

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: P231042

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231042
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-100-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13401 lumens
Efficiency: N/A
Efficacy: 132.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 101
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

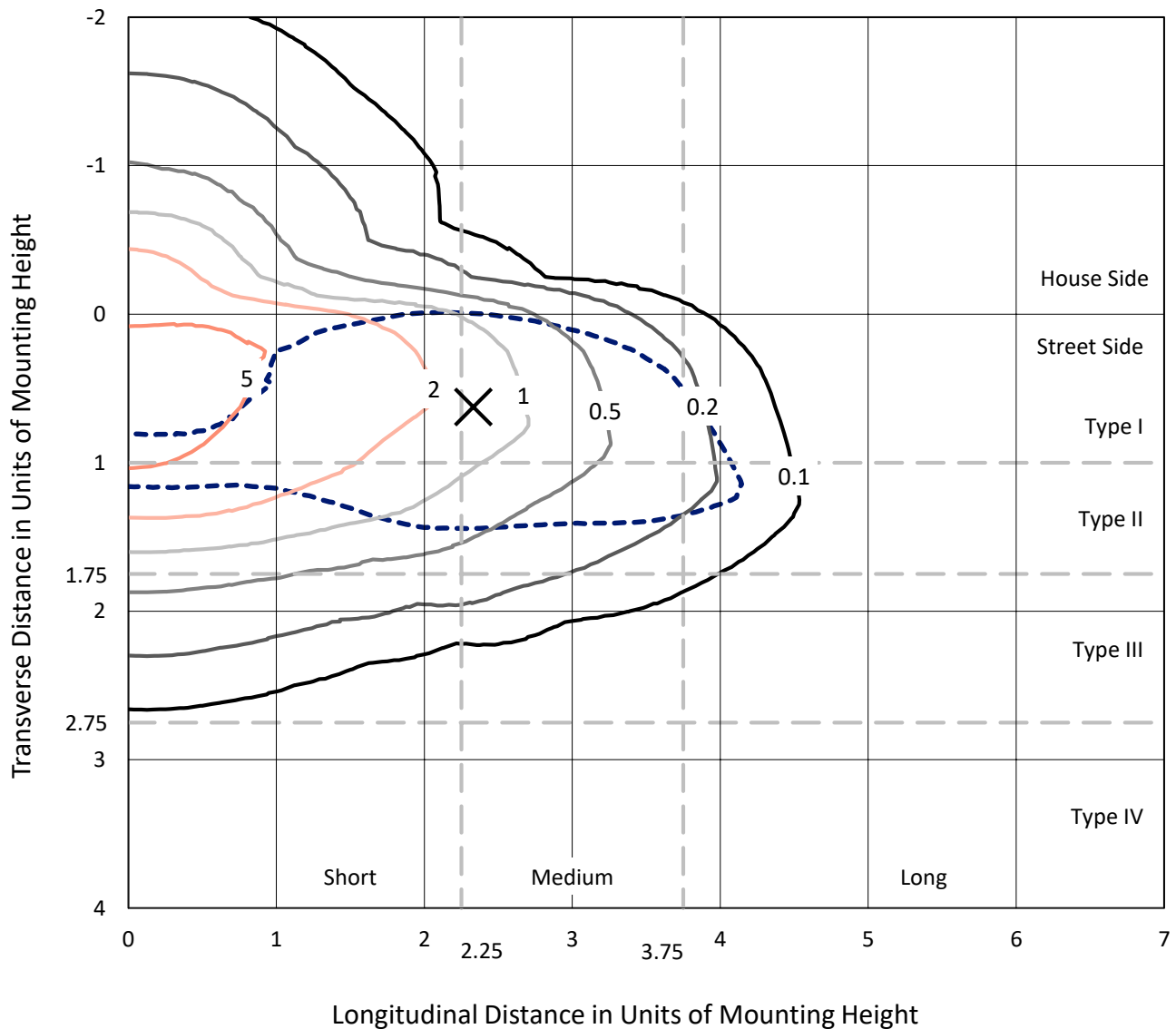


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

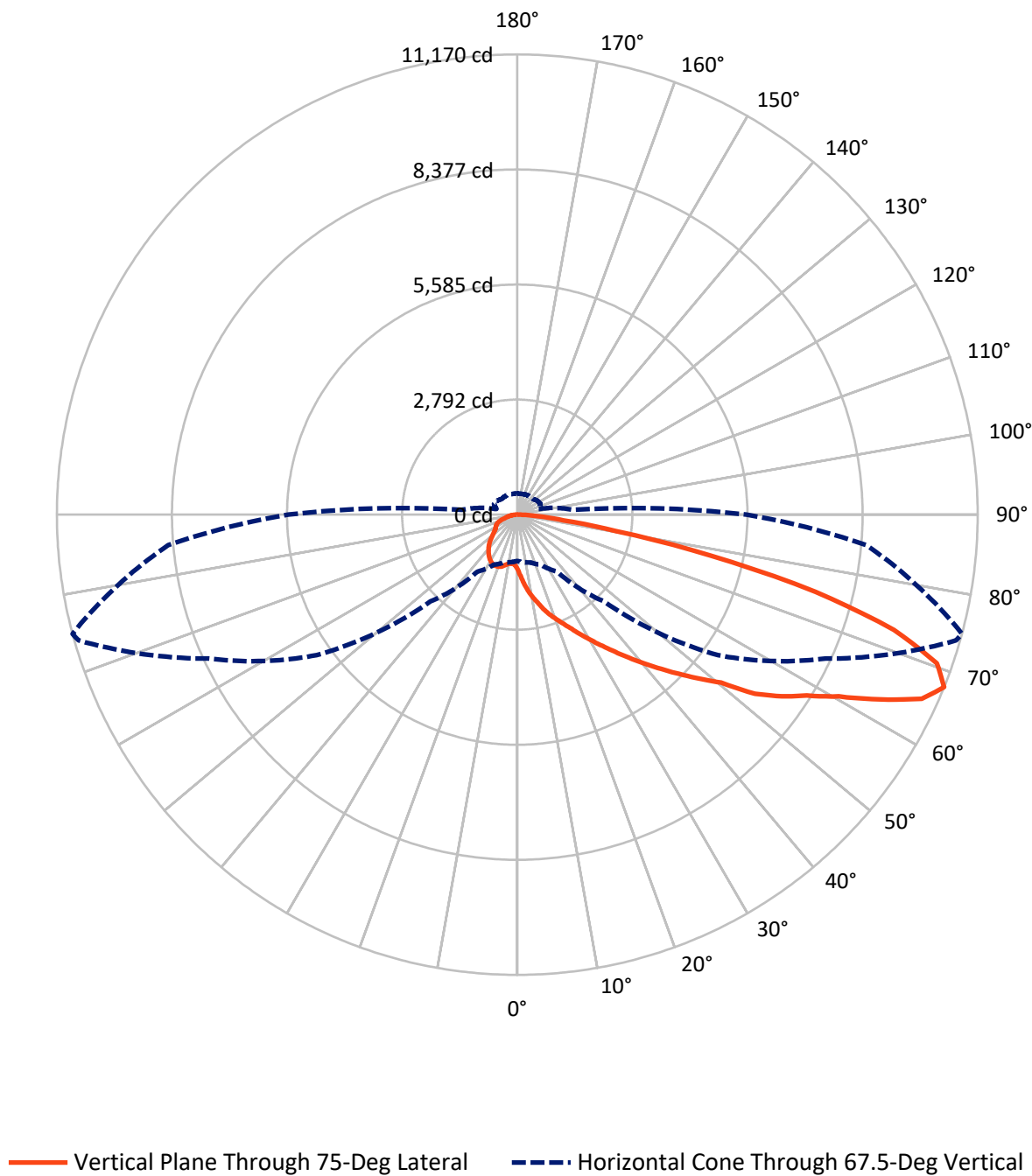


Based on 20 foot mounting height. Maximum calculated value = 6.9 fc
Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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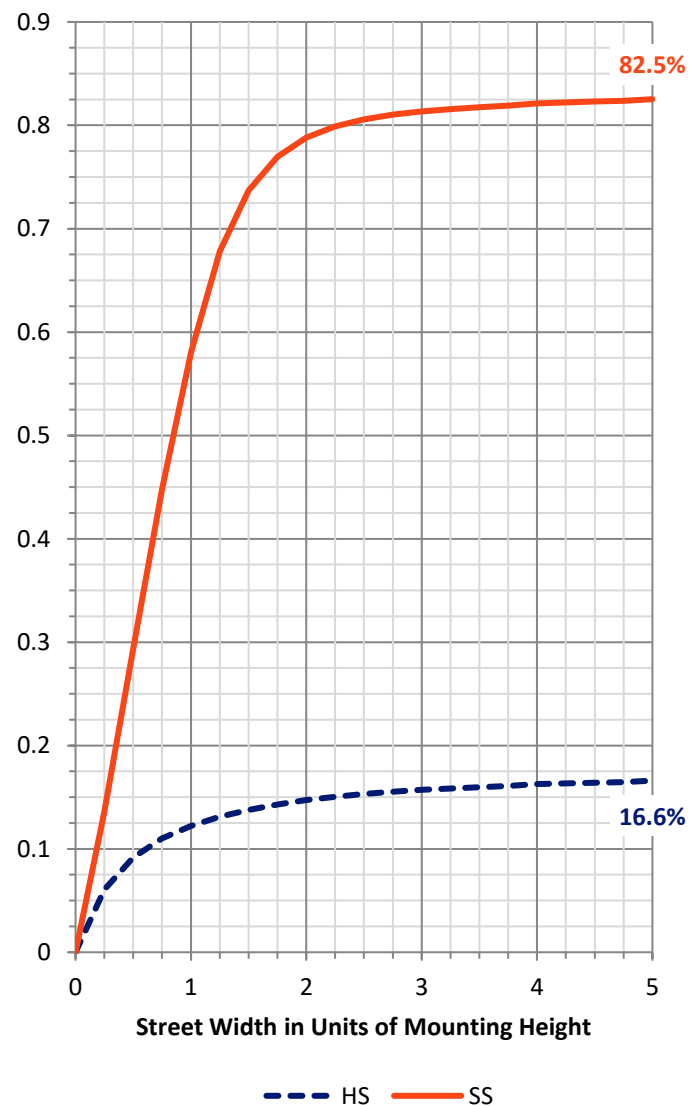
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2288.4	0.0	2288.4
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	11112.6	0.0	11112.6
	% Fixture	82.9	0.0	82.9
Total	Lumens	13401.0	0.0	13401.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.0	1.2
10°-20°	563.8	4.2
20°-30°	1028.3	7.7
30°-40°	1687.8	12.6
40°-50°	2440.8	18.2
50°-60°	2876.5	21.5
60°-70°	2795.3	20.9
70°-80°	1553.8	11.6
80°-90°	298.8	2.2
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°	13401.0	100.0
