

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: P231046

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231046
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-AF48-140-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17098 lumens
Efficiency: N/A
Efficacy: 121.3 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 - 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

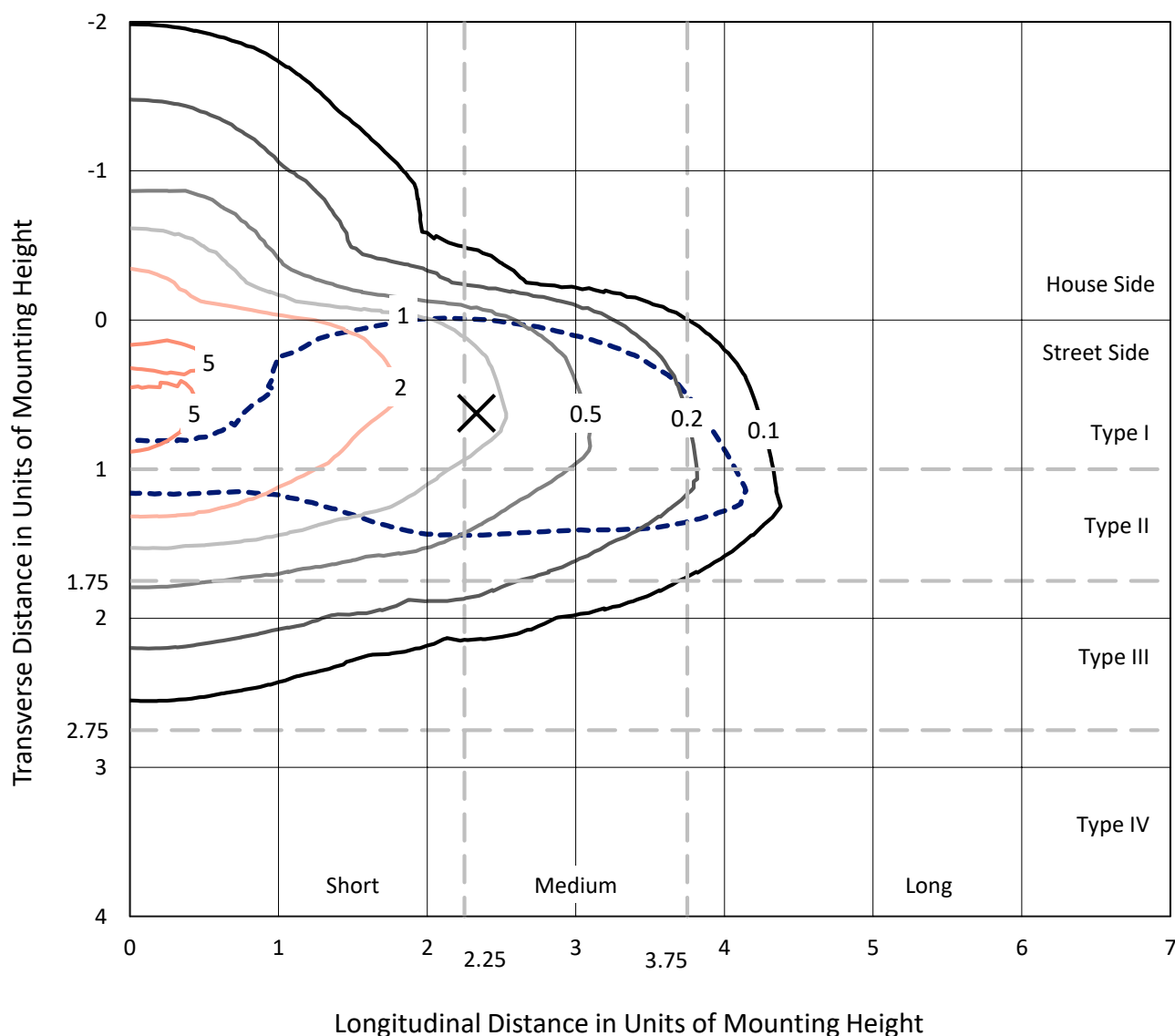


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

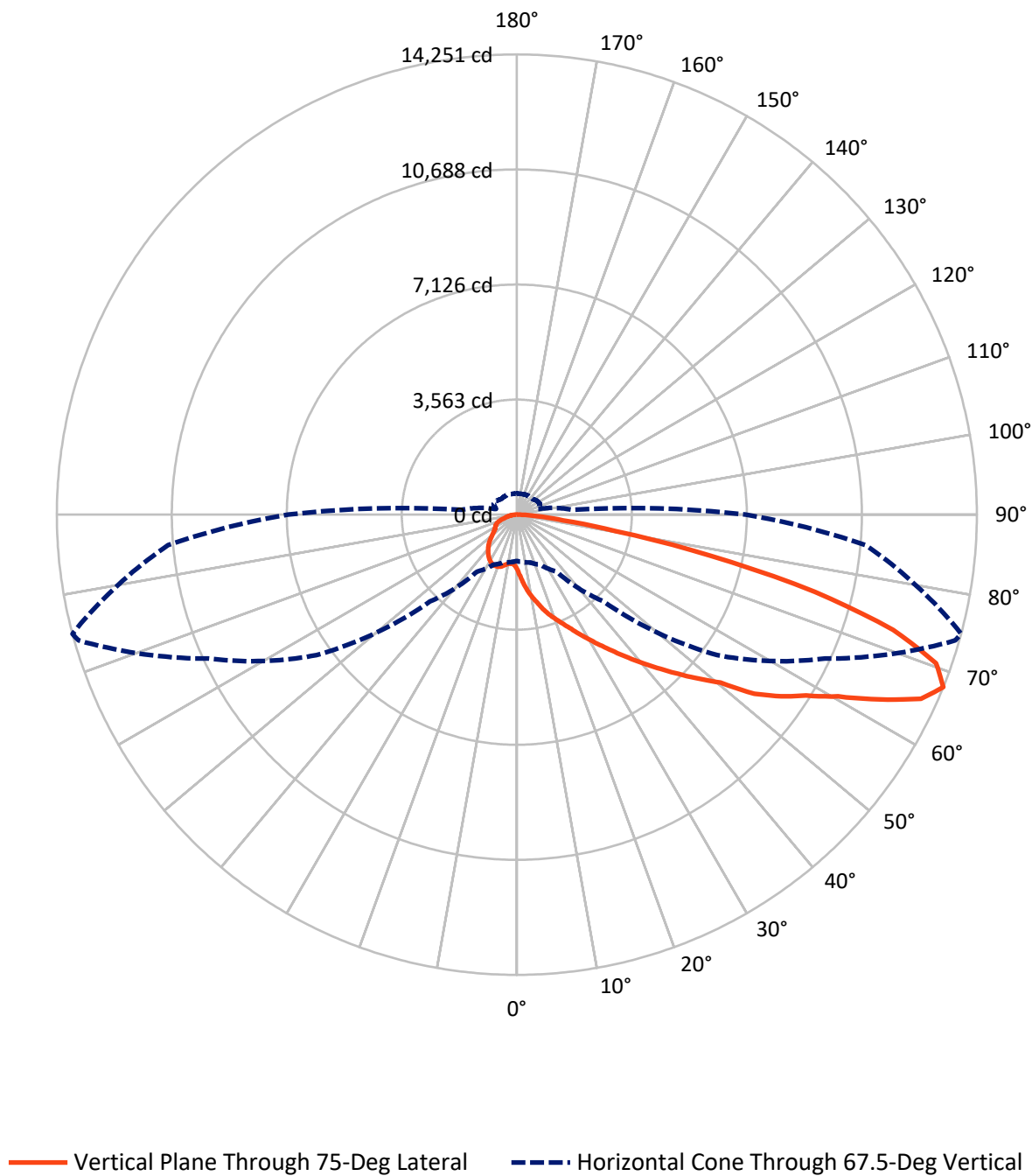


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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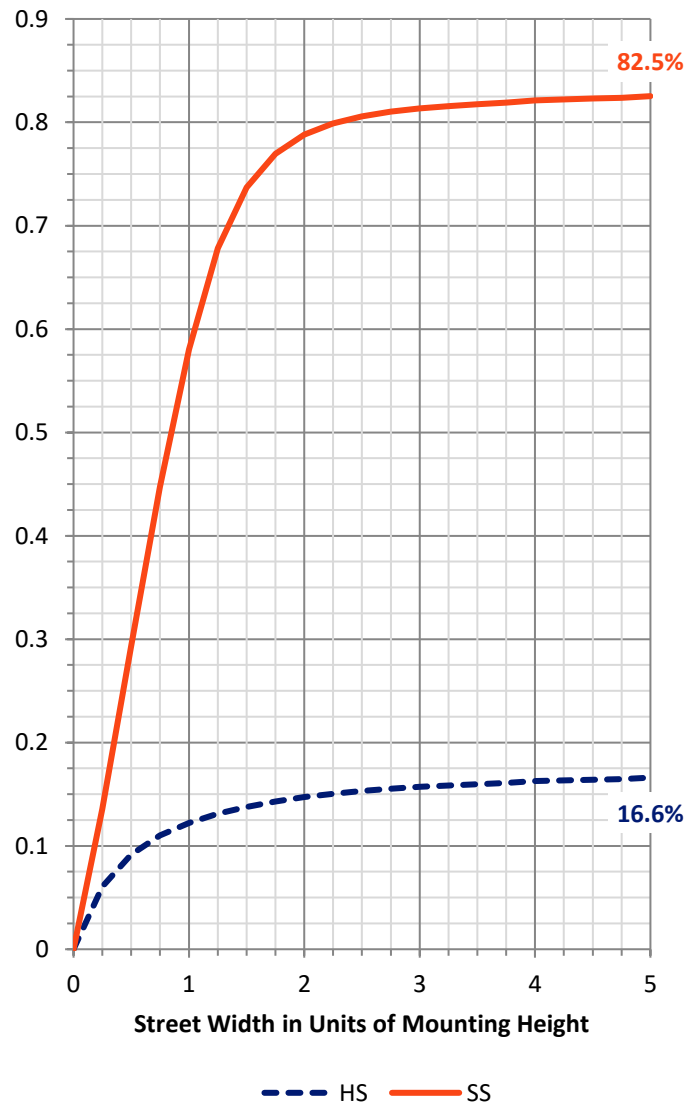
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2919.7	0.0	2919.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	14178.3	0.0	14178.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	17098.0	0.0	17098.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.0	1.2
10°-20°	719.3	4.2
20°-30°	1311.9	7.7
30°-40°	2153.4	12.6
40°-50°	3114.2	18.2
50°-60°	3670.1	21.5
60°-70°	3566.4	20.9
70°-80°	1982.4	11.6
80°-90°	381.2	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°	17098.0	100.0
0°-180°	17098.0	100.0

Coefficient of Utilization



