



**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : XMR-2-LED-18-30.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]LED-8225\_SCALED  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUE DATE]11/21/2016  
[TEST DATE]10/17/16  
[MANUFACTURER]LSI INDUSTRIES, INC  
[LUMCAT]XMR-2-LED-18-30  
[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 II
Longitudinal Classification	Medium
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16488
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	154
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	12676.242
Maximum Candela Angle	82.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	12676.242
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	826.506 (5.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1158.4	N.A.	7.0
FM - Front-Medium (30-60)	5740.0	N.A.	34.8
FH - Front-High (60-80)	3691.3	N.A.	22.4
FVH - Front-Very High (80-90)	75.2	N.A.	0.5
BL - Back-Low (0-30)	945.0	N.A.	5.7
BM - Back-Medium (30-60)	3430.2	N.A.	20.8
BH - Back-High (60-80)	1383.4	N.A.	8.4
BVH - Back-Very High (80-90)	64.1	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	16487.6	N.A.	100.0
BUG Rating	B3-U0-G3		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>0.0</b></u>	<u><b>5.0</b></u>	<u><b>15.0</b></u>	<u><b>25.0</b></u>	<u><b>35.0</b></u>	<u><b>45.0</b></u>	<u><b>55.0</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>	<u><b>82.5</b></u>
<b>0.0</b>	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136
