



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-3-LED-27L-50-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-50-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	22513
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	241
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	28488.636
Maximum Candela Angle	55H 67.5V
Maximum Candela (<90 Degrees Vertical)	28488.636
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	1551.048 (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)	995.1	N.A.	4.4
FM - Front-Medium (30-60)	10184.1	N.A.	45.2
FH - Front-High (60-80)	9384.5	N.A.	41.7
FVH - Front-Very High (80-90)	182.8	N.A.	0.8
BL - Back-Low (0-30)	437.6	N.A.	1.9
BM - Back-Medium (30-60)	984.9	N.A.	4.4
BH - Back-High (60-80)	337.8	N.A.	1.5
BVH - Back-Very High (80-90)	6.5	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	22513.3	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	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289
2.5	2002.837	1994.205	1965.428	1952.479	1928.019	1913.631	1880.538	1864.711	1848.884	1807.158
5.0	2201.395	2198.517	2189.884	2181.251	2161.108	2146.719	2096.361	2064.707	2011.470	1910.753
7.5	2142.403	2142.403	2149.597	2174.057	2185.568	2201.395	2194.201	2181.251	2139.525	2012.909
10.0	1998.521	1998.521	2014.348	2056.074	2103.555	2166.863	2212.905	2211.466	2207.150	2100.677
12.5	1860.394	1861.833	1880.538	1932.335	1991.327	2080.534	2174.057	2187.006	2221.538	2153.914
15.0	1746.727	1748.166	1772.626	1824.424	1903.559	1998.521	2106.432	2128.015	2208.589	2191.323
17.5	1681.981	1683.419	1710.757	1768.310	1851.761	1951.040	2067.584	2094.922	2197.078	2230.171
20.0	1715.073	1719.390	1751.044	1822.985	1897.804	1997.082	2112.188	2145.281	2248.876	2304.990
22.5	1940.968	1943.846	1972.622	2041.686	2094.922	2174.057	2277.652	2313.623	2401.391	2471.893
25.0	2408.585	2408.585	2445.994	2457.505	2476.209	2507.863	2611.458	2617.214	2692.032	2749.585
27.5	3037.349	3076.197	3079.075	3056.054	3033.033	3001.379	3066.125	3067.564	3102.096	3110.729
30.0	3704.962	3746.687	3763.953	3759.637	3717.911	3640.215	3644.531	3628.704	3599.928	3493.455
32.5	4407.106	4388.401	4422.933	4456.026	4454.587	4420.055	4325.093	4283.367	4143.802	3910.713
35.0	4952.418	4945.224	5027.237	5112.127	5173.997	5207.090	5057.452	4985.511	4730.840	4348.114
37.5	5463.200	5487.659	5581.183	5725.065	5853.120	6012.829	5807.078	5710.677	5323.634	4779.760
40.0	6053.116	6080.453	6179.732	6327.930	6529.365	6766.770	6601.306	6430.087	5900.601	5179.752
42.5	6812.813	6838.711	6950.939	7005.615	7276.113	7529.345	7336.543	7165.324	6425.770	5510.681
45.0	7804.160	7830.058	7943.725	7926.459	8129.333	8358.105	8066.025	7860.274	6906.336	5795.567
47.5	9093.342	9126.435	9266.001	9182.549	9322.115	9293.338	8795.507	8512.059	7407.045	6063.187
50.0	10837.192	10907.694	11209.847	11145.100	10982.513	10422.812	9536.499	9172.478	7873.223	6389.800
52.5	13445.773	13563.756	13899.001	13768.069	13353.688	11880.337	10408.424	9909.153	8432.924	6881.876
55.0	16464.417	16749.304	17075.916	17119.080	16503.265	13850.081	11511.999	10894.745	9234.347	7607.041
57.5	17887.410	18083.090	19179.471	20247.075	20133.408	16783.835	13240.022	12447.232	10491.875	8798.384
60.0	16019.822	16373.772	18339.200	20947.780	24064.265	21025.477	15867.307	14911.931	12503.346	10791.150
62.5	9499.090	9749.444	13360.883	18336.322	24013.906	24772.164	19969.383	19252.850	15486.020	13393.975
65.0	2709.298	2825.842	4388.401	10089.006	20085.927	25328.987	24621.088	24034.049	19093.141	15691.771
67.5	1080.554	1130.913	1525.149	2889.151	11347.973	22127.613	28488.636	28482.881	21891.646	16411.181
70.0	730.921	759.697	894.946	1493.495	3666.113	14832.795	25802.359	27177.871	23238.382	13588.216
72.5	589.916	615.815	692.072	1092.064	2122.260	6373.973	19460.041	21307.485	18344.955	7696.248
75.0	464.739	479.127	551.068	928.039	1669.031	3080.514	9699.086	11432.864	9602.685	2366.859
77.5	355.389	376.971	437.401	811.494	1456.086	1894.926	3565.396	4509.262	2723.686	851.781
80.0	247.477	261.865	328.051	683.440	1227.313	1316.520	1353.930	1551.048	1138.107	456.106
82.5	148.198	156.831	215.823	564.017	935.233	905.018	608.621	556.823	529.486	293.519
85.0	96.401	102.156	149.637	469.055	742.431	487.760	246.038	258.988	264.743	189.924
87.5	60.430	64.747	103.595	349.633	365.460	168.342	107.912	106.473	109.350	109.350
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	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289	1745.289
2.5	1776.943	1761.116	1740.972	1699.246	1667.592	1633.061	1601.407	1555.364	1525.149	1529.466
5.0	1812.913	1761.116	1706.441	1597.090	1492.056	1397.094	1309.326	1256.090	1220.119	1208.609
7.5	1847.445	1759.677	1667.592	1486.301	1328.031	1217.242	1158.250	1113.647	1074.799	1050.339
10.0	1877.660	1751.044	1622.989	1372.634	1201.415	1119.402	1053.216	1005.735	969.765	945.305
12.5	1906.437	1739.533	1579.824	1270.478	1122.280	1034.512	974.081	933.794	900.701	883.435
15.0	1932.335	1726.584	1533.782	1192.782	1063.288	984.153	917.967	887.752	867.608	856.098
17.5	1959.673	1717.951	1489.179	1136.668	1023.001	955.376	893.507	864.731	851.781	837.393
20.0	2014.348	1742.411	1477.668	1105.014	1023.001	939.549	892.068	850.343	827.322	820.127
22.5	2168.302	1851.761	1546.732	1117.963	1064.727	959.693	897.824	838.832	801.423	797.106
25.0	2398.513	2028.736	1696.369	1161.128	1120.841	1008.613	899.263	827.322	776.963	728.043
27.5	2686.277	2276.213	1871.905	1222.997	1176.955	1063.288	915.090	805.739	666.174	565.456

