



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-3-LED-27L-30-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-7762_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]04/03/17
[TEST DATE]04/28/16
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT] HLN-3-LED-27L-30-IL
[ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] Outdoor
[OTHER]SCALED FROM ORIGINAL TEST DATA

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	19949
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	241
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	25244.011
Maximum Candela Angle	55H 67.5V
Maximum Candela (<90 Degrees Vertical)	25244.011
Maximum Candela Angle (<90 Degrees Vertical)	55H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1374.396 (6.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	881.8	N.A.	4.4
FM - Front-Medium (30-60)	9024.2	N.A.	45.2
FH - Front-High (60-80)	8315.7	N.A.	41.7
FVH - Front-Very High (80-90)	162.0	N.A.	0.8
BL - Back-Low (0-30)	387.7	N.A.	1.9
BM - Back-Medium (30-60)	872.8	N.A.	4.4
BH - Back-High (60-80)	299.3	N.A.	1.5
BVH - Back-Very High (80-90)	5.7	N.A.	0.0
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	19949.2	N.A.	100.0
BUG Rating	B1-U0-G4		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>45.0</u>	<u>55.0</u>	<u>57.5</u>	<u>65.0</u>	<u>75.0</u>
0.0	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514
2.5	1774.730	1767.081	1741.582	1730.107	1708.433	1695.684	1666.360	1652.335	1638.311	1601.337
5.0	1950.674	1948.124	1940.474	1932.824	1914.975	1902.225	1857.602	1829.553	1782.380	1693.134
7.5	1898.401	1898.401	1904.775	1926.449	1936.649	1950.674	1944.299	1932.824	1895.851	1783.655
10.0	1770.906	1770.906	1784.930	1821.904	1863.977	1920.075	1960.873	1959.598	1955.773	1861.427
12.5	1648.510	1649.785	1666.360	1712.258	1764.531	1843.578	1926.449	1937.924	1968.523	1908.600
15.0	1547.789	1549.064	1570.738	1616.637	1686.759	1770.906	1866.527	1885.651	1957.048	1941.749
17.5	1490.417	1491.692	1515.916	1566.914	1640.861	1728.832	1832.103	1856.327	1946.849	1976.173
20.0	1519.740	1523.565	1551.614	1615.362	1681.659	1769.631	1871.627	1900.950	1992.747	2042.470
22.5	1719.908	1722.457	1747.956	1809.154	1856.327	1926.449	2018.246	2050.120	2127.892	2190.364
25.0	2134.266	2134.266	2167.415	2177.615	2194.189	2222.238	2314.034	2319.134	2385.432	2436.430
27.5	2691.420	2725.843	2728.393	2707.994	2687.595	2659.546	2716.919	2718.193	2748.792	2756.442
30.0	3282.996	3319.970	3335.269	3331.444	3294.471	3225.624	3229.448	3215.424	3189.925	3095.579
32.5	3905.172	3888.598	3919.196	3948.520	3947.245	3916.646	3832.500	3795.526	3671.856	3465.314
35.0	4388.378	4382.003	4454.675	4529.897	4584.720	4614.044	4481.449	4417.702	4192.036	3852.899
37.5	4840.985	4862.659	4945.531	5073.026	5186.497	5328.016	5145.698	5060.277	4717.315	4235.384
40.0	5363.715	5387.939	5475.910	5607.230	5785.723	5996.090	5849.471	5697.752	5228.570	4589.820
42.5	6036.888	6059.837	6159.284	6207.732	6447.422	6671.813	6500.970	6349.251	5693.927	4883.059
