



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-2-LED-18L-50.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8430_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]03/10/17
[TEST DATE]01/09/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT]HLN-2-LED-18L-50
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[_ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
[OTHER]SCALED FROM ORIGINAL TEST DATA
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Medium
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17967
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	154.8
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	15561.856
Maximum Candela Angle	82.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	15561.856
Maximum Candela Angle (<90 Degrees Vertical)	82.5H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	733.208 (4.1% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1279.7	N.A.	7.1
FM - Front-Medium (30-60)	6411.1	N.A.	35.7
FH - Front-High (60-80)	3620.2	N.A.	20.1
FVH - Front-Very High (80-90)	57.3	N.A.	0.3
BL - Back-Low (0-30)	997.2	N.A.	5.6
BM - Back-Medium (30-60)	3895.6	N.A.	21.7
BH - Back-High (60-80)	1634.5	N.A.	9.1
BVH - Back-Very High (80-90)	71.0	N.A.	0.4
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	17966.6	N.A.	100.0
BUG Rating	B3-U0-G3		

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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>65.0</u>	<u>75.0</u>	<u>82.5</u>
0.0	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882
2.5	2662.015	2650.982	2670.039	2665.024	2667.030	2660.009	2645.967	2638.946	2635.937	2635.937
5.0	2710.160	2702.136	2719.187	2716.178	2720.190	2716.178	2704.142	2698.124	2685.085	2679.067
7.5	2735.236	2725.205	2747.272	2754.293	2769.338	2776.359	2770.341	2770.341	2757.302	2747.272
10.0	2727.212	2718.184	2749.278	2772.347	2808.456	2837.544	2850.583	2866.631	2855.598	2839.550
12.5	2670.039	2666.027	2713.169	2756.299	2821.495	2886.692	2932.831	2968.939	2966.933	2946.873
15.0	2605.846	2599.828	2658.003	2721.193	2811.465	2910.764	3006.051	3084.287	3101.338	3080.275
17.5	2553.689	2549.677	2613.870	2696.118	2806.450	2926.813	3068.238	3208.661	3258.812	3239.755
20.0	2534.632	2532.626	2603.840	2694.112	2816.480	2948.879	3120.395	3330.027	3434.341	3419.295
22.5	2556.698	2554.692	2623.900	2721.193	2850.583	2992.009	3167.537	3438.353	3616.890	3613.881
25.0	2614.873	2614.873	2686.088	2783.381	2914.776	3058.208	3230.728	3538.655	3807.464	3828.528
27.5	2725.205	2725.205	2789.399	2885.689	3012.069	3154.498	3315.984	3624.914	3997.035	4059.222
30.0	2880.674	2878.668	2944.867	3023.102	3140.456	3279.876	3431.332	3713.180	4186.606	4306.968
32.5	3075.259	3074.256	3137.447	3198.631	3292.915	3438.353	3577.773	3816.491	4383.198	4587.814
35.0	3344.069	3346.075	3400.238	3425.313	3481.483	3623.911	3759.319	3945.881	4567.753	4881.699
37.5	3718.195	3746.280	3769.349	3748.286	3735.247	3852.600	3993.023	4110.376	4749.300	5200.659
40.0	4310.980	4295.935	4303.959	4210.678	4100.346	4153.506	4270.859	4299.947	4932.853	5548.707
42.5	5000.055	4993.034	4995.040	4877.686	4647.995	4556.720	4613.892	4538.666	5118.411	5935.873
45.0	5656.030	5700.163	5759.341	5653.021	5390.230	5159.535	5120.417	4830.545	5302.967	6349.117
47.5	6029.154	6087.329	6239.788	6358.144	6268.875	5996.054	5824.537	5219.716	5525.637	6815.521
50.0	5884.719	5955.933	6203.679	6544.706	6850.627	7016.125	6859.654	5755.329	5792.441	7371.194
52.5	5382.206	5451.414	5754.326	6192.646	6821.539	7688.149	8181.635	6535.679	6131.462	8019.145
55.0	4632.950	4701.155	5014.097	5482.508	6268.875	7690.155	9570.817	7750.336	6592.851	8843.628
57.5	3624.914	3680.081	3875.669	4387.210	5275.885	7017.128	10465.511	9535.712	7215.726	9850.660
60.0	2428.312	2453.387	2517.580	2909.761	3759.319	5671.075	10615.964	11844.664	8047.230	11249.873
62.5	1563.708	1540.639	1554.681	1669.025	2155.490	3559.718	9800.509	13524.722	9166.600	12947.986
65.0	948.857	957.884	1005.026	1021.074	1176.543	1825.496	7459.460	13724.323	10427.396	14569.869
67.5	578.743	591.782	625.885	670.017	753.268	983.963	3626.920	12425.412	11528.712	15561.856
70.0	255.770	267.806	304.918	411.238	526.586	650.960	1582.766	9530.696	11020.181	13915.900
72.5	165.498	172.519	166.501	220.664	332.000	510.537	857.582	5564.755	7912.825	7995.073
75.0	127.384	133.402	123.371	157.474	217.655	356.072	581.752	2508.553	3922.811	2673.048
77.5	103.311	112.338	104.314	123.371	169.510	249.752	366.102	1160.494	1647.962	740.229
80.0	94.284	100.302	83.251	91.275	128.387	191.577	226.683	595.794	733.208	437.317
82.5	78.236	78.236	62.187	61.184	75.227	136.411	155.468	244.737	358.078	244.737
85.0	46.139	50.151	42.127	41.124	45.136	80.242	105.317	122.368	178.538	140.423
87.5	20.060	22.066	21.063	19.057	22.066	33.100	52.157	61.184	79.239	78.236
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	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882	2617.882
2.5	2637.943	2620.891	2621.894	2610.861	2609.858	2596.819	2585.786	2577.762	2571.743	2568.734
5.0	2677.061	2652.988	2645.967	2614.873	2585.786	2549.677	2509.556	2476.456	2449.375	2429.315
7.5	2742.257	2709.157	2693.109	2632.928	2570.740	2491.502	2406.245	2330.016	2272.843	2231.720
10.0	2829.520	2789.399	2761.314	2668.033	2555.695	2415.272	2278.862	2162.511	2084.276	2036.131
12.5	2935.840	2885.689	2844.565	2706.148	2530.620	2325.000	2137.436	2006.040	1936.832	1905.738
15.0	3065.229	3006.051	2946.873	2760.311	2502.535	2217.677	2004.034	1895.708	1867.623	1875.647
17.5	3221.700	3151.489	3074.256	2828.517	2476.456	2113.363	1903.732	1853.581	1880.663	1925.798
20.0	3398.232	3314.981	3220.697	2903.743	2438.342	2011.055	1855.587	1874.644	1941.847	2016.070
22.5	3597.833	3497.531	3394.220	2982.982	2385.182	1934.826	1866.620	1938.838	2032.119	2118.378
25.0	3812.479	3718.195	3582.788	3070.244	2322.994	1911.756	1920.783	2023.091	2146.463	2248.771
27.5	4045.180	3954.908	3791.416	3149.483	2262.813	1940.844	2001.025	2130.415	2285.883	2416.275