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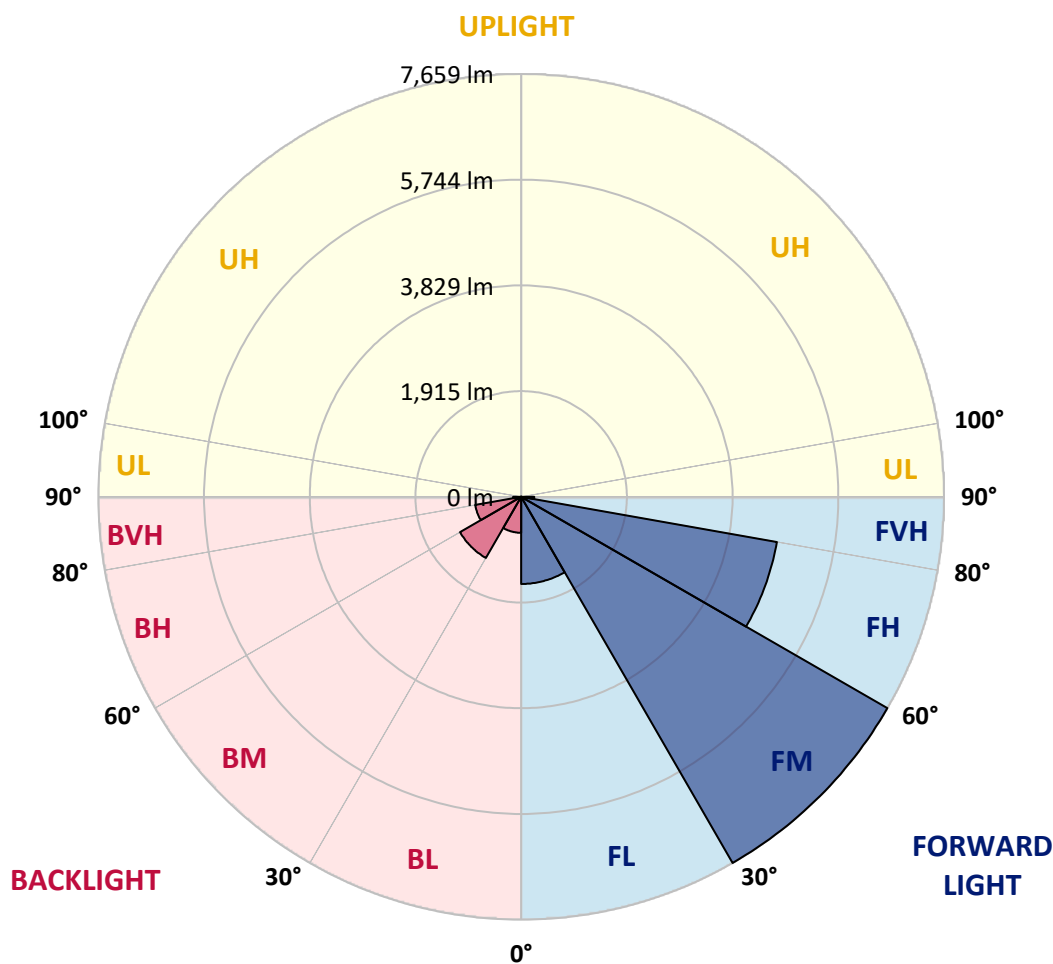
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1578.6	9.2			
FM	(30°-60°)	7659.0	44.8			
FH	(60°-80°)	4703.5	27.5			G2/5000
FVH	(80°-90°)	237.2	1.4			G3/500
BL	(0°-30°)	651.7	3.8	B2/1000		
BM	(30°-60°)	1278.7	7.5	B2/2500		
BH	(60°-80°)	845.4	4.9	B2/1000		G2/1000
BVH	(80°-90°)	144.0	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-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2
2.5°	2402.0	2409.1	2394.8	2362.6	2316.2	2230.4	2155.3	2023.1	1905.1	1890.8	1765.7
5°	2823.7	2830.9	2813.0	2773.7	2723.7	2630.7	2527.1	2355.5	2166.1	2130.3	1865.8
7.5°	3113.3	3116.8	3095.4	3056.1	3016.8	2923.8	2820.2	2627.2	2394.8	2366.2	1994.5
10°	3359.9	3367.0	3338.4	3313.4	3270.5	3177.6	3070.4	2866.6	2627.2	2587.8	2126.7
12.5°	3588.7	3595.8	3577.9	3556.5	3542.2	3456.4	3338.4	3095.4	2838.0	2795.1	2284.0
15°	3742.3	3749.5	3753.1	3781.7	3799.5	3738.8	3620.8	3356.3	3066.8	3027.5	2469.9
17.5°	3699.5	3717.3	3770.9	3874.6	3985.4	3989.0	3892.5	3613.7	3292.0	3249.1	2659.3
20°	3574.4	3588.7	3653.0	3810.3	4028.3	4153.4	4146.3	3874.6	3502.9	3456.4	2834.5
22.5°	3678.0	3695.9	3695.9	3792.4	4006.9	4239.2	4332.1	4132.0	3713.8	3670.9	3009.6
