



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-2-LED-18L-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-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_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	16615
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	154.8
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	14390.783
Maximum Candela Angle	82.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	14390.783
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	678.032 (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)	1183.4	N.A.	7.1
FM - Front-Medium (30-60)	5928.6	N.A.	35.7
FH - Front-High (60-80)	3347.8	N.A.	20.1
FVH - Front-Very High (80-90)	53.0	N.A.	0.3
BL - Back-Low (0-30)	922.1	N.A.	5.6
BM - Back-Medium (30-60)	3602.5	N.A.	21.7
BH - Back-High (60-80)	1511.5	N.A.	9.1
BVH - Back-Very High (80-90)	65.7	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	16614.6	N.A.	100.0
BUG Rating	B3-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	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879
2.5	2461.691	2451.488	2469.111	2464.474	2466.329	2459.836	2446.851	2440.358	2437.575	2437.575
5.0	2506.213	2498.793	2514.561	2511.778	2515.488	2511.778	2500.648	2495.083	2483.025	2477.459
7.5	2529.402	2520.126	2540.532	2547.025	2560.938	2567.431	2561.865	2561.865	2549.807	2540.532
10.0	2521.981	2513.633	2542.387	2563.721	2597.112	2624.011	2636.069	2650.909	2640.706	2625.866
12.5	2469.111	2465.401	2508.996	2548.880	2609.170	2669.460	2712.127	2745.518	2743.663	2725.113
15.0	2409.749	2404.184	2457.981	2516.416	2599.895	2691.721	2779.837	2852.186	2867.954	2848.475
17.5	2361.517	2357.807	2417.169	2493.228	2595.257	2706.562	2837.345	2967.200	3013.577	2995.954
20.0	2343.894	2342.039	2407.894	2491.372	2604.532	2726.968	2885.577	3079.433	3175.897	3161.984
22.5	2364.299	2362.444	2426.445	2516.416	2636.069	2766.852	2929.171	3179.607	3344.709	3341.927
25.0	2418.097	2418.097	2483.952	2573.924	2695.431	2828.069	2987.606	3272.361	3520.942	3540.420
27.5	2520.126	2520.126	2579.489	2668.533	2785.403	2917.113	3066.447	3352.130	3696.247	3753.754
30.0	2663.895	2662.040	2723.257	2795.606	2904.128	3033.056	3173.114	3433.753	3871.552	3982.857
32.5	2843.838	2842.910	2901.345	2957.925	3045.114	3179.607	3308.535	3529.290	4053.350	4242.568
35.0	3092.418	3094.273	3144.361	3167.549	3219.491	3351.202	3476.420	3648.942	4224.017	4514.337
37.5	3438.391	3464.362	3485.695	3466.217	3454.159	3562.681	3692.537	3801.059	4391.902	4809.295
40.0	3986.567	3972.654	3980.074	3893.813	3791.784	3840.943	3949.465	3976.364	4561.642	5131.151
42.5	4623.787	4617.294	4619.149	4510.627	4298.220	4213.814	4266.684	4197.119	4733.237	5489.182
45.0	5230.398	5271.210	5325.935	5227.615	4984.600	4771.266	4735.092	4467.033	4903.904	5871.328
47.5	5575.443	5629.240	5770.226	5879.676	5797.125	5544.834	5386.225	4826.918	5109.818	6302.634
50.0	5441.877	5507.733	5736.835	6052.199	6335.098	6488.142	6343.446	5322.225	5356.544	6816.491
52.5	4977.180	5041.180	5321.297	5726.632	6308.200	7109.594	7565.944	6043.851	5670.052	7415.682
55.0	4284.307	4347.380	4636.772	5069.934	5797.125	7111.449	8850.587	7167.102	6096.720	8178.120
57.5	3352.130	3403.144	3584.015	4057.060	4878.860	6489.070	9677.952	8818.123	6672.723	9109.370
60.0	2245.574	2268.763	2328.125	2690.794	3476.420	5244.311	9817.083	10953.320	7441.653	10403.289
62.5	1446.035	1424.701	1437.687	1543.427	1993.283	3291.839	9062.993	12506.949	8476.788	11973.614
65.0	877.453	885.801	929.395	944.236	1088.004	1688.123	6898.115	12691.530	9642.706	13473.446
67.5	535.191	547.249	578.785	619.597	696.583	909.917	3353.985	11490.366	10661.145	14390.783
70.0	236.523	247.653	281.972	380.291	486.959	601.973	1463.658	8813.485	10190.882	12868.690
72.5	153.044	159.537	153.972	204.059	307.016	472.118	793.047	5145.992	7317.363	7393.421
75.0	117.798	123.363	114.087	145.624	201.276	329.277	537.973	2319.778	3627.609	2471.894
77.5	95.537	103.884	96.464	114.087	156.754	230.957	338.552	1073.164	1523.948	684.525
80.0	87.189	92.754	76.986	84.406	118.725	177.160	209.624	550.959	678.032	404.407
82.5	72.348	72.348	57.507	56.580	69.566	126.145	143.769	226.320	331.132	226.320
85.0	42.667	46.377	38.957	38.029	41.739	74.203	97.392	113.160	165.102	129.856
87.5	18.551	20.406	19.478	17.623	20.406	30.609	48.232	56.580	73.276	72.348
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	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879	2420.879
2.5	2439.430	2423.662	2424.590	2414.387	2413.459	2401.401	2391.198	2383.778	2378.213	2375.430
5.0	2475.604	2453.343	2446.851	2418.097	2391.198	2357.807	2320.705	2290.096	2265.053	2246.502
7.5	2535.894	2505.286	2490.445	2434.793	2377.285	2304.009	2225.168	2154.675	2101.806	2063.777
10.0	2616.590	2579.489	2553.518	2467.256	2363.372	2233.516	2107.371	1999.776	1927.428	1882.906
12.5	2714.910	2668.533	2630.503	2502.503	2340.183	2150.038	1976.588	1855.080	1791.080	1762.326
15.0	2834.562	2779.837	2725.113	2552.590	2314.212	2050.791	1853.225	1753.051	1727.079	1734.500
17.5	2979.258	2914.331	2842.910	2615.663	2290.096	1954.327	1760.471	1714.094	1739.138	1780.877
20.0	3142.506	3065.520	2978.331	2685.228	2254.850	1859.718	1715.949	1733.572	1795.717	1864.355
22.5	3327.086	3234.332	3138.795	2758.504	2205.690	1789.225	1726.152	1792.935	1879.196	1958.964
25.0	3525.580	3438.391	3313.173	2839.200	2148.183	1767.891	1776.239	1870.848	1984.936	2079.545
27.5	3740.769	3657.290	3506.101	2912.476	2092.530	1794.790	1850.442	1970.095	2113.864	2234.444

