

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: P231373

Luminaire Tested: **ARCH-M-AF48-160-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231373
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-160-D-U-T4W-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13780 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 161
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



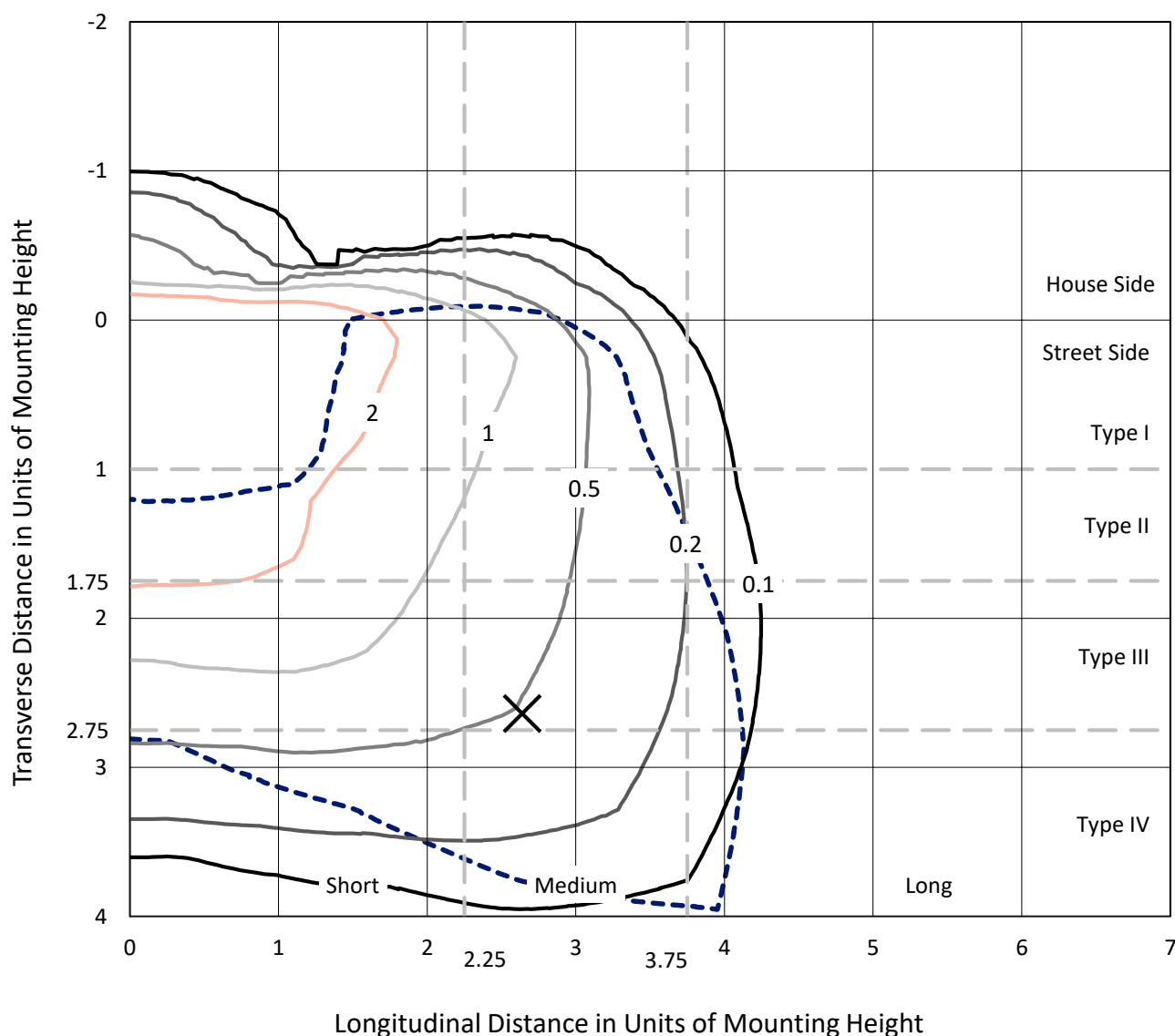
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

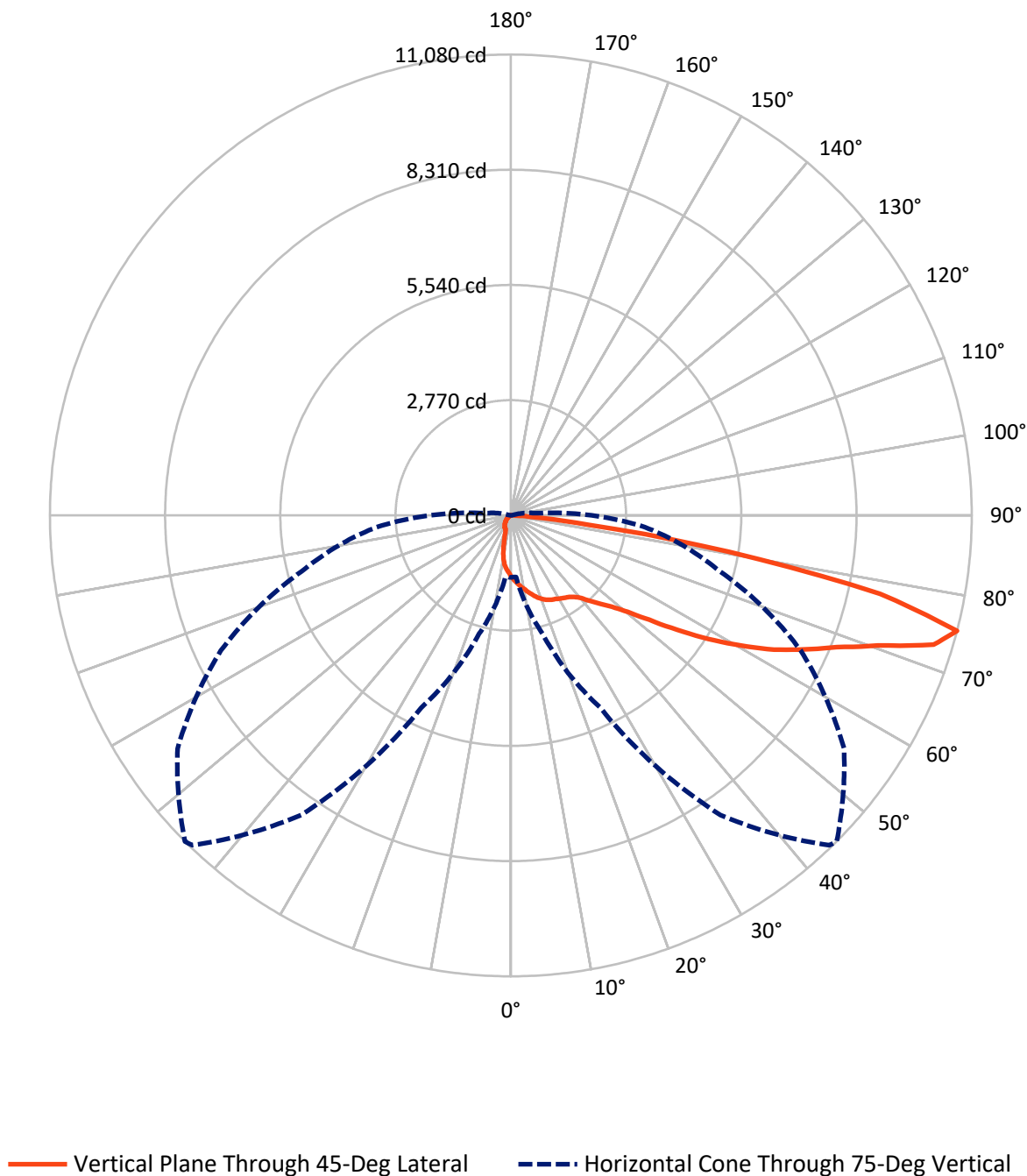


Based on 20 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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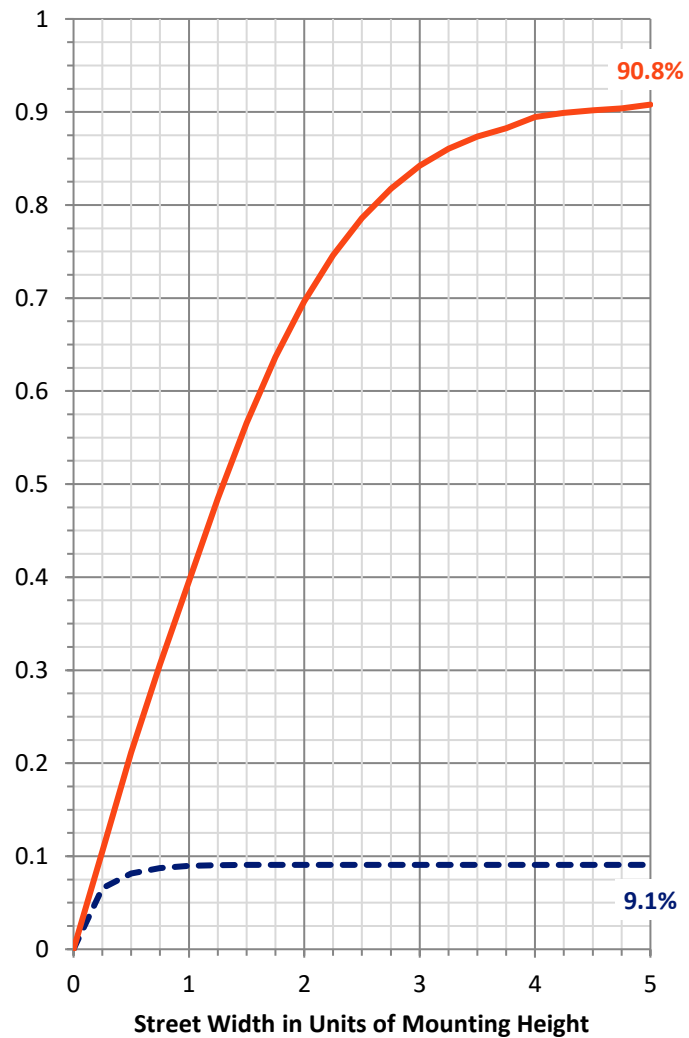
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1260.5	0.0	1260.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	12519.6	0.0	12519.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	13780.0	0.0	13780.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.1	1.0
10°-20°	394.1	2.9
20°-30°	652.6	4.7
30°-40°	944.5	6.9
40°-50°	1546.6	11.2
50°-60°	2755.7	20.0
60°-70°	4051.3	29.4
70°-80°	3056.3	22.2
80°-90°	239.8	1.7
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°	13780.0	100.0