45.0	6915.329	6938.278	7038.999	7023.700	7203.468	7406.185	7147.370	6965.052	6119.760	5135.499
47.5	8057.684	8087.008	8210.678	8136.731	8260.401	8234.902	7793.770	7542.604	6563.443	5372.639
50.0	9602.924	9665.396	9933.136	9875.763	9731.694	9235.738	8450.369	8127.806	6976.527	5662.053
52.5	11914.408	12018.954	12316.017	12199.997	11832.811	10527.262	9222.988	8780.581	7472.482	6098.086
55.0	14589.253	14841.693	15131.107	15169.355	14623.677	12272.669	10200.875	9653.922	8182.629	6740.661
57.5	15850.179	16023.572	16995.084	17941.097	17840.376	14872.292	11732.090	11029.593	9296.936	7796.319
60.0	14195.294	14508.931	16250.513	18561.997	21323.539	18630.845	14060.149	13213.582	11079.316	9562.125
62.5	8417.220	8639.061	11839.186	16247.963	21278.916	21950.815	17695.031	17060.106	13722.287	11868.510
65.0	2400.731	2504.002	3888.598	8939.950	17798.302	22444.220	21816.945	21296.765	16918.587	13904.605
67.5	957.487	1002.111	1351.447	2560.100	10055.531	19607.456	25244.011	25238.911	19398.365	14542.080
70.0	647.675	673.174	793.019	1323.398	3248.573	13143.460	22863.679	24082.531	20591.718	12040.628
72.5	522.730	545.679	613.251	967.687	1880.551	5648.029	17243.699	18880.735	16255.613	96819.708
75.0	411.809	424.558	488.306	822.343	1478.942	2729.668	8594.438	10130.753	8509.016	2097.293
77.5	314.913	334.037	387.585	719.072	1290.249	1679.109	3159.326	3995.693	2413.480	754.770
80.0	219.291	232.041	290.689	605.601	1087.532	1166.579	1199.728	1374.396	1008.485	404.159
82.5	131.320	138.970	191.243	499.780	828.718	801.944	539.304	493.406	469.182	260.090
85.0	85.422	90.521	132.595	415.634	657.874	432.208	218.016	229.491	234.591	168.293
87.5	53.548	57.373	91.796	309.813	323.837	149.169	95.621	94.346	96.896	96.896
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Angles	Horizontal Angles									
	<u>85.0</u>	<u>90.0</u>	<u>95.0</u>	<u>105.0</u>	<u>115.0</u>	<u>125.0</u>	<u>135.0</u>	<u>145.0</u>	<u>155.0</u>	<u>165.0</u>
0.0	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514	1546.514
2.5	1574.563	1560.539	1542.690	1505.716	1477.667	1447.068	1419.019	1378.221	1351.447	1355.272
5.0	1606.437	1560.539	1512.091	1415.195	1322.123	1237.976	1160.205	1113.031	1081.158	1070.958
7.5	1637.036	1559.264	1477.667	1317.023	1176.779	1078.608	1026.335	986.811	952.388	930.714
10.0	1663.810	1551.614	1438.144	1216.302	1064.583	991.911	933.263	891.190	859.316	837.642
12.5	1689.309	1541.415	1399.895	1125.781	994.461	916.689	863.141	827.443	798.119	782.819
15.0	1712.258	1529.940	1359.097	1056.934	942.188	872.066	813.418	786.644	768.795	758.595
17.5	1736.482	1522.290	1319.573	1007.211	906.489	846.567	791.744	766.245	754.770	742.021
20.0	1784.930	1543.964	1309.374	979.162	906.489	832.542	790.469	753.495	733.096	726.722
22.5	1921.350	1640.861	1370.571	990.636	943.463	850.392	795.569	743.296	710.147	706.322
25.0	2125.342	1797.680	1503.166	1028.885	993.186	893.740	796.844	733.096	688.473	645.125
27.5	2380.332	2016.971	1658.710	1083.708	1042.909	942.188	810.868	713.972	590.302	501.055

