



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-5W-LED-18L-30-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-7766_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]04/03/17
[TEST DATE]04/29/16
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT] HLN-5W-LED-18L-30-IL
[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	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10365
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	68
Total Luminaire Watts	153
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	9588.695
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	9588.695
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	270.709 (2.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	794.8	N.A.	7.7
FM - Front-Medium (30-60)	4211.3	N.A.	40.6
FH - Front-High (60-80)	3703.7	N.A.	35.7
FVH - Front-Very High (80-90)	32.1	N.A.	0.3
BL - Back-Low (0-30)	358.3	N.A.	3.5
BM - Back-Medium (30-60)	787.6	N.A.	7.6
BH - Back-High (60-80)	473.9	N.A.	4.6
BVH - Back-Very High (80-90)	2.9	N.A.	0.0
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	10364.6	N.A.	100.0
BUG Rating	B1-U0-G2		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0	5	15	25	35	45	50	55	65	75
0.0	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382
2.5	1186.212	1182.708	1176.575	1173.071	1166.939	1162.558	1157.302	1156.426	1148.541	1136.276
5.0	1277.325	1273.820	1265.936	1258.927	1247.538	1235.273	1225.636	1219.503	1200.230	1173.947
7.5	1378.950	1375.446	1366.685	1355.296	1339.526	1321.129	1307.987	1296.598	1265.936	1225.636
10.0	1481.451	1478.823	1470.938	1462.177	1445.532	1423.630	1406.984	1391.215	1347.411	1290.466
12.5	1586.581	1584.829	1586.581	1573.440	1560.298	1538.396	1520.875	1500.725	1444.656	1369.313
15.0	1696.091	1694.339	1700.471	1704.852	1687.330	1668.056	1653.163	1626.881	1557.670	1460.425
17.5	1812.609	1813.486	1829.255	1836.264	1836.264	1822.246	1797.716	1766.177	1683.826	1562.927
20.0	1930.004	1937.889	1954.534	1974.684	1986.949	1978.189	1956.287	1919.491	1823.122	1676.817
22.5	2062.292	2058.788	2085.070	2118.361	2147.272	2147.272	2127.998	2085.946	1972.056	1793.336
25.0	2194.580	2191.076	2225.243	2271.675	2314.603	2326.868	2312.851	2276.056	2128.874	1912.483
27.5	2341.762	2340.010	2377.681	2434.626	2490.695	2517.854	2506.465	2470.546	2294.453	2033.382
30.0	2492.448	2489.819	2535.375	2601.958	2672.920	2713.220	2705.335	2659.779	2454.776	2156.033
32.5	2651.018	2649.266	2700.078	2771.917	2855.145	2920.851	2903.329	2848.136	2622.983	2282.188
35.0	2827.986	2833.243	2877.923	2948.009	3039.121	3113.588	3099.571	3034.741	2786.810	2414.476
37.5	3011.087	3018.096	3061.023	3129.358	3224.850	3308.078	3302.822	3221.346	2952.390	2559.030
40.0	3203.824	3210.833	3259.018	3316.839	3421.092	3499.940	3499.063	3411.455	3117.969	2699.202
42.5	3407.075	3415.836	3463.144	3527.098	3609.450	3689.173	3693.553	3605.945	3286.176	2844.632
45.0	3595.432	3604.193	3655.006	3725.092	3806.567	3887.167	3894.175	3800.435	3458.764	3003.202
47.5	3780.285	3786.418	3851.248	3913.449	4011.570	4114.948	4126.337	4010.694	3635.732	3168.781
50.0	3980.031	3975.651	4035.224	4104.435	4209.564	4345.357	4366.383	4237.599	3820.585	3355.386
52.5	4172.769	4164.008	4223.582	4302.429	4426.832	4602.048	4627.454	4493.414	4038.729	3568.274
55.0	4356.746	4348.861	4429.460	4540.723	4667.754	4903.420	4933.206	4794.786	4281.403	3811.824
57.5	4524.077	4524.953	4613.437	4776.388	4977.886	5296.780	5317.805	5161.863	4593.287	4103.559
60.0	4635.339	4644.100	4804.423	5057.610	5361.609	5780.376	5844.330	5636.699	4975.258	4469.760
62.5	4616.941	4637.967	4920.941	5360.733	5853.966	6436.560	6534.681	6274.485	5454.474	4880.642
65.0	4397.045	4415.443	4791.281	5505.287	6514.531	7491.360	7633.285	7255.694	6259.591	5594.647
67.5	3207.329	3229.231	3796.931	5028.699	6702.888	9084.949	9427.497	8739.774	7039.303	6057.217
70.0	1061.809	996.979	1624.252	3214.337	5702.405	8913.238	9588.695	8840.523	6383.995	4849.103
72.5	261.948	270.709	343.423	806.870	3087.306	6797.505	7426.530	6600.387	3993.173	2555.525
75.0	157.694	161.199	176.092	238.294	653.556	2795.571	3673.403	2820.101	1450.788	869.071
77.5	93.741	93.741	103.377	125.279	210.259	573.832	935.653	858.558	498.490	325.026
80.0	49.060	49.937	56.069	68.334	94.617	161.199	243.550	270.709	252.311	197.118
82.5	25.406	25.406	28.911	37.671	49.937	75.343	91.988	113.014	155.942	147.181
85.0	10.513	11.389	13.141	17.522	25.406	38.548	48.184	58.697	89.360	122.651
87.5	6.133	6.133	7.885	10.513	14.017	21.026	26.282	35.919	63.954	105.130
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									
	85	90	95	105	115	125	135	145	155	165
0.0	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382	1121.382
2.5	1128.391	1124.887	1120.506	1104.737	1102.109	1095.976	1089.843	1085.463	1081.083	1078.454
5.0	1151.169	1139.780	1128.391	1098.604	1080.207	1060.057	1041.659	1027.642	1014.501	1005.740
7.5	1185.336	1166.939	1145.913	1099.480	1064.437	1029.394	996.979	969.821	950.547	932.149
10.0	1232.645	1204.610	1174.823	1108.241	1055.676	1003.988	957.555	919.884	893.602	871.700
12.5	1294.846	1254.547	1209.866	1121.382	1049.544	982.962	925.140	879.584	845.417	824.391
15.0	1362.304	1308.863	1254.547	1138.904	1046.916	967.192	899.734	852.426	813.878	790.224
17.5	1436.771	1368.437	1300.979	1158.178	1047.792	958.431	888.345	835.780	763.942	664.069
20.0	1513.866	1430.639	1348.287	1181.832	1053.924	957.555	885.717	752.553	542.294	434.536
22.5	1591.837	1491.088	1394.719	1210.743	1067.941	968.944	835.780	526.524	395.112	357.441
25.0	1672.437	1555.042	1443.780	1242.281	1091.596	987.342	636.034	402.121	355.688	339.043
27.5	1756.540	1623.376	1499.849	1279.953	1126.639	926.893	459.942	366.201	346.052	326.778

