

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: P303580

Luminaire Tested: **WPMLED15-C**

Issue Date: 6/24/2020

Test Information

Test Method: LM-79-08
Report Number: P303580
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1906-360-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 6/24/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: WPMLED15-C
Description: MEDIUM LED WALL PACK - 50W, 5000K
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6263.8 lumens
Efficiency: N/A
Efficacy: 128.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.03' x L: 0.25' x H: 0.69')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U3 - G3

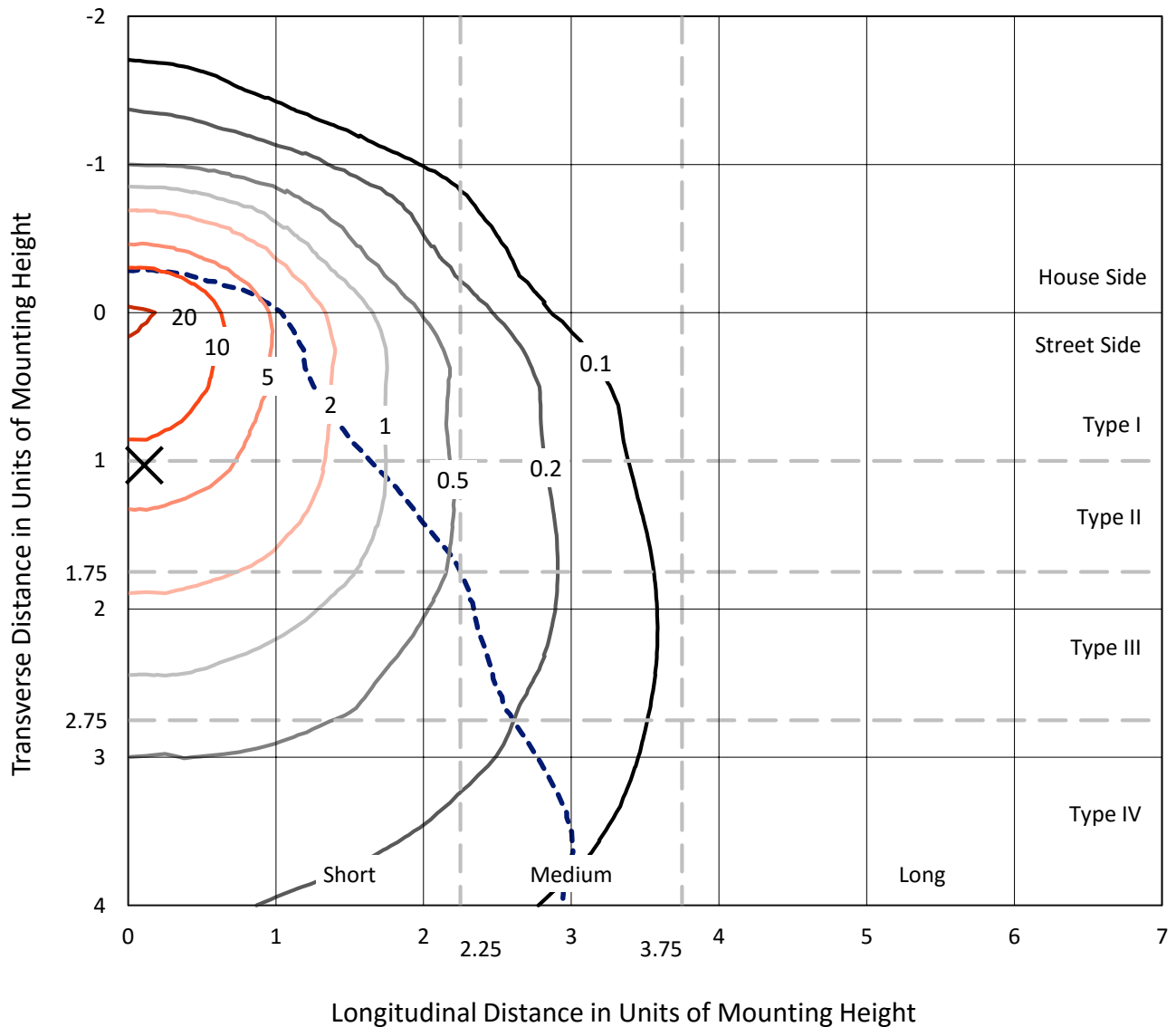
Input Watts (W): 48.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

