

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: P231176

Luminaire Tested: **ARCH-M-AF48-140-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231176
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-AF48-140-D-U-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16991 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 141
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

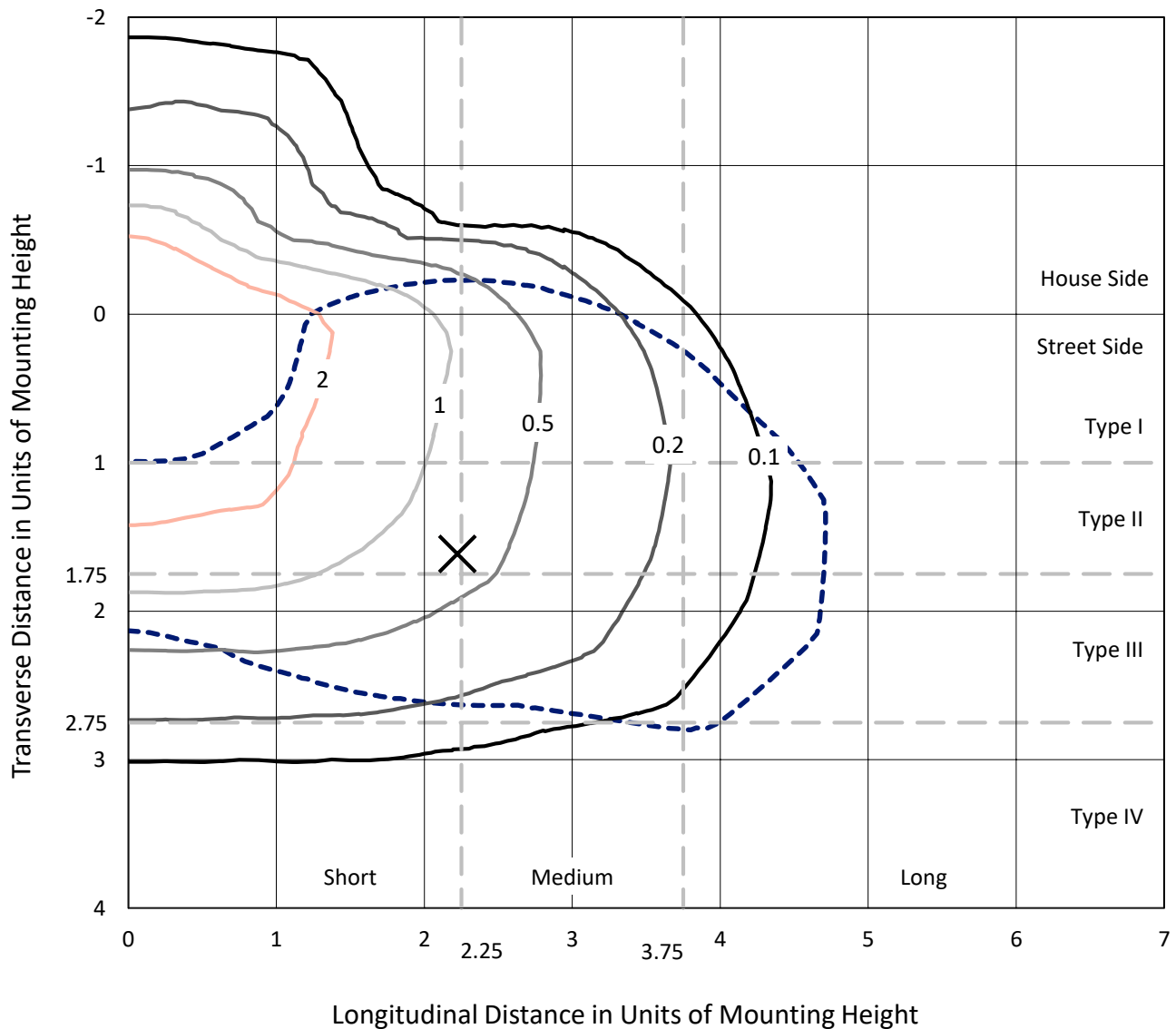


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

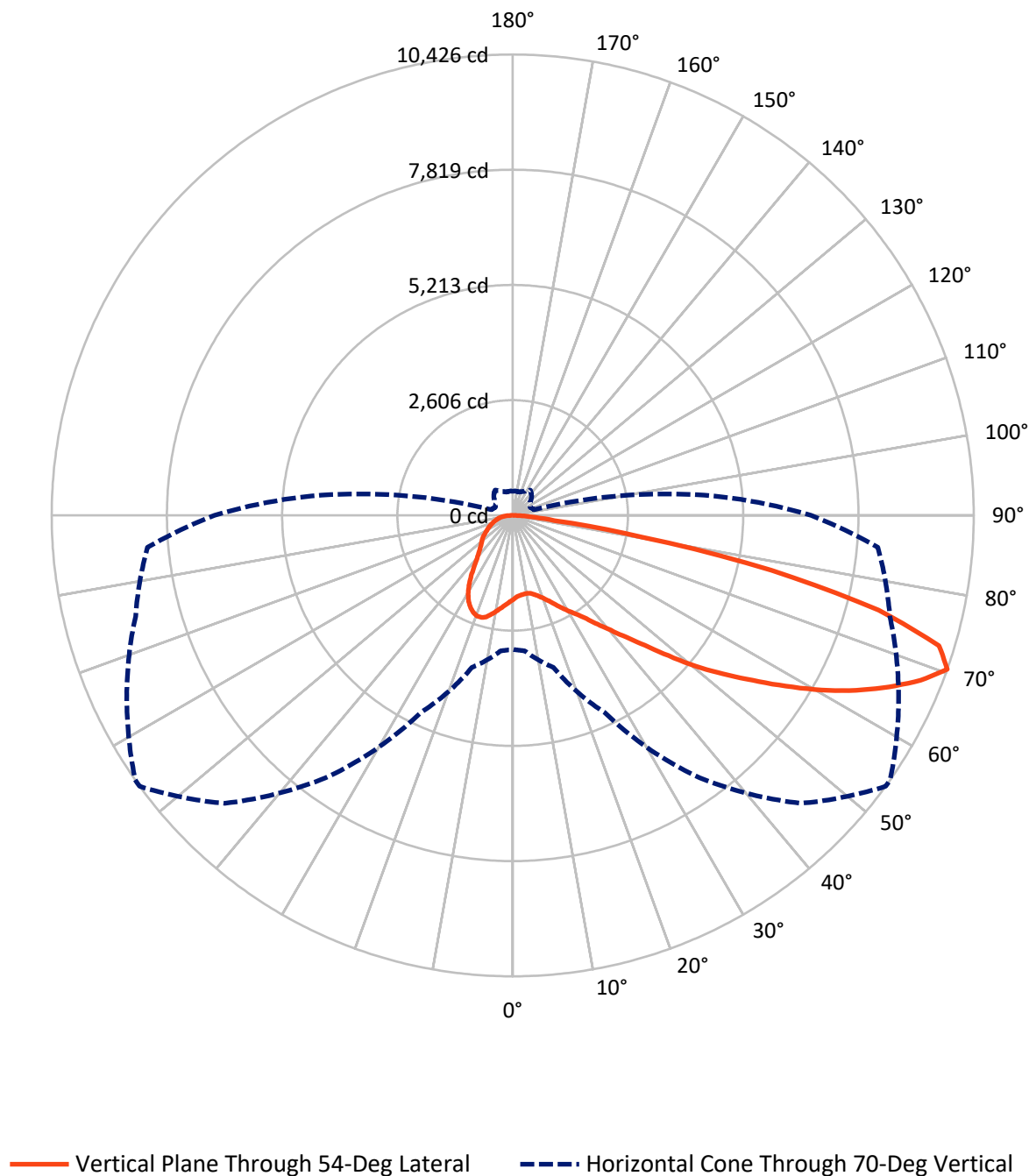


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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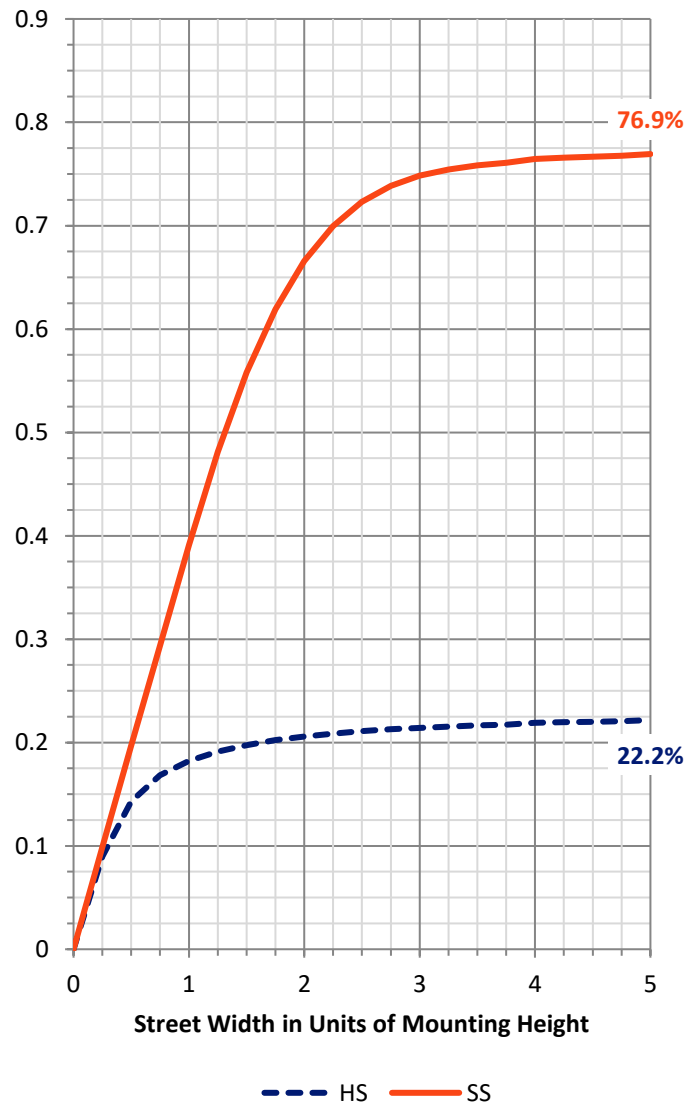
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3853.5	0.0	3853.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	13137.5	0.0	13137.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	16991.0	0.0	16991.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.6	1.1
10°-20°	596.1	3.5
20°-30°	1035.6	6.1
30°-40°	1513.4	8.9
40°-50°	2375.3	14.0
50°-60°	3652.6	21.5
60°-70°	4462.6	26.3
70°-80°	2766.8	16.3
80°-90°	401.9	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°	16991.0	100.0
0°-180°	16991.0	100.0

Coefficient of Utilization