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CANDELA TABULATION - (Cont.)

30.0	3991.205	3888.248	3715.725	2980.186	2055.429	1859.718	1949.689	2113.864	2294.734	2448.706
32.5	4249.061	4142.394	3950.393	3035.838	2069.342	1955.254	2081.400	2307.720	2546.097	2753.866
35.0	4536.598	4430.859	4202.684	3084.998	2131.487	2084.182	2276.183	2570.213	2863.316	3095.201
37.5	4853.817	4749.932	4478.163	3136.940	2246.502	2249.285	2509.923	2867.026	3179.607	3403.144
40.0	5203.499	5106.108	4778.686	3197.230	2406.039	2467.256	2763.142	3135.085	3438.391	3637.812
42.5	5582.863	5491.037	5095.905	3270.506	2616.590	2682.446	2978.331	3322.448	3578.449	3712.015
45.0	6004.894	5919.560	5440.022	3366.970	2815.084	2865.171	3113.752	3380.883	3526.507	3533.927
47.5	6477.012	6400.954	5800.835	3493.116	2985.751	2969.983	3112.824	3239.897	3238.042	3161.056
50.0	7073.420	6946.347	6205.243	3642.450	3106.331	2947.722	2942.157	2905.055	2815.084	2724.185
52.5	7731.046	7592.842	6606.867	3800.131	3147.143	2807.664	2658.330	2527.547	2351.314	2253.922
55.0	8597.368	8371.049	7025.188	3966.161	3143.433	2610.098	2338.328	2139.835	1935.776	1853.225
57.5	9609.314	9235.516	7488.030	4127.553	3136.940	2410.676	2023.892	1832.819	1651.949	1640.818
60.0	10892.102	10227.984	7896.148	4270.394	3131.375	2226.096	1778.094	1656.586	1487.774	1488.702
62.5	12326.079	11220.451	8136.381	4279.670	3073.868	2034.095	1605.572	1544.354	1306.904	1249.396
65.0	13608.867	11804.802	7872.032	4009.755	2828.069	1799.428	1433.977	1342.150	1027.714	960.931
67.5	14231.246	11146.248	6625.418	3252.883	2327.198	1442.325	1164.990	1073.164	762.438	647.423
70.0	11983.817	8518.527	4244.423	2195.487	1632.470	1016.584	840.351	772.641	495.306	416.465
72.5	6392.606	4449.409	2123.139	1207.657	995.250	677.104	606.611	480.466	318.146	283.827
75.0	1873.631	1234.556	978.555	646.495	579.713	478.611	398.842	313.509	226.320	202.204
77.5	562.089	476.756	490.669	418.321	392.349	346.900	260.639	226.320	173.450	161.392
80.0	339.480	281.045	284.755	317.219	310.726	224.465	184.580	168.812	174.378	152.117
82.5	209.624	162.320	163.247	264.349	194.783	144.696	129.856	130.783	280.117	297.740
85.0	127.073	99.247	101.102	170.667	99.247	89.971	93.682	98.319	197.566	79.768
87.5	72.348	54.725	62.145	61.218	51.015	43.594	28.754	29.681	128.928	26.899
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

