

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: P231047

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231047
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-AF48-150-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17944 lumens
Efficiency: N/A
Efficacy: 118.8 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): 151
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



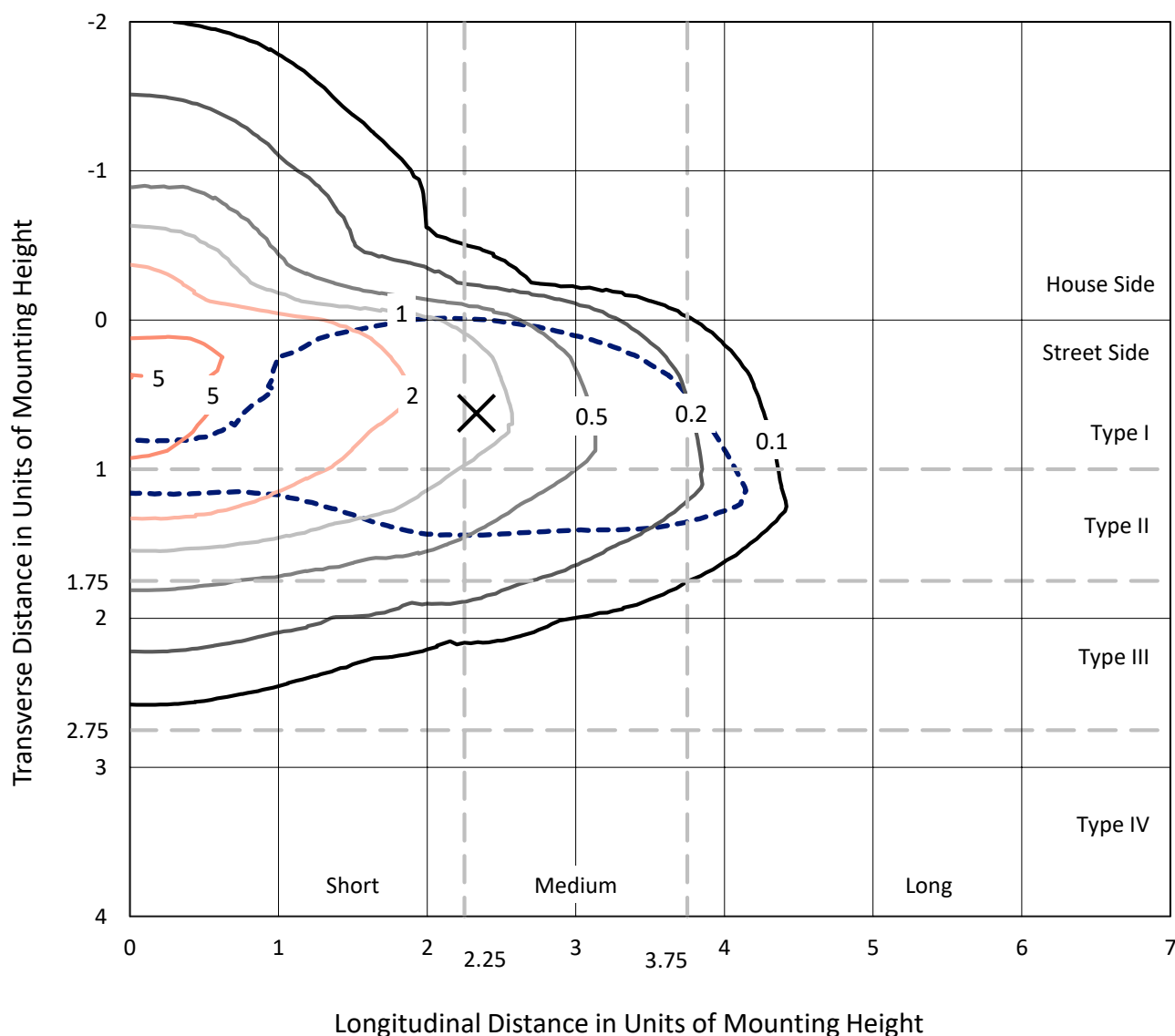
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

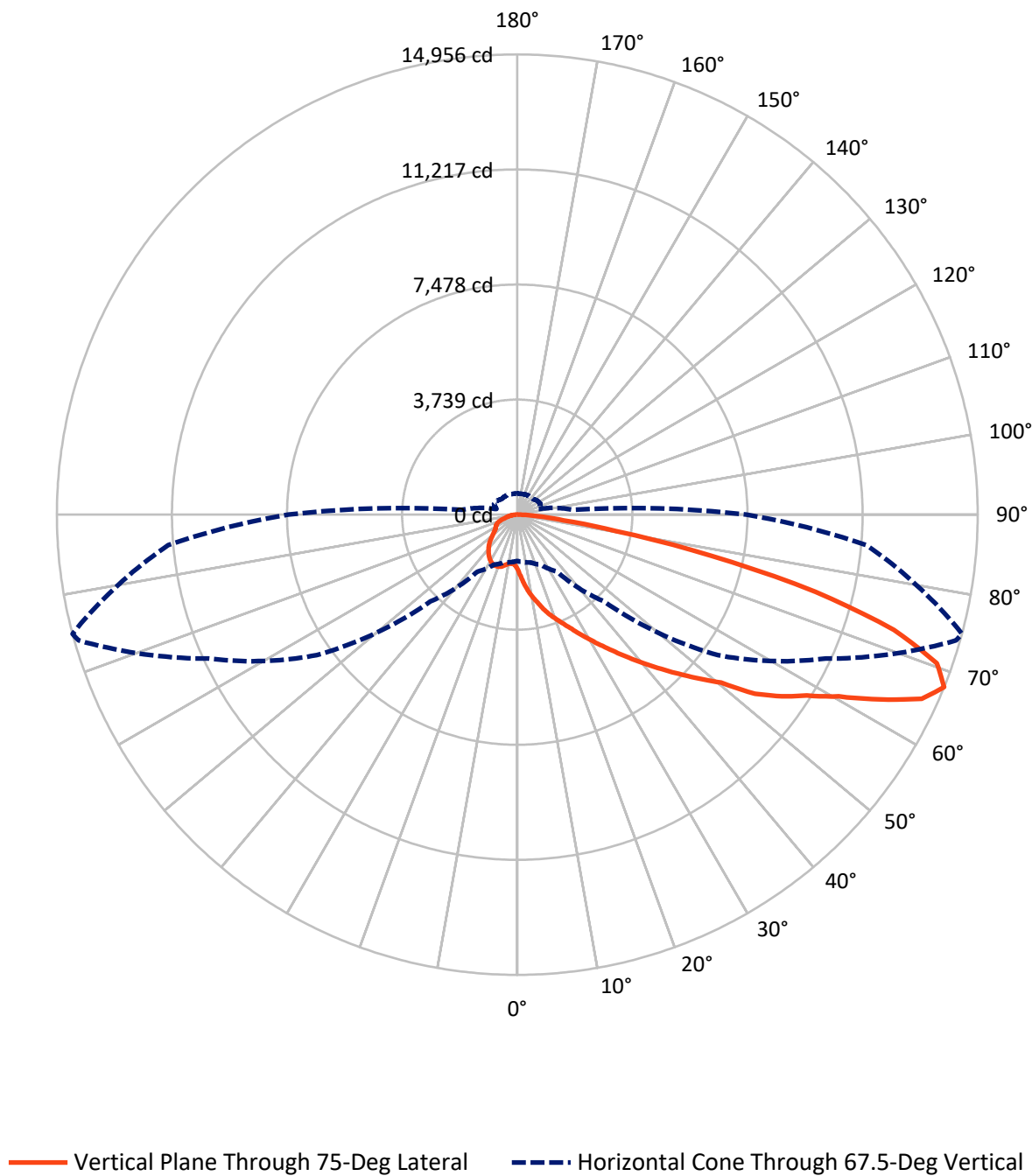


Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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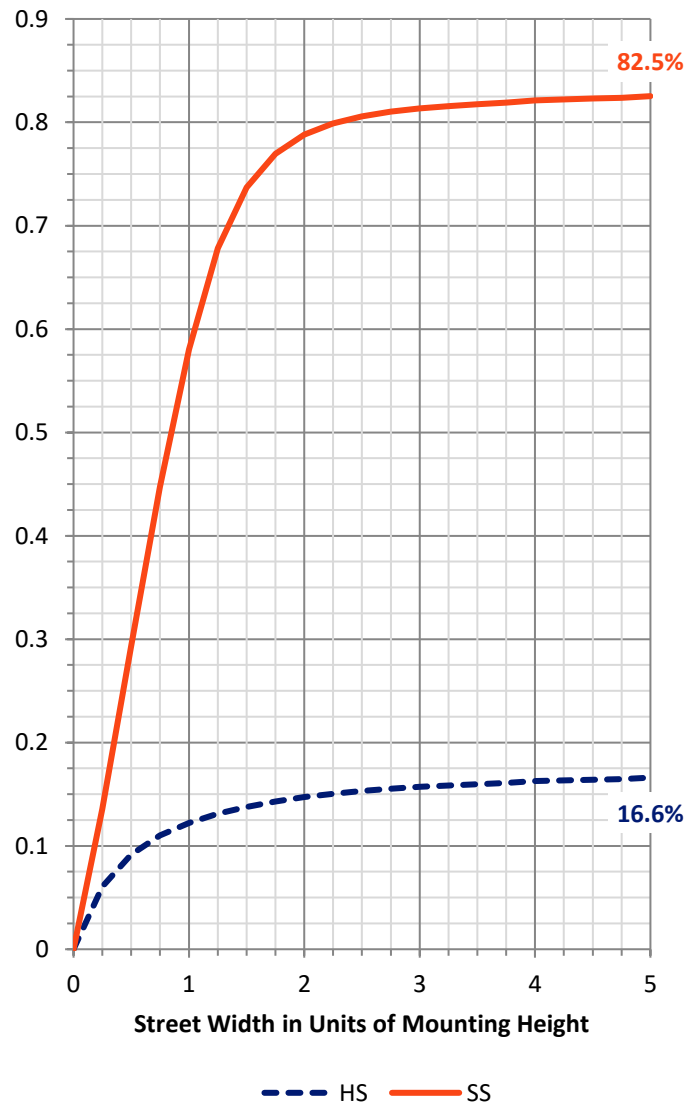
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3064.2	0.0	3064.2
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	14879.8	0.0	14879.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	17944.0	0.0	17944.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.9	1.2
10°-20°	754.9	4.2
20°-30°	1376.9	7.7
30°-40°	2260.0	12.6
40°-50°	3268.3	18.2
50°-60°	3851.7	21.5
60°-70°	3742.9	20.9
70°-80°	2080.5	11.6
80°-90°	400.0	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°	17944.0	100.0
0°-180°	17944.0	100.0

Coefficient of Utilization



