



IES ROAD REPORT

PHOTOMETRIC FILENAME : LED-9800-L4-60W-5K IES FILE.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]
 [TESTLAB] BACL
 [TESTDATE] 2017-03-23
 [ISSUE DATE] 2017-03-23 15:30:09
 [LAMPPOSITION] 0,0
 [OTHER] EVERFINE GO-R5000_V2 SYSTEM
 [MANUFAC] Grandlite
 [LUMINAIRE] LED-9800-L4-60W-5K
 [LAMP]

CHARACTERISTICS

IES Classification	Type VS
Longitudinal Classification	Very Short
Lumens Per Lamp	6988.3 (1 lamp)
Total Lamp Lumens	6988.3
Luminaire Lumens	6989
Downward Total Efficiency	100 %
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	53.3
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	3019.88
Maximum Candela Angle	157.5H 1V
Maximum Candela (<90 Degrees Vertical)	3019.88
Maximum Candela Angle (<90 Degrees Vertical)	157.5H 1V
Maximum Candela At 90 Degrees Vertical	9.94 (0.1% Lamp Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	175.4 (2.5% Lamp Lumens)
Cutoff Classification (deprecated)	Cutoff

IES ROAD REPORT**PHOTOMETRIC FILENAME : LED-9800-L4-60W-5K IES FILE.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	941.0	13.5	13.5
FM - Front-Medium (30-60)	1950.8	27.9	27.9
FH - Front-High (60-80)	537.8	7.7	7.7
FVH - Front-Very High (80-90)	26.5	0.4	0.4
BL - Back-Low (0-30)	947.9	13.6	13.6
BM - Back-Medium (30-60)	1972.3	28.2	28.2
BH - Back-High (60-80)	563.6	8.1	8.1
BVH - Back-Very High (80-90)	28.8	0.4	0.4
UL - Uplight-Low (90-100)	4.8	0.1	0.1
UH - Uplight-High (100-180)	15.3	0.2	0.2
Total	6988.8	100.1	100.0
BUG Rating	B2-U2-G1		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0	3015.77	3015.77	3015.77	3015.77	3015.77	3015.77	3015.77	3015.77	3015.77	3015.77
1	3014.35	3015.26	3013.77	3015.96	3017.88	3010.66	3011.68	3019.88	3015.73	3018.96
2	3012.86	3011.95	3010.60	3011.81	3014.83	3008.46	3012.21	3015.62	3013.52	3015.86
3	3006.75	3005.98	3002.83	3005.06	3010.09	3004.98	3007.91	3011.73	3014.87	3015.22
4	2992.04	2997.26	2993.42	2999.99	3005.89	2999.17	3003.52	3008.36	3009.35	3011.11
5	2773.03	2846.52	2606.41	2854.63	3000.98	2990.21	2985.50	3002.27	3004.24	3004.94
6	2719.85	2461.09	2306.18	2412.60	2993.86	2982.19	2539.10	2839.44	3000.02	2997.64
7	2475.55	2297.63	2294.41	2298.59	2985.24	2796.90	2279.51	2367.69	2981.37	2813.63
8	1978.49	2283.72	2283.05	2287.70	2971.82	2454.30	2262.95	2269.39	2796.49	2383.57
9	1770.43	2273.21	2273.28	2276.76	2960.37	2270.60	2252.82	2256.05	2450.73	2268.92
10	1597.74	2263.58	2266.34	2269.38	2952.15	2246.90	2243.20	2245.36	2047.02	2258.86
11	1561.27	2243.10	2257.75	2262.62	2949.45	2238.06	2235.82	2236.35	1763.60	2248.58
12	1551.95	2105.89	2248.37	2254.12	2942.24	2228.90	2225.87	2224.31	1547.95	2231.34
13	1543.58	1887.03	2239.16	2243.29	2930.01	2219.72	2216.03	2154.37	1523.75	2136.50
14	1535.97	1684.74	2228.76	2232.24	2917.96	2208.31	2208.25	1985.36	1515.17	1926.07
15	1529.27	1556.26	2216.84	2220.71	2905.32	2198.62	2196.80	1795.16	1508.83	1708.27
16	1523.11	1528.27	2204.54	2208.22	2889.84	2187.44	2185.31	1620.90	1502.78	1552.12
17	1543.84	1519.62	2193.25	2195.90	2878.08	2174.74	2173.83	1517.98	1496.37	1504.48
18	1867.76	1513.05	2179.20	2182.64	2862.23	2163.91	2161.39	1491.91	1496.52	1495.71
19	2371.23	1522.53	2162.55	2169.06	2849.34	2153.43	2148.67	1482.78	1669.11	1490.57
20	2723.39	1686.89	2147.93	2154.90	2828.45	2146.21	2134.95	1475.55	2104.64	1491.88
21	2809.44	1966.28	2127.74	2141.01	2815.89	2130.00	2119.04	1468.20	2493.12	1614.53
22	2799.60	2119.06	2091.54	2124.87	2796.17	2110.10	2105.58	1460.54	2705.47	1880.37
23	2784.27	2115.24	2028.25	2107.22	2776.44	2094.10	2089.56	1549.45	2802.51	2104.45
24	2766.34	2103.93	1961.05	2088.77	2755.68	2082.65	2073.17	1909.72	2798.86	2126.66
25	2747.34	2086.96	2188.58	2072.67	2737.28	2107.49	2052.74	2092.94	2783.47	2112.24
26	2725.65	2071.09	2405.44	2057.20	2713.17	2169.82	2211.98	2090.51	2765.94	2096.80
27	2705.15	2056.61	2339.57	2035.37	2687.91	2254.36	2500.19	2072.02	2745.33	2081.66
28	2680.09	2050.12	2261.07	2013.66	2661.94	2307.51	2557.91	2053.71	2725.51	2065.34
29	2654.79	2086.79	2181.12	1991.25	2635.88	2260.68	2487.70	2033.03	2702.77	2053.29
30	2626.57	2148.38	2110.85	1969.55	2607.59	2177.47	2411.27	2012.67	2674.36	2072.83
31	2597.32	2218.80	2044.02	1945.80	2580.20	2092.12	2338.20	1993.10	2646.04	2123.35
32	2566.24	2286.20	1988.33	1922.07	2547.62	2015.78	2260.90	1978.80	2616.01	2193.82
33	2532.49	2343.93	1946.91	1894.56	2514.39	1945.47	2184.12	1988.08	2587.50	2262.03
34	2498.31	2384.84	1914.32	1867.88	2480.50	1884.83	2114.17	2024.18	2552.30	2324.31
35	2461.85	2409.29	1884.74	1840.62	2446.54	1840.05	2044.91	2064.29	2518.51	2375.16
36	2425.96	2404.03	1857.39	1812.67	2412.68	1801.48	1978.11	2109.10	2484.02	2407.05
37	2390.45	2376.51	1829.69	1781.74	2375.08	1767.33	1919.40	2153.19	2447.40	2417.47
38	2348.60	2343.60	1798.20	1748.62	2335.33	1733.90	1862.86	2186.82	2410.16	2397.13
39	2310.96	2305.32	1765.00	1716.63	2295.14	1700.74	1810.08	2212.23	2372.12	2364.88
40	2271.07	2265.88	1734.00	1682.79	2254.19	1668.47	1767.85	2226.53	2331.09	2329.12
41	2229.00	2222.86	1701.35	1646.33	2212.00	1631.51	1729.20	2224.98	2288.39	2289.42
42	2184.96	2181.16	1667.40	1612.32	2167.88	1594.66	1692.36	2201.12	2245.66	2248.82
43	2138.49	2135.80	1631.89	1573.44	2120.48	1557.99	1655.23	2161.46	2201.69	2204.79
44	2090.17	2089.77	1595.57	1533.83	2073.40	1518.61	1620.72	2123.78	2153.82	2161.70
45	2042.57	2041.10	1558.76	1494.78	2026.85	1479.84	1584.81	2078.22	2106.11	2113.97
46	1995.04	1994.47	1521.30	1456.29	1974.75	1440.62	1547.17	2033.23	2057.80	2069.15
47	1945.05	1945.62	1484.88	1414.05	1922.42	1399.69	1509.93	1982.46	2008.42	2019.86
48	1892.99	1894.90	1443.48	1373.17	1868.19	1358.28	1470.32	1928.09	1959.31	1971.05
49	1841.12	1842.83	1402.25	1330.01	1815.31	1314.40	1429.41	1877.14	1908.56	1919.25
50	1786.28	1786.69	1358.10	1292.00	1759.31	1271.31	1389.51	1822.46	1853.57	1864.79
51	1730.30	1728.93	1312.29	1256.92	1703.72	1226.03	1346.65	1767.87	1798.32	1811.20
52	1674.29	1670.93	1266.42	1225.29	1646.38	1180.47	1300.12	1708.95	1743.57	1756.36