<b>2.5</b>	2351.780	2351.307	2344.684	2350.361	2347.049	2340.899	2334.749	2338.060	2329.544	2321.502
<b>5.0</b>	2381.112	2380.166	2375.435	2380.166	2377.328	2369.758	2364.081	2365.500	2354.146	2343.264
<b>7.5</b>	2411.864	2411.391	2408.079	2415.176	2411.864	2403.821	2402.402	2401.929	2391.047	2376.381
<b>10.0</b>	2454.443	2453.497	2453.497	2460.120	2458.701	2452.550	2453.024	2453.024	2442.615	2425.584
<b>12.5</b>	2494.183	2495.603	2498.441	2511.688	2517.838	2517.365	2523.042	2530.139	2510.742	2490.872
<b>15.0</b>	2518.311	2520.204	2527.300	2557.106	2580.287	2595.900	2611.512	2625.705	2602.996	2583.126
<b>17.5</b>	2527.773	2532.031	2546.224	2591.169	2634.694	2678.219	2717.960	2740.668	2715.121	2693.358
<b>20.0</b>	2541.966	2545.751	2568.933	2624.759	2687.681	2755.808	2830.084	2871.717	2845.223	2815.891
<b>22.5</b>	2561.363	2566.568	2595.900	2664.972	2741.141	2826.299	2942.682	3018.851	2997.089	2962.552
<b>25.0</b>	2589.276	2594.480	2628.544	2706.132	2794.129	2894.426	3040.614	3175.920	3171.189	3135.707
<b>27.5</b>	2634.221	2639.898	2676.327	2761.012	2857.524	2966.810	3134.288	3342.452	3387.396	3341.978
<b>30.0</b>	2710.863	2713.702	2750.603	2835.761	2937.951	3059.538	3233.165	3508.983	3615.903	3576.636
<b>32.5</b>	2840.492	2847.116	2867.459	2942.209	3048.656	3174.501	3344.817	3673.622	3857.657	3832.583
<b>35.0</b>	3030.206	3034.937	3038.721	3102.590	3185.855	3312.646	3488.166	3834.949	4105.089	4106.508
<b>37.5</b>	3294.668	3297.507	3297.507	3317.850	3369.891	3489.586	3660.375	3992.018	4370.025	4399.830
