



IES ROAD REPORT
PHOTOMETRIC FILENAME : HLN-5W-LED-18L-50-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-50-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	11202
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	10363.054
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	10363.054
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	292.57 (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)	859.0	N.A.	7.7
FM - Front-Medium (30-60)	4551.4	N.A.	40.6
FH - Front-High (60-80)	4002.8	N.A.	35.7
FVH - Front-Very High (80-90)	34.7	N.A.	0.3
BL - Back-Low (0-30)	387.2	N.A.	3.5
BM - Back-Medium (30-60)	851.2	N.A.	7.6
BH - Back-High (60-80)	512.2	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	11201.7	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	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942
2.5	1282.008	1278.220	1271.593	1267.805	1261.178	1256.443	1250.762	1249.816	1241.294	1228.038
5.0	1380.478	1376.691	1368.169	1360.595	1348.286	1335.030	1324.615	1317.987	1297.157	1268.752
7.5	1490.310	1486.523	1477.055	1464.746	1447.703	1427.820	1413.617	1401.308	1368.169	1324.615
10.0	1601.089	1598.249	1589.728	1580.259	1562.269	1538.599	1520.609	1503.566	1456.225	1394.681
12.5	1714.709	1712.815	1714.709	1700.507	1686.304	1662.633	1643.697	1621.920	1561.323	1479.895
15.0	1833.063	1831.169	1837.797	1842.531	1823.595	1802.764	1786.668	1758.263	1683.464	1578.366
17.5	1958.991	1959.938	1976.981	1984.556	1984.556	1969.406	1942.895	1908.809	1819.807	1689.145
20.0	2085.866	2094.388	2112.378	2134.155	2147.410	2137.942	2114.271	2074.504	1970.353	1812.233
22.5	2228.838	2225.050	2253.455	2289.435	2320.680	2320.680	2299.850	2254.402	2131.314	1938.161
25.0	2371.809	2368.022	2404.948	2455.130	2501.525	2514.780	2499.631	2459.864	2300.797	2066.930
27.5	2530.877	2528.983	2569.697	2631.240	2691.838	2721.189	2708.881	2670.061	2479.748	2197.592
30.0	2693.731	2690.891	2740.126	2812.085	2888.778	2932.332	2923.811	2874.576	2653.018	2330.149
32.5	2865.108	2863.214	2918.130	2995.770	3085.719	3156.731	3137.795	3078.144	2834.809	2466.492
35.0	3056.367	3062.048	3110.336	3186.083	3284.553	3365.034	3349.884	3279.819	3011.866	2609.463
37.5	3254.255	3261.829	3308.224	3382.077	3485.281	3575.230	3569.549	3481.494	3190.817	2765.690
40.0	3462.557	3470.132	3522.208	3584.698	3697.371	3782.586	3781.639	3686.956	3369.768	2917.183
42.5	3682.222	3691.690	3742.819	3811.937	3900.939	3987.101	3991.835	3897.152	3551.559	3074.357
45.0	3885.790	3895.259	3950.175	4025.921	4113.976	4201.085	4208.659	4107.348	3738.085	3245.733
47.5	4085.571	4092.199	4162.265	4229.489	4335.534	4447.260	4459.569	4334.588	3929.344	3424.684
50.0	4301.449	4296.714	4361.099	4435.898	4549.518	4696.277	4719.001	4579.817	4129.126	3626.359
52.5	4509.751	4500.283	4564.667	4649.882	4784.332	4973.698	5001.156	4856.291	4364.886	3856.438
55.0	4708.585	4700.064	4787.172	4907.420	5044.710	5299.407	5331.600	5182.000	4627.158	4119.657
57.5	4889.430	4890.377	4986.007	5162.117	5379.888	5724.534	5747.258	5578.722	4964.230	4434.952
60.0	5009.677	5019.146	5192.416	5466.049	5794.599	6247.184	6316.303	6091.904	5377.047	4830.727
62.5	4989.794	5012.518	5318.344	5793.653	6326.718	6956.360	7062.405	6781.196	5894.963	5274.790
65.0	4752.140	4772.023	5178.213	5949.880	7040.628	8096.343	8249.730	7841.646	6765.100	6046.456
67.5	3466.345	3490.015	4103.561	5434.804	7244.196	9818.627	10188.837	9445.576	7607.779	6546.382
70.0	1147.558	1077.493	1755.423	3473.919	6162.916	9633.048	10363.054	9554.461	6899.550	5240.704
72.5	283.102	292.570	371.157	872.030	3336.629	7346.454	8026.278	7133.417	4315.651	2761.903
75.0	170.429	174.217	190.313	257.538	706.335	3021.334	3970.058	3047.846	1567.950	939.255
77.5	101.311	101.311	111.726	135.397	227.239	620.174	1011.214	927.893	538.746	351.274
80.0	53.022	53.969	60.597	73.853	102.258	174.217	263.219	292.570	272.687	213.037
82.5	27.458	27.458	31.245	40.714	53.969	81.427	99.417	122.141	168.536	159.067
85.0	11.362	12.309	14.202	18.937	27.458	41.661	52.076	63.438	96.577	132.556
87.5	6.628	6.628	8.521	11.362	15.149	22.724	28.405	38.820	69.119	113.620
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	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942	1211.942
2.5	1219.517	1215.730	1210.996	1193.953	1191.112	1184.484	1177.856	1173.122	1168.388	1165.548
5.0	1244.135	1231.826	1219.517	1187.325	1167.441	1145.664	1125.781	1110.632	1096.429	1086.961
7.5	1281.061	1261.178	1238.454	1188.272	1150.398	1112.525	1077.493	1048.141	1027.311	1007.427
10.0	1332.190	1301.891	1269.699	1197.740	1140.930	1085.067	1034.885	994.171	965.767	942.096
12.5	1399.415	1355.861	1307.572	1211.942	1134.302	1062.343	999.852	950.617	913.691	890.967
15.0	1472.321	1414.564	1355.861	1230.879	1131.462	1045.300	972.394	921.266	879.605	854.041
17.5	1552.801	1478.948	1406.043	1251.709	1132.409	1035.832	960.086	903.276	825.636	717.697
20.0	1636.122	1546.173	1457.171	1277.274	1139.036	1034.885	957.245	813.327	586.088	469.628
22.5	1720.390	1611.505	1507.353	1308.519	1154.186	1047.194	903.276	569.045	427.020	386.307
25.0	1807.498	1680.623	1560.376	1342.605	1179.750	1067.077	687.399	434.595	384.413	366.423
27.5	1898.394	1754.476	1620.973	1383.319	1217.623	1001.746	497.086	395.775	373.998	353.168