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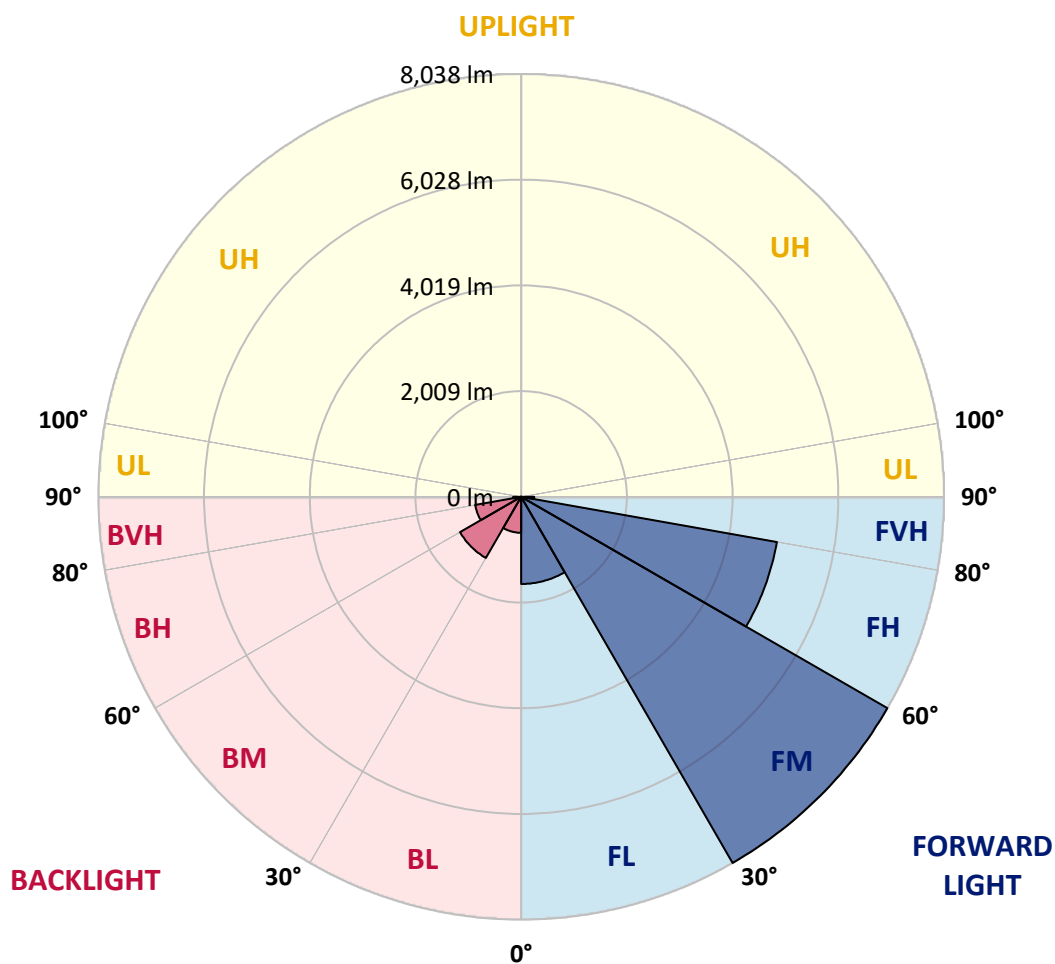
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1656.7	9.2			
FM	(30°-60°)	8038.0	44.8			
FH	(60°-80°)	4936.2	27.5			G2/5000
FVH	(80°-90°)	249.0	1.4			G3/500
BL	(0°-30°)	683.9	3.8	B2/1000		
BM	(30°-60°)	1341.9	7.5	B2/2500		
BH	(60°-80°)	887.2	4.9	B2/1000		G2/1000
BVH	(80°-90°)	151.1	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°	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1
2.5°	2520.8	2528.3	2513.3	2479.6	2430.8	2340.8	2262.0	2123.2	1999.4	1984.4	1853.1
5°	2963.5	2971.0	2952.2	2910.9	2858.4	2760.9	2652.1	2472.0	2273.2	2235.7	1958.1
7.5°	3267.3	3271.1	3248.5	3207.3	3166.0	3068.5	2959.7	2757.1	2513.3	2483.3	2093.2
10°	3526.1	3533.6	3503.6	3477.4	3432.4	3334.8	3222.3	3008.5	2757.1	2715.9	2232.0
12.5°	3766.2	3773.7	3755.0	3732.5	3717.5	3627.4	3503.6	3248.5	2978.5	2933.4	2397.0
15°	3927.5	3935.0	3938.8	3968.8	3987.5	3923.8	3800.0	3522.4	3218.5	3177.3	2592.1
17.5°	3882.5	3901.3	3957.5	4066.3	4182.6	4186.4	4085.1	3792.5	3454.9	3409.9	2790.9
20°	3751.2	3766.2	3833.7	3998.8	4227.6	4358.9	4351.4	4066.3	3676.2	3627.4	2974.7
22.5°	3860.0	3878.8	3878.8	3980.0	4205.1	4448.9	4546.5	4336.4	3897.5	3852.5	3158.5
