



IES ROAD REPORT
PHOTOMETRIC FILENAME : HLN-5W-LED-27L-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-27L-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	16352
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	68
Total Luminaire Watts	241
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	15127.413
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	15127.413
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	427.078 (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)	1253.9	N.A.	7.7
FM - Front-Medium (30-60)	6643.9	N.A.	40.6
FH - Front-High (60-80)	5843.1	N.A.	35.7
FVH - Front-Very High (80-90)	50.7	N.A.	0.3
BL - Back-Low (0-30)	565.2	N.A.	3.5
BM - Back-Medium (30-60)	1242.6	N.A.	7.6
BH - Back-High (60-80)	747.6	N.A.	4.6
BVH - Back-Very High (80-90)	4.6	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	16351.6	N.A.	100.0
BUG Rating	B2-U0-G3		

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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	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126
2.5	1871.404	1865.876	1856.201	1850.672	1840.997	1834.087	1825.794	1824.412	1811.972	1792.623
5.0	2015.146	2009.617	1997.178	1986.121	1968.153	1948.803	1933.600	1923.925	1893.518	1852.054
7.5	2175.473	2169.944	2156.123	2138.155	2113.277	2084.252	2063.520	2045.552	1997.178	1933.600
10.0	2337.182	2333.035	2320.596	2306.775	2280.515	2245.961	2219.701	2194.822	2125.716	2035.878
12.5	2503.037	2500.273	2503.037	2482.306	2461.574	2427.020	2399.378	2367.589	2279.132	2160.269
15.0	2675.804	2673.039	2682.714	2689.625	2661.982	2631.576	2608.079	2566.615	2457.427	2304.011
17.5	2859.627	2861.009	2885.887	2896.945	2896.945	2874.830	2836.131	2786.374	2656.454	2465.720
20.0	3044.832	3057.272	3083.532	3115.321	3134.671	3120.850	3086.296	3028.247	2876.213	2645.397
22.5	3253.534	3248.006	3289.469	3341.990	3387.601	3387.601	3357.194	3290.852	3111.175	2829.220
25.0	3462.236	3456.707	3510.610	3583.863	3651.588	3670.937	3648.823	3590.774	3358.576	3017.190
27.5	3694.434	3691.669	3751.101	3840.939	3929.396	3972.242	3954.274	3897.607	3619.799	3207.924
30.0	3932.160	3928.014	3999.884	4104.926	4216.879	4280.457	4268.018	4196.147	3872.728	3401.422
32.5	4182.325	4179.561	4259.725	4373.059	4504.362	4608.022	4580.379	4493.305	4138.097	3600.449
35.0	4461.516	4469.809	4540.297	4650.868	4794.609	4912.090	4889.976	4787.698	4396.556	3809.150
37.5	4750.381	4761.438	4829.162	4936.968	5087.621	5218.923	5210.630	5082.092	4657.778	4037.202
40.0	5054.450	5065.507	5141.524	5232.744	5397.218	5521.609	5520.227	5382.014	4919.001	4258.343
42.5	5375.104	5388.925	5463.560	5564.455	5694.376	5820.150	5827.060	5688.847	5184.370	4487.776
45.0	5672.262	5686.083	5766.246	5876.817	6005.355	6132.511	6143.568	5995.680	5456.649	4737.942
47.5	5963.891	5973.566	6075.844	6173.975	6328.773	6491.865	6509.832	6327.391	5735.840	4999.164
50.0	6279.017	6272.106	6366.091	6475.279	6641.135	6855.365	6888.536	6685.363	6027.469	5293.558
52.5	6583.085	6569.264	6663.249	6787.641	6983.903	7260.329	7300.411	7088.945	6371.619	5629.416
55.0	6873.333	6860.893	6988.049	7163.580	7363.989	7735.782	7782.774	7564.398	6754.469	6013.648
57.5	7137.319	7138.702	7278.297	7535.373	7853.263	8356.358	8389.529	8143.510	7246.508	6473.897
60.0	7312.850	7326.671	7579.601	7979.037	8458.636	9119.294	9220.189	8892.625	7849.116	7051.627
62.5	7283.825	7316.996	7763.424	8457.254	9235.393	10154.509	10309.308	9898.815	8605.142	7699.846
65.0	6936.911	6965.935	7558.869	8685.305	10277.519	11818.594	12042.499	11446.801	9875.319	8826.282
67.5	5059.978	5094.531	5990.152	7933.426	10574.677	14332.688	14873.101	13788.129	11105.415	9556.047
70.0	1675.142	1572.864	2562.469	5071.035	8996.284	14061.791	15127.413	13947.074	110071.582	7650.090
72.5	413.257	427.078	541.795	1272.942	4870.626	10723.947	11716.316	10412.968	6299.749	4031.673
75.0	248.783	254.312	277.808	375.939	1031.069	4410.377	5795.271	4449.077	2288.807	1371.073
77.5	147.888	147.888	163.091	197.645	331.711	905.295	1476.115	1354.487	786.432	512.770
80.0	77.399	78.781	88.456	107.806	149.270	254.312	384.232	427.078	398.053	310.979
82.5	40.082	40.082	45.610	59.432	78.781	118.863	145.124	178.295	246.019	232.198
85.0	16.586	17.968	20.732	27.643	40.082	60.814	76.017	92.603	140.977	193.498
87.5	9.675	9.675	12.439	16.586	22.114	33.171	41.464	56.667	100.895	165.856
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	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126	1769.126
2.5	1780.183	1774.655	1767.744	1742.866	1738.720	1729.045	1719.370	1712.459	1705.548	1701.402
5.0	1816.119	1798.151	1780.183	1733.191	1704.166	1672.377	1643.353	1621.239	1600.507	1586.685
7.5	1870.022	1840.997	1807.826	1734.573	1679.288	1624.003	1572.864	1530.018	1499.611	1470.586
10.0	1944.657	1900.429	1853.436	1748.394	1665.467	1583.921	1510.668	1451.237	1409.773	1375.219
12.5	2042.788	1979.210	1908.722	1769.126	1655.792	1550.750	1459.529	1387.659	1333.755	1300.584
15.0	2149.212	2064.902	1979.210	1796.769	1651.645	1525.872	1419.448	1344.813	1283.999	1246.681
17.5	2266.693	2158.887	2052.463	1827.176	1653.028	1512.050	1401.480	1318.552	1205.217	1047.655
20.0	2388.321	2257.018	2127.098	1864.493	1662.702	1510.668	1397.333	1187.250	855.538	685.536
22.5	2511.330	2352.385	2200.351	1910.104	1684.817	1528.636	1318.552	830.660	623.341	563.909
25.0	2638.486	2453.281	2277.750	1959.860	1722.134	1557.661	1003.426	634.398	561.145	534.884
27.5	2771.171	2561.087	2366.207	2019.292	1777.419	1462.294	725.618	577.730	545.941	515.535

