

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: STREETWORKS

Report Number: P231173

Luminaire Tested: **ARCH-M-AF48-110-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231173
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-110-D-U-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14244 lumens
Efficiency: N/A
Efficacy: 128.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 111
Input Voltage (V): NR
Input Current (Ain): 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: 28.75 FT



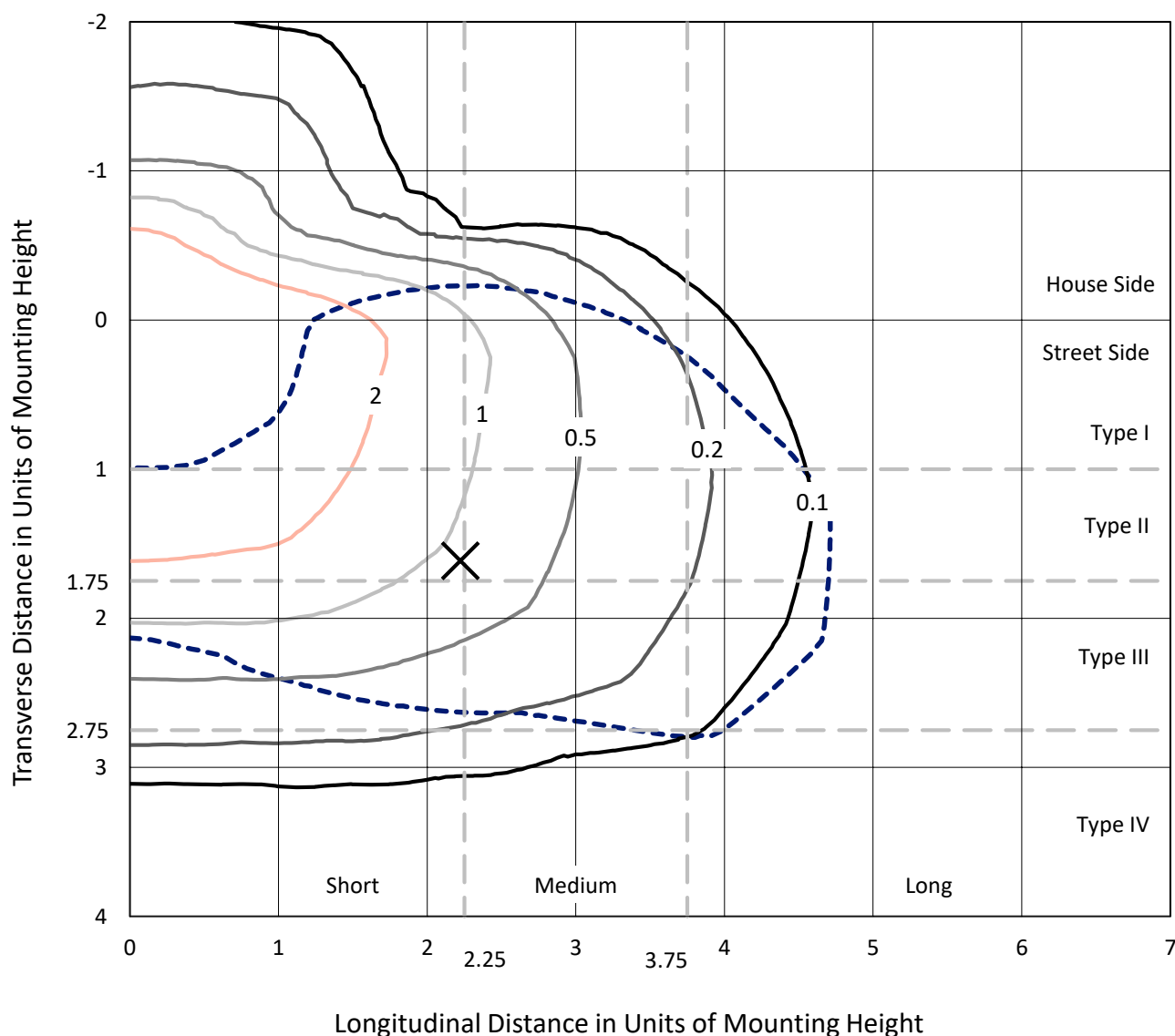
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

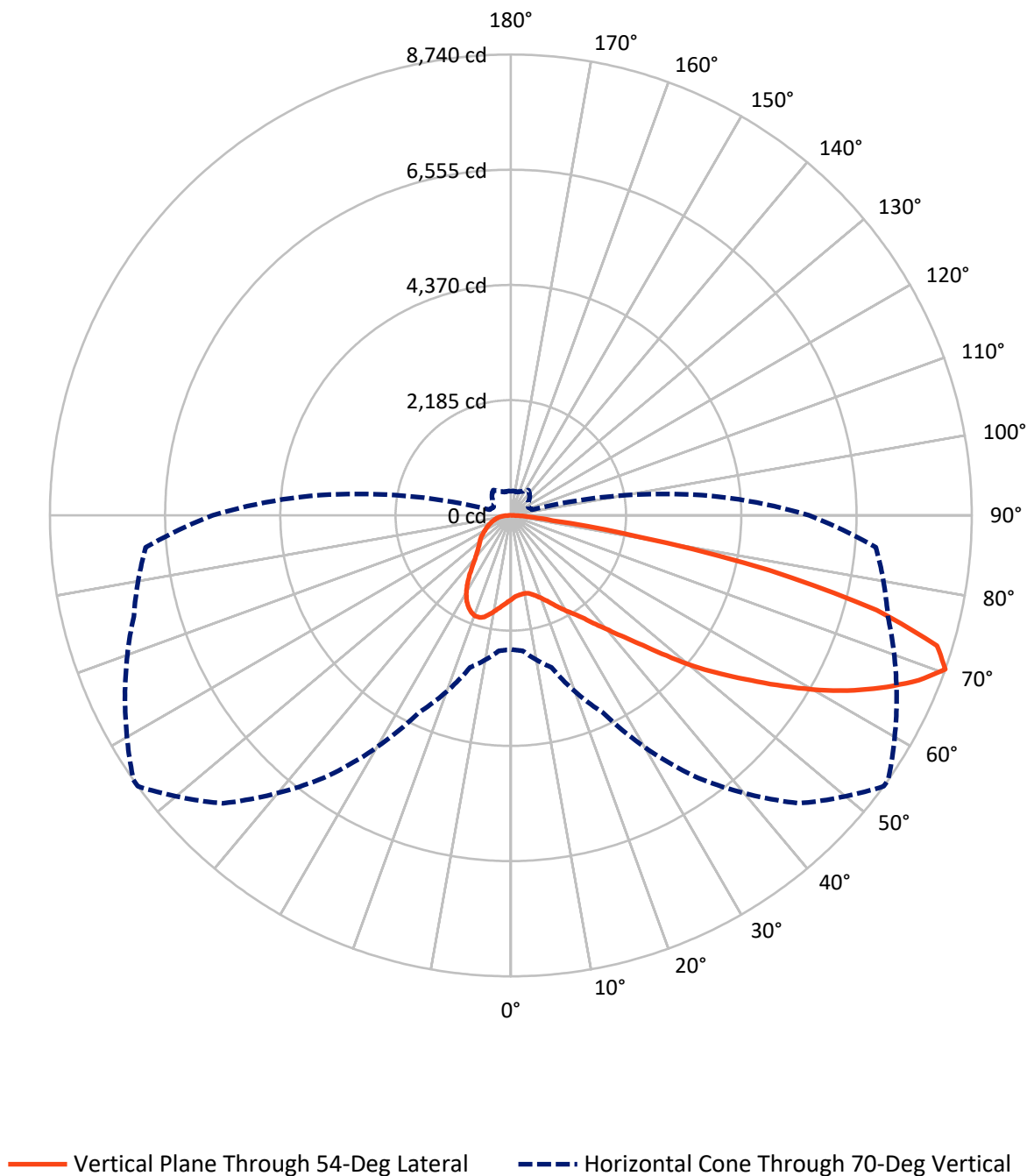


Based on 20 foot mounting height. Maximum calculated value = 4.6 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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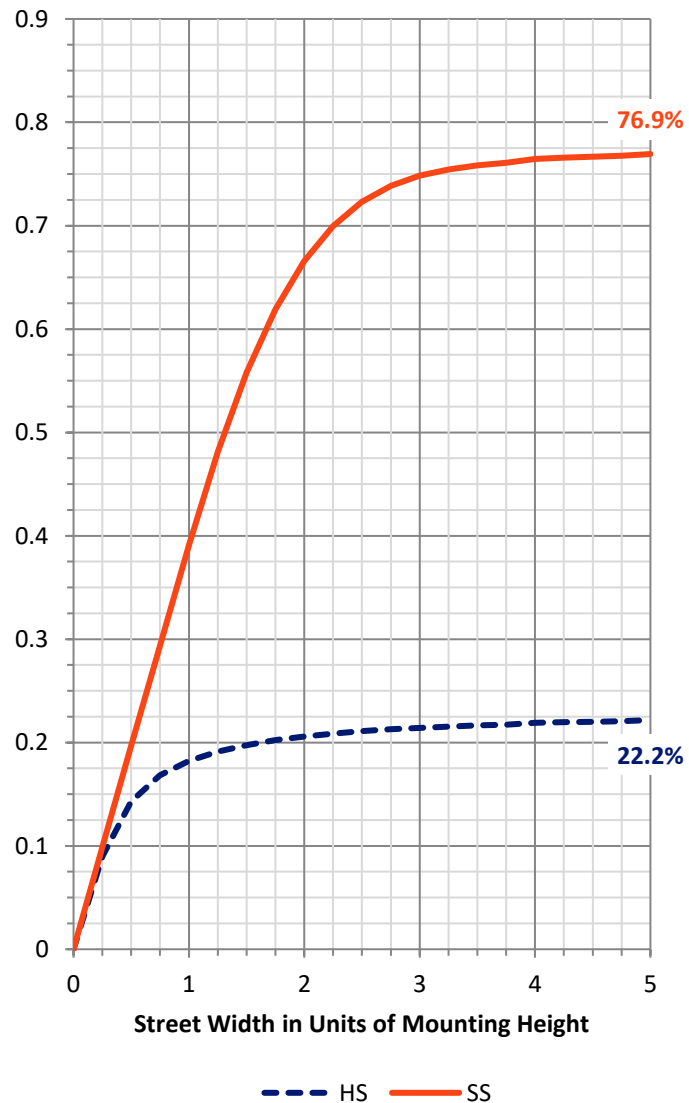
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3230.5	0.0	3230.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	11013.5	0.0	11013.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	14244.0	0.0	14244.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.4	1.1
10°-20°	499.7	3.5
20°-30°	868.2	6.1
30°-40°	1268.7	8.9
40°-50°	1991.3	14.0
50°-60°	3062.1	21.5
60°-70°	3741.1	26.3