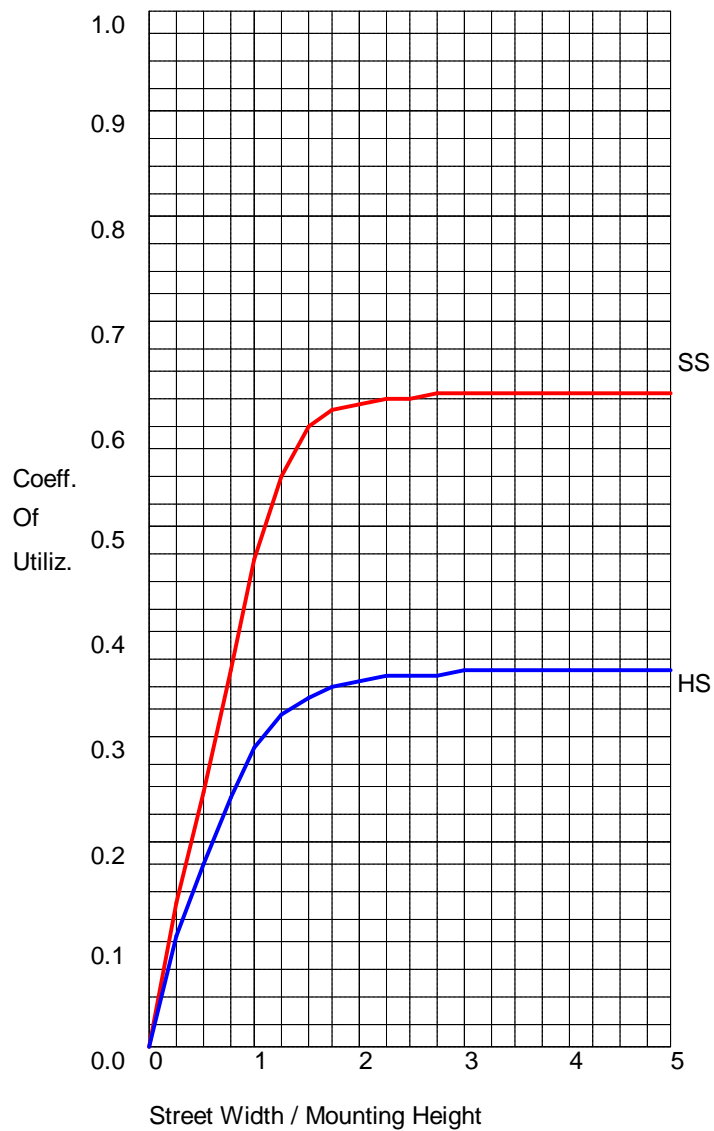
	175.0	180.0
0.0	2420.879	2420.879
2.5	2373.575	2373.575
5.0	2240.937	2239.082
7.5	2037.805	2047.081
10.0	1855.080	1859.718
12.5	1749.340	1744.703
15.0	1739.138	1740.993
17.5	1803.138	1806.848
20.0	1895.892	1899.602
22.5	2000.704	2007.197
25.0	2131.487	2139.835
27.5	2302.154	2310.502
30.0	2534.967	2546.097
32.5	2843.838	2856.823
35.0	3185.172	3199.085
37.5	3492.188	3491.261
40.0	3694.392	3694.392
42.5	3721.290	3722.218
45.0	3498.681	3468.072
47.5	3087.781	3077.578
50.0	2641.634	2632.359
52.5	2163.023	2150.965
55.0	1796.645	1791.080
57.5	1623.195	1616.702
60.0	1448.817	1437.687
62.5	1180.758	1178.903
65.0	886.728	879.308

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CANDELA TABULATION - (Cont.)

