



UL Verification Services Inc.
7036 Snowdrift Road
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-N-30 (22W, 12° Narrow Optic, 3000K)

Order Number
13469434
Test Number
13469434.02

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 U2 G0

Test Conditions

Test Temperature: 25.8 °C
Voltage: 12.04 VAC
Current: 1.725 A
Power: 20.34 W
Power Factor: 0.980
Frequency: 60 Hz
Current THD: 15.7 %

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
25.8 °C	12.04 VAC	1.725 A	20.34 W	0.980	60 Hz	15.7 %

Summary of Results

Spacing Criteria

0-180: 0.28

90-270: 0.28

Total Lumen Output:

1871 Lumens

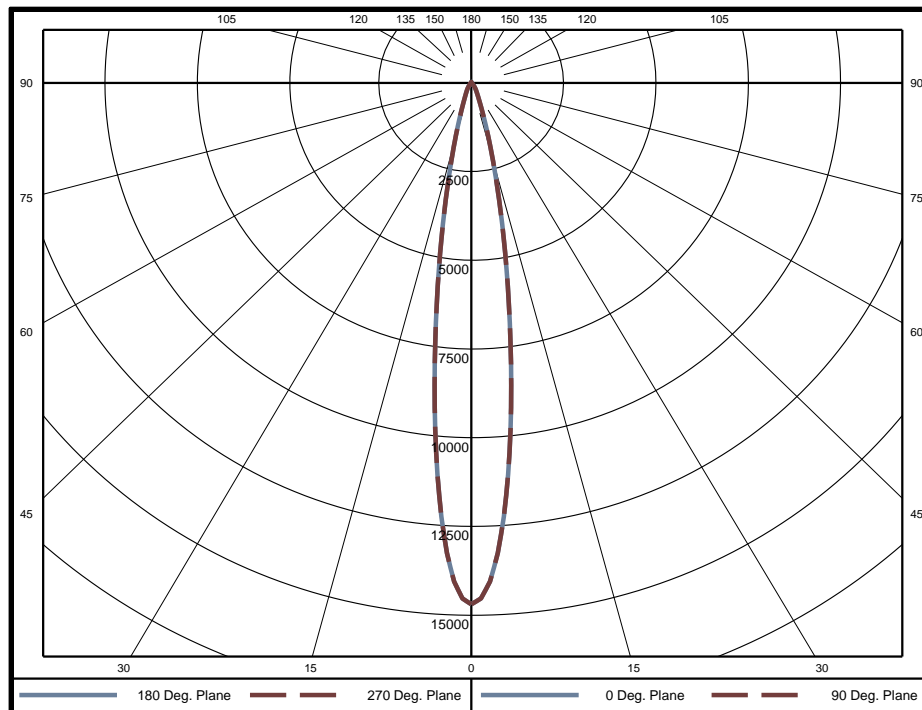
Luminaire Efficacy:

92.0 lm/w

Maximum Candela:

14692 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	306.1	16.4%	60-65	5.4	0.3%	120-125	0.1	0.0%
5-10	554.5	29.6%	65-70	3.4	0.2%	125-130	0.1	0.0%
10-15	400.4	21.4%	70-75	2.2	0.1%	130-135	0.1	0.0%
15-20	215.6	11.5%	75-80	1.4	0.1%	135-140	0.2	0.0%
20-25	119.7	6.4%	80-85	0.8	0.0%	140-145	0.2	0.0%
25-30	82.4	4.4%	85-90	0.3	0.0%	145-150	0.4	0.0%
30-35	62.8	3.4%	90-95	0.1	0.0%	150-155	0.9	0.0%
35-40	43.7	2.3%	95-100	0.1	0.0%	155-160	1.7	0.1%
40-45	26.1	1.4%	100-105	0.1	0.0%	160-165	2.4	0.1%
45-50	16.2	0.9%	105-110	0.1	0.0%	165-170	2.4	0.1%
50-55	11.0	0.6%	110-115	0.1	0.0%	170-175	1.6	0.1%
55-60	7.8	0.4%	115-120	0.1	0.0%	175-180	0.5	0.0%