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53	1616.08	1614.69	1221.25	1191.46	1587.83	1134.17	1255.58	1649.90	1688.08	1702.04
54	1556.36	1557.81	1170.85	1163.81	1528.20	1083.46	1209.94	1590.32	1629.67	1644.65
55	1497.05	1500.78	1119.33	1140.70	1472.09	1034.90	1165.69	1530.01	1571.97	1585.26
56	1442.57	1439.80	1065.42	1116.79	1416.39	984.15	1116.42	1474.35	1513.01	1527.27
57	1388.62	1373.69	1015.38	1092.33	1360.46	933.54	1066.65	1412.95	1458.62	1467.80
58	1326.36	1310.41	960.19	1062.49	1297.17	880.37	1016.32	1348.31	1404.98	1409.90
59	1260.27	1240.53	909.17	1031.04	1230.33	828.14	965.70	1281.76	1345.31	1342.83
60	1193.34	1168.25	856.09	998.38	1162.27	778.21	915.56	1216.04	1279.43	1277.39
61	1124.62	1100.35	803.20	959.90	1094.61	725.58	864.20	1142.82	1213.56	1211.95
62	1056.24	1035.01	749.01	919.54	1028.20	675.09	812.12	1075.81	1147.61	1146.50
63	987.06	968.03	695.37	873.73	962.36	623.21	761.70	1010.96	1079.56	1080.54
64	920.23	897.68	644.12	823.88	897.64	582.32	711.56	944.73	1009.87	1013.20
65	855.91	826.00	597.26	774.83	836.06	529.63	663.41	881.54	940.35	944.76
66	791.55	759.20	556.23	721.95	773.70	476.55	617.10	812.67	871.53	874.53
67	729.31	695.76	515.31	668.55	711.07	429.32	577.21	749.73	806.49	808.88
68	666.48	637.02	474.39	614.82	651.65	386.86	537.36	692.29	739.64	746.86
69	608.94	574.21	440.41	564.31	594.87	351.06	497.51	635.80	675.30	688.85
70	559.01	522.29	407.22	513.84	547.71	316.32	457.72	580.01	613.64	632.61
71	509.31	470.71	374.36	463.36	500.81	279.91	417.83	528.68	558.10	578.58
72	459.61	423.33	341.59	415.94	453.91	246.50	376.28	477.38	509.78	522.88
73	414.54	378.75	309.81	368.81	410.28	215.46	336.91	425.36	466.65	468.59
74	368.50	336.43	280.34	328.45	363.82	184.75	302.16	373.44	424.12	418.12
75	322.97	302.10	253.40	292.45	317.02	159.32	270.41	327.84	379.43	367.16
76	277.31	270.32	227.23	259.17	271.32	139.32	237.40	285.09	330.10	320.55
77	231.04	240.00	199.65	228.24	227.41	121.30	207.44	254.09	281.81	285.04
78	193.24	199.62	171.01	192.36	188.51	102.47	181.12	219.83	239.56	251.11
79	167.40	165.08	137.65	161.27	156.06	83.53	145.56	177.08	200.93	210.62
80	143.97	137.39	118.55	137.30	129.18	66.41	118.74	146.27	169.83	175.40
81	119.29	111.48	102.52	113.14	105.43	54.68	98.24	119.68	141.58	140.17
82	94.67	88.18	83.44	88.44	81.80	43.05	81.41	92.46	113.33	105.33
83	73.82	70.16	64.79	66.69	59.26	31.41	70.34	71.00	84.99	82.40
84	57.39	51.39	52.65	51.37	42.82	27.71	56.13	54.87	62.32	63.60
85	35.69	32.59	40.72	36.27	26.57	21.69	41.81	38.89	48.41	49.19
86	13.89	13.79	28.79	21.16	10.33	13.88	27.50	22.92	34.20	38.40
87	6.03	7.32	12.69	11.89	7.29	10.92	15.00	9.67	19.99	27.61
88	4.53	6.19	9.11	9.46	4.31	9.15	10.89	7.00	6.12	16.82
89	3.05	5.06	8.82	9.23	1.32	8.96	9.66	6.07	3.77	6.31
90	2.91	3.93	8.29	8.96	1.24	8.74	9.25	5.16	2.90	4.84
91	2.76	3.59	7.33	8.63	1.25	8.46	8.63	4.25	2.77	4.47
92	2.62	3.32	6.35	8.28	1.27	8.21	7.08	3.78	2.63	3.77
93	2.51	3.14	5.36	7.83	1.28	7.87	6.22	3.41	2.49	3.27
94	2.50	3.12	4.37	7.37	1.30	7.50	5.38	3.10	2.36	2.99
95	2.54	3.09	4.38	6.80	1.31	7.01	4.54	2.83	2.32	2.87
96	2.60	3.09	4.32	6.32	1.31	6.48	4.64	2.63	2.32	2.83
97	2.68	3.13	4.21	5.85	1.31	5.99	4.53	2.48	2.37	2.84
98	2.78	3.18	4.10	5.37	1.32	5.51	4.42	2.40	2.48	2.86
99	2.86	3.25	3.99	5.10	1.32	5.20	4.29	2.42	2.56	2.92
100	2.95	3.32	3.86	4.92	1.33	5.02	4.10	2.52	2.64	2.98
101	3.03	3.38	3.79	4.71	1.34	4.80	3.99	2.68	2.71	3.07
102	3.11	3.43	3.73	4.52	1.35	4.60	3.90	2.82	2.79	3.13
103	3.17	3.35	3.69	4.35	1.36	4.39	3.83	2.93	2.87	3.18
104	3.22	2.87	3.65	4.21	1.38	4.20	3.80	2.97	2.94	3.17
105	3.16	2.52	3.60	4.09	1.39	4.07	3.73	2.62	2.98	2.76
106	2.71	2.70	3.56	3.99	1.40	3.95	3.65	2.24	2.94	2.29
107	2.34	3.26	3.52	3.87	1.42	3.81	3.57	2.34	2.52	2.32
108	2.43	3.64	3.48	3.80	1.44	3.74	3.50	2.91	2.08	2.83

