



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-3-LED-18L-30.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8431_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]03/10/17
[TEST DATE]01/09/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT]HLN-3-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_SOURCE TYPE] LED
[_SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17247
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	154.8
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	18166.724
Maximum Candela Angle	60H 67.5V
Maximum Candela (<90 Degrees Vertical)	18166.724
Maximum Candela Angle (<90 Degrees Vertical)	60H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	930.794 (5.4% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	703.5	N.A.	4.1
FM - Front-Medium (30-60)	6771.2	N.A.	39.3
FH - Front-High (60-80)	5901.9	N.A.	34.2
FVH - Front-Very High (80-90)	135.4	N.A.	0.8
BL - Back-Low (0-30)	765.7	N.A.	4.4
BM - Back-Medium (30-60)	1988.0	N.A.	11.5
BH - Back-High (60-80)	905.8	N.A.	5.3
BVH - Back-Very High (80-90)	75.2	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	17246.7	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>55</u>	<u>60</u>	<u>65</u>	<u>75</u>
0.0	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313
2.5	1575.761	1573.905	1572.977	1576.689	1580.401	1587.825	1590.609	1589.681	1598.033	1597.105
5.0	1508.944	1507.088	1507.088	1518.224	1532.144	1550.705	1563.697	1566.481	1581.329	1590.609
7.5	1411.503	1408.719	1414.287	1432.847	1456.976	1493.168	1523.792	1535.857	1559.985	1582.257
10.0	1312.206	1305.710	1318.702	1344.686	1379.951	1428.207	1476.464	1495.952	1532.144	1575.761
12.5	1219.405	1215.693	1230.541	1262.094	1305.710	1364.175	1431.919	1456.048	1502.448	1564.625
15.0	1147.020	1148.876	1164.653	1197.133	1246.317	1313.134	1392.015	1422.639	1473.680	1549.777
17.5	1143.308	1140.524	1152.588	1181.357	1226.829	1291.790	1370.671	1406.863	1457.904	1535.857
20.0	1267.662	1262.094	1263.022	1266.734	1293.646	1350.255	1413.359	1443.984	1487.600	1559.057
22.5	1532.144	1524.720	1513.584	1496.880	1492.240	1510.800	1542.353	1562.769	1593.393	1655.570
25.0	1860.660	1853.236	1845.812	1823.540	1793.843	1778.995	1768.787	1771.571	1781.779	1826.324
27.5	2242.072	2237.432	2228.152	2205.880	2171.543	2135.351	2083.382	2064.822	2048.118	2056.470
30.0	2619.772	2615.132	2613.276	2626.268	2590.076	2552.955	2463.867	2418.394	2379.418	2316.313
32.5	2990.048	2986.336	2993.760	3029.025	3042.017	2996.544	2873.119	2817.438	2732.989	2590.076
35.0	3338.052	3333.412	3350.116	3414.149	3466.117	3441.061	3291.651	3204.418	3068.929	2861.055
37.5	3698.120	3693.480	3735.240	3796.489	3877.226	3879.082	3701.832	3576.550	3385.380	3122.754
40.0	4112.940	4106.444	4143.565	4208.525	4294.830	4317.102	4117.580	3926.410	3673.992	3325.060
42.5	4643.762	4666.034	4664.178	4704.083	4768.115	4803.380	4510.129	4269.774	3935.690	3480.965
45.0	5433.498	5427.930	5375.034	5371.322	5352.762	5323.065	4924.021	4603.858	4188.109	3601.607
47.5	6481.222	6474.726	6394.917	6347.588	6163.842	6012.577	5406.586	4970.421	4461.872	3725.960
50.0	8078.327	8089.463	8065.335	7818.484	7372.111	6899.754	5977.312	5419.578	4790.388	3888.362
52.5	9922.283	9961.259	10134.797	10108.813	9324.644	8177.624	6735.496	6016.289	5235.832	4157.485
55.0	11040.535	11103.639	11622.397	12201.475	11728.190	9988.171	7854.677	6884.906	5938.336	4644.690
57.5	10937.526	11012.695	11898.016	13096.077	13539.666	12140.227	9411.877	8172.984	7062.156	5608.892
60.0	9062.946	9115.842	10432.688	12475.238	14574.397	14220.825	11601.981	10415.056	9087.074	7244.974
62.5	5336.985	5357.402	6585.159	9618.824	13341.072	15675.017	14624.509	13751.252	11921.216	9171.523
65.0	1933.045	2041.622	2761.758	5182.008	10404.848	15226.788	16967.735	16321.840	14382.299	10990.422
67.5	890.890	899.242	1147.020	2027.702	6290.052	12543.911	17802.016	18166.724	16373.808	11580.637
70.0	510.405	523.398	626.407	1019.883	2794.238	8327.034	15278.756	16777.493	15423.526	9681.000
72.5	356.356	368.420	451.013	682.087	1530.288	4312.462	10145.933	12059.490	11105.496	4615.922
75.0	266.339	274.691	341.508	548.454	1171.149	2106.583	5204.280	6086.818	4555.601	1166.509
77.5	210.658	217.154	276.547	480.709	968.842	1301.070	1966.453	2020.278	1409.647	501.125
80.0	164.258	168.898	226.434	411.108	812.009	930.794	921.514	921.514	704.360	288.611
82.5	116.001	122.497	178.178	315.523	631.975	660.743	509.477	466.789	401.828	208.802
85.0	86.305	91.873	135.489	259.843	434.309	416.676	284.899	276.547	256.131	154.050
87.5	73.313	73.313	91.873	196.738	294.179	202.306	159.618	158.690	154.050	109.505
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	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313	1607.313
2.5	1612.881	1607.313	1615.665	1625.873	1630.514	1637.010	1636.082	1637.938	1638.866	1640.722
5.0	1614.737	1613.809	1627.730	1649.074	1662.994	1676.914	1680.626	1688.978	1689.906	1689.906
7.5	1616.593	1620.305	1639.794	1672.274	1691.762	1708.466	1713.106	1728.883	1737.235	1745.587
10.0	1620.305	1629.586	1653.714	1694.546	1716.818	1738.163	1762.291	1783.635	1795.699	1801.267
12.5	1623.089	1635.154	1662.994	1710.322	1735.379	1778.067	1807.763	1829.108	1840.244	1843.028
15.0	1620.305	1636.082	1666.706	1717.746	1753.939	1812.404	1844.884	1865.300	1876.436	1876.436
17.5	1614.737	1631.442	1662.994	1716.818	1768.787	1835.604	1875.508	1894.068	1897.780	1892.212
20.0	1624.945	1635.154	1662.066	1712.178	1775.283	1850.452	1894.068	1905.205	1906.133	1897.780
22.5	1693.618	1684.338	1693.618	1716.818	1776.211	1858.804	1899.636	1907.989	1906.133	1893.140
25.0	1831.892	1797.555	1779.923	1738.163	1772.499	1862.516	1896.852	1901.492	1898.708	1887.572
27.5	2006.358	1938.613	1889.428	1774.355	1763.219	1861.588	1890.356	1891.284	1895.924	1893.140

