



**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : XMR-3-LED-29-30.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]LED-7785  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUE DATE]11/21/16  
[TEST DATE]05/05/16  
[MANUFACTURER]LSI INDUSTRIES, INC  
[LUMCAT]XMR-3-LED-29-30  
[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 III
Longitudinal Classification	Medium
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	24654
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	241.3
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	22175.359
Maximum Candela Angle	55H 70V
Maximum Candela (<90 Degrees Vertical)	22175.359
Maximum Candela Angle (<90 Degrees Vertical)	55H 70V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	2313.427 (9.4% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1075.0	N.A.	4.4
FM - Front-Medium (30-60)	9031.2	N.A.	36.6
FH - Front-High (60-80)	8387.3	N.A.	34.0
FVH - Front-Very High (80-90)	275.6	N.A.	1.1
BL - Back-Low (0-30)	1139.4	N.A.	4.6
BM - Back-Medium (30-60)	3338.7	N.A.	13.5
BH - Back-High (60-80)	1314.1	N.A.	5.3
BVH - Back-Very High (80-90)	92.9	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	24654.2	N.A.	100.0
BUG Rating	B3-U0-G4		

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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>57.5</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>
<b>0.0</b>	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566
<b>2.5</b>	2245.486	2249.786	2245.486	2255.806	2256.666	2260.106	2266.126	2267.846	2271.286	2270.426
<b>5.0</b>	2173.245	2177.545	2174.105	2184.425	2196.466	2212.806	2234.306	2240.326	2254.086	2266.986
<b>7.5</b>	2105.305	2105.305	2106.165	2124.225	2145.725	2172.385	2203.346	2212.806	2241.186	2277.307
<b>10.0</b>	2043.384	2043.384	2045.964	2069.184	2100.144	2144.865	2190.446	2201.626	2232.586	2273.007
<b>12.5</b>	2018.444	2019.304	2022.744	2047.684	2081.224	2126.805	2174.965	2187.006	2219.686	2262.686
<b>15.0</b>	2027.904	2029.624	2037.364	2065.744	2102.725	2142.285	2182.705	2195.606	2236.886	2279.027
<b>17.5</b>	2061.444	2060.584	2074.344	2113.045	2164.645	2204.206	2233.446	2242.046	2273.007	2303.967
<b>20.0</b>	2115.625	2117.345	2137.985	2199.046	2258.386	2312.567	2336.647	2340.087	2370.188	2388.248
<b>22.5</b>	2229.146	2230.006	2250.646	2342.667	2420.068	2514.669	2583.470	2594.650	2654.851	2663.451
<b>25.0</b>	2427.808	2432.108	2463.069	2602.390	2724.512	2854.373	2991.115	3057.336	3065.076	2954.994
<b>27.5</b>	2719.352	2728.812	2826.853	2984.235	3151.077	3328.239	3520.881	3532.921	3445.200	3207.837
<b>30.0</b>	3157.957	3169.137	3299.858	3480.461	3685.143	3904.446	4046.347	4034.307	3850.265	3501.101
<b>32.5</b>	3784.904	3778.884	3921.646	4092.788	4329.290	4614.814	4669.854	4610.514	4331.871	3858.005
<b>35.0</b>	4477.212	4472.912	4626.854	4797.996	5078.359	5374.203	5351.842	5264.981	4895.177	4277.690
<b>37.5</b>	5055.139	5068.039	5306.262	5547.925	5906.549	6210.992	6113.811	5988.250	5498.904	4692.215