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109	2.98	3.67	3.42	3.69	1.46	3.63	3.42	3.47	2.09	3.37
110	3.45	3.65	3.37	3.59	1.48	3.52	3.36	3.59	2.61	3.49
111	3.57	3.65	3.29	3.49	1.51	3.42	3.31	3.62	3.19	3.48
112	3.59	3.67	3.21	3.41	1.53	3.33	3.16	3.65	3.41	3.48
113	3.63	3.67	3.10	3.35	1.56	3.25	3.01	3.71	3.42	3.49
114	3.68	3.67	2.87	3.26	1.59	3.14	2.77	3.75	3.47	3.51
115	3.72	3.69	2.62	3.18	1.62	3.06	2.49	3.77	3.56	3.54
116	3.77	3.70	2.35	3.13	1.65	3.01	2.24	3.81	3.66	3.58
117	3.83	3.73	2.13	3.09	1.69	2.96	2.08	3.84	3.73	3.64
118	3.88	3.75	2.03	3.05	1.73	2.92	2.06	3.86	3.78	3.69
119	3.92	3.77	2.14	3.01	1.77	2.87	2.27	3.88	3.83	3.72
120	3.96	3.81	2.35	2.91	1.80	2.76	2.52	3.92	3.89	3.74
121	3.99	3.84	2.63	2.74	1.83	2.61	2.80	3.96	3.92	3.79
122	4.02	3.89	2.95	2.55	1.85	2.44	3.12	4.00	3.96	3.84
123	4.01	3.94	3.14	2.35	1.85	2.26	3.36	4.06	4.01	3.90
124	3.91	4.01	3.30	2.17	1.81	2.14	3.54	4.13	4.04	3.97
125	4.00	4.08	3.29	2.08	1.72	2.07	3.53	4.20	4.00	4.05
126	4.16	4.17	3.20	2.05	1.59	2.10	3.45	4.28	4.04	4.14
127	4.09	4.25	3.04	2.22	1.48	2.31	3.33	4.36	4.18	4.24
128	3.98	4.34	2.88	2.46	1.43	2.55	3.17	4.44	4.24	4.34
129	3.44	4.42	2.74	2.74	1.46	2.79	3.01	4.51	4.16	4.42
130	2.66	4.50	2.70	3.05	1.61	3.10	2.86	4.59	3.74	4.51
131	2.43	4.52	2.69	3.39	1.82	3.34	2.78	4.66	2.96	4.56
132	2.98	4.48	2.66	3.67	2.04	3.58	2.75	4.64	2.35	4.53
133	3.10	4.33	2.74	3.96	2.34	3.82	2.74	4.55	2.89	4.45
134	3.13	4.17	3.00	4.12	2.54	3.97	2.81	4.37	3.23	4.25
135	3.07	3.96	3.34	4.24	2.78	4.10	3.07	4.13	3.23	4.06
136	2.96	3.73	3.72	4.35	2.93	4.22	3.43	3.76	3.16	3.81
137	2.85	3.44	4.03	4.42	3.04	4.29	3.78	3.33	3.03	3.56
138	2.74	3.10	4.26	4.41	3.13	4.31	4.03	2.90	2.88	3.22
139	2.60	2.86	4.50	4.40	3.18	4.29	4.22	2.49	2.72	2.89
140	2.42	2.55	4.68	4.34	3.20	4.25	4.38	2.21	2.51	2.53
141	2.26	2.29	4.73	4.26	3.19	4.17	4.46	2.02	2.30	2.19
142	2.12	2.22	4.63	4.11	3.13	4.05	4.46	1.94	2.10	1.94
143	1.96	2.25	4.43	3.91	3.02	3.87	4.32	1.95	1.87	1.83
144	1.88	2.26	4.15	3.71	2.90	3.68	4.06	1.96	1.63	1.71
145	1.90	2.26	3.80	3.45	2.79	3.44	3.74	2.00	1.49	1.56
146	1.94	2.24	3.44	3.18	2.68	3.20	3.41	2.05	1.47	1.43
147	2.00	2.24	3.13	2.95	2.59	2.99	3.10	2.11	1.44	1.40
148	2.08	2.28	2.82	2.73	2.56	2.80	2.82	2.19	1.45	1.41
149	2.15	2.33	2.70	2.62	2.53	2.71	2.72	2.26	1.46	1.43
150	2.24	2.40	2.66	2.60	2.51	2.70	2.69	2.34	1.50	1.47
151	2.33	2.48	2.64	2.58	2.55	2.71	2.68	2.41	1.54	1.46
152	2.43	2.56	2.68	2.60	2.60	2.74	2.72	2.49	1.58	1.49
153	2.52	2.64	2.72	2.63	2.64	2.79	2.77	2.57	1.61	1.57
154	2.61	2.72	2.76	2.66	2.68	2.83	2.83	2.65	1.65	1.60
155	2.70	2.80	2.79	2.70	2.71	2.88	2.88	2.73	1.68	1.60
156	2.78	2.87	2.82	2.76	2.76	2.93	2.94	2.79	1.70	1.65
157	2.87	2.93	2.86	2.82	2.79	2.97	3.00	2.85	1.74	1.70
158	2.94	2.96	2.88	2.87	2.83	2.99	3.04	2.90	1.78	1.75
159	3.00	2.97	2.90	2.89	2.84	3.01	3.07	2.92	1.81	1.79
160	3.02	2.98	2.91	2.90	2.85	3.02	3.08	2.92	1.84	1.82
161	3.03	2.98	2.91	2.89	2.84	3.01	3.08	2.92	1.84	1.82
162	3.02	2.97	2.89	2.88	2.84	2.99	3.06	2.92	1.83	1.82
163	3.02	2.97	2.87	2.86	2.85	2.98	3.02	2.93	1.84	1.82
164	3.00	2.95	2.84	2.82	2.85	2.95	2.99	2.93	1.87	1.84