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CANDELA TABULATION - (Cont.)

30.0	2912.148	2681.332	2468.484	2095.309	1840.997	1138.875	615.048	566.673	533.502	500.331
32.5	3061.418	2812.635	2583.201	2190.676	1908.722	837.571	590.170	559.763	521.063	480.981
35.0	3224.509	2957.758	2710.357	2301.246	1846.526	675.862	587.405	554.234	508.624	463.014
37.5	3401.422	3122.232	2862.391	2429.785	1590.832	633.016	586.023	548.706	496.185	445.046
40.0	3608.742	3310.201	3043.450	2588.730	1266.031	634.398	588.787	547.323	479.599	391.143
42.5	3816.061	3528.578	3238.331	2764.260	964.727	642.690	595.698	539.031	400.818	304.069
45.0	4067.609	3769.069	3465.000	2953.612	794.725	656.512	603.991	465.778	295.776	237.726
47.5	4332.978	4031.673	3741.426	3091.825	760.172	675.862	594.316	342.768	226.669	196.262
50.0	4621.843	4321.921	4020.616	2974.344	780.903	693.829	498.949	246.019	186.588	165.856
52.5	4960.465	4663.307	4355.092	2638.486	812.692	709.033	348.297	190.734	158.945	143.742
55.0	5364.047	5065.507	4740.706	2205.880	851.392	645.455	236.344	160.327	136.831	123.010
57.5	5820.150	5520.227	5187.134	1814.737	901.149	453.339	178.295	138.213	117.481	100.895
60.0	6385.441	6079.990	5774.539	1614.328	978.548	272.280	150.652	118.863	93.985	77.399
62.5	7040.570	6765.526	6407.555	1702.784	1000.662	175.531	127.156	95.367	73.253	73.253
65.0	8050.907	7774.481	7350.167	1893.518	865.213	132.684	105.042	87.074	89.838	131.302
67.5	8595.467	8303.837	7753.749	1885.225	762.936	142.359	131.302	229.434	161.709	182.441
70.0	6567.882	6410.319	5590.716	1380.748	638.544	176.913	199.027	210.084	170.002	304.069
72.5	3272.884	3246.623	2326.125	485.128	330.329	178.295	181.059	275.044	302.686	324.801
75.0	1065.622	1040.744	641.308	171.384	132.684	76.017	187.970	299.922	189.352	113.335
77.5	377.321	338.622	201.791	81.546	52.521	31.789	117.481	123.010	27.643	6.911
80.0	240.491	200.409	118.863	45.610	19.350	8.293	23.496	11.057	1.382	0.000
82.5	168.620	127.156	76.017	17.968	5.529	2.764	5.529	1.382	0.000	0.000
85.0	109.188	73.253	34.553	1.382	1.382	1.382	1.382	0.000	0.000	0.000
87.5	63.578	26.260	4.146	1.382	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