25°	4325.1	4336.4	4257.6	4216.4	4298.9	4524.0	4707.8	4629.0	4167.6	4115.1	3357.3
27.5°	4974.1	4955.4	4857.8	4692.8	4602.7	4662.8	4850.3	4906.6	4478.9	4415.2	3563.7
30°	5619.3	5608.1	5495.5	5274.2	5071.6	4944.1	5007.9	5154.2	4816.6	4741.5	3762.5
32.5°	6223.3	6204.5	6080.7	5821.9	5593.1	5356.7	5232.9	5379.2	5176.7	5090.4	3983.8
35°	6778.4	6729.7	6605.9	6335.8	6099.5	5874.4	5570.5	5593.1	5566.8	5476.8	4227.6
37.5°	7228.6	7191.1	7056.0	6804.7	6553.4	6339.5	6020.7	5836.9	5986.9	5900.7	4509.0
40°	7626.2	7585.0	7446.2	7194.8	6962.2	6759.7	6508.4	6133.2	6459.6	6362.1	4824.1
42.5°	7926.3	7896.3	7783.8	7536.2	7311.1	7127.3	7003.5	6508.4	6951.0	6857.2	5169.2
45°	8087.6	8057.6	7997.6	7798.8	7592.5	7449.9	7461.2	6954.7	7464.9	7386.1	5578.1
47.5°	7888.8	7911.3	7963.8	7926.3	7798.8	7731.2	7870.0	7416.1	8038.8	7963.8	6020.7
50°	7356.1	7378.6	7588.7	7847.5	7892.6	7975.1	8237.7	7948.8	8646.5	8586.5	6568.4
52.5°	6047.0	6170.7	6752.2	7371.1	7795.0	8136.4	8646.5	8740.3	9670.6	9670.6	7536.2
55°	4569.0	4677.8	5341.7	6422.1	7416.1	8151.4	8946.6	9276.7	10409.6	10424.6	8042.6
57.5°	3702.4	3770.0	4096.3	5202.9	6620.9	7963.8	9303.0	9738.1	11024.8	11092.3	8695.3
60°	3004.7	3042.2	3256.1	4025.1	5521.8	7457.4	9558.1	10398.4	11902.6	11996.4	9528.1