IES ROAD REPORT
PHOTOMETRIC FILENAME : LED-9800-L4-60W-5K IES FILE.IES

CANDELA TABULATION - (Cont.)

165	2.98	2.93	2.81	2.78	2.83	2.92	2.96	2.93	1.89	1.87
166	2.95	2.91	2.78	2.73	2.81	2.90	2.91	2.90	1.94	1.92
167	2.90	2.87	2.74	2.69	2.77	2.85	2.86	2.87	1.99	1.97
168	2.86	2.81	2.69	2.64	2.73	2.80	2.80	2.83	2.03	2.01
169	2.83	2.77	2.66	2.60	2.69	2.75	2.76	2.79	2.06	2.05
170	2.83	2.75	2.63	2.59	2.65	2.72	2.73	2.77	2.06	2.05
171	2.85	2.75	2.64	2.58	2.60	2.70	2.71	2.77	2.04	2.04
172	2.84	2.73	2.63	2.56	2.56	2.69	2.68	2.76	2.06	2.06
173	2.83	2.71	2.61	2.54	2.50	2.66	2.67	2.75	2.10	2.09
174	2.81	2.69	2.60	2.52	2.47	2.63	2.66	2.72	2.17	2.16
175	2.76	2.65	2.58	2.49	2.46	2.59	2.64	2.69	2.26	2.26
176	2.69	2.60	2.55	2.43	2.44	2.53	2.61	2.63	2.29	2.29
177	2.59	2.52	2.48	2.37	2.36	2.46	2.55	2.56	2.32	2.32
178	2.52	2.45	2.41	2.31	2.30	2.39	2.50	2.51	2.35	2.36
179	2.45	2.40	2.34	2.25	2.25	2.34	2.45	2.47	2.38	2.38
180	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0	3015.77	3015.77	3015.77	3015.77	3015.77	3015.77	3015.77
1	3014.79	3016.16	3019.34	3010.51	3016.36	3014.14	3014.35
2	3017.46	3015.30	3015.45	3009.03	3015.41	3012.84	3012.86
3	3017.43	3013.86	3016.23	3006.96	3010.31	3009.96	3006.75
4	3012.89	3011.21	3011.82	3002.47	3004.03	3004.81	2992.04
5	3004.13	3005.21	3009.07	2995.67	2965.12	2994.89	2773.03
6	2889.66	2996.42	3002.25	2905.64	2444.62	2832.13	2719.85
7	2342.24	2749.38	2993.90	2500.65	2272.72	2378.72	2475.55
8	2273.53	2327.77	2989.11	2272.64	2263.68	2264.37	1978.49
9	2264.31	2267.51	2981.53	2259.94	2255.88	2252.83	1770.43
10	2256.70	2257.84	2974.08	2253.34	2247.27	2242.47	1597.74
11	2247.23	2248.79	2964.32	2244.93	2240.63	2210.23	1561.27
12	2240.15	2241.50	2952.94	2236.82	2230.04	2068.16	1551.95
13	2234.15	2234.50	2945.56	2227.81	2220.78	1859.57	1543.58
14	2222.55	2224.56	2937.63	2219.51	2211.26	1644.29	1535.97
15	2211.30	2213.72	2925.73	2207.87	2200.42	1545.40	1529.27
16	2201.28	2203.72	2911.98	2197.07	2189.94	1529.84	1523.11
17	2188.48	2192.75	2899.08	2186.07	2175.48	1520.84	1543.84
18	2178.64	2181.43	2885.67	2173.01	2163.20	1513.68	1867.76
19	2166.42	2167.83	2871.23	2161.70	2150.63	1507.11	2371.23
20	2153.43	2153.80	2855.74	2149.93	2139.02	1497.88	2723.39
21	2138.87	2140.42	2841.15	2133.48	2119.83	1492.95	2809.44
22	2127.12	2126.44	2821.47	2119.57	2096.92	1550.05	2799.60
23	2107.27	2111.31	2805.78	2103.38	2056.19	1867.08	2784.27
24	2074.98	2096.75	2786.09	2088.25	1998.06	2117.87	2766.34
25	2020.25	2078.98	2765.50	2071.77	1954.38	2120.11	2747.34
26	2043.67	2061.28	2743.54	2054.71	2212.19	2102.45	2725.65
27	2384.01	2042.80	2721.57	2039.46	2439.59	2085.02	2705.15
28	2448.27	2024.22	2698.67	2032.71	2381.57	2068.13	2680.09
29	2364.98	2004.94	2675.17	2020.62	2310.67	2051.45	2654.79
30	2283.93	1982.45	2648.42	1988.90	2240.64	2046.39	2626.57
31	2203.38	1959.79	2618.24	1961.06	2176.35	2070.67	2597.32
32	2132.69	1937.46	2587.74	1932.84	2112.77	2113.80	2566.24
33	2064.12	1913.68	2559.14	1907.16	2056.09	2157.57	2532.49
34	2002.13	1889.62	2526.14	1881.46	2002.64	2208.35	2498.31
35	1951.55	1863.17	2493.09	1854.21	1956.69	2249.49	2461.85

IES ROAD REPORT
PHOTOMETRIC FILENAME : LED-9800-L4-60W-5K IES FILE.IES

CANDELA TABULATION - (Cont.)