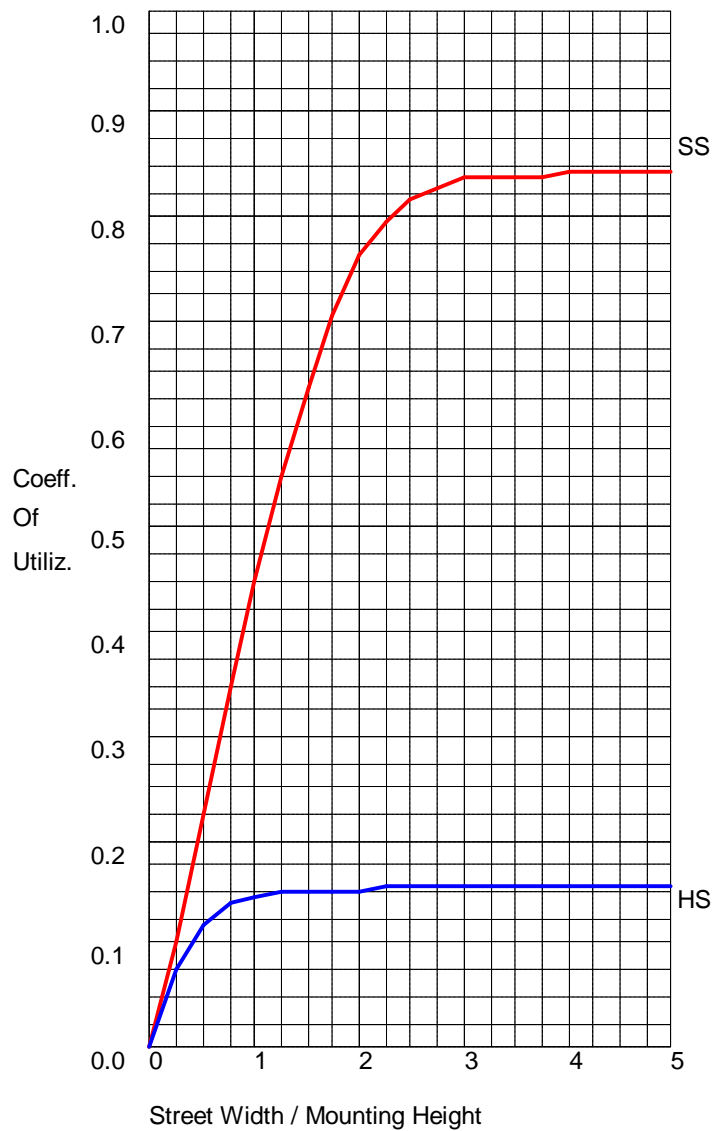
	175	180
0.0	1769.126	1769.126
2.5	1690.345	1687.581
5.0	1571.482	1568.718
7.5	1459.529	1454.001
10.0	1358.634	1353.105
12.5	1283.999	1277.088
15.0	1225.949	1220.421
17.5	974.402	963.345
20.0	642.690	635.780
22.5	544.559	540.413
25.0	521.063	516.917
27.5	500.331	496.185
30.0	479.599	475.453
32.5	457.485	453.339
35.0	438.135	432.607
37.5	411.875	406.346
40.0	345.533	341.386
42.5	270.897	269.515
45.0	219.759	218.377
47.5	185.205	185.205
50.0	158.945	160.327
52.5	136.831	135.449
55.0	116.099	114.717
57.5	91.221	89.838
60.0	69.107	67.724
62.5	76.017	71.871
65.0	114.717	95.367

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CANDELA TABULATION - (Cont.)