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CANDELA TABULATION - (Cont.)

30.0	1845.901	1699.595	1564.679	1328.137	1166.939	721.890	389.856	359.193	338.167	317.141
32.5	1940.517	1782.823	1637.393	1388.587	1209.866	530.904	374.086	354.812	330.282	304.876
35.0	2043.895	1874.811	1717.993	1458.673	1170.443	428.403	372.334	351.308	322.397	293.487
37.5	2156.033	1979.065	1814.362	1540.149	1008.368	401.245	371.458	347.804	314.513	282.098
40.0	2287.445	2098.212	1929.128	1640.898	802.489	402.121	373.210	346.928	304.000	247.931
42.5	2418.857	2236.632	2052.655	1752.160	611.504	407.377	377.590	341.671	254.063	192.738
45.0	2578.303	2389.070	2196.333	1872.183	503.746	416.138	382.847	295.239	187.481	150.686
47.5	2746.511	2555.525	2371.548	1959.791	481.844	428.403	376.714	217.268	143.677	124.403
50.0	2929.611	2739.502	2548.517	1885.324	494.985	439.792	316.265	155.942	118.271	105.130
52.5	3144.251	2955.894	2760.528	1672.437	515.135	449.429	220.772	120.899	100.749	91.112
55.0	3400.066	3210.833	3004.954	1398.224	539.665	409.129	149.810	101.625	86.732	77.971
57.5	3689.173	3499.063	3287.928	1150.293	571.204	287.354	113.014	87.608	74.467	63.954
60.0	4047.489	3853.876	3660.262	1023.261	620.265	172.588	95.493	75.343	59.573	49.060
62.5	4462.751	4288.411	4061.507	1079.331	634.282	111.262	80.599	60.450	46.432	46.432
65.0	5103.166	4927.950	4658.993	1200.230	548.426	84.104	66.582	55.193	56.945	83.228
67.5	5448.341	5263.488	4914.809	1194.973	483.596	90.236	83.228	145.429	102.501	115.643
70.0	4163.132	4063.259	3543.744	875.204	404.749	112.138	126.156	133.164	107.758	192.738
72.5	2074.557	2057.912	1474.443	307.504	209.383	113.014	114.766	174.340	191.862	205.879
75.0	675.458	659.688	406.501	108.634	84.104	48.184	119.147	190.109	120.023	71.839
77.5	239.170	214.640	127.908	51.689	33.291	20.150	74.467	77.971	17.522	4.380
80.0	152.438	127.032	75.343	28.911	12.265	5.256	14.893	7.009	0.876	0.000
82.5	106.882	80.599	48.184	11.389	3.504	1.752	3.504	0.876	0.000	0.000
85.0	69.210	46.432	21.902	0.876	0.876	0.876	0.876	0.000	0.000	0.000
87.5	40.300	16.646	2.628	0.876	0.000	0.000	0.000	0.000	0.000	0.000
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