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CANDELA TABULATION - (Cont.)

30.0	1994.971	1836.850	1691.038	1435.394	1261.178	780.188	421.339	388.200	365.476	342.752
32.5	2097.228	1926.799	1769.625	1500.726	1307.572	573.779	404.296	383.466	356.955	329.497
35.0	2208.954	2026.216	1856.734	1576.472	1264.965	463.000	402.403	379.679	348.433	317.188
37.5	2330.149	2138.889	1960.885	1664.527	1089.801	433.648	401.456	375.891	339.912	304.879
40.0	2472.173	2267.658	2084.920	1773.413	867.296	434.595	403.350	374.945	328.550	267.953
42.5	2614.198	2417.257	2218.423	1893.660	660.887	440.276	408.084	369.264	274.581	208.303
45.0	2786.521	2582.005	2373.703	2023.376	544.427	449.744	413.765	319.082	202.622	162.855
47.5	2968.312	2761.903	2563.069	2118.059	520.756	463.000	407.137	234.814	155.280	134.450
50.0	3166.199	2960.737	2754.328	2037.578	534.959	475.309	341.806	168.536	127.822	113.620
52.5	3398.173	3194.604	2983.461	1807.498	556.736	485.724	238.601	130.663	108.885	98.470
55.0	3674.647	3470.132	3247.627	1511.141	583.247	442.170	161.908	109.832	93.736	84.268
57.5	3987.101	3781.639	3553.453	1243.188	617.333	310.560	122.141	94.683	80.481	69.119
60.0	4374.354	4165.105	3955.856	1105.897	670.356	186.526	103.204	81.427	64.384	53.022
62.5	4823.152	4634.733	4389.504	1166.495	685.505	120.247	87.108	65.331	50.182	50.182
65.0	5515.285	5325.919	5035.242	1297.157	592.716	90.896	71.959	59.650	61.544	89.949
67.5	5888.336	5688.554	5311.716	1291.476	522.650	97.523	89.949	157.174	110.779	124.982
70.0	4499.336	4391.397	3829.927	945.883	437.435	121.194	136.344	143.918	116.460	208.303
72.5	2242.093	2224.104	1593.515	332.337	226.292	122.141	124.035	188.419	207.356	222.505
75.0	730.006	712.963	439.329	117.407	90.896	52.076	128.769	205.462	129.716	77.640
77.5	258.485	231.973	138.237	55.863	35.980	21.777	80.481	84.268	18.937	4.734
80.0	164.748	137.290	81.427	31.245	13.256	5.681	16.096	7.575	0.947	0.000
82.5	115.513	87.108	52.076	12.309	3.787	1.894	3.787	0.947	0.000	0.000
85.0	74.800	50.182	23.671	0.947	0.947	0.947	0.947	0.000	0.000	0.000
87.5	43.554	17.990	2.840	0.947	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