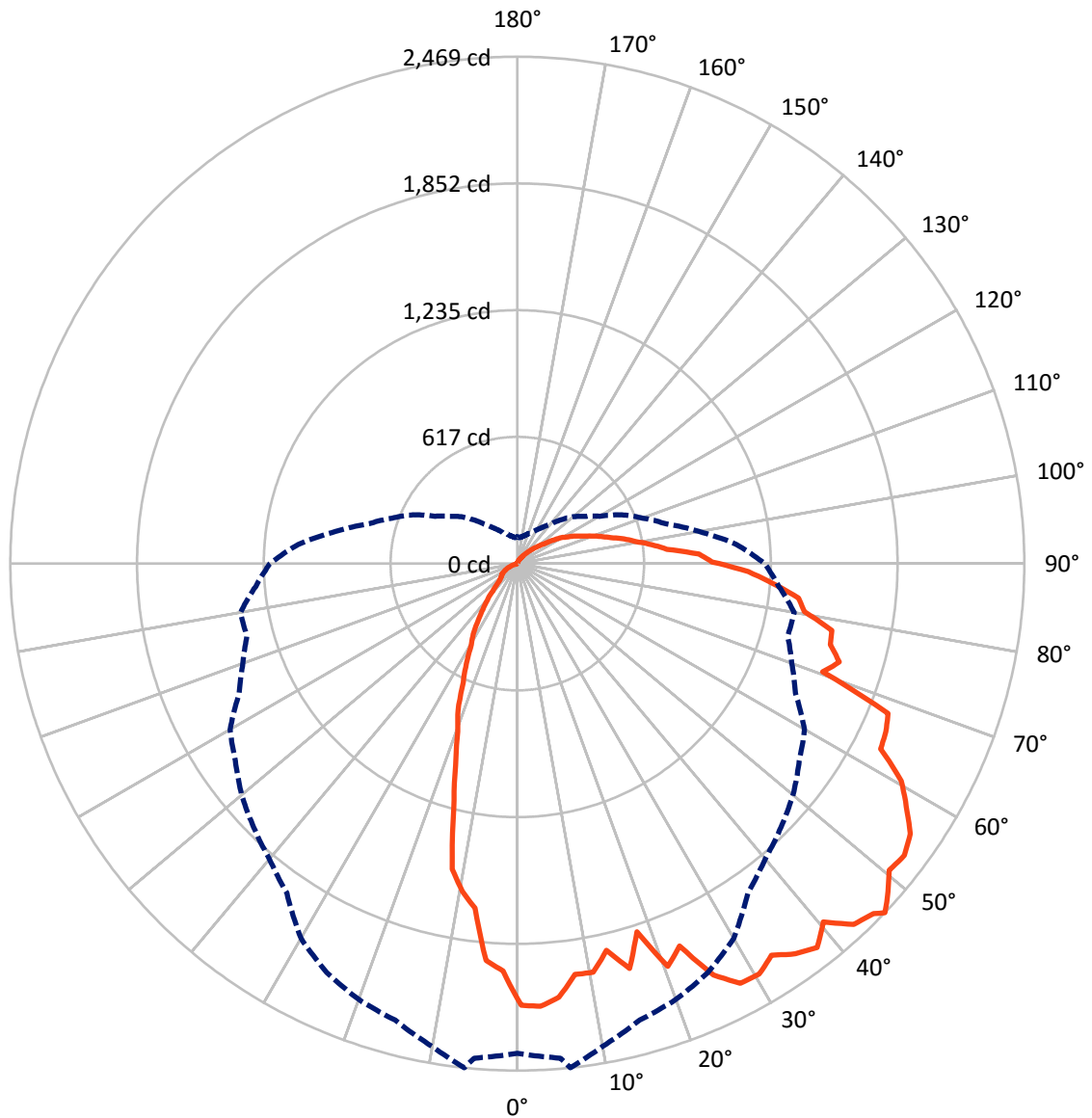
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 6-Deg Lateral - - - Horizontal Cone Through 46-Deg Vertical



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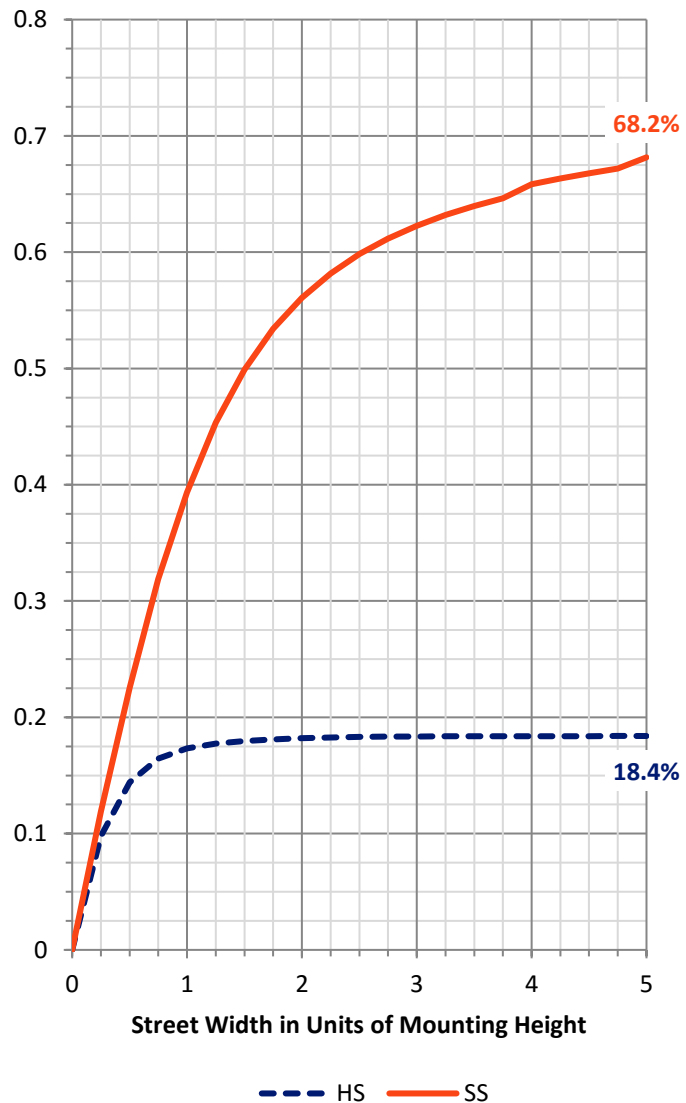
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1163.8	7.8	1171.6
	% Fixture	18.6	0.1	18.7
Street Side	Lumens	4559.8	532.5	5092.2
	% Fixture	72.8	8.5	81.3
Total	Lumens	5723.5	540.3	6263.8
	% Fixture	91.4	8.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.4	3.1
10°-20°	499.1	8.0
20°-30°	698.2	11.1
30°-40°	832.0	13.3
40°-50°	883.9	14.1
50°-60°	859.8	13.7
60°-70°	755.8	12.1
70°-80°	587.1	9.4
80°-90°	416.2	6.6
90°-100°	244.0	3.9
100°-110°	141.2	2.3
110°-120°	82.9	1.3
120°-130°	43.0	0.7
130°-140°	19.1	0.3
140°-150°	7.3	0.1
150°-160°	2.3	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	5723.5	91.4
0°-180°	6263.8	100.0

