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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-M-30 (22W, 24° Medium Optic, 3000K)**

Order Number  
13469434  
Test Number  
13469434.11

Test Date

2020-08-24

Prepared By

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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: 24.4 °C  
Voltage: 12.17 VAC  
Current: 1.739 A  
Power: 20.72 W  
Power Factor: 0.979  
Frequency: 60 Hz  
Current THD: 16.1 %

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
24.4 °C	12.17 VAC	1.739 A	20.72 W	0.979	60 Hz	16.1 %

### Summary of Results

#### Spacing Criteria

0-180: 0.41

90-270: 0.41

**Total Lumen Output:**

1711 Lumens

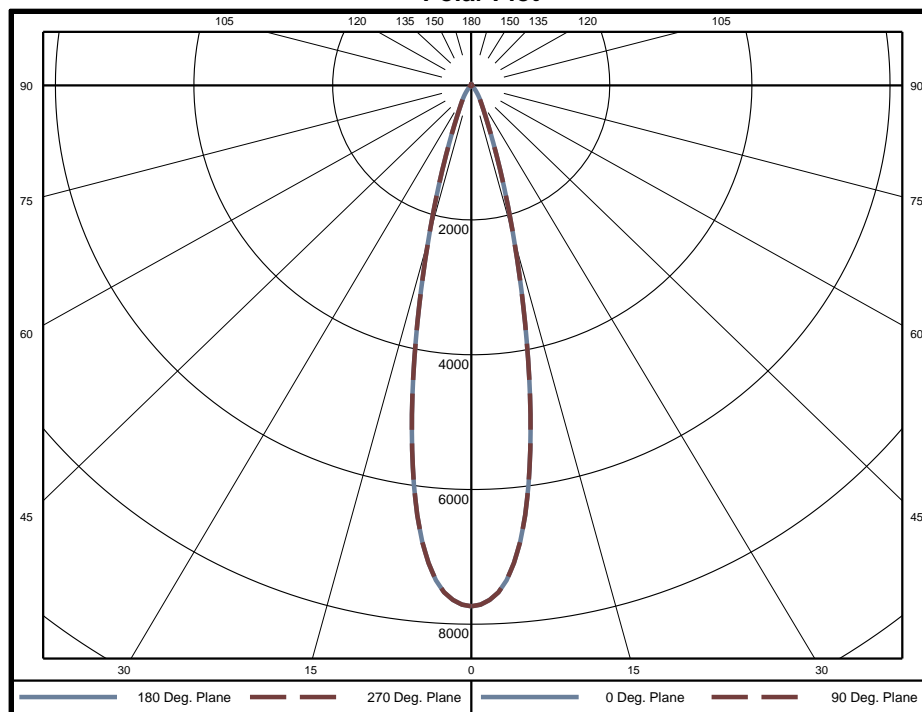
**Luminaire Efficacy:**

82.6 lm/w

**Maximum Candela:**

7734 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	177.9	10.4%	60-65	5.7	0.3%	120-125	0.0	0.0%
5-10	431.6	25.2%	65-70	3.3	0.2%	125-130	0.0	0.0%
10-15	422.9	24.7%	70-75	2.0	0.1%	130-135	0.0	0.0%
15-20	263.8	15.4%	75-80	1.3	0.1%	135-140	0.1	0.0%
20-25	140.0	8.2%	80-85	0.6	0.0%	140-145	0.2	0.0%
25-30	87.3	5.1%	85-90	0.2	0.0%	145-150	0.4	0.0%
30-35	62.3	3.6%	90-95	0.0	0.0%	150-155	0.9	0.1%
35-40	41.3	2.4%	95-100	0.0	0.0%	155-160	1.5	0.1%
40-45	25.3	1.5%	100-105	0.0	0.0%	160-165	2.0	0.1%
45-50	17.0	1.0%	105-110	0.0	0.0%	165-170	2.0	0.1%
50-55	11.7	0.7%	110-115	0.0	0.0%	170-175	1.4	0.1%
55-60	8.3	0.5%	115-120	0.0	0.0%	175-180	0.5	0.0%

