



IES ROAD REPORT
PHOTOMETRIC FILENAME : HLN-5W-LED-18L-40-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-40-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	11169
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	73
Total Luminaire Watts	153
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	10332.518
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	10332.518
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	291.708 (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)	856.5	N.A.	7.7
FM - Front-Medium (30-60)	4538.0	N.A.	40.6
FH - Front-High (60-80)	3991.1	N.A.	35.7
FVH - Front-Very High (80-90)	34.6	N.A.	0.3
BL - Back-Low (0-30)	386.1	N.A.	3.5
BM - Back-Medium (30-60)	848.7	N.A.	7.6
BH - Back-High (60-80)	510.7	N.A.	4.6
BVH - Back-Very High (80-90)	3.2	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	11168.9	N.A.	100.0
BUG Rating	B2-U0-G2		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>15</u>	<u>25</u>	<u>35</u>	<u>45</u>	<u>50</u>	<u>55</u>	<u>65</u>	<u>75</u>
0.0	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371
2.5	1278.230	1274.454	1267.846	1264.070	1257.461	1252.741	1247.077	1246.133	1237.636	1224.420
5.0	1376.410	1372.634	1364.138	1356.585	1344.313	1331.096	1320.712	1314.104	1293.335	1265.014
7.5	1485.919	1482.143	1472.702	1460.430	1443.437	1423.612	1409.452	1397.179	1364.138	1320.712
10.0	1596.372	1593.540	1585.043	1575.603	1557.666	1534.065	1516.128	1499.136	1451.934	1390.571
12.5	1709.656	1707.768	1709.656	1695.496	1681.335	1657.734	1638.853	1617.141	1556.722	1475.535
15.0	1827.661	1825.773	1832.382	1837.102	1818.221	1797.452	1781.403	1753.082	1678.503	1573.715
17.5	1953.219	1954.163	1971.156	1978.708	1978.708	1963.603	1937.170	1903.185	1814.445	1684.167
20.0	2079.720	2088.216	2106.153	2127.866	2141.083	2131.642	2108.041	2068.392	1964.547	1806.893
22.5	2222.270	2218.494	2246.815	2282.689	2313.842	2313.842	2293.073	2247.759	2125.034	1932.450
25.0	2364.820	2361.044	2397.862	2447.896	2494.154	2507.370	2492.266	2452.616	2294.017	2060.839
27.5	2523.419	2521.531	2562.125	2623.487	2683.906	2713.171	2700.898	2662.193	2472.441	2191.117
30.0	2685.794	2682.962	2732.052	2803.799	2880.266	2923.692	2915.196	2866.105	2645.200	2323.282
32.5	2856.665	2854.777	2909.531	2986.943	3076.626	3147.429	3128.549	3069.074	2826.456	2459.224
35.0	3047.361	3053.025	3101.171	3176.695	3274.875	3355.118	3340.014	3270.155	3002.991	2601.774
37.5	3244.665	3252.218	3298.476	3372.111	3475.011	3564.695	3559.031	3471.235	3181.415	2757.541
40.0	3452.354	3459.907	3511.829	3574.135	3686.476	3771.440	3770.496	3676.092	3359.838	2908.587
42.5	3671.372	3680.812	3731.790	3800.705	3889.445	3975.352	3980.073	3885.669	3541.094	3065.298
45.0	3874.340	3883.781	3938.535	4014.058	4101.854	4188.705	4196.258	4095.246	3727.070	3236.169
