



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-5W-LED-27L-50-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-7766_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]04/03/17
[TEST DATE]04/29/16
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT] HLN-5W-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	16055
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	67
Total Luminaire Watts	241
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	14852.694
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	14852.694
Maximum Candela Angle (<90 Degrees Vertical)	50H 70V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	419.322 (2.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1231.1	N.A.	7.7
FM - Front-Medium (30-60)	6523.2	N.A.	40.6
FH - Front-High (60-80)	5737.0	N.A.	35.7
FVH - Front-Very High (80-90)	49.8	N.A.	0.3
BL - Back-Low (0-30)	555.0	N.A.	3.5
BM - Back-Medium (30-60)	1220.0	N.A.	7.6
BH - Back-High (60-80)	734.1	N.A.	4.6
BVH - Back-Very High (80-90)	4.5	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	16054.7	N.A.	100.0
BUG Rating	B2-U0-G3		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>15</u>	<u>25</u>	<u>35</u>	<u>45</u>	<u>50</u>	<u>55</u>	<u>65</u>	<u>75</u>
0.0	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998
2.5	1837.419	1831.991	1822.491	1817.063	1807.564	1800.779	1792.637	1791.280	1779.066	1760.068
5.0	1978.550	1973.122	1960.908	1950.052	1932.411	1913.412	1898.485	1888.986	1859.131	1818.420
7.5	2135.965	2130.537	2116.967	2099.325	2074.899	2046.401	2026.046	2008.404	1960.908	1898.485
10.0	2294.738	2290.667	2278.453	2264.883	2239.100	2205.174	2179.390	2154.964	2087.112	1998.905
12.5	2457.581	2454.867	2457.581	2437.226	2416.870	2382.945	2355.804	2324.592	2237.743	2121.038
15.0	2627.210	2624.496	2633.995	2640.780	2613.640	2583.785	2560.716	2520.005	2412.799	2262.169
17.5	2807.695	2809.052	2833.479	2844.335	2844.335	2822.622	2784.626	2735.773	2608.212	2420.942
20.0	2989.537	3001.750	3027.534	3058.746	3077.744	3064.174	3030.248	2973.253	2823.980	2597.355
22.5	3194.449	3189.021	3229.731	3281.299	3326.081	3326.081	3296.226	3231.089	3054.675	2777.840
25.0	3399.360	3393.932	3446.856	3518.779	3585.273	3604.272	3582.559	3525.564	3297.583	2962.397
27.5	3627.341	3624.627	3682.980	3771.186	3858.036	3900.104	3882.463	3826.825	3554.062	3149.667
30.0	3860.750	3856.679	3927.245	4030.379	4140.299	4202.722	4190.509	4119.943	3802.398	3339.651
32.5	4106.373	4103.659	4182.367	4293.643	4422.561	4524.338	4497.198	4411.705	4062.948	3535.063
35.0	4380.493	4388.635	4457.844	4566.406	4707.537	4822.885	4801.172	4700.752	4316.713	3739.975
37.5	4664.112	4674.968	4741.463	4847.311	4995.228	5124.145	5116.003	4989.799	4573.191	3963.885
40.0	4962.659	4973.515	5048.152	5137.716	5299.202	5421.335	5419.978	5284.275	4829.670	4181.010
42.5	5277.490	5291.060	5364.340	5463.403	5590.964	5714.453	5721.239	5585.536	5090.220	4406.277
