

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P210683

Luminaire Tested: **WPLLED-100-GL-UNV-7050**

Test Date: 10/26/16

Test Information

Test Method: LM-79-08
Report Number: P210683
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29005)
Test Lab: INNOVATION CENTER-P2
Test Date: 10/26/16
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: WPLLED-100-GL-UNV-7050
Description: LED WALL PACK
Light Source: (3) CREE 5000K LEDS
CXA1830
Ballast/Driver: (1) MEAN WELL
MW HLG-100H-42

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10423.6 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 0.42' x H: 0.58')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U5 - G5

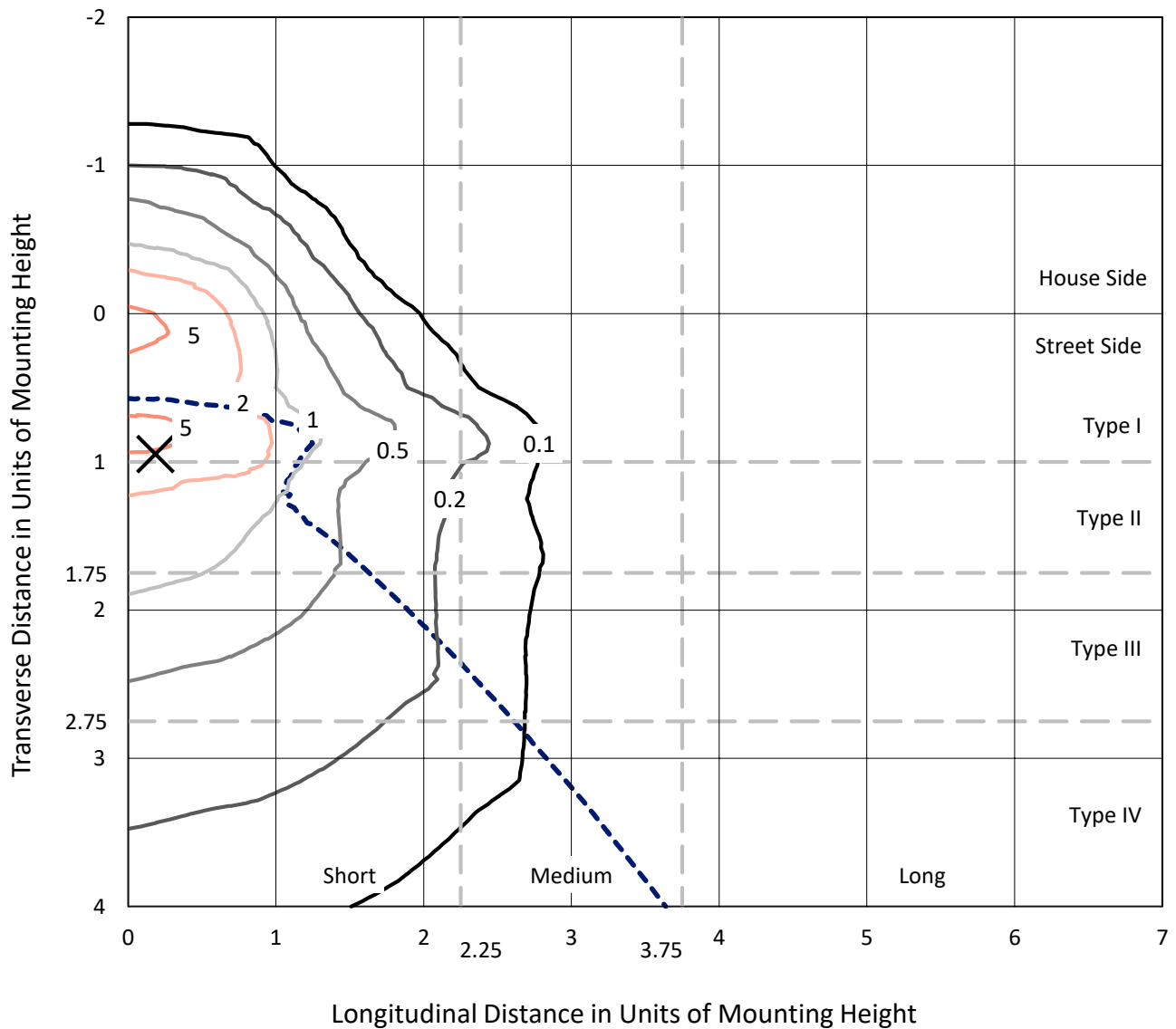
Input Watts (W): 82.2
Input Voltage (V): 120.0
Input Current (Ain): 0.842
Voltage Rise (V): NR
Power Factor: 0.9974
Total Harmonic Distortion (THDi): 9.26%
Frequency (hertz): 60
Stabilization Time: 1 HR
Operation Time: 3 HR
Ambient Temperature (°C): 24.7
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