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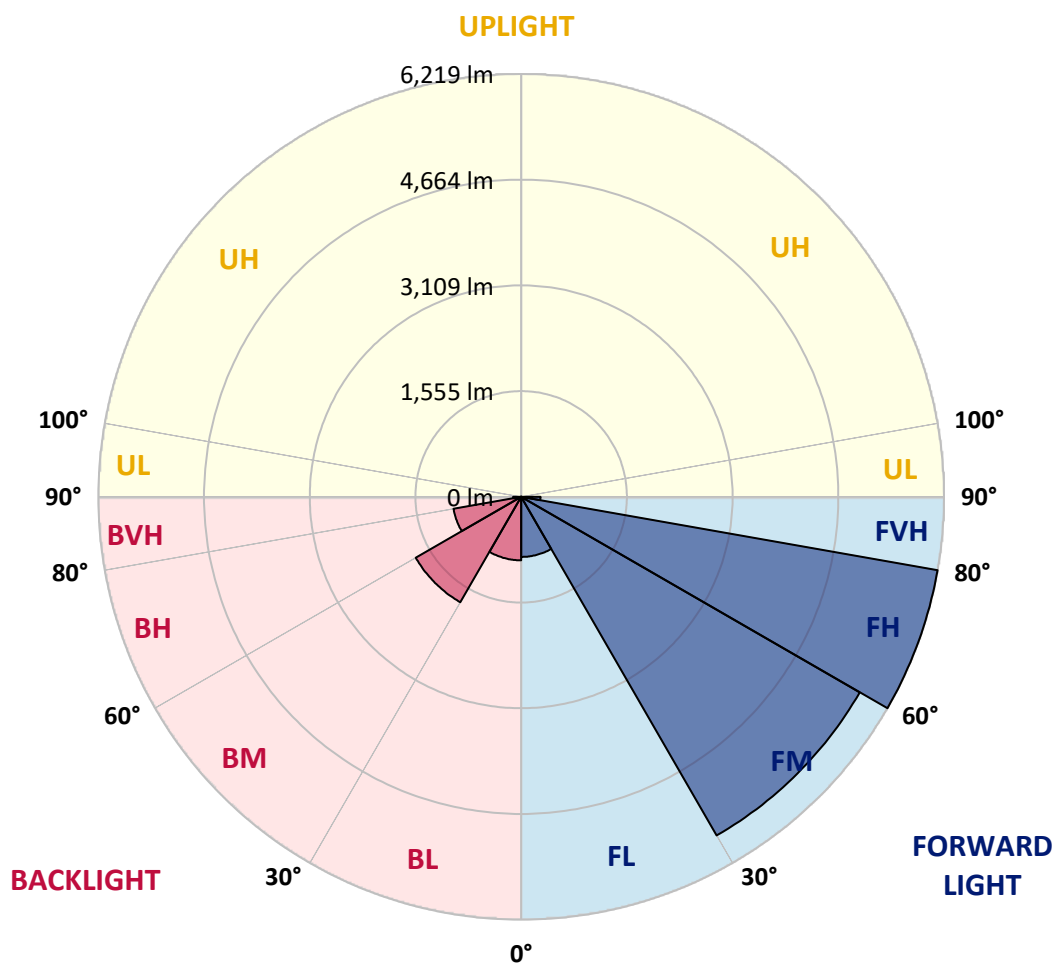
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	884.0	5.2			
FM	(30°-60°)	5750.7	33.8			
FH	(60°-80°)	6219.0	36.6			G3/7500
FVH	(80°-90°)	283.8	1.7			G3/500
BL	(0°-30°)	934.2	5.5	B2/1000		
BM	(30°-60°)	1790.7	10.5	B2/2500		
BH	(60°-80°)	1010.5	5.9	B3/2500		G3/2500
BVH	(80°-90°)	118.1	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9
2.5°	1826.3	1820.1	1820.1	1829.4	1832.5	1841.8	1841.8	1844.9	1854.3	1869.8	1888.5
5°	1770.3	1767.2	1770.3	1782.7	1788.9	1807.6	1813.8	1816.9	1835.6	1860.5	1888.5
7.5°	1714.3	1711.2	1717.4	1736.1	1754.7	1782.7	1798.3	1801.4	1829.4	1863.6	1900.9
10°	1695.6	1692.5	1701.8	1717.4	1736.1	1767.2	1792.1	1795.2	1835.6	1876.1	1929.0
12.5°	1720.5	1717.4	1726.7	1742.3	1760.9	1782.7	1810.7	1813.8	1866.7	1919.6	1975.6
15°	1782.7	1782.7	1785.8	1795.2	1813.8	1832.5	1857.4	1860.5	1916.5	1978.7	2034.7
17.5°	1879.2	1872.9	1872.9	1869.8	1882.3	1891.6	1922.7	1925.8	1985.0	2041.0	2097.0
20°	1997.4	1994.3	1981.8	1966.3	1963.2	1969.4	2000.5	2003.6	2062.7	2109.4	2162.3
22.5°	2140.5	2143.6	2115.6	2081.4	2065.8	2075.2	2103.2	2106.3	2149.8	2190.3	2237.0
25°	2330.3	2321.0	2280.5	2230.7	2199.6	2199.6	2227.6	2227.6	2268.1	2293.0	2324.1
