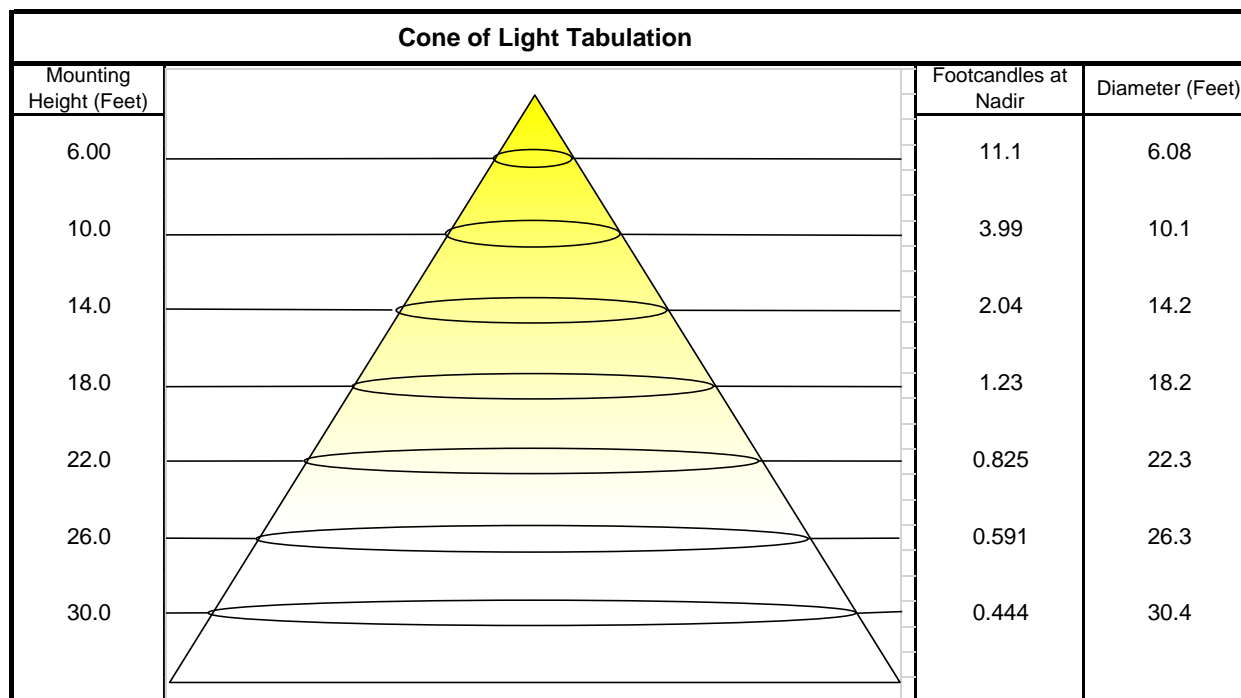
Vertical Angle (Degrees)	0	45	90
	0	222900	222900
	45	19590	19590
	55	3338	3338
	65	1141	1141
	75	1122	1122
	85	836	836



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	483	483	483	483	472	472	472	472	451	451	451	432	432	432	414	414	414	406
1	460	449	439	430	450	440	431	423	424	416	410	409	403	398	395	390	386	379
2	437	417	401	387	428	410	395	383	397	385	374	385	375	366	374	366	358	352
3	415	389	368	352	407	383	364	349	372	356	343	362	349	338	353	342	333	326
4	393	362	340	322	386	358	337	321	349	331	317	341	325	313	333	320	309	303
5	373	339	315	297	366	335	313	296	328	308	293	321	304	291	314	300	288	282
6	354	317	293	275	348	314	291	274	308	287	272	302	284	270	297	281	268	263
7	336	298	273	256	330	295	271	255	290	269	253	285	266	252	280	264	251	245
8	319	280	255	238	314	277	254	238	273	252	237	269	250	236	265	248	235	229
9	303	264	239	223	299	262	238	222	258	236	222	254	235	221	251	233	220	215
10	289	249	225	209	285	247	224	209	244	223	208	240	221	207	237	220	207	201

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	399.2 Candela
Central Cone Intensity:	400 Candela
Beam Flux:	309.9 Lumens
Beam Angle (0-180):	64.6 Degrees
Beam Angle (90-270):	64.6 Degrees
Field Angle (0-180):	85.9 Degrees
Field Angle (90-270):	85.9 Degrees





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	218.3	34.7%
FM	(30-60)	94.6	15.1%
FH	(60-80)	1.1	0.2%
FVH	(80-90)	0.1	0.0%
BL	(0-30)	218.3	34.7%
BM	(30-60)	94.6	15.1%
BH	(60-80)	1.1	0.2%
BVH	(80-90)	0.1	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		628.1	100.0%
BUG Rating	B1 U0 G0		