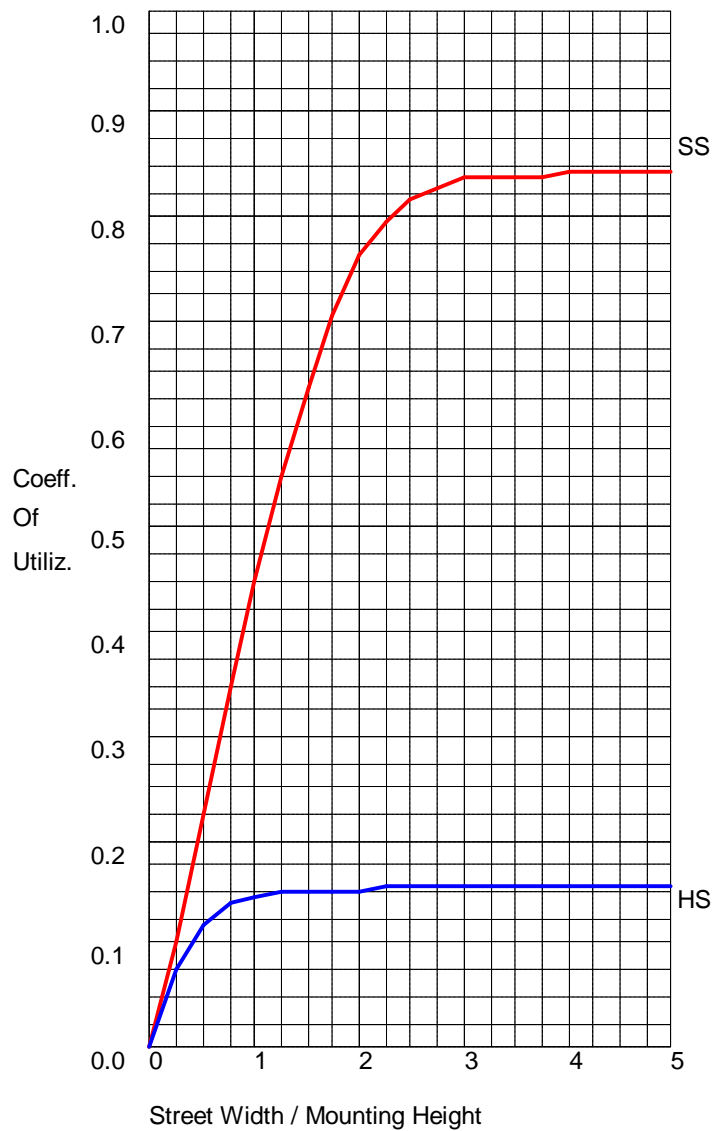
	175	180
0.0	1211.942	1211.942
2.5	1157.973	1156.079
5.0	1076.546	1074.652
7.5	999.852	996.065
10.0	930.734	926.947
12.5	879.605	874.871
15.0	839.838	836.051
17.5	667.515	659.940
20.0	440.276	435.542
22.5	373.051	370.211
25.0	356.955	354.114
27.5	342.752	339.912
30.0	328.550	325.710
32.5	313.401	310.560
35.0	300.145	296.358
37.5	282.155	278.368
40.0	236.707	233.867
42.5	185.579	184.632
45.0	150.546	149.599
47.5	126.875	126.875
50.0	108.885	109.832
52.5	93.736	92.789
55.0	79.534	78.587
57.5	62.491	61.544
60.0	47.341	46.395
62.5	52.076	49.235
65.0	78.587	65.331

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CANDELA TABULATION - (Cont.)