25°	4121.2	4132.0	4056.9	4017.6	4096.2	4310.7	4485.8	4410.8	3971.1	3921.1	3199.0
27.5°	4739.6	4721.7	4628.8	4471.5	4385.7	4442.9	4621.6	4675.3	4267.8	4207.0	3395.6
30°	5354.4	5343.7	5236.4	5025.5	4832.5	4711.0	4771.8	4911.2	4589.5	4518.0	3585.1
32.5°	5929.9	5912.0	5794.0	5547.4	5329.4	5104.2	4986.2	5125.6	4932.6	4850.4	3796.0
35°	6458.9	6412.4	6294.4	6037.1	5811.9	5597.4	5307.9	5329.4	5304.3	5218.6	4028.3
37.5°	6887.8	6852.0	6723.4	6483.9	6244.4	6040.7	5736.8	5561.7	5704.7	5622.5	4296.4
40°	7266.7	7227.3	7095.1	6855.6	6634.0	6441.0	6201.5	5844.1	6155.0	6062.1	4596.6
42.5°	7552.6	7524.0	7416.8	7180.9	6966.4	6791.3	6673.3	6201.5	6623.3	6533.9	4925.5
45°	7706.3	7677.7	7620.5	7431.1	7234.5	7098.7	7109.4	6626.9	7113.0	7037.9	5315.1
47.5°	7516.9	7538.3	7588.4	7552.6	7431.1	7366.7	7499.0	7066.5	7659.8	7588.4	5736.8
50°	7009.3	7030.8	7230.9	7477.6	7520.4	7599.1	7849.3	7574.1	8238.9	8181.7	6258.7
52.5°	5761.9	5879.8	6433.8	7023.6	7427.5	7752.8	8238.9	8328.2	9214.7	9214.7	7180.9
55°	4353.6	4457.2	5089.9	6119.3	7066.5	7767.1	8524.8	8839.4	9918.8	9933.1	7663.4
57.5°	3527.9	3592.2	3903.2	4957.6	6308.7	7588.4	8864.4	9279.0	10505.0	10569.4	8285.4
60°	2863.1	2898.8	3102.5	3835.3	5261.5	7105.8	9107.5	9908.1	11341.4	11430.8	9078.9