<b>40.0</b>	3680.245	3679.772	3674.095	3624.419	3624.419	3726.609	3870.431	4157.130	4625.026	4713.022
<b>42.5</b>	4193.558	4217.213	4169.903	4098.465	3992.964	4044.532	4133.002	4352.993	4871.038	5037.096
<b>45.0</b>	4750.870	4773.579	4727.215	4660.981	4526.148	4497.762	4469.376	4550.276	5111.372	5394.286
<b>47.5</b>	5190.380	5206.466	5178.080	5170.037	5170.510	5139.758	4945.314	4801.965	5367.320	5792.636
<b>50.0</b>	5451.531	5447.273	5447.273	5520.131	5683.823	5938.824	5671.050	5154.425	5665.373	6218.426
<b>52.5</b>	5374.416	5392.867	5443.489	5624.213	6011.209	6568.520	6597.380	5654.491	6015.940	6692.946
<b>55.0</b>	5011.075	5044.192	5143.543	5412.264	6023.036	7048.717	7753.636	6372.184	6398.204	7408.273
<b>57.5</b>	4399.357	4412.604	4565.888	4824.674	5608.601	7008.030	8780.736	7548.311	7006.611	8258.907
<b>60.0</b>	3532.165	3535.476	3576.636	3842.045	4704.506	6359.410	9428.883	8996.943	7685.037	9245.320
<b>62.5</b>	2432.207	2422.272	2315.825	2550.955	3319.743	5062.643	9586.425	10504.713	8751.877	10411.039
<b>65.0</b>	1502.093	1462.352	1396.591	1414.569	1919.840	3131.922	8850.282	11388.463	9912.864	11820.404
<b>67.5</b>	930.588	914.029	898.417	873.816	1066.367	1575.896	6610.626	11331.218	11112.646	12676.242
<b>70.0</b>	590.429	586.171	597.525	600.364	707.758	905.040	3439.437	9698.550	11312.767	11930.636
<b>72.5</b>	366.653	383.211	394.565	437.144	511.894	615.976	1547.510	6339.540	9002.147	7644.823
<b>75.0</b>	262.571	273.925	269.667	313.665	372.803	466.477	841.172	3111.579	4817.577	2723.164