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CANDELA TABULATION - (Cont.)

30.0	2193.816	2082.454	1995.221	1804.051	1749.299	1854.164	1877.364	1882.932	1910.773	1929.333
32.5	2390.554	2223.512	2088.022	1818.900	1729.811	1844.884	1859.732	1891.284	1968.309	2042.550
35.0	2588.220	2363.641	2171.543	1811.475	1697.330	1824.468	1844.884	1912.629	2034.198	2178.039
37.5	2767.326	2486.139	2234.648	1783.635	1651.858	1793.843	1820.756	1887.572	2015.638	2180.823
40.0	2912.095	2576.156	2265.272	1731.667	1592.465	1749.299	1760.435	1808.691	1960.885	2058.326
42.5	3010.464	2625.340	2258.776	1660.210	1521.936	1684.338	1692.690	1743.731	1907.061	1898.708
45.0	3067.073	2642.044	2224.440	1573.905	1440.271	1607.313	1637.938	1700.114	1887.572	1712.178
47.5	3111.617	2655.965	2191.032	1487.600	1354.895	1528.432	1591.537	1677.842	1850.452	1632.370
50.0	3187.714	2707.933	2195.672	1417.071	1275.086	1451.408	1546.065	1649.074	1798.483	1599.889
52.5	3348.260	2848.063	2285.689	1392.943	1217.549	1383.663	1495.024	1601.745	1734.451	1578.545
55.0	3766.793	3236.899	2565.020	1427.279	1182.285	1328.910	1436.559	1552.561	1633.298	1543.281
57.5	4589.009	3976.523	3074.497	1528.432	1170.221	1272.302	1380.879	1462.544	1497.808	1466.256
60.0	5807.486	4970.421	3589.543	1619.377	1149.804	1196.205	1310.350	1331.694	1321.486	1419.855
62.5	7394.384	5807.486	3580.263	1522.864	1083.916	1083.916	1197.133	1178.573	1133.100	1365.103
65.0	8683.389	5938.336	3036.449	1232.397	935.434	935.434	1031.019	1031.947	953.994	1300.142
67.5	8179.480	4980.630	2107.511	861.193	740.552	755.400	826.857	887.178	796.233	1206.413
70.0	5122.615	2769.182	1096.908	554.950	557.734	584.646	647.751	750.760	691.367	1039.371
72.5	1405.935	746.120	409.252	365.636	423.173	454.725	515.974	639.399	600.422	802.729
75.0	458.437	310.883	243.139	280.259	341.508	373.060	423.173	512.262	433.381	548.454
77.5	234.787	188.386	180.034	239.427	279.331	308.099	332.228	348.932	309.955	399.972
80.0	160.546	144.770	154.978	205.090	233.859	217.154	208.802	270.979	235.715	286.755
82.5	124.353	108.577	128.993	182.818	173.538	149.410	164.258	198.594	141.058	199.522
85.0	90.017	82.593	115.073	165.186	116.929	108.577	116.001	106.721	77.025	127.137
87.5	60.321	64.033	107.649	125.281	76.097	65.889	63.105	63.105	48.257	67.745
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