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CANDELA TABULATION - (Cont.)

30.0	2974.041	2492.036	2031.614	1290.622	1227.313	1113.647	917.967	687.756	517.975	493.515
32.5	3287.704	2740.952	2205.711	1352.491	1271.917	1152.495	854.659	572.650	499.271	509.342
35.0	3614.316	2981.235	2385.564	1389.900	1292.060	1165.444	745.309	559.701	502.148	523.730
37.5	3919.346	3211.446	2538.078	1402.850	1279.111	1094.942	719.410	533.802	456.106	457.545
40.0	4194.160	3410.003	2656.062	1388.461	1228.752	958.254	706.461	497.832	391.359	365.460
42.5	4427.249	3565.396	2736.636	1345.297	1126.596	846.026	647.469	464.739	353.950	307.907
45.0	4615.735	3690.573	2785.556	1274.795	933.794	676.245	558.262	427.330	378.410	274.815
47.5	4812.853	3837.333	2847.425	1181.271	679.123	490.638	434.524	376.971	359.705	260.426
50.0	5074.718	4068.983	2961.092	1079.115	497.832	359.705	326.612	343.878	348.194	254.671
52.5	5474.710	4444.515	3205.691	1007.174	378.410	286.325	254.671	303.591	313.663	260.426
55.0	6099.158	5080.473	3614.316	955.376	339.562	254.671	211.507	254.671	246.038	276.253
57.5	7150.935	5953.837	4211.426	867.608	319.418	234.528	184.169	211.507	191.363	198.557
60.0	8830.038	7025.758	4540.916	746.748	302.152	207.190	159.709	151.076	115.106	153.954
62.5	11189.703	7824.303	4281.928	624.448	266.182	171.220	158.270	93.523	77.696	120.861
65.0	12379.607	7794.088	3176.915	505.026	207.190	151.076	113.667	73.380	56.114	116.544
67.5	11835.733	6322.175	1894.926	348.194	153.954	113.667	74.819	61.869	54.675	89.207
70.0	7725.025	3974.021	942.427	224.456	113.667	69.063	46.042	50.359	41.726	66.186
72.5	3389.860	1584.141	349.633	143.882	83.452	40.287	34.532	33.093	27.338	44.603
75.0	850.343	539.558	211.507	106.473	53.236	30.215	21.582	21.582	10.072	17.266
77.5	404.308	269.059	146.760	76.257	31.654	20.143	11.511	7.194	2.878	4.316
80.0	250.355	178.414	107.912	50.359	17.266	8.633	7.194	4.316	1.439	0.000
82.5	166.903	120.861	77.696	28.776	8.633	8.633	7.194	2.878	0.000	0.000
85.0	106.473	83.452	54.675	15.827	8.633	7.194	5.755	2.878	0.000	0.000
87.5	60.430	44.603	27.338	8.633	10.072	10.072	8.633	4.316	1.439	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

