



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-2-LED-27L-30.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-27L-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_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	24086
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	238
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	20861.779
Maximum Candela Angle	82.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	20861.779
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	982.917 (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)	1715.6	N.A.	7.1
FM - Front-Medium (30-60)	8594.5	N.A.	35.7
FH - Front-High (60-80)	4853.2	N.A.	20.1
FVH - Front-Very High (80-90)	76.9	N.A.	0.3
BL - Back-Low (0-30)	1336.8	N.A.	5.5
BM - Back-Medium (30-60)	5222.4	N.A.	21.7
BH - Back-High (60-80)	2191.2	N.A.	9.1
BVH - Back-Very High (80-90)	95.2	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	24085.8	N.A.	100.0
BUG Rating	B4-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	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458
2.5	3568.621	3553.831	3579.378	3572.655	3575.345	3565.932	3547.108	3537.695	3533.661	3533.661
5.0	3633.163	3622.406	3645.265	3641.231	3646.609	3641.231	3625.095	3617.028	3599.548	3591.480
7.5	3666.779	3653.333	3682.914	3692.326	3712.496	3721.908	3713.840	3713.840	3696.360	3682.914
10.0	3656.022	3643.920	3685.603	3716.530	3764.936	3803.930	3821.410	3842.924	3828.133	3806.619
12.5	3579.378	3574.000	3637.197	3695.016	3782.416	3869.816	3931.669	3980.075	3977.386	3950.494
15.0	3493.323	3485.255	3563.243	3647.954	3768.970	3902.087	4029.826	4134.706	4157.565	4129.328
17.5	3423.402	3418.024	3504.080	3614.339	3762.247	3923.601	4113.193	4301.439	4368.670	4343.123
20.0	3397.855	3395.165	3490.633	3611.649	3775.693	3953.183	4183.113	4464.138	4603.979	4583.810
22.5	3427.436	3424.747	3517.526	3647.954	3821.410	4011.001	4246.310	4609.357	4848.700	4844.666
25.0	3505.424	3505.424	3600.892	3731.320	3907.466	4099.746	4331.021	4743.819	5104.177	5132.414
27.5	3653.333	3653.333	3739.388	3868.472	4037.894	4228.830	4445.314	4859.457	5358.311	5441.677
30.0	3861.749	3859.059	3947.804	4052.685	4210.005	4396.907	4599.945	4977.783	5612.444	5773.798
32.5	4122.605	4121.260	4205.971	4287.993	4414.387	4609.357	4796.260	5116.279	5875.989	6150.292
35.0	4482.963	4485.652	4558.262	4591.877	4667.176	4858.112	5039.636	5289.735	6123.399	6544.265
37.5	4984.506	5022.156	5053.082	5024.845	5007.365	5164.685	5352.932	5510.253	6366.776	6971.855
40.0	5779.177	5759.007	5769.764	5644.715	5496.807	5568.071	5725.392	5764.386	6612.841	7438.438
42.5	6702.931	6693.518	6696.208	6538.887	6230.969	6108.609	6185.252	6084.405	6861.596	7957.461
45.0	7582.312	7641.475	7720.808	7578.278	7225.988	6916.725	6864.285	6475.690	7109.006	8511.445
47.5	8082.511	8160.499	8364.881	8523.546	8403.875	8038.138	7808.208	6997.402	7407.512	9136.693
50.0	7888.885	7984.353	8316.475	8773.645	9183.755	9405.617	9195.856	7715.429	7765.180	9881.612
52.5	7215.231	7308.010	7714.085	8301.684	9144.761	10306.512	10968.065	8761.544	8219.662	10750.237
55.0	6210.800	6302.234	6721.755	7349.693	8403.875	10309.201	12830.364	10389.879	8838.187	11855.514
57.5	4859.457	4933.411	5195.612	5881.368	7072.701	9406.961	14029.765	12783.302	9673.196	13205.513
60.0	3255.325	3288.940	3374.996	3900.743	5039.636	7602.481	14231.458	15878.617	17078.886	15081.258
62.5	2096.263	2065.336	2084.161	2237.448	2889.588	4772.056	13138.282	18130.856	12288.482	17357.699
65.0	1272.011	1284.112	1347.309	1368.823	1577.239	2447.208	9999.939	18398.435	13978.669	19531.950
67.5	775.846	793.326	839.043	898.206	1009.810	1319.072	4862.146	16657.152	15455.062	220861.779
70.0	342.878	359.014	408.764	551.294	705.925	872.658	2121.810	12776.579	14773.340	18655.258
72.5	221.862	231.275	223.207	295.816	445.069	684.412	1149.650	7459.952	10607.707	10717.966
75.0	170.767	178.834	165.388	211.105	291.783	477.340	779.880	3362.895	5258.809	3583.412
77.5	138.496	150.597	139.840	165.388	227.241	334.810	490.786	1555.725	2209.211	992.330
80.0	126.394	134.462	111.603	122.360	172.111	256.822	303.884	798.704	982.917	586.254
82.5	104.880	104.880	83.366	82.022	100.846	182.868	208.416	328.087	480.029	328.087
85.0	61.853	67.231	56.474	55.129	60.508	107.570	141.185	164.044	239.342	188.247
87.5	26.892	29.582	28.237	25.548	29.582	44.372	69.920	82.022	106.225	104.880
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	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458	3509.458
2.5	3536.351	3513.492	3514.837	3500.046	3498.701	3481.221	3466.430	3455.673	3447.606	3443.572
5.0	3588.791	3556.520	3547.108	3505.424	3466.430	3418.024	3364.239	3319.867	3283.562	3256.670
7.5	3676.191	3631.819	3610.305	3529.627	3446.261	3340.036	3225.743	3123.552	3046.909	2991.779
10.0	3793.173	3739.388	3701.739	3576.689	3426.092	3237.845	3054.977	2899.001	2794.120	2729.579
12.5	3935.703	3868.472	3813.342	3627.785	3392.476	3116.829	2865.385	2689.240	2596.461	2554.778
15.0	4109.159	4029.826	3950.494	3700.394	3354.827	2972.955	2686.551	2541.332	2503.682	2514.439
17.5	4318.919	4224.796	4121.260	3791.828	3319.867	2833.114	2552.089	2484.858	2521.162	2581.670
20.0	4555.573	4443.969	4317.575	3892.675	3268.771	2695.963	2487.547	2513.095	2603.184	2702.686
22.5	4823.152	4688.690	4550.194	3998.900	3197.506	2593.772	2502.338	2599.150	2724.200	2839.837
25.0	5110.901	4984.506	4802.983	4115.882	3114.140	2562.846	2574.947	2712.099	2877.487	3014.638
27.5	5422.852	5301.837	5082.664	4222.107	3033.463	2601.840	2682.517	2855.973	3064.389	3239.190