27.5°	2510.7	2492.1	2454.7	2383.2	2333.4	2342.7	2370.7	2370.7	2408.1	2417.4	2433.0
30°	2706.8	2688.1	2641.4	2551.2	2485.9	2479.6	2513.9	2510.7	2560.5	2557.4	2545.0
32.5°	2946.3	2937.0	2859.2	2744.1	2657.0	2635.2	2666.3	2669.4	2700.5	2691.2	2650.8
35°	3282.3	3279.2	3207.7	3005.4	2890.3	2849.9	2868.5	2868.5	2890.3	2865.4	2797.0
37.5°	3705.5	3711.7	3649.5	3350.8	3189.0	3120.5	3123.7	3120.5	3126.8	3098.8	3027.2
40°	4128.6	4144.1	4141.0	3780.1	3574.8	3456.6	3413.0	3406.8	3422.3	3409.9	3341.4
42.5°	4685.5	4722.8	4635.7	4309.0	4078.8	3879.7	3761.5	3745.9	3780.1	3795.7	3730.3
45°	5264.2	5251.7	5114.8	4878.4	4669.9	4414.8	4190.8	4165.9	4190.8	4237.5	4169.0
47.5°	5566.0	5556.6	5522.4	5404.2	5373.1	5080.6	4741.5	4719.7	4673.0	4738.4	4657.5
50°	6063.7	6073.1	5933.1	5920.6	6051.3	5889.5	5363.7	5313.9	5229.9	5282.8	5214.4
52.5°	6424.7	6384.2	6297.1	6406.0	6813.6	6726.4	5948.6	5926.9	5849.1	5836.6	5805.5
55°	6570.9	6570.9	6586.4	6838.4	7420.2	7305.1	6583.3	6605.1	6499.3	6412.2	6452.7
57.5°	6614.4	6633.1	6766.9	7183.8	8132.7	7756.2	7283.3	7314.5	7162.0	6987.8	7115.3
60°	6399.8	6455.8	6776.2	7379.8	8534.1	8235.4	8020.7	8030.0	7809.1	7554.0	7778.0
62.5°	5849.1	5917.5	6490.0	7460.7	8468.7	8726.9	8717.6	8739.4	8437.6	8120.3	8400.3