Coefficient of Utilization



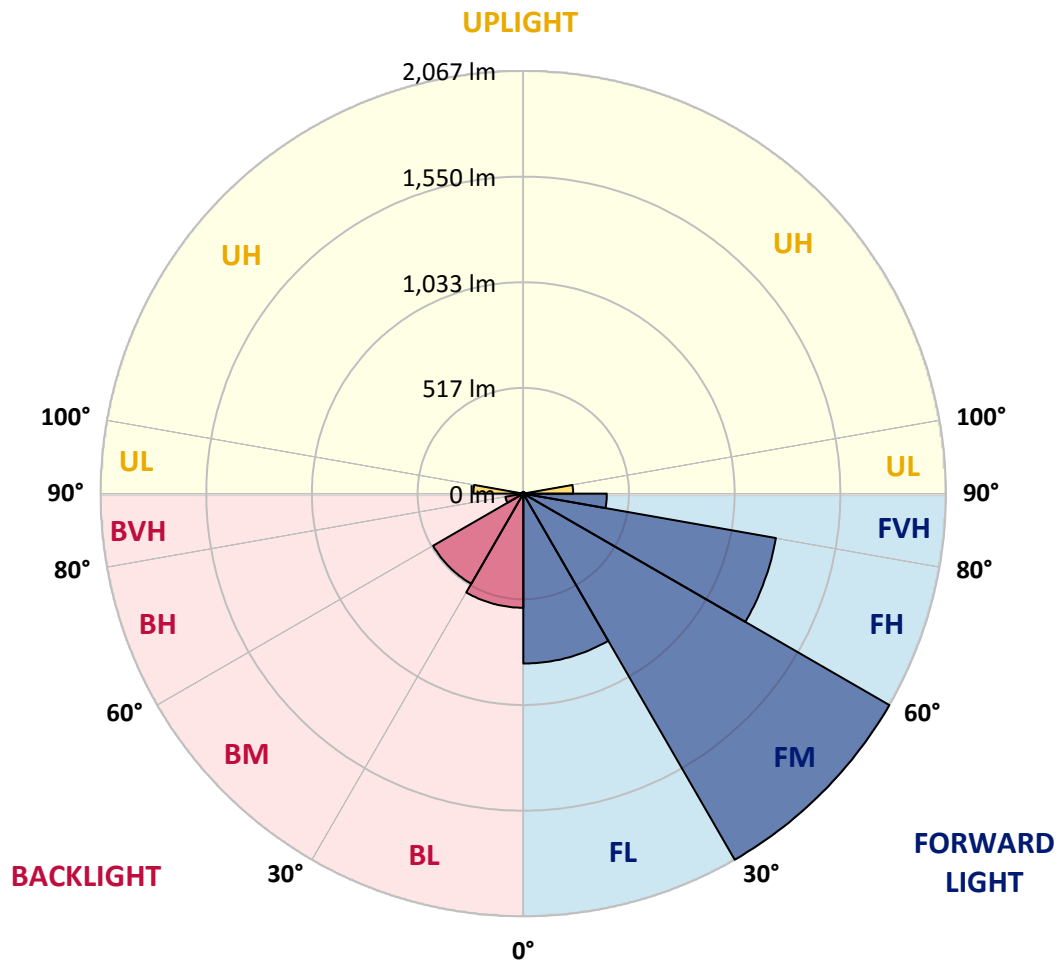
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	830.7	13.3			
FM	(30°-60°)	2066.8	33.0			
FH	(60°-80°)	1254.1	20.0			G1/1800
FVH	(80°-90°)	408.2	6.5			G3/500
BL	(0°-30°)	558.0	8.9	B2/1000		
BM	(30°-60°)	509.0	8.1	B1/1000		
BH	(60°-80°)	88.8	1.4	B0/110		G0/110
BVH	(80°-90°)	8.0	0.1			G0/10
UL	(90°-100°)	244.0	3.9		U3/500	
UH	(100°-180°)	7.8	0.1		U1/10	