<b>77.5</b>	200.121	209.110	206.272	232.765	268.248	346.309	541.700	1497.362	1911.797	826.979
<b>80.0</b>	168.897	176.939	163.220	175.520	197.283	255.947	331.170	764.057	826.506	442.349
<b>82.5</b>	150.919	147.134	122.533	126.791	138.145	188.294	209.110	378.007	404.027	230.400
<b>85.0</b>	105.974	102.663	83.266	82.319	87.050	121.587	125.845	151.392	204.379	114.490
<b>87.5</b>	50.149	50.622	43.998	42.579	41.160	53.460	52.987	50.622	52.041	43.052
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>85.0</b></u>	<u><b>90.0</b></u>	<u><b>95.0</b></u>	<u><b>105.0</b></u>	<u><b>115.0</b></u>	<u><b>125.0</b></u>	<u><b>135.0</b></u>	<u><b>145.0</b></u>	<u><b>155.0</b></u>	<u><b>165.0</b></u>
<b>0.0</b>	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136	2319.136
<b>2.5</b>	2319.609	2312.513	2320.082	2312.513	2316.298	2316.771	2313.459	2310.620	2304.943	2299.266
<b>5.0</b>	2340.426	2329.071	2334.749	2319.609	2310.147	2297.374	2280.342	2265.676	2249.117	2229.720
<b>7.5</b>	2372.597	2356.984	2359.823	2333.802	2305.416	2269.934	2226.882	2183.357	2145.509	2114.284
<b>10.0</b>	2421.799	2405.714	2400.036	2357.930	2302.578	2231.140	2152.132	2075.017	2023.449	1982.762
<b>12.5</b>	2486.141	2465.797	2453.970	2391.994	2298.320	2181.464	2064.135	1971.408	1917.947	1890.035
<b>15.0</b>	2572.245	2546.697	2532.504	2436.938	2294.535	2125.165	1981.816	1900.443	1873.476	1866.853
<b>17.5</b>	2674.434	2642.264	2619.555	2489.452	2288.858	2067.447	1921.732	1880.099	1890.981	1910.378