62.5°	2301.9	2337.6	2473.5	2913.1	4128.4	6201.5	9064.6	10562.2	12456.6	12603.2	10119.0
65°	1837.2	1876.5	1965.9	2237.5	3059.6	5079.2	8624.9	10898.2	13611.1	13754.1	10808.8
67.5°	1433.3	1469.1	1529.8	1708.5	2155.3	3799.5	7584.8	10544.3	14129.4	14251.0	10844.6
70°	1083.0	1100.9	1150.9	1265.3	1540.5	2523.5	5937.0	9357.7	13664.8	13775.6	10129.7
72.5°	840.0	836.4	865.0	922.2	1075.9	1737.1	3935.4	7609.8	12081.3	12195.7	8642.8
75°	686.3	682.7	700.6	718.4	779.2	1165.2	2323.3	5729.7	9750.8	9532.8	6483.9
77.5°	579.0	575.5	593.3	596.9	621.9	804.2	1322.5	3770.9	6505.3	6130.0	3653.0
80°	489.7	486.1	507.6	514.7	532.6	589.8	761.3	2041.0	3267.0	3095.4	1744.3
82.5°	368.2	382.5	421.8	439.6	461.1	436.1	471.8	900.7	1515.5	1447.6	757.8
85°	178.7	210.9	318.1	353.9	378.9	275.2	321.7	425.3	682.7	650.5	307.4
87.5°	60.8	53.6	189.4	225.2	246.6	125.1	178.7	235.9	282.4	257.4	96.5
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°	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2	1694.2
2.5°	1712.1	1658.5	1579.9	1519.1	1479.8	1447.6	1433.3	1429.7	1422.6	1419.0	1419.0
5°	1747.9	1651.4	1529.8	1465.5	1447.6	1433.3	1440.5	1444.0	1444.0	1444.0	1444.0
7.5°	1801.5	1665.6	1519.1	1476.2	1472.6	1472.6	1494.1	1504.8	1512.0	1512.0	1512.0