67.5	95.630	80.481
70.0	162.855	147.705
72.5	139.184	123.088
75.0	42.607	30.299
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

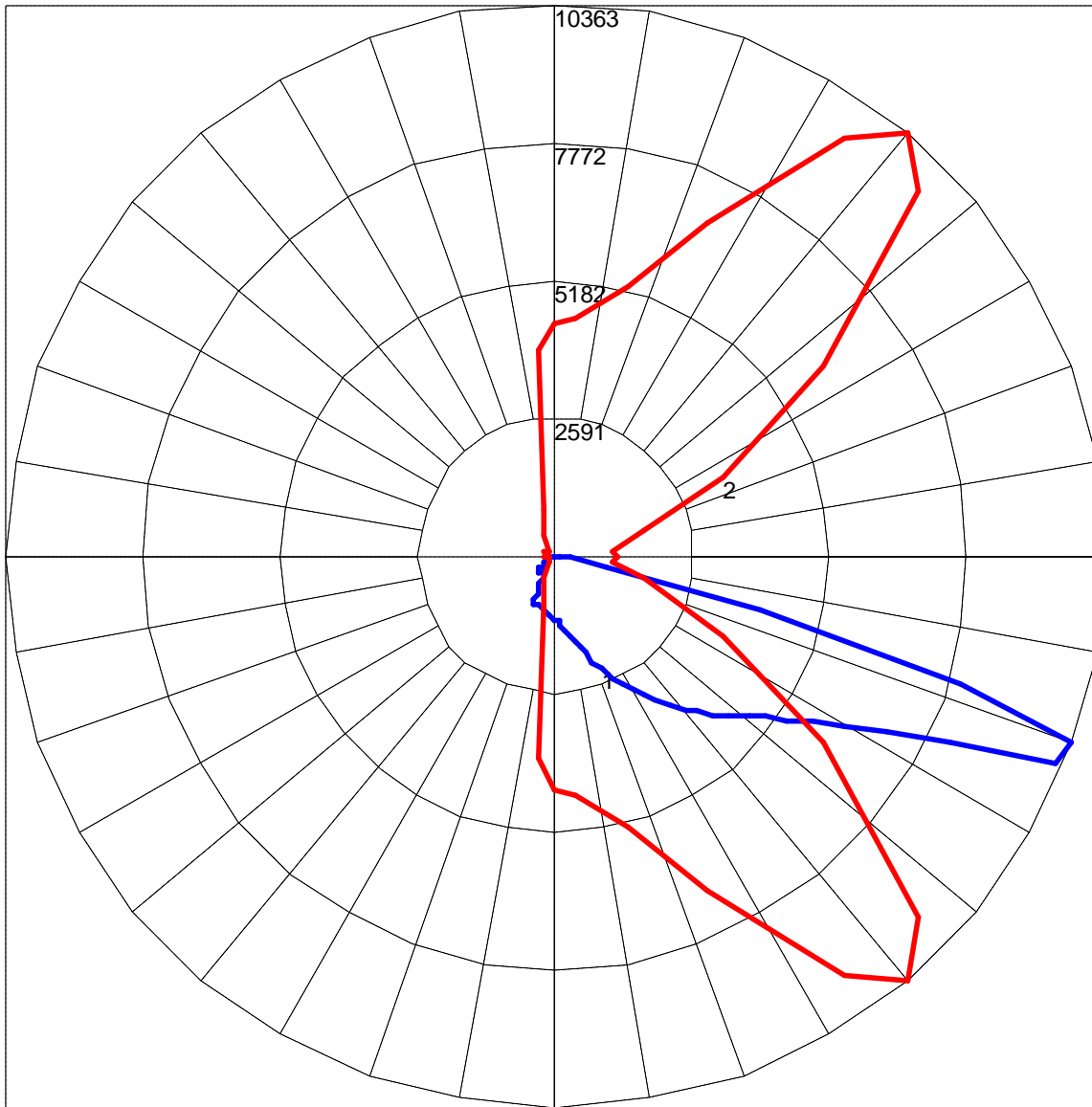
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