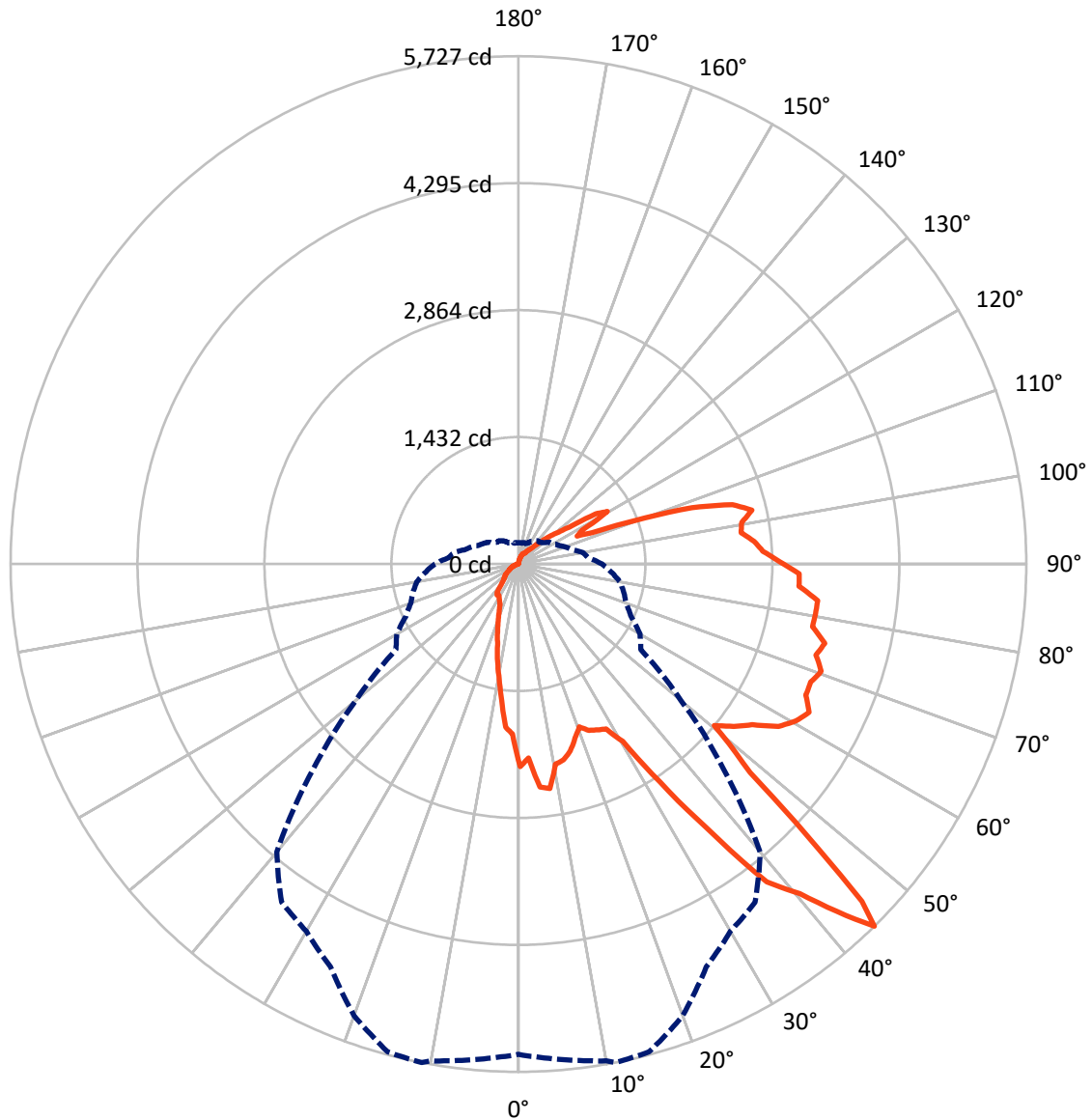
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 11-Deg Lateral - - - Horizontal Cone Through 44-Deg Vertical

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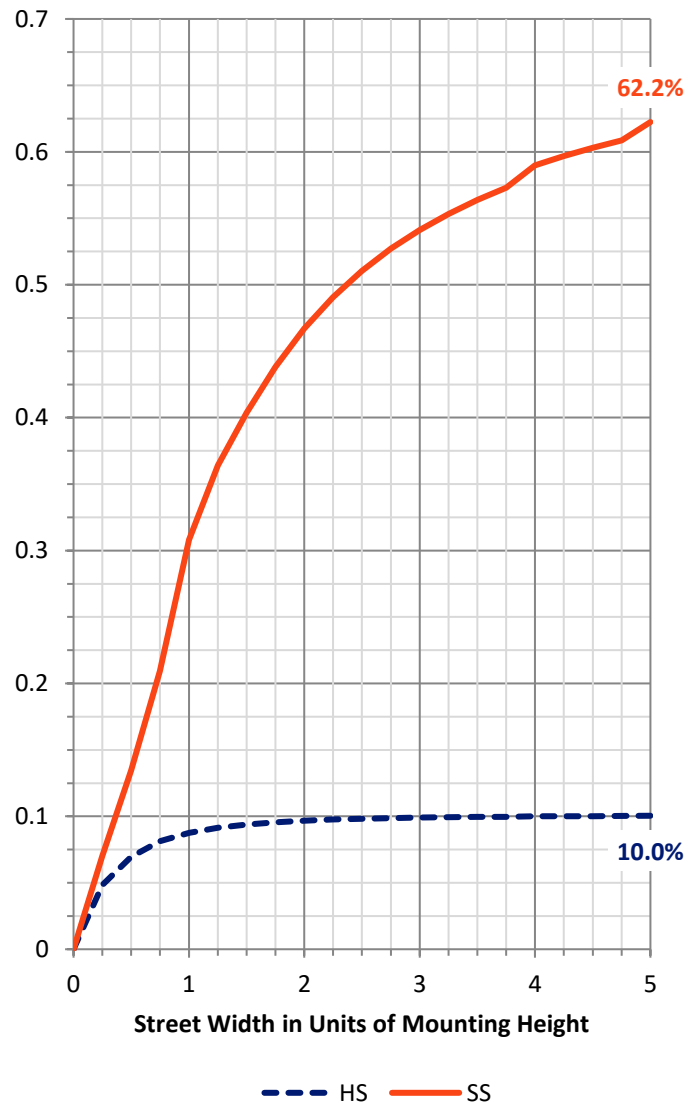
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1063.0	63.3	1126.3
	% Fixture	10.2	0.6	10.8
Street Side	Lumens	7290.5	2006.8	9297.3
	% Fixture	69.9	19.3	89.2
Total	Lumens	8353.5	2070.1	10423.6
	% Fixture	80.1	19.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.3	1.9
10°-20°	483.7	4.6
20°-30°	647.2	6.2
30°-40°	961.5	9.2
40°-50°	1338.1	12.8
50°-60°	1204.6	11.6
60°-70°	1245.5	11.9
70°-80°	1211.3	11.6
80°-90°	1067.2	10.2
90°-100°	854.3	8.2
100°-110°	606.8	5.8
110°-120°	268.6	2.6
120°-130°	180.2	1.7
130°-140°	86.3	0.8
140°-150°	45.7	0.4
150°-160°	21.5	0.2
160°-170°	6.3	0.1
170°-180°	0.2	0.0
0°-90°	8353.5	80.1
0°-180°	10423.6	100.0