47.5	4073.533	4080.141	4150.000	4217.027	4322.759	4434.156	4446.428	4321.815	3917.766	3414.593
50.0	4288.774	4284.054	4348.248	4422.827	4536.112	4682.438	4705.095	4566.321	4116.958	3615.673
52.5	4496.463	4487.022	4551.217	4636.180	4770.234	4959.042	4986.419	4841.981	4352.024	3845.075
55.0	4694.711	4686.215	4773.066	4892.959	5029.845	5283.792	5315.889	5166.731	4613.523	4107.518
57.5	4875.023	4875.967	4971.315	5146.906	5364.035	5707.666	5730.323	5562.284	4949.602	4421.883
60.0	4994.916	5004.356	5177.115	5449.943	5777.525	6228.776	6297.691	6073.953	5361.203	4816.492
62.5	4975.091	4997.748	5302.673	5776.581	6308.075	6935.862	7041.594	6761.214	5877.593	5259.247
65.0	4738.137	4757.962	5162.955	5932.347	7019.881	8072.486	8225.421	7818.539	6745.166	6028.639
67.5	3456.130	3479.731	4091.469	5418.790	7222.850	9789.695	10158.814	9417.743	7585.361	6527.093
70.0	1144.176	1074.318	1750.250	3463.683	6144.756	9604.663	10332.518	9526.308	6879.219	5225.261
72.5	282.268	291.708	370.064	869.461	3326.797	7324.806	8002.627	7112.397	4302.934	2753.765
75.0	169.927	173.703	189.752	256.779	704.254	3012.432	3958.360	3038.865	1563.330	936.488
77.5	101.012	101.012	111.397	134.998	226.570	618.346	1008.235	925.159	537.159	350.239
80.0	52.866	53.810	60.419	73.635	101.956	173.703	262.443	291.708	271.884	212.409
82.5	27.377	27.377	31.153	40.594	53.810	81.187	99.124	121.781	168.039	158.599
85.0	11.328	12.273	14.161	18.881	27.377	41.538	51.922	63.251	96.292	132.166
87.5	6.608	6.608	8.496	11.328	15.105	22.657	28.321	38.706	68.915	113.285
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</u>	<u>90</u>	<u>95</u>	<u>105</u>	<u>115</u>	<u>125</u>	<u>135</u>	<u>145</u>	<u>155</u>	<u>165</u>
0.0	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371	1208.371
2.5	1215.924	1212.147	1207.427	1190.434	1187.602	1180.994	1174.386	1169.666	1164.945	1162.113
5.0	1240.469	1228.196	1215.924	1183.826	1164.001	1142.288	1122.464	1107.359	1093.198	1083.758
7.5	1277.286	1257.461	1234.804	1184.770	1147.009	1109.247	1074.318	1045.052	1024.283	1004.459
10.0	1328.264	1298.055	1265.958	1194.211	1137.568	1081.870	1031.836	991.242	962.921	939.320
12.5	1395.291	1351.865	1303.719	1208.371	1130.960	1059.213	996.906	947.816	910.999	888.342
15.0	1467.982	1410.396	1351.865	1227.252	1128.128	1042.220	969.529	918.551	877.013	851.524
17.5	1548.226	1474.590	1401.899	1248.021	1129.072	1032.780	957.257	900.614	823.203	715.582
20.0	1631.301	1541.617	1452.878	1273.510	1135.680	1031.836	954.424	810.930	584.361	468.244
22.5	1715.321	1606.756	1502.912	1304.663	1150.785	1044.108	900.614	567.368	425.762	385.168
25.0	1802.172	1675.671	1555.778	1338.649	1176.274	1063.933	685.373	433.314	383.280	365.343
27.5	1892.800	1749.306	1616.196	1379.242	1214.035	998.794	495.621	394.609	372.896	352.127