70°-80°	2319.5	16.3
80°-90°	337.0	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	14244.0	100.0
0°-180°	14244.0	100.0

Coefficient of Utilization



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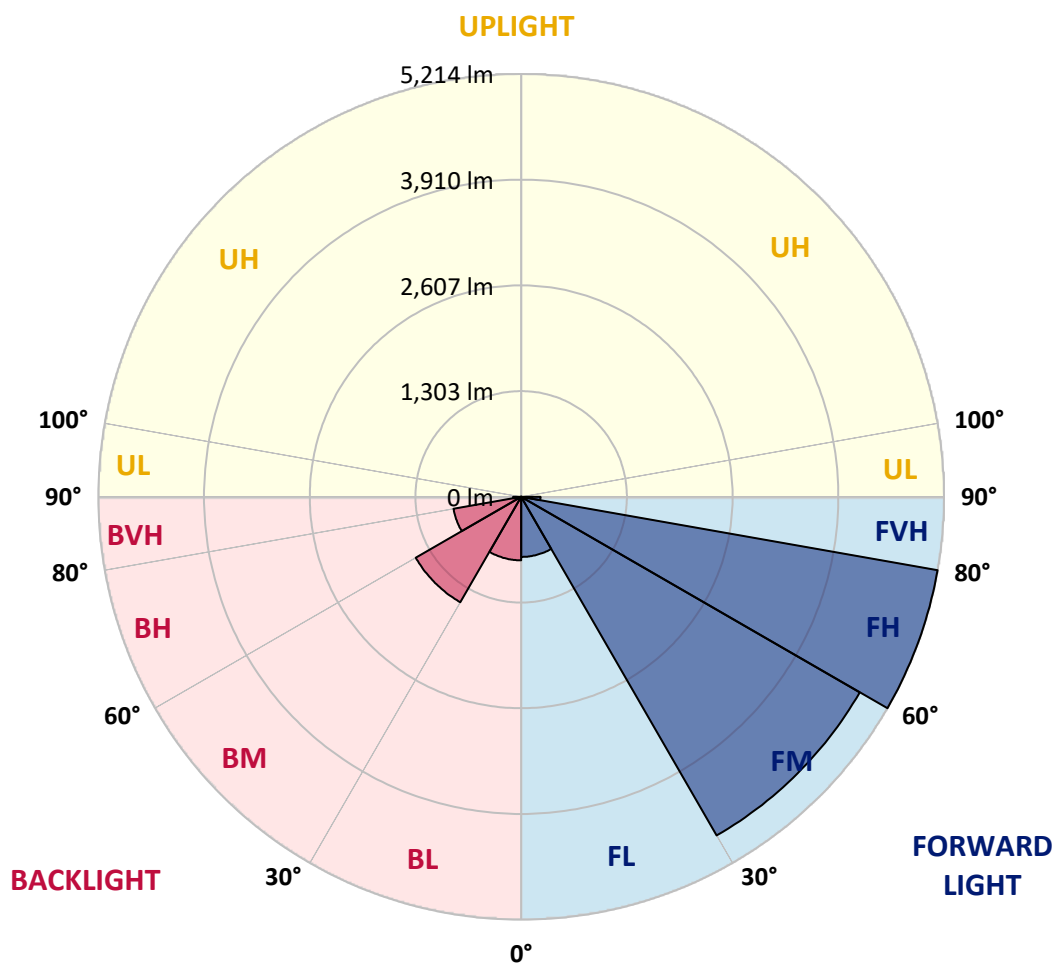
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	741.1	5.2			
FM	(30°-60°)	4820.9	33.8			
FH	(60°-80°)	5213.5	36.6			G3/7500
FVH	(80°-90°)	237.9	1.7			G3/500
BL	(0°-30°)	783.2	5.5	B2/1000		
BM	(30°-60°)	1501.2	10.5	B2/2500		
BH	(60°-80°)	847.1	5.9	B2/1000		G2/1000
BVH	(80°-90°)	99.0	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6
2.5°	1531.0	1525.8	1525.8	1533.6	1536.2	1544.1	1544.1	1546.7	1554.5	1567.5	1583.2
5°	1484.1	1481.5	1484.1	1494.5	1499.7	1515.4	1520.6	1523.2	1538.8	1559.7	1583.2
7.5°	1437.1	1434.5	1439.7	1455.4	1471.0	1494.5	1507.5	1510.2	1533.6	1562.3	1593.6
10°	1421.5	1418.9	1426.7	1439.7	1455.4	1481.5	1502.3	1504.9	1538.8	1572.8	1617.1
12.5°	1442.3	1439.7	1447.6	1460.6	1476.2	1494.5	1518.0	1520.6	1564.9	1609.3	1656.2
15°	1494.5	1494.5	1497.1	1504.9	1520.6	1536.2	1557.1	1559.7	1606.7	1658.8	1705.8
17.5°	1575.4	1570.1	1570.1	1567.5	1578.0	1585.8	1611.9	1614.5	1664.0	1711.0	1757.9
20°	1674.5	1671.9	1661.4	1648.4	1645.8	1651.0	1677.1	1679.7	1729.2	1768.4	1812.7