Coefficient of Utilization



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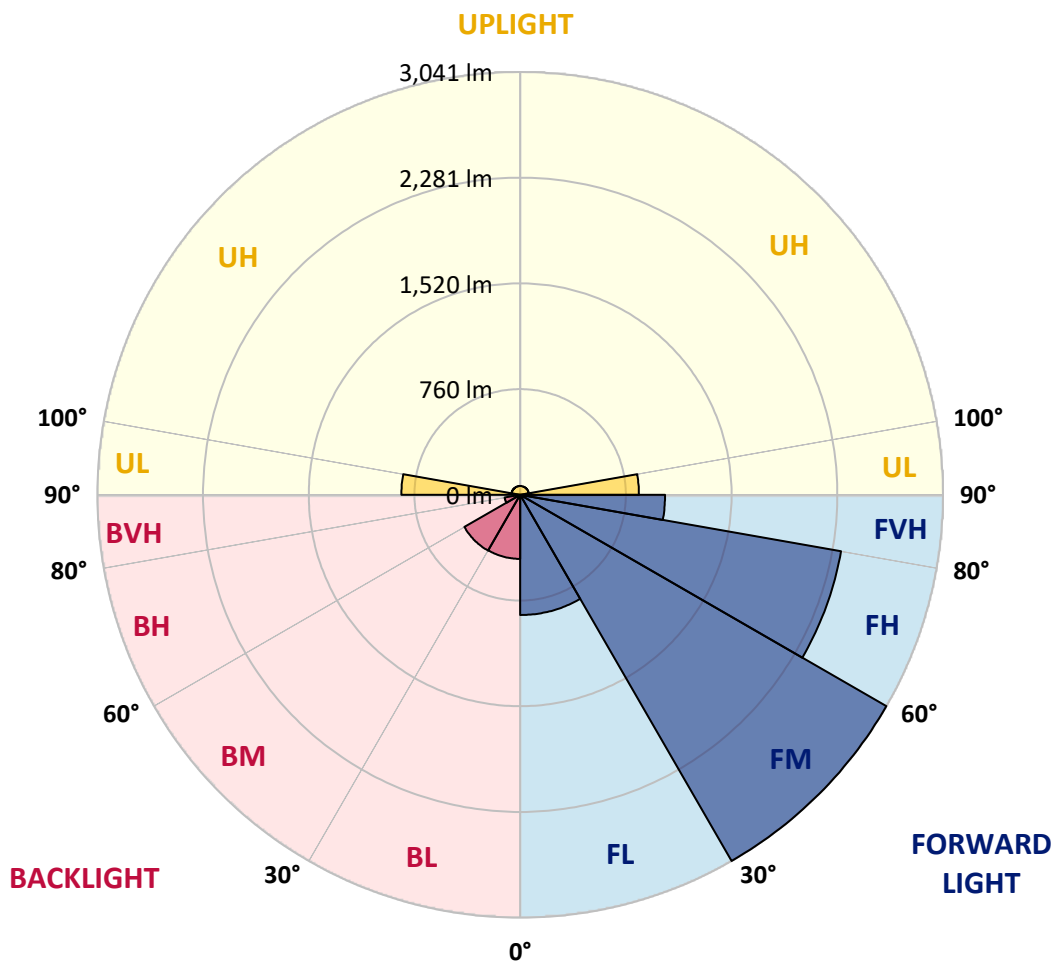
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	864.5	8.3			
FM	(30°-60°)	3040.9	29.2			
FH	(60°-80°)	2343.1	22.5			G2/5000
FVH	(80°-90°)	1041.9	10.0			G5
BL	(0°-30°)	460.7	4.4	B1/500		
BM	(30°-60°)	463.3	4.4	B1/1000		
BH	(60°-80°)	113.7	1.1	B1/500		G1/500
BVH	(80°-90°)	25.3	0.2			G1/100
UL	(90°-100°)	854.3	8.2		U4/1000	
UH	(100°-180°)	63.3	0.6		U3/500	