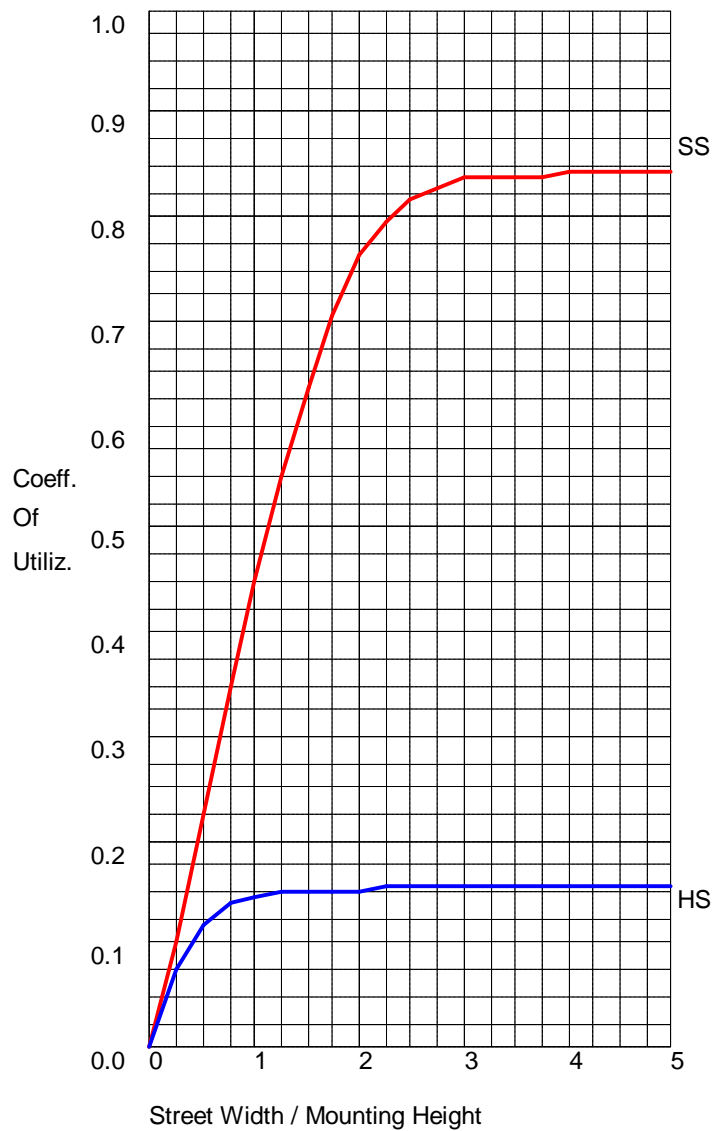
	175	180
0.0	1121.382	1121.382
2.5	1071.446	1069.694
5.0	996.103	994.351
7.5	925.140	921.636
10.0	861.187	857.682
12.5	813.878	809.498
15.0	777.083	773.579
17.5	617.636	610.628
20.0	407.377	402.997
22.5	345.176	342.547
25.0	330.282	327.654
27.5	317.141	314.513
30.0	304.000	301.372
32.5	289.982	287.354
35.0	277.717	274.213
37.5	261.072	257.568
40.0	219.020	216.392
42.5	171.712	170.836
45.0	139.297	138.421
47.5	117.395	117.395
50.0	100.749	101.625
52.5	86.732	85.856
55.0	73.591	72.715
57.5	57.821	56.945
60.0	43.804	42.928
62.5	48.184	45.556
65.0	72.715	60.450

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CANDELA TABULATION - (Cont.)