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CANDELA TABULATION - (Cont.)

30.0	4315.995	4204.660	4018.098	3222.703	2222.692	2011.055	2108.348	2285.883	2481.472	2647.973
32.5	4594.835	4479.488	4271.862	3282.885	2237.738	2114.366	2250.777	2495.514	2753.290	2977.967
35.0	4905.771	4791.427	4544.684	3336.045	2304.940	2253.786	2461.411	2779.369	3096.323	3347.078
37.5	5248.804	5136.466	4842.581	3392.214	2429.315	2432.324	2714.172	3100.335	3438.353	3680.081
40.0	5626.942	5521.625	5167.559	3457.410	2601.834	2668.033	2987.997	3390.208	3718.195	3933.845
42.5	6037.178	5937.879	5510.592	3536.649	2829.520	2900.734	3220.697	3592.818	3869.651	4014.086
45.0	6493.552	6401.274	5882.713	3640.963	3044.166	3098.329	3367.138	3656.008	3813.482	3821.506
47.5	7004.089	6921.841	6272.887	3777.374	3228.722	3211.670	3366.135	3503.549	3501.543	3418.292
50.0	7649.031	7511.617	6710.204	3938.860	3359.114	3187.598	3181.580	3141.459	3044.166	2945.870
52.5	8360.172	8210.722	7144.512	4109.373	3403.247	3036.142	2874.655	2733.230	2542.656	2437.339
55.0	9296.993	9052.256	7596.874	4288.914	3399.235	2822.498	2528.614	2313.967	2093.303	2004.034
57.5	10391.288	9987.071	8097.381	4463.439	3392.214	2606.849	2188.590	1981.968	1786.379	1774.342
60.0	11778.464	11060.302	8538.710	4617.904	3386.196	2407.248	1922.789	1791.394	1608.844	1609.847
62.5	13329.133	12133.534	8798.492	4627.935	3324.008	2199.623	1736.228	1670.028	1413.255	1351.068
65.0	14716.310	12765.436	8512.631	4336.056	3058.208	1945.859	1550.669	1451.370	1111.346	1039.129
67.5	15389.337	12053.292	7164.572	3517.591	2516.577	1559.696	1259.793	1160.494	824.482	700.108
70.0	12959.019	9211.736	4589.820	2374.148	1765.315	1099.310	908.736	835.516	535.613	450.356
72.5	6912.814	4811.487	2295.913	1305.932	1076.241	732.205	655.975	519.564	344.036	306.924
75.0	2026.100	1335.020	1058.186	699.105	626.888	517.558	431.299	339.021	244.737	218.658
77.5	607.830	515.552	530.598	452.362	424.277	375.129	281.849	244.737	187.565	174.525
80.0	367.105	303.915	307.927	343.033	336.012	242.731	199.601	182.550	188.568	164.495
82.5	226.683	175.529	176.532	285.861	210.634	156.471	140.423	141.426	302.912	321.969
85.0	137.414	107.323	109.329	184.556	107.323	97.293	101.305	106.320	213.643	86.260
87.5	78.236	59.178	67.202	66.199	55.166	47.142	31.094	32.097	139.420	29.088
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