0°-180°	13401.0	100.0

Coefficient of Utilization



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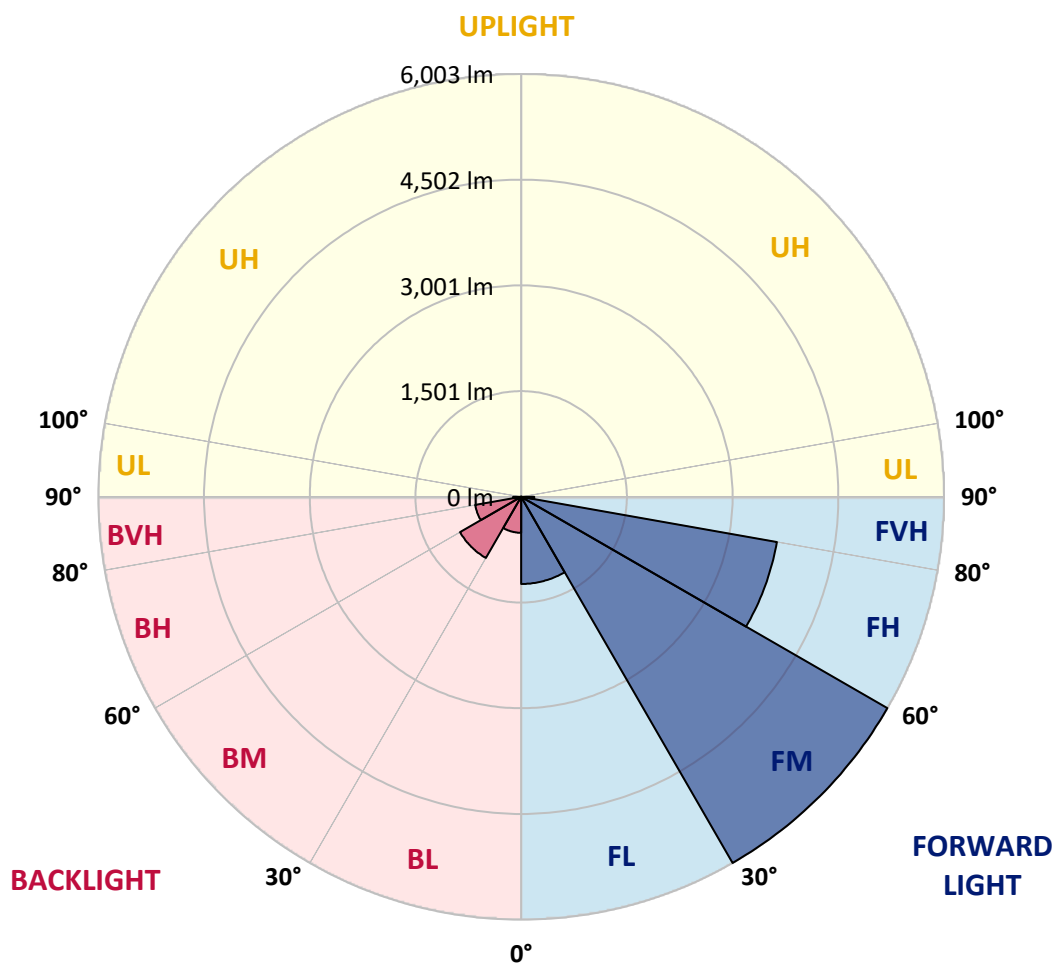
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1237.3	9.2			
FM	(30°-60°)	6002.9	44.8			
FH	(60°-80°)	3686.5	27.5			G2/5000
FVH	(80°-90°)	185.9	1.4			G2/225
BL	(0°-30°)	510.8	3.8	B2/1000		
BM	(30°-60°)	1002.2	7.5	B2/2500		
BH	(60°-80°)	662.6	4.9	B2/1000		G2/1000
BVH	(80°-90°)	112.8	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9
2.5°	1882.6	1888.2	1877.0	1851.8	1815.4	1748.1	1689.3	1585.6	1493.2	1482.0	1383.9
5°	2213.2	2218.8	2204.8	2174.0	2134.7	2061.9	1980.7	1846.2	1697.7	1669.7	1462.4
7.5°	2440.1	2442.9	2426.1	2395.3	2364.5	2291.6	2210.4	2059.1	1877.0	1854.6	1563.2
10°	2633.4	2639.0	2616.6	2597.0	2563.4	2490.5	2406.5	2246.8	2059.1	2028.3	1666.9
12.5°	2812.7	2818.3	2804.3	2787.5	2776.3	2709.0	2616.6	2426.1	2224.4	2190.8	1790.2
15°	2933.2	2938.8	2941.6	2964.0	2978.0	2930.4	2837.9	2630.6	2403.7	2372.9	1935.8
17.5°	2899.5	2913.6	2955.6	3036.8	3123.7	3126.5	3050.8	2832.3	2580.2	2546.6	2084.3
20°	2801.5	2812.7	2863.1	2986.4	3157.3	3255.3	3249.7	3036.8	2745.5	2709.0	2221.6
22.5°	2882.7	2896.7	2896.7	2972.4	3140.5	3322.6	3395.4	3238.5	2910.8	2877.1	2358.9
