

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: P303572

Luminaire Tested: **WPLLED15-C**

Issue Date: 6/24/2020

Test Information

Test Method: LM-79-08
Report Number: P303572
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: WPLLED15-C
Description: LARGE LED WALL PACK - 50W, 5000K
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6168.9 lumens
Efficiency: N/A
Efficacy: 127.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.38' x L: 0.25' x H: 0.68')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U3 - G3

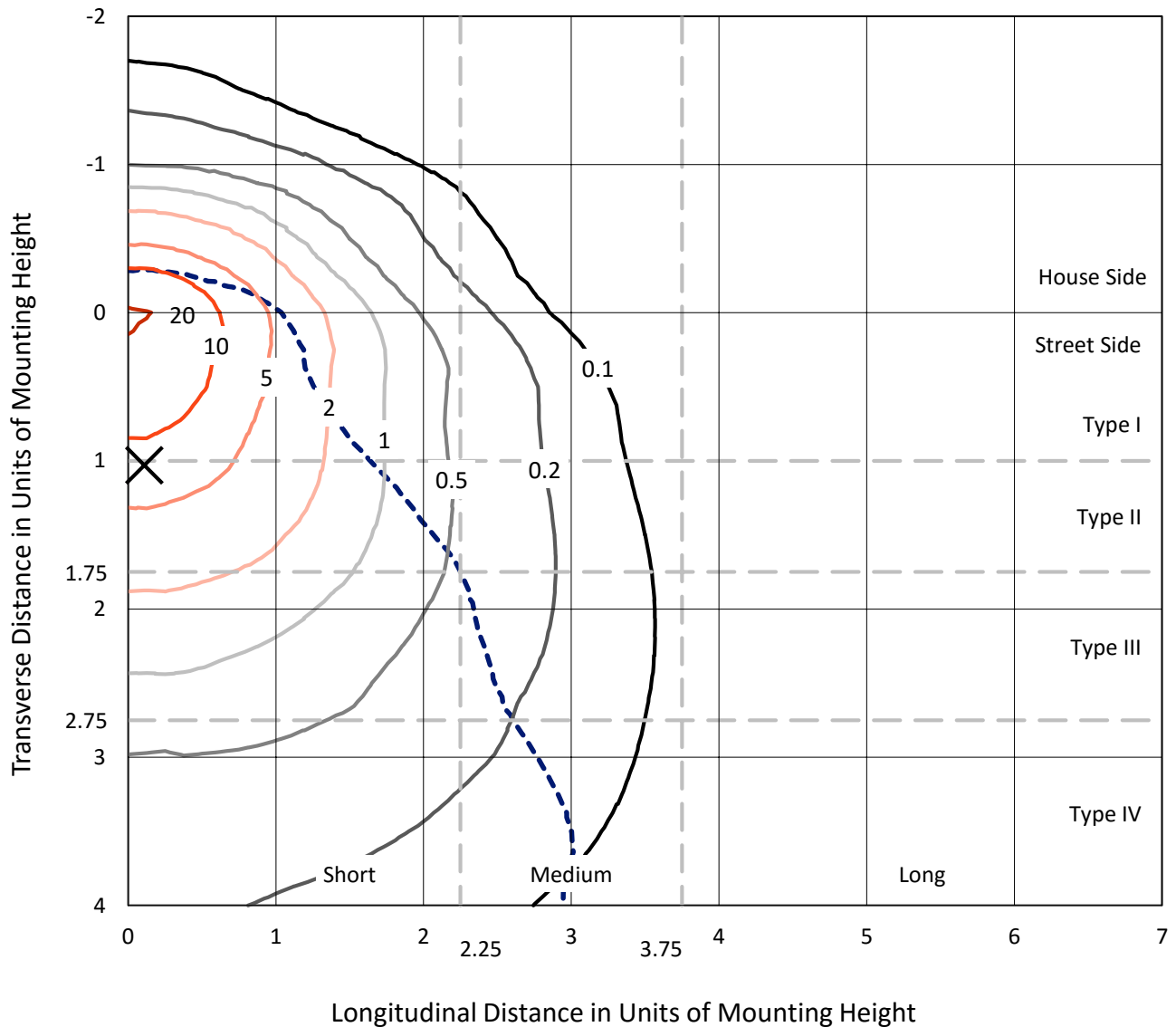
Input Watts (W): 48.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

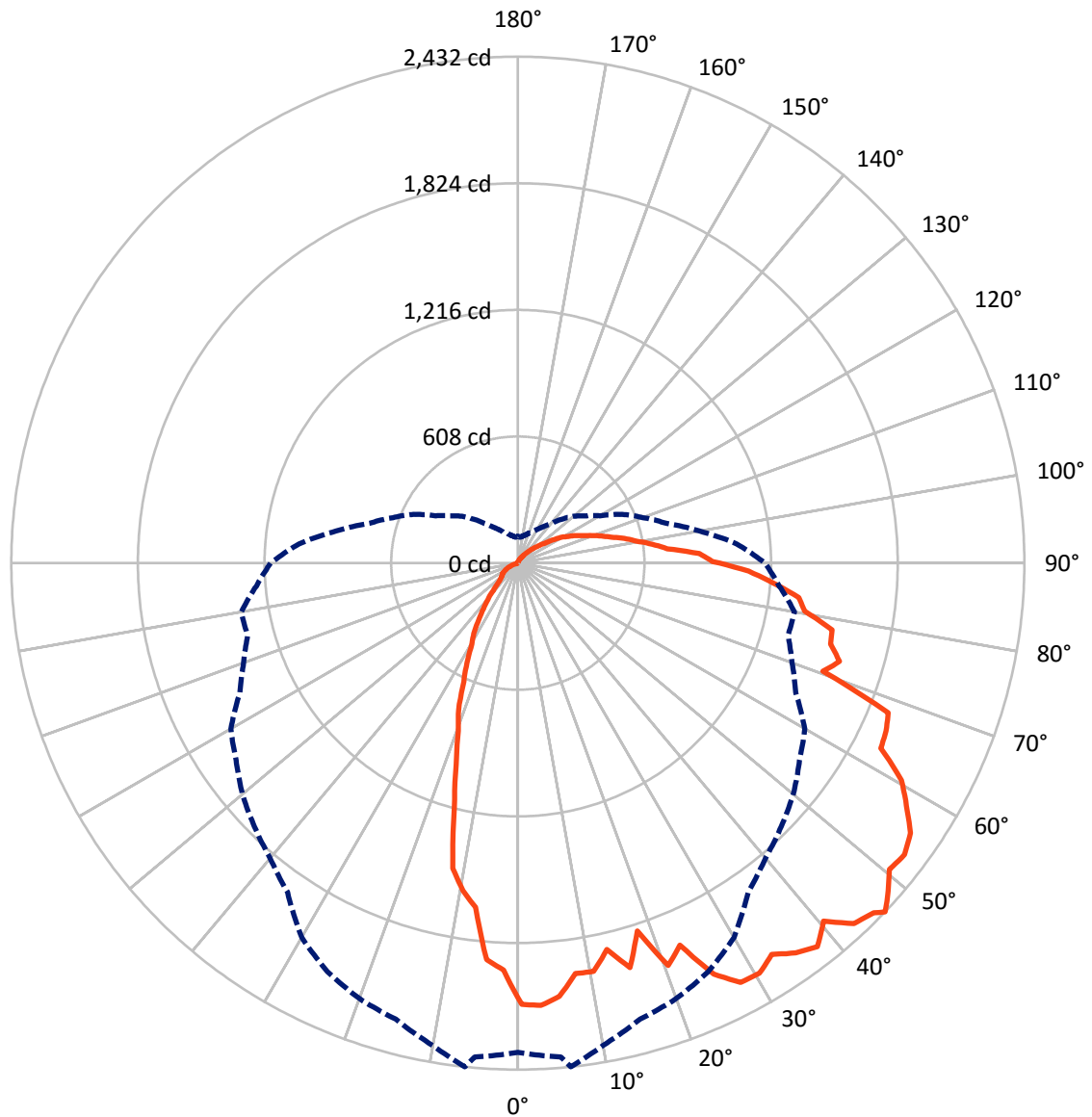
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.2 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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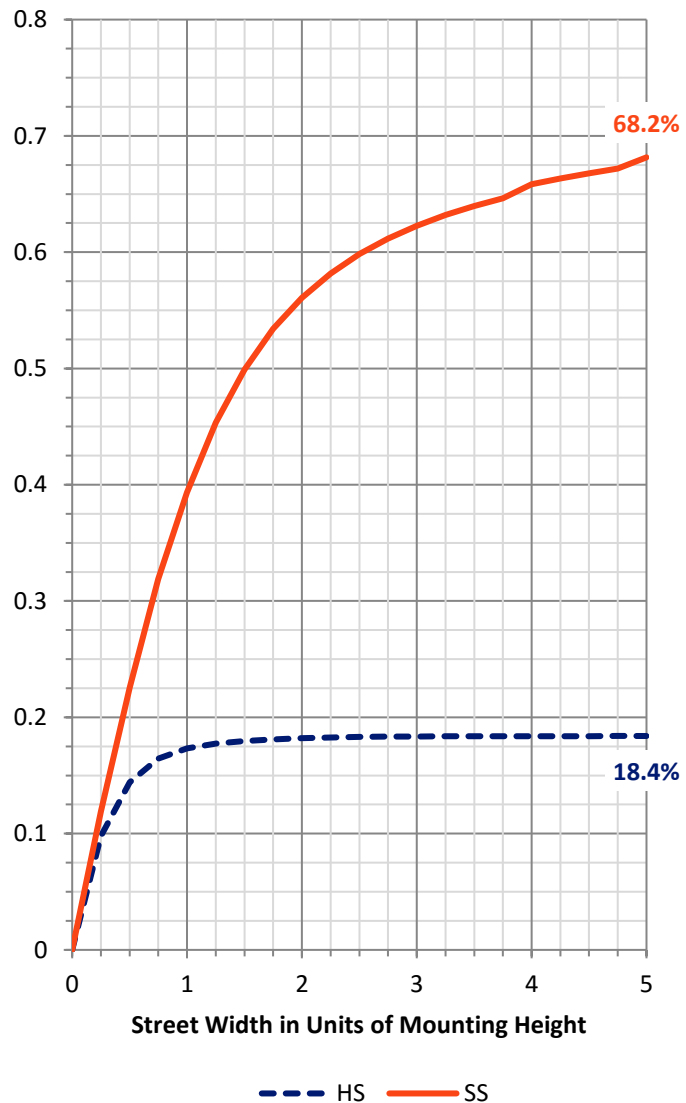
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1146.1	7.7	1153.8
	% Fixture	18.6	0.1	18.7
Street Side	Lumens	4490.7	524.4	5015.1
	% Fixture	72.8	8.5	81.3
Total	Lumens	5636.8	532.1	6168.9
	% Fixture	91.4	8.6	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.5	3.1
10°-20°	491.6	8.0
20°-30°	687.6	11.1
30°-40°	819.4	13.3
40°-50°	870.5	14.1
50°-60°	846.8	13.7
60°-70°	744.4	12.1
70°-80°	578.2	9.4
80°-90°	409.9	6.6
90°-100°	240.3	3.9
100°-110°	139.1	2.3
110°-120°	81.6	1.3
120°-130°	42.4	0.7
130°-140°	18.8	0.3
140°-150°	7.1	0.1
150°-160°	2.3	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	5636.8	91.4
0°-180°	6168.9	100.0



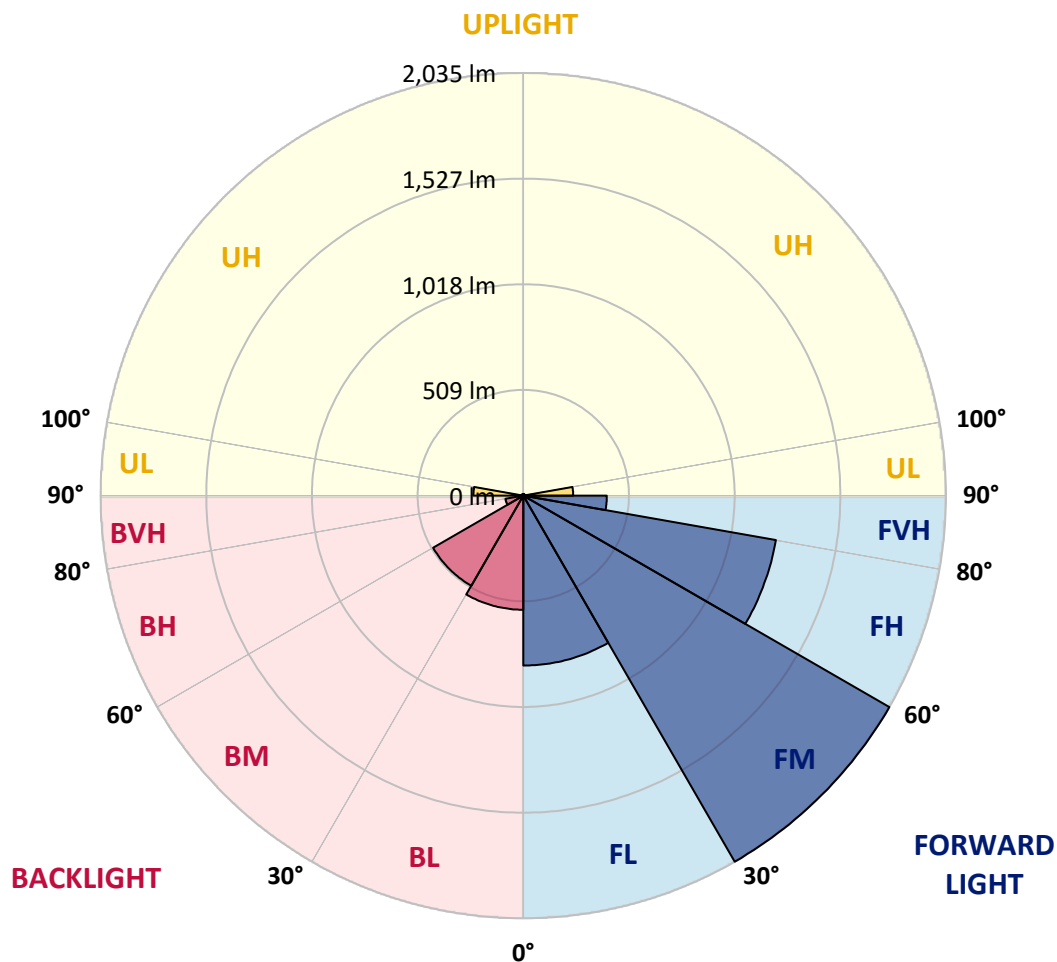
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	818.1	13.3			
FM	(30°-60°)	2035.5	33.0			
FH	(60°-80°)	1235.1	20.0			G1/1800
FVH	(80°-90°)	402.0	6.5			G3/500
BL	(0°-30°)	549.5	8.9	B2/1000		
BM	(30°-60°)	501.3	8.1	B1/1000		
BH	(60°-80°)	87.5	1.4	B0/110		G0/110
BVH	(80°-90°)	7.8	0.1			G0/10
UL	(90°-100°)	240.3	3.9		U3/500	