67.5	139.595	117.481
70.0	237.726	215.612
72.5	203.173	179.677
75.0	62.196	44.228
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

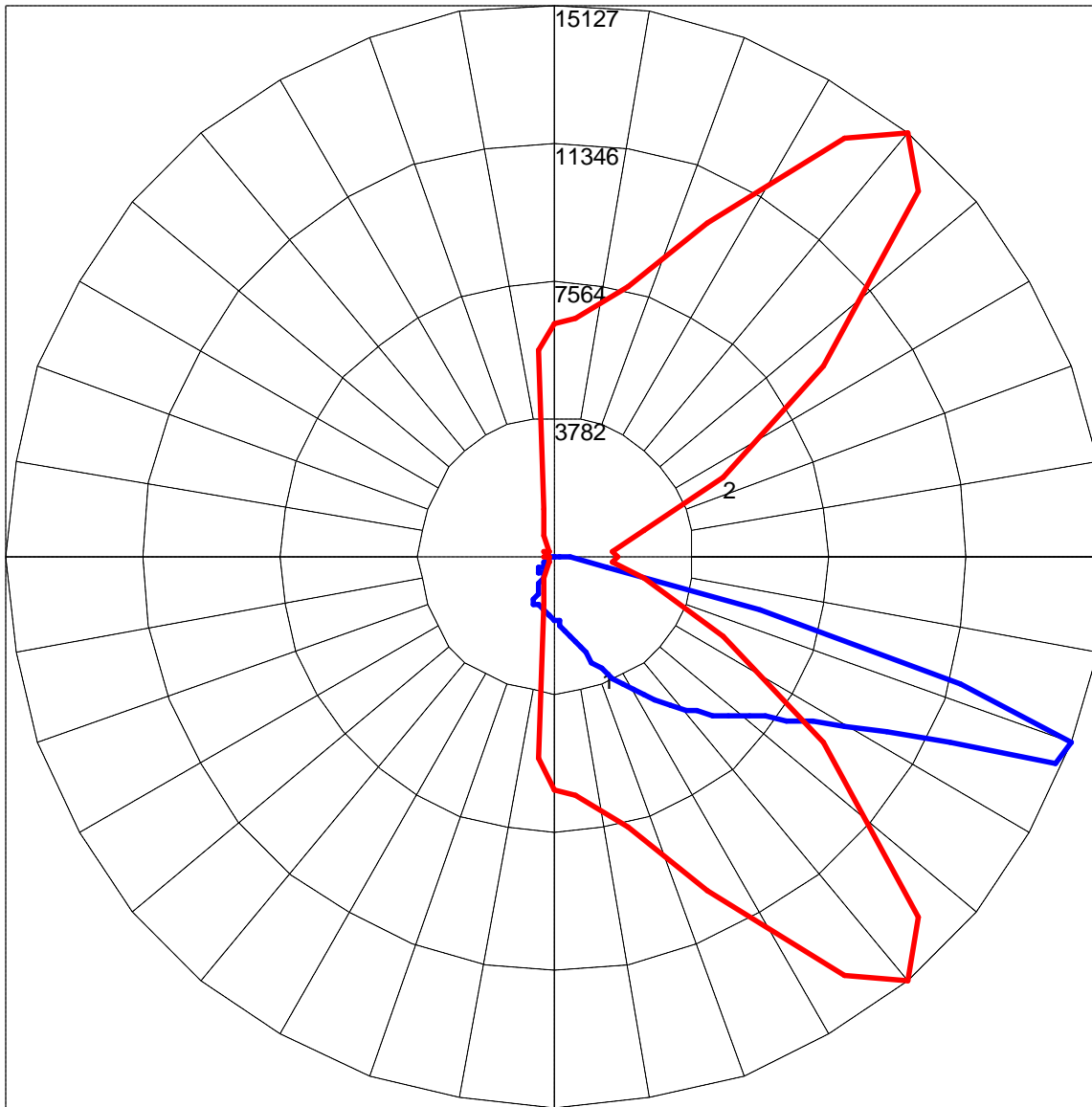
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