25°	3230.1	3238.5	3179.7	3148.9	3210.5	3378.6	3515.9	3457.0	3112.5	3073.2	2507.3
27.5°	3714.8	3700.8	3627.9	3504.7	3437.4	3482.3	3622.3	3664.4	3345.0	3297.4	2661.4
30°	4196.6	4188.2	4104.2	3938.9	3787.6	3692.4	3740.0	3849.3	3597.1	3541.1	2809.9
32.5°	4647.7	4633.7	4541.2	4347.9	4177.0	4000.5	3908.1	4017.3	3866.1	3801.6	2975.2
35°	5062.3	5025.9	4933.4	4731.7	4555.2	4387.1	4160.2	4177.0	4157.4	4090.2	3157.3
37.5°	5398.5	5370.5	5269.6	5081.9	4894.2	4734.5	4496.4	4359.1	4471.2	4406.7	3367.4
40°	5695.4	5664.6	5561.0	5373.3	5199.6	5048.3	4860.6	4580.4	4824.2	4751.3	3602.7
42.5°	5919.6	5897.1	5813.1	5628.2	5460.1	5322.8	5230.4	4860.6	5191.2	5121.1	3860.5
45°	6040.0	6017.6	5972.8	5824.3	5670.2	5563.8	5572.2	5194.0	5575.0	5516.1	4165.8
47.5°	5891.5	5908.3	5947.6	5919.6	5824.3	5773.9	5877.5	5538.6	6003.6	5947.6	4496.4
50°	5493.7	5510.5	5667.4	5860.7	5894.3	5956.0	6152.1	5936.4	6457.4	6412.6	4905.4
52.5°	4516.0	4608.5	5042.7	5504.9	5821.5	6076.4	6457.4	6527.5	7222.2	7222.2	5628.2
55°	3412.2	3493.5	3989.3	4796.2	5538.6	6087.6	6681.6	6928.1	7774.1	7785.3	6006.4
57.5°	2765.1	2815.5	3059.2	3885.7	4944.6	5947.6	6947.7	7272.7	8233.6	8284.0	6493.9
60°	2244.0	2272.0	2431.7	3006.0	4123.8	5569.4	7138.2	7765.7	8889.1	8959.2	7115.8