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CANDELA TABULATION - (Cont.)

30.0	1989.092	1831.438	1686.055	1431.165	1257.461	777.889	420.098	387.056	364.399	341.742
32.5	2091.049	1921.121	1764.411	1496.303	1303.719	572.088	403.105	382.336	355.903	328.526
35.0	2202.445	2020.246	1851.262	1571.827	1261.237	461.636	401.217	378.560	347.407	316.253
37.5	2323.282	2132.586	1955.107	1659.622	1086.590	432.370	400.273	374.784	338.910	303.981
40.0	2464.888	2260.976	2078.776	1768.187	864.741	433.314	402.161	373.840	327.582	267.163
42.5	2606.494	2410.134	2211.886	1888.080	658.940	438.979	406.881	368.176	273.772	207.689
45.0	2778.310	2574.397	2366.708	2017.413	542.823	448.419	412.545	318.141	202.025	162.375
47.5	2959.565	2753.765	2555.516	2111.817	519.222	461.636	405.937	234.122	154.823	134.054
50.0	3156.870	2952.013	2746.212	2031.574	533.383	473.908	340.798	168.039	127.445	113.285
52.5	3388.160	3185.191	2974.670	1802.172	555.096	484.293	237.898	130.278	108.565	98.180
55.0	3663.819	3459.907	3238.057	1506.688	581.529	440.867	161.431	109.509	93.460	84.020
57.5	3975.352	3770.496	3542.982	1239.525	615.514	309.645	121.781	94.404	80.243	68.915
60.0	4361.465	4152.832	3944.199	1102.639	668.380	185.976	102.900	81.187	64.195	52.866
62.5	4808.940	4621.076	4376.569	1163.057	683.485	119.893	86.852	65.139	50.034	50.034
65.0	5499.033	5310.225	5020.405	1293.335	590.969	90.628	71.747	59.475	61.363	89.684
67.5	5870.985	5671.792	5296.064	1287.671	521.110	97.236	89.684	156.711	110.453	124.613
70.0	4486.078	4378.458	3818.642	943.096	436.146	120.837	135.942	143.494	116.117	207.689
72.5	2235.487	2217.550	1588.819	331.358	225.626	121.781	123.669	187.864	206.745	221.849
75.0	727.855	710.862	438.035	117.061	90.628	51.922	128.389	204.857	129.333	77.411
77.5	257.723	231.290	137.830	55.698	35.874	21.713	80.243	84.020	18.881	4.720
80.0	164.263	136.886	81.187	31.153	13.217	5.664	16.049	7.552	0.944	0.000
82.5	115.173	86.852	51.922	12.273	3.776	1.888	3.776	0.944	0.000	0.000
85.0	74.579	50.034	23.601	0.944	0.944	0.944	0.944	0.000	0.000	0.000
87.5	43.426	17.937	2.832	0.944	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

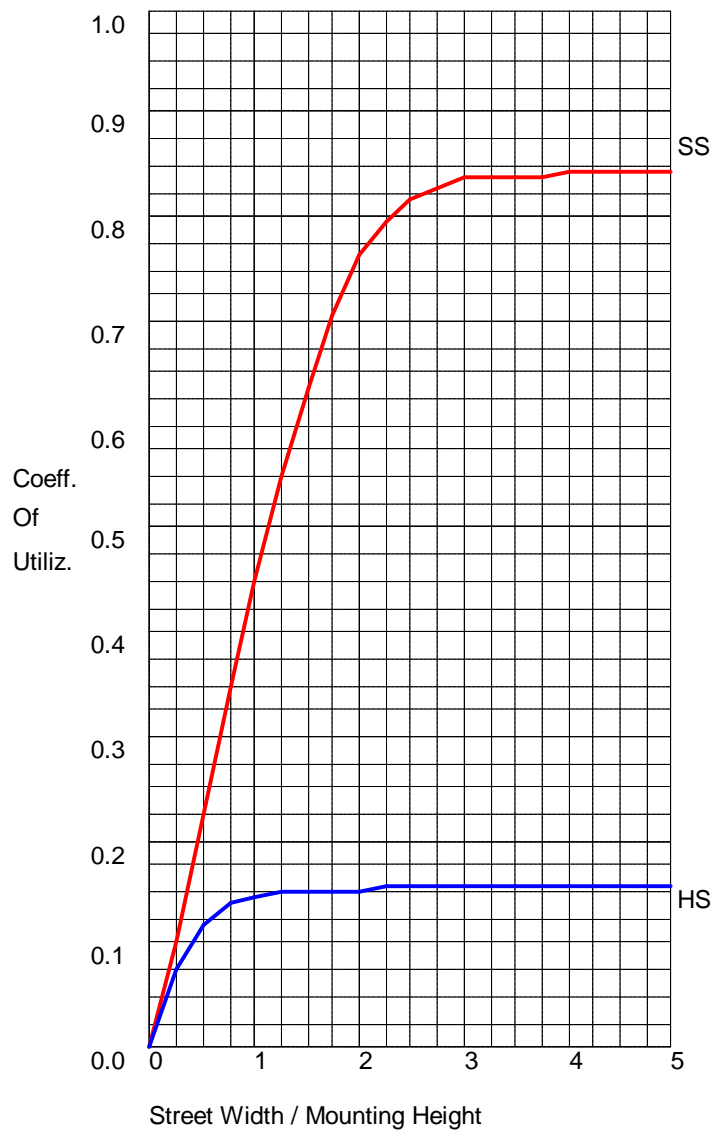
	175	180
0.0	1208.371	1208.371
2.5	1154.561	1152.673
5.0	1073.373	1071.485
7.5	996.906	993.130
10.0	927.991	924.215
12.5	877.013	872.293
15.0	837.363	833.587
17.5	665.548	657.996
20.0	438.979	434.258
22.5	371.952	369.120
25.0	355.903	353.071
27.5	341.742	338.910
30.0	327.582	324.750
32.5	312.477	309.645
35.0	299.261	295.485
37.5	281.324	277.548
40.0	236.010	233.178
42.5	185.032	184.088
45.0	150.102	149.158
47.5	126.501	126.501
50.0	108.565	109.509
52.5	93.460	92.516
55.0	79.299	78.355
57.5	62.307	61.363
60.0	47.202	46.258
62.5	51.922	49.090
65.0	78.355	65.139

