



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-FT-LED-18L-50.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-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_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	18453
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	154.8
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	12760.674
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	12760.674
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	3865.716 (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)	1118.6	N.A.	6.1
FM - Front-Medium (30-60)	5115.3	N.A.	27.7
FH - Front-High (60-80)	7102.7	N.A.	38.5
FVH - Front-Very High (80-90)	377.2	N.A.	2.0
BL - Back-Low (0-30)	1097.9	N.A.	5.9
BM - Back-Medium (30-60)	2514.8	N.A.	13.6
BH - Back-High (60-80)	1048.7	N.A.	5.7
BVH - Back-Very High (80-90)	78.2	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	18453.4	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	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560
2.5	2469.484	2469.484	2466.475	2469.484	2475.503	2484.530	2479.515	2484.530	2491.551	2495.563
5.0	2417.326	2414.317	2415.320	2428.360	2445.411	2466.475	2464.469	2478.512	2491.551	2502.585
7.5	2341.095	2337.083	2348.117	2371.186	2405.290	2448.421	2455.442	2482.524	2517.630	2534.682
10.0	2294.955	2289.940	2304.986	2333.071	2377.205	2435.381	2448.421	2487.539	2547.721	2582.828
12.5	2290.943	2287.934	2304.986	2334.074	2379.211	2441.399	2457.448	2504.591	2582.828	2641.004
15.0	2304.986	2300.974	2320.031	2357.144	2407.296	2473.497	2493.557	2544.712	2632.980	2711.217
17.5	2340.092	2336.080	2356.141	2390.244	2449.424	2528.664	2551.734	2603.892	2694.165	2783.436
20.0	2401.278	2398.269	2419.332	2452.433	2512.615	2593.861	2615.928	2673.101	2762.372	2853.649
22.5	2490.548	2488.542	2509.606	2540.700	2591.855	2663.071	2682.129	2733.284	2820.548	2917.843
25.0	2609.910	2612.919	2622.949	2649.029	2685.138	2735.290	2747.326	2791.460	2870.700	2962.980
27.5	2751.339	2754.348	2756.354	2777.418	2790.457	2816.536	2816.536	2847.630	2913.831	2996.080
30.0	2910.822	2913.831	2913.831	2911.825	2906.810	2903.801	2892.767	2907.813	2948.937	3013.132
32.5	3074.317	3078.330	3070.305	3059.272	3039.211	3002.099	2978.026	2975.017	2982.038	3023.162
35.0	3236.810	3241.825	3231.795	3208.725	3174.621	3124.469	3093.375	3060.275	3024.165	3032.190
37.5	3404.318	3406.324	3407.327	3377.236	3330.093	3269.910	3232.798	3175.625	3083.345	3047.235
40.0	3586.871	3591.886	3591.886	3561.795	3512.646	3462.494	3413.345	3327.084	3177.631	3079.333
42.5	3811.552	3826.597	3817.570	3788.482	3740.336	3693.193	3643.041	3529.698	3319.059	3142.524
45.0	4141.552	4123.497	4115.473	4089.394	4049.272	4003.132	3945.959	3818.573	3512.646	3241.825
47.5	4555.807	4534.744	4530.731	4509.668	4476.567	4414.379	4345.169	4204.743	3795.503	3399.302
50.0	5093.437	5068.361	5093.437	5093.437	5056.324	4961.036	4874.774	4691.218	4159.607	3653.072
52.5	5703.285	5717.328	5817.632	5829.668	5805.595	5663.164	5597.966	5324.136	4645.078	3981.066
55.0	6283.042	6315.140	6519.760	6652.161	6674.228	6561.887	6453.559	6125.565	5262.951	4438.452
57.5	6669.213	6729.395	7066.416	7494.715	7621.098	7539.851	7455.596	7093.499	6060.367	5053.315
60.0	6836.720	6925.991	7383.377	8062.435	8536.873	8602.071	8656.235	8249.001	7062.404	5798.574
62.5	6904.927	7018.271	7544.867	8417.511	9262.071	9760.582	9960.187	9557.968	8188.818	6690.277
65.0	7089.486	7217.876	7764.532	8772.587	9969.214	11017.391	11265.142	10863.926	9345.323	7177.754
67.5	7363.316	7503.742	8075.475	9341.311	10942.163	12062.559	12358.455	11820.826	9756.570	7078.453
70.0	6949.061	7165.717	8104.563	10013.348	11925.142	12725.568	12760.674	11893.045	8995.262	5729.364
72.5	6040.307	6187.753	7184.775	9764.594	11951.221	12456.753	12274.200	10594.108	6543.833	3155.564
75.0	4134.531	4267.935	5349.212	7567.936	10065.506	10625.202	9654.260	7451.584	3692.190	1407.265
77.5	1883.709	2014.104	3015.138	4661.127	6820.672	7119.578	6057.358	4528.725	1764.347	793.405
80.0	847.569	948.876	1484.499	2441.399	3362.190	3865.716	3323.071	2374.196	932.827	482.462
82.5	455.380	529.605	922.797	1411.277	1721.217	2036.171	1682.098	1175.563	536.626	286.869
85.0	317.964	361.094	629.909	964.924	1137.447	903.739	768.329	483.465	303.921	181.550
87.5	227.690	272.827	461.398	673.040	777.356	363.100	221.672	140.426	133.404	100.304
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	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560	2494.560
2.5	2509.606	2494.560	2505.594	2519.636	2520.639	2524.652	2521.642	2517.630	2515.624	2510.609
5.0	2522.645	2513.618	2526.658	2542.706	2535.685	2528.664	2518.633	2509.606	2508.603	2504.591
7.5	2554.743	2546.718	2563.770	2564.773	2539.697	2530.670	2523.649	2515.624	2512.615	2508.603
10.0	2604.895	2594.864	2607.904	2586.840	2550.731	2537.691	2527.661	2526.658	2537.691	2538.694
12.5	2668.086	2654.044	2661.065	2619.940	2569.788	2547.721	2548.725	2555.746	2565.776	2568.785
15.0	2743.314	2723.253	2723.253	2655.047	2590.852	2567.782	2568.785	2571.794	2580.822	2580.822
17.5	2825.564	2798.481	2789.454	2689.150	2613.922	2589.849	2579.819	2574.804	2578.816	2577.813
20.0	2908.816	2875.716	2855.655	2725.260	2636.992	2600.883	2585.837	2569.788	2570.791	2567.782
22.5	2980.032	2947.934	2915.837	2754.348	2652.038	2608.907	2581.825	2560.761	2553.740	2549.728
25.0	3038.208	3009.120	2965.989	2774.409	2660.062	2611.916	2570.791	2541.703	2530.670	2529.667
27.5	3075.321	3052.251	3001.096	2781.430	2659.059	2601.886	2551.734	2517.630	2504.591	2501.582