36	1911.18	1835.69	2458.67	1825.24	1920.71	2281.37	2425.96
37	1878.60	1805.79	2423.72	1795.89	1887.26	2304.70	2390.45
38	1845.19	1776.34	2388.73	1766.31	1856.12	2313.93	2348.60
39	1814.50	1745.41	2351.13	1736.64	1824.92	2308.97	2310.96
40	1783.34	1712.75	2309.44	1705.86	1794.30	2278.96	2271.07
41	1750.93	1680.61	2273.00	1671.72	1763.03	2241.91	2229.00
42	1717.04	1645.00	2230.85	1635.59	1728.41	2202.44	2184.96
43	1683.35	1611.21	2187.67	1599.33	1693.12	2157.03	2138.49
44	1648.26	1576.26	2143.00	1562.57	1658.28	2114.52	2090.17
45	1614.54	1539.92	2096.56	1524.67	1621.88	2068.44	2042.57
46	1578.22	1504.54	2052.26	1484.96	1585.18	2021.31	1995.04
47	1540.44	1466.77	2003.53	1444.83	1544.56	1969.55	1945.05
48	1502.33	1427.71	1954.90	1403.87	1505.71	1918.84	1892.99
49	1462.75	1386.60	1903.58	1362.78	1464.13	1866.38	1841.12
50	1422.82	1343.42	1851.10	1320.28	1421.35	1811.46	1786.28
51	1382.21	1300.76	1798.13	1277.63	1377.89	1754.72	1730.30
52	1338.54	1256.59	1742.33	1233.85	1331.00	1696.05	1674.29
53	1294.54	1215.19	1688.44	1190.07	1284.40	1635.21	1616.08
54	1251.46	1173.77	1631.55	1146.28	1238.72	1575.78	1556.36
55	1208.37	1131.37	1574.19	1098.03	1193.03	1515.63	1497.05
56	1165.08	1089.99	1517.05	1047.10	1147.10	1459.90	1442.57
57	1115.03	1054.22	1460.40	996.49	1093.39	1399.00	1388.62
58	1065.44	1021.99	1407.33	944.20	1041.60	1336.06	1326.36
59	1015.71	988.55	1347.37	891.62	989.07	1272.33	1260.27
60	964.80	958.25	1283.14	840.39	941.23	1208.60	1193.34
61	913.11	929.47	1218.91	787.77	892.04	1144.86	1124.62
62	863.17	897.42	1154.50	736.11	841.75	1080.29	1056.24
63	811.04	866.70	1084.56	683.85	792.57	1017.23	987.06
64	761.87	833.72	1013.59	633.14	744.10	951.12	920.23
65	712.92	800.47	945.10	584.61	697.99	886.81	855.91
66	663.99	760.43	875.54	536.50	653.34	815.71	791.55
67	619.01	722.15	808.61	488.57	610.69	751.96	729.31
68	576.45	680.63	740.16	441.86	569.39	694.04	666.48
69	537.75	639.09	671.35	399.95	531.01	636.06	608.94
70	498.85	596.47	607.42	361.81	493.62	580.07	559.01
71	459.14	550.25	548.86	325.27	454.98	526.48	509.31
72	418.98	505.03	496.44	288.31	414.24	475.52	459.61
73	378.87	456.76	449.94	251.71	372.29	425.14	414.54
74	337.54	406.45	403.89	216.32	332.91	376.62	368.50
75	300.55	351.25	358.41	187.00	298.65	331.85	322.97
76	269.45	298.82	312.55	163.29	266.06	293.12	277.31
77	242.08	258.94	270.20	144.15	236.16	259.98	231.04
78	214.96	227.94	232.70	125.00	209.05	229.72	193.24
79	187.68	196.23	198.79	105.90	180.10	189.54	167.40
80	160.71	167.54	169.60	88.26	147.98	159.49	143.97
81	133.74	138.85	140.42	73.47	116.08	129.44	119.29
82	107.06	110.44	111.58	58.31	99.04	99.70	94.67
83	89.72	90.81	92.68	46.10	83.44	79.33	73.82
84	66.33	69.57	76.94	35.75	63.97	63.25	57.39
85	49.37	51.27	55.79	27.70	44.18	44.92	35.69
86	37.39	46.99	38.36	21.36	37.43	32.39	13.89
87	28.00	22.16	20.93	17.41	27.87	19.85	6.03
88	18.61	18.08	3.82	13.47	18.31	7.53	4.53
89	9.47	14.01	0.95	9.63	9.04	5.27	3.05
90	8.55	9.94	0.93	9.47	8.74	5.07	2.91
91	8.18	9.70	0.93	9.25	8.31	4.55	2.76

IES ROAD REPORT
PHOTOMETRIC FILENAME : LED-9800-L4-60W-5K IES FILE.IES

CANDELA TABULATION - (Cont.)