UH	(100°-180°)	7.7	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°	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6
2.5°	2182.7	2154.1	2126.0	2108.4	2061.1	2015.3	2056.0	2045.0	2064.2	2050.1	2121.7
5°	2162.4	2125.6	2088.8	2075.9	2073.2	2099.4	2172.9	2153.4	2162.7	2152.2	2232.7
7.5°	2068.9	2021.6	1989.9	1995.8	2013.0	1957.8	1984.0	2013.0	2005.6	1952.8	2077.5
10°	2054.8	2015.7	1993.8	2034.9	1990.3	1974.3	2041.9	1967.2	1997.7	1960.6	2001.3
12.5°	1945.3	1910.5	1903.1	1923.4	1867.1	1889.4	1903.5	1935.2	1934.8	2016.9	2022.0
15°	2026.3	1994.6	2015.3	2001.3	1992.6	1945.3	1953.9	1862.0	1856.2	1883.9	1952.4
17.5°	1876.1	1855.0	1856.2	1807.7	1781.1	1780.7	1846.0	1914.4	1994.2	1873.8	1873.0
20°	2043.1	2052.1	2061.9	2040.0	1992.6	1925.0	1901.5	1804.6	1780.7	1862.4	2007.5
22.5°	1997.3	2000.9	1992.6	1955.9	1885.1	1877.7	1953.2	1997.3	1901.9	1754.9	1823.7
25°	2164.7	2169.8	2186.2	2166.7	2104.9	2045.8	1980.5	1881.6	1881.2	1946.5	1827.6
27.5°	2272.6	2250.7	2279.3	2196.4	2100.6	2047.4	2084.9	2072.8	1919.1	1821.8	1929.7
30°	2248.8	2254.2	2285.5	2256.2	2223.4	2196.8	2167.4	2054.4	2007.1	1954.3	1822.6
32.5°	2196.0	2205.4	2239.0	2192.1	2155.3	2123.6	2149.1	2134.6	2042.7	1950.4	1938.3
35°	2255.0	2262.1	2298.8	2237.8	2167.0	2113.1	2114.6	2083.4	2008.7	1988.7	1917.2
37.5°	2259.3	2277.3	2336.0	2283.6	2228.4	2180.7	2135.8	2060.7	1985.2	1936.7	1932.4
40°	2187.4	2208.1	2260.5	2191.7	2126.0	2118.6	2133.0	2079.8	1959.4	1915.6	1872.6
42.5°	2296.1	2313.7	2365.7	2263.2	2157.3	2106.4	2097.4	2052.9	1939.9	1882.4	1831.9
45°	2325.8	2352.4	2395.4	2308.2	2236.6	2189.7	2147.5	2041.1	1926.6	1861.3	1803.0
46°	2348.5	2380.9	2431.8	2351.6	2266.8	2224.9	2163.5	2075.5	1928.1	1849.9	1788.5
47.5°	2305.5	2340.3	2389.1	2328.9	2276.1	2242.1	2214.4	2110.3	1961.0	1847.2	1759.6
50°	2235.1	2260.5	2311.7	2258.2	2197.9	2187.8	2197.5	2150.6	1995.8	1883.9	1738.5
52.5°	2246.0	2270.3	2325.4	2285.1	2225.7	2202.6	2158.8	2083.8	1967.6	1896.8	1752.6
55°	2245.2	2246.0	2287.5	2197.5	2062.6	2063.0	2101.4	2082.6	1962.9	1875.3	1726.0
