



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-FT-LED-18L-30.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8433_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]03/10/17
[TEST DATE]01/09/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT]HLN-FT-LED-18L-30
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[_ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
[OTHER]SCALED FROM ORIGINAL TEST DATA
[_SEARCH_SOURCE TYPE] LED
[_SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17073
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	154.8
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	11806.398
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	11806.398
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	3576.628 (20.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1035.0	N.A.	6.1
FM - Front-Medium (30-60)	4732.8	N.A.	27.7
FH - Front-High (60-80)	6571.5	N.A.	38.5
FVH - Front-Very High (80-90)	349.0	N.A.	2.0
BL - Back-Low (0-30)	1015.8	N.A.	5.9
BM - Back-Medium (30-60)	2326.7	N.A.	13.6
BH - Back-High (60-80)	970.2	N.A.	5.7
BVH - Back-Very High (80-90)	72.3	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	17073.3	N.A.	100.0
BUG Rating	B3-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	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011
2.5	2284.810	2284.810	2282.026	2284.810	2290.378	2298.730	2294.090	2298.730	2305.227	2308.939
5.0	2236.552	2233.768	2234.696	2246.761	2262.537	2282.026	2280.170	2293.162	2305.227	2315.435
7.5	2166.022	2162.310	2172.518	2193.863	2225.416	2265.321	2271.817	2296.874	2329.355	2345.132
10.0	2123.333	2118.693	2132.613	2158.598	2199.431	2253.257	2265.321	2301.514	2357.196	2389.677
12.5	2119.621	2116.836	2132.613	2159.526	2201.287	2258.825	2273.674	2317.291	2389.677	2443.503
15.0	2132.613	2128.901	2146.533	2180.871	2227.272	2288.522	2307.083	2354.412	2436.079	2508.465
17.5	2165.094	2161.382	2179.943	2211.496	2266.249	2339.564	2360.908	2409.166	2492.689	2575.283
20.0	2221.704	2218.920	2238.408	2269.033	2324.715	2399.886	2420.302	2473.200	2555.795	2640.245
22.5	2304.299	2302.442	2321.931	2350.700	2398.030	2463.920	2481.552	2528.882	2609.620	2699.639
25.0	2414.734	2417.518	2426.798	2450.927	2484.336	2530.738	2541.874	2582.708	2656.022	2741.401
27.5	2545.586	2548.370	2550.226	2569.715	2581.779	2605.908	2605.908	2634.677	2695.927	2772.026
30.0	2693.143	2695.927	2695.927	2694.071	2689.431	2686.647	2676.439	2690.359	2728.408	2787.802
32.5	2844.412	2848.124	2840.700	2830.492	2811.931	2777.594	2755.321	2752.537	2759.033	2797.082
35.0	2994.753	2999.393	2990.113	2968.768	2937.215	2890.813	2862.045	2831.420	2798.010	2805.435
37.5	3149.734	3151.590	3152.518	3124.677	3081.060	3025.378	2991.041	2938.143	2852.764	2819.355
40.0	3318.635	3323.275	3323.275	3295.435	3249.961	3203.560	3158.086	3078.276	2939.999	2849.052
42.5	3526.514	3540.435	3532.082	3505.169	3460.624	3417.007	3370.605	3265.738	3070.851	2907.518
45.0	3831.836	3815.131	3807.707	3783.578	3746.457	3703.768	3650.870	3533.010	3249.961	2999.393
47.5	4215.112	4195.624	4191.912	4172.423	4141.798	4084.260	4020.226	3890.302	3511.666	3145.094
50.0	4712.536	4689.336	4712.536	4712.536	4678.199	4590.036	4510.226	4340.396	3848.540	3379.885
52.5	5276.779	5289.771	5382.574	5393.710	5371.438	5239.657	5179.336	4925.983	4297.707	3683.351
55.0	5813.180	5842.877	6032.195	6154.695	6175.112	6071.172	5970.945	5667.479	4869.373	4106.533
57.5	6170.472	6226.153	6537.971	6934.240	7051.172	6976.002	6898.047	6563.028	5607.157	4675.415
60.0	6325.453	6408.047	6831.229	7459.505	7898.463	7958.785	8008.899	7632.119	6534.259	5364.942
62.5	6388.559	6493.426	6980.642	7788.028	8569.429	9030.660	9215.338	8843.198	7576.437	6189.960
65.0	6559.316	6678.104	7183.880	8116.551	9223.690	10193.482	10422.705	10051.493	8646.456	6640.983
67.5	6812.668	6942.593	7471.570	8642.744	10123.879	11160.489	11434.258	10936.834	9026.948	6549.108
70.0	6429.392	6629.846	7498.483	9264.524	11033.349	11773.917	11806.398	11003.652	8322.573	5300.907
72.5	5588.597	5725.017	6647.479	9034.372	11057.478	11525.205	11356.303	9801.853	6054.468	2919.582
75.0	3825.340	3948.768	4949.184	7001.986	9312.781	9830.622	8932.289	6894.335	3416.078	1302.026
77.5	1742.840	1863.484	2789.658	4312.555	6310.604	6587.157	5604.373	4190.056	1632.405	734.072
80.0	784.185	877.916	1373.484	2258.825	3110.757	3576.628	3074.563	2196.647	863.068	446.382
82.5	421.326	490.000	853.788	1305.738	1592.500	1883.901	1556.306	1087.651	496.496	265.417
85.0	294.186	334.091	582.803	892.765	1052.386	836.155	710.871	447.310	281.193	167.973
87.5	210.663	252.424	426.894	622.708	719.223	335.947	205.095	129.924	123.428	92.803
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	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011	2308.011
2.5	2321.931	2308.011	2318.219	2331.211	2332.139	2335.852	2333.067	2329.355	2327.499	2322.859
5.0	2333.995	2325.643	2337.708	2352.556	2346.060	2339.564	2330.283	2321.931	2321.003	2317.291
7.5	2363.692	2356.268	2372.045	2372.973	2349.772	2341.420	2334.924	2327.499	2324.715	2321.003
10.0	2410.094	2400.814	2412.878	2393.389	2359.980	2347.916	2338.636	2337.708	2347.916	2348.844
12.5	2468.560	2455.567	2462.064	2424.014	2377.613	2357.196	2358.124	2364.620	2373.901	2376.685
15.0	2538.162	2519.601	2519.601	2456.495	2397.102	2375.757	2376.685	2379.469	2387.821	2387.821
17.5	2614.261	2589.204	2580.851	2488.048	2418.446	2396.173	2386.893	2382.253	2385.965	2385.037
20.0	2691.287	2660.662	2642.101	2521.458	2439.791	2406.382	2392.461	2377.613	2378.541	2375.757
22.5	2757.177	2727.480	2697.783	2548.370	2453.711	2413.806	2388.749	2369.261	2362.764	2359.052
25.0	2811.003	2784.090	2744.185	2566.931	2461.136	2416.590	2378.541	2351.628	2341.420	2340.492
27.5	2845.340	2823.995	2776.666	2573.427	2460.208	2407.310	2360.908	2329.355	2317.291	2314.507