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CANDELA TABULATION - (Cont.)

30.0	2635.322	2208.213	1800.229	1143.630	1087.532	986.811	813.418	609.426	458.982	437.308
32.5	2913.261	2428.780	1954.498	1198.453	1127.056	1021.235	757.320	507.430	442.408	451.332
35.0	3202.674	2641.696	2113.867	1231.602	1144.905	1032.710	660.424	495.956	444.958	464.082
37.5	3472.964	2845.688	2249.012	1243.076	1133.431	970.237	637.475	473.006	404.159	405.434
40.0	3716.479	3021.632	2353.558	1230.327	1088.807	849.117	626.000	441.133	346.786	323.837
42.5	3923.021	3159.326	2424.955	1192.078	998.286	749.671	573.728	411.809	313.638	272.839
45.0	4090.040	3270.247	2468.303	1129.606	827.443	599.227	494.681	378.660	335.312	243.515
47.5	4264.708	3400.292	2523.126	1046.734	601.776	434.758	385.035	334.037	318.738	230.766
50.0	4496.749	3605.559	2623.847	956.213	441.133	318.738	289.414	304.713	308.538	225.666
52.5	4851.185	3938.321	2840.589	892.465	335.312	253.715	225.666	269.014	277.939	230.766
55.0	5404.513	4501.849	3202.674	846.567	300.888	225.666	187.418	225.666	218.016	244.790
57.5	6336.502	5275.743	3731.779	768.795	283.039	207.817	163.194	187.418	169.568	175.943
60.0	7824.368	6225.581	4023.742	661.699	267.740	183.593	141.519	133.870	101.996	136.420
62.5	9915.286	6933.178	3794.251	553.328	235.866	151.719	140.245	82.872	68.847	107.096
65.0	10969.670	6906.404	2815.090	447.507	183.593	133.870	100.721	65.022	49.723	103.271
67.5	10487.739	5602.130	1679.109	308.538	136.420	100.721	66.297	54.823	48.448	79.047
70.0	6845.207	3521.412	835.092	198.892	100.721	61.198	40.798	44.623	36.974	58.648
72.5	3003.782	1403.720	309.813	127.495	73.947	35.699	30.599	29.324	24.224	39.523
75.0	753.495	478.106	187.418	94.346	47.173	26.774	19.124	19.124	8.925	15.299
77.5	358.261	238.416	130.045	67.572	28.049	17.849	10.200	6.375	2.550	3.825
80.0	221.841	158.094	95.621	44.623	15.299	7.650	6.375	3.825	1.275	0.000
82.5	147.894	107.096	68.847	25.499	7.650	7.650	6.375	2.550	0.000	0.000
85.0	94.346	73.947	48.448	14.024	7.650	6.375	5.100	2.550	0.000	0.000
87.5	53.548	39.523	24.224	7.650	8.925	8.925	7.650	3.825	1.275	0.000
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Horizontal Angles
Angles

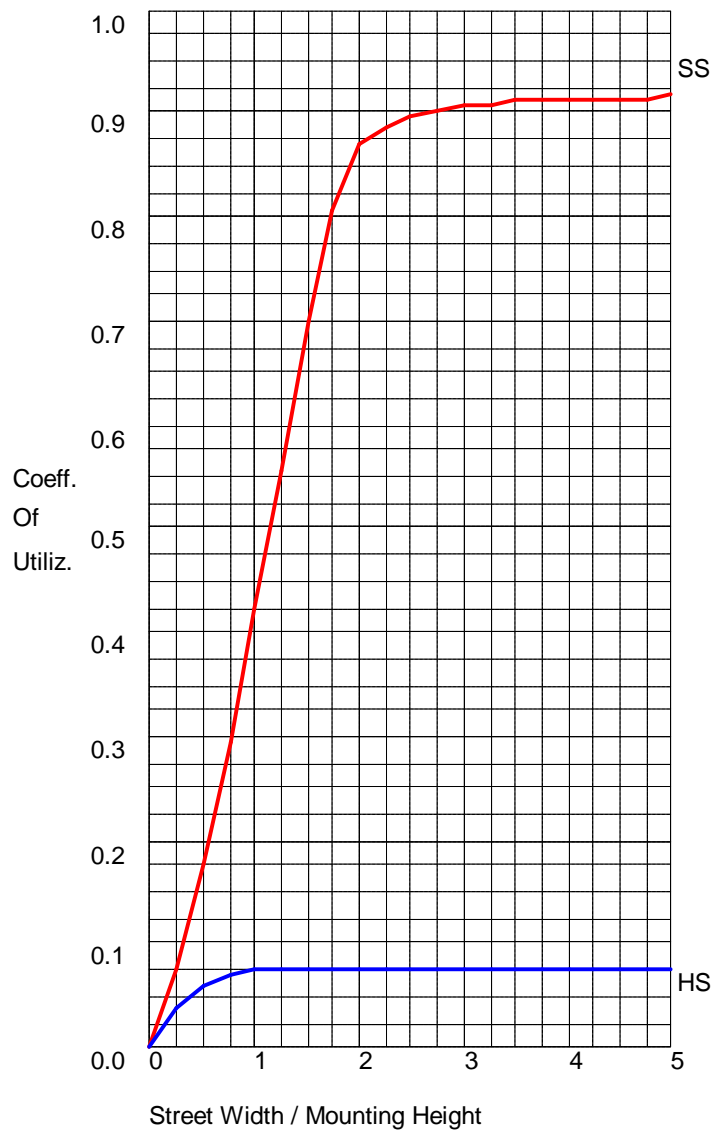
	175.0	180.0
0.0	1546.514	1546.514
2.5	1345.072	1347.622
5.0	1063.308	1060.758
7.5	926.889	924.339
10.0	832.542	827.443
12.5	776.445	772.620
15.0	754.770	748.396
17.5	736.921	730.546
20.0	719.072	711.422
22.5	698.673	692.298
25.0	610.701	603.051
27.5	464.082	457.707
30.0	439.858	436.033
32.5	471.732	465.357
35.0	498.505	493.406
37.5	415.634	409.259
40.0	313.638	303.438
42.5	235.866	233.316
45.0	211.642	205.267
47.5	192.517	188.693
50.0	174.668	167.018
52.5	183.593	177.218
55.0	179.768	170.843
57.5	110.921	94.346
60.0	85.422	71.397
62.5	73.947	57.373
65.0	90.521	68.847