10°	1873.0	1690.7	1537.0	1501.2	1512.0	1519.1	1544.1	1558.4	1565.6	1569.1	1572.7
12.5°	1969.5	1744.3	1572.7	1544.1	1558.4	1562.0	1579.9	1587.0	1594.2	1597.7	1597.7
15°	2098.1	1822.9	1629.9	1594.2	1597.7	1594.2	1594.2	1587.0	1583.4	1583.4	1590.6
17.5°	2230.4	1898.0	1679.9	1629.9	1615.6	1587.0	1565.6	1547.7	1537.0	1529.8	1533.4
20°	2362.6	1965.9	1708.5	1637.1	1597.7	1551.3	1512.0	1486.9	1472.6	1458.3	1465.5
22.5°	2494.9	2030.2	1719.3	1615.6	1558.4	1490.5	1447.6	1408.3	1376.1	1354.7	1358.3
25°	2641.4	2101.7	1719.3	1590.6	1504.8	1433.3	1379.7	1315.4	1268.9	1251.0	1258.2
27.5°	2788.0	2162.5	1701.4	1544.1	1444.0	1372.6	1293.9	1218.9	1190.3	1179.5	1183.1
30°	2934.5	2209.0	1662.1	1486.9	1379.7	1301.1	1197.4	1147.4	1111.6	1083.0	1086.6
32.5°	3081.1	2241.1	1608.5	1415.4	1311.8	1211.7	1125.9	1068.7	1004.4	968.7	972.2
35°	3249.1	2266.1	1544.1	1344.0	1236.7	1133.1	1068.7	975.8	907.9	879.3	872.1
37.5°	3424.2	2284.0	1476.2	1265.3	1161.7	1075.9	1011.5	897.2	832.8	793.5	789.9
40°	3613.7	2291.2	1394.0	1183.1	1090.2	1040.1	936.5	850.7	739.9	714.9	714.9
42.5°	3838.9	2287.6	1311.8	1100.9	1011.5	957.9	882.9	843.5	747.0	722.0	707.7
45°	4096.2	2287.6	1222.4	1004.4	932.9	854.3	822.1	797.1	732.7	743.5	750.6
47.5°	4389.3	2280.4	1115.2	925.8	868.6	800.7	782.8	729.2	704.1	711.3	718.4