BUG Rating: B2-U3-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	6°	10°	15°	20°	25°	30°	35°	40°	45°
0°	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1
2.5°	2216.3	2187.3	2158.7	2140.8	2092.8	2046.3	2087.6	2076.5	2096.0	2081.7	2154.3
5°	2195.6	2158.3	2121.0	2107.9	2105.1	2131.7	2206.3	2186.5	2196.0	2185.3	2267.1
7.5°	2100.7	2052.7	2020.5	2026.5	2043.9	1988.0	2014.6	2043.9	2036.4	1982.8	2109.5
10°	2086.4	2046.7	2024.5	2066.2	2020.9	2004.6	2073.3	1997.5	2028.5	1990.7	2032.0
12.5°	1975.3	1939.9	1932.4	1953.0	1895.9	1918.5	1932.8	1964.9	1964.5	2047.9	2053.1
15°	2057.4	2025.3	2046.3	2032.0	2023.3	1975.3	1984.0	1890.7	1884.7	1912.9	1982.4
17.5°	1905.0	1883.5	1884.7	1835.5	1808.5	1808.1	1874.4	1943.9	2024.9	1902.6	1901.8
20°	2074.5	2083.7	2093.6	2071.3	2023.3	1954.6	1930.8	1832.3	1808.1	1891.1	2038.4
22.5°	2028.1	2031.6	2023.3	1986.0	1914.1	1906.6	1983.2	2028.1	1931.2	1781.9	1851.8
25°	2198.0	2203.2	2219.8	2200.0	2137.3	2077.3	2011.0	1910.5	1910.1	1976.5	1855.8
27.5°	2307.6	2285.3	2314.3	2230.2	2132.9	2078.9	2117.0	2104.7	1948.7	1849.8	1959.4
30°	2283.4	2288.9	2320.7	2290.9	2257.6	2230.6	2200.8	2086.0	2038.0	1984.4	1850.6
32.5°	2229.8	2239.3	2273.4	2225.8	2188.5	2156.3	2182.1	2167.4	2074.1	1980.4	1968.1
35°	2289.7	2296.9	2334.2	2272.2	2200.4	2145.6	2147.2	2115.4	2039.6	2019.3	1946.7
37.5°	2294.1	2312.3	2371.9	2318.7	2262.7	2214.3	2168.6	2092.4	2015.8	1966.5	1962.2
40°	2221.0	2242.1	2295.3	2225.4	2158.7	2151.1	2165.8	2111.8	1989.6	1945.1	1901.4
42.5°	2331.4	2349.3	2402.1	2298.1	2190.5	2138.8	2129.7	2084.4	1969.7	1911.3	1860.1
45°	2361.6	2388.6	2432.3	2343.7	2271.1	2223.4	2180.5	2072.5	1956.2	1889.9	1830.7
46°	2384.6	2417.6	2469.2	2387.8	2301.6	2259.1	2196.8	2107.5	1957.8	1878.4	1816.0
47.5°	2340.9	2376.3	2425.9	2364.8	2311.2	2276.6	2248.4	2142.8	1991.1	1875.6	1786.7
50°	2269.5	2295.3	2347.3	2292.9	2231.7	2221.4	2231.4	2183.7	2026.5	1912.9	1765.2
52.5°	2280.6	2305.2	2361.2	2320.3	2259.9	2236.5	2192.0	2115.8	1997.9	1926.0	1779.5
55°	2279.8	2280.6	2322.7	2231.4	2094.4	2094.8	2133.7	2114.6	1993.1	1904.2	1752.5
57.5°	2148.4	2164.3	2234.1	2214.7	2135.7	2119.8	2120.2	2071.7	1955.4	1872.0	1727.1
60°	2091.2	2083.3	2149.2	2123.0	2042.8	2051.5	2041.6	1957.4	1863.7	1839.9	1703.3
62.5°	1928.4	1919.7	1986.4	1978.8	1948.3	1957.8	1967.7	1976.1	1865.3	1760.9	1626.7
65°	1921.3	1907.4	1973.3	1930.4	1854.6	1837.1	1837.9	1805.7	1751.7	1734.3	1582.2
67.5°	1887.5	1888.3	1947.1	1930.8	1858.5	1826.0	1793.8	1748.6	1664.8	1617.9	1509.5
70°	1536.1	1521.1	1577.8	1595.7	1639.4	1713.2	1678.3	1617.5	1575.8	1538.1	1428.1
72.5°	1606.8	1587.8	1639.8	1649.3	1679.1	1683.4	1692.6	1731.9	1546.9	1403.1	1276.9
75°	1542.5	1535.7	1574.3	1537.7	1469.4	1462.3	1454.3	1446.4	1384.1	1319.0	1163.7
77.5°	1542.9	1530.6	1565.9	1518.7	1444.0	1417.8	1375.3	1310.6	1241.9	1231.6	1137.9
80°	1384.1	1392.8	1417.4	1417.0	1421.0	1459.1	1403.1	1300.3	1189.5	1115.7	1026.3