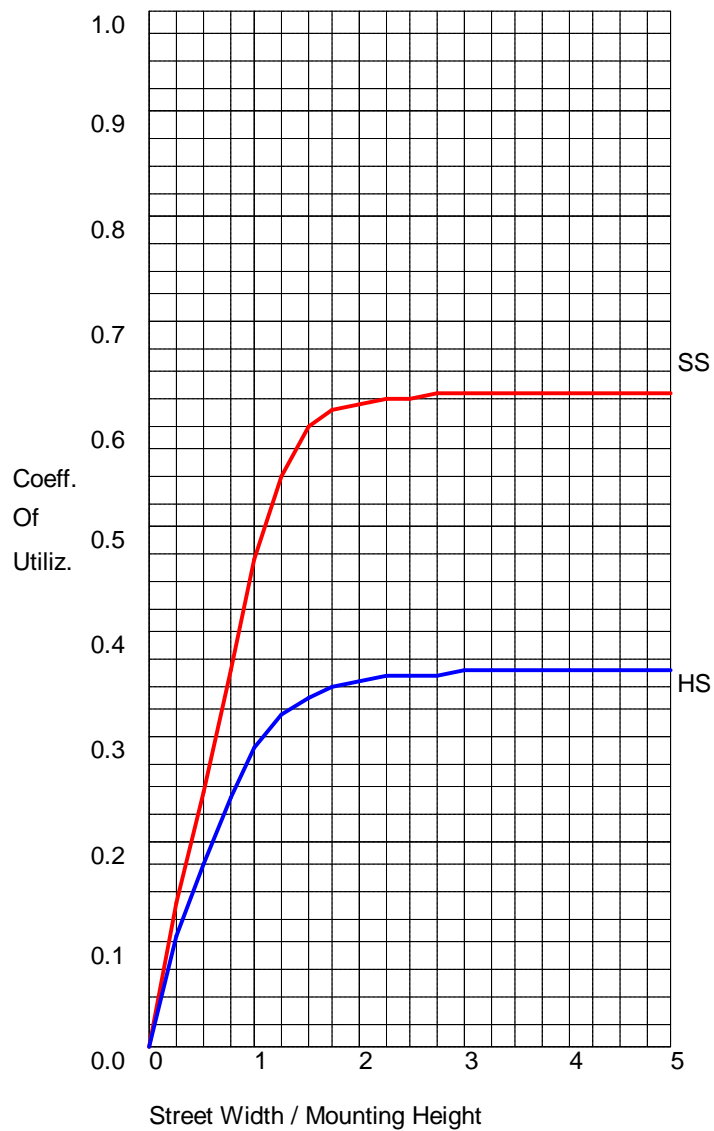
	175.0	180.0
0.0	2617.882	2617.882
2.5	2566.728	2566.728
5.0	2423.296	2421.290
7.5	2203.635	2213.665
10.0	2006.040	2011.055
12.5	1891.696	1886.681
15.0	1880.663	1882.669
17.5	1949.871	1953.883
20.0	2050.173	2054.185
22.5	2163.514	2170.535
25.0	2304.940	2313.967
27.5	2489.496	2498.523
30.0	2741.254	2753.290
32.5	3075.259	3089.302
35.0	3444.371	3459.416
37.5	3776.370	3775.367
40.0	3995.029	3995.029
42.5	4024.116	4025.119
45.0	3783.392	3750.292
47.5	3339.054	3328.021
50.0	2856.601	2846.571
52.5	2339.043	2326.003
55.0	1942.850	1936.832
57.5	1755.285	1748.264
60.0	1566.717	1554.681
62.5	1276.845	1274.838
65.0	958.887	950.863