57.5°	2115.8	2131.5	2200.3	2181.1	2103.3	2087.7	2088.1	2040.4	1925.8	1843.7	1700.9
60°	2059.5	2051.7	2116.6	2090.8	2011.8	2020.4	2010.6	1927.7	1835.5	1812.0	1677.5
62.5°	1899.2	1890.6	1956.3	1948.9	1918.7	1928.1	1937.9	1946.1	1837.0	1734.2	1602.0
65°	1892.2	1878.5	1943.4	1901.1	1826.5	1809.3	1810.0	1778.4	1725.2	1708.0	1558.2
67.5°	1858.9	1859.7	1917.6	1901.5	1830.4	1798.3	1766.6	1722.1	1639.6	1593.4	1486.7
70°	1512.9	1498.0	1553.9	1571.5	1614.5	1687.3	1652.9	1593.0	1552.0	1514.8	1406.5
72.5°	1582.5	1563.7	1614.9	1624.3	1653.6	1657.9	1666.9	1705.6	1523.4	1381.9	1257.5
75°	1519.1	1512.5	1550.4	1514.4	1447.2	1440.1	1432.3	1424.5	1363.1	1299.0	1146.1
77.5°	1519.5	1507.4	1542.2	1495.7	1422.1	1396.3	1354.5	1290.8	1223.1	1213.0	1120.7
80°	1363.1	1371.7	1395.9	1395.6	1399.5	1437.0	1381.9	1280.6	1171.5	1098.8	1010.8
82.5°	1350.2	1340.4	1358.8	1335.7	1292.7	1269.6	1208.3	1197.7	1143.7	1039.7	896.2
85°	1223.9	1218.8	1232.5	1227.4	1205.9	1231.3	1187.9	1098.4	1012.0	936.1	820.8
87.5°	1099.2	1097.2	1108.5	1081.2	1049.5	1031.1	986.9	963.5	918.9	847.0	733.6
90°	931.8	927.5	933.4	916.6	895.0	887.6	875.9	863.0	789.9	716.7	626.4
92.5°	873.9	891.1	872.0	870.8	851.6	834.4	787.1	713.6	652.6	601.4	543.1
95°	719.1	719.1	720.3	712.1	696.0	683.5	662.0	625.6	578.7	544.3	481.3
97.5°	655.0	655.4	651.4	645.2	626.4	611.2	590.4	560.7	523.2	479.8	411.0
100°	580.3	582.2	579.5	582.6	570.5	565.8	544.3	505.2	457.9	409.4	348.4
102.5°	531.0	529.1	525.5	520.8	505.6	488.8	466.9	437.9	403.1	358.2	299.1
105°	470.8	473.1	465.3	465.3	454.8	442.6	423.9	393.0	354.7	308.9	262.0
107.5°	429.0	428.2	420.7	418.8	410.2	393.4	376.6	344.9	310.5	272.9	227.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	6°	10°	15°	20°	25°	30°	35°	40°	45°
110°	384.8	386.7	378.9	378.1	367.2	351.9	333.9	304.2	271.8	237.0	199.4
112.5°	344.1	345.3	337.1	336.7	327.3	312.8	299.1	271.8	243.6	211.5	179.5
115°	314.4	315.9	307.0	307.0	298.0	281.9	267.1	238.1	211.5	183.0	155.2