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CANDELA TABULATION - (Cont.)

30.0	5785.900	5636.647	5386.548	4320.264	2979.678	2695.963	2826.391	3064.389	3326.590	3549.797
32.5	6159.704	6005.073	5726.737	4400.941	2999.847	2834.459	3017.327	3345.415	3690.982	3992.177
35.0	6576.536	6423.250	6092.473	4472.206	3089.937	3021.361	3299.697	3725.942	4150.842	4486.997
37.5	7036.396	6885.799	6491.825	4547.505	3256.670	3260.703	3638.542	4156.220	4609.357	4933.411
40.0	7543.318	7402.133	6927.482	4634.905	3487.944	3576.689	4005.623	4544.816	4984.506	5273.600
42.5	8093.268	7960.150	7387.342	4741.130	3793.173	3888.641	4317.575	4816.429	5187.544	5381.169
45.0	8705.070	8581.365	7886.196	4880.971	4080.922	4153.531	4513.889	4901.140	5112.245	5123.002
47.5	9389.481	9279.223	8409.253	5063.839	4328.332	4305.473	4512.545	4696.758	4694.068	4582.465
50.0	10254.072	10069.859	8995.508	5280.323	4503.132	4273.202	4265.135	4211.350	4080.922	3949.149
52.5	11207.408	11007.059	9577.728	5508.908	4562.296	4070.165	3853.681	3664.089	3408.612	3267.427
55.0	12463.283	12135.195	10184.152	5749.595	4556.917	3783.761	3389.787	3102.038	2806.222	2686.551
57.5	13930.263	13388.381	11085.117	5983.559	4547.505	3494.667	2933.961	2656.969	2394.768	2378.633
60.0	15789.873	14827.125	11446.750	6190.630	4539.437	3227.088	2577.637	2401.491	2156.770	2158.115
62.5	17868.655	16265.868	11795.007	6204.077	4456.071	2948.752	2327.537	2238.792	1894.570	1811.203
65.0	19728.264	17112.979	11411.790	5812.792	4099.746	2608.563	2078.783	1945.665	1489.839	1393.026
67.5	20630.504	16158.298	9604.621	4715.582	3373.652	2090.884	1688.843	1555.725	1105.278	938.545
70.0	17372.490	12348.990	6152.981	3182.716	2366.531	1473.704	1218.226	1120.068	718.027	603.734
72.5	9267.121	6450.142	3077.835	1750.695	1442.777	981.573	879.381	696.513	461.205	411.454
75.0	2716.132	1789.689	1418.574	937.200	840.387	693.824	578.187	454.482	328.087	293.127
77.5	814.840	691.135	711.304	606.424	568.774	502.888	377.838	328.087	251.444	233.964
80.0	492.131	407.420	412.798	459.860	450.448	325.398	267.579	244.721	252.789	220.518
82.5	303.884	235.308	236.653	383.217	282.370	209.761	188.247	189.591	406.075	431.623
85.0	184.213	143.874	146.564	247.410	143.874	130.428	135.807	142.530	286.404	115.637
87.5	104.880	79.333	90.090	88.745	73.954	63.197	41.683	43.028	186.902	38.994
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