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CANDELA TABULATION - (Cont.)

67.5	640.930	619.866
70.0	420.265	407.226
72.5	307.927	312.942
75.0	231.698	248.749
77.5	181.547	197.595
80.0	189.571	193.583
82.5	342.030	345.039
85.0	56.169	54.163
87.5	18.054	17.051
90.0	0.000	0.000

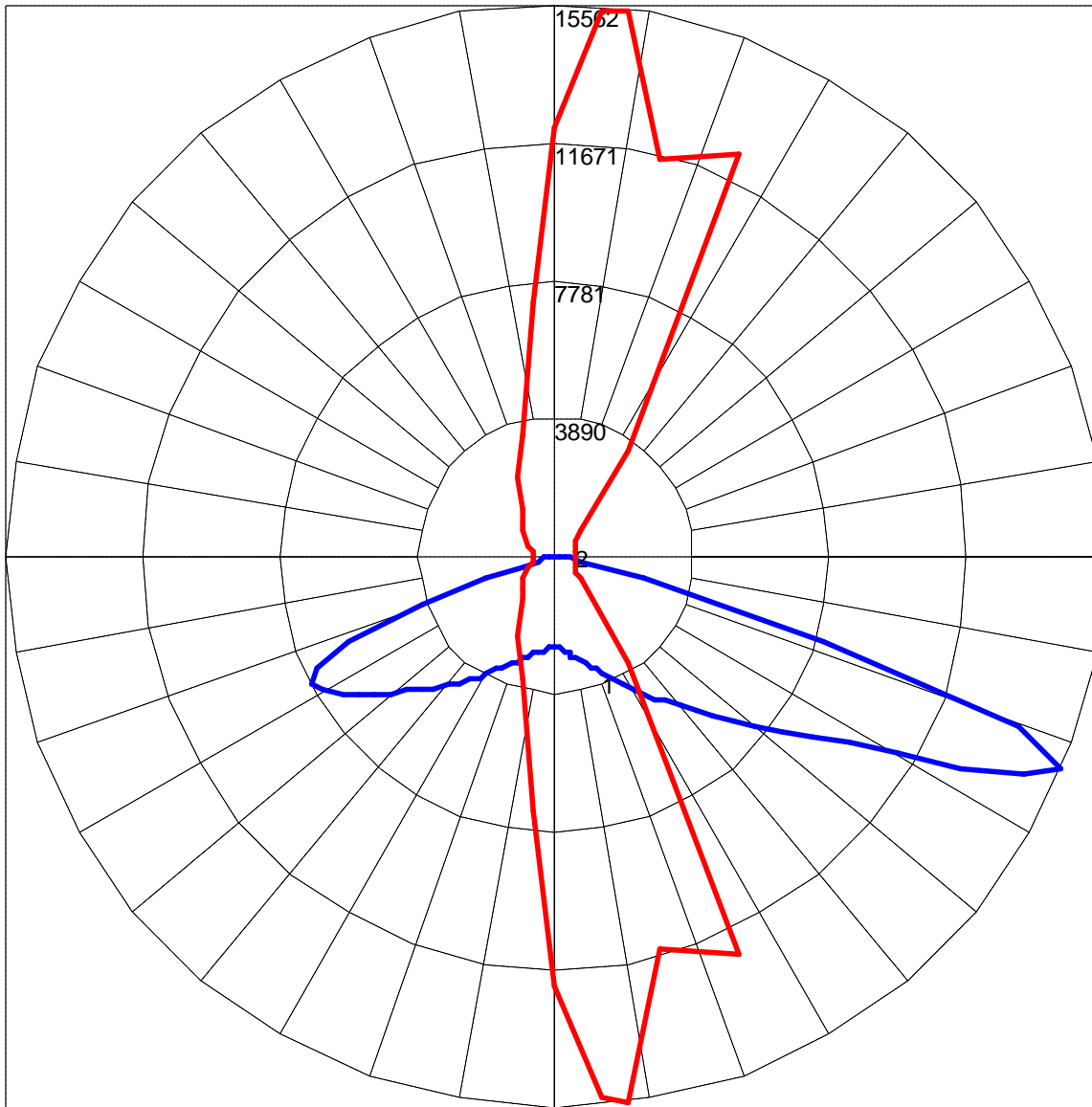
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