62.5°	1804.2	1832.2	1938.6	2283.2	3235.7	4860.6	7104.6	8278.4	9763.2	9878.1	7931.0
65°	1440.0	1470.8	1540.8	1753.7	2398.1	3980.9	6760.0	8541.8	10668.1	10780.1	8471.7
67.5°	1123.4	1151.4	1199.0	1339.1	1689.3	2978.0	5944.8	8264.4	11074.3	11169.6	8499.7
70°	848.9	862.9	902.1	991.7	1207.4	1977.9	4653.3	7334.3	10710.1	10797.0	7939.4
72.5°	658.4	655.5	678.0	722.8	843.2	1361.5	3084.4	5964.4	9469.0	9558.7	6774.0
75°	537.9	535.1	549.1	563.1	610.7	913.3	1821.0	4490.8	7642.5	7471.6	5081.9
77.5°	453.8	451.0	465.0	467.8	487.5	630.3	1036.6	2955.6	5098.7	4804.6	2863.1
80°	383.8	381.0	397.8	403.4	417.4	462.2	596.7	1599.7	2560.6	2426.1	1367.1
82.5°	288.6	299.8	330.6	344.6	361.4	341.8	369.8	706.0	1187.8	1134.6	593.9
85°	140.1	165.3	249.3	277.3	297.0	215.7	252.1	333.4	535.1	509.9	240.9
87.5°	47.6	42.0	148.5	176.5	193.3	98.1	140.1	184.9	221.3	201.7	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°	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9	1327.9
2.5°	1341.9	1299.9	1238.3	1190.6	1159.8	1134.6	1123.4	1120.6	1115.0	1112.2	1112.2
5°	1369.9	1294.3	1199.0	1148.6	1134.6	1123.4	1129.0	1131.8	1131.8	1131.8	1131.8
7.5°	1412.0	1305.5	1190.6	1157.0	1154.2	1154.2	1171.0	1179.4	1185.0	1185.0	1185.0