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CANDELA TABULATION - (Cont.)

30.0	2859.260	2838.844	2788.730	2565.075	2446.287	2387.821	2335.852	2299.658	2285.738	2282.026
32.5	2854.620	2833.276	2781.306	2540.018	2420.302	2360.908	2304.299	2265.321	2244.905	2243.977
35.0	2836.060	2807.291	2756.249	2498.257	2381.325	2322.859	2266.249	2217.992	2197.575	2200.359
37.5	2812.859	2771.098	2717.272	2445.359	2333.995	2276.458	2217.992	2166.950	2145.605	2149.318
40.0	2792.442	2734.904	2672.726	2379.469	2275.530	2218.920	2157.670	2105.700	2091.780	2200.359
42.5	2784.090	2706.136	2622.613	2299.658	2197.575	2150.246	2079.715	2029.602	2134.469	2124.261
45.0	2803.579	2696.855	2584.564	2217.064	2111.268	2063.939	1989.696	1952.575	2120.549	1972.064
47.5	2861.117	2719.128	2566.003	2133.541	2004.545	1968.352	1890.397	1935.871	1990.624	1818.011
50.0	2979.904	2783.162	2582.708	2046.306	1889.469	1856.060	1784.602	1905.246	1834.715	1692.727
52.5	3166.438	2900.094	2638.389	1972.064	1762.329	1739.128	1676.022	1819.867	1695.511	1586.003
55.0	3464.336	3095.908	2764.601	1925.662	1637.973	1618.484	1573.011	1686.231	1552.594	1477.424
57.5	3860.605	3373.389	2944.639	1917.310	1518.257	1500.625	1486.704	1530.321	1417.102	1337.291
60.0	4314.412	3721.400	3145.094	1922.878	1415.246	1392.973	1394.829	1357.708	1252.841	1214.791
62.5	4809.980	3921.855	3221.192	1895.965	1315.019	1284.394	1282.537	1182.310	1109.924	1119.204
65.0	4907.423	3765.946	3001.249	1778.106	1194.375	1163.750	1144.261	1037.538	969.791	1038.466
67.5	4435.983	3171.079	2367.405	1533.106	1043.106	1021.761	1026.401	915.966	836.155	983.712
70.0	3052.291	2114.052	1431.950	1157.253	868.636	866.780	925.246	834.299	717.367	945.663
72.5	1398.541	1040.322	769.337	764.697	673.750	712.727	819.451	783.257	611.572	865.852
75.0	675.606	551.250	436.174	490.928	471.439	519.697	657.973	653.333	451.951	630.132
77.5	411.117	304.394	261.704	305.322	310.890	354.507	453.807	391.629	280.265	461.231
80.0	240.360	198.598	176.326	211.591	230.151	257.064	250.568	266.345	208.807	305.322
82.5	158.693	135.492	122.500	150.341	175.398	147.557	176.326	197.670	138.276	197.670
85.0	103.939	86.307	78.883	108.580	96.515	94.659	111.364	110.436	74.242	121.572
87.5	53.826	42.689	41.761	51.970	46.402	43.617	62.178	52.898	32.481	57.538
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