BUG Rating: B1-U5-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	11°	15°	20°	25°	30°	35°	40°	45°
0°	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6
2.5°	2204.1	2185.8	2195.8	2189.2	2190.8	2188.3	2184.2	2182.5	2180.0	2179.2	2184.2
5°	2537.6	2522.6	2532.6	2526.8	2519.3	2495.3	2448.0	2412.3	2375.8	2314.4	2256.4
7.5°	2545.0	2559.1	2559.1	2557.5	2549.2	2526.0	2518.5	2501.9	2469.5	2424.7	2388.2
10°	2291.2	2305.3	2291.2	2295.3	2296.2	2301.1	2332.7	2337.6	2350.1	2370.0	2385.8
12.5°	2295.3	2294.5	2275.4	2266.3	2245.6	2207.4	2161.0	2131.1	2141.0	2215.7	2311.9
15°	2201.6	2205.7	2189.2	2188.3	2175.9	2153.5	2142.7	2139.4	2154.3	2145.2	2131.1
17.5°	2099.6	2092.1	2079.7	2065.6	2034.0	2017.4	2042.3	2086.3	2127.8	2132.7	2124.4
20°	2009.1	2003.3	1970.2	1961.0	1926.2	1932.0	1965.2	1989.2	2010.8	2049.8	2078.0
22.5°	2118.6	2107.0	2055.6	2038.2	2002.5	1970.2	1933.7	1927.0	1945.3	1951.9	1976.0
25°	2135.2	2129.4	2086.3	2072.2	2060.6	2056.4	2028.2	1959.4	1894.7	1895.5	1898.0
27.5°	2192.5	2173.4	2113.7	2107.0	2102.9	2092.9	2044.8	2009.1	1952.7	1872.3	1849.0
30°	2462.9	2452.9	2340.1	2321.9	2264.6	2193.3	2096.2	2028.2	1962.7	1908.8	1805.1
32.5°	3044.4	3050.2	2944.9	2928.3	2835.4	2646.2	2360.9	2136.1	1995.9	1905.5	1833.3
35°	3742.1	3718.0	3669.9	3659.9	3588.6	3363.0	2993.0	2585.7	2209.9	1948.6	1849.9
37.5°	4500.3	4526.8	4546.7	4550.9	4542.6	4267.2	3768.6	3293.3	2729.2	2253.9	1957.7
40°	4799.7	4801.4	4864.4	4886.0	4932.4	4918.3	4688.6	4234.8	3504.8	2812.1	2297.8
42.5°	5522.2	5495.7	5451.7	5418.6	5262.6	5040.3	4881.8	4730.9	4472.0	3637.5	2849.5
44°	5529.7	5609.3	5689.8	5727.1	5695.6	5418.6	5012.1	4782.3	4654.5	4239.0	3272.5
45°	5071.0	5200.4	5345.6	5429.3	5598.6	5564.6	5290.8	4822.1	4648.7	4477.9	3686.5
47.5°	3253.5	3304.1	3526.4	3513.9	3885.6	4403.2	5043.6	5223.6	4762.4	4614.7	4333.5
50°	3027.8	2952.3	2865.2	2861.9	2896.8	2973.9	3328.1	3982.6	4872.7	4631.3	4216.6
52.5°	3266.7	3171.3	3041.9	3041.1	3027.8	2928.3	2840.3	2963.1	3713.0	4306.1	4018.3
55°	3465.0	3333.1	3195.4	3197.9	3180.5	3071.8	2941.5	2842.0	2989.7	3270.0	3387.8
57.5°	3788.5	3632.6	3452.5	3457.5	3400.3	3236.9	3059.3	2875.2	2849.5	2702.6	2424.7
60°	3876.4	3728.0	3591.9	3595.2	3562.0	3430.2	3236.0	2980.5	2835.4	2654.5	2222.3
62.5°	3938.7	3774.4	3664.1	3679.8	3700.6	3571.2	3379.5	3122.4	2930.8	2752.4	2239.8
65°	3800.9	3638.4	3543.0	3562.0	3608.5	3573.7	3518.1	3294.9	3027.0	2874.4	2318.6
67.5°	3810.9	3634.2	3540.5	3553.7	3581.1	3505.6	3415.2	3341.4	3131.5	3008.7	2341.0
70°	3865.7	3690.6	3597.7	3623.4	3645.8	3533.0	3460.8	3299.1	3127.4	3098.3	2381.6
72.5°	3751.2	3591.9	3488.2	3509.8	3544.6	3465.0	3347.2	3229.4	3092.5	3158.9	2406.5
75°	3810.9	3631.7	3537.2	3568.7	3568.7	3448.4	3352.2	3156.4	3001.3	3063.5	2421.4
77.5°	3573.7	3441.8	3364.6	3391.2	3431.0	3376.2	3303.2	3163.0	3025.3	3015.4	2357.5
80°	3628.4	3470.8	3376.2	3396.1	3403.6	3293.3	3227.7	3038.6	2851.1	2853.6	2253.9
82.5°	3593.6	3438.4	3371.3	3400.3	3412.7	3304.1	3162.2	2959.0	2817.1	2786.4	2186.7
85°	3403.6	3272.5	3155.6	3173.8	3167.2	3056.0	2943.2	2759.1	2618.9	2621.3	2058.1
87.5°	3459.2	3270.9	3167.2	3169.7	3145.6	3001.3	2853.6	2676.1	2546.7	2495.3	1916.2
90°	3183.8	3050.2	2927.4	2945.7	2929.1	2821.3	2701.8	2492.8	2358.4	2334.3	1769.4
92.5°	3030.3	2897.6	2758.2	2760.7	2722.5	2603.9	2509.4	2355.9	2238.9	2148.5	1649.1
95°	2940.7	2799.7	2666.1	2669.5	2634.6	2522.6	2413.1	2267.1	2209.1	2052.3	1558.7
97.5°	2734.2	2633.8	2523.5	2535.1	2535.9	2500.2	2423.9	2316.9	2185.8	1971.8	1552.1
100°	2789.7	2685.2	2560.8	2560.0	2603.1	2533.4	2443.8	2251.4	2066.4	1830.8	1374.6
102.5°	3052.7	2886.8	2706.0	2702.6	2663.6	2516.0	2305.3	2039.8	1810.9	1551.2	1163.8
105°	2812.1	2685.2	2499.4	2503.6	2455.4	2282.1	2044.0	1754.5	1436.8	1167.2	921.6
107.5°	2379.9	2248.9	2072.2	2059.7	1968.5	1774.4	1502.3	1260.9	1019.5	839.5	696.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	11°	15°	20°	25°	30°	35°	40°	45°
110°	1648.3	1565.3	1388.7	1384.5	1279.1	1132.3	986.3	844.5	722.5	688.5	618.0
112.5°	1026.1	983.0	901.7	900.9	863.6	808.0	740.0	681.0	651.2	723.4	628.0
115°	813.0	779.8	735.0	734.1	730.0	727.5	722.5	764.0	789.7	752.4	628.0
117.5°	813.0	798.9	809.6	812.1	853.6	915.8	976.4	936.5	767.3	657.0	520.1
120°	1240.2	1196.2	1169.7	1165.5	1173.0	1095.8	949.8	779.8	614.7	498.6	414.8
122.5°	1294.1	1172.1	1047.7	1036.1	939.0	808.0	704.3	589.8	471.2	404.0	334.3
125°	822.9	784.7	742.4	736.6	709.3	657.0	579.8	490.3	406.5	335.1	285.4
127.5°	714.2	671.1	608.1	598.9	568.2	534.2	485.3	416.4	351.7	294.5	246.4
130°	536.7	528.4	511.8	506.9	491.1	456.2	413.1	360.8	309.4	257.2	220.7