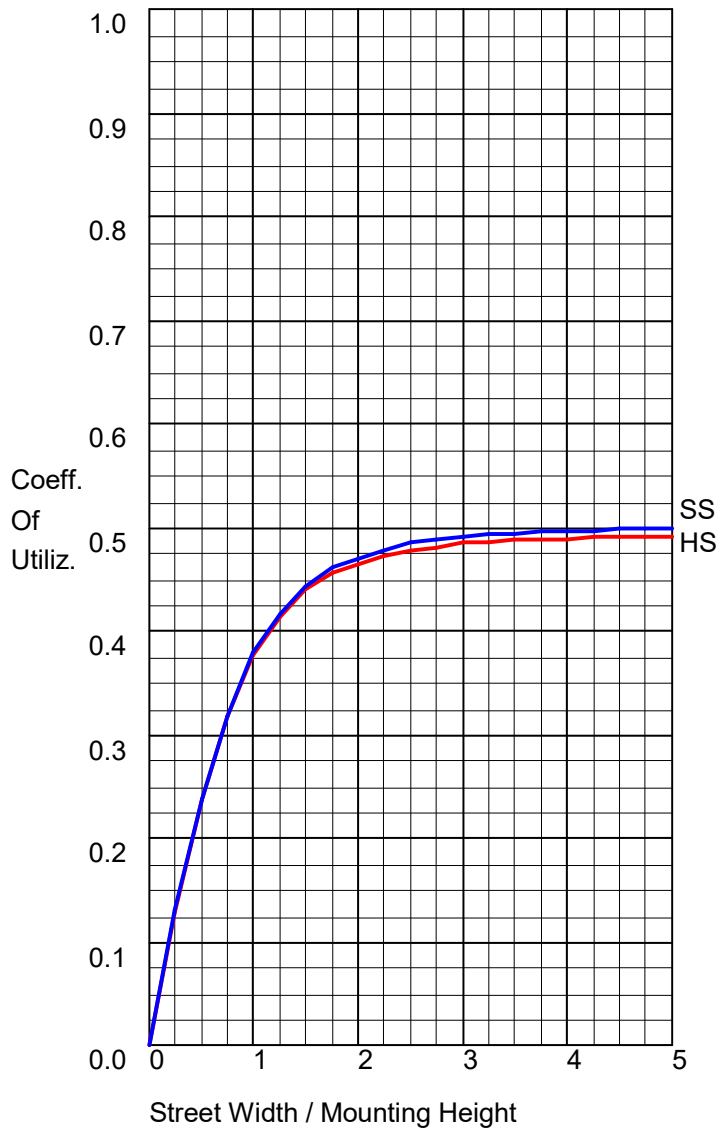
92	7.27	9.32	0.92	8.91	7.38	3.77	2.62
93	6.05	8.81	0.92	8.48	6.08	3.24	2.51
94	4.95	8.15	0.92	7.88	4.98	2.93	2.50
95	4.31	7.46	0.92	7.27	4.33	2.66	2.54
96	4.16	6.81	0.93	6.68	4.38	2.45	2.60
97	4.33	6.25	0.94	6.14	4.47	2.27	2.68
98	4.23	5.74	0.95	5.66	4.33	2.10	2.78
99	4.02	5.36	0.97	5.32	4.11	2.03	2.86
100	3.86	5.08	0.98	5.03	3.91	2.05	2.95
101	3.69	4.80	0.99	4.75	3.79	2.16	3.03
102	3.62	4.55	1.01	4.50	3.71	2.28	3.11
103	3.56	4.35	1.03	4.31	3.64	2.40	3.17
104	3.49	4.19	1.05	4.13	3.60	2.48	3.22
105	3.47	4.02	1.07	4.02	3.52	2.17	3.16
106	3.39	3.91	1.10	3.90	3.43	1.78	2.71
107	3.33	3.80	1.13	3.79	3.34	1.86	2.34
108	3.26	3.68	1.16	3.67	3.27	2.46	2.43
109	3.21	3.63	1.19	3.59	3.18	3.06	2.98
110	3.14	3.52	1.22	3.46	3.13	3.19	3.45
111	3.10	3.41	1.26	3.34	3.08	3.23	3.57
112	3.04	3.32	1.30	3.24	2.99	3.30	3.59
113	2.97	3.24	1.35	3.16	2.87	3.37	3.63
114	2.87	3.18	1.39	3.08	2.63	3.41	3.68
115	2.70	3.12	1.44	2.98	2.36	3.45	3.72
116	2.46	3.01	1.49	2.90	2.10	3.50	3.77
117	2.20	2.98	1.54	2.86	1.94	3.54	3.83
118	2.02	2.96	1.59	2.82	1.92	3.58	3.88
119	1.93	2.94	1.64	2.78	2.15	3.62	3.92
120	2.10	2.92	1.68	2.71	2.41	3.68	3.96
121	2.33	2.83	1.72	2.60	2.69	3.74	3.99
122	2.60	2.70	1.75	2.42	3.01	3.80	4.02
123	2.90	2.52	1.77	2.25	3.24	3.86	4.01
124	3.05	2.33	1.76	2.10	3.48	3.92	3.91
125	3.13	2.18	1.69	1.99	3.47	3.99	4.00
126	3.15	2.09	1.57	2.00	3.38	4.06	4.16
127	3.02	2.09	1.43	2.15	3.25	4.13	4.09
128	2.86	2.31	1.35	2.38	3.07	4.21	3.98
129	2.69	2.56	1.29	2.61	2.86	4.30	3.44
130	2.56	2.83	1.40	2.88	2.70	4.39	2.66
131	2.58	3.19	1.60	3.14	2.58	4.46	2.43
132	2.57	3.42	1.80	3.33	2.58	4.46	2.98
133	2.61	3.71	2.09	3.54	2.55	4.39	3.10
134	2.82	3.94	2.30	3.65	2.54	4.21	3.13
135	3.13	4.08	2.50	3.73	2.71	4.02	3.07
136	3.46	4.18	2.66	3.78	3.06	3.72	2.96
137	3.78	4.26	2.76	3.83	3.41	3.38	2.85
138	4.01	4.29	2.82	3.84	3.72	3.01	2.74
139	4.21	4.27	2.85	3.81	3.94	2.64	2.60
140	4.38	4.24	2.84	3.76	4.19	2.35	2.42
141	4.46	4.17	2.80	3.70	4.34	2.05	2.26
142	4.42	4.07	2.74	3.59	4.34	1.81	2.12
143	4.24	3.92	2.63	3.44	4.16	1.77	1.96
144	3.95	3.69	2.46	3.23	3.86	1.73	1.88
145	3.58	3.43	2.27	2.96	3.45	1.71	1.90
146	3.13	3.06	2.12	2.63	3.01	1.69	1.94
147	2.70	2.70	1.99	2.33	2.58	1.68	2.00

IES ROAD REPORT
PHOTOMETRIC FILENAME : LED-9800-L4-60W-5K IES FILE.IES

CANDELA TABULATION - (Cont.)

148	2.31	2.34	1.83	2.04	2.19	1.68	2.08
149	1.97	2.02	1.73	1.80	1.88	1.68	2.15
150	1.85	1.88	1.69	1.67	1.74	1.70	2.24
151	1.74	1.79	1.66	1.62	1.67	1.68	2.33
152	1.71	1.76	1.66	1.60	1.64	1.70	2.43
153	1.73	1.77	1.68	1.62	1.65	1.72	2.52
154	1.77	1.80	1.71	1.65	1.67	1.76	2.61
155	1.81	1.82	1.73	1.68	1.67	1.79	2.70
156	1.82	1.84	1.76	1.69	1.66	1.80	2.78
157	1.80	1.84	1.77	1.70	1.66	1.81	2.87
158	1.81	1.78	1.75	1.69	1.64	1.81	2.94
159	1.80	1.75	1.72	1.69	1.62	1.81	3.00
160	1.80	1.74	1.72	1.66	1.61	1.80	3.02
161	1.78	1.74	1.71	1.66	1.61	1.80	3.03
162	1.76	1.75	1.70	1.65	1.62	1.80	3.02
163	1.75	1.77	1.72	1.65	1.63	1.81	3.02
164	1.76	1.80	1.74	1.67	1.65	1.83	3.00
165	1.78	1.81	1.78	1.70	1.67	1.84	2.98
166	1.83	1.82	1.81	1.75	1.70	1.85	2.95
167	1.86	1.82	1.82	1.79	1.72	1.86	2.90
168	1.90	1.82	1.83	1.81	1.79	1.88	2.86
169	1.92	1.82	1.84	1.84	1.81	1.91	2.83
170	1.93	1.80	1.83	1.82	1.77	1.92	2.83
171	1.94	1.80	1.82	1.79	1.76	1.91	2.85
172	1.96	1.81	1.82	1.80	1.80	1.92	2.84
173	1.99	1.84	1.86	1.83	1.85	1.95	2.83
174	2.06	1.90	1.92	1.89	1.93	2.04	2.81
175	2.14	2.00	2.00	1.93	2.02	2.16	2.76
176	2.20	2.06	2.05	1.96	2.07	2.22	2.69
177	2.24	2.13	2.10	2.03	2.14	2.28	2.59
178	2.29	2.20	2.15	2.08	2.20	2.33	2.52
179	2.32	2.25	2.19	2.15	2.25	2.36	2.45
180	2.39	2.39	2.39	2.39	2.39	2.39	2.39