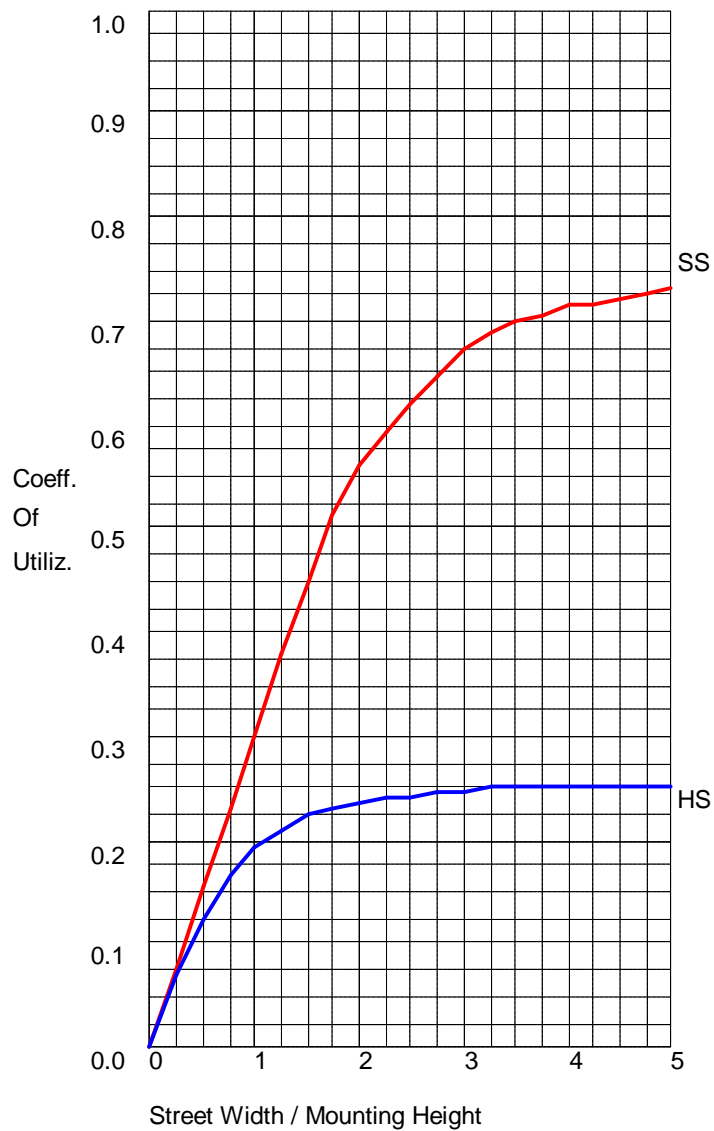
	175	180
0.0	2308.011	2308.011
2.5	2320.075	2316.363
5.0	2316.363	2308.939
7.5	2318.219	2312.651
10.0	2351.628	2343.276
12.5	2379.469	2372.973
15.0	2389.677	2385.037
17.5	2388.749	2384.109
20.0	2380.397	2372.045
22.5	2362.764	2356.268
25.0	2342.348	2338.636
27.5	2317.291	2312.651
30.0	2285.738	2282.954
32.5	2251.401	2247.689
35.0	2204.999	2200.359
37.5	2169.734	2170.662
40.0	2178.086	2174.374
42.5	2032.386	2024.033
45.0	1870.909	1860.700
47.5	1744.696	1727.992
50.0	1636.117	1618.484
52.5	1526.609	1513.617
55.0	1410.606	1393.901
57.5	1250.984	1234.280
60.0	1124.772	1101.572
62.5	1012.481	982.784
65.0	915.038	878.844