132.5°	475.3	453.8	421.4	415.6	398.2	370.8	340.1	303.6	265.5	227.3	199.9
135°	369.1	355.9	336.0	331.0	312.7	293.7	284.5	265.5	237.3	215.7	205.7
137.5°	306.9	297.8	287.0	284.5	275.4	265.5	253.0	243.1	240.6	238.1	215.7
140°	242.2	231.4	225.6	224.8	221.5	210.7	210.7	208.2	198.3	201.6	193.3
142.5°	209.0	207.4	202.4	202.4	200.8	197.4	201.6	202.4	200.8	196.6	190.0
145°	180.8	180.8	182.5	181.7	181.7	180.8	181.7	180.8	174.2	165.9	157.6
147.5°	153.5	153.5	154.3	153.5	154.3	152.6	154.3	155.1	153.5	148.5	141.9
150°	136.9	137.7	139.4	139.4	138.5	137.7	139.4	141.0	139.4	134.4	129.4
152.5°	134.4	133.6	133.6	134.4	134.4	135.2	134.4	131.1	127.7	122.8	115.3
155°	128.6	128.6	129.4	129.4	129.4	126.9	123.6	119.5	113.6	107.8	102.0
157.5°	119.5	119.5	118.6	118.6	116.1	113.6	107.8	102.9	97.1	92.9	87.1
160°	98.7	97.9	97.1	97.1	96.2	93.7	91.2	87.9	83.0	76.3	70.5
162.5°	82.1	83.0	82.1	82.1	82.1	80.5	77.1	72.2	65.5	57.2	51.4
165°	66.4	66.4	64.7	64.7	63.9	62.2	56.4	50.6	45.6	39.8	33.2
167.5°	44.8	44.0	42.3	43.1	43.1	41.5	38.2	33.2	26.5	21.6	16.6
170°	23.2	22.4	21.6	21.6	21.6	19.1	16.6	13.3	9.1	6.6	5.8
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6
2.5°	2193.3	2195.0	2214.0	2233.1	2252.2	2260.5	2266.3	2266.3	2254.7	2228.1	2201.6
5°	2199.1	2157.6	2120.3	2106.2	2114.5	2134.4	2166.8	2188.3	2171.7	2113.7	2044.8
7.5°	2341.8	2274.6	2194.1	2119.5	2076.3	2073.0	2110.3	2155.1	2133.6	2041.5	1936.1
10°	2389.1	2367.5	2338.5	2255.5	2149.3	2095.4	2114.5	2178.4	2138.6	2002.5	1886.4
12.5°	2366.7	2394.0	2377.5	2334.3	2215.7	2097.9	2089.6	2164.3	2094.6	1929.5	1829.1
15°	2229.8	2322.7	2355.9	2319.4	2246.4	2096.2	2039.8	2115.3	2010.8	1855.7	1781.0
17.5°	2086.3	2160.1	2266.3	2278.7	2219.9	2073.8	1966.0	2037.3	1905.5	1784.3	1736.2
20°	2072.2	2009.1	2107.0	2196.6	2158.5	2030.7	1883.9	1929.5	1796.8	1698.1	1655.8
22.5°	2010.8	1977.6	1947.8	2079.7	2089.6	1971.0	1800.9	1811.7	1678.2	1625.9	1545.4
25°	1922.9	1916.2	1864.8	1944.4	1985.9	1898.0	1723.0	1704.7	1565.3	1527.2	1426.8
27.5°	1824.2	1858.2	1818.3	1806.7	1894.7	1812.5	1644.2	1611.0	1478.2	1438.4	1335.6
30°	1791.0	1784.3	1764.4	1722.1	1809.2	1752.0	1610.1	1572.0	1434.3	1356.3	1251.8
32.5°	1763.6	1734.6	1739.5	1722.1	1845.7	1796.0	1681.5	1589.4	1454.2	1328.1	1199.5
35°	1782.7	1800.9	1843.2	1912.1	1952.7	1792.6	1644.2	1512.2	1377.0	1226.9	1108.3
37.5°	1907.9	1980.9	2041.5	2004.2	1825.0	1599.4	1437.6	1323.1	1194.5	1061.0	960.6
40°	2068.0	2045.6	1979.3	1788.5	1547.1	1386.2	1285.0	1206.1	1065.1	940.7	838.7
42.5°	2251.4	1842.4	1716.3	1519.7	1344.7	1271.7	1209.5	1120.7	999.6	845.3	765.7
44°	2392.4	1683.1	1582.8	1401.9	1290.8	1229.4	1163.8	1051.0	942.4	791.4	739.1
45°	2501.9	1632.5	1513.9	1357.1	1275.8	1212.8	1114.9	995.4	892.6	755.7	706.8
47.5°	3053.5	1696.4	1446.7	1291.6	1265.9	1173.0	995.4	868.5	756.5	691.0	598.1
50°	3538.0	2097.1	1508.1	1308.2	1309.8	1131.5	915.8	771.5	672.8	603.1	532.6
52.5°	3358.0	2793.1	1696.4	1355.5	1320.6	1080.1	852.8	681.9	640.4	535.1	480.3
55°	2848.6	2947.4	2225.7	1426.8	1280.0	1025.3	818.8	641.2	556.6	491.1	399.8
57.5°	2401.5	2452.9	2725.9	1613.5	1238.5	963.9	754.1	647.9	501.0	433.8	313.6
60°	1911.3	2105.4	2579.9	2217.4	1246.0	920.0	685.2	583.2	478.6	350.9	249.7
62.5°	1822.5	1786.8	1957.7	2798.0	1337.2	853.6	689.3	530.9	454.6	279.6	213.2
65°	1850.7	1684.8	1609.3	2145.2	1828.3	828.7	720.9	517.6	374.1	224.8	180.8
67.5°	1895.5	1670.7	1585.3	1442.6	2177.5	915.0	601.4	504.4	302.0	190.0	149.3
70°	1903.8	1680.7	1611.8	1273.3	1446.7	1141.4	630.4	417.3	239.7	165.9	128.6
72.5°	1900.5	1687.3	1586.9	1185.4	967.2	1039.4	618.0	374.1	206.6	138.5	109.5
75°	1933.7	1693.1	1529.7	1127.3	833.7	812.1	621.3	294.5	171.7	112.8	98.7
77.5°	1896.3	1686.5	1466.6	1045.2	822.9	688.5	473.7	240.6	144.3	93.7	92.1
80°	1837.4	1675.7	1412.7	978.0	707.6	584.0	385.7	205.7	110.3	81.3	89.6
82.5°	1747.0	1627.6	1317.3	890.9	633.8	497.7	305.3	168.4	89.6	73.0	92.9
85°	1687.3	1580.3	1216.9	822.1	570.7	406.5	243.9	131.1	68.0	68.0	93.7
87.5°	1599.4	1509.8	1134.8	715.1	528.4	331.0	194.9	97.9	58.1	68.8	97.1
90°	1499.0	1439.3	1062.6	701.8	451.3	281.2	171.7	80.5	53.9	73.8	100.4
92.5°	1411.9	1354.6	946.5	607.2	389.1	240.6	135.2	67.2	55.6	81.3	101.2
95°	1362.1	1200.3	885.1	558.3	336.0	206.6	112.0	59.7	60.6	87.1	102.0
97.5°	1248.5	1029.5	744.1	488.6	287.0	180.8	92.9	56.4	64.7	90.4	97.9
100°	1056.0	895.1	695.2	405.6	233.9	138.5	79.6	54.7	68.8	89.6	90.4
102.5°	918.3	718.4	565.7	332.6	202.4	112.8	73.0	56.4	67.2	85.4	82.1
105°	751.6	573.2	416.4	258.8	161.8	93.7	67.2	58.9	65.5	77.1	73.0
107.5°	574.9	448.8	338.4	228.1	139.4	87.1	65.5	62.2	64.7	70.5	61.4