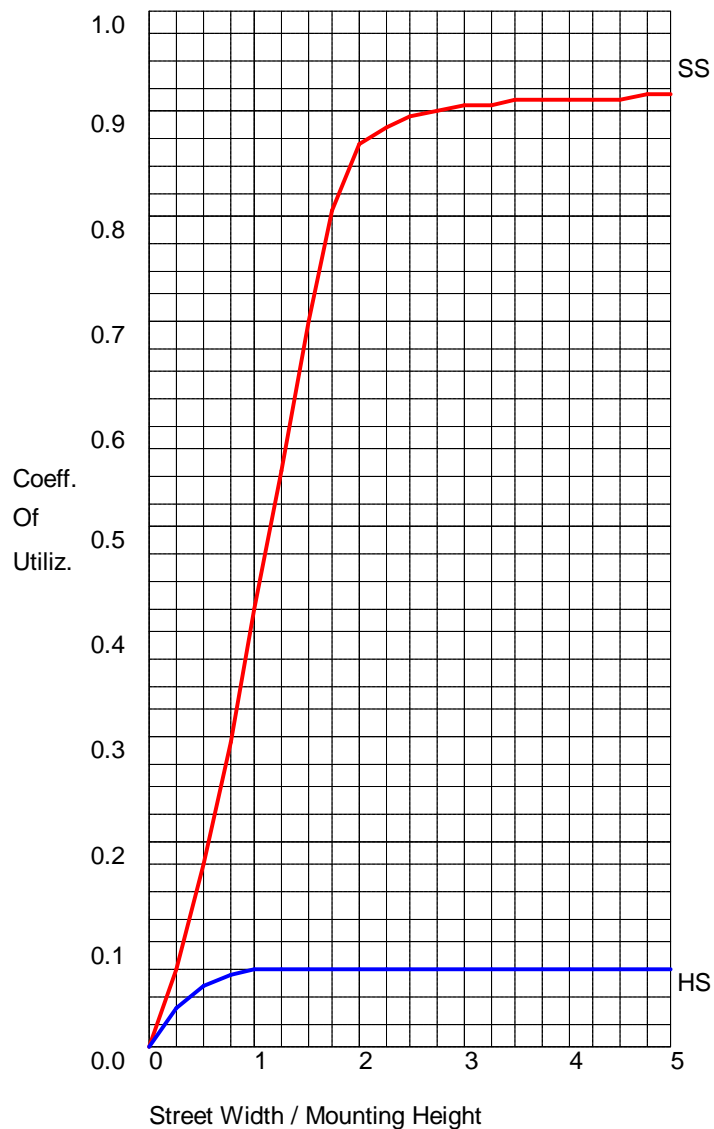
	175.0	180.0
0.0	1745.289	1745.289
2.5	1517.955	1520.833
5.0	1199.976	1197.098
7.5	1046.022	1043.145
10.0	939.549	933.794
12.5	876.241	871.925
15.0	851.781	844.587
17.5	831.638	824.444
20.0	811.494	802.862
22.5	788.473	781.279
25.0	689.195	680.562
27.5	523.730	516.536
30.0	496.393	492.076
32.5	532.363	525.169
35.0	562.579	556.823
37.5	469.055	461.861
40.0	353.950	342.439
42.5	266.182	263.304
45.0	238.844	231.650
47.5	217.262	212.945
50.0	197.118	188.485
52.5	207.190	199.996
55.0	202.874	192.802
57.5	125.177	106.473
60.0	96.401	80.574
62.5	83.452	64.747
65.0	102.156	77.696

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CANDELA TABULATION - (Cont.)