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CANDELA TABULATION - (Cont.)

30.0	3090.366	3068.299	3014.135	2772.402	2644.013	2580.822	2524.652	2485.533	2470.487	2466.475
32.5	3085.351	3062.281	3006.111	2745.320	2615.928	2551.734	2490.548	2448.421	2426.354	2425.351
35.0	3065.290	3034.196	2979.029	2700.184	2573.801	2510.609	2449.424	2397.265	2375.199	2378.208
37.5	3040.214	2995.077	2936.901	2643.010	2522.645	2460.457	2397.265	2342.098	2319.028	2323.041
40.0	3018.147	2955.959	2888.755	2571.794	2459.454	2398.269	2332.068	2275.898	2260.852	2378.208
42.5	3009.120	2924.865	2834.591	2485.533	2375.199	2324.044	2247.813	2193.648	2306.992	2295.958
45.0	3030.184	2914.834	2793.466	2396.262	2281.916	2230.761	2150.518	2110.396	2291.946	2131.460
47.5	3092.372	2938.907	2773.405	2305.989	2166.566	2127.448	2043.192	2092.341	2151.521	1964.955
50.0	3220.761	3008.117	2791.460	2211.703	2042.189	2006.080	1928.846	2059.241	1983.010	1829.545
52.5	3422.372	3134.500	2851.643	2131.460	1904.773	1879.697	1811.490	1966.961	1832.554	1714.195
55.0	3744.348	3346.141	2988.056	2081.308	1770.366	1749.302	1700.153	1822.524	1678.086	1596.840
57.5	4172.646	3646.050	3182.646	2072.281	1640.973	1621.916	1606.870	1654.013	1531.642	1445.381
60.0	4663.133	4022.190	3399.302	2078.299	1529.636	1505.563	1507.569	1467.447	1354.104	1312.979
62.5	5198.756	4238.847	3481.552	2049.211	1421.308	1388.207	1386.201	1277.873	1199.636	1209.666
65.0	5304.075	4070.336	3243.831	1921.825	1290.912	1257.812	1236.748	1121.399	1048.177	1122.402
67.5	4794.531	3427.388	2558.755	1657.022	1127.417	1104.347	1109.362	990.000	903.739	1063.222
70.0	3298.998	2284.925	1547.691	1250.791	938.845	936.839	1000.031	901.733	775.350	1022.098
72.5	1511.581	1124.408	831.520	826.505	728.207	770.335	885.684	846.566	661.003	935.836
75.0	730.213	595.806	471.429	530.608	509.544	561.702	711.155	706.140	488.480	681.064
77.5	444.347	328.997	282.857	330.000	336.018	383.161	490.487	423.283	302.918	498.511
80.0	259.787	214.651	190.578	228.693	248.754	277.842	270.821	287.872	225.684	330.000
82.5	171.520	146.444	132.401	162.492	189.575	159.483	190.578	213.648	149.453	213.648
85.0	112.340	93.283	85.258	117.356	104.316	102.310	120.365	119.362	80.243	131.398
87.5	58.176	46.140	45.137	56.170	50.152	47.143	67.204	57.173	35.106	62.188
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