REPORT NUMBER: P210683

CATALOG NUMBER: WPLLED-100-GL-UNV-7050

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
110°	494.4	381.6	293.7	213.2	124.4	83.0	67.2	65.5	65.5	65.5	54.7
112.5°	480.3	361.7	260.5	175.9	114.5	82.1	70.5	68.0	65.5	60.6	50.6
115°	449.6	304.4	221.5	155.1	107.0	82.1	77.1	70.5	65.5	58.1	48.1
117.5°	362.5	265.5	190.8	138.5	101.2	83.8	83.0	73.8	63.9	54.7	45.6
120°	304.4	226.5	173.4	131.1	97.9	85.4	86.3	73.0	60.6	50.6	43.1
122.5°	263.8	200.8	158.4	125.3	99.5	88.8	88.8	69.7	57.2	47.3	40.6
125°	231.4	183.3	147.7	121.1	102.0	94.6	91.2	63.9	53.1	44.0	38.2
127.5°	208.2	171.7	141.0	119.5	105.3	102.0	89.6	58.1	48.9	41.5	35.7
130°	190.8	164.3	137.7	117.0	106.2	103.7	83.8	53.1	44.0	38.2	33.2
132.5°	175.0	155.1	134.4	117.0	107.0	99.5	73.8	47.3	40.6	34.8	30.7
135°	188.3	166.7	151.0	136.0	118.6	98.7	64.7	42.3	36.5	32.3	27.4
137.5°	181.7	152.6	129.4	117.0	105.3	86.3	54.7	38.2	34.0	29.9	25.7
140°	185.0	167.6	151.0	131.1	112.8	83.8	46.5	34.8	30.7	27.4	23.2
142.5°	176.7	169.2	148.5	127.7	102.9	69.7	39.8	32.3	28.2	24.9	20.7
145°	148.5	137.7	122.8	108.7	83.8	56.4	34.0	28.2	24.9	22.4	19.1
147.5°	134.4	124.4	112.0	94.6	70.5	44.8	28.2	24.9	22.4	19.9	16.6
150°	123.6	113.6	99.5	80.5	58.9	35.7	24.1	21.6	19.1	17.4	14.9
152.5°	107.8	99.5	84.6	68.0	45.6	27.4	20.7	18.2	16.6	14.9	13.3
155°	94.6	83.0	67.2	53.1	34.0	19.1	16.6	14.9	14.1	13.3	12.4
157.5°	78.0	64.7	53.1	38.2	23.2	14.1	13.3	13.3	12.4	12.4	11.6
160°	59.7	49.8	36.5	24.9	13.3	11.6	11.6	11.6	11.6	11.6	10.8
162.5°	44.0	33.2	22.4	13.3	10.0	10.8	10.8	10.8	10.8	10.8	10.0
165°	26.5	18.2	10.0	9.1	9.1	9.1	10.0	10.0	10.0	10.0	10.0
167.5°	11.6	6.6	7.5	8.3	8.3	8.3	9.1	10.0	10.0	10.0	10.0
170°	6.6	6.6	7.5	8.3	8.3	8.3	9.1	10.0	10.0	10.0	10.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: WPLLED-100-GL-UNV-7050