67.5	592.698	573.220
70.0	388.639	376.581
72.5	284.755	289.392
75.0	214.262	230.030
77.5	167.885	182.725
80.0	175.305	179.015
82.5	316.291	319.074
85.0	51.942	50.087
87.5	16.696	15.768
90.0	0.000	0.000

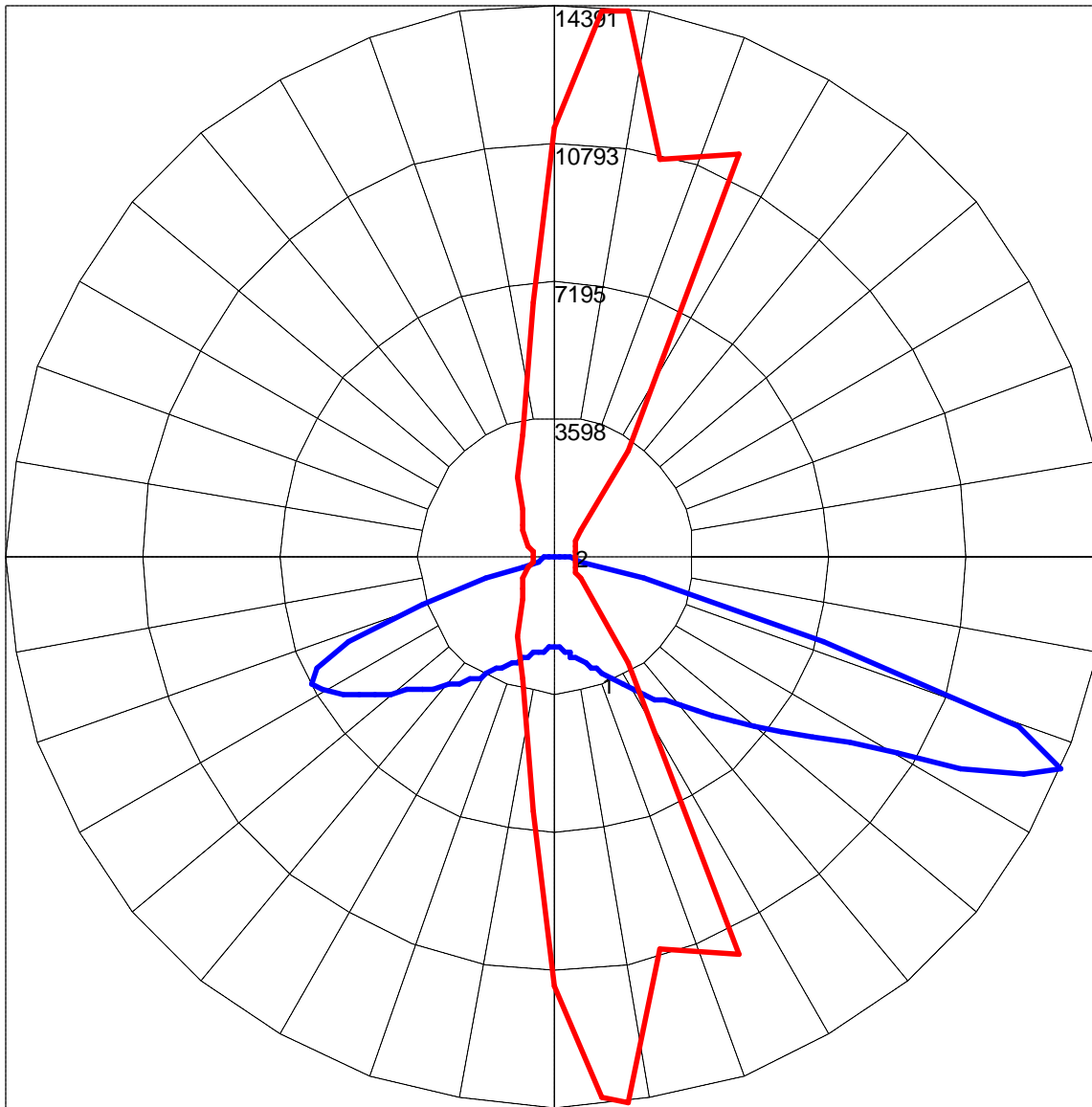
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