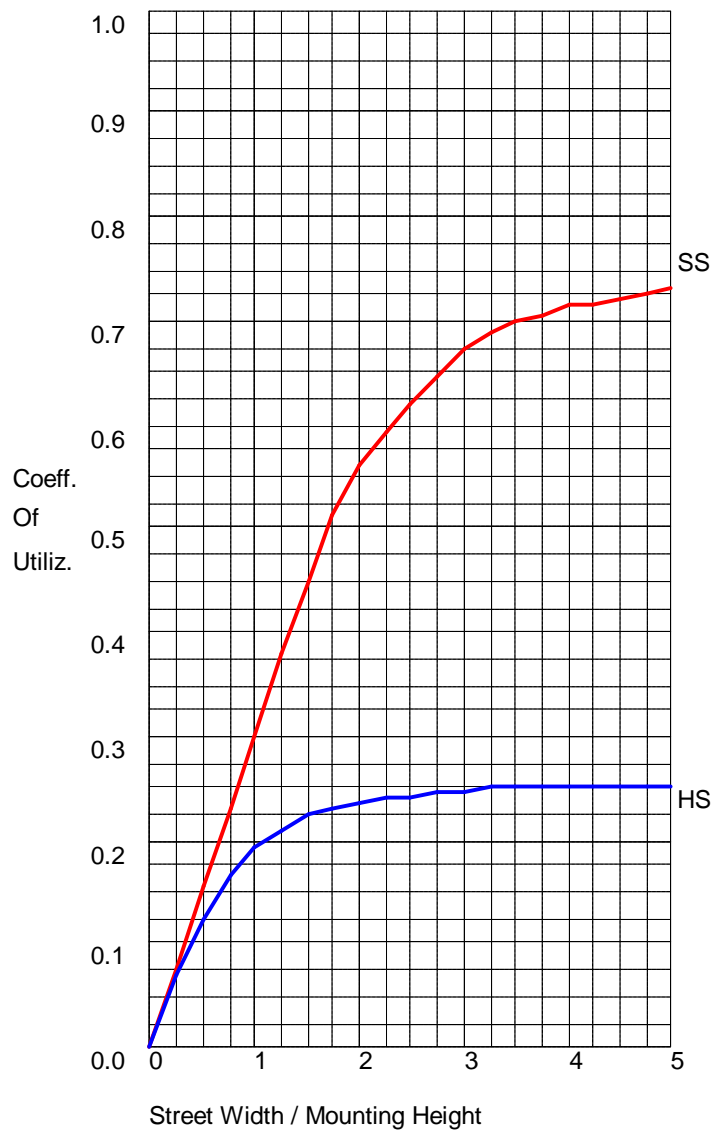
	175	180
0.0	2494.560	2494.560
2.5	2507.600	2503.588
5.0	2503.588	2495.563
7.5	2505.594	2499.576
10.0	2541.703	2532.676
12.5	2571.794	2564.773
15.0	2582.828	2577.813
17.5	2581.825	2576.810
20.0	2572.797	2563.770
22.5	2553.740	2546.718
25.0	2531.673	2527.661
27.5	2504.591	2499.576
30.0	2470.487	2467.478
32.5	2433.375	2429.363
35.0	2383.223	2378.208
37.5	2345.107	2346.110
40.0	2354.135	2350.123
42.5	2196.658	2187.630
45.0	2022.129	2011.095
47.5	1885.715	1867.660
50.0	1768.359	1749.302
52.5	1650.001	1635.958
55.0	1524.621	1506.566
57.5	1352.098	1334.043
60.0	1215.684	1190.608
62.5	1094.317	1062.219
65.0	988.997	949.879

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CANDELA TABULATION - (Cont.)