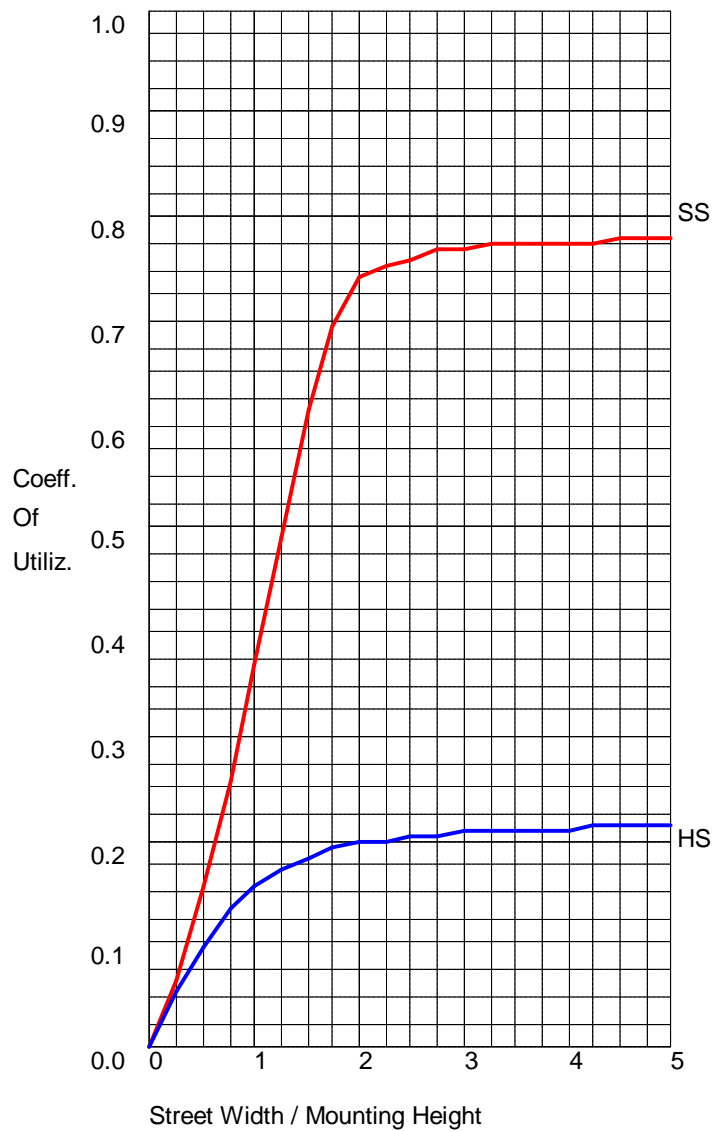
	175	180
0.0	1607.313	1607.313
2.5	1640.722	1636.082
5.0	1689.906	1685.266
7.5	1748.371	1744.659
10.0	1803.123	1798.483
12.5	1844.884	1840.244
15.0	1876.436	1871.796
17.5	1890.356	1884.788
20.0	1891.284	1887.572
22.5	1885.716	1882.932
25.0	1881.076	1877.364
27.5	1893.140	1890.356
30.0	1946.965	1945.109
32.5	2111.223	2114.935
35.0	2312.601	2323.737
37.5	2246.712	2242.072
40.0	2025.846	2005.430
42.5	1687.122	1658.354
45.0	1532.144	1504.304
47.5	1467.184	1437.487
50.0	1421.711	1394.799
52.5	1375.311	1340.046
55.0	1301.998	1255.598
57.5	1195.277	1134.028
60.0	1131.244	1042.155
62.5	1082.988	964.202
65.0	1072.780	925.226