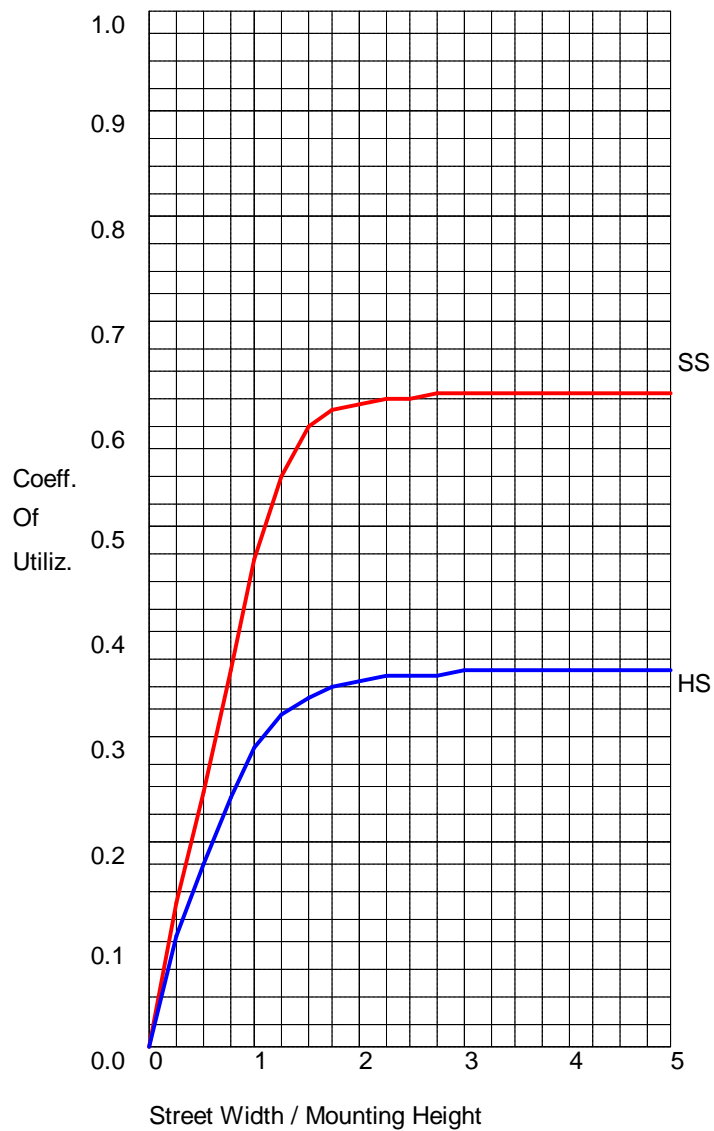
	<u>175.0</u>	<u>180.0</u>
0.0	3509.458	3509.458
2.5	3440.883	3440.883
5.0	3248.602	3245.913
7.5	2954.130	2967.576
10.0	2689.240	2695.963
12.5	2535.953	2529.230
15.0	2521.162	2523.852
17.5	2613.941	2619.320
20.0	2748.403	2753.782
22.5	2900.345	2909.758
25.0	3089.937	3102.038
27.5	3337.347	3349.448
30.0	3674.846	3690.982
32.5	4122.605	4141.430
35.0	4617.425	4637.594
37.5	5062.494	5061.150
40.0	5355.621	5355.621
42.5	5394.615	5395.960
45.0	5071.907	5027.534
47.5	4476.240	4461.449
50.0	3829.478	3816.032
52.5	3135.654	3118.174
55.0	2604.529	2596.461
57.5	2353.085	2343.673
60.0	2100.296	2084.161
62.5	1711.701	1709.012
65.0	1285.457	1274.700

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CANDELA TABULATION - (Cont.)