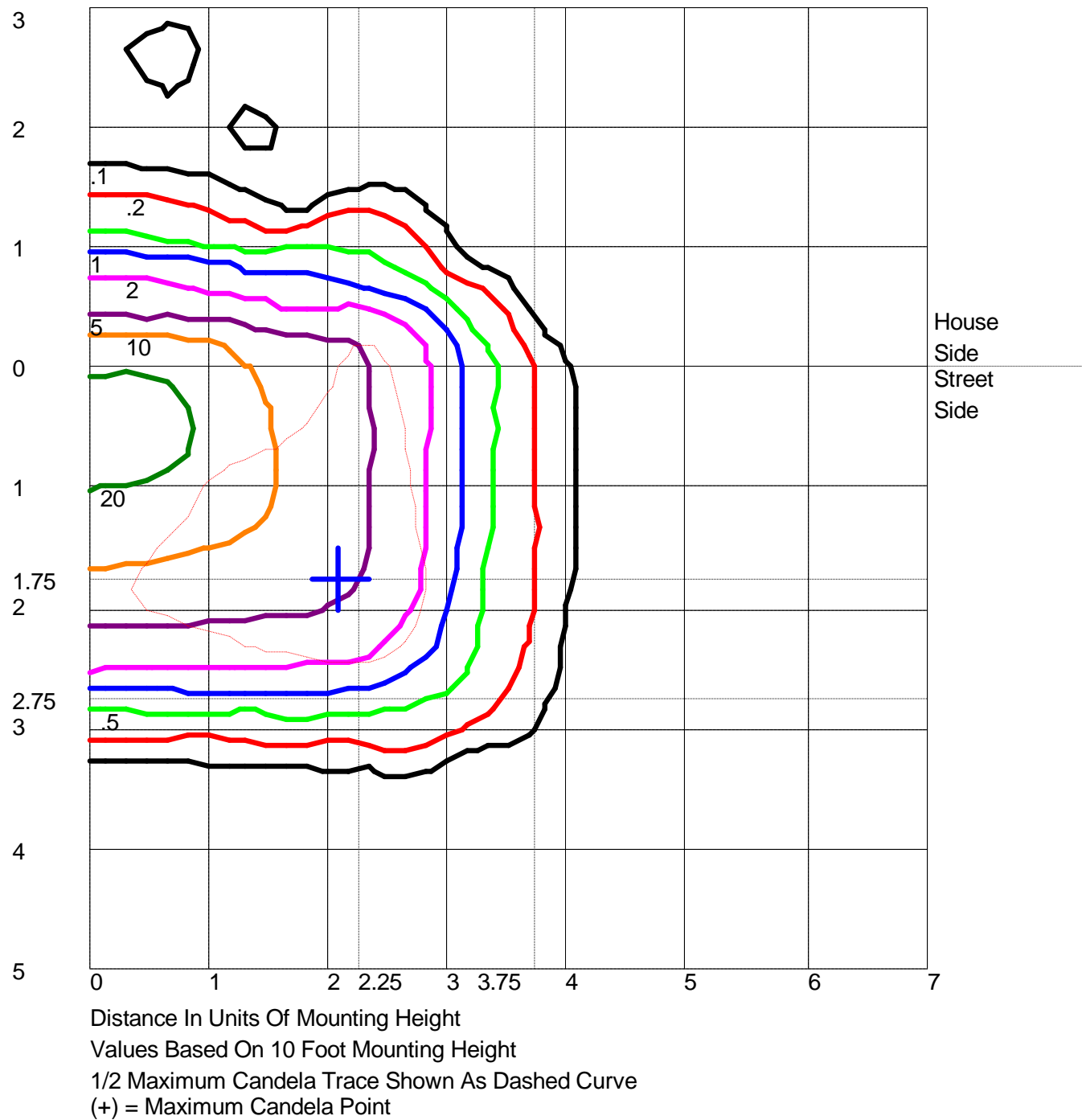
	Lumens	Percent Of Luminaire
Downward Street Side	13791.6	84.3
Downward House Side	2560.1	15.7
Downward Total	16351.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	16351.7	100.0