117.5°	281.1	279.6	272.5	272.9	263.5	247.1	235.4	210.0	185.0	159.9	136.1
120°	253.0	253.8	245.6	244.8	234.2	219.8	205.7	184.6	163.8	142.3	120.4
122.5°	215.8	215.8	208.0	208.0	198.6	185.0	173.2	152.1	136.5	119.7	102.4
125°	177.5	178.3	170.5	170.9	162.7	151.3	144.7	129.8	117.3	103.2	89.5
127.5°	151.3	152.9	146.6	147.8	141.6	131.8	126.3	112.2	102.1	88.0	76.2
130°	128.6	129.0	124.7	124.7	119.7	112.2	107.5	96.6	87.2	76.2	64.5
132.5°	110.7	110.7	106.0	106.4	101.3	94.2	90.7	80.9	73.1	63.7	55.5
135°	92.3	92.3	88.8	88.8	84.1	77.8	75.1	67.3	60.6	54.0	46.1
137.5°	75.1	75.5	71.9	72.3	69.2	64.5	62.6	55.9	50.8	44.2	37.9
140°	62.2	61.4	59.4	59.4	56.7	52.8	52.0	46.5	42.2	36.4	31.7
142.5°	50.8	50.8	48.9	49.7	46.9	43.4	42.6	38.3	34.4	30.5	26.2
145°	41.4	41.4	40.3	40.3	38.3	35.2	34.8	31.3	28.5	24.6	21.9
147.5°	34.0	34.0	32.8	33.2	31.3	29.3	28.5	25.4	23.1	20.3	18.0
150°	28.5	27.8	27.0	27.0	25.4	23.5	23.5	20.7	19.2	16.8	14.5
152.5°	23.1	22.7	22.3	22.3	20.7	19.6	18.8	17.2	15.6	13.3	11.3
155°	18.4	18.4	18.0	17.6	16.8	15.2	14.9	13.3	11.7	10.2	8.2
157.5°	14.5	14.5	14.1	14.1	12.9	11.7	11.7	10.2	8.6	7.0	5.9
160°	11.3	10.9	10.6	10.6	9.8	8.6	8.2	7.0	5.9	4.7	3.5
162.5°	8.2	7.8	7.8	7.4	6.6	5.9	5.5	4.3	3.5	2.7	2.3
165°	4.7	4.7	4.7	4.3	3.9	3.1	3.1	2.3	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°	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6
2.5°	2070.1	2068.9	2032.1	2011.8	2018.5	2029.4	2034.9	2048.6	2080.6	2119.3	2120.9
5°	2175.6	2157.7	2095.9	2045.4	2011.0	1984.0	1986.4	2009.1	2066.2	2126.8	2085.7
7.5°	2134.2	2216.3	2177.6	2084.1	2050.9	2019.6	1999.3	2009.5	2090.4	2140.5	2020.8
10°	2017.3	2023.9	2061.9	2136.9	2122.1	2077.9	2023.5	1994.2	2101.7	2114.3	1982.1
12.5°	1984.0	1985.2	1944.6	2014.5	2184.6	2084.5	2009.1	1938.3	2073.6	2015.7	1883.2
15°	2016.9	1987.2	1920.3	1932.0	2044.3	2118.2	1996.2	1910.5	2057.2	1953.5	1799.9
17.5°	1885.9	1963.7	1950.4	1900.4	1925.4	2101.0	1980.9	1885.9	2038.4	1881.6	1766.6