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CANDELA TABULATION - (Cont.)

67.5	854.716	803.674
70.0	832.443	760.985
72.5	797.178	707.159
75.0	669.110	573.523
77.5	659.829	590.227
80.0	582.803	568.882
82.5	466.799	512.273
85.0	336.875	399.981
87.5	209.735	222.727
90.0	0.000	0.000

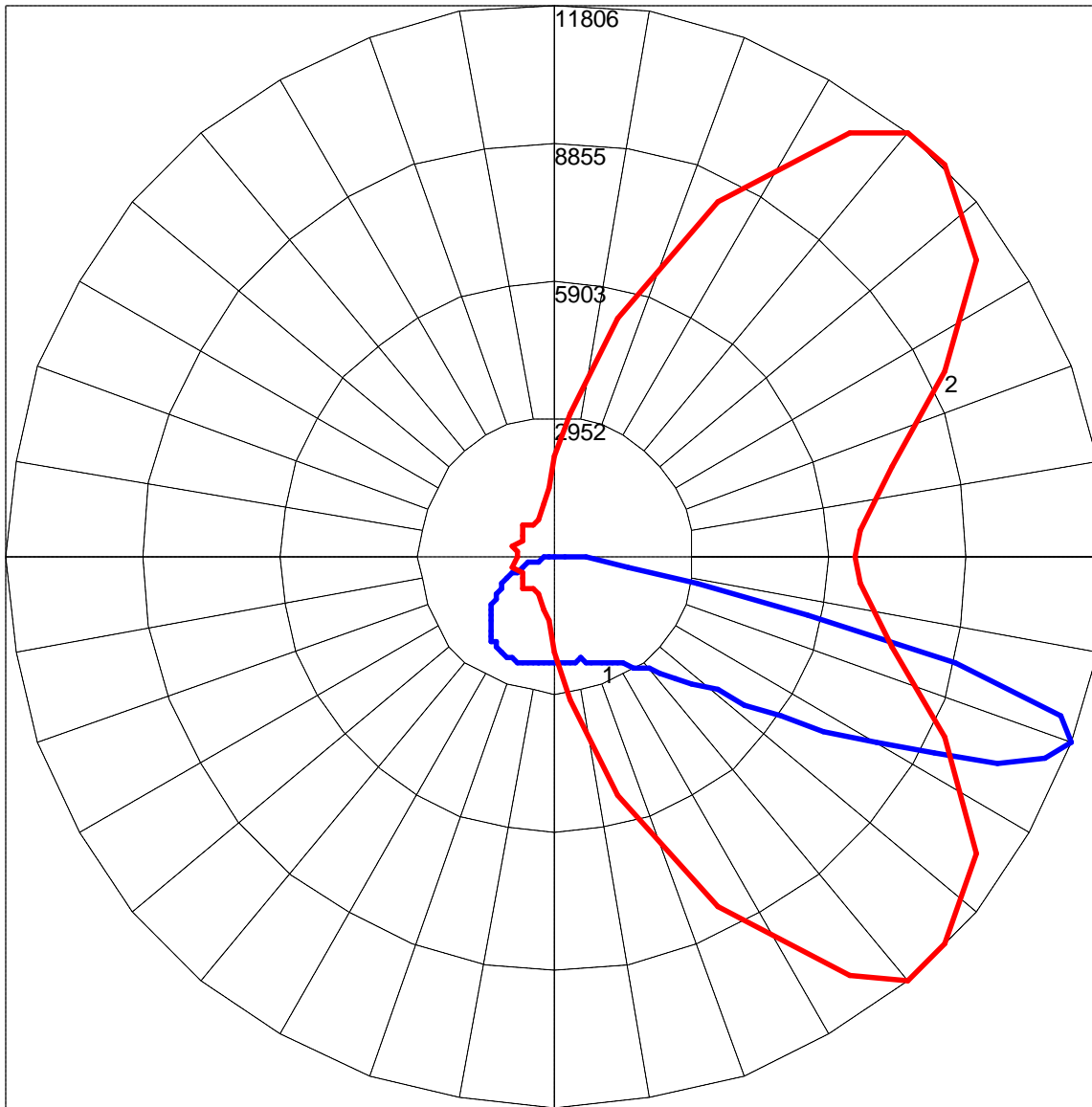
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