0°-180°	13780.0	100.0

Coefficient of Utilization



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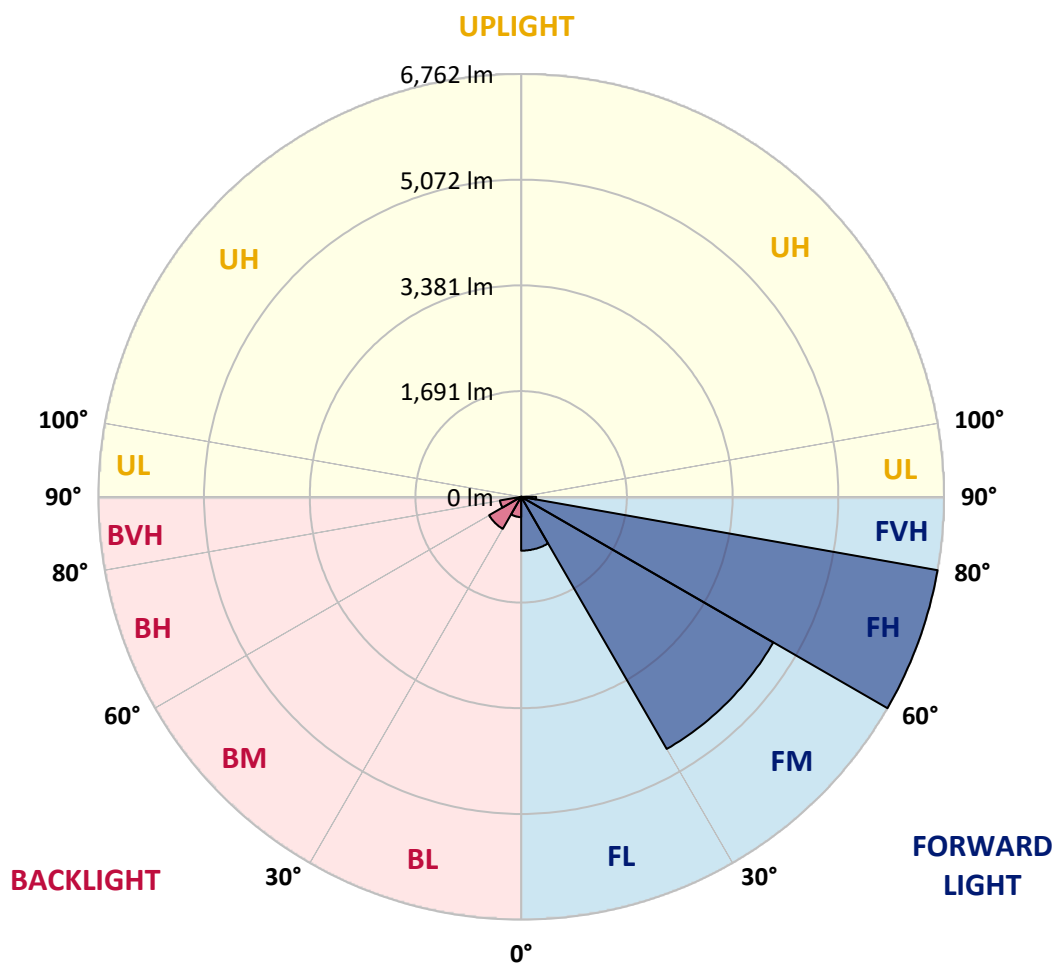
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	861.9	6.3			
FM	(30°-60°)	4656.2	33.8			
FH	(60°-80°)	6762.3	49.1			G3/7500
FVH	(80°-90°)	239.1	1.7			G3/500
BL	(0°-30°)	323.9	2.4	B1/500		
BM	(30°-60°)	590.7	4.3	B1/1000		
BH	(60°-80°)	345.2	2.5	B1/500		G1/500
BVH	(80°-90°)	0.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8
2.5°	1601.0	1601.0	1597.8	1594.5	1578.2	1561.9	1558.6	1548.8	1519.5	1499.9	1480.4
5°	1734.7	1738.0	1731.4	1715.1	1679.3	1643.4	1640.1	1614.1	1558.6	1519.5	1477.1
7.5°	1861.9	1868.4	1852.1	1822.7	1780.4	1728.2	1724.9	1676.0	1604.3	1548.8	1486.9
10°	1969.5	1969.5	1946.7	1910.8	1865.1	1809.7	1803.2	1747.7	1666.2	1597.8	1516.2
12.5°	2086.9	2083.6	2051.0	2002.1	1949.9	1897.7	1894.5	1826.0	1747.7	1659.7	1558.6
15°	2194.5	2187.9	2145.6	2099.9	2044.5	1989.0	1985.8	1917.3	1835.8	1731.4	1620.6
17.5°	2253.2	2249.9	2210.8	2165.1	2119.5	2077.1	2073.8	2002.1	1914.0	1806.4	1682.5
20°	2262.9	2266.2	2233.6	2194.5	2168.4	2145.6	2145.6	2080.3	1985.8	1871.7	1747.7