22.5°	1794.4	1797.1	1773.6	1744.9	1731.9	1739.7	1763.1	1765.8	1802.3	1836.2	1875.3
25°	1953.5	1945.7	1911.8	1870.1	1844.0	1844.0	1867.5	1867.5	1901.4	1922.3	1948.3
27.5°	2104.8	2089.2	2057.9	1997.9	1956.2	1964.0	1987.5	1987.5	2018.8	2026.6	2039.6
30°	2269.1	2253.5	2214.4	2138.7	2084.0	2078.7	2107.4	2104.8	2146.6	2143.9	2133.5
32.5°	2470.0	2462.1	2396.9	2300.4	2227.4	2209.2	2235.2	2237.8	2263.9	2256.1	2222.2
35°	2751.7	2749.1	2689.1	2519.5	2423.0	2389.1	2404.8	2404.8	2423.0	2402.2	2344.8
37.5°	3106.4	3111.6	3059.4	2809.0	2673.4	2616.0	2618.6	2616.0	2621.3	2597.8	2537.8
40°	3461.1	3474.1	3471.5	3169.0	2996.8	2897.7	2861.2	2856.0	2869.0	2858.6	2801.2
42.5°	3928.0	3959.3	3886.2	3612.4	3419.4	3252.4	3153.3	3140.3	3169.0	3182.0	3127.2
45°	4413.1	4402.7	4287.9	4089.7	3914.9	3701.0	3513.3	3492.4	3513.3	3552.4	3495.0
47.5°	4666.1	4658.3	4629.6	4530.5	4504.4	4259.2	3974.9	3956.7	3917.5	3972.3	3904.5
50°	5083.4	5091.2	4973.9	4963.4	5073.0	4937.3	4496.6	4454.8	4384.4	4428.7	4371.4
52.5°	5386.0	5352.0	5279.0	5370.3	5712.0	5638.9	4986.9	4968.6	4903.4	4893.0	4866.9
55°	5508.5	5508.5	5521.6	5732.8	6220.6	6124.1	5519.0	5537.2	5448.5	5375.5	5409.4
57.5°	5545.1	5560.7	5672.9	6022.4	6817.9	6502.3	6105.8	6131.9	6004.1	5858.0	5965.0