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CANDELA TABULATION - (Cont.)

67.5	82.872	59.923
70.0	68.847	47.173
72.5	45.898	31.874
75.0	14.024	8.925
77.5	0.000	0.000
80.0	0.000	0.000
82.5	0.000	0.000
85.0	0.000	0.000
87.5	0.000	0.000
90.0	0.000	0.000

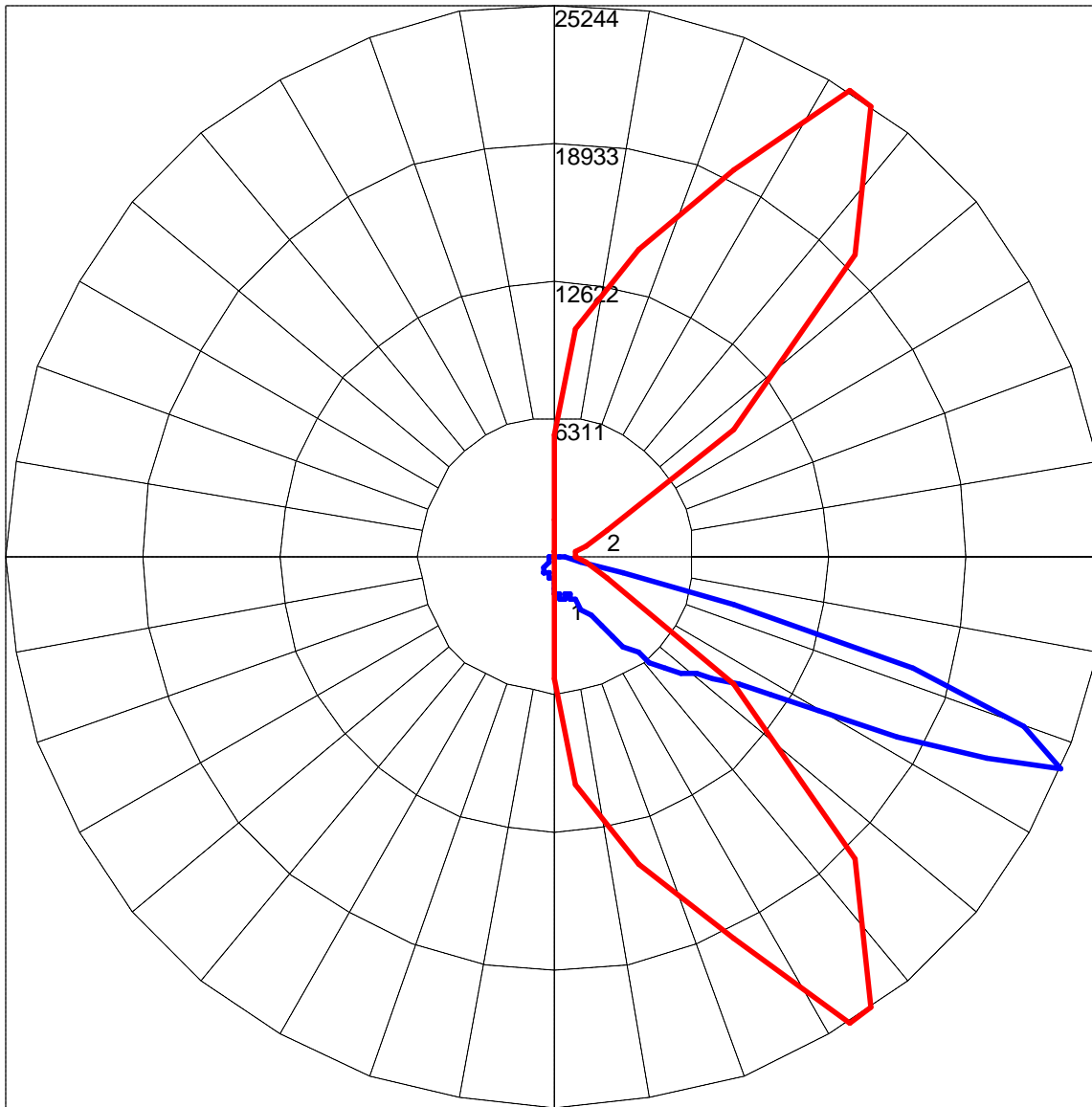
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