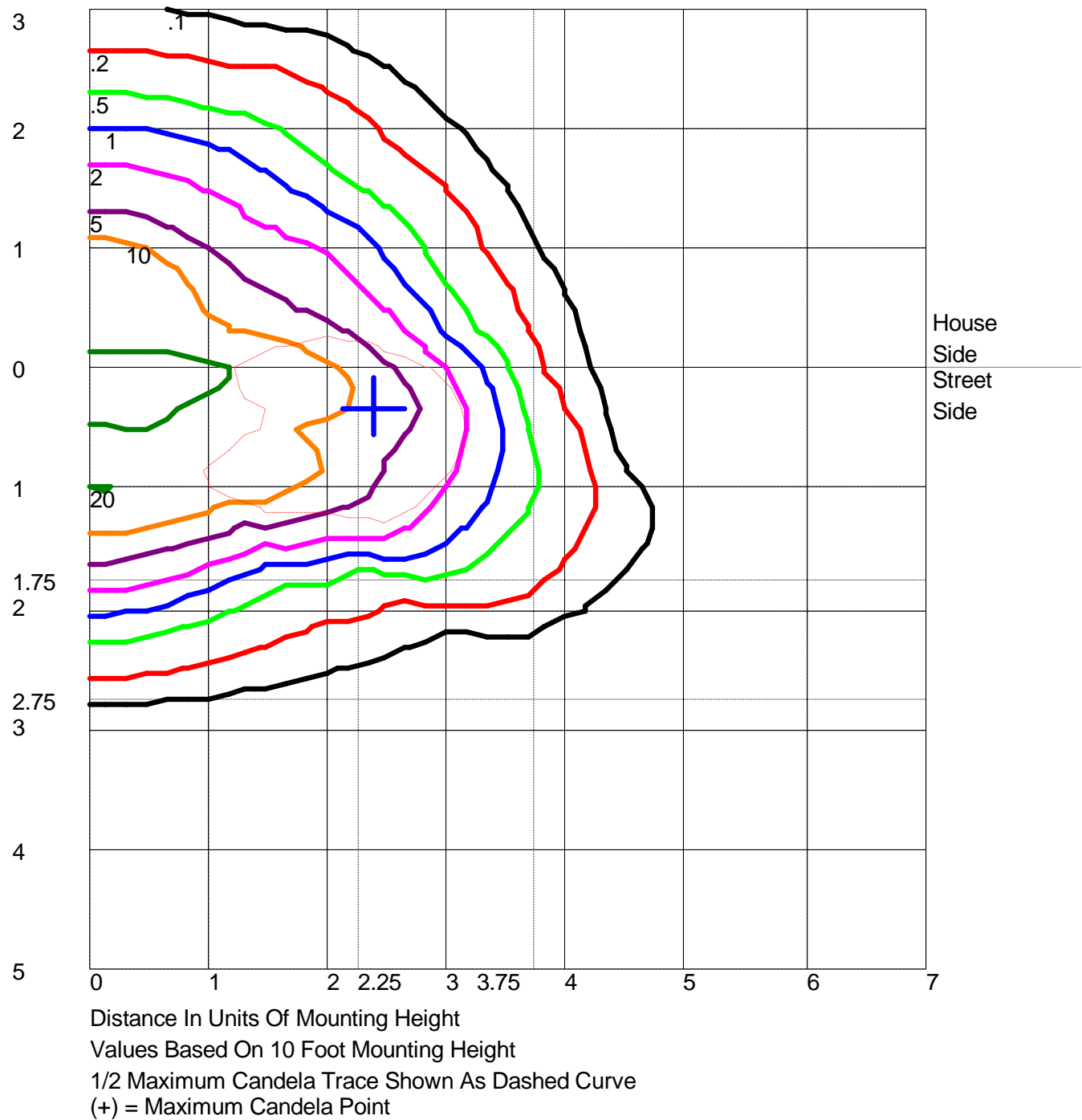
	Lumens	Percent Of Luminaire
Downward Street Side	11368.4	63.3
Downward House Side	6598.3	36.7
Downward Total	17966.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	17966.7	100.0