45.0	5569.251	5582.822	5661.529	5770.092	5896.295	6021.142	6031.999	5886.796	5357.555	4651.899
47.5	5855.585	5865.084	5965.504	6061.853	6213.841	6373.970	6391.611	6212.483	5631.675	4908.378
50.0	6164.987	6158.202	6250.480	6357.686	6520.529	6730.869	6763.438	6563.954	5918.008	5197.425
52.5	6463.534	6449.964	6542.242	6664.374	6857.073	7128.479	7167.833	6960.207	6255.908	5527.183
55.0	6748.510	6736.297	6861.144	7033.487	7230.256	7595.297	7641.436	7427.025	6631.806	5904.438
57.5	7007.703	7009.060	7146.120	7398.528	7710.645	8204.604	8237.172	7995.621	7114.908	6356.329
60.0	7180.046	7193.616	7441.953	7834.134	8305.024	8953.684	9052.747	8731.131	7706.574	6923.567
62.5	7151.548	7184.117	7622.438	8303.667	9067.675	9970.100	10122.087	9719.049	8448.869	7560.014
65.0	6810.934	6839.431	7421.597	8527.577	10090.875	11603.964	11823.803	11238.923	9695.980	8665.994
67.5	4968.087	5002.013	5881.368	7789.352	10382.637	14072.401	14603.000	13537.732	10903.736	9382.506
70.0	1644.720	1544.300	2515.934	4978.943	8832.908	13806.424	14852.694	13693.790	9888.678	7511.161
72.5	405.752	419.322	531.956	1249.825	4782.174	10529.196	11503.544	10223.864	6185.343	3958.457
75.0	244.265	249.694	272.763	369.112	1012.344	4330.283	5690.027	4368.280	2247.242	1346.174
77.5	145.202	145.202	160.130	194.055	325.687	888.855	1449.308	1329.889	772.150	503.458
80.0	75.994	77.351	86.850	105.848	146.559	249.694	377.254	419.322	390.825	305.332
82.5	39.354	39.354	44.782	58.352	77.351	116.705	142.488	175.057	241.551	227.981
85.0	16.284	17.641	20.355	27.141	39.354	59.709	74.637	90.921	138.417	189.984
87.5	9.499	9.499	12.213	16.284	21.712	32.569	40.711	55.638	99.063	162.844
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</u>	<u>90</u>	<u>95</u>	<u>105</u>	<u>115</u>	<u>125</u>	<u>135</u>	<u>145</u>	<u>155</u>	<u>165</u>
0.0	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998	1736.998
2.5	1747.855	1742.427	1735.641	1711.215	1707.144	1697.645	1688.145	1681.360	1674.575	1670.504
5.0	1783.137	1765.496	1747.855	1701.716	1673.218	1642.006	1613.509	1591.796	1571.441	1557.870
7.5	1836.062	1807.564	1774.995	1703.073	1648.791	1594.510	1544.300	1502.232	1472.378	1443.880
10.0	1909.341	1865.916	1819.777	1716.643	1635.221	1555.156	1483.234	1424.882	1384.171	1350.245
12.5	2005.690	1943.267	1874.058	1736.998	1625.722	1522.588	1433.024	1362.458	1309.534	1276.965
15.0	2110.182	2027.403	1943.267	1764.139	1621.651	1498.161	1393.670	1320.390	1260.681	1224.041
17.5	2225.529	2119.681	2015.190	1793.994	1623.008	1484.591	1376.028	1294.607	1183.330	1028.629
20.0	2344.948	2216.030	2088.469	1830.634	1632.507	1483.234	1371.957	1165.689	840.002	673.087
22.5	2465.724	2309.665	2160.392	1875.416	1654.220	1500.875	1294.607	815.575	612.021	553.668
25.0	2590.570	2408.728	2236.385	1924.269	1690.859	1529.373	985.204	622.877	550.954	525.171
27.5	2720.845	2514.577	2323.235	1982.621	1745.141	1435.738	712.441	567.239	536.027	506.172