67.5	93.523	67.625
70.0	77.696	53.236
72.5	51.798	35.971
75.0	15.827	10.072
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

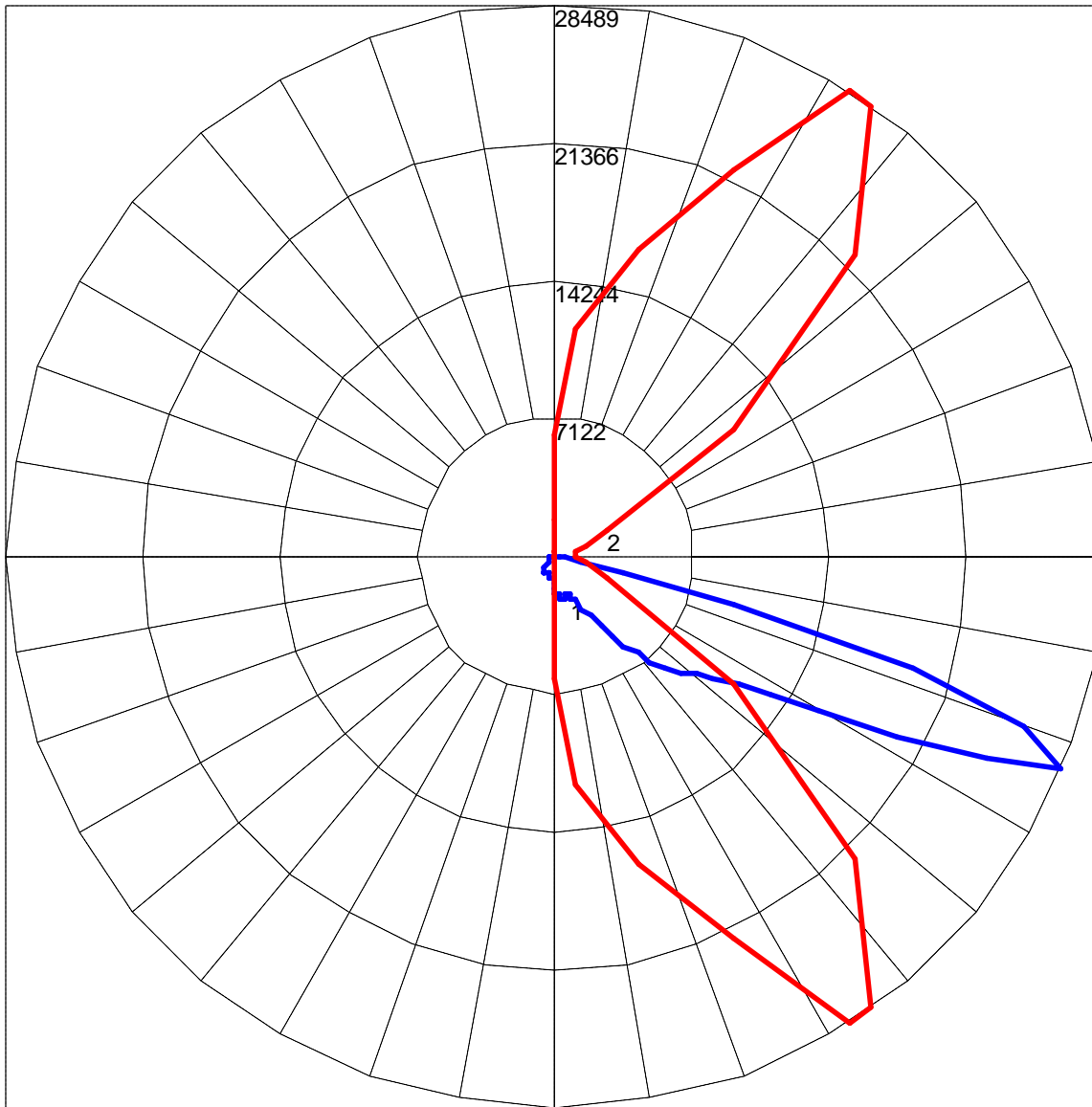
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