82.5°	1371.0	1361.0	1379.7	1356.3	1312.6	1289.2	1226.8	1216.1	1161.3	1055.7	910.0
85°	1242.7	1237.6	1251.5	1246.3	1224.5	1250.3	1206.2	1115.3	1027.5	950.5	833.4
87.5°	1116.1	1114.1	1125.6	1097.8	1065.6	1047.0	1002.1	978.3	933.0	860.0	744.8
90°	946.1	941.8	947.7	930.7	908.8	901.3	889.4	876.3	802.0	727.8	636.1
92.5°	887.4	904.8	885.4	884.2	864.7	847.3	799.2	724.6	662.7	610.6	551.5
95°	730.2	730.2	731.3	723.0	706.7	694.0	672.2	635.3	587.6	552.7	488.8
97.5°	665.0	665.4	661.5	655.1	636.1	620.6	599.5	569.4	531.2	487.2	417.3
100°	589.2	591.2	588.4	591.6	579.3	574.5	552.7	513.0	464.9	415.7	353.8
102.5°	539.2	537.2	533.6	528.9	513.4	496.3	474.1	444.7	409.3	363.7	303.7
105°	478.0	480.4	472.5	472.5	461.8	449.4	430.4	399.0	360.1	313.7	266.0
107.5°	435.6	434.8	427.2	425.2	416.5	399.4	382.3	350.2	315.2	277.1	231.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	6°	10°	15°	20°	25°	30°	35°	40°	45°
110°	390.7	392.7	384.7	383.9	372.8	357.3	339.1	308.9	275.9	240.6	202.5
112.5°	349.4	350.6	342.2	341.8	332.3	317.6	303.7	275.9	247.4	214.8	182.2
115°	319.2	320.8	311.7	311.7	302.5	286.3	271.2	241.8	214.8	185.8	157.6
117.5°	285.5	283.9	276.7	277.1	267.6	250.9	239.0	213.2	187.8	162.4	138.2
120°	256.9	257.7	249.3	248.5	237.8	223.1	208.8	187.4	166.4	144.5	122.3
122.5°	219.2	219.2	211.2	211.2	201.7	187.8	175.9	154.4	138.6	121.5	104.0
125°	180.3	181.0	173.1	173.5	165.2	153.7	146.9	131.8	119.1	104.8	90.9
127.5°	153.7	155.2	148.9	150.1	143.7	133.8	128.2	113.9	103.6	89.3	77.4
130°	130.6	131.0	126.7	126.7	121.5	113.9	109.2	98.1	88.5	77.4	65.5
132.5°	112.4	112.4	107.6	108.0	102.8	95.7	92.1	82.2	74.2	64.7	56.4
135°	93.7	93.7	90.1	90.1	85.4	79.0	76.2	68.3	61.5	54.8	46.9
137.5°	76.2	76.6	73.1	73.5	70.3	65.5	63.5	56.8	51.6	44.9	38.5
140°	63.1	62.3	60.3	60.3	57.6	53.6	52.8	47.2	42.9	36.9	32.2
142.5°	51.6	51.6	49.6	50.4	47.6	44.1	43.3	38.9	34.9	31.0	26.6
145°	42.1	42.1	40.9	40.9	38.9	35.7	35.3	31.8	29.0	25.0	22.2
147.5°	34.5	34.5	33.4	33.7	31.8	29.8	29.0	25.8	23.4	20.6	18.3
150°	29.0	28.2	27.4	27.4	25.8	23.8	23.8	21.0	19.5	17.1	14.7
152.5°	23.4	23.0	22.6	22.6	21.0	19.9	19.1	17.5	15.9	13.5	11.5
155°	18.7	18.7	18.3	17.9	17.1	15.5	15.1	13.5	11.9	10.3	8.3
157.5°	14.7	14.7	14.3	14.3	13.1	11.9	11.9	10.3	8.7	7.1	6.0
160°	11.5	11.1	10.7	10.7	9.9	8.7	8.3	7.1	6.0	4.8	3.6
162.5°	8.3	7.9	7.9	7.5	6.7	6.0	5.6	4.4	3.6	2.8	2.4
165°	4.8	4.8	4.8	4.4	4.0	3.2	3.2	2.4	1.6	1.6	2.0
167.5°	2.0	2.0	2.0	1.6	1.2	1.2	1.6	1.6	1.6	1.6	2.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1
2.5°	2101.9	2100.7	2063.4	2042.8	2049.5	2060.6	2066.2	2080.1	2112.6	2151.9	2153.5
5°	2209.1	2190.9	2128.1	2076.9	2042.0	2014.6	2017.0	2040.0	2097.9	2159.5	2117.8
7.5°	2167.0	2250.4	2211.1	2116.2	2082.5	2050.7	2030.1	2040.4	2122.6	2173.4	2051.9
10°	2048.3	2055.1	2093.6	2169.8	2154.7	2109.9	2054.7	2024.9	2134.1	2146.8	2012.6
12.5°	2014.6	2015.8	1974.5	2045.5	2218.2	2116.6	2040.0	1968.1	2105.5	2046.7	1912.1