20°	1830.0	1839.8	1917.2	1894.9	1858.9	1994.6	1985.6	1846.8	1991.1	1795.6	1759.6
22.5°	1941.8	1816.7	1781.5	1921.1	1815.1	1889.4	1988.0	1795.6	1925.0	1729.1	1739.7
25°	1753.3	1889.8	1727.1	1772.5	1849.1	1807.3	1959.4	1750.6	1857.4	1678.7	1634.1
27.5°	1794.4	1715.8	1818.3	1655.2	1847.6	1729.1	1906.6	1705.6	1779.2	1645.4	1527.7
30°	1867.9	1706.4	1740.4	1668.5	1738.1	1703.7	1837.8	1654.0	1683.0	1592.6	1441.7
32.5°	1777.2	1804.6	1633.7	1702.5	1617.7	1688.8	1758.8	1606.3	1606.7	1520.3	1377.6
35°	1866.3	1733.4	1694.3	1650.5	1576.2	1645.8	1711.1	1577.0	1545.3	1462.0	1329.9
37.5°	1853.4	1758.0	1732.2	1581.3	1582.1	1607.5	1649.3	1534.0	1497.6	1390.9	1256.0
40°	1858.9	1763.1	1674.0	1575.4	1548.1	1535.9	1582.1	1471.4	1424.9	1315.4	1163.3
42.5°	1809.7	1751.4	1650.1	1560.2	1498.0	1464.8	1496.1	1394.8	1340.0	1218.0	1051.8
45°	1747.9	1690.4	1611.8	1496.1	1429.2	1374.4	1391.3	1301.3	1232.9	1100.7	934.5
46°	1726.4	1650.9	1590.7	1471.8	1401.0	1342.8	1348.2	1259.9	1186.4	1055.0	886.1
47.5°	1682.2	1600.1	1543.0	1427.2	1353.3	1299.4	1300.9	1200.0	1128.9	983.4	824.7
50°	1653.2	1535.2	1451.5	1362.7	1268.9	1211.8	1204.3	1097.6	1016.3	869.2	716.7
52.5°	1620.8	1480.4	1397.1	1290.8	1182.5	1121.8	1112.1	1013.9	928.7	780.1	622.1
55°	1587.5	1451.1	1311.1	1210.6	1110.5	1047.2	1027.2	931.4	843.8	683.5	532.2
57.5°	1565.3	1394.0	1254.8	1144.9	1040.9	970.9	960.0	867.3	764.1	605.3	452.0
60°	1531.6	1352.2	1196.9	1070.6	969.3	888.4	869.2	773.8	659.3	484.5	370.7
62.5°	1465.9	1302.5	1145.7	993.6	888.0	818.0	792.2	690.5	554.5	400.8	305.8
65°	1417.5	1263.4	1087.8	919.3	806.7	745.7	724.6	621.7	468.1	321.0	259.6
67.5°	1346.7	1182.1	1049.1	864.9	732.4	672.6	644.0	535.7	383.2	258.9	225.2
70°	1300.5	1123.4	955.3	807.5	660.8	593.2	549.4	436.0	294.8	216.6	195.9
72.5°	1147.3	1022.9	872.0	726.9	593.6	509.1	456.3	341.8	222.5	177.9	169.3
75°	1068.7	943.1	798.9	664.0	535.7	433.6	368.3	256.1	172.8	147.0	143.1
77.5°	989.7	857.9	726.9	598.3	465.7	365.6	288.2	192.0	132.9	120.4	114.2