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CANDELA TABULATION - (Cont.)

30.0	2859.262	2632.638	2423.656	2057.258	1807.564	1118.193	603.878	556.382	523.814	491.245
32.5	3005.822	2761.556	2536.289	2150.893	1874.058	822.360	579.452	549.597	511.600	472.246
35.0	3165.951	2904.044	2661.136	2259.455	1812.992	663.588	576.738	544.169	499.387	454.605
37.5	3339.651	3065.531	2810.409	2385.659	1561.942	621.520	575.381	538.741	487.174	436.964
40.0	3543.205	3250.087	2988.180	2541.717	1243.040	622.877	578.095	537.384	470.889	384.039
42.5	3746.760	3464.498	3179.521	2714.060	947.207	631.019	584.880	529.242	393.539	298.547
45.0	3993.739	3700.621	3402.074	2899.973	780.292	644.589	593.022	457.319	290.404	233.409
47.5	4254.289	3958.457	3673.480	3035.676	746.367	663.588	583.523	336.543	222.553	192.698
50.0	4537.908	4243.433	3947.600	2920.329	766.722	681.229	489.888	241.551	183.199	162.844
52.5	4870.381	4578.619	4276.002	2590.570	797.934	696.156	341.972	187.270	156.058	141.131
55.0	5266.634	4973.515	4654.613	2165.820	835.931	633.733	232.052	157.415	134.346	120.776
57.5	5714.453	5419.978	5092.934	1781.780	884.784	445.106	175.057	135.703	115.348	99.063
60.0	6269.479	5969.575	5669.671	1585.011	960.777	267.335	147.916	116.705	92.278	75.994
62.5	6912.711	6642.662	6291.191	1671.861	982.490	172.343	124.847	93.635	71.923	71.923
65.0	7904.700	7633.294	7216.686	1859.131	849.501	130.275	103.134	85.493	88.207	128.918
67.5	8439.370	8153.036	7612.938	1850.989	749.081	139.774	128.918	225.267	158.773	179.128
70.0	6448.607	6293.905	5489.186	1355.673	626.948	173.700	195.412	206.269	166.915	298.547
72.5	3213.447	3187.664	2283.882	476.318	324.330	175.057	177.771	270.049	297.190	318.902
75.0	1046.270	1021.844	629.662	168.272	130.275	74.637	184.556	294.476	185.913	111.276
77.5	370.469	332.472	198.126	80.065	51.567	31.212	115.348	120.776	27.141	6.785
80.0	236.123	196.769	116.705	44.782	18.998	8.142	23.070	10.856	1.357	0.000
82.5	165.558	124.847	74.637	17.641	5.428	2.714	5.428	1.357	0.000	0.000
85.0	107.205	71.923	33.926	1.357	1.357	1.357	1.357	0.000	0.000	0.000
87.5	62.423	25.784	4.071	1.357	0.000	0.000	0.000	0.000	0.000	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

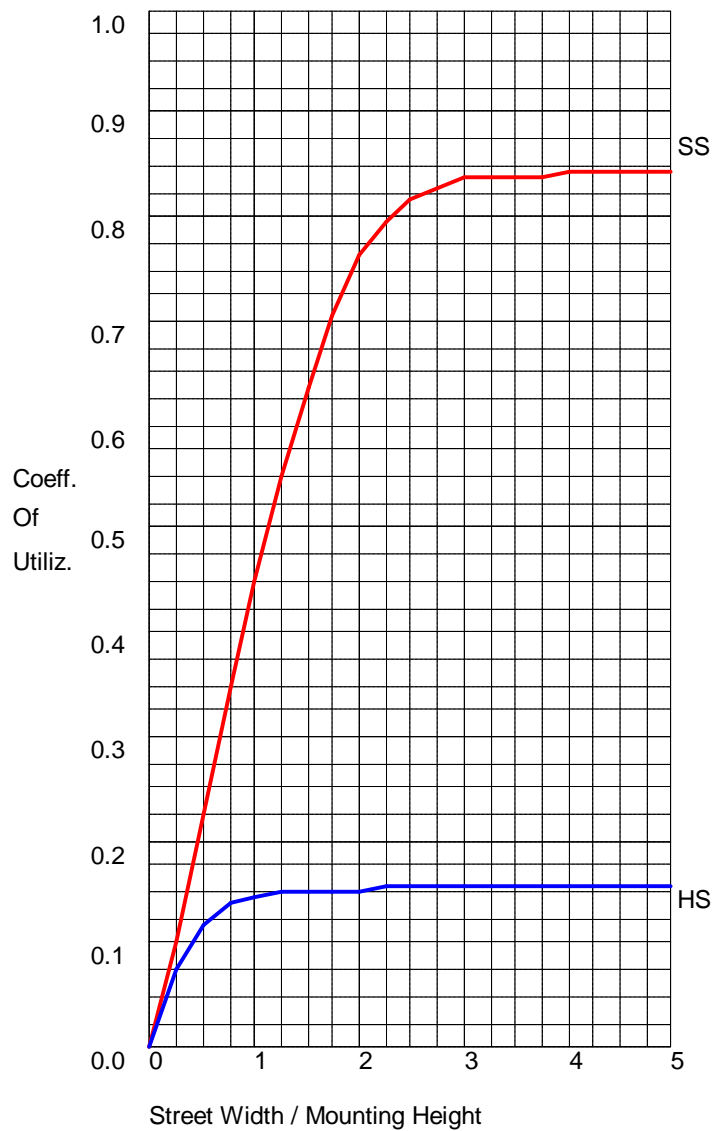
	175	180
0.0	1736.998	1736.998
2.5	1659.648	1656.934
5.0	1542.943	1540.229
7.5	1433.024	1427.596
10.0	1333.961	1328.532
12.5	1260.681	1253.896
15.0	1203.686	1198.258
17.5	956.706	945.850
20.0	631.019	624.234
22.5	534.670	530.599
25.0	511.600	507.529
27.5	491.245	487.174
30.0	470.889	466.818
32.5	449.177	445.106
35.0	430.179	424.750
37.5	404.395	398.967
40.0	339.258	335.186
42.5	265.978	264.621
45.0	215.768	214.411
47.5	181.842	181.842
50.0	156.058	157.415
52.5	134.346	132.989
55.0	113.991	112.633
57.5	89.564	88.207
60.0	67.852	66.494
62.5	74.637	70.566
65.0	112.633	93.635