62.5°	2415.8	2453.3	2595.8	3057.2	4332.6	6508.4	9513.1	11084.8	13073.0	13226.8	10619.7
65°	1928.1	1969.4	2063.2	2348.3	3211.0	5330.5	9051.7	11437.4	14284.6	14434.7	11343.7
67.5°	1504.2	1541.7	1605.5	1793.1	2262.0	3987.5	7960.1	11066.1	14828.5	14956.1	11381.2
70°	1136.6	1155.4	1207.9	1327.9	1616.8	2648.4	6230.8	9820.7	14340.9	14457.2	10630.9
72.5°	881.5	877.8	907.8	967.8	1129.1	1823.1	4130.1	7986.3	12679.1	12799.1	9070.4
75°	720.2	716.5	735.2	754.0	817.8	1222.9	2438.3	6013.2	10233.3	10004.5	6804.7
77.5°	607.7	603.9	622.7	626.5	652.7	844.0	1387.9	3957.5	6827.2	6433.3	3833.7
80°	513.9	510.2	532.7	540.2	558.9	618.9	799.0	2141.9	3428.6	3248.5	1830.6
82.5°	386.4	401.4	442.6	461.4	483.9	457.6	495.2	945.3	1590.5	1519.2	795.3
85°	187.6	221.3	333.9	371.4	397.6	288.8	337.6	446.4	716.5	682.7	322.6
87.5°	63.8	56.3	198.8	236.3	258.8	131.3	187.6	247.6	296.3	270.1	101.3
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°	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1	1778.1
2.5°	1796.8	1740.6	1658.0	1594.3	1553.0	1519.2	1504.2	1500.5	1493.0	1489.2	1489.2
5°	1834.3	1733.1	1605.5	1538.0	1519.2	1504.2	1511.7	1515.5	1515.5	1515.5	1515.5
7.5°	1890.6	1748.1	1594.3	1549.3	1545.5	1545.5	1568.0	1579.3	1586.8	1586.8	1586.8