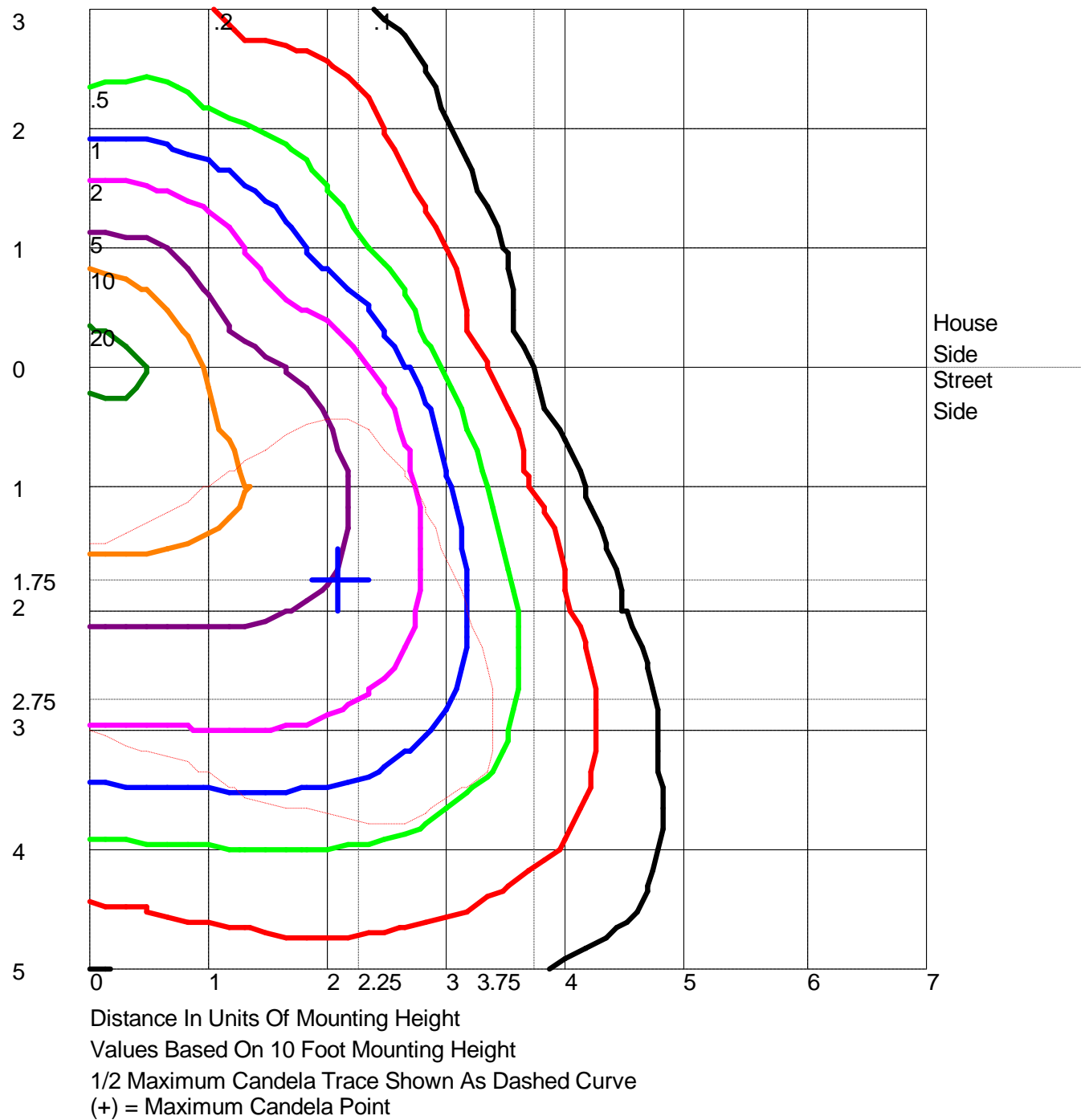
	Lumens	Percent Of Luminaire
Downward Street Side	12688.3	74.3
Downward House Side	4385.1	25.7
Downward Total	17073.4	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	17073.4	100.0