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CANDELA TABULATION - (Cont.)

67.5	95.348	80.243
70.0	162.375	147.270
72.5	138.774	122.725
75.0	42.482	30.209
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

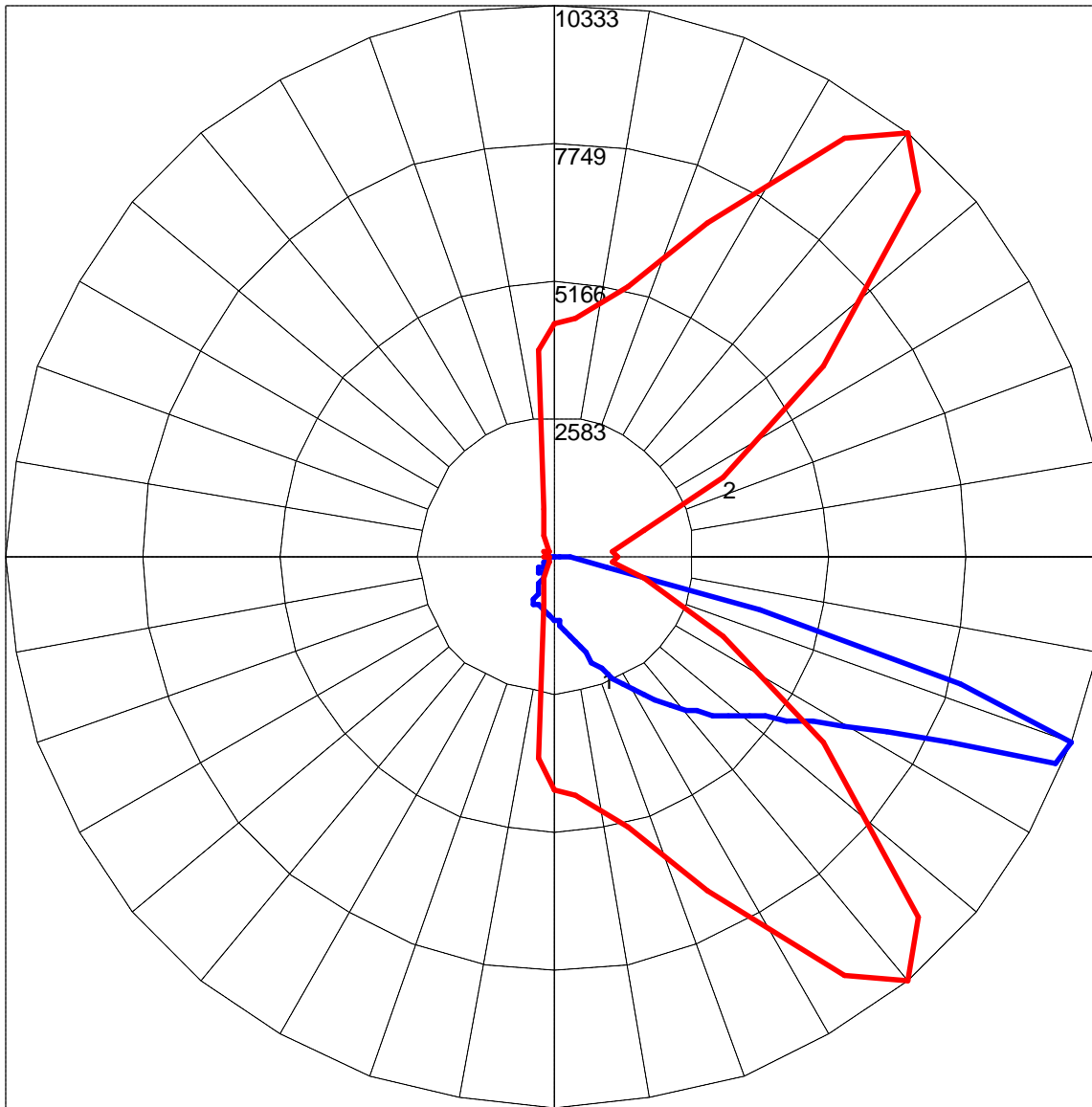
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