10°	1468.0	1325.1	1204.6	1176.6	1185.0	1190.6	1210.2	1221.5	1227.1	1229.9	1232.7
12.5°	1543.6	1367.1	1232.7	1210.2	1221.5	1224.3	1238.3	1243.9	1249.5	1252.3	1252.3
15°	1644.5	1428.8	1277.5	1249.5	1252.3	1249.5	1249.5	1243.9	1241.1	1241.1	1246.7
17.5°	1748.1	1487.6	1316.7	1277.5	1266.3	1243.9	1227.1	1213.0	1204.6	1199.0	1201.8
20°	1851.8	1540.8	1339.1	1283.1	1252.3	1215.8	1185.0	1165.4	1154.2	1143.0	1148.6
22.5°	1955.4	1591.2	1347.5	1266.3	1221.5	1168.2	1134.6	1103.8	1078.6	1061.8	1064.6
25°	2070.3	1647.3	1347.5	1246.7	1179.4	1123.4	1081.4	1030.9	994.5	980.5	986.1
27.5°	2185.2	1694.9	1333.5	1210.2	1131.8	1075.8	1014.1	955.3	932.9	924.5	927.3
30°	2300.0	1731.3	1302.7	1165.4	1081.4	1019.7	938.5	899.3	871.3	848.9	851.7
32.5°	2414.9	1756.5	1260.7	1109.4	1028.1	949.7	882.5	837.6	787.2	759.2	762.0
35°	2546.6	1776.1	1210.2	1053.4	969.3	888.1	837.6	764.8	711.6	689.2	683.6
37.5°	2683.8	1790.2	1157.0	991.7	910.5	843.2	792.8	703.2	652.7	621.9	619.1
40°	2832.3	1795.8	1092.6	927.3	854.5	815.2	734.0	666.8	579.9	560.3	560.3
42.5°	3008.8	1793.0	1028.1	862.9	792.8	750.8	692.0	661.2	585.5	565.9	554.7
45°	3210.5	1793.0	958.1	787.2	731.2	669.6	644.3	624.7	574.3	582.7	588.3
47.5°	3440.2	1787.4	874.1	725.6	680.8	627.5	613.5	571.5	551.9	557.5	563.1