Zone	Lumens	% of Luminaire
0-40	1627	95.1%
0-60	1689	98.7%
0-90	1703	99.5%
90-180	9	0.5%



### 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	7734	7734	7734	7734	7734	7734	7734	7734	7734	7734	7734	7734	7734	7734	7734
	5	7117	7117	7117	7117	7117	7117	7117	7117	7117	7117	7117	7117	7117	7117	7117
	10	4958	4958	4958	4958	4958	4958	4958	4958	4958	4958	4958	4958	4958	4958	4958
	15	2442	2442	2442	2442	2442	2442	2442	2442	2442	2442	2442	2442	2442	2442	2442
	20	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	25	453	453	453	453	453	453	453	453	453	453	453	453	453	453	453
	30	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267
	35	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
	40	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
	45	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
	50	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
	55	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
	60	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	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	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	165	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	170	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	175	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	180	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18

### Average Luminance (cd/m<sup>2</sup>)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	1558000	1558000
	45	14840	14840
	55	7538	7538
	65	4187	4187
	75	2435	2435
	85	1588	1588



### 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	2035	2035	2035	2035	1987	1987	1987	1987	1897	1897	1897	1814	1814	1814	1738	1738	1738	1702
1	1962	1923	1889	1858	1920	1886	1856	1828	1816	1792	1770	1752	1734	1716	1693	1679	1666	1636
2	1892	1826	1772	1726	1855	1797	1748	1707	1742	1703	1669	1691	1660	1632	1645	1620	1598	1572
3	1827	1742	1677	1625	1795	1719	1659	1611	1675	1626	1585	1634	1594	1560	1597	1564	1536	1512
4	1766	1668	1597	1542	1738	1649	1584	1533	1614	1558	1514	1581	1534	1497	1551	1512	1479	1458
5	1709	1603	1528	1473	1684	1587	1518	1466	1558	1499	1453	1531	1481	1441	1506	1463	1428	1408
6	1656	1544	1468	1414	1634	1531	1461	1409	1507	1446	1400	1485	1431	1390	1464	1418	1381	1362
7	1607	1491	1416	1363	1588	1480	1410	1359	1460	1398	1352	1442	1386	1345	1424	1375	1338	1320
8	1561	1443	1368	1317	1544	1434	1364	1315	1417	1354	1309	1401	1345	1304	1386	1336	1298	1281
9	1518	1399	1326	1277	1502	1391	1322	1274	1377	1314	1270	1363	1307	1266	1351	1299	1262	1245
10	1478	1358	1287	1239	1464	1352	1284	1238	1340	1277	1234	1328	1271	1231	1317	1265	1228	1212

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	7734 Candela
Central Cone Intensity:	7526 Candela
Beam Flux:	797.5 Lumens
Beam Angle (0-180):	24.0 Degrees
Beam Angle (90-270):	24.0 Degrees
Field Angle (0-180):	42.9 Degrees
Field Angle (90-270):	42.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		215	2.45
10.0		77.3	4.09
14.0		39.5	5.73
18.0		23.9	7.36
22.0		16.0	9.00
26.0		11.4	10.6
30.0		8.59	12.3



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	765.2	44.5%
FM	(30-60)	83.3	4.8%
FH	(60-80)	6.2	0.4%
FVH	(80-90)	0.4	0.0%
BL	(0-30)	765.2	44.5%
BM	(30-60)	83.3	4.8%
BH	(60-80)	6.2	0.4%
BVH	(80-90)	0.4	0.0%
UL	(90-100)	0.1	0.0%
UH	(100-180)	8.9	0.5%
Total		1719.3	100.0%
<b>BUG Rating</b>	<b>B2 U1 G0</b>		