<b>20.0</b>	2793.182	2758.173	2719.852	2545.751	2274.665	2010.675	1897.604	1907.539	1952.011	1989.859
<b>22.5</b>	2935.112	2894.426	2842.858	2616.716	2255.741	1967.623	1915.109	1967.150	2039.061	2094.414
<b>25.0</b>	3109.686	3056.699	2990.465	2697.143	2233.505	1957.688	1966.204	2053.727	2153.551	2232.086
<b>27.5</b>	3311.227	3252.563	3167.405	2792.236	2220.258	1991.278	2046.631	2171.056	2310.620	2423.691

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**CANDELA TABULATION - (Cont.)**

30.0	3557.239	3482.489	3377.461	2892.060	2224.989	2058.458	2165.852	2332.856	2522.569	2666.392
32.5	3814.605	3733.232	3606.914	2998.981	2258.106	2165.379	2321.029	2538.655	2761.485	2930.855
35.0	4092.788	4003.845	3847.249	3093.601	2330.964	2312.986	2510.269	2750.603	2985.734	3158.889
37.5	4390.368	4292.436	4111.239	3183.963	2447.819	2485.667	2692.885	2945.521	3193.425	3357.591
40.0	4707.345	4618.875	4381.379	3273.852	2595.900	2655.510	2843.331	3100.224	3347.183	3506.144
42.5	5037.569	4947.680	4665.239	3362.795	2752.023	2795.075	2954.036	3191.060	3409.159	3514.660
45.0	5390.028	5293.043	4967.550	3443.222	2880.233	2887.802	3007.024	3162.674	3258.240	3266.756
47.5	5783.174	5697.070	5273.646	3508.510	2961.606	2916.662	2945.048	2941.263	2919.500	2881.652
50.0	6223.631	6123.806	5597.246	3554.873	2983.369	2850.428	2733.572	2608.673	2515.000	2448.293
52.5	6733.159	6575.144	5932.201	3581.840	2952.617	2657.403	2450.185	2251.956	2112.865	2044.738
55.0	7448.487	7153.745	6273.306	3610.226	2883.545	2427.949	2125.165	1914.163	1783.114	1713.095