10°	1965.6	1774.3	1613.0	1575.5	1586.8	1594.3	1620.5	1635.5	1643.0	1646.8	1650.5
12.5°	2066.9	1830.6	1650.5	1620.5	1635.5	1639.3	1658.0	1665.5	1673.0	1676.8	1676.8
15°	2202.0	1913.1	1710.6	1673.0	1676.8	1673.0	1673.0	1665.5	1661.8	1661.8	1669.3
17.5°	2340.8	1991.9	1763.1	1710.6	1695.5	1665.5	1643.0	1624.3	1613.0	1605.5	1609.3
20°	2479.6	2063.2	1793.1	1718.1	1676.8	1628.0	1586.8	1560.5	1545.5	1530.5	1538.0
22.5°	2618.3	2130.7	1804.3	1695.5	1635.5	1564.3	1519.2	1478.0	1444.2	1421.7	1425.5
25°	2772.1	2205.7	1804.3	1669.3	1579.3	1504.2	1448.0	1380.4	1331.7	1312.9	1320.4
27.5°	2925.9	2269.5	1785.6	1620.5	1515.5	1440.5	1357.9	1279.2	1249.2	1237.9	1241.7
30°	3079.7	2318.2	1744.3	1560.5	1448.0	1365.4	1256.7	1204.1	1166.6	1136.6	1140.4
32.5°	3233.5	2352.0	1688.0	1485.5	1376.7	1271.7	1181.6	1121.6	1054.1	1016.6	1020.3
35°	3409.9	2378.3	1620.5	1410.5	1297.9	1189.1	1121.6	1024.1	952.8	922.8	915.3
37.5°	3593.7	2397.0	1549.3	1327.9	1219.1	1129.1	1061.6	941.6	874.0	832.8	829.0
40°	3792.5	2404.5	1463.0	1241.7	1144.1	1091.6	982.8	892.8	776.5	750.2	750.2
42.5°	4028.8	2400.8	1376.7	1155.4	1061.6	1005.3	926.5	885.3	784.0	757.7	742.7
45°	4298.9	2400.8	1282.9	1054.1	979.1	896.5	862.8	836.5	769.0	780.3	787.8
47.5°	4606.5	2393.3	1170.4	971.6	911.5	840.3	821.5	765.2	739.0	746.5	754.0