50°	4793.2	2291.2	1018.7	861.4	822.1	764.9	743.5	714.9	704.1	707.7	704.1
52.5°	5354.4	2255.4	925.8	822.1	786.4	711.3	711.3	707.7	711.3	707.7	707.7
55°	5661.8	2176.8	857.8	800.7	761.3	686.3	700.6	707.7	714.9	711.3	711.3
57.5°	6097.8	2123.2	804.2	786.4	747.0	679.1	693.4	707.7	711.3	707.7	707.7
60°	6612.6	2087.4	768.5	789.9	736.3	679.1	697.0	707.7	704.1	700.6	700.6
62.5°	7209.5	2073.1	743.5	800.7	725.6	682.7	697.0	707.7	693.4	689.9	689.9
65°	7434.7	1944.4	711.3	807.8	732.7	682.7	693.4	697.0	679.1	675.6	672.0
67.5°	7087.9	1722.8	664.8	793.5	754.2	682.7	682.7	679.1	657.7	654.1	647.0
70°	6312.3	1429.7	593.3	747.0	768.5	686.3	668.4	650.5	629.1	629.1	614.8
72.5°	5168.5	1125.9	500.4	664.8	757.8	697.0	639.8	614.8	589.8	589.8	575.5
75°	3724.5	840.0	400.3	554.0	711.3	693.4	604.1	571.9	543.3	539.7	521.9
77.5°	2123.2	589.8	325.3	432.5	632.7	675.6	571.9	521.9	489.7	479.0	468.2
80°	1090.2	396.8	264.5	339.6	525.4	625.5	546.9	464.7	428.9	411.1	393.2
82.5°	518.3	264.5	203.7	250.2	396.8	546.9	514.7	400.3	361.0	339.6	318.1
85°	232.3	157.3	135.8	160.8	282.4	425.3	453.9	328.8	282.4	353.9	260.9
87.5°	75.1	71.5	71.5	75.1	135.8	185.9	332.4	243.1	225.2	185.9	157.3
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)