57.5	8313.786	7915.909	6609.680	3649.967	2796.967	2191.872	1851.240	1669.097	1525.748	1497.362
60.0	9286.953	8693.213	6936.119	3709.104	2726.002	1979.924	1649.227	1524.801	1347.862	1317.110
62.5	10413.877	9444.969	7301.826	3729.447	2658.349	1810.081	1501.146	1417.881	1143.483	1090.496
65.0	11564.930	10042.494	7244.107	3596.506	2507.903	1631.249	1349.281	1233.372	913.556	829.817
67.5	12126.972	9779.923	6253.909	3081.300	2144.562	1331.303	1092.388	974.113	663.286	578.601
70.0	10919.148	7706.326	4065.348	2042.846	1545.145	967.016	805.689	694.511	481.143	434.779
72.5	6561.897	4158.549	1971.408	1138.752	935.792	632.535	576.236	490.132	347.729	305.150
75.0	2098.199	1453.836	938.630	610.299	554.000	456.542	406.866	335.428	247.904	221.884
77.5	689.780	537.915	482.089	392.673	375.168	355.771	278.656	235.131	193.971	171.262
80.0	361.448	294.268	269.194	292.849	292.849	244.120	191.606	169.370	214.314	175.047
82.5	190.186	154.231	144.296	215.734	205.325	147.607	133.414	133.414	303.730	290.957
85.0	107.867	82.793	77.115	138.618	87.050	88.470	91.308	153.284	319.816	200.121
87.5	43.998	30.278	26.967	29.332	29.332	27.913	21.290	17.032	65.288	9.462
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**

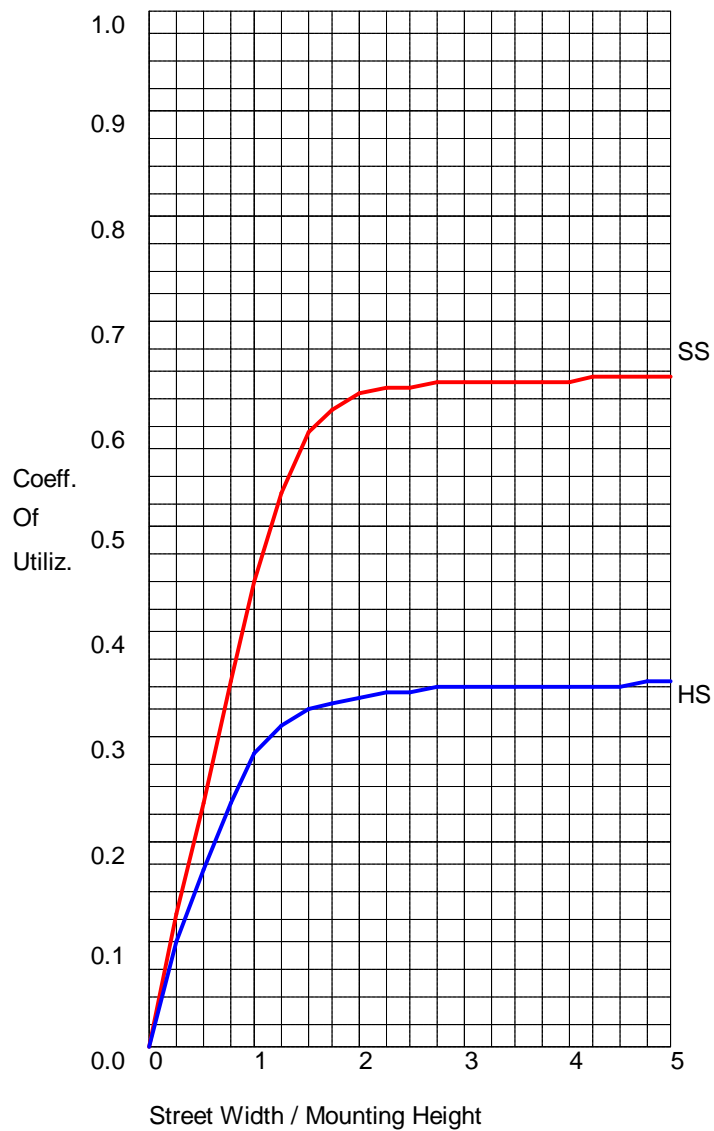
	<u>175.0</u>	<u>180.0</u>
0.0	2319.136	2319.136
2.5	2296.427	2292.643
5.0	2224.989	2220.731
7.5	2101.510	2096.779
10.0	1965.257	1960.053
12.5	1878.207	1873.003
15.0	1866.853	1862.122
17.5	1919.367	1915.582
20.0	2012.567	2004.525