67.5	923.800	868.633
70.0	899.727	822.493
72.5	861.611	764.316
75.0	723.192	619.879
77.5	713.161	637.933
80.0	629.909	614.863
82.5	504.529	553.678
85.0	364.104	432.310
87.5	226.687	240.730
90.0	0.000	0.000

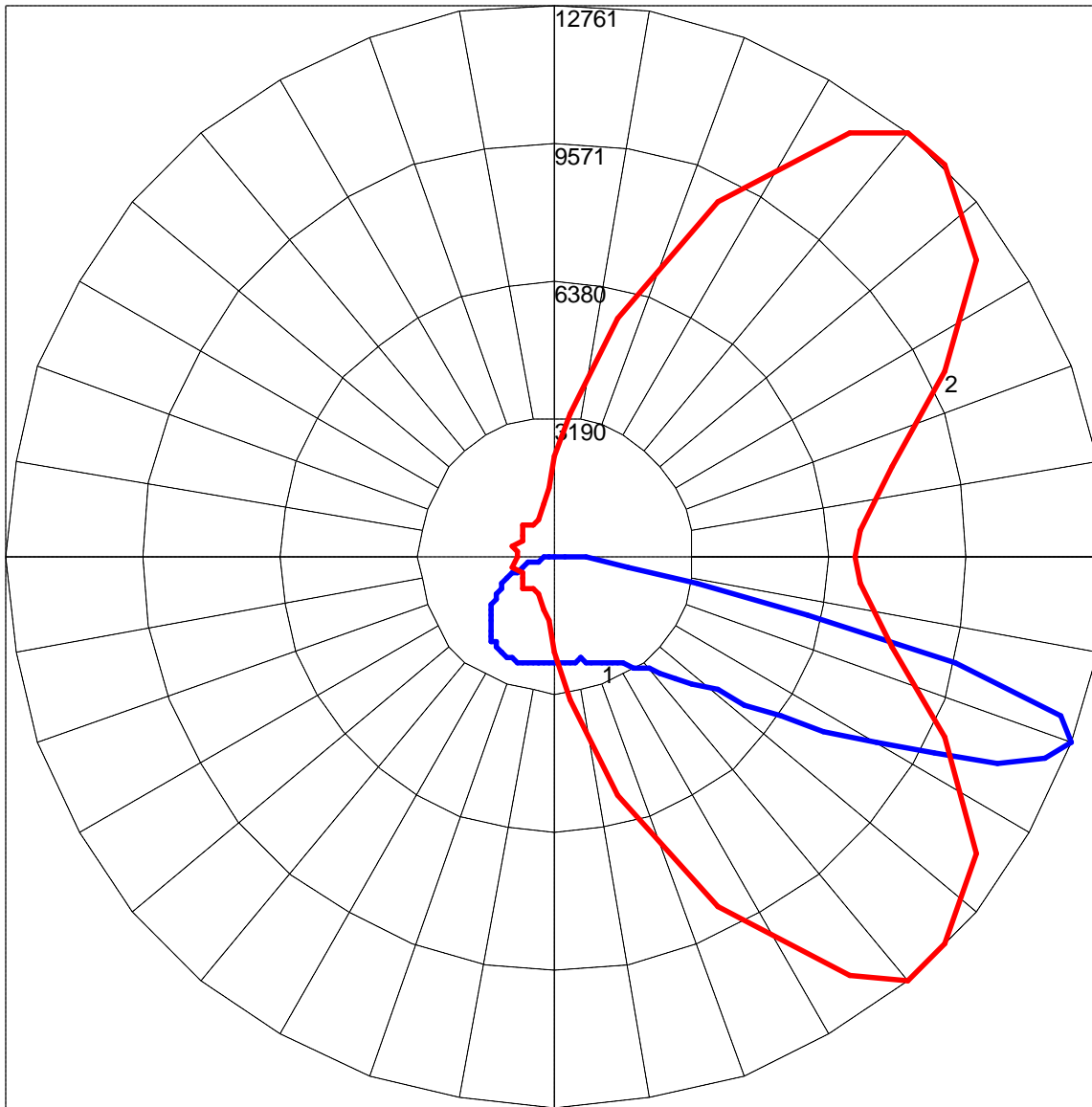
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