67.5	859.212	830.975
70.0	563.396	545.916
72.5	412.798	419.521
75.0	310.607	333.466
77.5	243.376	264.890
80.0	254.133	259.512
82.5	458.515	462.549
85.0	75.299	72.609
87.5	24.203	22.859
90.0	0.000	0.000

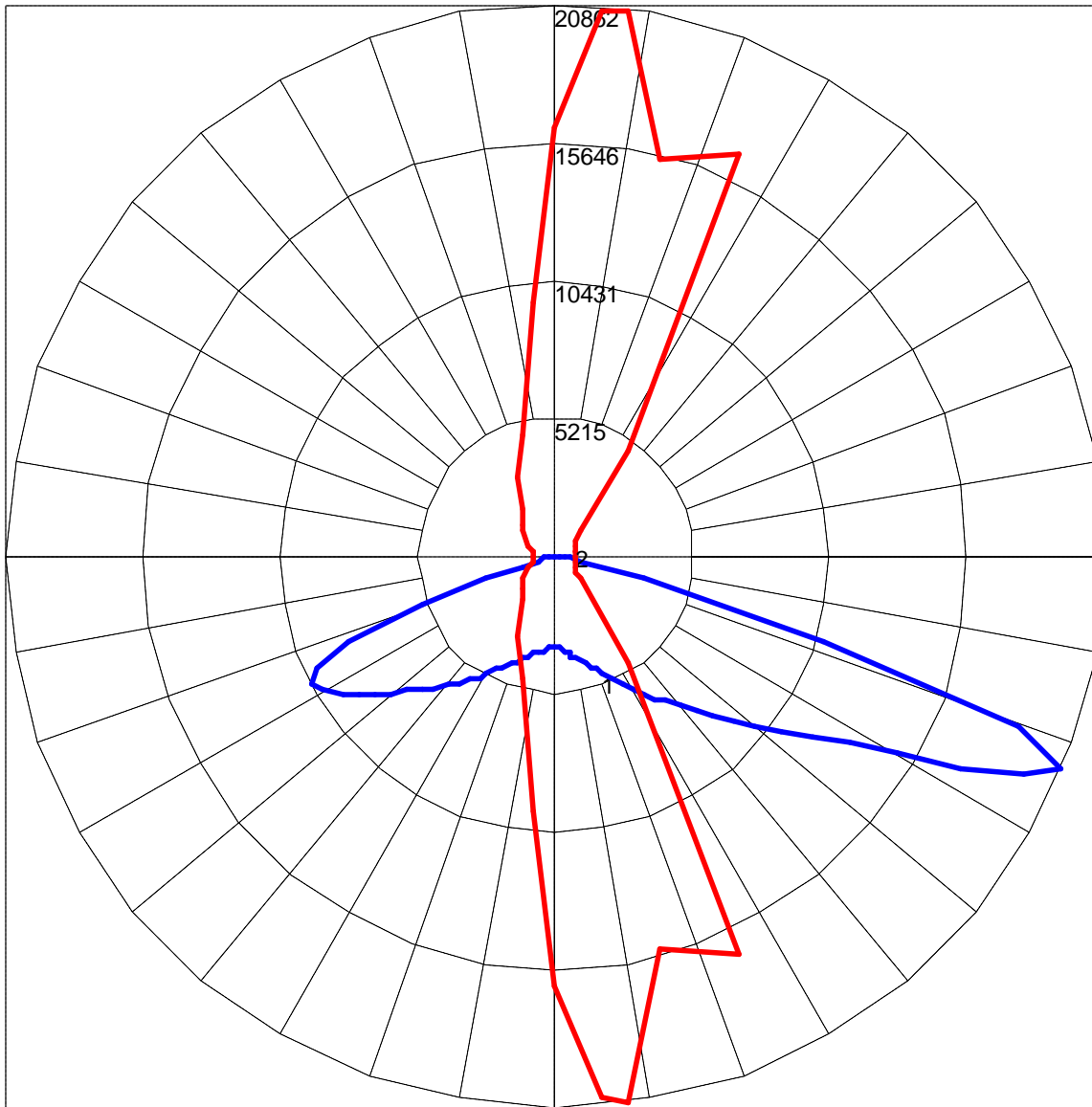
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