15°	2047.9	2017.7	1949.9	1961.8	2075.7	2150.8	2026.9	1939.9	2088.8	1983.6	1827.6
17.5°	1914.9	1993.9	1980.4	1929.6	1955.0	2133.3	2011.4	1914.9	2069.8	1910.5	1793.8
20°	1858.1	1868.1	1946.7	1924.0	1887.5	2025.3	2016.2	1875.2	2021.7	1823.2	1786.7
22.5°	1971.7	1844.6	1808.9	1950.6	1843.0	1918.5	2018.5	1823.2	1954.6	1755.7	1766.4
25°	1780.3	1918.9	1753.7	1799.8	1877.6	1835.1	1989.6	1777.5	1885.9	1704.5	1659.2
27.5°	1822.0	1742.2	1846.2	1680.7	1876.0	1755.7	1936.0	1731.9	1806.5	1670.7	1551.2
30°	1896.6	1732.7	1767.2	1694.2	1764.8	1729.9	1866.1	1679.5	1708.8	1617.1	1463.9
32.5°	1804.5	1832.3	1658.8	1728.7	1642.5	1714.8	1785.9	1631.0	1631.4	1543.7	1398.8
35°	1895.1	1760.1	1720.4	1675.9	1600.5	1671.1	1737.4	1601.3	1569.1	1484.5	1350.3
37.5°	1882.0	1785.1	1758.9	1605.6	1606.4	1632.2	1674.7	1557.6	1520.7	1412.3	1275.3
40°	1887.5	1790.2	1699.7	1599.7	1571.9	1559.6	1606.4	1494.1	1446.8	1335.6	1181.2
42.5°	1837.5	1778.3	1675.5	1584.2	1521.1	1487.3	1519.1	1416.2	1360.6	1236.8	1068.0
45°	1774.8	1716.4	1636.6	1519.1	1451.2	1395.6	1412.7	1321.3	1251.9	1117.7	948.9
46°	1752.9	1676.3	1615.1	1494.4	1422.6	1363.4	1369.0	1279.3	1204.6	1071.2	899.7
47.5°	1708.1	1624.7	1566.7	1449.2	1374.1	1319.4	1320.9	1218.5	1146.2	998.5	837.4
50°	1678.7	1558.8	1473.8	1383.7	1288.4	1230.4	1222.9	1114.5	1031.9	882.6	727.8
52.5°	1645.7	1503.2	1418.6	1310.6	1200.6	1139.1	1129.2	1029.5	943.0	792.1	631.7
55°	1612.0	1473.4	1331.3	1229.2	1127.6	1063.3	1043.0	945.7	856.8	694.0	540.4
57.5°	1589.3	1415.4	1274.1	1162.5	1056.9	985.8	974.7	880.6	775.8	614.6	459.0
60°	1555.2	1373.0	1215.3	1087.1	984.3	902.1	882.6	785.7	669.4	491.9	376.4
62.5°	1488.5	1322.5	1163.3	1008.9	901.7	830.6	804.4	701.2	563.0	407.0	310.5
65°	1439.3	1282.8	1104.6	933.4	819.1	757.2	735.7	631.3	475.3	326.0	263.6
67.5°	1367.4	1200.2	1065.3	878.2	743.7	682.9	653.9	543.9	389.1	262.8	228.7
70°	1320.5	1140.7	970.0	819.9	671.0	602.3	557.8	442.7	299.4	220.0	198.9
72.5°	1164.9	1038.7	885.4	738.1	602.7	516.9	463.3	347.0	225.9	180.7	171.9
75°	1085.1	957.7	811.1	674.2	543.9	440.3	374.0	260.1	175.5	149.3	145.3
77.5°	1004.9	871.1	738.1	607.5	472.9	371.2	292.6	194.9	135.0	122.3	115.9
80°	939.4	794.9	650.7	530.8	414.5	303.3	227.5	143.7	102.8	96.9	90.1
82.5°	812.3	700.4	574.1	453.0	345.8	248.9	173.9	108.0	79.0	74.2	67.5
85°	727.0	606.3	484.0	384.3	282.7	198.9	133.4	80.6	58.8	55.2	48.4
87.5°	634.9	526.9	415.7	315.2	235.8	159.2	103.2	61.1	43.3	40.5	35.7
90°	551.1	455.4	360.9	265.6	191.8	133.0	80.6	45.7	33.4	30.6	28.2
92.5°	486.0	398.6	311.3	225.5	164.8	109.2	65.5	36.1	27.4	24.6	22.6
95°	418.9	353.8	272.0	196.1	139.8	90.9	53.6	29.8	23.4	21.0	19.5
97.5°	356.5	298.6	232.7	165.6	116.3	74.2	44.9	26.2	21.4	19.9	17.1
100°	300.2	245.8	190.6	138.6	95.7	61.9	38.1	24.2	21.0	19.1	15.9
102.5°	251.3	206.1	156.4	110.8	79.0	52.0	33.4	22.6	21.0	18.3	14.3
105°	220.8	175.9	132.6	91.7	65.9	44.5	29.8	21.8	21.0	17.9	13.1
107.5°	191.4	154.4	114.3	79.4	57.6	39.3	27.4	21.0	20.2	17.1	11.9