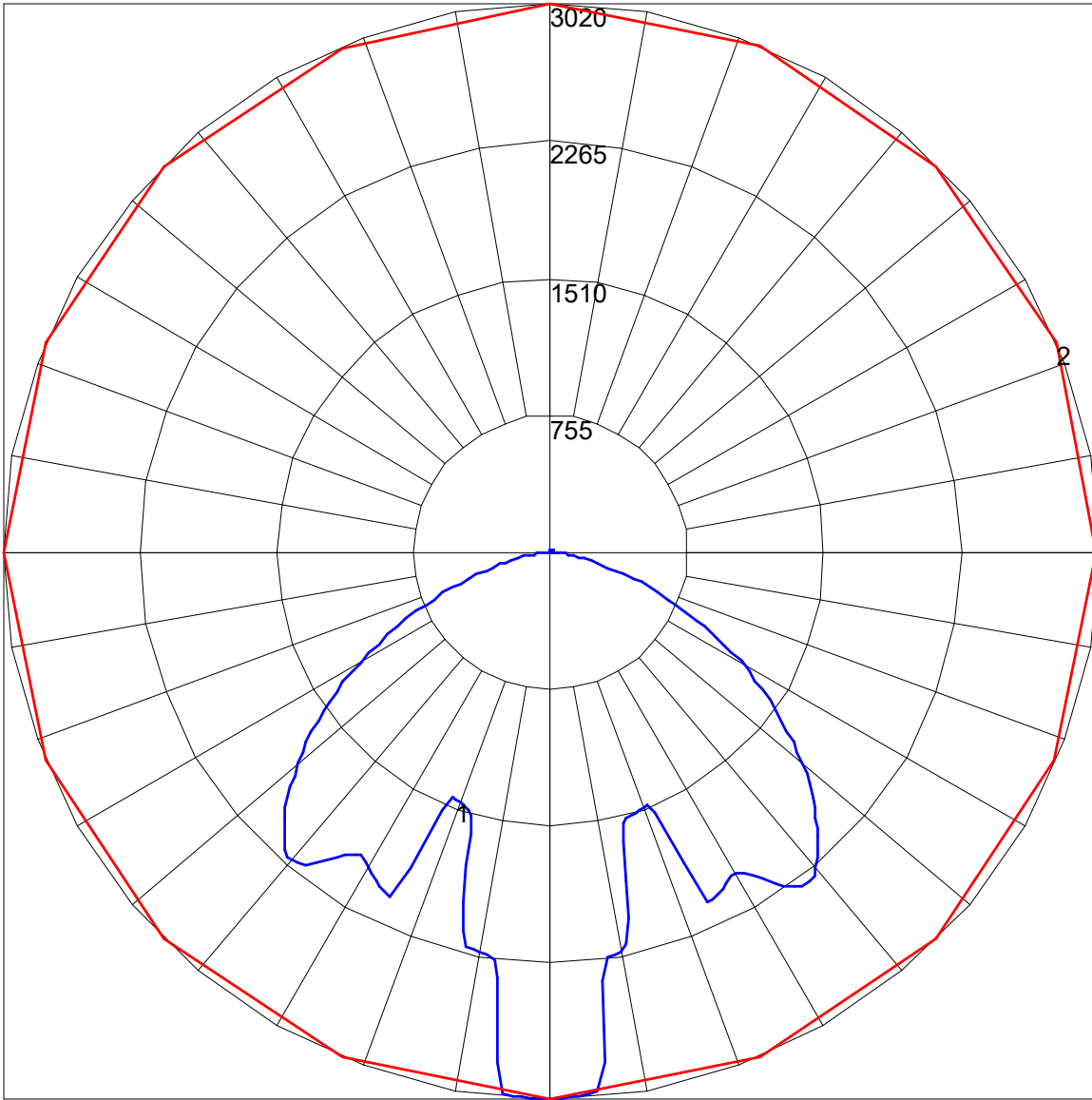
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