POLAR GRAPH

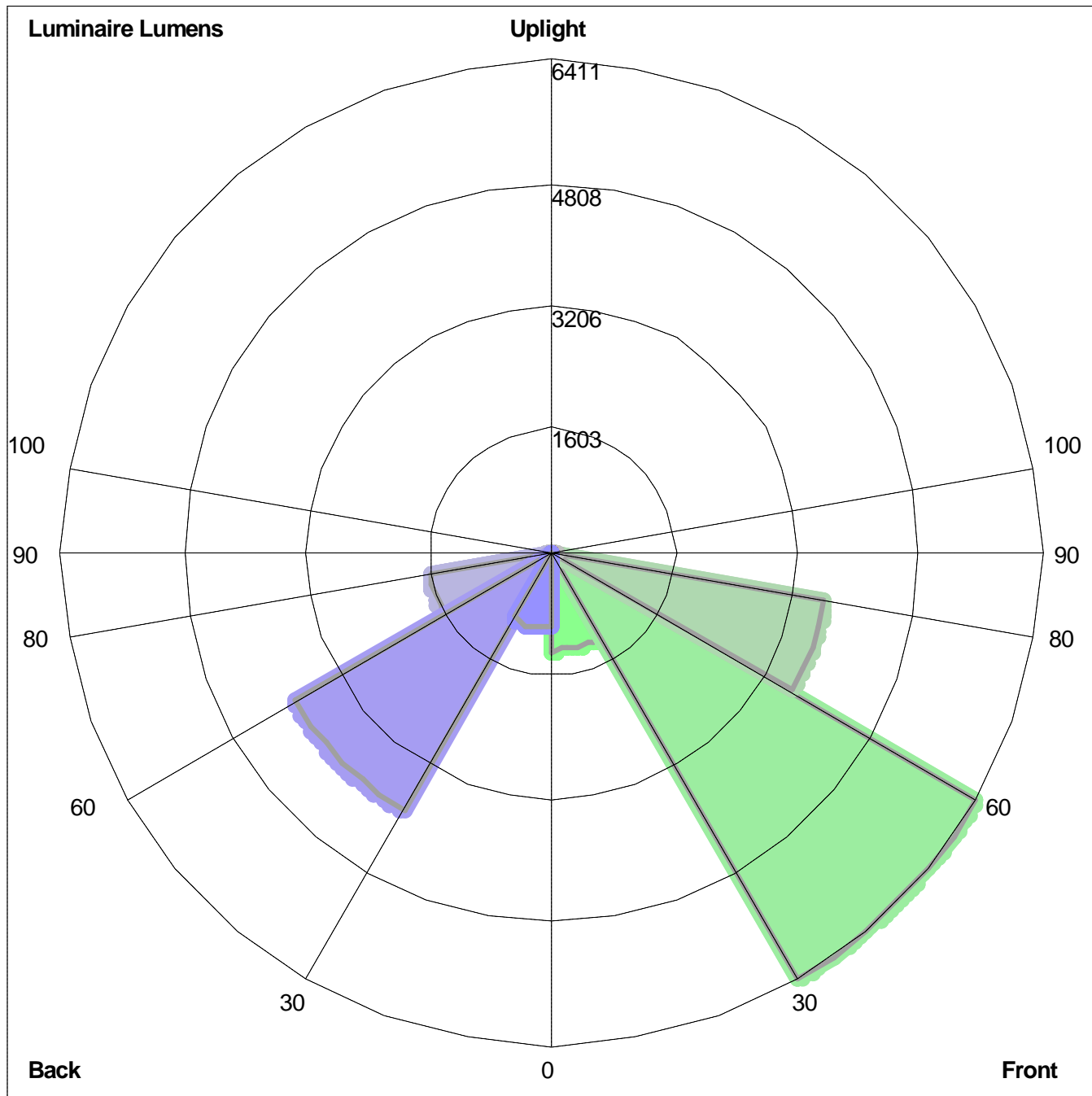


Maximum Candela = 15561.856 Located At Horizontal Angle = 82.5, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (82.5 - 262.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1279.7, Medium=6411.1, High=3620.2, Very High=57.3
Back: Low=997.2, Medium=3895.6, High=1634.5, Very High=71.0
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3