



UL Verification Services Inc.
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Allentown, PA 18106
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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
LSL40-22-SF-30 (22W, 60° Super Flood Optic, 3000K)

Order Number
13469434
Test Number
13469434.04

Test Date

2020-08-24

Prepared By

Jesse Litchfield, Technician

Approved By

Kevin Rodriguez, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Bronzed cast housing, patterned lens enclosure, clear glass lens with bronze trim
Lamp: One white LED
Mounting: Path / Area Light
Ballast/Driver: Integral

Luminaire



Luminaire Characteristics

Luminous Diameter: 3.13 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Cutoff
BUG Rating: B2 U1 G0

Test Conditions

Test Temperature: 25.3 °C
Voltage: 12.23 VAC
Current: 1.710 A
Power: 20.46 W
Power Factor: 0.979
Frequency: 60 Hz
Current THD: 16.2 %

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
25.3 °C	12.23 VAC	1.710 A	20.46 W	0.979	60 Hz	16.2 %

Summary of Results

Spacing Criteria

0-180: 0.93

90-270: 0.93

Total Lumen Output:

1659 Lumens

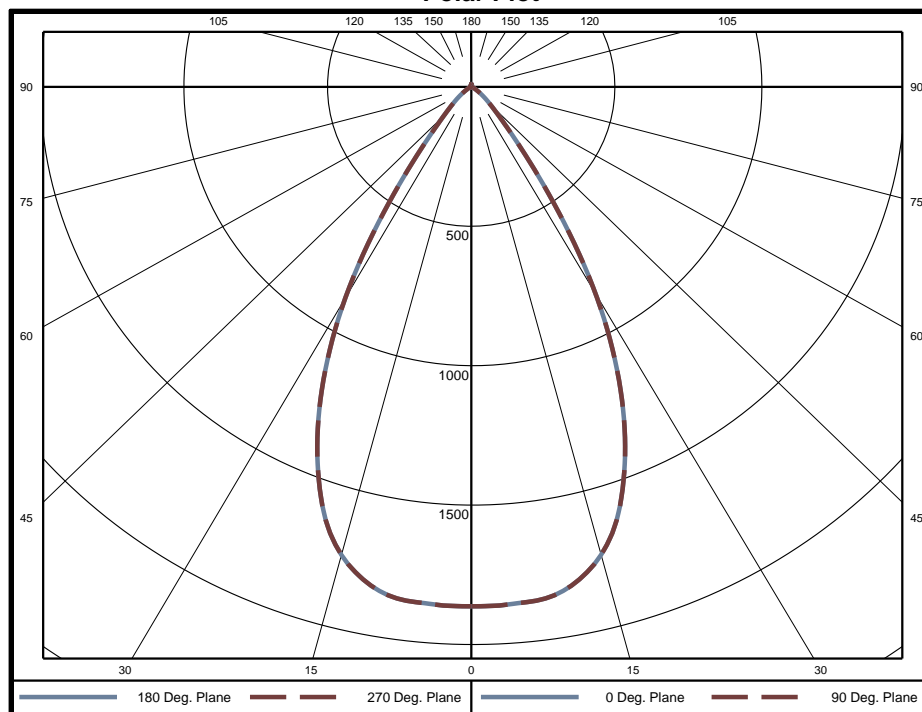
Luminaire Efficacy:

81.1 lm/w

Maximum Candela:

1863 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	44.5	2.7%	60-65	6.3	0.4%	120-125	0.0	0.0%
5-10	132.4	8.0%	65-70	4.0	0.2%	125-130	0.1	0.0%
10-15	212.4	12.8%	70-75	2.7	0.2%	130-135	0.1	0.0%
15-20	270.9	16.3%	75-80	1.8	0.1%	135-140	0.2	0.0%
20-25	291.0	17.5%	80-85	0.9	0.1%	140-145	0.4	0.0%
25-30	267.0	16.1%	85-90	0.3	0.0%	145-150	0.6	0.0%
30-35	195.1	11.8%	90-95	0.1	0.0%	150-155	0.7	0.0%
35-40	106.0	6.4%	95-100	0.0	0.0%	155-160	0.9	0.1%
40-45	54.5	3.3%	100-105	0.0	0.0%	160-165	1.0	0.1%
45-50	32.6	2.0%	105-110	0.0	0.0%	165-170	0.9	0.1%
50-55	19.5	1.2%	110-115	0.0	0.0%	170-175	0.7	0.0%
55-60	10.8	0.7%	115-120	0.0	0.0%	175-180	0.2	0.0%