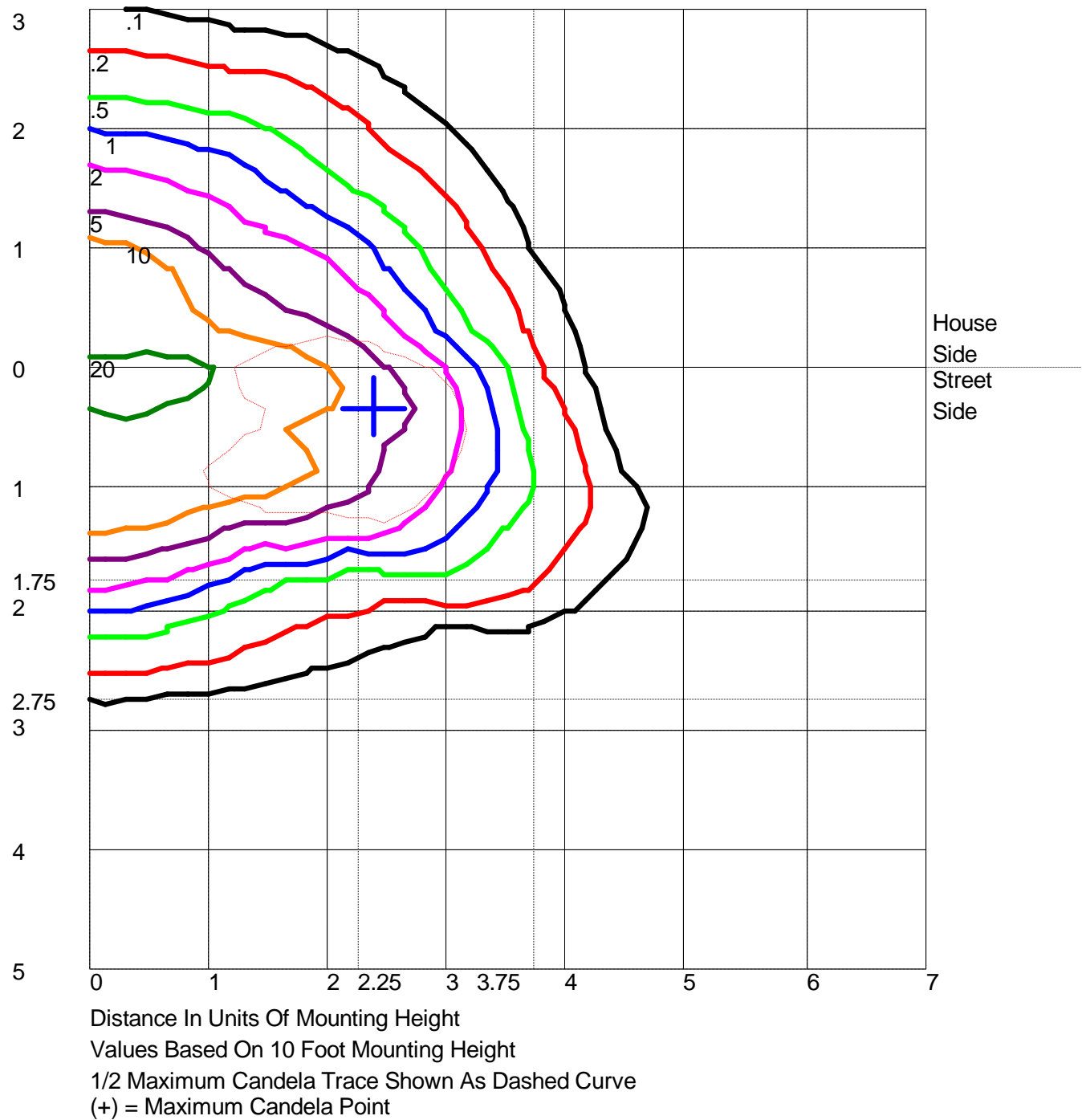
	Lumens	Percent Of Luminaire
Downward Street Side	10512.9	63.3
Downward House Side	6101.8	36.7
Downward Total	16614.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	16614.7	100.0