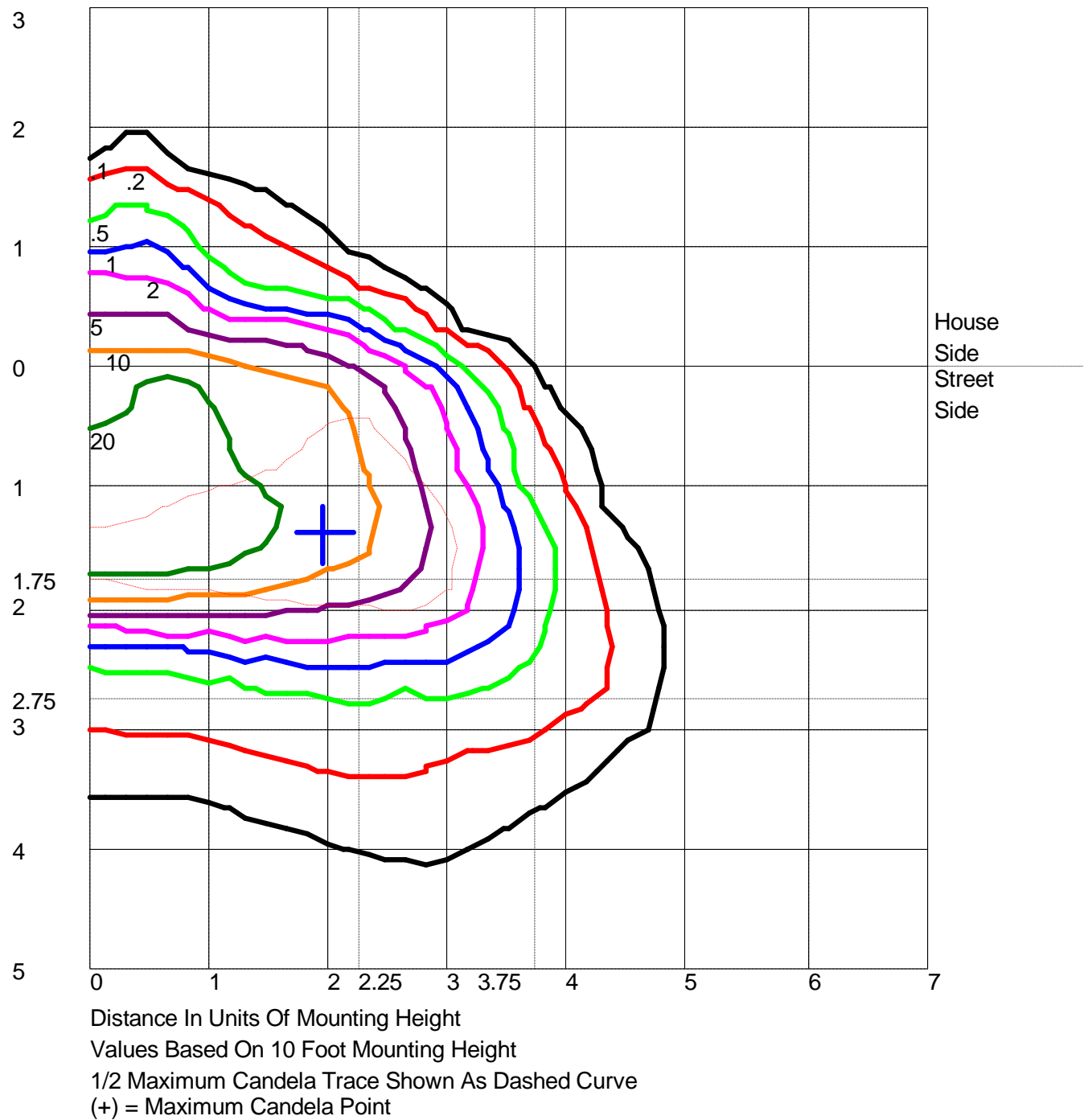
	Lumens	Percent Of Luminaire
Downward Street Side	20746.5	92.2
Downward House Side	1766.8	7.8
Downward Total	22513.3	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	22513.3	100.0