80°	925.2	782.8	640.9	522.8	408.2	298.7	224.1	141.6	101.3	95.4	88.8
82.5°	800.0	689.8	565.4	446.2	340.6	245.2	171.3	106.4	77.8	73.1	66.5
85°	716.0	597.1	476.7	378.5	278.4	195.9	131.4	79.4	57.9	54.4	47.7
87.5°	625.2	518.9	409.4	310.5	232.3	156.8	101.7	60.2	42.6	39.9	35.2
90°	542.7	448.5	355.4	261.6	188.9	131.0	79.4	45.0	32.8	30.1	27.8
92.5°	478.6	392.6	306.6	222.1	162.3	107.5	64.5	35.6	27.0	24.2	22.3
95°	412.5	348.4	267.9	193.2	137.6	89.5	52.8	29.3	23.1	20.7	19.2
97.5°	351.1	294.0	229.1	163.1	114.6	73.1	44.2	25.8	21.1	19.6	16.8
100°	295.6	242.0	187.7	136.5	94.2	61.0	37.5	23.9	20.7	18.8	15.6
102.5°	247.5	202.9	154.1	109.1	77.8	51.2	32.8	22.3	20.7	18.0	14.1
105°	217.4	173.2	130.6	90.3	64.9	43.8	29.3	21.5	20.7	17.6	12.9
107.5°	188.5	152.1	112.6	78.2	56.7	38.7	27.0	20.7	19.9	16.8	11.7



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
110°	165.0	131.8	98.9	70.0	51.2	34.8	25.0	20.3	19.6	16.0	10.9
112.5°	147.0	115.0	86.8	63.0	46.1	30.9	23.5	19.6	18.4	14.9	9.8
115°	127.9	101.3	76.6	56.3	41.4	27.0	21.9	18.4	17.2	13.7	9.0
117.5°	113.0	89.5	68.8	50.1	35.6	23.9	19.9	17.2	15.6	12.5	8.2
120°	98.5	76.6	59.4	43.0	29.3	21.1	17.6	15.2	13.7	10.9	7.0
122.5°	84.9	67.3	52.8	37.5	25.0	18.8	15.2	13.7	12.5	9.8	6.3
125°	75.1	59.4	46.5	31.3	21.9	16.4	13.3	12.1	10.9	8.6	5.5
127.5°	63.3	50.8	38.7	26.6	18.4	14.1	11.3	10.6	9.4	7.4	4.7
130°	54.0	42.6	32.1	22.3	16.4	12.1	9.8	8.6	7.8	6.3	3.9
132.5°	46.5	36.4	27.4	19.2	14.1	9.8	7.8	7.0	6.3	5.1	3.1
135°	38.3	30.9	23.5	16.4	11.7	7.8	6.3	5.9	5.1	3.9	2.7
137.5°	32.1	25.4	19.6	14.1	9.8	6.3	5.1	4.7	3.9	3.1	2.3
140°	26.6	20.7	16.4	11.3	7.4	4.3	4.3	3.5	3.1	2.7	2.0
142.5°	22.3	17.2	13.7	9.4	5.9	3.5	3.5	2.7	2.7	2.3	2.0
145°	18.4	14.5	11.3	7.0	3.9	2.7	3.1	2.7	2.3	2.3	2.0
147.5°	14.9	11.3	8.6	5.1	2.7	2.7	2.7	2.3	2.3	2.0	1.6
150°	11.7	8.6	6.3	3.5	2.3	2.3	2.3	2.0	2.0	2.0	1.6
152.5°	9.0	6.3	3.9	2.3	2.3	2.3	2.3	2.0	2.0	1.6	1.2
155°	6.3	4.3	2.7	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.2