50°	3756.8	1795.8	798.4	675.2	644.3	599.5	582.7	560.3	551.9	554.7	551.9
52.5°	4196.6	1767.7	725.6	644.3	616.3	557.5	557.5	554.7	557.5	554.7	554.7
55°	4437.6	1706.1	672.4	627.5	596.7	537.9	549.1	554.7	560.3	557.5	557.5
57.5°	4779.3	1664.1	630.3	616.3	585.5	532.3	543.5	554.7	557.5	554.7	554.7
60°	5182.8	1636.1	602.3	619.1	577.1	532.3	546.3	554.7	551.9	549.1	549.1
62.5°	5650.6	1624.9	582.7	627.5	568.7	535.1	546.3	554.7	543.5	540.7	540.7
65°	5827.1	1524.0	557.5	633.1	574.3	535.1	543.5	546.3	532.3	529.5	526.7
67.5°	5555.4	1350.3	521.1	621.9	591.1	535.1	535.1	532.3	515.5	512.7	507.1
70°	4947.4	1120.6	465.0	585.5	602.3	537.9	523.9	509.9	493.1	493.1	481.9
72.5°	4051.0	882.5	392.2	521.1	593.9	546.3	501.5	481.9	462.2	462.2	451.0
75°	2919.2	658.4	313.8	434.2	557.5	543.5	473.5	448.2	425.8	423.0	409.0
77.5°	1664.1	462.2	254.9	339.0	495.9	529.5	448.2	409.0	383.8	375.4	367.0
80°	854.5	311.0	207.3	266.1	411.8	490.3	428.6	364.2	336.2	322.2	308.2
82.5°	406.2	207.3	159.7	196.1	311.0	428.6	403.4	313.8	283.0	266.1	249.3
85°	182.1	123.3	106.5	126.1	221.3	333.4	355.8	257.7	221.3	277.3	204.5
87.5°	58.8	56.0	56.0	58.8	106.5	145.7	260.5	190.5	176.5	145.7	123.3
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)