POLAR GRAPH

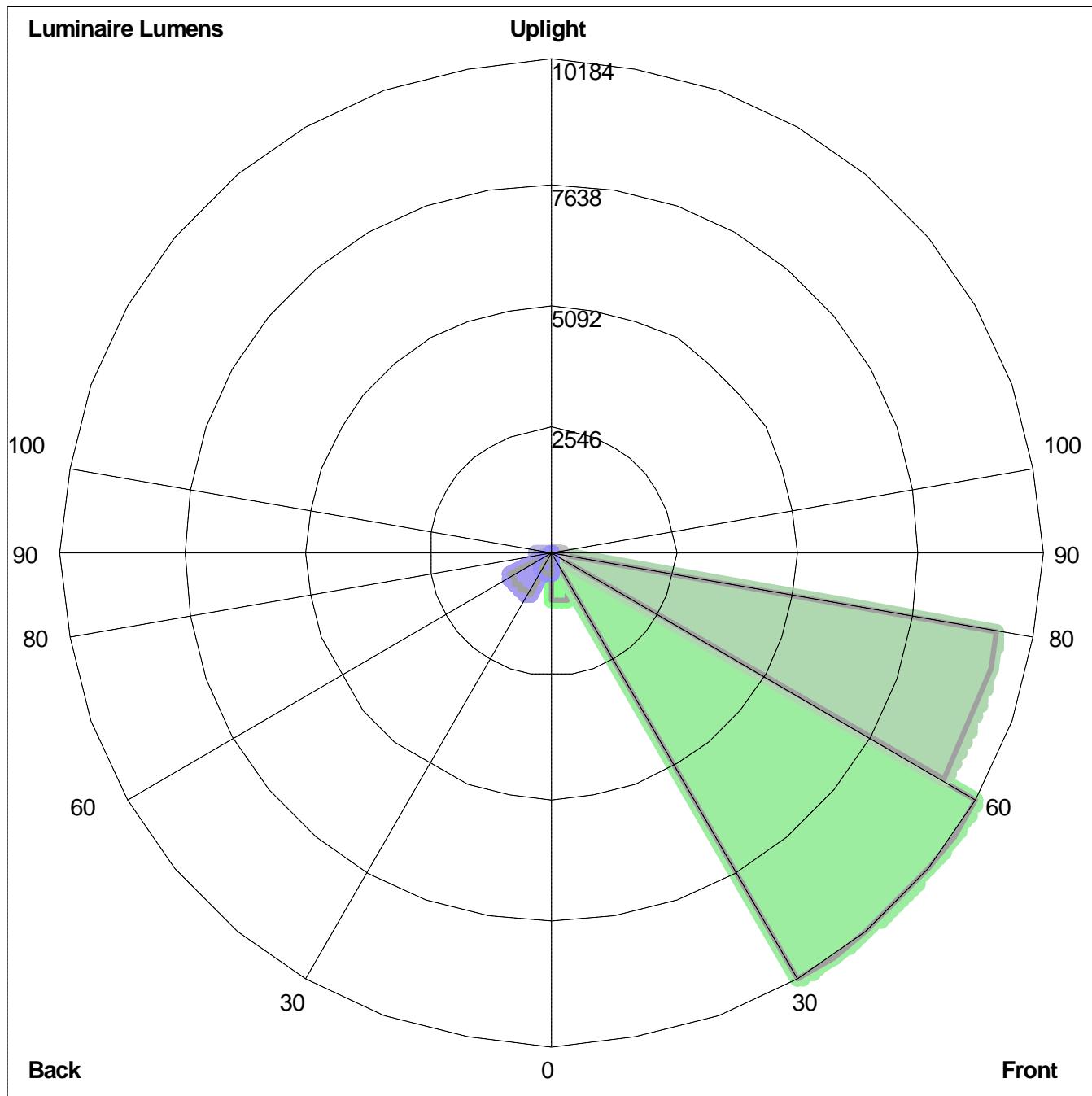


Maximum Candela = 28488.636 Located At Horizontal Angle = 55, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=995.1, Medium=10184.1, High=9384.5, Very High=182.8
Back: Low=437.6, Medium=984.9, High=337.8, Very High=6.5
Uplight: Low=0.0, High=0.0

BUG Rating : B1-U0-G4