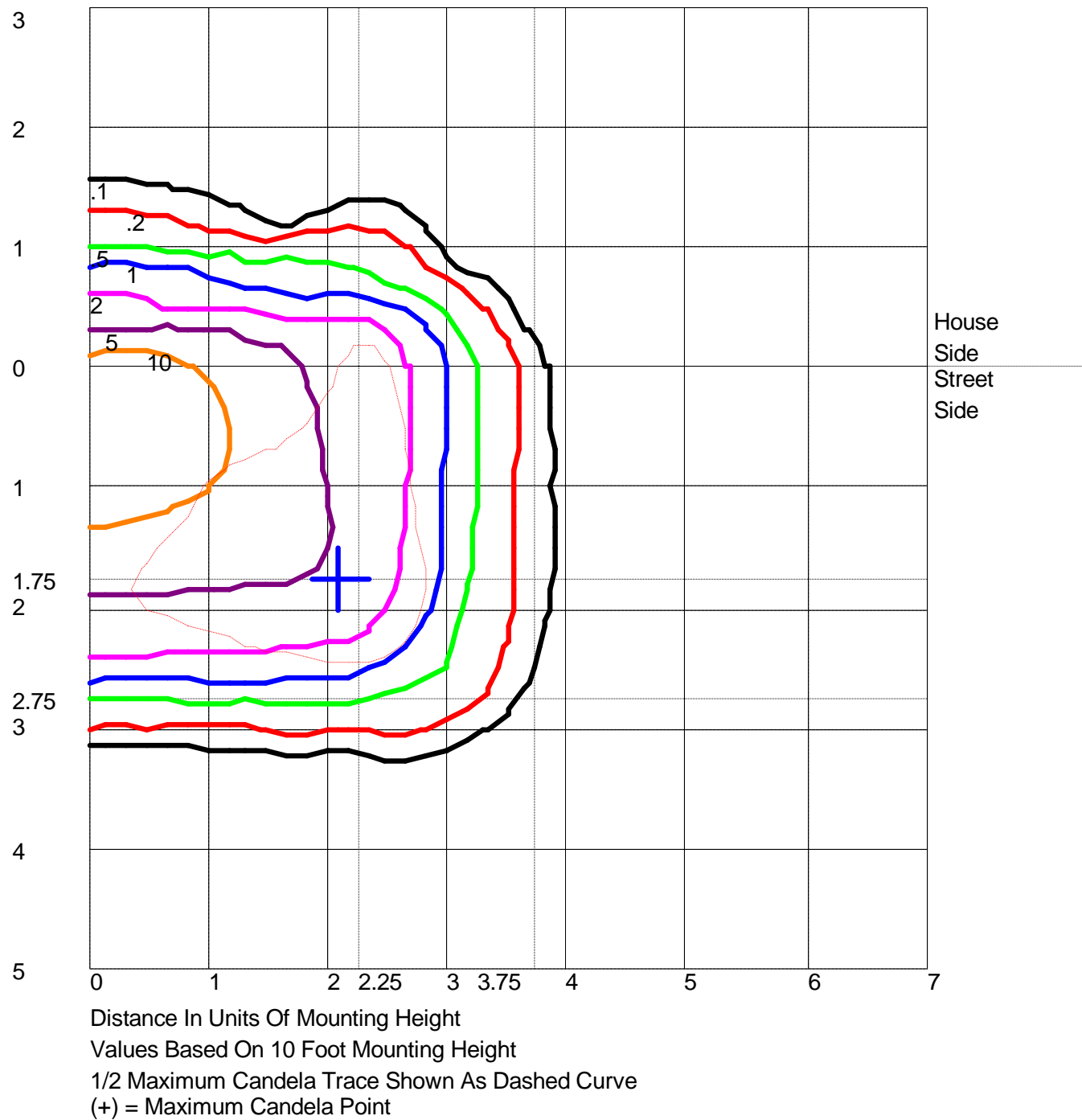
	Lumens	Percent Of Luminaire
Downward Street Side	9447.9	84.3
Downward House Side	1753.8	15.7
Downward Total	11201.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	11201.7	100.0