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CANDELA TABULATION - (Cont.)

67.5	137.060	115.348
70.0	233.409	211.697
72.5	199.483	176.414
75.0	61.066	43.425
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

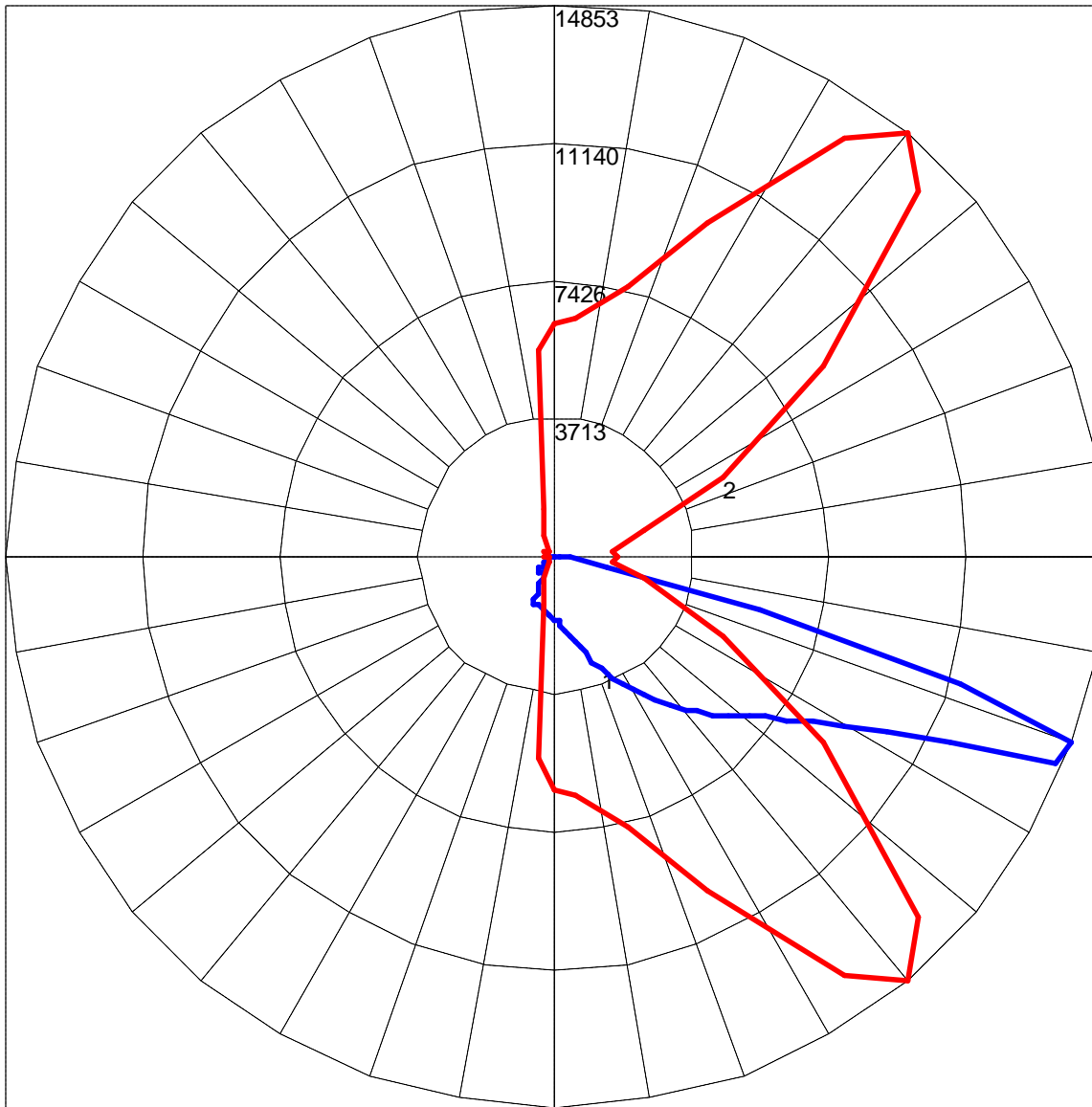
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

