



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-UF-30 (6W, 75° ULTRA FLOOD OPTIC, 3000K)

Order Number
13931356
Test Number
13931356.21

Test Date

2021-07-29

Prepared By

Josh Mitchell, Technician

Approved By

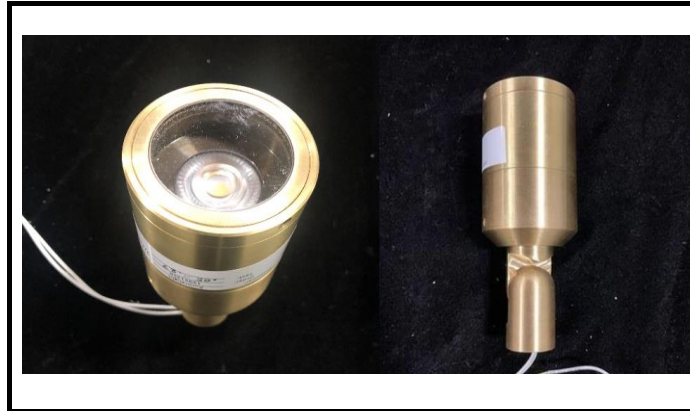
Alexa Lambert, Project Handler

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 13931356.06, 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: 24.8 °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: 1.15
90-270: 1.15

Total Lumen Output:

327.3 Lumens

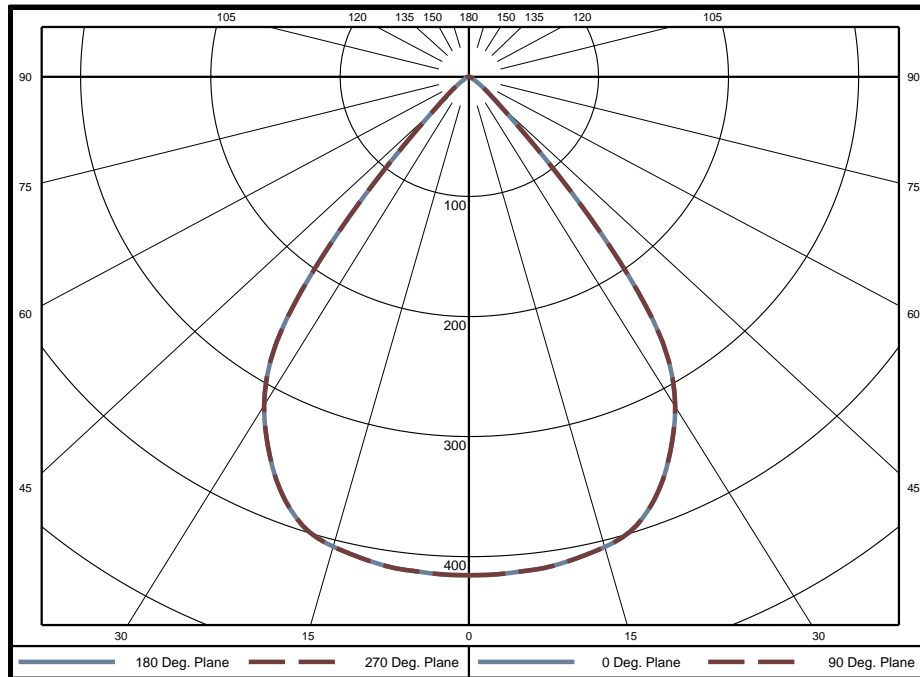
Luminaire Efficacy:

59.0 lm/w

Maximum Candela:

268 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	6.41	2.0%	60-65	1.01	0.3%	120-125	0	0.0%
5-10	19.11	5.8%	65-70	0.89	0.3%	125-130	0	0.0%
10-15	31.32	9.6%	70-75	0.74	0.2%	130-135	0	0.0%
15-20	42.56	13.0%	75-80	0.52	0.2%	135-140	0	0.0%
20-25	50.99	15.6%	80-85	0.26	0.1%	140-145	0	0.0%
25-30	55.41	16.9%	85-90	0.09	0.0%	145-150	0	0.0%
30-35	54.43	16.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	38.09	11.6%	95-100	0	0.0%	155-160	0	0.0%
40-45	14.81	4.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	6.06	1.9%	105-110	0	0.0%	165-170	0	0.0%
50-55	3.12	1.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	1.46	0.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	298	91.1%
0-60	324	98.9%
0-90	327	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	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5
	5	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8
	10	266.1	266.1	266.1	266.1	266.1	266.1	266.1	266.1	266.1	266.1	266.1	266.1	266.1	266.1	266.1
	15	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1
	20	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8
	25	232.5	232.5	232.5	232.5	232.5	232.5	232.5	232.5	232.5	232.5	232.5	232.5	232.5	232.5	232.5
	30	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
	35	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2
	40	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5
	45	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
	50	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
	55	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	60	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
	65	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	70	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	75	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
	80	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
	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	0.0	0.0	0.0	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)