REPORT NUMBER: P303580
 CATALOG NUMBER: WPMLED15-C

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
110°	167.5	133.8	100.5	71.1	52.0	35.3	25.4	20.6	19.9	16.3	11.1
112.5°	149.3	116.7	88.1	63.9	46.9	31.4	23.8	19.9	18.7	15.1	9.9
115°	129.8	102.8	77.8	57.2	42.1	27.4	22.2	18.7	17.5	13.9	9.1
117.5°	114.7	90.9	69.9	50.8	36.1	24.2	20.2	17.5	15.9	12.7	8.3
120°	100.1	77.8	60.3	43.7	29.8	21.4	17.9	15.5	13.9	11.1	7.1
122.5°	86.2	68.3	53.6	38.1	25.4	19.1	15.5	13.9	12.7	9.9	6.4
125°	76.2	60.3	47.2	31.8	22.2	16.7	13.5	12.3	11.1	8.7	5.6
127.5°	64.3	51.6	39.3	27.0	18.7	14.3	11.5	10.7	9.5	7.5	4.8
130°	54.8	43.3	32.6	22.6	16.7	12.3	9.9	8.7	7.9	6.4	4.0
132.5°	47.2	36.9	27.8	19.5	14.3	9.9	7.9	7.1	6.4	5.2	3.2
135°	38.9	31.4	23.8	16.7	11.9	7.9	6.4	6.0	5.2	4.0	2.8
137.5°	32.6	25.8	19.9	14.3	9.9	6.4	5.2	4.8	4.0	3.2	2.4
140°	27.0	21.0	16.7	11.5	7.5	4.4	4.4	3.6	3.2	2.8	2.0
142.5°	22.6	17.5	13.9	9.5	6.0	3.6	3.6	2.8	2.8	2.4	2.0
145°	18.7	14.7	11.5	7.1	4.0	2.8	3.2	2.8	2.4	2.4	2.0
147.5°	15.1	11.5	8.7	5.2	2.8	2.8	2.8	2.4	2.4	2.0	1.6
150°	11.9	8.7	6.4	3.6	2.4	2.4	2.4	2.0	2.0	2.0	1.6
152.5°	9.1	6.4	4.0	2.4	2.4	2.4	2.4	2.0	2.0	1.6	1.2
155°	6.4	4.4	2.8	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.2
157.5°	4.4	2.8	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.6	1.2
160°	2.8	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.6	1.2
162.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.6	1.2
165°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.6
167.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.2
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



REPORT NUMBER: P303580
 CATALOG NUMBER: WPMLED15-C

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1	2151.1
2.5°	2226.6	2167.8	2142.8	2106.7	2170.2	2083.3	2072.1	2069.8	2049.5	2031.6	1991.5
5°	2119.8	2034.0	2005.4	1953.8	1999.9	1899.4	1871.2	1866.1	1885.9	1931.6	1961.8
7.5°	2046.7	1934.8	1859.3	1841.9	1973.3	1943.5	1870.0	1829.5	1812.1	1781.9	1710.4
10°	1968.9	1857.7	1884.7	1873.6	1872.4	1739.8	1664.0	1728.3	1780.7	1773.6	1742.2
12.5°	1887.5	1924.4	1834.7	1688.2	1706.5	1752.1	1705.7	1671.9	1550.4	1505.6	1452.0
15°	1882.4	1834.7	1676.7	1660.4	1741.4	1604.4	1471.0	1478.6	1507.2	1494.4	1395.2
17.5°	1870.0	1676.3	1657.6	1626.7	1530.2	1444.0	1465.9	1362.6	1276.5	1238.0	1192.3
20°	1725.5	1619.9	1607.2	1445.6	1464.3	1374.5	1252.3	1205.8	1130.0	1022.4	973.9
22.5°	1609.6	1606.0	1447.2	1376.9	1330.9	1205.4	1118.9	983.9	952.5	902.1	842.5
25°	1559.6	1473.4	1357.5	1265.0	1181.6	1049.0	913.6	906.4	819.9	758.3	763.9
27.5°	1509.5	1360.3	1276.5	1120.8	1037.9	877.1	859.2	755.6	749.6	687.7	618.2
30°	1388.8	1274.9	1139.1	1004.1	874.7	835.8	718.2	716.3	618.2	600.3	538.8
32.5°	1263.8	1188.7	1013.6	861.6	835.0	707.5	675.8	586.8	547.1	502.6	461.0
35°	1178.4	1065.3	911.6	777.8	723.8	659.5	569.4	515.8	472.1	430.0	410.9
37.5°	1109.3	967.6	807.6	730.9	644.0	564.2	498.3	449.4	402.6	382.0	343.8
40°	1013.6	879.4	744.8	653.9	585.6	500.7	436.3	387.1	351.0	321.2	281.9
42.5°	909.2	778.6	667.4	572.9	494.3	424.4	374.8	331.1	293.0	254.9	230.3
45°	790.9	686.1	602.3	502.6	427.6	375.2	327.6	276.3	231.1	210.4	181.8
46°	748.8	648.4	561.8	461.4	401.4	355.0	302.5	252.1	215.6	190.2	166.4
47.5°	682.9	588.8	516.5	410.9	372.4	326.4	270.4	221.1	188.6	164.8	145.7
50°	590.0	513.0	430.0	363.7	322.0	277.5	220.4	180.7	152.5	137.0	122.7
52.5°	502.3	435.9	367.7	310.5	274.0	220.8	180.3	147.7	127.8	116.3	107.2
55°	427.2	370.4	314.9	269.6	221.9	181.8	148.9	123.1	109.6	101.2	94.5
57.5°	365.7	320.8	275.9	231.9	181.8	150.1	122.7	104.4	93.3	87.7	83.0
60°	307.3	280.7	240.2	186.6	147.7	123.1	100.1	88.1	80.6	75.0	72.7
62.5°	259.3	244.2	202.5	152.5	120.7	100.1	81.0	73.1	67.5	63.1	62.3
65°	225.1	210.0	165.6	124.3	98.1	79.4	65.5	59.6	55.2	52.8	51.2
67.5°	198.1	175.9	135.4	100.8	77.8	61.1	51.6	46.1	42.5	41.3	39.7
70°	173.1	146.1	111.6	80.2	60.3	47.2	39.7	34.5	31.8	29.0	28.6
72.5°	146.5	118.7	88.9	64.7	46.9	36.5	28.2	23.4	20.6	18.3	17.5
75°	119.1	94.1	68.7	49.6	34.5	25.8	17.5	12.3	8.3	2.0	0.4
77.5°	93.3	73.5	51.6	36.1	23.0	14.7	6.7	0.8	0.0	0.0	0.0
80°	70.3	54.4	38.5	25.0	13.9	6.4	1.6	0.0	0.0	0.0	0.0
82.5°	52.8	39.7	27.0	17.5	9.5	4.4	0.8	0.0	0.0	0.0	0.0
85°	38.9	29.4	19.9	12.7	6.7	2.8	0.4	0.0	0.0	0.0	0.0
87.5°	28.2	21.8	15.1	9.5	4.8	2.0	0.4	0.0	0.0	0.0	0.0
90°	22.2	17.5	11.9	7.5	4.0	1.6	0.4	0.0	0.0	0.0	0.0
92.5°	18.7	14.3	9.9	6.7	3.2	1.6	0.4	0.0	0.0	0.0	0.0
95°	16.3	12.3	8.3	5.2	2.8	1.6	0.4	0.0	0.0	0.0	0.0
97.5°	13.5	10.3	7.1	4.4	2.0	1.2	0.4	0.0	0.0	0.0	0.0
100°	11.9	8.7	6.0	3.6	1.6	0.8	0.4	0.0	0.0	0.0	0.0
102.5°	10.7	7.9	5.2	2.8	1.2	0.8	0.0	0.0	0.0	0.0	0.0
105°	9.1	6.7	4.4	2.4	1.2	0.8	0.0	0.0	0.0	0.0	0.0
107.5°	8.3	6.0	3.6	2.0	1.2	0.8	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P303580
 CATALOG NUMBER: WPMLED15-C