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6	2284.6
2.5°	2153.5	2123.6	2087.1	2046.5	2026.6	1990.9	1974.3	1949.4	1952.7	1934.5	1929.5
5°	1961.9	1918.7	1880.6	1844.9	1819.2	1814.2	1815.0	1815.9	1825.0	1834.1	1840.7
7.5°	1854.8	1797.6	1764.4	1747.8	1736.2	1700.6	1662.4	1608.5	1595.2	1557.0	1538.0
10°	1813.4	1773.6	1732.1	1663.2	1584.4	1493.2	1438.4	1421.8	1404.4	1352.2	1330.6
12.5°	1781.0	1721.3	1623.4	1528.0	1457.5	1391.1	1304.9	1229.4	1180.4	1143.1	1123.2
15°	1734.6	1614.3	1509.8	1437.6	1323.9	1224.4	1156.4	1095.0	1053.5	993.8	953.1
17.5°	1638.3	1508.1	1412.7	1289.9	1185.4	1109.1	1040.2	967.2	910.0	875.2	841.2
20°	1523.0	1406.1	1285.0	1163.8	1079.2	991.3	907.5	863.6	811.3	750.7	709.3
22.5°	1424.3	1291.6	1167.2	1063.5	958.9	874.3	808.8	736.6	698.5	654.5	613.9
25°	1319.0	1187.1	1072.6	959.8	856.9	783.9	705.9	642.9	613.0	575.7	540.9
27.5°	1216.9	1101.6	978.9	857.7	777.3	682.7	631.3	586.5	542.5	511.0	486.9
30°	1139.0	1017.8	886.8	781.4	677.7	621.3	572.4	531.7	496.9	478.6	466.2
32.5°	1090.8	955.6	810.5	701.8	612.2	565.7	534.2	500.2	473.7	445.5	433.0
35°	1014.5	903.4	751.6	627.1	559.1	524.3	504.4	476.2	447.1	434.7	433.8
37.5°	878.5	802.2	694.3	581.5	508.5	488.6	478.6	462.9	448.8	426.4	429.7
40°	741.6	673.6	616.3	537.5	480.3	457.9	438.8	432.2	410.6	384.9	358.4
42.5°	661.1	590.6	534.2	504.4	455.4	408.1	381.6	371.6	357.5	329.3	291.2
44°	623.8	563.3	496.1	461.2	424.7	374.1	344.3	340.9	320.2	294.5	264.6
45°	598.9	540.0	472.8	432.2	402.3	350.9	322.7	316.1	310.2	274.6	248.0
47.5°	550.8	467.0	407.3	382.4	345.1	304.4	274.6	264.6	273.7	244.7	248.9
50°	461.2	379.1	359.2	336.0	293.7	258.8	229.8	250.5	245.5	248.9	218.2
52.5°	378.3	322.7	316.1	286.2	252.2	220.7	214.9	219.8	250.5	219.0	188.3
55°	309.4	284.5	277.1	247.2	214.0	196.6	203.2	213.2	220.7	191.6	175.0
57.5°	267.1	248.0	238.9	211.5	178.4	186.6	194.9	188.3	185.8	170.1	151.8
60°	224.8	214.0	202.4	183.3	172.5	181.7	172.5	163.4	156.0	152.6	136.0
62.5°	184.2	182.5	170.9	159.3	167.6	170.9	156.8	141.9	140.2	138.5	124.4
65°	159.3	160.9	147.7	151.0	166.7	158.4	144.3	126.9	129.4	121.9	104.5
67.5°	139.4	144.3	138.5	146.0	155.1	148.5	133.6	120.3	114.5	99.5	85.4
70°	126.1	131.9	145.2	151.0	144.3	133.6	122.8	106.2	94.6	82.1	68.0
72.5°	117.0	131.1	148.5	150.1	129.4	121.1	103.7	88.8	77.1	65.5	52.3
75°	112.8	136.9	148.5	135.2	117.8	99.5	85.4	72.2	63.0	49.8	36.5
77.5°	113.6	136.0	138.5	116.1	99.5	79.6	65.5	58.1	47.3	31.5	20.7
80°	118.6	131.1	119.5	99.5	78.0	62.2	51.4	42.3	31.5	20.7	13.3
82.5°	118.6	121.1	100.4	83.0	63.0	53.9	45.6	38.2	28.2	18.2	11.6
85°	114.5	107.0	85.4	66.4	53.9	46.5	39.8	31.5	22.4	14.9	10.0
87.5°	107.0	91.2	72.2	57.2	48.9	43.1	36.5	26.5	19.1	13.3	8.3
90°	102.0	83.8	63.0	53.1	46.5	41.5	32.3	23.2	17.4	12.4	8.3
92.5°	92.9	76.3	58.1	50.6	44.8	39.0	29.0	21.6	15.8	11.6	7.5
95°	88.8	68.0	53.9	48.9	44.0	35.7	25.7	19.9	14.9	10.8	6.6
97.5°	81.3	60.6	50.6	47.3	41.5	32.3	24.1	18.2	13.3	9.1	5.8
100°	72.2	55.6	48.1	45.6	39.0	29.0	21.6	16.6	12.4	8.3	5.8
102.5°	64.7	51.4	46.5	44.8	34.8	26.5	20.7	15.8	11.6	7.5	5.0
105°	57.2	48.1	44.8	41.5	30.7	23.2	18.2	14.1	10.0	6.6	5.0
107.5°	51.4	44.8	43.1	39.0	27.4	21.6	16.6	12.4	9.1	5.8	5.0



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 CATALOG NUMBER: WPLLED-100-GL-UNV-7050