Zone	Lumens	% of Luminaire
0-40	1785	95.4%
0-60	1846	98.7%
0-90	1860	99.4%
90-180	11	0.6%



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	14690	14690	14690	14690	14690	14690	14690	14690	14690	14690	14690	14690	14690	14690	14690
	5	11080	11080	11080	11080	11080	11080	11080	11080	11080	11080	11080	11080	11080	11080	11080
	10	5316	5316	5316	5316	5316	5316	5316	5316	5316	5316	5316	5316	5316	5316	5316
	15	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067	2067
	20	815	815	815	815	815	815	815	815	815	815	815	815	815	815	815
	25	412	412	412	412	412	412	412	412	412	412	412	412	412	412	412
	30	261	261	261	261	261	261	261	261	261	261	261	261	261	261	261
	35	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
	40	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96
	45	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
	50	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	55	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	60	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	65	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	70	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	160	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	165	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	170	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
	175	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
	180	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	2960000	2960000
	45	14550	14550
	55	7144	7144
	65	4121	4121
	75	2639	2639
	85	2106	2106



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																	
Ceiling Cavity Reflectance	80				70				50			30			10		
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																
0	2225	2225	2225	2225	2172	2172	2172	2172	2073	2073	2073	1982	1982	1982	1899	1899	1899
1	2150	2110	2074	2042	2104	2069	2037	2009	1992	1968	1945	1922	1903	1886	1857	1843	1830
2	2079	2011	1955	1908	2039	1979	1929	1886	1919	1879	1844	1864	1832	1804	1813	1788	1765
3	2013	1927	1859	1806	1979	1901	1840	1791	1854	1803	1762	1809	1768	1734	1768	1735	1707
4	1953	1853	1780	1724	1923	1833	1766	1714	1794	1738	1693	1759	1712	1673	1726	1686	1654
5	1897	1789	1713	1657	1871	1772	1702	1649	1741	1681	1634	1712	1660	1620	1685	1641	1606
6	1845	1731	1655	1600	1822	1718	1646	1594	1692	1630	1583	1668	1614	1573	1646	1599	1562
7	1797	1680	1604	1551	1777	1669	1597	1546	1647	1584	1538	1627	1572	1530	1608	1560	1522
8	1753	1634	1559	1507	1735	1624	1553	1504	1606	1543	1498	1589	1533	1492	1573	1523	1486
9	1712	1592	1518	1469	1695	1584	1514	1466	1568	1505	1461	1554	1497	1457	1540	1489	1452
10	1673	1553	1481	1434	1658	1546	1478	1432	1533	1471	1428	1521	1464	1424	1509	1458	1421

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	14690 Candela
Central Cone Intensity:	13352 Candela
Beam Flux:	649.2 Lumens
Beam Angle (0-180):	16.1 Degrees
Beam Angle (90-270):	16.1 Degrees
Field Angle (0-180):	33.6 Degrees
Field Angle (90-270):	33.6 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		408	1.66
10.0		147	2.76
14.0		75.0	3.86
18.0		45.3	4.97
22.0		30.4	6.07
26.0		21.7	7.18
30.0		16.3	8.28



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	844.7	44.9%
FM	(30-60)	84.1	4.5%
FH	(60-80)	6.3	0.3%
FVH	(80-90)	0.6	0.0%
BL	(0-30)	844.7	44.9%
BM	(30-60)	84.1	4.5%
BH	(60-80)	6.3	0.3%
BVH	(80-90)	0.6	0.0%
UL	(90-100)	0.3	0.0%
UH	(100-180)	11.3	0.6%
Total		1882.9	100.0%
BUG Rating	B2 U2 G0		