22.5	2126.585	2118.542
25.0	2277.977	2267.568
27.5	2487.560	2497.022
30.0	2741.141	2750.603
32.5	3006.077	2998.981
35.0	3227.961	3218.026
37.5	3415.782	3403.955
40.0	3545.411	3533.111
42.5	3508.983	3490.532
45.0	3238.370	3216.134
47.5	2834.815	2832.923
50.0	2400.036	2401.929
52.5	1993.170	1953.903
55.0	1652.065	1635.980
57.5	1464.245	1449.578
60.0	1267.435	1251.350
62.5	1031.358	1012.907
65.0	753.648	731.886

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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	545.957	534.603
<b>70.0</b>	412.543	391.727
<b>72.5</b>	307.042	305.623
<b>75.0</b>	222.830	238.442
<b>77.5</b>	164.166	167.477
<b>80.0</b>	153.758	155.177
<b>82.5</b>	188.294	185.455
<b>85.0</b>	86.104	81.846
<b>87.5</b>	0.473	0.000
<b>90.0</b>	0.000	0.000

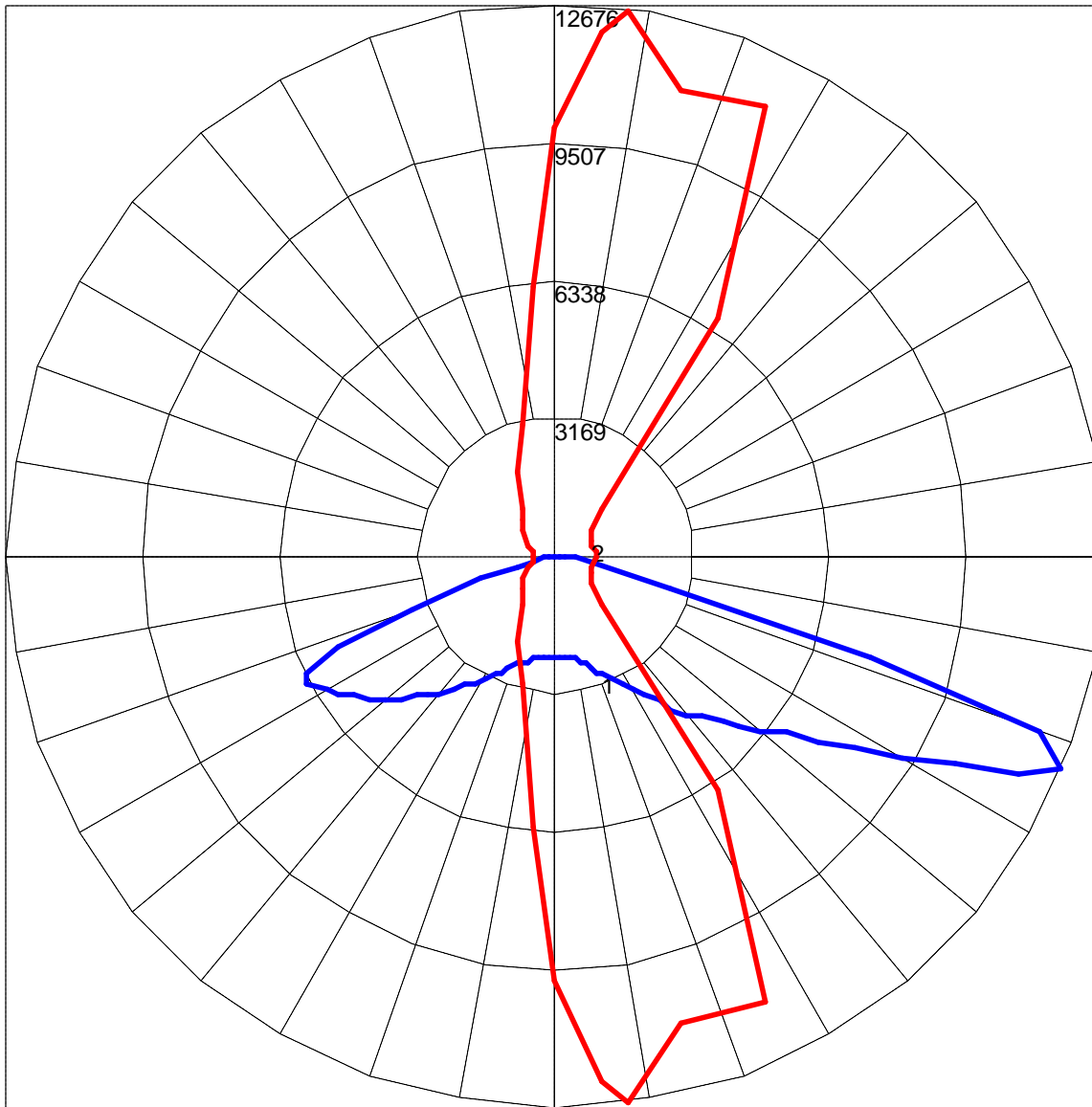
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

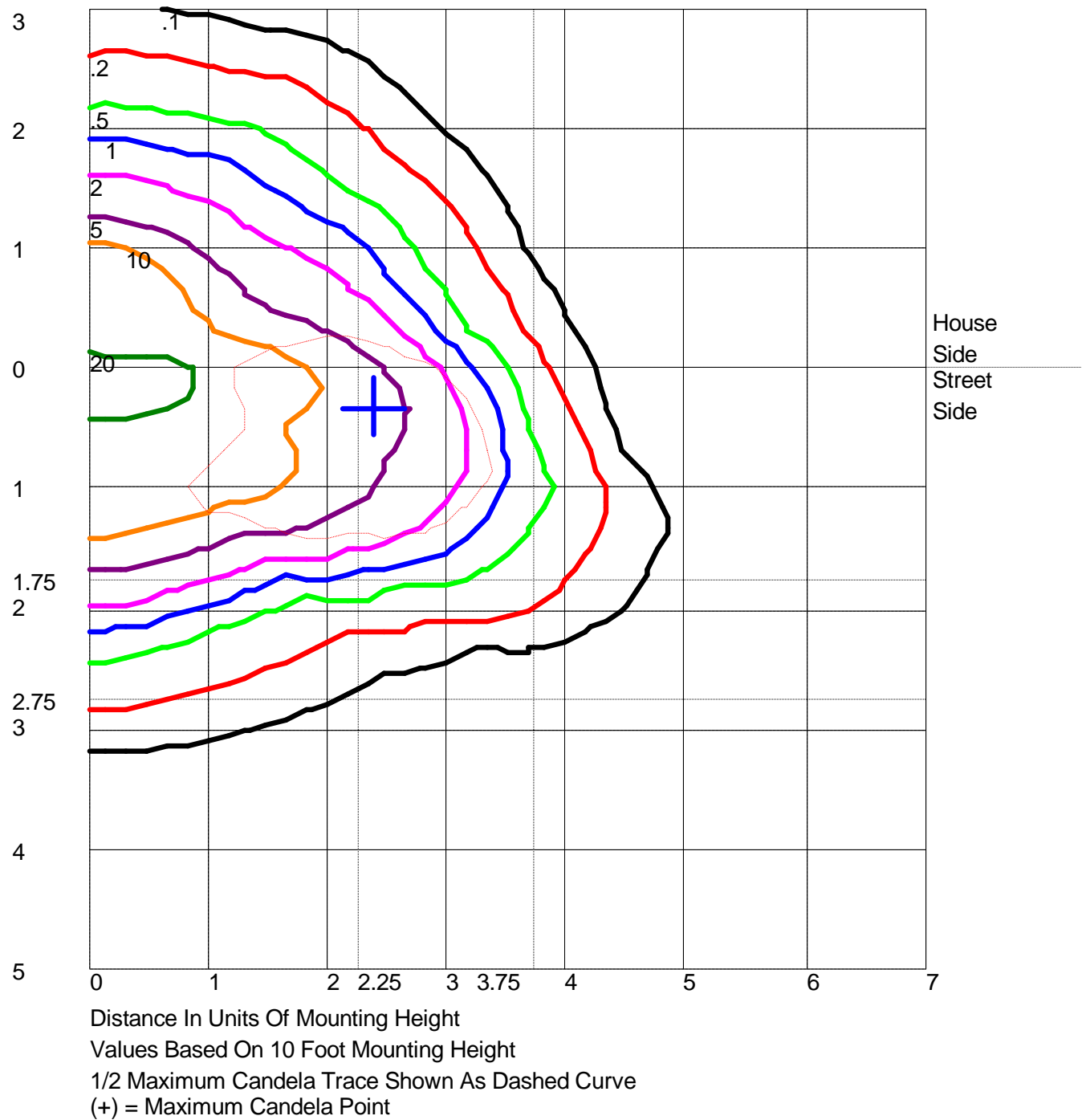
	Lumens	Percent Of Luminaire
Downward Street Side	10664.9	64.7
Downward House Side	5822.6	35.3
Downward Total	16487.5	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	16487.5	100.0

POLAR GRAPH



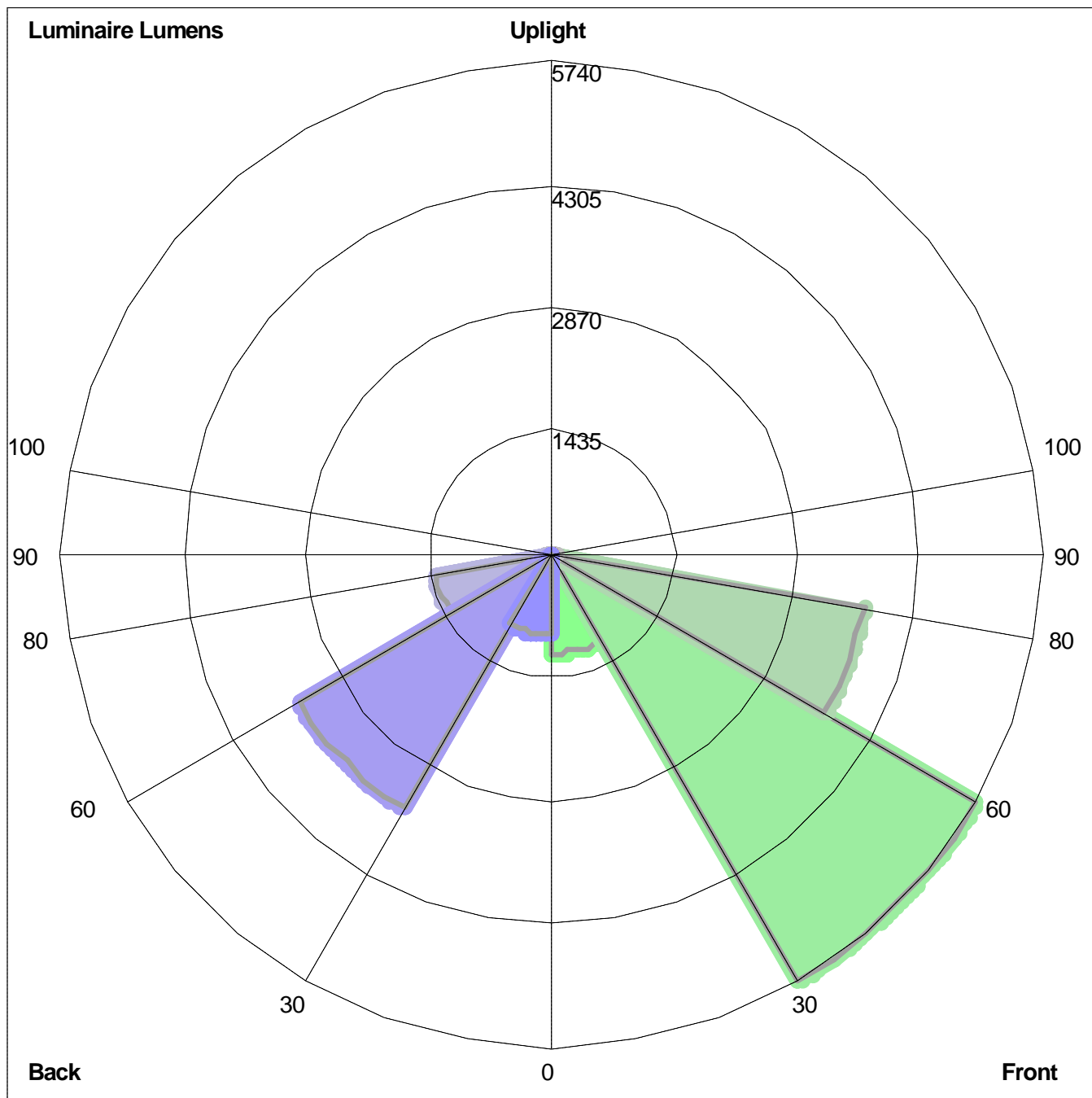
Maximum Candela = 12676.242 Located At Horizontal Angle = 82.5, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (82.5 - 262.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1158.4, Medium= 5740.0, High=3691.3, Very High=75.2  
Back: Low=945.0, Medium=3430.2, High=1383.4, Very High=64.1  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3