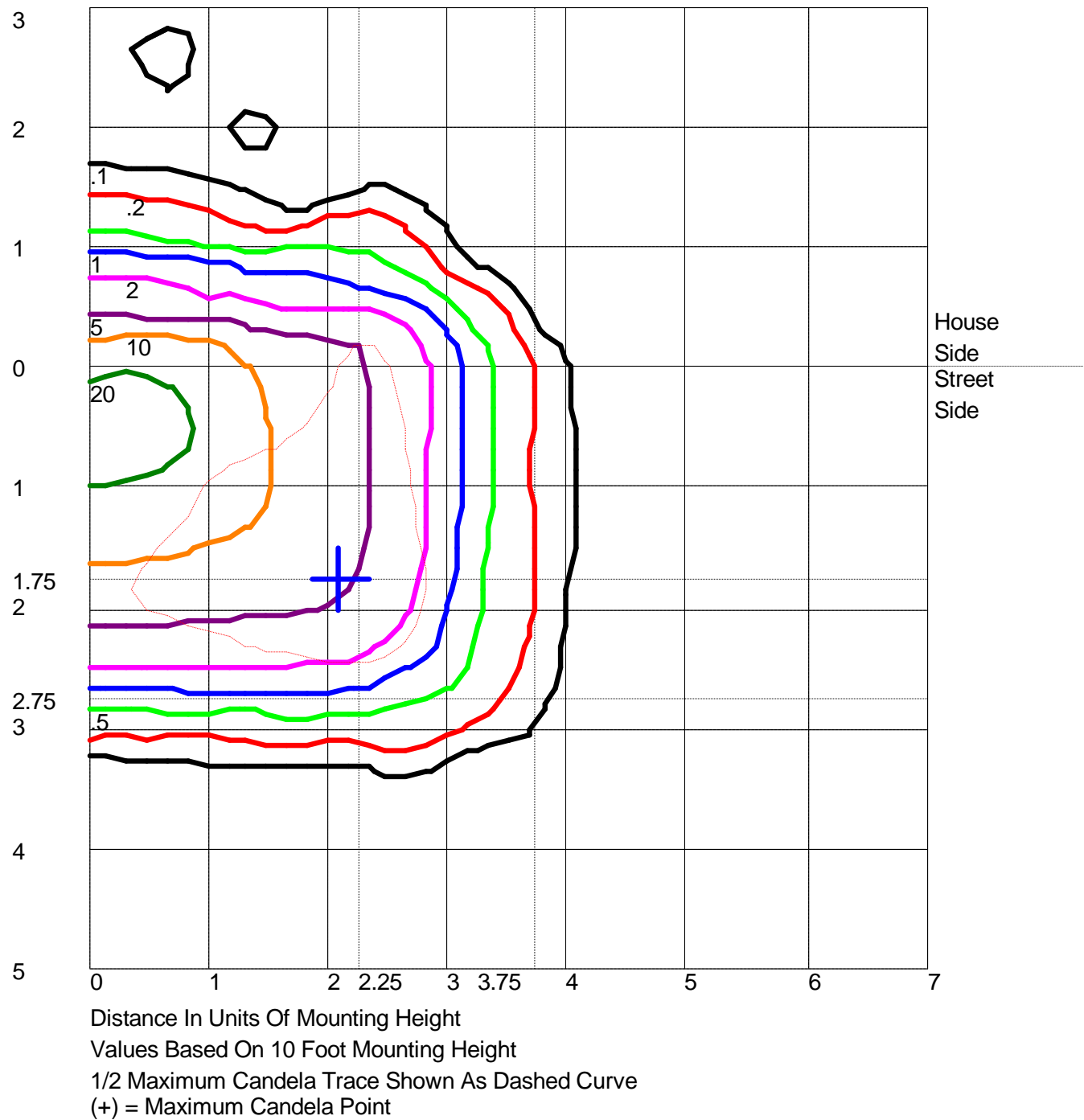
	Lumens	Percent Of Luminaire
Downward Street Side	13541.1	84.3
Downward House Side	2513.6	15.7
Downward Total	16054.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	16054.7	100.0