60°	5365.1	5412.0	5680.7	6186.7	7154.3	6903.9	6724.0	6731.8	6546.6	6332.7	6520.5
62.5°	4903.4	4960.8	5440.7	6254.5	7099.5	7316.0	7308.2	7326.5	7073.5	6807.4	7042.2
65°	4337.5	4394.8	4906.0	6064.1	7057.8	7610.8	7842.9	7892.4	7566.4	7209.1	7368.2
67.5°	3505.4	3581.1	4066.2	5422.5	6854.4	7853.3	8343.7	8395.8	7947.2	7417.7	7339.5
70°	2540.4	2576.9	2983.8	4121.0	6025.0	7720.3	8740.1	8737.5	8072.4	7402.1	6948.3
72.5°	1223.3	1251.9	1604.0	2558.7	4308.8	6551.8	8453.2	8502.8	7900.3	7175.2	6053.7
75°	503.4	532.1	649.4	1079.8	2261.3	4329.6	7164.8	7282.1	7175.2	6439.7	4736.5
77.5°	313.0	323.4	380.8	558.2	1032.9	2021.4	5015.6	5174.7	5685.9	5159.0	3127.2
80°	234.7	242.6	284.3	391.2	652.1	745.9	2490.8	2691.7	3445.4	2960.3	1416.3
82.5°	195.6	198.2	226.9	284.3	443.4	427.7	798.1	889.4	1606.7	1129.4	487.7
85°	182.6	187.8	203.4	203.4	281.7	268.6	331.2	346.9	466.9	386.0	169.5
87.5°	93.9	88.7	180.0	159.1	146.1	130.4	140.8	151.3	174.8	185.2	75.6
90°	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6	1593.6
2.5°	1588.4	1596.2	1609.3	1622.3	1638.0	1656.2	1666.6	1679.7	1690.1	1684.9	1682.3
5°	1596.2	1609.3	1638.0	1664.0	1695.3	1731.9	1755.3	1781.4	1802.3	1807.5	1799.7
7.5°	1609.3	1632.7	1671.9	1718.8	1760.5	1807.5	1844.0	1880.5	1906.6	1911.8	1911.8