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CANDELA TABULATION - (Cont.)

67.5	1127.532	976.267
70.0	1195.277	1083.916
72.5	1134.028	1097.836
75.0	1005.963	1108.044
77.5	832.425	960.490
80.0	615.271	696.007
82.5	409.252	463.077
85.0	273.763	307.171
87.5	164.258	226.434
90.0	0.000	0.000

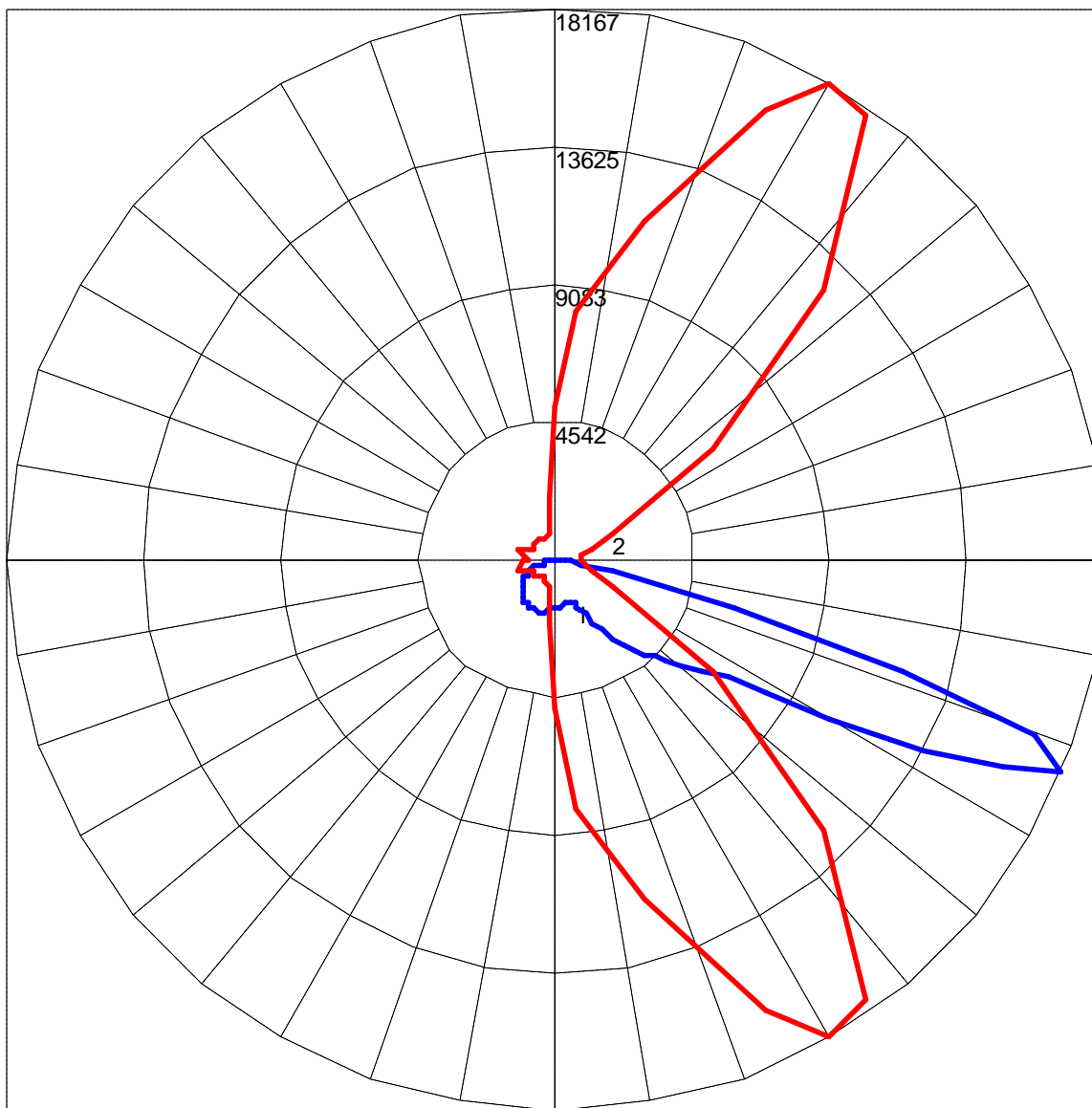
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