67.5	88.484	74.467
70.0	150.686	136.668
72.5	128.784	113.890
75.0	39.424	28.035
77.5	0.000	0.000
80.0	0.000	0.000
82.5	0.000	0.000
85.0	0.000	0.000
87.5	0.000	0.000
90.0	0.000	0.000

COEFFICIENTS OF UTILIZATION

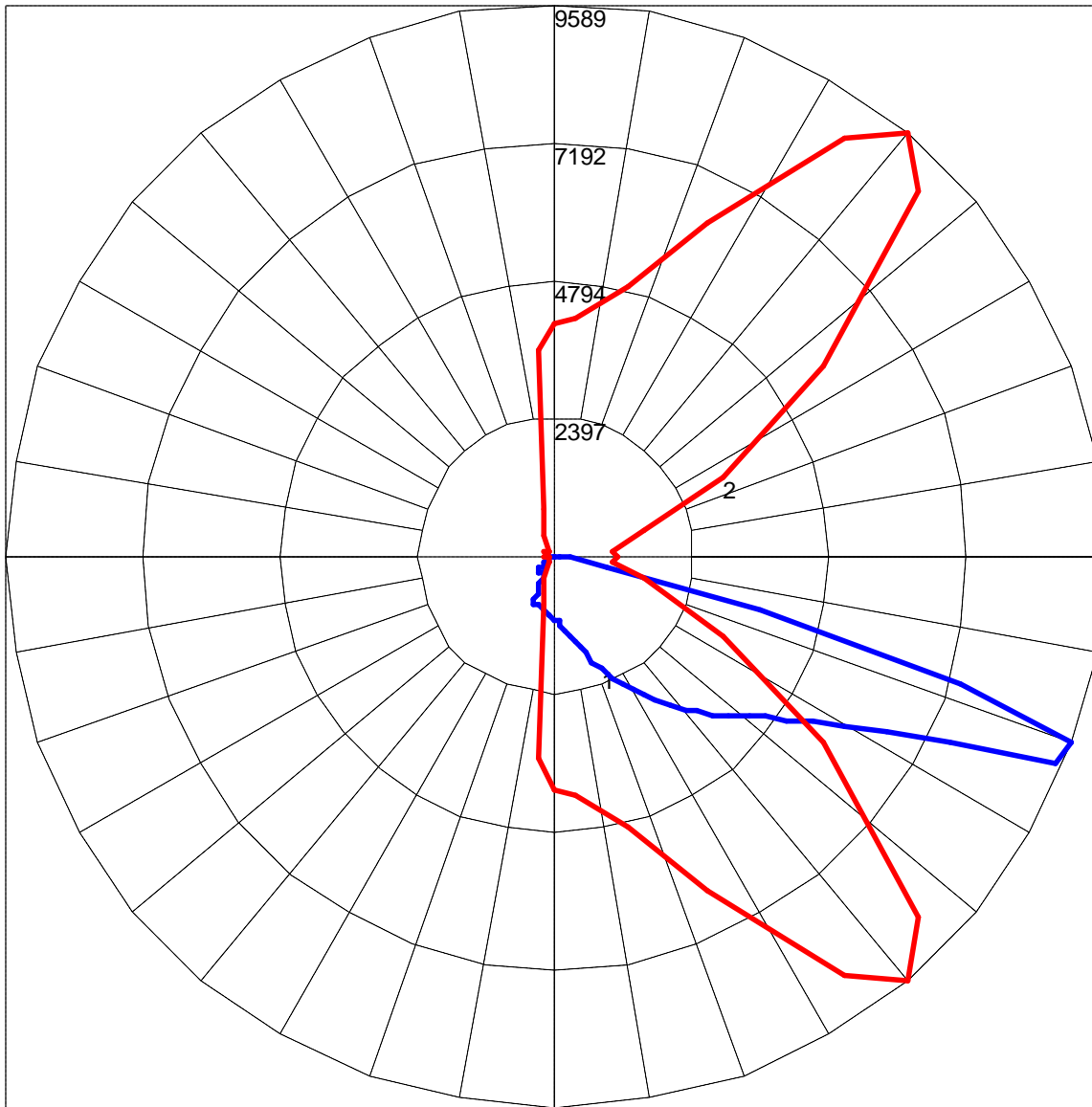


FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	8742.0	84.3
Downward House Side	1622.7	15.7
Downward Total	10364.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	10364.7	100.0