157.5°	4.3	2.7	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.6	1.2
160°	2.7	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



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6	2118.6
2.5°	2192.9	2135.0	2110.3	2074.8	2137.3	2051.7	2040.7	2038.4	2018.5	2000.9	1961.4
5°	2087.7	2003.2	1975.1	1924.2	1969.6	1870.6	1842.9	1837.8	1857.4	1902.3	1932.0
7.5°	2015.7	1905.5	1831.2	1814.0	1943.4	1914.1	1841.7	1801.8	1784.6	1754.9	1684.5
10°	1939.1	1829.6	1856.2	1845.2	1844.1	1713.5	1638.8	1702.1	1753.7	1746.7	1715.8
12.5°	1858.9	1895.3	1806.9	1662.6	1680.6	1725.6	1679.8	1646.6	1526.9	1482.8	1430.0
15°	1853.8	1806.9	1651.3	1635.3	1715.0	1580.1	1448.7	1456.2	1484.3	1471.8	1374.1
17.5°	1841.7	1650.9	1632.5	1602.0	1507.0	1422.1	1443.7	1342.0	1257.1	1219.2	1174.2
20°	1699.4	1595.4	1582.9	1423.7	1442.1	1353.7	1233.3	1187.5	1112.8	1006.9	959.2
22.5°	1585.2	1581.7	1425.3	1356.1	1310.7	1187.1	1101.9	969.0	938.1	888.4	829.7
25°	1535.9	1451.1	1336.9	1245.8	1163.7	1033.1	899.7	892.7	807.5	746.9	752.3
27.5°	1486.7	1339.6	1257.1	1103.9	1022.1	863.8	846.2	744.1	738.2	677.3	608.8
30°	1367.8	1255.6	1121.8	988.9	861.4	823.1	707.4	705.4	608.8	591.2	530.6
32.5°	1244.6	1170.7	998.3	848.5	822.3	696.8	665.5	577.9	538.8	495.0	454.0
35°	1160.6	1049.1	897.8	766.0	712.8	649.5	560.7	507.9	464.9	423.5	404.7
37.5°	1092.5	952.9	795.3	719.9	634.2	555.6	490.7	442.6	396.5	376.2	338.6
40°	998.3	866.1	733.6	644.0	576.8	493.1	429.7	381.2	345.7	316.3	277.6
42.5°	895.4	766.8	657.3	564.2	486.8	418.0	369.1	326.1	288.6	251.0	226.8
45°	778.9	675.7	593.2	495.0	421.1	369.5	322.6	272.2	227.6	207.2	179.1
46°	737.5	638.5	553.3	454.4	395.3	349.6	298.0	248.3	212.3	187.3	163.8
47.5°	672.6	579.9	508.7	404.7	366.8	321.4	266.3	217.8	185.7	162.3	143.5
50°	581.1	505.2	423.5	358.2	317.1	273.3	217.0	177.9	150.2	134.9	120.8
52.5°	494.6	429.3	362.1	305.8	269.8	217.4	177.5	145.5	125.9	114.6	105.6
55°	420.7	364.8	310.1	265.5	218.6	179.1	146.6	121.2	107.9	99.7	93.1