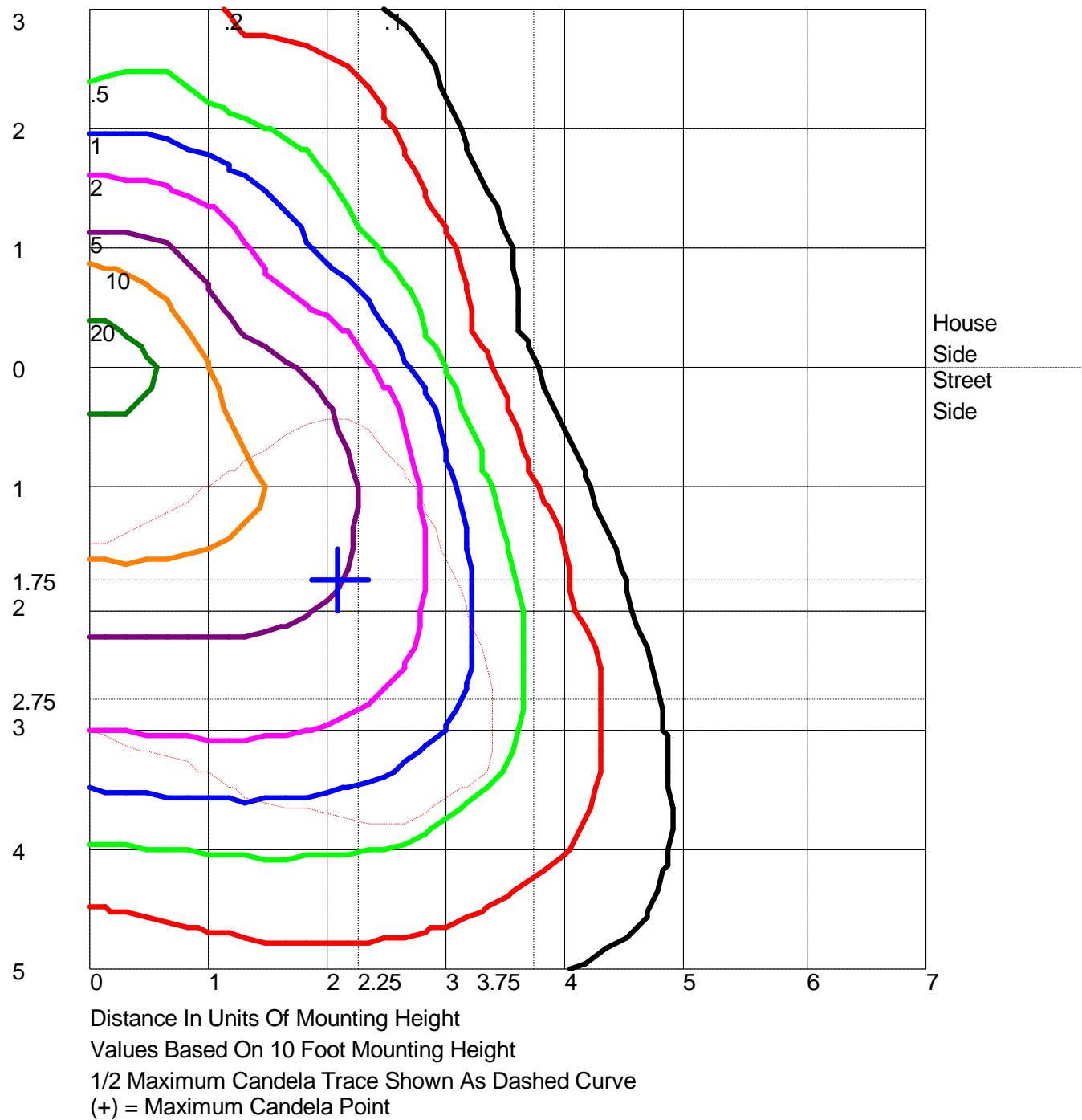
	Lumens	Percent Of Luminaire
Downward Street Side	13713.8	74.3
Downward House Side	4739.5	25.7
Downward Total	18453.3	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	18453.3	100.0