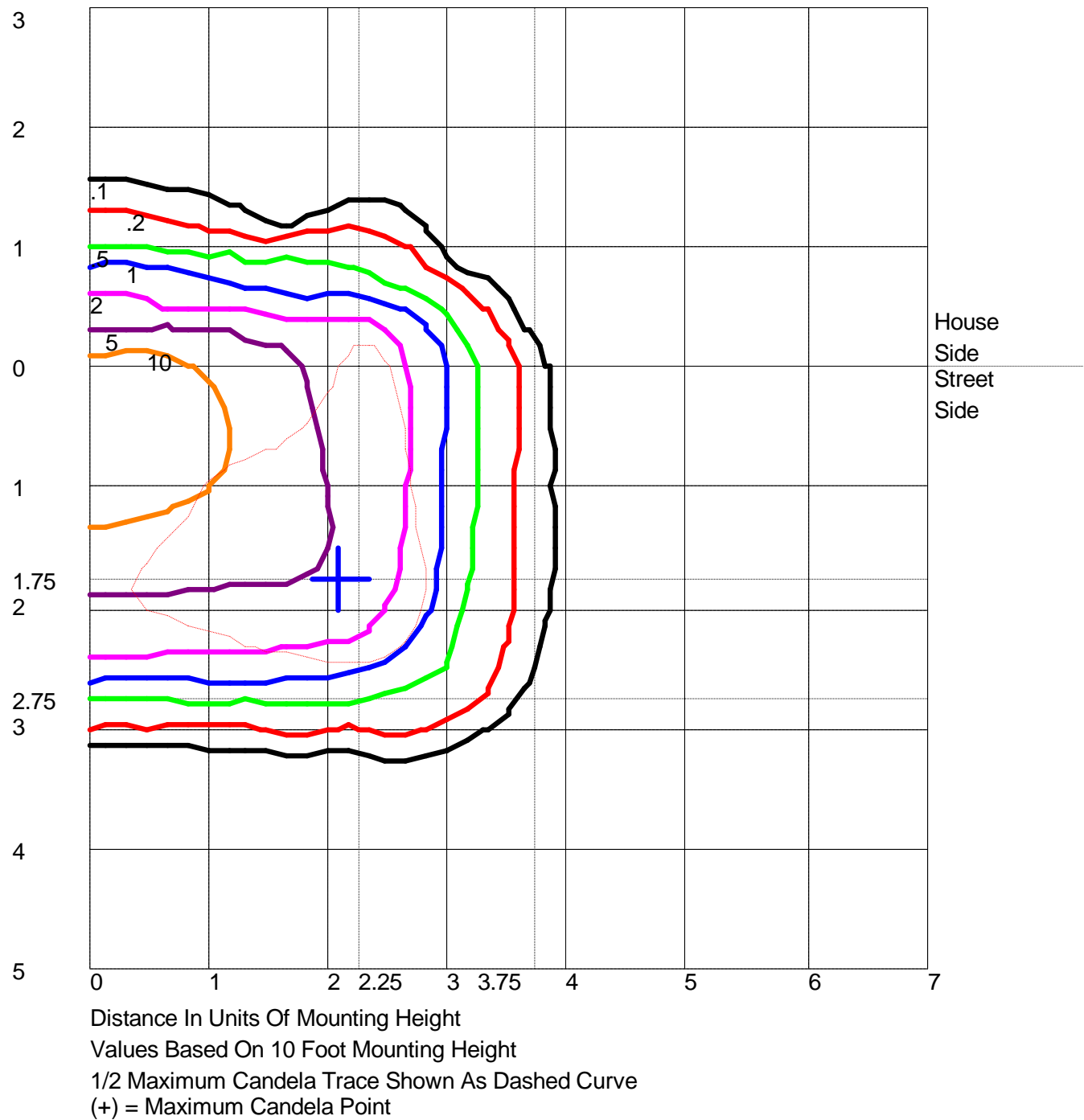
	Lumens	Percent Of Luminaire
Downward Street Side	9420.1	84.3
Downward House Side	1748.6	15.7
Downward Total	11168.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	11168.7	100.0