57.5°	360.1	315.9	271.8	228.4	179.1	147.8	120.8	102.8	91.9	86.4	81.7
60°	302.7	276.5	236.6	183.8	145.5	121.2	98.5	86.8	79.4	73.9	71.6
62.5°	255.3	240.5	199.4	150.2	118.9	98.5	79.8	71.9	66.5	62.2	61.4
65°	221.7	206.9	163.1	122.4	96.6	78.2	64.5	58.7	54.4	52.0	50.4
67.5°	195.1	173.2	133.3	99.3	76.6	60.2	50.8	45.4	41.8	40.7	39.1
70°	170.5	143.9	109.9	79.0	59.4	46.5	39.1	34.0	31.3	28.5	28.2
72.5°	144.3	116.9	87.6	63.7	46.1	36.0	27.8	23.1	20.3	18.0	17.2
75°	117.3	92.7	67.6	48.9	34.0	25.4	17.2	12.1	8.2	2.0	0.4
77.5°	91.9	72.3	50.8	35.6	22.7	14.5	6.6	0.8	0.0	0.0	0.0
80°	69.2	53.6	37.9	24.6	13.7	6.3	1.6	0.0	0.0	0.0	0.0
82.5°	52.0	39.1	26.6	17.2	9.4	4.3	0.8	0.0	0.0	0.0	0.0
85°	38.3	28.9	19.6	12.5	6.6	2.7	0.4	0.0	0.0	0.0	0.0
87.5°	27.8	21.5	14.9	9.4	4.7	2.0	0.4	0.0	0.0	0.0	0.0
90°	21.9	17.2	11.7	7.4	3.9	1.6	0.4	0.0	0.0	0.0	0.0
92.5°	18.4	14.1	9.8	6.6	3.1	1.6	0.4	0.0	0.0	0.0	0.0
95°	16.0	12.1	8.2	5.1	2.7	1.6	0.4	0.0	0.0	0.0	0.0
97.5°	13.3	10.2	7.0	4.3	2.0	1.2	0.4	0.0	0.0	0.0	0.0
100°	11.7	8.6	5.9	3.5	1.6	0.8	0.4	0.0	0.0	0.0	0.0
102.5°	10.6	7.8	5.1	2.7	1.2	0.8	0.0	0.0	0.0	0.0	0.0
105°	9.0	6.6	4.3	2.3	1.2	0.8	0.0	0.0	0.0	0.0	0.0
107.5°	8.2	5.9	3.5	2.0	1.2	0.8	0.0	0.0	0.0	0.0	0.0



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	
110°	7.4	5.1	3.1	1.6	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0°
112.5°	6.6	4.3	2.3	1.6	0.8	0.4	0.0	0.0	0.0	0.0	0.0	2.5°
115°	5.9	3.5	2.0	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	5°
117.5°	5.5	3.1	2.0	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	7.5°
120°	4.7	2.7	1.6	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	10°
122.5°	3.9	2.3	1.6	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	12.5°
125°	3.5	2.0	1.6	1.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	15°
127.5°	2.7	2.0	1.6	1.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	17.5°
130°	2.3	2.0	1.2	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0	20°
132.5°	2.3	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°