POLAR GRAPH

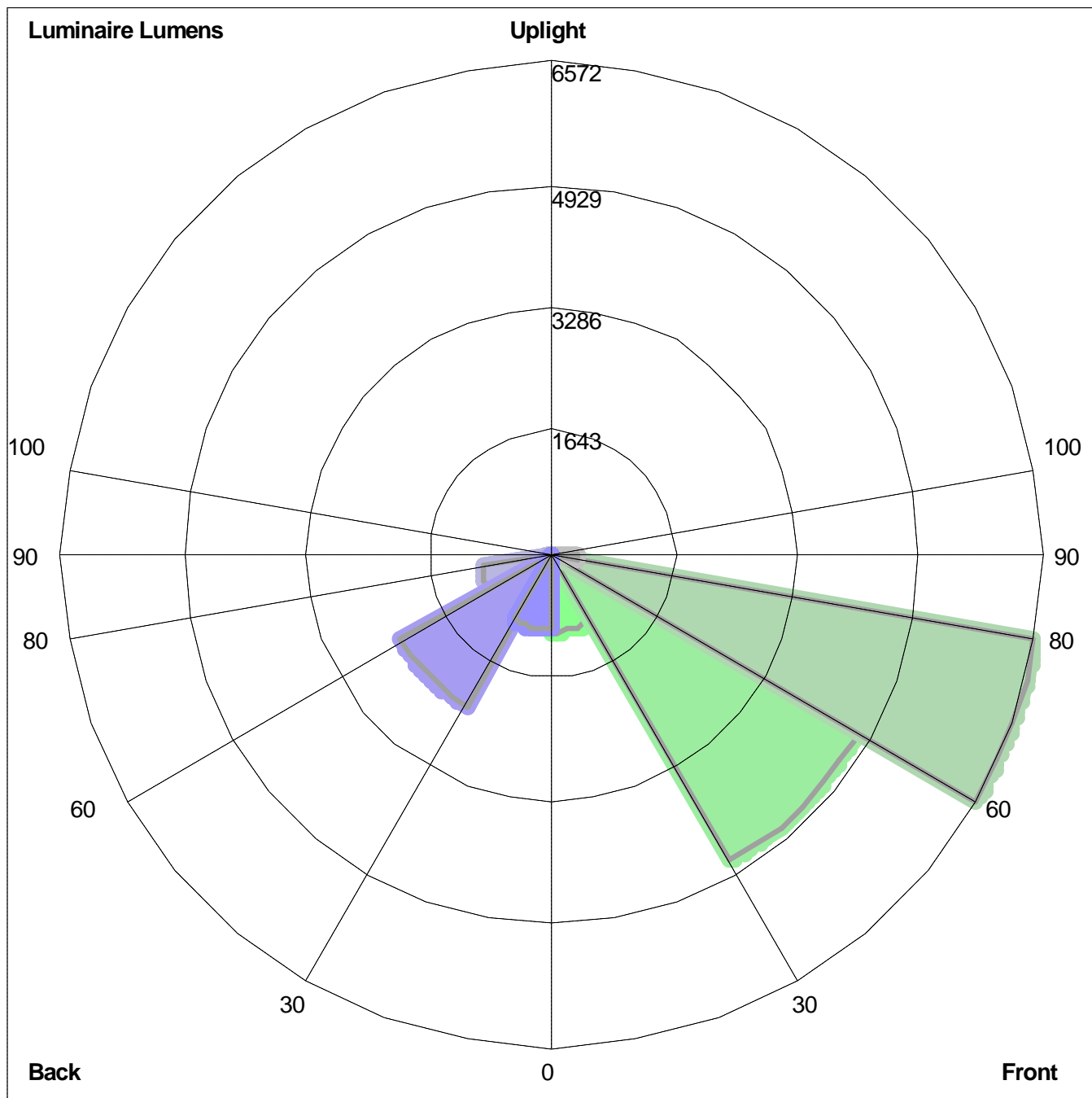


Maximum Candela = 11806.398 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low= 1035.0, Medium=4732.8, High=6571.5, Very High=349.0
Back: Low=1015.8, Medium=2326.7, High=970.2, Very High=72.3
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3