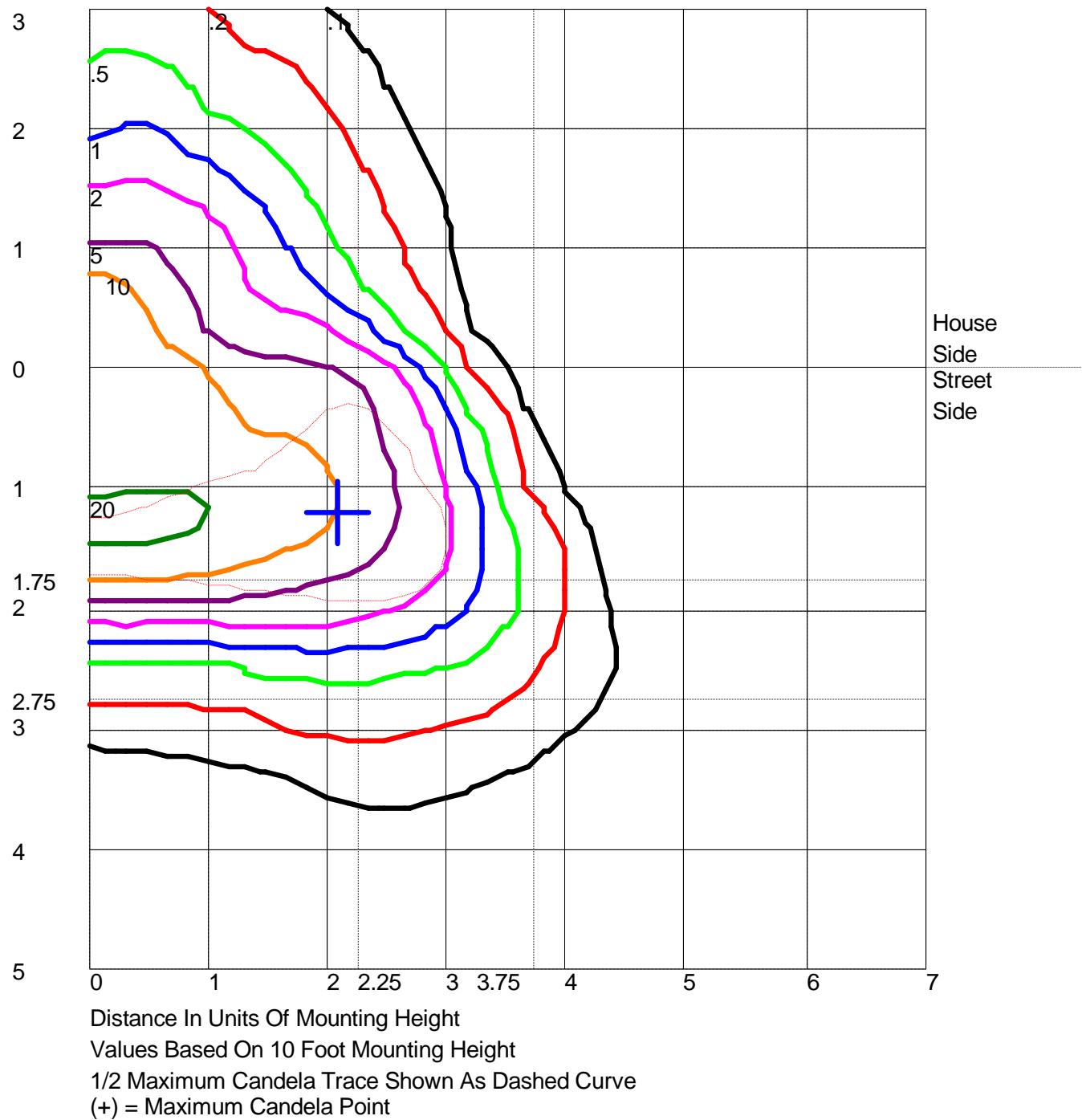
	Lumens	Percent Of Luminaire
Downward Street Side	13512.0	78.3
Downward House Side	3734.7	21.7
Downward Total	17246.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	17246.7	100.0