22.5°	2266.2	2276.0	2253.2	2201.0	2194.5	2197.7	2204.2	2152.1	2054.3	1946.7	1816.2
25°	2289.0	2302.1	2285.8	2223.8	2217.3	2240.1	2246.6	2223.8	2135.8	2028.2	1894.5
27.5°	2334.7	2347.7	2334.7	2256.4	2246.6	2269.5	2276.0	2289.0	2223.8	2106.4	1976.0
30°	2426.0	2429.2	2399.9	2302.1	2282.5	2311.9	2321.6	2357.5	2305.3	2181.4	2054.3
32.5°	2585.8	2553.1	2465.1	2334.7	2318.4	2351.0	2360.8	2399.9	2380.3	2253.2	2135.8
35°	2911.8	2742.3	2540.1	2380.3	2364.0	2396.6	2409.7	2465.1	2474.9	2354.2	2236.9
37.5°	2908.6	2755.3	2716.2	2468.4	2445.5	2468.4	2484.7	2553.1	2592.3	2487.9	2383.6
40°	3114.0	3048.8	3048.8	2634.7	2559.7	2592.3	2608.6	2677.1	2745.5	2664.0	2556.4
42.5°	3759.6	3717.2	3671.6	2954.2	2719.4	2810.7	2820.5	2862.9	2944.4	2918.3	2791.2
45°	4480.2	4441.1	4265.0	3495.5	2993.3	3009.6	3032.5	3100.9	3218.3	3267.2	3117.2
47.5°	5044.3	5005.2	4855.2	4147.6	3420.5	3277.0	3277.0	3410.7	3593.3	3717.2	3573.7
50°	5497.6	5451.9	5360.6	4842.2	4121.6	3661.8	3642.2	3798.7	4069.4	4261.8	4163.9
52.5°	5937.8	5804.1	5748.7	5559.5	4913.9	4219.4	4167.2	4278.1	4653.0	4891.1	4809.6
55°	6231.2	6211.7	6153.0	6218.2	5745.4	4897.6	4852.0	4874.8	5344.3	5504.1	5403.0
57.5°	6505.1	6501.9	6632.3	6935.6	6651.9	5673.7	5601.9	5566.0	6012.8	5973.6	6061.7