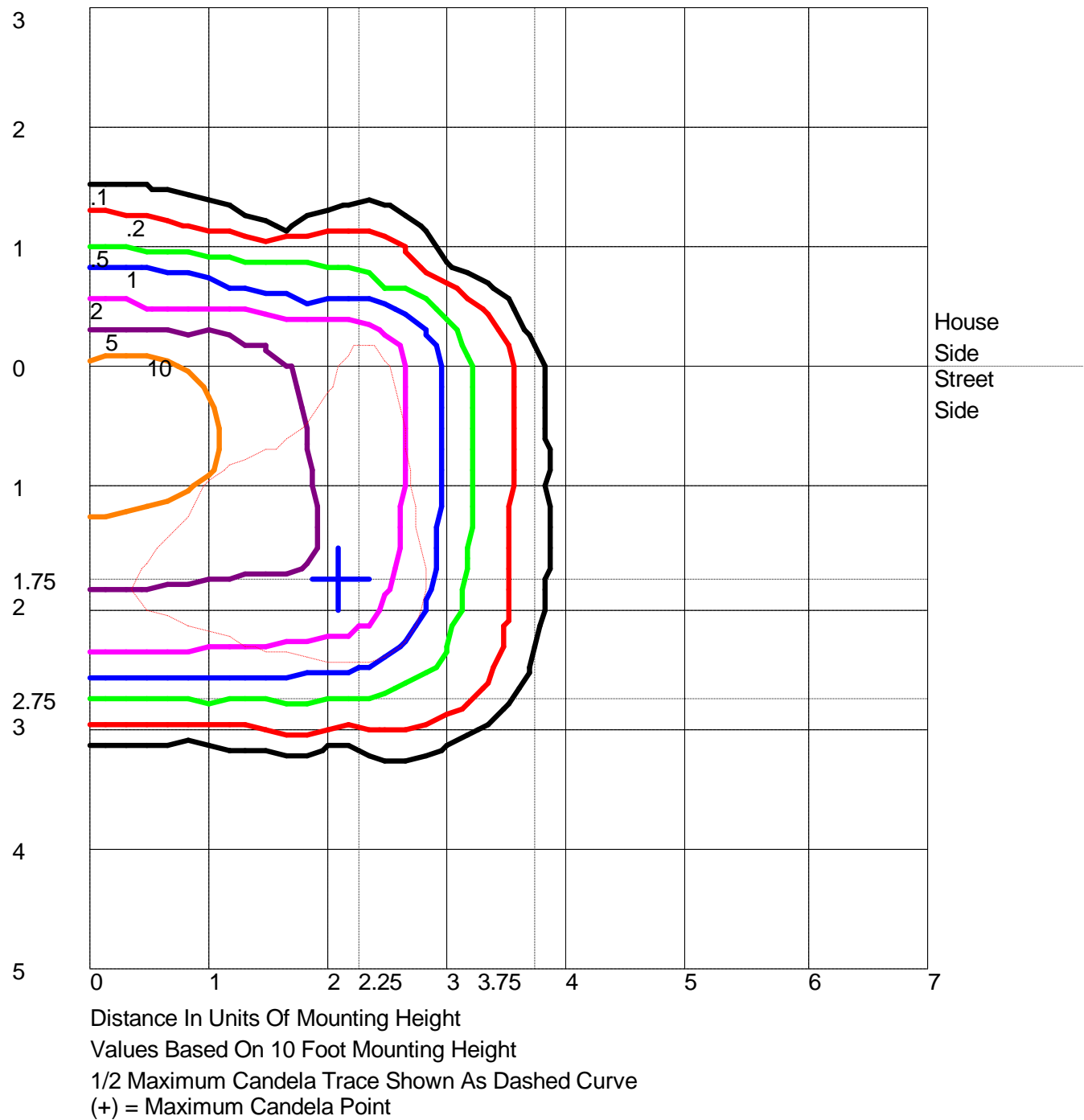
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POLAR GRAPH