<b>40.0</b>	5538.465	5588.345	5898.809	6342.574	6800.099	7111.423	6935.981	6757.959	6096.611	5051.699
<b>42.5</b>	6098.331	6168.852	6550.696	7171.624	7831.251	8060.874	7773.631	7536.268	6692.598	5377.643
<b>45.0</b>	6921.361	7017.682	7486.387	8182.995	8957.864	9068.806	8603.540	8289.637	7264.505	5688.966
<b>47.5</b>	7815.771	7874.252	8410.038	9233.068	10166.179	10109.418	9394.750	9010.325	7788.251	6016.630
<b>50.0</b>	8626.761	8674.921	9208.987	10120.598	11116.490	11074.349	10105.978	9728.433	8277.597	6432.015
<b>52.5</b>	9584.812	9621.792	10155.858	11051.129	11880.179	11782.997	10699.385	10256.480	8789.302	6920.501
<b>55.0</b>	10905.787	10890.307	11298.812	12009.180	12803.829	12093.461	11042.529	10627.144	9325.949	7547.448
<b>57.5</b>	12692.028	12658.488	13059.252	13365.416	13794.561	12711.808	11228.291	10887.727	9823.895	8385.958
<b>60.0</b>	13933.882	14129.965	14573.730	15167.997	15422.560	13592.458	11531.874	11211.951	10419.021	9620.932
<b>62.5</b>	12915.631	13082.473	14082.664	15402.780	17039.379	15078.556	12719.548	12264.603	11337.512	10938.468
<b>65.0</b>	7277.405	7434.787	9849.695	13364.556	16881.997	17788.447	14713.052	13986.343	13143.533	12165.702
<b>67.5</b>	3665.363	3617.202	4322.410	7482.947	13658.679	18708.658	18535.796	17852.088	15178.317	12800.389
<b>70.0</b>	2021.884	2111.325	2494.029	3489.061	6897.280	16257.630	22175.359	21859.735	16835.556	11425.233
<b>72.5</b>	1181.654	1249.595	1538.558	2292.787	3485.621	9419.690	21096.906	21603.452	15360.639	6350.314