POLAR GRAPH

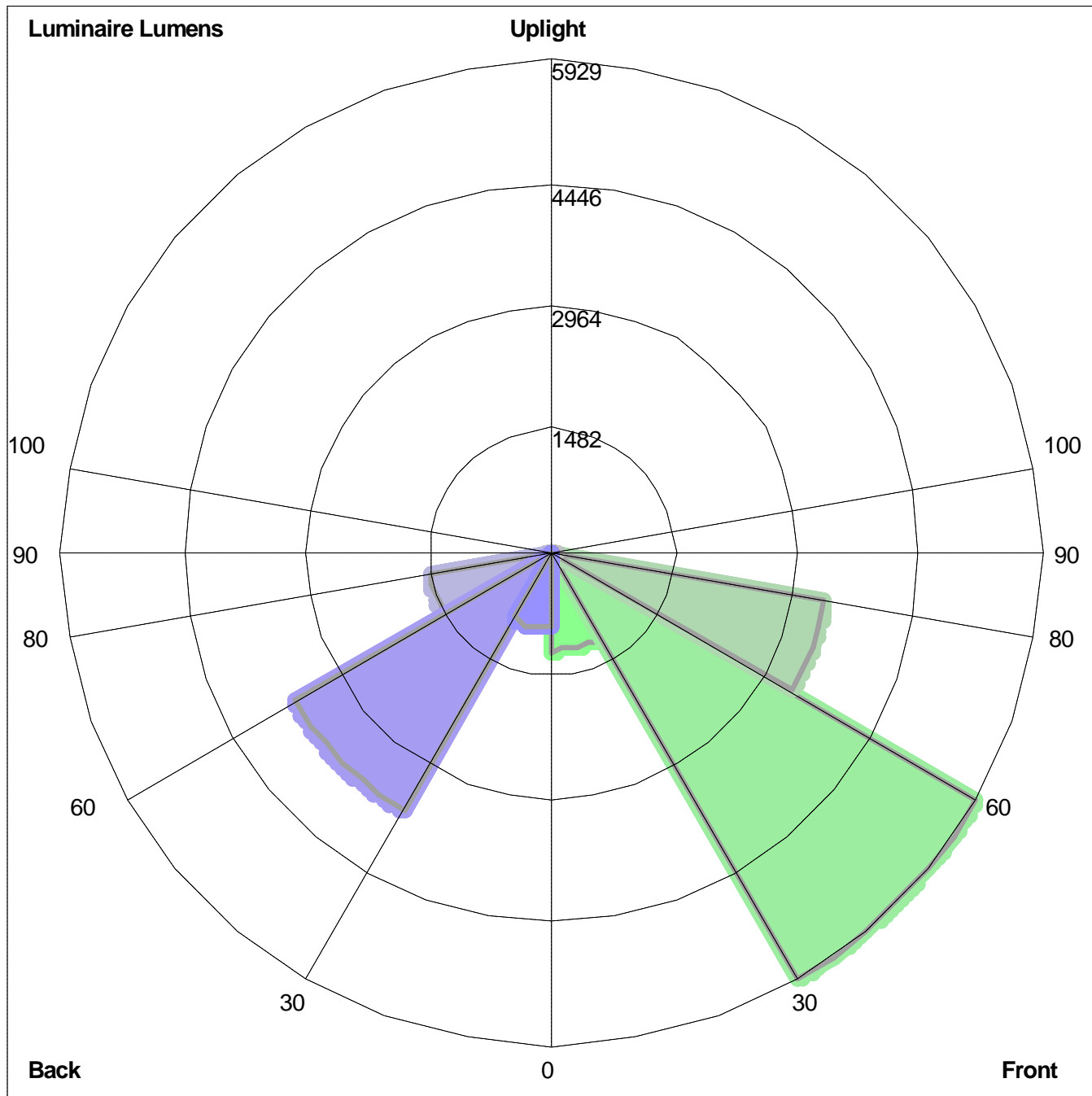


Maximum Candela = 14390.783 Located At Horizontal Angle = 82.5, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (82.5 - 262.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1183.4, Medium=5928.6, High=3347.8, Very High=53.0
Back: Low=922.1, Medium=3602.5, High=1511.5, Very High=65.7
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3