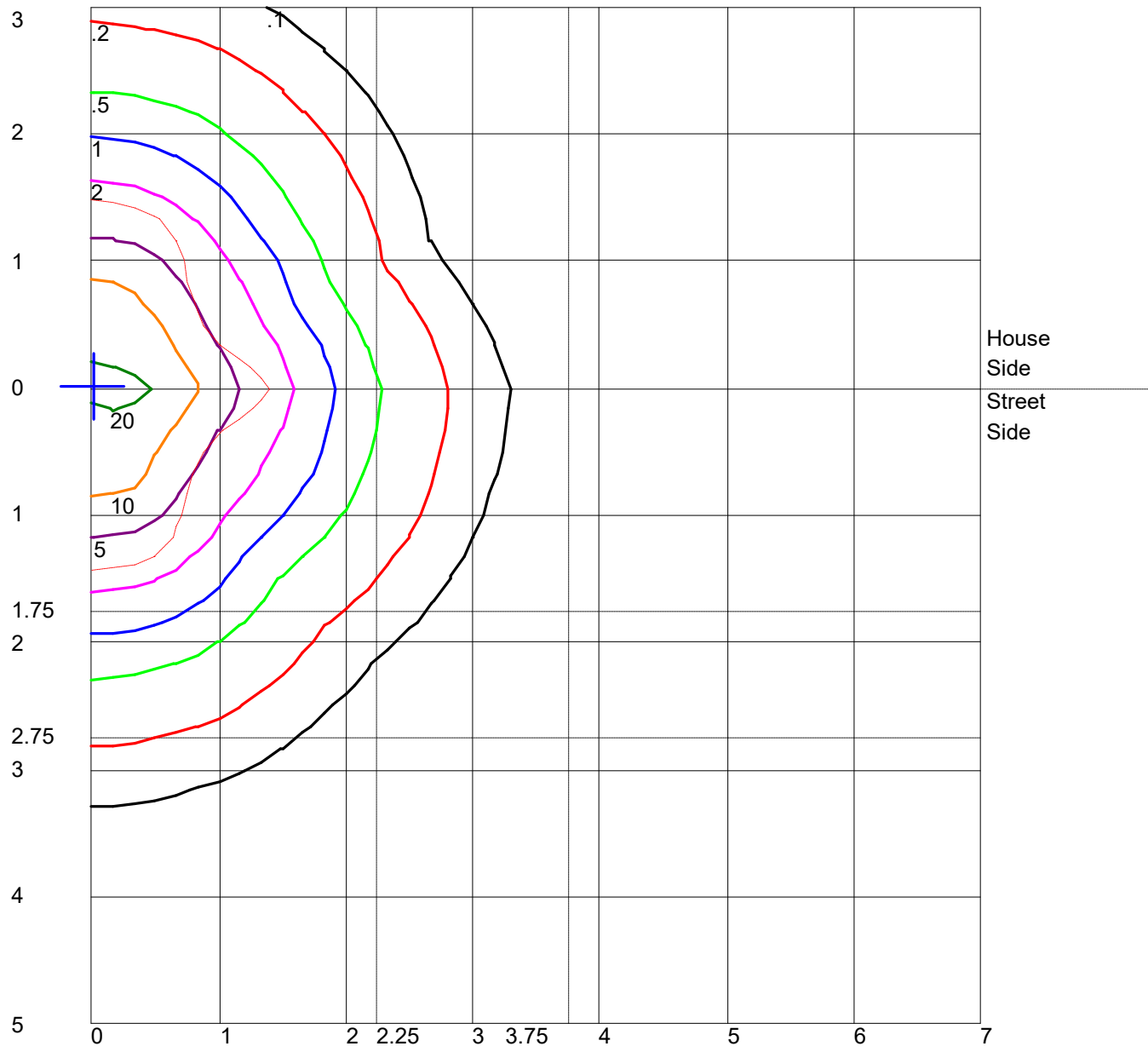
	Lumens	Percent Of Lamp
Downward Street Side	3456.1	49.5
Downward House Side	3512.5	50.3
Downward Total	6968.6	99.7
Upward Street Side	10.0	0.1
Upward House Side	10.1	0.1
Upward Total	20.1	0.3
Total Flux	6988.7	100.0

POLAR GRAPH



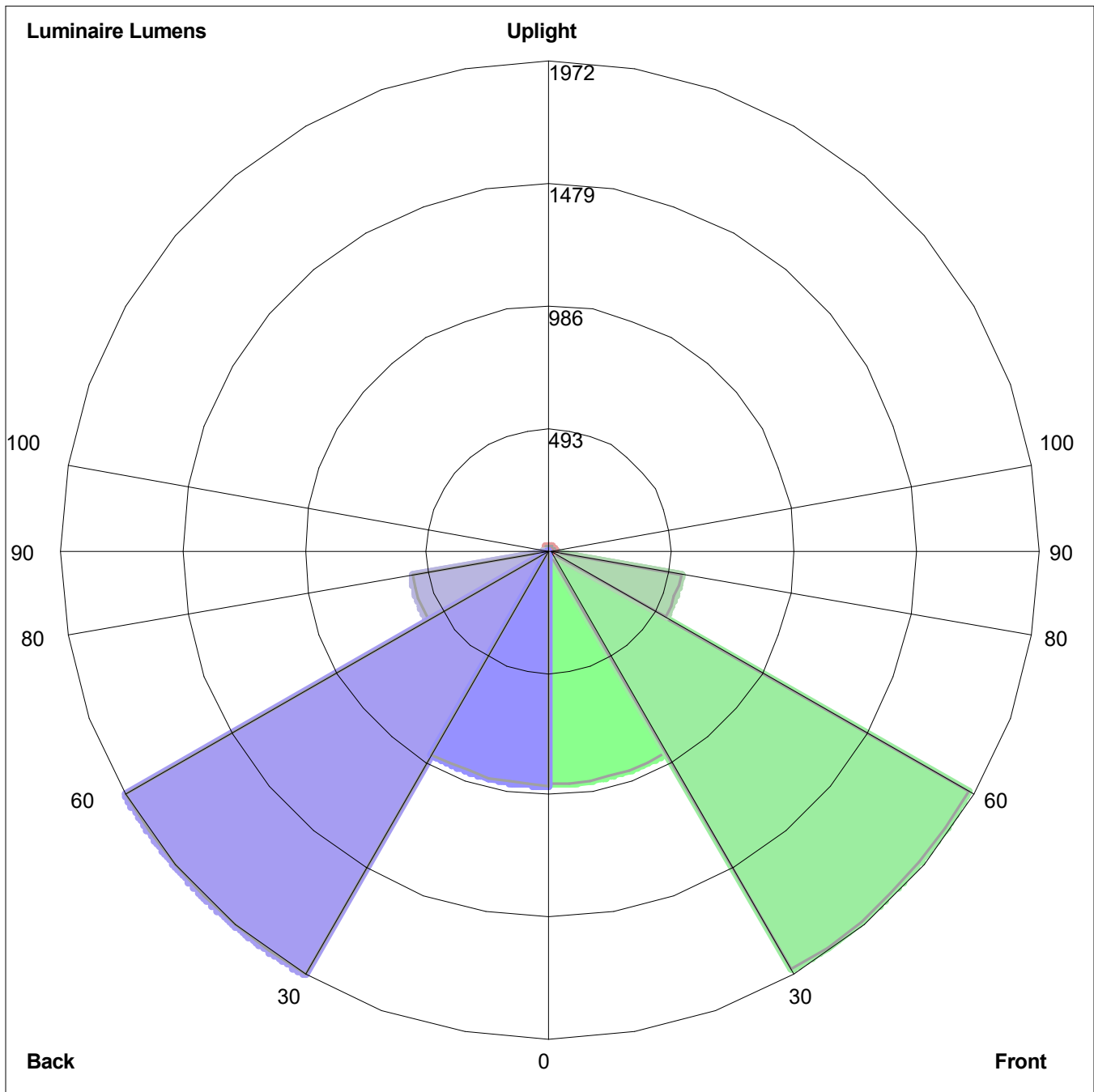
Maximum Candela = 3019.88 Located At Horizontal Angle = 157.5, Vertical Angle = 1
1 - Vertical Plane Through Horizontal Angles (157.5 - 337.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height
 Values Based On 10 Foot Mounting Height
 1/2 Maximum Candela Trace Shown As Dashed Curve
 (+) = Maximum Candela Point

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
 Front: Low=941.0, Medium=1950.8, High=537.8, Very High=26.5
 Back: Low=947.9, Medium=1972.3, High=563.6, Very High=28.8
 Uplight: Low=4.8, High=15.3

BUG Rating : B2-U2-G1