POLAR GRAPH

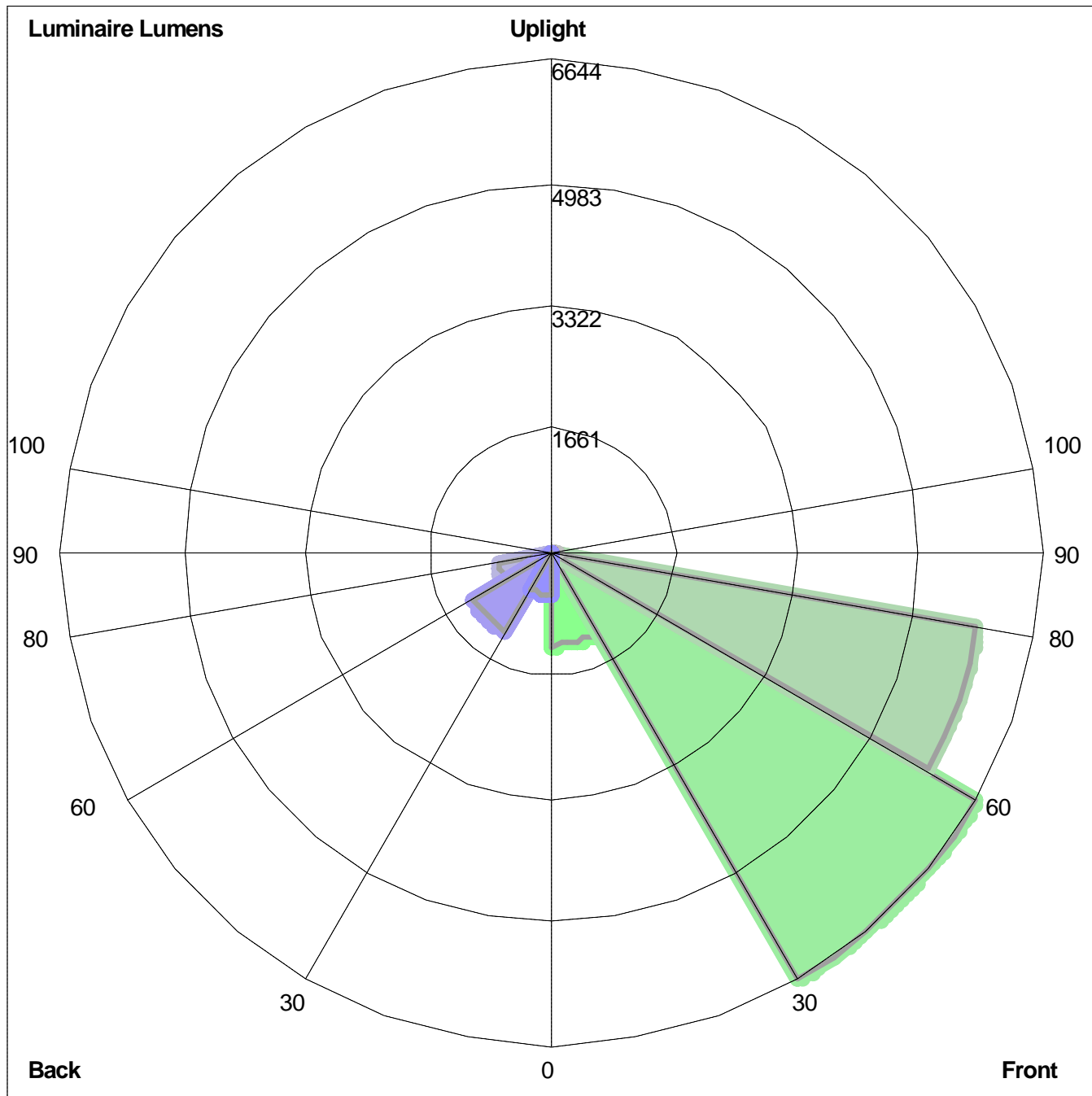


Maximum Candela = 15127.413 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1253.9, Medium=6643.9, High=5843.1, Very High=50.7
Back: Low=565.2, Medium=1242.6, High=747.6, Very High=4.6
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G3