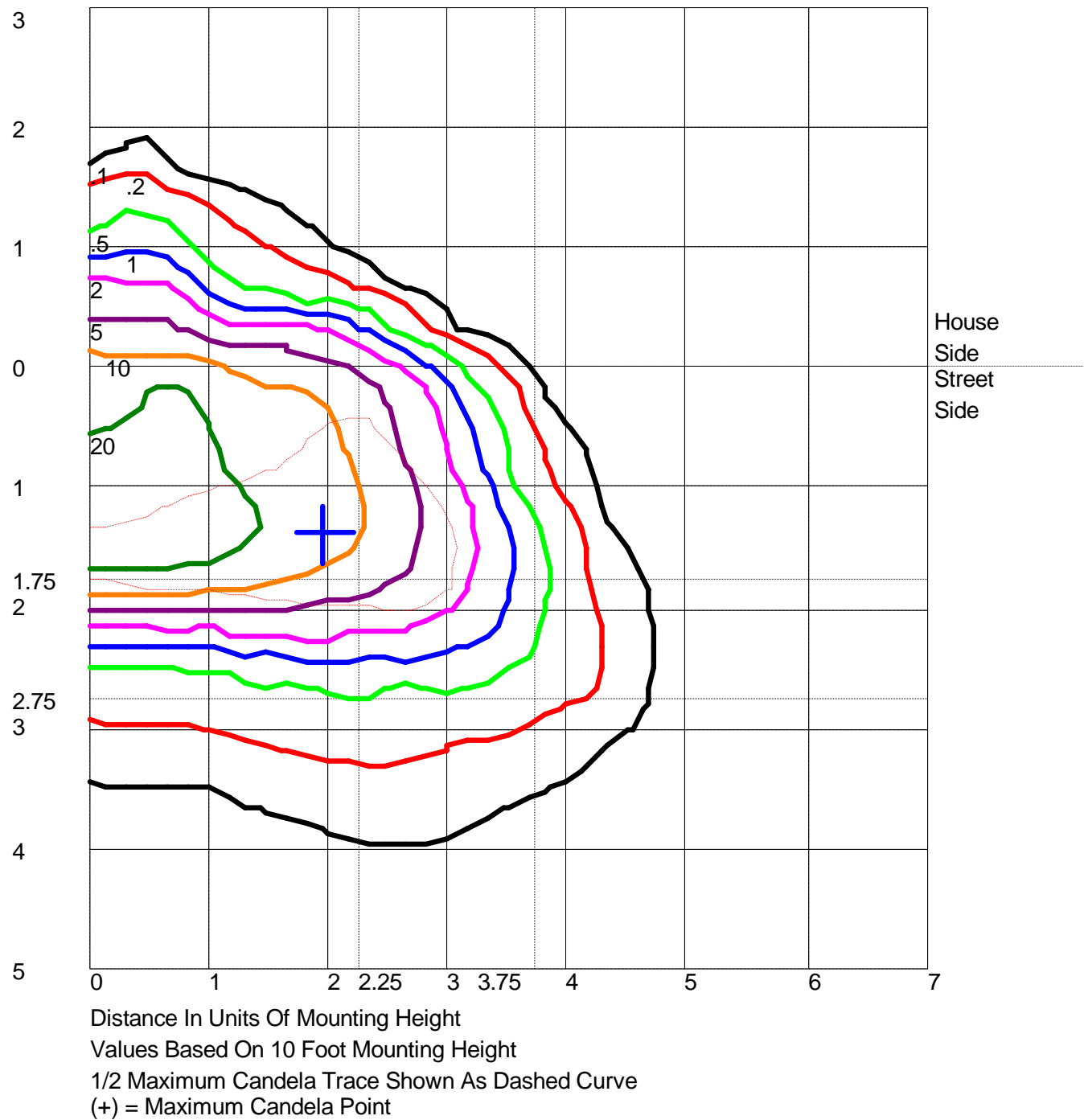
	Lumens	Percent Of Luminaire
Downward Street Side	18383.6	92.2
Downward House Side	1565.6	7.8
Downward Total	19949.2	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	19949.2	100.0