60°	6844.3	6785.6	7088.8	7522.5	7483.4	6430.1	6348.6	6276.9	6524.7	6413.8	6850.8
62.5°	6860.6	6844.3	7460.5	8083.3	8308.3	7199.7	7105.1	6847.5	6971.4	6844.3	7604.0
65°	6237.8	6319.3	7617.0	8380.1	8999.6	7874.6	7760.5	7359.4	7369.2	7284.4	8490.9
67.5°	6097.5	6139.9	7186.6	8699.6	9498.5	8556.1	8448.5	7949.6	7832.3	7838.8	9015.9
70°	5748.7	5813.9	6651.9	8676.8	9893.0	9465.9	9358.3	8817.0	8533.3	8217.0	8611.6
72.5°	4392.2	4503.1	5605.2	7607.3	9785.4	10656.0	10626.7	9915.9	8813.7	7545.3	6514.9
75°	1486.9	1483.6	2944.4	5109.5	8790.9	11021.2	11079.9	9778.9	7688.8	5204.1	3234.6
77.5°	319.6	322.8	606.5	2070.6	5840.0	8849.6	9074.6	7375.7	4959.6	2318.4	740.2
80°	156.5	159.8	251.1	547.8	2334.7	4962.8	5315.0	3792.2	1832.5	463.0	123.9
82.5°	78.3	81.5	130.4	290.2	864.1	1764.0	1884.7	1395.6	525.0	260.9	62.0
85°	29.3	29.3	65.2	172.8	394.5	414.1	508.7	404.3	316.3	211.9	16.3
87.5°	6.5	6.5	35.9	84.8	176.1	130.4	130.4	123.9	192.4	143.5	6.5
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°	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8
2.5°	1470.6	1457.5	1434.7	1411.9	1395.6	1376.0	1366.2	1356.5	1353.2	1349.9	1356.5