<b>75.0</b>	796.369	849.690	1079.313	1741.520	2598.950	4533.113	13700.820	14212.526	8219.116	2055.424
<b>77.5</b>	594.267	632.107	812.709	1432.777	2034.784	2881.894	5740.567	5335.502	2685.811	1044.052
<b>80.0</b>	417.965	446.345	619.207	1177.354	1701.960	2011.563	2313.427	2139.705	1504.158	603.727
<b>82.5</b>	259.723	273.483	442.045	909.891	1333.876	1351.076	1184.234	1148.113	843.670	357.764
<b>85.0</b>	169.422	174.582	289.823	654.468	881.510	760.249	503.106	548.686	401.625	210.702
<b>87.5</b>	118.681	122.121	185.762	456.665	473.866	214.142	142.762	179.742	158.242	116.961
<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>	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566	2269.566
<b>2.5</b>	2271.286	2285.907	2287.627	2285.907	2287.627	2291.067	2292.787	2292.787	2289.347	2284.187
<b>5.0</b>	2279.027	2293.647	2298.807	2299.667	2311.707	2329.767	2347.827	2364.168	2375.348	2381.368
<b>7.5</b>	2304.827	2322.027	2328.907	2335.787	2367.608	2408.888	2447.589	2481.989	2505.209	2514.669
<b>10.0</b>	2313.427	2334.067	2345.247	2368.468	2438.988	2511.229	2568.850	2600.670	2614.430	2619.591
<b>12.5</b>	2316.007	2338.367	2351.267	2382.228	2481.989	2586.050	2668.611	2693.551	2677.211	2669.471
<b>15.0</b>	2334.927	2362.448	2378.788	2429.528	2555.950	2658.291	2714.192	2748.592	2741.712	2722.792
<b>17.5</b>	2346.107	2371.048	2394.268	2469.089	2623.891	2735.692	2758.052	2782.132	2816.533	2787.293