Zone	Lumens	% of Luminaire
0-40	1519	91.6%
0-60	1637	98.7%
0-90	1653	99.6%
90-180	6	0.4%



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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
	5	1859	1859	1859	1859	1859	1859	1859	1859	1859	1859	1859	1859	1859	1859	1859
	10	1836	1836	1836	1836	1836	1836	1836	1836	1836	1836	1836	1836	1836	1836	1836
	15	1739	1739	1739	1739	1739	1739	1739	1739	1739	1739	1739	1739	1739	1739	1739
	20	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536
	25	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238
	30	873	873	873	873	873	873	873	873	873	873	873	873	873	873	873
	35	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
	40	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206
	45	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
	50	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
	55	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
	60	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	65	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	70	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	75	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	145	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	150	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	155	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	160	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	165	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	170	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	175	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	180	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	375300	375300
	45	30100	30100
	55	11180	11180
	65	4761	4761
	75	3249	3249
	85	2458	2458



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	1974	1974	1974	1974	1927	1927	1927	1927	1840	1840	1840	1760	1760	1760	1687	1687	1687	1653
1	1881	1835	1794	1756	1840	1799	1762	1728	1730	1701	1674	1668	1644	1623	1610	1592	1575	1545
2	1788	1707	1640	1584	1751	1678	1617	1566	1624	1574	1531	1573	1533	1497	1527	1494	1465	1437
3	1699	1592	1510	1444	1665	1569	1493	1432	1524	1461	1409	1483	1430	1386	1445	1401	1364	1338
4	1613	1489	1397	1328	1583	1469	1385	1319	1433	1360	1303	1399	1337	1287	1368	1315	1272	1247
5	1533	1395	1299	1228	1506	1379	1289	1222	1349	1271	1211	1321	1253	1199	1294	1236	1188	1164
6	1457	1310	1212	1141	1432	1297	1204	1137	1272	1190	1129	1248	1176	1121	1225	1162	1113	1089
7	1386	1234	1135	1065	1364	1222	1129	1062	1201	1117	1056	1180	1106	1050	1161	1095	1044	1021
8	1320	1164	1065	998	1300	1154	1060	995	1135	1051	991	1118	1042	986	1101	1033	982	959
9	1258	1100	1003	937	1240	1091	999	936	1075	991	932	1060	984	928	1046	976	925	903
10	1201	1042	946	883	1184	1034	943	882	1020	937	879	1007	930	876	995	924	873	852

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	1863 Candela
Central Cone Intensity:	1862 Candela
Beam Flux:	1181.6 Lumens
Beam Angle (0-180):	58.5 Degrees
Beam Angle (90-270):	58.5 Degrees
Field Angle (0-180):	81.4 Degrees
Field Angle (90-270):	81.4 Degrees

Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		51.8	5.56
10.0		18.6	9.27
14.0		9.51	13.0
18.0		5.75	16.7
22.0		3.85	20.4
26.0		2.76	24.1
30.0		2.07	27.8



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	607.9	36.6%
FM	(30-60)	211.1	12.7%
FH	(60-80)	7.5	0.4%
FVH	(80-90)	0.6	0.0%
BL	(0-30)	607.9	36.6%
BM	(30-60)	211.1	12.7%
BH	(60-80)	7.5	0.4%
BVH	(80-90)	0.6	0.0%
UL	(90-100)	0.1	0.0%
UH	(100-180)	6.0	0.4%
Total		1660.2	100.0%
BUG Rating	B2 U1 G0		