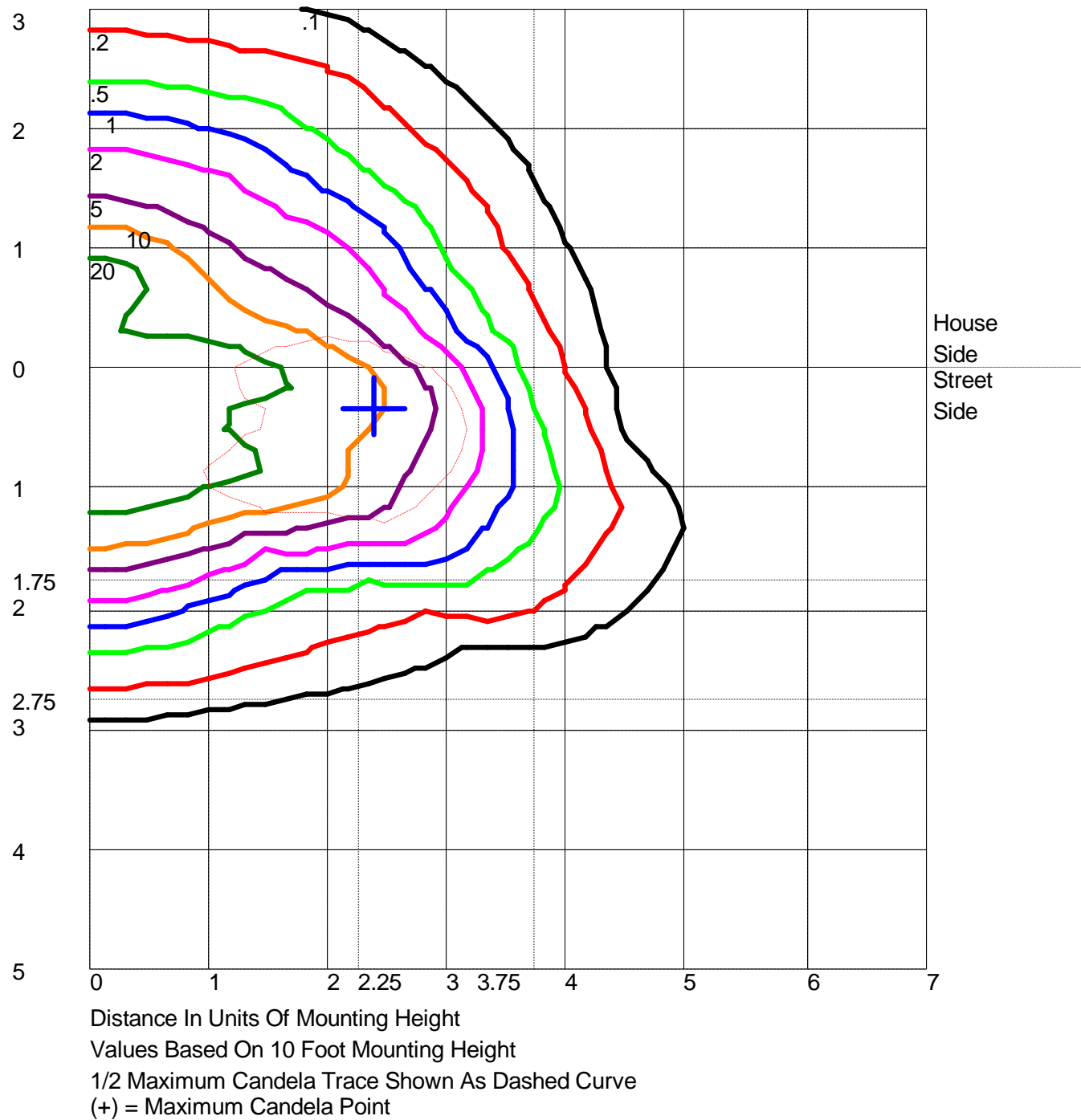
	Lumens	Percent Of Luminaire
Downward Street Side	15240.2	63.3
Downward House Side	8845.5	36.7
Downward Total	24085.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	24085.7	100.0