POLAR GRAPH

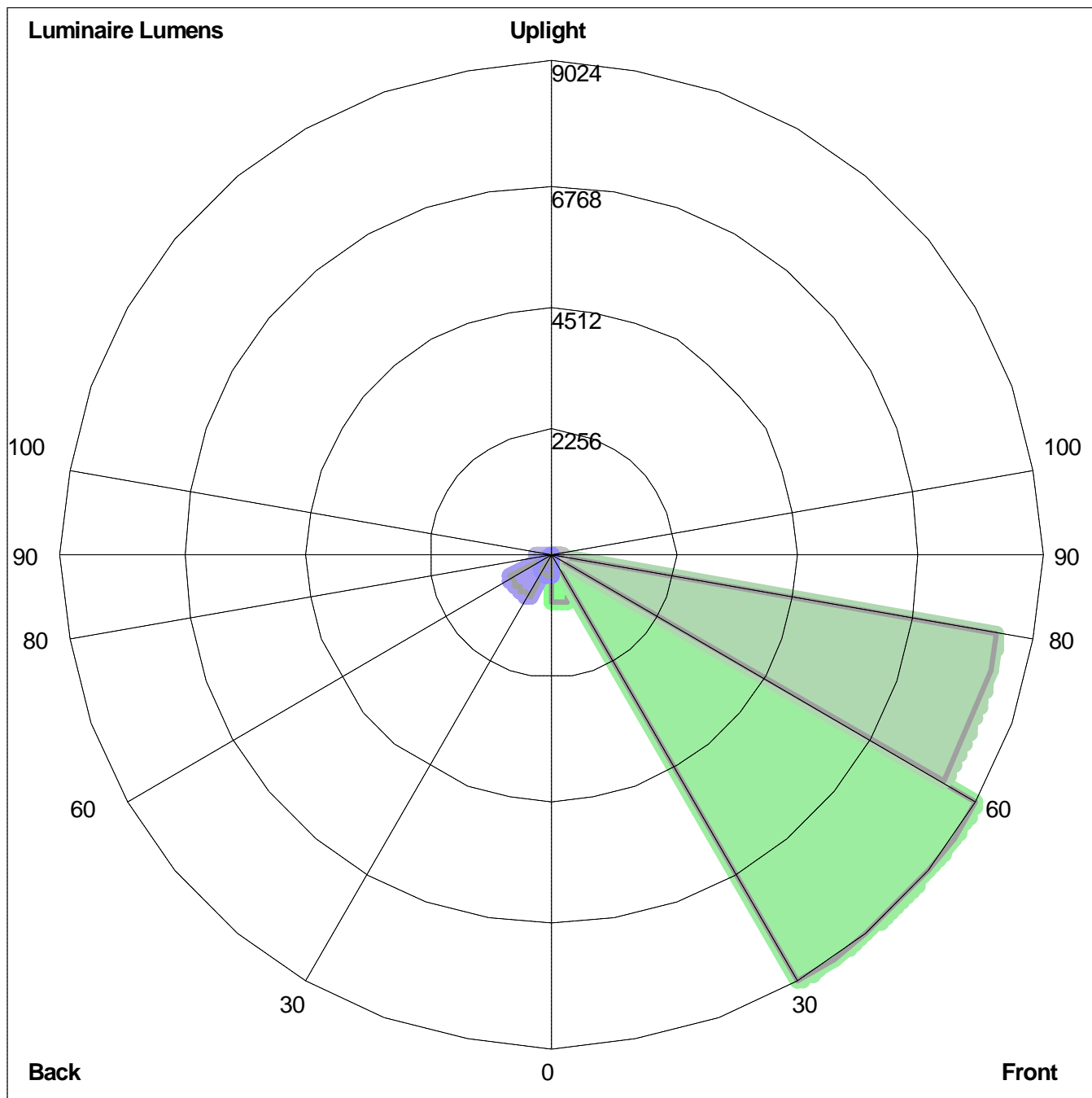


Maximum Candela = 25244.011 Located At Horizontal Angle = 55, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=881.8, Medium=9024.2, High=8315.7, Very High=162.0
Back: Low=387.7, Medium=872.8, High=299.3, Very High=5.7
Uplight: Low=0.0, High=0.0

BUG Rating : B1-U0-G4