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	
110°	46.5	42.3	39.8	34.0	24.1	19.9	15.8	11.6	8.3	5.8	4.1	0°
112.5°	44.0	39.8	36.5	29.0	22.4	19.1	14.9	10.8	7.5	5.8	4.1	2.5°
115°	42.3	39.0	34.0	26.5	22.4	19.1	14.9	11.6	8.3	6.6	5.8	5°
117.5°	40.6	36.5	30.7	24.9	21.6	19.1	14.9	10.8	9.1	7.5	5.8	7.5°
120°	38.2	34.0	28.2	22.4	19.9	17.4	13.3	10.8	9.1	7.5	5.8	10°
122.5°	35.7	31.5	25.7	20.7	18.2	15.8	12.4	10.0	8.3	6.6	5.8	12.5°
125°	33.2	28.2	23.2	19.9	17.4	14.9	11.6	10.0	8.3	6.6	5.8	15°
127.5°	30.7	25.7	20.7	18.2	15.8	13.3	10.8	9.1	8.3	6.6	5.8	17.5°
130°	28.2	23.2	19.9	17.4	14.9	12.4	10.8	9.1	7.5	6.6	5.8	20°
132.5°	25.7	21.6	18.2	15.8	14.1	11.6	10.0	8.3	7.5	5.8	5.0	22.5°
135°	23.2	19.1	16.6	14.9	12.4	10.8	9.1	8.3	6.6	5.8	5.0	25°
137.5°	21.6	18.2	15.8	13.3	11.6	10.8	9.1	8.3	6.6	5.8	5.0	27.5°
140°	19.9	16.6	14.1	12.4	11.6	10.0	9.1	8.3	6.6	5.8	5.0	30°
142.5°	18.2	15.8	13.3	11.6	10.8	10.0	9.1	7.5	6.6	5.8	5.0	32.5°
145°	16.6	14.1	12.4	11.6	10.8	9.1	8.3	7.5	6.6	5.8	5.0	35°
147.5°	14.9	13.3	11.6	10.8	10.0	9.1	8.3	7.5	6.6	5.8	5.0	37.5°
150°	13.3	12.4	10.8	10.8	10.0	9.1	8.3	7.5	6.6	5.8	5.0	40°
152.5°	12.4	11.6	10.8	10.0	9.1	9.1	8.3	7.5	6.6	5.8	5.0	42.5°
155°	11.6	10.8	10.0	10.0	9.1	8.3	8.3	7.5	6.6	5.8	5.0	44°
157.5°	10.8	10.0	10.0	9.1	9.1	8.3	8.3	7.5	6.6	5.8	5.0	45°
160°	10.8	10.0	9.1	9.1	9.1	8.3	8.3	7.5	6.6	5.8	5.0	47.5°
162.5°	10.0	10.0	9.1	9.1	9.1	8.3	8.3	7.5	6.6	5.8	5.0	50°
165°	10.0	10.0	9.1	9.1	9.1	8.3	8.3	7.5	6.6	5.8	5.0	52.5°
167.5°	10.0	10.0	9.1	9.1	9.1	8.3	8.3	7.5	6.6	5.8	5.0	55°
170°	10.0	10.0	9.1	9.1	9.1	8.3	8.3	7.5	6.6	5.8	5.0	57.5°
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°

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REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

160°	165°	170°	175°	180°
2284.6	2284.6	2284.6	2284.6	2284.6
1928.7	1926.2	1915.4	1910.4	1905.5
1846.6	1849.9	1843.2	1839.1	1831.6
1537.1	1539.6	1548.7	1556.2	1556.2
1324.8	1319.0	1310.7	1308.2	1303.2
1118.2	1127.3	1128.2	1131.5	1125.7
929.9	934.1	938.2	949.0	954.8
817.1	813.0	803.0	804.7	824.6
687.7	683.5	680.2	685.2	702.6
586.5	581.5	581.5	592.3	606.4
510.2	500.2	499.4	511.0	523.4
472.8	467.9	468.7	472.0	482.8
447.1	437.2	441.3	452.9	471.2
415.6	409.8	415.6	423.9	437.2
422.2	431.4	422.2	434.7	440.5
394.9	396.5	399.8	408.1	418.9
355.0	317.7	304.4	301.1	311.1
267.9	267.1	261.3	262.1	263.8
244.7	249.7	238.9	240.6	241.4
253.8	243.9	230.6	225.6	226.5
230.6	217.3	205.7	200.8	202.4
200.8	199.9	194.1	191.6	189.1
184.2	180.0	170.1	170.1	166.7
160.9	151.0	137.7	134.4	133.6
137.7	126.1	119.5	115.3	114.5
122.8	114.5	108.7	105.3	103.7
109.5	97.9	93.7	92.9	92.1
89.6	83.8	80.5	78.8	76.3
74.7	68.0	63.0	62.2	61.4
59.7	54.7	51.4	49.8	48.9
45.6	39.8	36.5	34.8	34.8
31.5	27.4	23.2	23.2	23.2
12.4	8.3	6.6	6.6	6.6
8.3	7.5	6.6	6.6	6.6
7.5	6.6	6.6	6.6	6.6
5.8	5.8	5.0	5.0	5.0
5.8	5.0	5.0	5.0	5.0
5.0	5.0	5.0	5.0	5.0
5.0	5.0	5.0	4.1	4.1
5.0	4.1	4.1	4.1	4.1
5.0	4.1	4.1	4.1	4.1
5.0	4.1	3.3	3.3	3.3
4.1	3.3	3.3	3.3	2.5
4.1	3.3	2.5	2.5	2.5
4.1	3.3	2.5	1.7	1.7

CANDELA DISTRIBUTION:

	160°
110°	3.3
112.5°	3.3
115°	5.0
117.5°	5.0
120°	5.0
122.5°	5.0
125°	5.0
127.5°	5.0
130°	5.0
132.5°	5.0
135°	4.1
137.5°	4.1
140°	4.1
142.5°	4.1
145°	4.1
147.5°	4.1
150°	4.1
152.5°	4.1
155°	4.1
157.5°	4.1
160°	4.1
162.5°	4.1
165°	4.1
167.5°	4.1
170°	4.1
172.5°	0.0
175°	0.0
177.5°	0.0
180°	0.0



'210683

WPLLED-100-GL-UNV-7050

TION (continued):

165°	170°	175°	180°
2.5	2.5	1.7	0.8
2.5	1.7	0.8	0.8
4.1	2.5	1.7	1.7
5.0	3.3	2.5	2.5
5.0	3.3	2.5	2.5
5.0	3.3	2.5	1.7
4.1	3.3	1.7	1.7
4.1	3.3	1.7	1.7
4.1	2.5	1.7	0.8
4.1	2.5	1.7	0.8
4.1	2.5	0.8	0.0
4.1	2.5	0.8	0.0
4.1	2.5	0.8	0.0
4.1	2.5	0.8	0.0
4.1	2.5	0.8	0.0
4.1	2.5	0.8	0.0
4.1	2.5	0.8	0.0
3.3	2.5	0.8	0.0
4.1	2.5	0.8	0.0
3.3	2.5	0.8	0.0
3.3	2.5	0.8	0.0
3.3	2.5	0.8	0.0
3.3	2.5	0.8	0.0
3.3	2.5	0.8	0.0
3.3	1.7	0.8	0.0
3.3	1.7	0.8	0.0
3.3	1.7	0.8	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0

(END OF REPORT)