5°	1454.3	1434.7	1392.3	1356.5	1323.9	1297.8	1278.2	1258.6	1248.9	1242.3	1245.6
7.5°	1454.3	1424.9	1363.0	1307.5	1255.4	1199.9	1144.5	1102.1	1069.5	1050.0	1053.2
10°	1470.6	1431.5	1349.9	1274.9	1177.1	1059.7	939.1	847.8	785.8	750.0	750.0
12.5°	1506.5	1454.3	1353.2	1235.8	1069.5	864.1	681.5	570.6	525.0	498.9	502.2
15°	1555.4	1493.4	1369.5	1183.6	919.5	642.4	476.1	404.3	404.3	410.9	414.1
17.5°	1610.8	1542.3	1382.5	1105.4	727.1	459.8	375.0	368.5	378.2	394.5	394.5
20°	1666.2	1591.2	1389.1	981.5	544.5	365.2	355.4	355.4	361.9	378.2	381.5
22.5°	1734.7	1653.2	1382.5	828.2	407.6	345.6	342.4	342.4	342.4	361.9	361.9
25°	1806.4	1724.9	1356.5	665.2	345.6	332.6	329.3	326.1	326.1	342.4	345.6
27.5°	1888.0	1799.9	1294.5	508.7	326.1	319.6	316.3	309.8	309.8	322.8	322.8
30°	1969.5	1884.7	1199.9	384.8	309.8	306.5	300.0	293.5	286.9	300.0	300.0
32.5°	2057.5	1972.7	1076.0	306.5	286.9	286.9	283.7	273.9	267.4	273.9	277.2
35°	2174.9	2073.8	935.8	267.4	257.6	257.6	257.6	254.3	241.3	247.8	247.8
37.5°	2331.4	2214.0	772.8	247.8	234.8	228.3	228.3	228.3	218.5	221.7	221.7
40°	2530.3	2377.1	616.3	231.5	218.5	202.2	195.6	198.9	192.4	192.4	189.1
42.5°	2801.0	2553.1	463.0	218.5	205.4	182.6	169.6	166.3	159.8	156.5	156.5