POLAR GRAPH

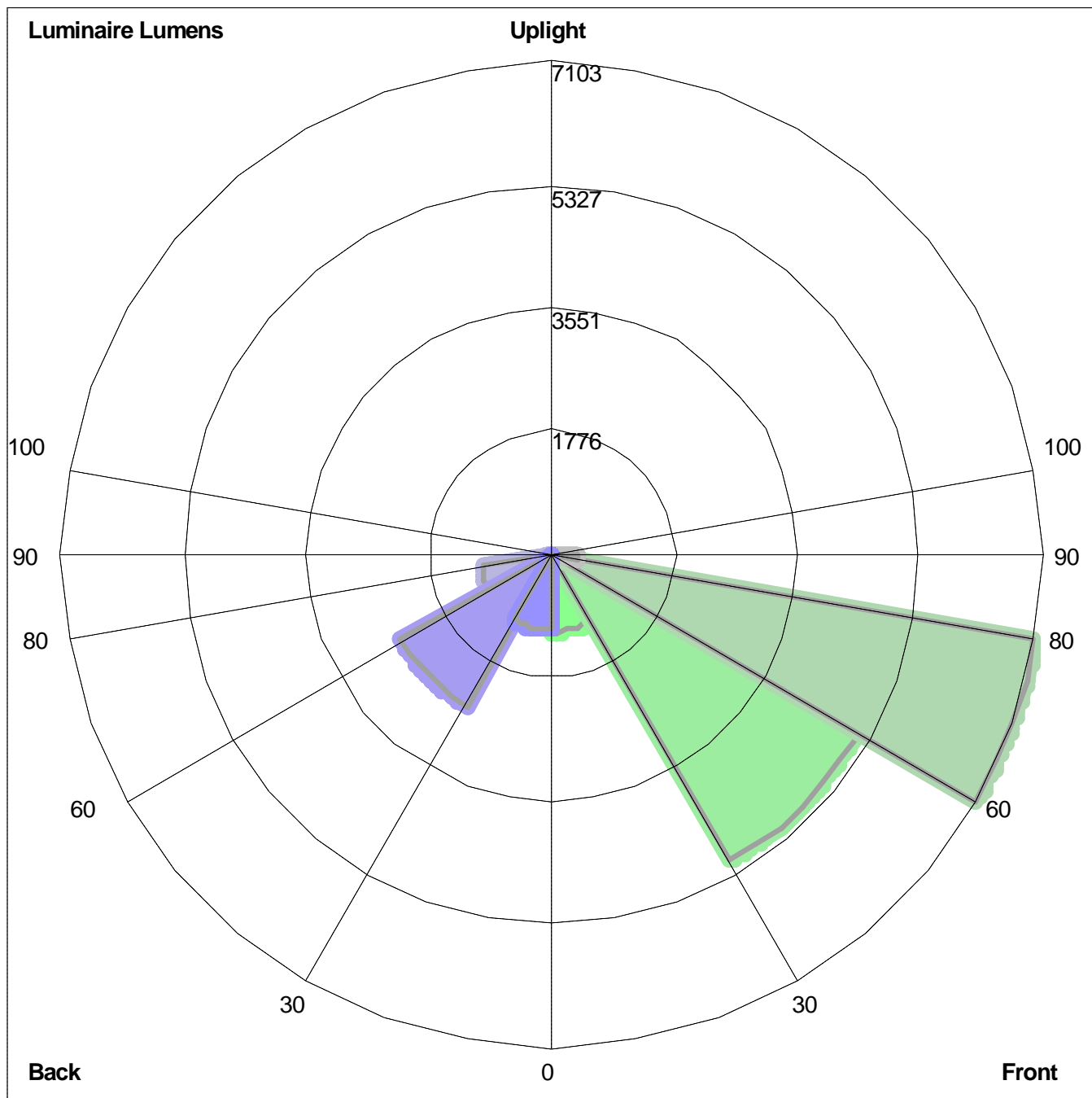


Maximum Candela = 12760.674 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1118.6, Medium=5115.3, High=7102.7, Very High=377.2
Back: Low=1097.9, Medium=2514.8, High=1048.7, Very High=78.2
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3