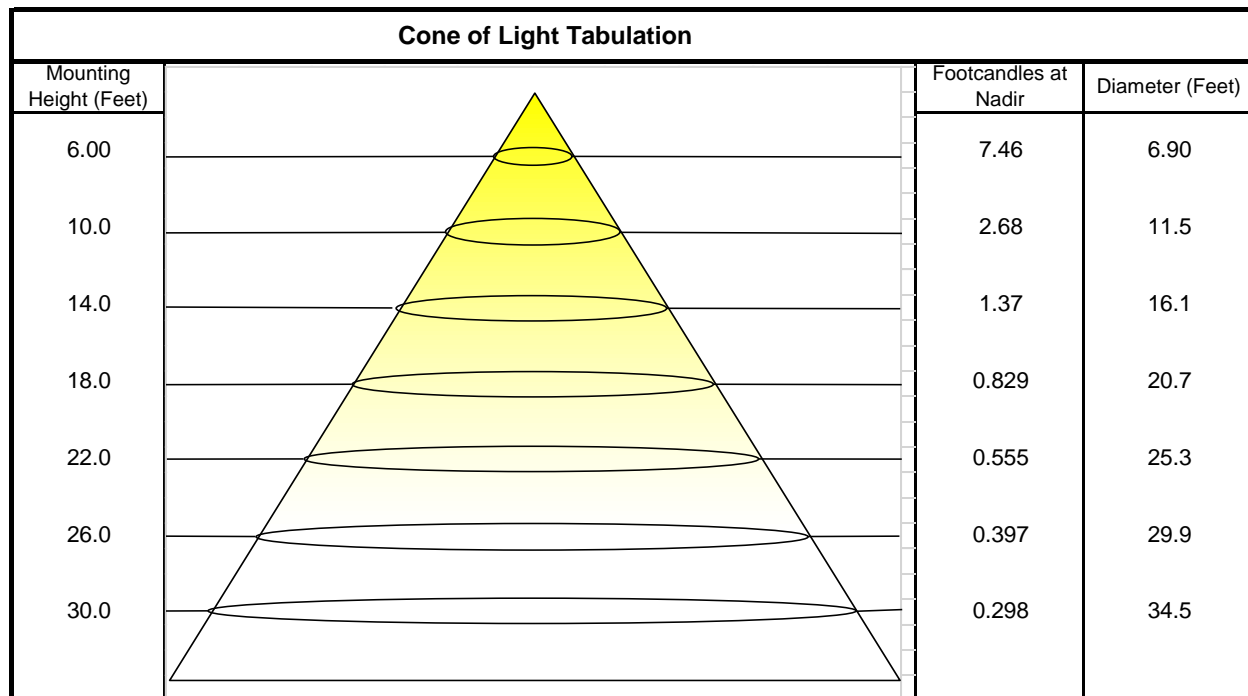
Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
	0	45	90	
	0	149900	149900	149900
	45	17180	17180	17180
	55	4662	4662	4662
	65	2514	2514	2514
	75	2611	2611	2611
	85	1883	1883	1883



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	390	390	390	390	381	381	381	381	364	364	364	348	348	348	334	334	334	327
1	370	361	352	344	362	354	346	339	340	334	328	328	323	319	317	313	309	303
2	351	334	320	308	343	328	315	304	317	307	298	307	299	291	298	291	285	280
3	331	309	292	278	325	305	289	276	296	282	271	288	277	267	280	271	263	258
4	313	287	268	253	307	283	265	252	276	261	249	269	256	246	263	252	243	238
5	296	267	247	232	290	264	245	231	258	241	228	252	238	226	247	234	224	219
6	280	249	228	213	275	246	227	212	241	224	211	236	221	209	232	218	208	203
7	265	232	211	197	260	230	210	196	226	208	195	222	206	194	218	204	193	188
8	250	217	197	182	246	215	196	182	212	194	181	208	192	180	205	190	179	175
9	237	204	183	169	234	202	183	169	199	181	169	196	180	168	193	178	167	163
10	225	192	171	158	222	190	171	158	187	170	157	185	168	157	182	167	156	152

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	268.5 Candela
Central Cone Intensity:	268 Candela
Beam Flux:	273.9 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		