45°	3189.0	2768.4	332.6	205.4	195.6	159.8	146.7	137.0	120.6	110.9	110.9
47.5°	3691.1	3012.9	247.8	192.4	185.9	140.2	123.9	104.3	81.5	75.0	75.0
50°	4304.2	3286.8	208.7	172.8	169.6	123.9	97.8	68.5	45.7	39.1	42.4
52.5°	4900.9	3544.4	185.9	153.3	150.0	107.6	71.7	35.9	19.6	19.6	19.6
55°	5403.0	3727.0	169.6	137.0	130.4	84.8	39.1	16.3	9.8	9.8	9.8
57.5°	5856.3	3831.3	153.3	120.6	104.3	58.7	16.3	6.5	6.5	3.3	3.3
60°	6270.4	3893.3	133.7	104.3	81.5	32.6	6.5	3.3	3.3	0.0	0.0
62.5°	6678.0	3939.0	114.1	84.8	62.0	13.0	3.3	3.3	0.0	0.0	0.0
65°	6987.7	3922.6	91.3	68.5	39.1	6.5	3.3	0.0	0.0	0.0	0.0
67.5°	6977.9	3700.9	68.5	52.2	19.6	3.3	0.0	0.0	0.0	0.0	0.0
70°	6241.0	3117.2	45.7	32.6	6.5	3.3	0.0	0.0	0.0	0.0	0.0
72.5°	4428.1	1998.8	29.3	19.6	3.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	1949.9	606.5	16.3	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	381.5	140.2	9.8	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	91.3	16.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	39.1	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.8	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.5	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)