65°	5173.9	5242.4	5852.2	7233.6	8418.9	9078.5	9355.4	9414.5	9025.6	8599.4	8789.2
67.5°	4181.5	4271.7	4850.4	6468.2	8176.3	9367.9	9952.8	10015.0	9479.9	8848.3	8754.9
70°	3030.3	3073.9	3559.2	4915.7	7186.9	9209.2	10425.7	10422.6	9629.2	8829.6	8288.3
72.5°	1459.2	1493.4	1913.4	3052.1	5139.7	7815.4	10083.4	10142.5	9423.9	8558.9	7221.1
75°	600.5	634.7	774.7	1288.0	2697.4	5164.6	8546.5	8686.5	8558.9	7681.6	5650.0
77.5°	373.3	385.8	454.2	665.8	1232.0	2411.2	5982.9	6172.6	6782.4	6154.0	3730.3
80°	280.0	289.3	339.1	466.7	777.8	889.8	2971.2	3210.8	4109.9	3531.2	1689.4
82.5°	233.3	236.5	270.7	339.1	528.9	510.2	952.0	1060.9	1916.5	1347.2	581.8
85°	217.8	224.0	242.7	242.7	336.0	320.5	395.1	413.8	556.9	460.5	202.2
87.5°	112.0	105.8	214.7	189.8	174.2	155.6	168.0	180.5	208.5	220.9	90.2
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°	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9	1900.9
2.5°	1894.7	1904.1	1919.6	1935.2	1953.8	1975.6	1988.1	2003.6	2016.1	2009.8	2006.7
5°	1904.1	1919.6	1953.8	1985.0	2022.3	2065.8	2093.8	2125.0	2149.8	2156.1	2146.7
7.5°	1919.6	1947.6	1994.3	2050.3	2100.1	2156.1	2199.6	2243.2	2274.3	2280.5	2280.5
10°	1957.0	1988.1	2050.3	2125.0	2184.1	2243.2	2293.0	2327.2	2355.2	2367.6	2367.6