POLAR GRAPH

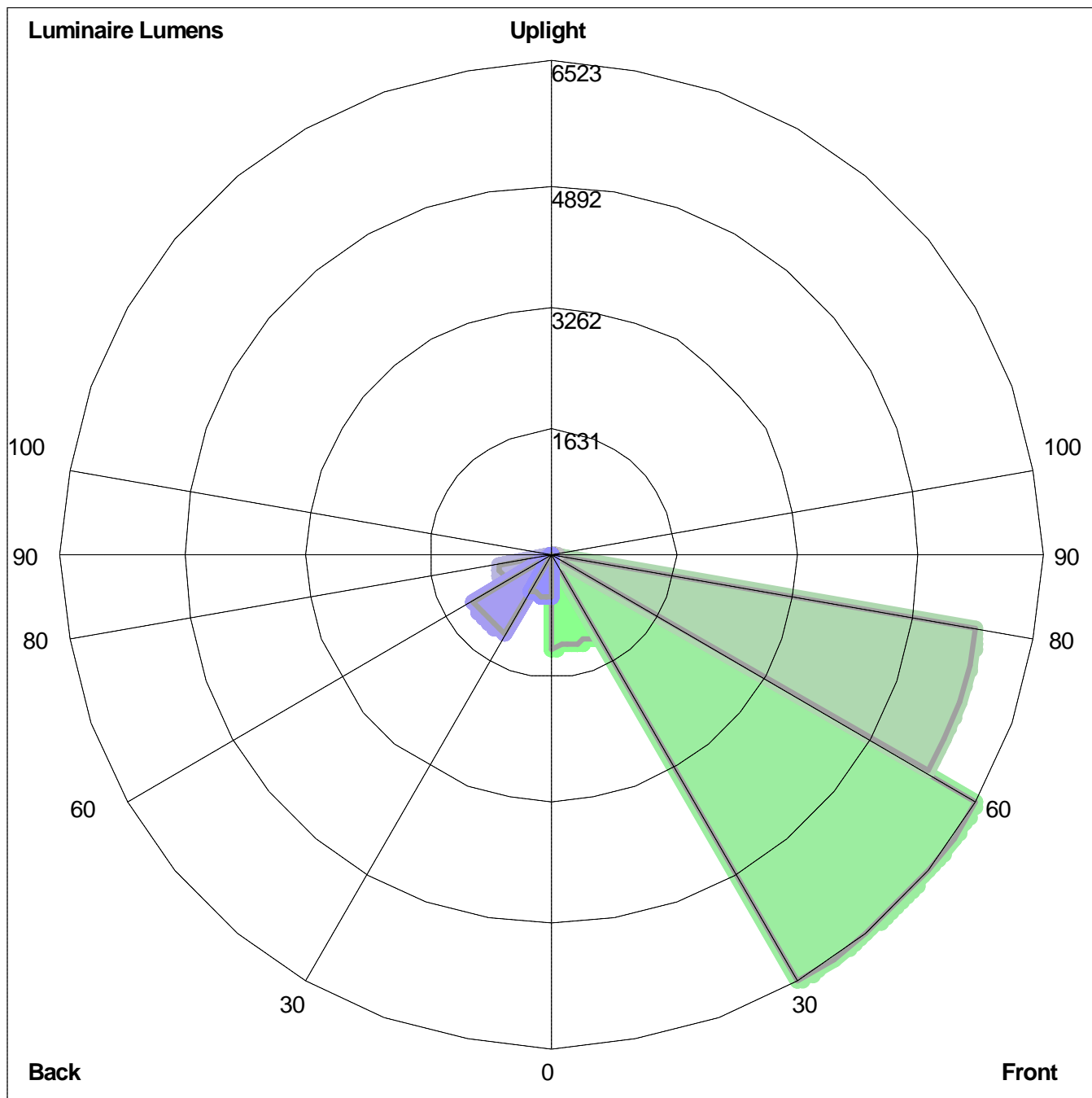


Maximum Candela = 14852.694 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1231.1, Medium=6523.2, High= 5737.0, Very High=49.8
Back: Low=555.0, Medium= 1220.0, High=734.1, Very High=4.5
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G3