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	
110°	7.5	5.2	3.2	1.6	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0°
112.5°	6.7	4.4	2.4	1.6	0.8	0.4	0.0	0.0	0.0	0.0	0.0	2.5°
115°	6.0	3.6	2.0	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	5°
117.5°	5.6	3.2	2.0	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	7.5°
120°	4.8	2.8	1.6	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	10°
122.5°	4.0	2.4	1.6	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	12.5°
125°	3.6	2.0	1.6	1.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	15°
127.5°	2.8	2.0	1.6	1.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	17.5°
130°	2.4	2.0	1.2	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0	20°
132.5°	2.4	1.6	1.2	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0	22.5°
135°	2.0	1.6	1.2	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0	25°
137.5°	2.0	1.6	1.2	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0	27.5°
140°	2.0	1.6	1.2	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0	30°
142.5°	1.6	1.2	1.2	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	32.5°
145°	1.6	1.2	0.8	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	35°
147.5°	1.6	1.2	0.8	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	37.5°
150°	1.2	1.2	0.8	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	40°
152.5°	1.2	0.8	0.8	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	42.5°
155°	1.2	1.2	0.8	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	45°
157.5°	1.2	0.8	0.8	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	46°
160°	1.2	1.2	0.8	0.8	0.4	0.4	0.4	0.0	0.0	0.0	0.0	47.5°
162.5°	1.2	1.2	1.2	0.8	0.4	0.4	0.4	0.4	0.0	0.0	0.0	50°
165°	1.6	1.2	1.2	0.8	0.8	0.4	0.4	0.4	0.4	0.0	0.0	52.5°
167.5°	1.2	1.2	1.2	0.8	0.4	0.4	0.4	0.4	0.0	0.0	0.0	55°
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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°



NUMBER: P303580
NUMBER: WPMLED15-C

REPORT NUMBER: P
CATALOG NUMBER:

DISTRIBUTION (continued):

160°	165°	170°	175°	180°
2151.1	2151.1	2151.1	2151.1	2151.1
1995.9	2007.0	2041.6	1971.3	1999.1
1980.8	1963.4	1980.0	1928.4	1944.7
1714.8	1727.5	1727.9	1681.1	1704.5
1696.1	1689.0	1665.6	1606.0	1600.9
1509.1	1519.1	1562.7	1511.9	1515.9
1305.5	1282.8	1282.0	1221.3	1228.4
1168.9	1126.8	1089.1	1012.4	1022.4
964.8	926.3	899.3	861.2	871.5
787.7	773.4	780.6	769.9	783.4
728.2	694.0	667.8	626.9	635.3
596.0	606.3	571.3	539.6	538.8
510.2	495.9	478.0	447.5	452.2
434.8	434.8	421.7	401.4	400.6
387.5	368.8	348.2	332.7	337.9
324.0	303.3	287.5	275.9	279.9
265.2	247.0	238.6	228.3	231.9
219.2	205.3	187.4	176.3	177.1
167.9	158.0	145.7	137.4	141.3
154.8	142.1	133.8	126.7	130.6
136.6	128.6	120.7	115.1	117.5
117.9	113.6	107.6	104.4	106.4
104.8	100.8	98.1	96.5	99.3
93.3	92.1	92.9	92.9	96.5
84.2	85.4	86.6	85.0	87.7
75.4	75.4	73.5	72.3	74.2
63.9	63.5	64.3	65.5	67.9
52.8	55.2	55.6	55.2	56.4
42.5	43.7	42.9	42.5	43.3
31.4	30.2	30.6	30.6	31.0
17.1	15.5	13.5	10.3	9.1
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	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	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	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	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
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0

CANDELA DISTRIBUTION:

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



'303580
WPMLED15-C

TION (continued):

165°	170°	175°	180°
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	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	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	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
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	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	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	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0

(END OF REPORT)