10°	1640.6	1666.6	1718.8	1781.4	1831.0	1880.5	1922.3	1950.9	1974.4	1984.8	1984.8
12.5°	1684.9	1716.2	1778.8	1854.4	1909.2	1956.2	1979.6	1992.7	2003.1	2013.5	2016.1
15°	1737.1	1771.0	1846.6	1927.5	1984.8	2008.3	2008.3	2005.7	2005.7	2010.9	2016.1
17.5°	1789.2	1825.7	1904.0	1990.1	2026.6	2013.5	1995.3	1987.5	1982.2	1979.6	1987.5
20°	1844.0	1880.5	1958.8	2039.6	2029.2	1974.4	1948.3	1930.1	1914.4	1906.6	1917.0
22.5°	1904.0	1937.9	2018.8	2073.5	1995.3	1911.8	1862.3	1833.6	1807.5	1791.8	1802.3
25°	1974.4	2008.3	2086.6	2084.0	1935.3	1817.9	1739.7	1692.7	1664.0	1648.4	1648.4
27.5°	2057.9	2086.6	2162.2	2057.9	1851.8	1692.7	1578.0	1533.6	1525.8	1512.8	1512.8
30°	2143.9	2167.4	2232.6	1997.9	1737.1	1528.4	1403.2	1382.4	1385.0	1371.9	1374.5
32.5°	2232.6	2256.1	2274.4	1909.2	1588.4	1343.2	1259.8	1244.1	1241.5	1231.1	1220.6
35°	2357.8	2391.7	2279.6	1789.2	1408.4	1189.3	1129.4	1113.7	1098.1	1061.5	1061.5
37.5°	2548.2	2584.7	2266.5	1640.6	1223.3	1069.4	1014.6	993.7	967.6	931.1	918.1
40°	2809.0	2809.0	2237.8	1473.6	1074.6	972.9	920.7	894.6	865.9	829.4	821.6
42.5°	3116.8	3043.8	2193.5	1304.1	965.0	907.7	860.7	832.0	798.1	756.4	751.2
45°	3476.7	3278.5	2130.9	1152.8	884.2	868.5	839.8	790.3	732.9	688.6	680.7
47.5°	3826.2	3489.8	2070.9	1045.9	816.4	852.9	829.4	745.9	667.7	605.1	597.3