POLAR GRAPH

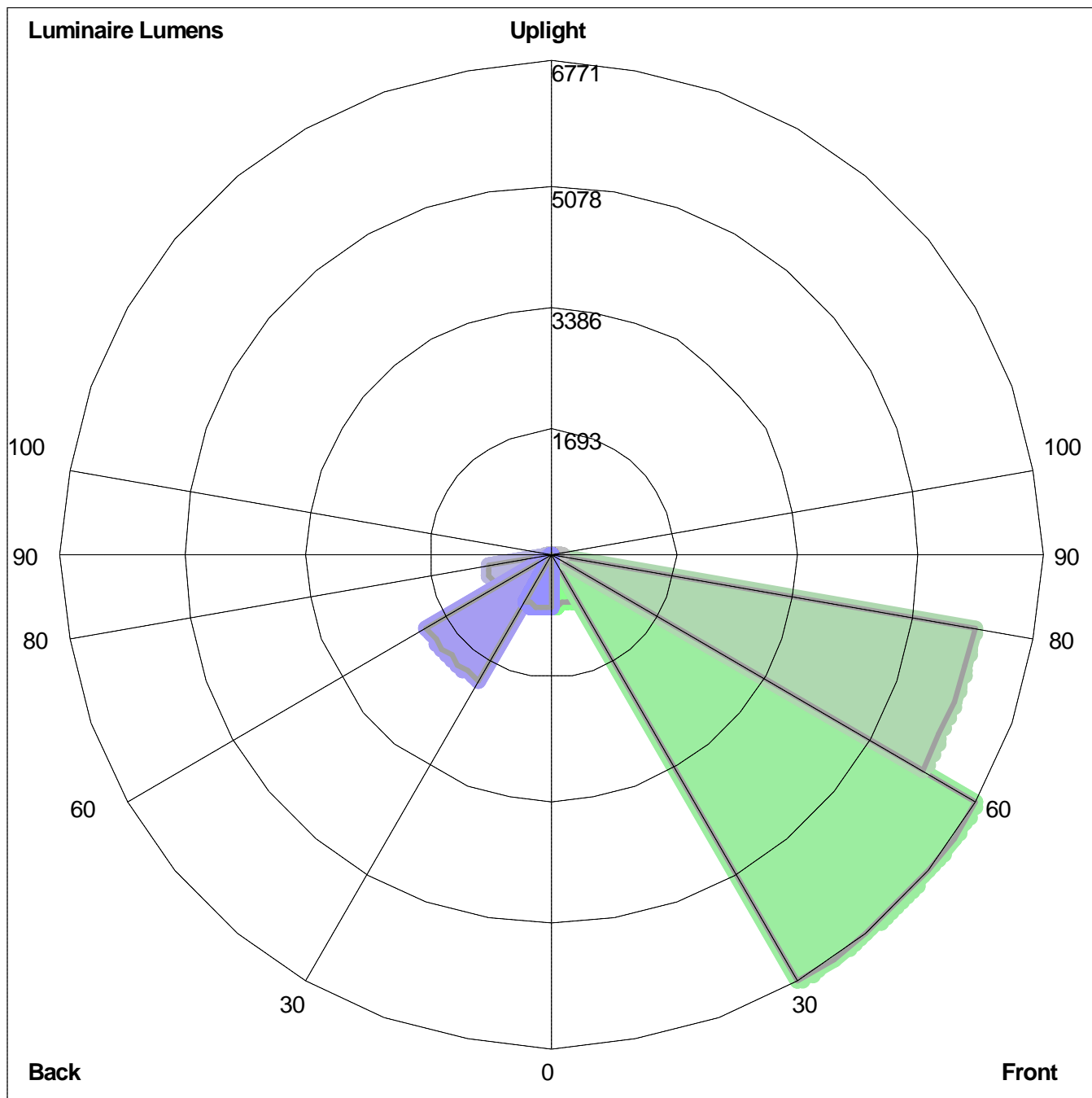


Maximum Candela = 18166.724 Located At Horizontal Angle = 60, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (60 - 240) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=703.5, Medium=6771.2, High=5901.9, Very High=135.4
Back: Low=765.7, Medium= 1988.0, High=905.8, Very High=75.2
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G3