POLAR GRAPH

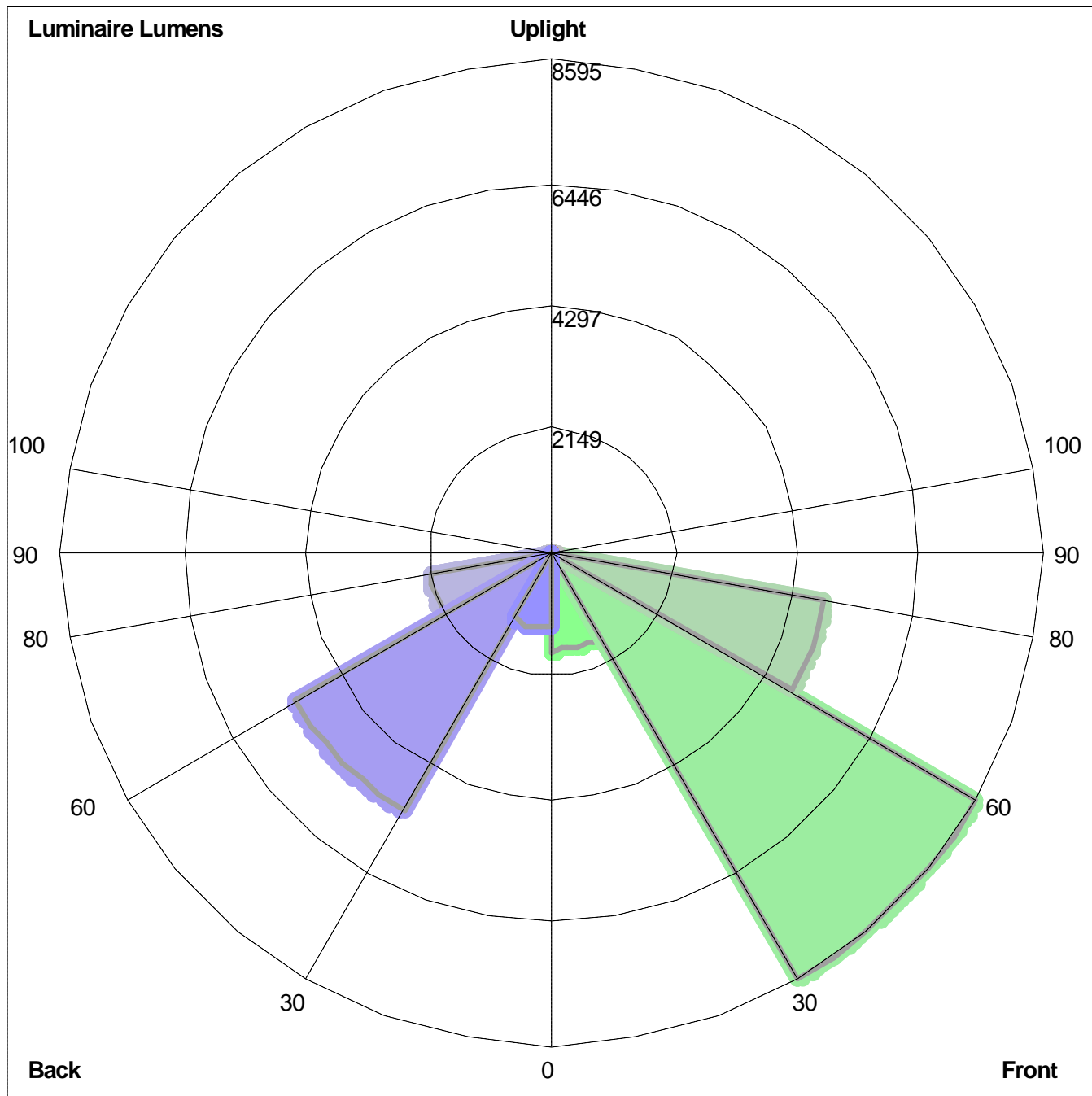


Maximum Candela = 20861.779 Located At Horizontal Angle = 82.5, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (82.5 - 262.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1715.6, Medium=8594.5, High=4853.2, Very High=76.9
Back: Low=1336.8, Medium=5222.4, High=2191.2, Very High=95.2
Uplight: Low=0.0, High=0.0

BUG Rating : B4-U0-G3