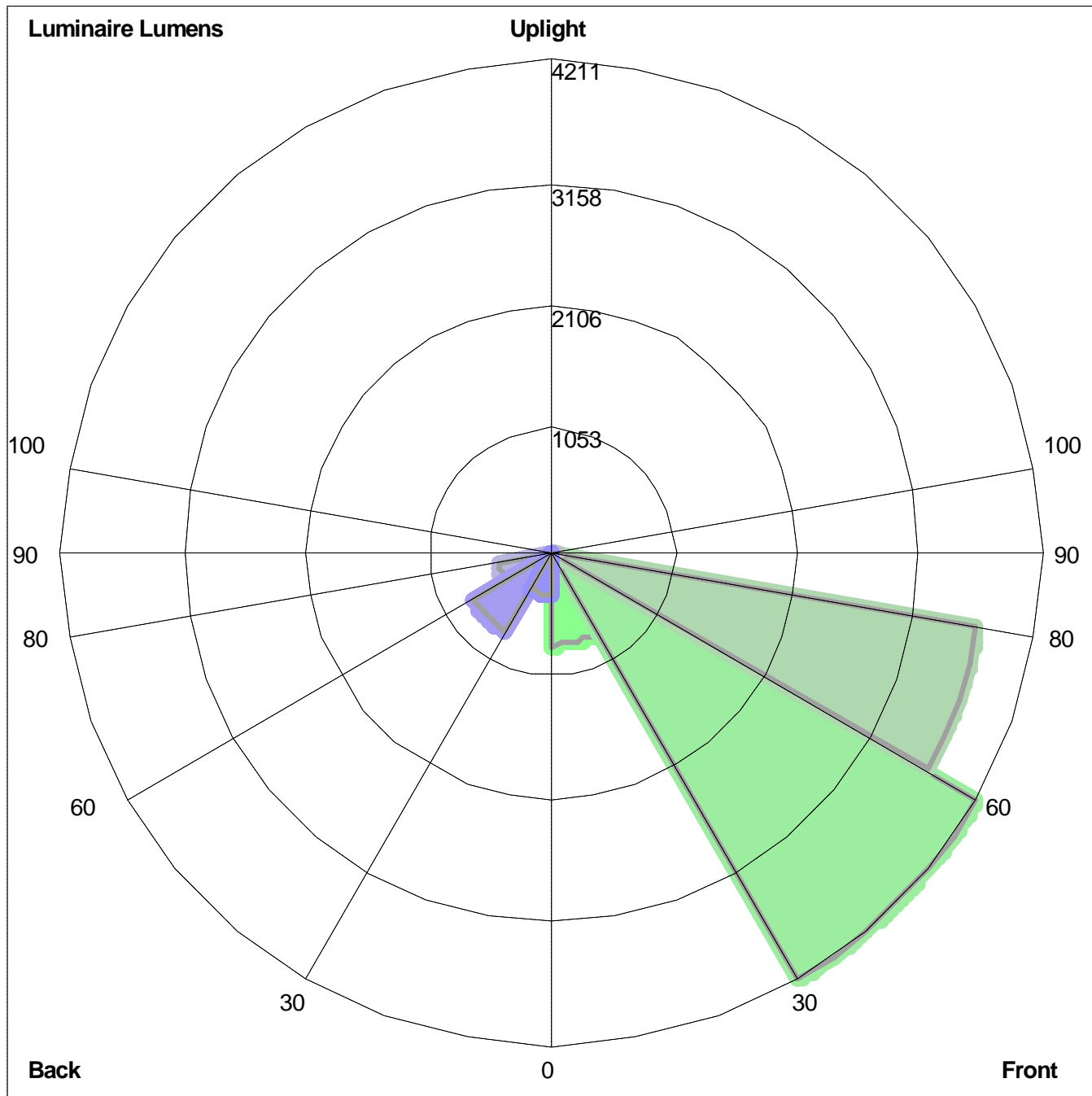


Maximum Candela = 9588.695 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=794.8, Medium=4211.3, High=3703.7, Very High=32.1
Back: Low=358.3, Medium=787.6, High=473.9, Very High=2.9
Uplight: Low=0.0, High=0.0

BUG Rating : B1-U0-G2