<b>20.0</b>	2399.428	2408.888	2430.388	2521.549	2703.872	2786.432	2816.533	2825.993	2859.533	2841.473
<b>22.5</b>	2586.910	2557.670	2531.870	2562.830	2773.532	2849.213	2885.334	2875.014	2878.454	2869.853
<b>25.0</b>	2757.192	2665.171	2602.390	2584.330	2805.353	2887.054	2953.274	2924.034	2879.314	2880.174
<b>27.5</b>	2886.194	2730.532	2619.591	2577.450	2803.633	2912.854	2982.515	2959.295	2887.054	2887.914

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**CANDELA TABULATION - (Cont.)**

30.0	3044.435	2806.213	2626.471	2553.370	2793.313	2917.154	2989.395	2984.235	2927.474	2952.414
32.5	3227.618	2895.654	2625.611	2488.869	2752.032	2899.094	2985.955	3011.755	3035.835	3108.936
35.0	3460.680	3017.775	2635.071	2397.708	2682.371	2842.333	2975.635	3057.336	3167.417	3338.559
37.5	3679.983	3130.437	2646.251	2302.247	2597.230	2774.392	2949.834	3045.296	3298.138	3696.323
40.0	3878.645	3224.178	2647.111	2200.766	2496.609	2702.152	2856.953	3003.155	3802.964	4330.150
42.5	4062.687	3317.059	2649.691	2096.704	2380.508	2591.210	2734.832	3099.476	4656.954	4332.731
45.0	4244.149	3421.980	2669.471	1999.523	2255.806	2463.069	2655.711	3256.858	5507.504	3920.786
47.5	4463.452	3569.902	2727.092	1929.002	2135.405	2372.768	2594.650	3368.659	5875.589	3646.443
50.0	4751.555	3783.184	2825.133	1892.022	2027.904	2290.207	2527.569	3385.859	5825.708	3486.481
52.5	5132.540	4028.287	2945.534	1873.962	1934.163	2209.366	2444.148	3200.097	5458.484	3370.379
55.0	5474.824	4210.609	3077.116	1855.902	1832.681	2114.765	2334.067	2848.353	4888.297	3268.038