50°	5030.4	2404.5	1069.1	904.0	862.8	802.8	780.3	750.2	739.0	742.7	739.0
52.5°	5619.3	2367.0	971.6	862.8	825.3	746.5	746.5	742.7	746.5	742.7	742.7
55°	5941.9	2284.5	900.3	840.3	799.0	720.2	735.2	742.7	750.2	746.5	746.5
57.5°	6399.6	2228.2	844.0	825.3	784.0	712.7	727.7	742.7	746.5	742.7	742.7
60°	6939.7	2190.7	806.5	829.0	772.7	712.7	731.5	742.7	739.0	735.2	735.2
62.5°	7566.2	2175.7	780.3	840.3	761.5	716.5	731.5	742.7	727.7	724.0	724.0
65°	7802.5	2040.7	746.5	847.8	769.0	716.5	727.7	731.5	712.7	709.0	705.2
67.5°	7438.7	1808.1	697.7	832.8	791.5	716.5	716.5	712.7	690.2	686.5	679.0
70°	6624.6	1500.5	622.7	784.0	806.5	720.2	701.5	682.7	660.2	660.2	645.2
72.5°	5424.3	1181.6	525.2	697.7	795.3	731.5	671.5	645.2	618.9	618.9	603.9
75°	3908.8	881.5	420.1	581.4	746.5	727.7	634.0	600.2	570.2	566.4	547.7
77.5°	2228.2	618.9	341.4	453.9	664.0	709.0	600.2	547.7	513.9	502.7	491.4
80°	1144.1	416.4	277.6	356.4	551.4	656.5	573.9	487.7	450.1	431.4	412.6
82.5°	543.9	277.6	213.8	262.6	416.4	573.9	540.2	420.1	378.9	356.4	333.9
85°	243.8	165.1	142.5	168.8	296.3	446.4	476.4	345.1	296.3	371.4	273.8
87.5°	78.8	75.0	75.0	78.8	142.5	195.1	348.9	255.1	236.3	195.1	165.1
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)