POLAR GRAPH

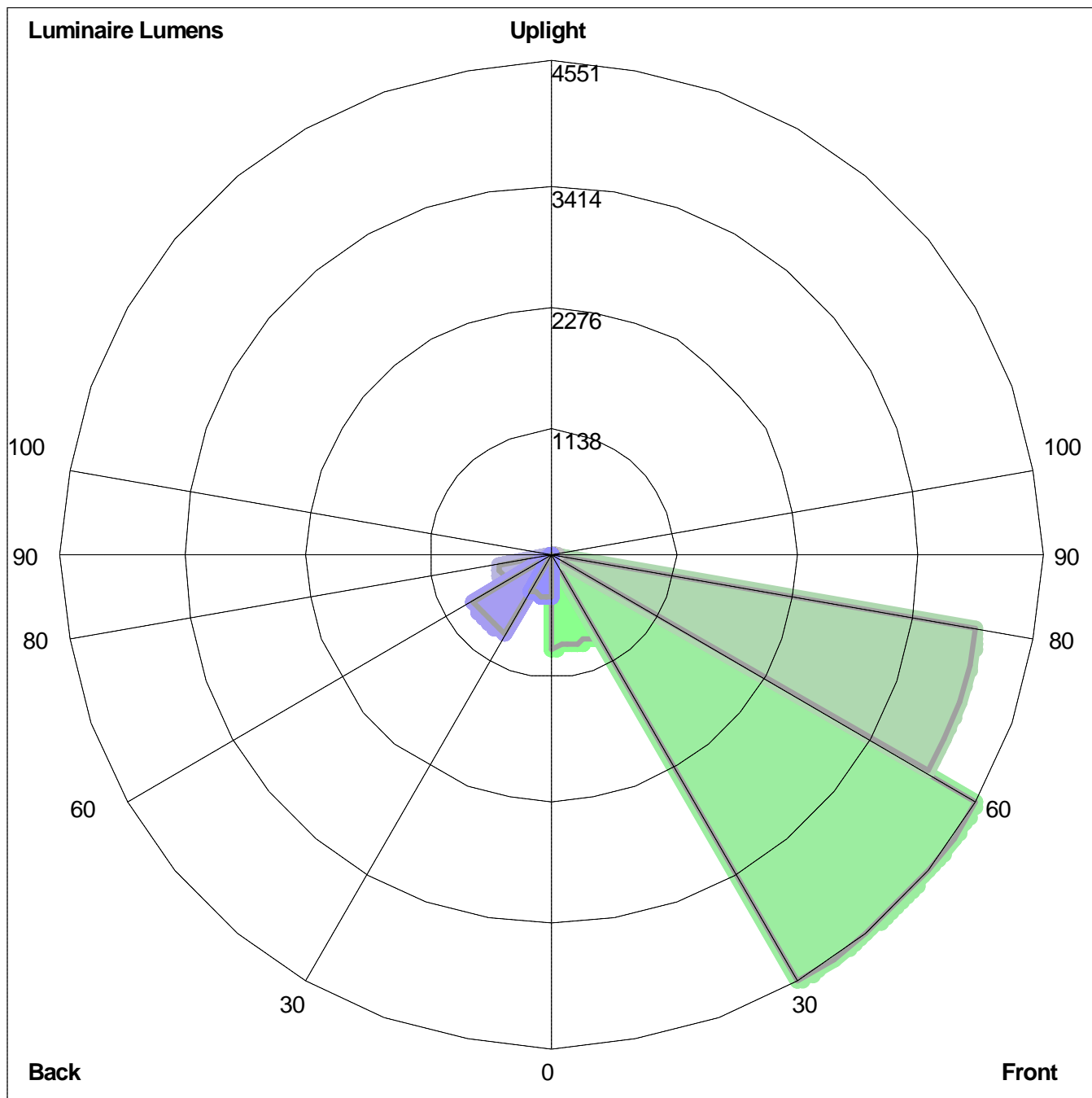


Maximum Candela = 10363.054 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=859.0, Medium=4551.4, High=4002.8, Very High=34.7
Back: Low=387.2, Medium=851.2, High=512.2, Very High=3.2
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G2