POLAR GRAPH

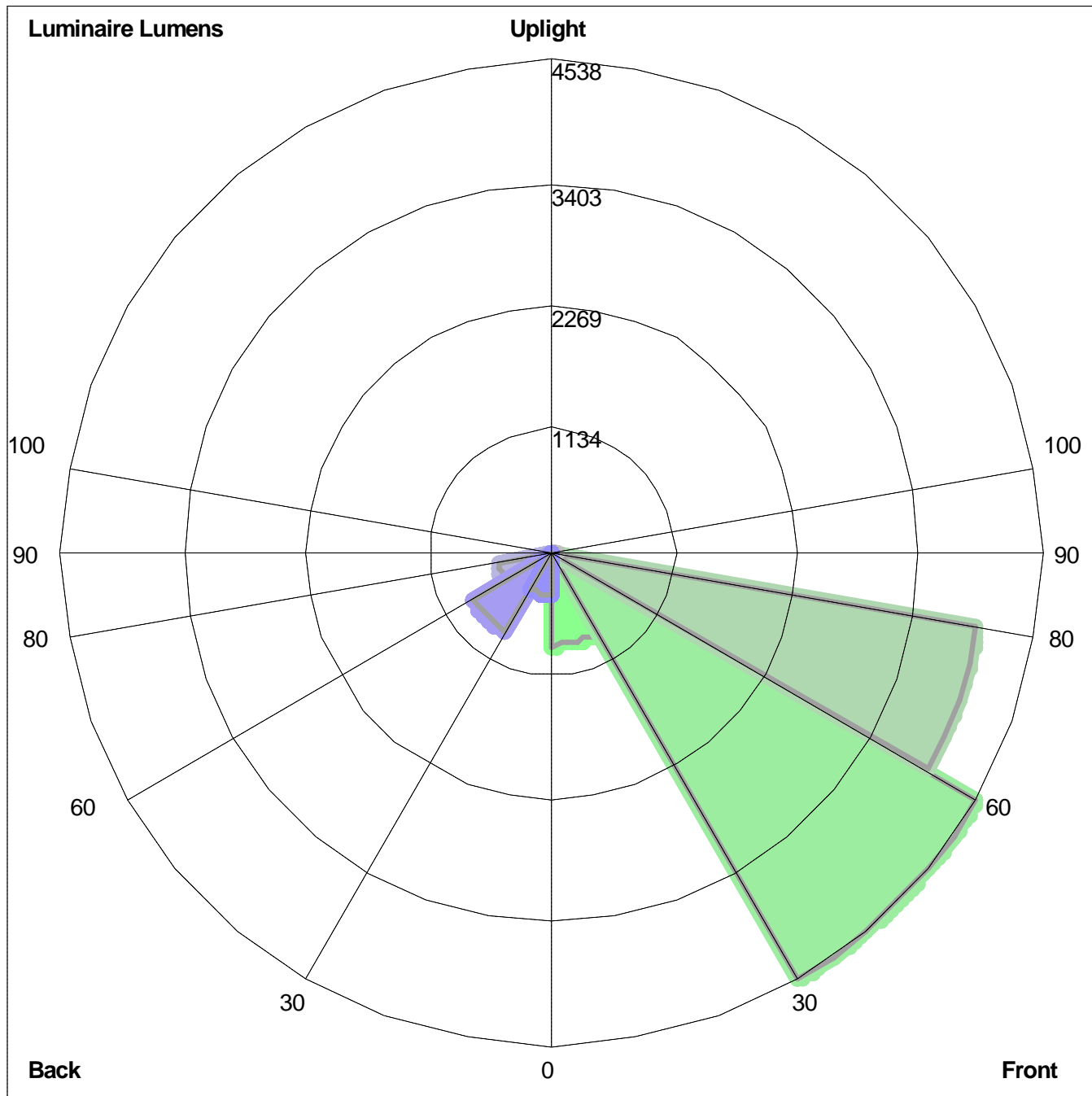


Maximum Candela = 10332.518 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=856.5, Medium= 4538.0, High=3991.1, Very High=34.6
Back: Low=386.1, Medium=848.7, High=510.7, Very High=3.2
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G2