57.5	5642.526	4311.230	3169.997	1829.241	1726.040	1998.663	2193.026	2445.869	4183.949	3157.957
60.0	6124.131	4842.716	3258.578	1791.401	1615.099	1854.182	2031.344	2144.865	3359.199	2973.915
62.5	7568.948	5395.703	3015.195	1670.139	1469.757	1685.620	1859.342	1876.542	2518.969	2813.093
65.0	9143.627	5459.344	2476.829	1412.136	1271.955	1480.077	1658.099	1605.639	1800.001	2563.690
67.5	9549.551	4635.454	1754.420	1048.352	1047.492	1217.774	1357.956	1383.756	1358.816	2221.406
70.0	6566.177	2562.830	1011.372	767.989	847.110	927.091	1045.772	1165.314	1134.353	1836.981
72.5	2494.029	1109.413	553.846	593.407	681.128	682.848	772.289	944.291	939.991	1455.137
75.0	967.511	542.666	368.084	463.545	545.246	557.286	625.227	803.249	746.489	1088.773
77.5	561.587	341.424	286.383	378.404	456.665	478.166	535.786	538.366	450.645	614.047
80.0	332.824	228.763	216.723	296.703	374.964	386.145	381.844	394.745	333.684	423.125
82.5	215.863	153.082	163.402	238.223	290.683	246.823	261.443	283.803	228.763	270.043
85.0	131.582	92.021	122.121	199.522	167.702	163.402	187.482	158.242	118.681	144.482
87.5	64.501	42.140	94.601	125.561	98.901	90.301	78.261	64.501	44.721	56.761
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**

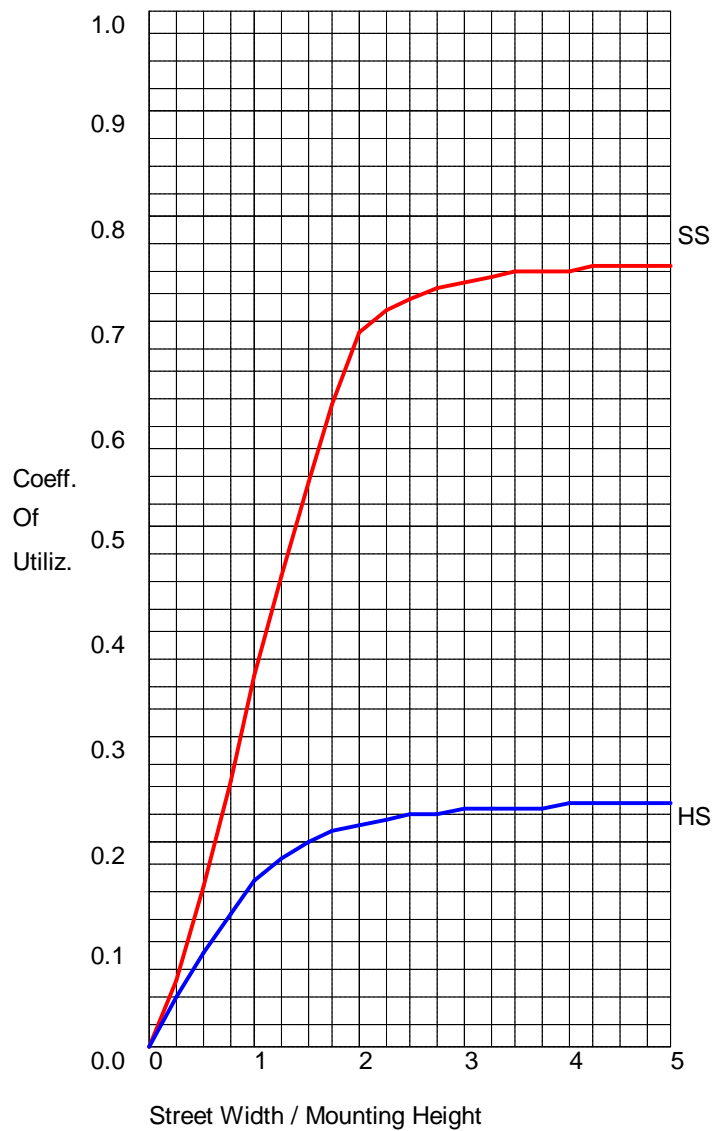
	<b>175.0</b>	<b>180.0</b>
0.0	2269.566	2269.566
2.5	2278.167	2266.986
5.0	2381.368	2378.788
7.5	2517.249	2512.949
10.0	2617.011	2607.550
12.5	2669.471	2657.431
15.0	2733.112	2721.932
17.5	2789.013	2779.552