50°	4209.6	3677.6	2000.5	957.2	764.2	842.5	816.4	680.7	594.7	550.3	545.1
52.5°	4593.1	3868.0	1924.9	863.3	719.9	821.6	785.1	633.8	592.1	532.1	524.3
55°	4997.3	4089.7	1836.2	759.0	667.7	779.9	743.3	631.2	610.3	532.1	513.8
57.5°	5391.2	4334.8	1692.7	657.3	610.3	717.3	727.7	615.5	571.2	526.9	506.0
60°	5826.7	4595.7	1455.4	571.2	560.8	665.1	706.8	581.6	526.9	511.2	500.8
62.5°	6176.2	4830.4	1137.2	511.2	519.0	623.4	680.7	560.8	508.6	495.6	493.0
65°	6327.5	4835.6	816.4	459.0	477.3	584.2	654.7	542.5	493.0	487.7	485.1
67.5°	6168.4	4569.6	573.8	409.5	433.0	547.7	620.8	524.3	477.3	479.9	474.7
70°	5654.6	4008.8	419.9	362.5	391.2	508.6	584.2	500.8	459.0	464.3	456.4
72.5°	4731.3	3124.6	336.5	323.4	357.3	466.9	547.7	474.7	430.4	433.0	417.3
75°	3495.0	2070.9	281.7	289.5	318.2	427.7	500.8	440.8	399.1	388.6	378.2
77.5°	2078.7	1064.1	232.1	253.0	284.3	380.8	448.6	399.1	365.1	346.9	339.1
80°	858.1	430.4	190.4	213.9	247.8	339.1	396.4	349.5	326.0	307.8	297.3
82.5°	341.7	211.3	151.3	174.8	208.7	294.7	346.9	307.8	284.3	271.3	242.6
85°	130.4	104.3	101.7	122.6	156.5	226.9	286.9	258.2	240.0	206.0	198.2
87.5°	52.2	46.9	46.9	60.0	88.7	143.5	206.0	180.0	187.8	148.7	151.3
90°	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)