12.5°	2009.8	2047.2	2121.8	2212.1	2277.4	2333.4	2361.4	2377.0	2389.4	2401.9	2405.0
15°	2072.1	2112.5	2202.7	2299.2	2367.6	2395.6	2395.6	2392.5	2392.5	2398.7	2405.0
17.5°	2134.3	2177.8	2271.2	2373.9	2417.4	2401.9	2380.1	2370.7	2364.5	2361.4	2370.7
20°	2199.6	2243.2	2336.5	2433.0	2420.5	2355.2	2324.1	2302.3	2283.6	2274.3	2286.7
22.5°	2271.2	2311.6	2408.1	2473.4	2380.1	2280.5	2221.4	2187.2	2156.1	2137.4	2149.8
25°	2355.2	2395.6	2489.0	2485.9	2308.5	2168.5	2075.2	2019.2	1985.0	1966.3	1966.3
27.5°	2454.7	2489.0	2579.2	2454.7	2209.0	2019.2	1882.3	1829.4	1820.1	1804.5	1804.5
30°	2557.4	2585.4	2663.2	2383.2	2072.1	1823.2	1673.8	1648.9	1652.1	1636.5	1639.6
32.5°	2663.2	2691.2	2713.0	2277.4	1894.7	1602.3	1502.7	1484.0	1480.9	1468.5	1456.0
35°	2812.5	2853.0	2719.2	2134.3	1680.1	1418.7	1347.2	1328.5	1309.8	1266.3	1266.3
37.5°	3039.7	3083.2	2703.6	1957.0	1459.2	1275.6	1210.3	1185.4	1154.3	1110.7	1095.1
40°	3350.8	3350.8	2669.4	1757.8	1281.8	1160.5	1098.3	1067.1	1032.9	989.4	980.0
42.5°	3717.9	3630.8	2616.5	1555.6	1151.1	1082.7	1026.7	992.5	952.0	902.3	896.0
45°	4147.2	3910.8	2541.9	1375.2	1054.7	1036.0	1001.8	942.7	874.3	821.4	812.0
47.5°	4564.1	4162.8	2470.3	1247.6	973.8	1017.4	989.4	889.8	796.5	721.8	712.5