20.0	2821.693	2814.813
22.5	2825.133	2823.413
25.0	2819.113	2814.813
27.5	2832.013	2825.993
30.0	2918.874	2905.114
32.5	3125.276	3108.076
35.0	3372.959	3317.059
37.5	3600.862	3483.041
40.0	3513.141	3274.918
42.5	3085.716	2928.334
45.0	2888.774	2763.212
47.5	2768.372	2648.831
50.0	2630.771	2508.649
52.5	2468.229	2333.207
55.0	2314.287	2149.165
57.5	2174.105	1938.463
60.0	2017.584	1688.200
62.5	1939.323	1519.638
65.0	1861.062	1489.537

**IES ROAD REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	1875.682	1659.819
<b>70.0</b>	1937.603	1840.421
<b>72.5</b>	1856.762	1917.822
<b>75.0</b>	1455.137	1778.501
<b>77.5</b>	1136.073	1412.996
<b>80.0</b>	664.788	749.929
<b>82.5</b>	309.604	294.983
<b>85.0</b>	137.602	131.582
<b>87.5</b>	96.321	48.161
<b>90.0</b>	0.000	0.000

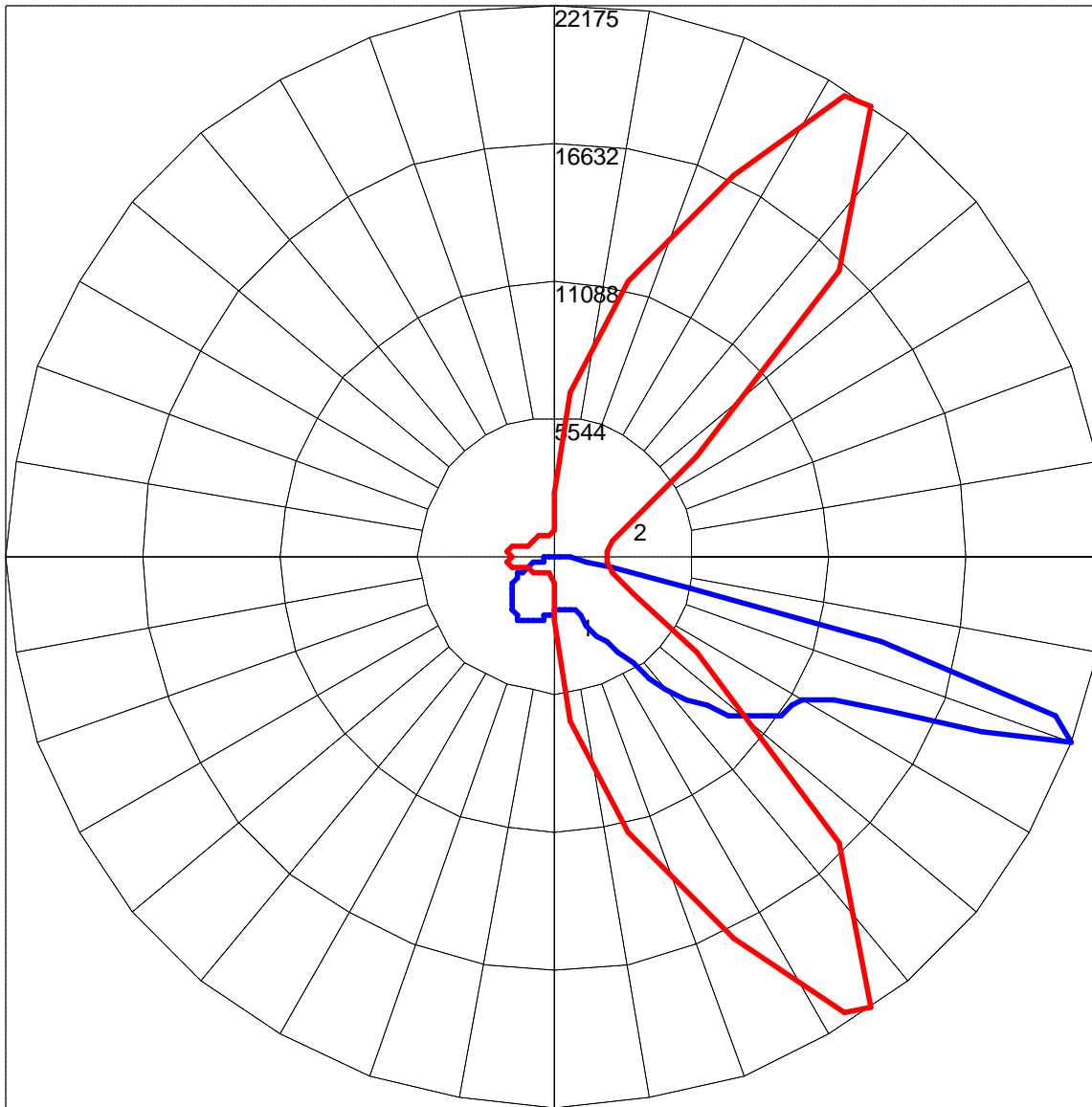
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

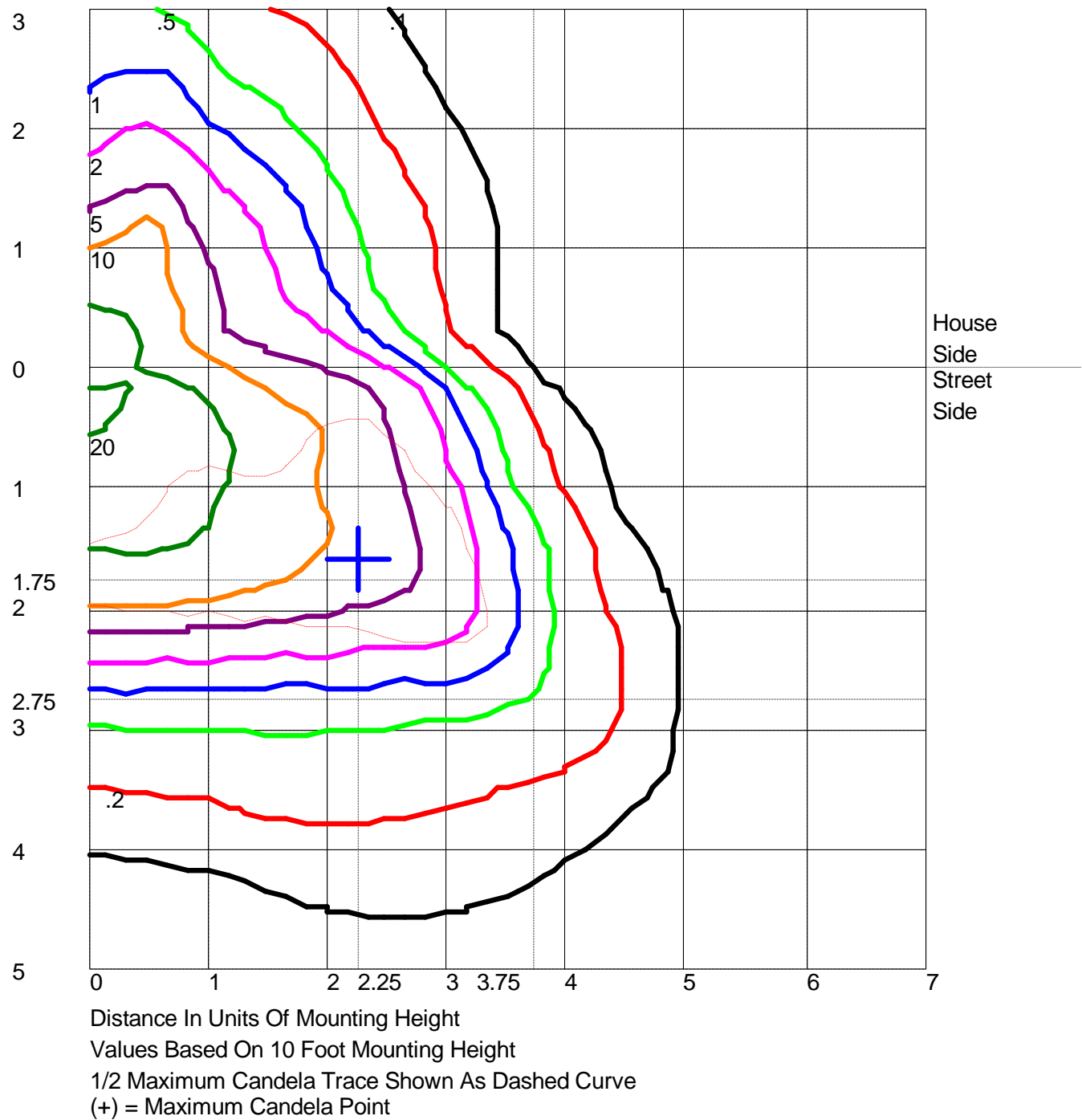
	Lumens	Percent Of Luminaire
Downward Street Side	18769.1	76.1
Downward House Side	5885.1	23.9
Downward Total	24654.2	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	24654.2	100.0

POLAR GRAPH



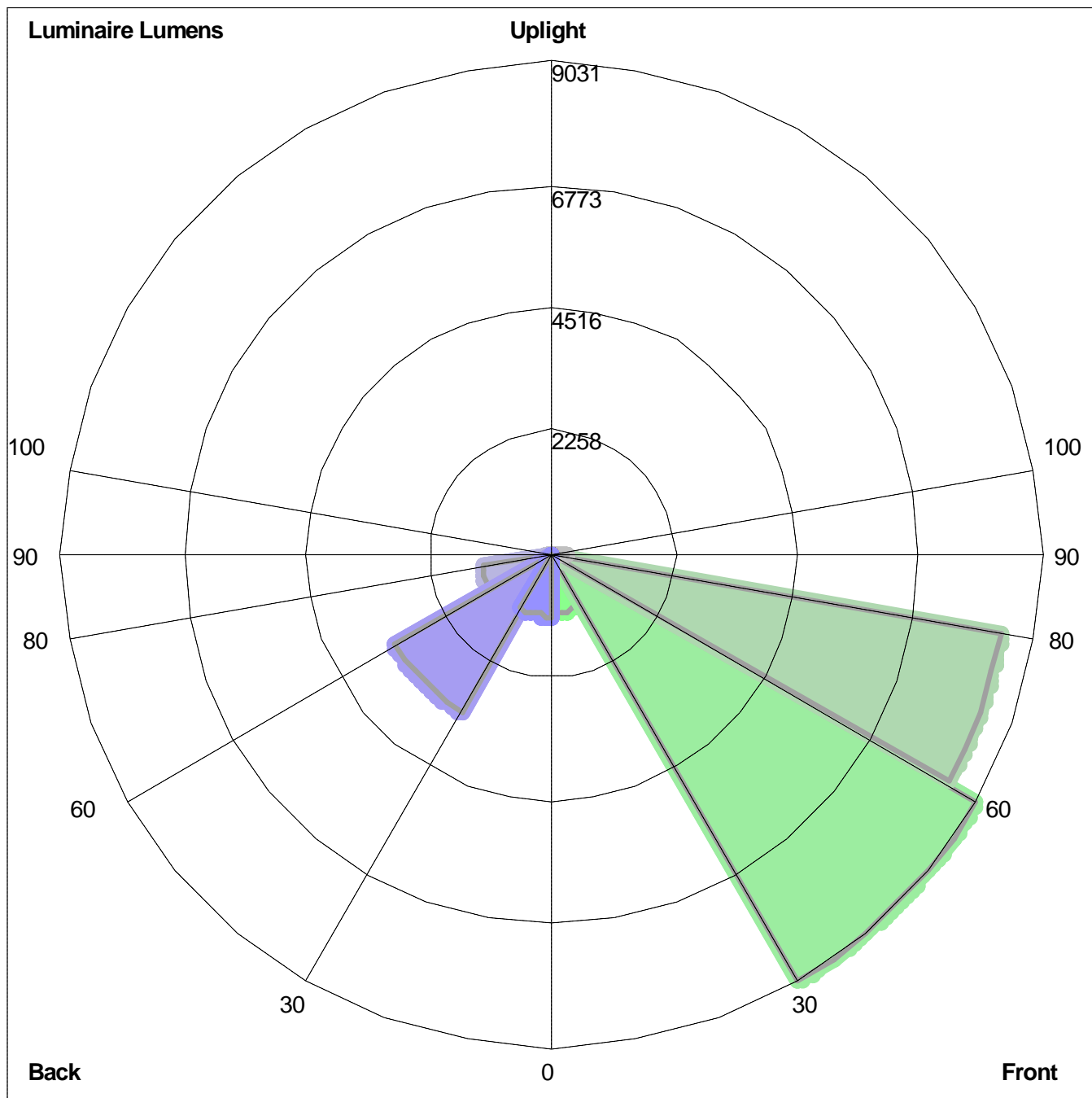
Maximum Candela = 22175.359 Located At Horizontal Angle = 55, Vertical Angle = 70  
# 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low= 1075.0, Medium=9031.2, High=8387.3, Very High=275.6  
Back: Low=1139.4, Medium=3338.7, High=1314.1, Very High=92.9  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G4