50°	5021.5	4386.8	2386.3	1141.8	911.6	1004.9	973.8	812.0	709.4	656.5	650.2
52.5°	5478.8	4613.9	2296.1	1029.8	858.7	980.0	936.5	756.0	706.2	634.7	625.4
55°	5961.1	4878.4	2190.3	905.4	796.5	930.3	886.7	752.9	728.0	634.7	612.9
57.5°	6430.9	5170.8	2019.2	784.0	728.0	855.6	868.0	734.2	681.4	628.5	603.6
60°	6950.4	5482.0	1736.1	681.4	668.9	793.4	843.1	693.8	628.5	609.8	597.4
62.5°	7367.3	5762.0	1356.5	609.8	619.1	743.6	812.0	668.9	606.7	591.1	588.0
65°	7547.8	5768.2	973.8	547.6	569.4	696.9	780.9	647.1	588.0	581.8	578.7
67.5°	7358.0	5450.8	684.5	488.5	516.5	653.4	740.5	625.4	569.4	572.5	566.2
70°	6745.1	4781.9	500.9	432.5	466.7	606.7	696.9	597.4	547.6	553.8	544.5
72.5°	5643.7	3727.2	401.3	385.8	426.2	556.9	653.4	566.2	513.3	516.5	497.8
75°	4169.0	2470.3	336.0	345.3	379.6	510.2	597.4	525.8	476.0	463.6	451.1
77.5°	2479.6	1269.4	276.9	301.8	339.1	454.2	535.1	476.0	435.6	413.8	404.5
80°	1023.6	513.3	227.1	255.1	295.6	404.5	472.9	416.9	388.9	367.1	354.7
82.5°	407.6	252.0	180.5	208.5	248.9	351.6	413.8	367.1	339.1	323.6	289.3
85°	155.6	124.4	121.3	146.2	186.7	270.7	342.2	308.0	286.2	245.8	236.5
87.5°	62.2	56.0	56.0	71.6	105.8	171.1	245.8	214.7	224.0	177.3	180.5
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)