

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: P231043

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231043
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-AF48-110-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14334 lumens
Efficiency: N/A
Efficacy: 129.1 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): 111
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



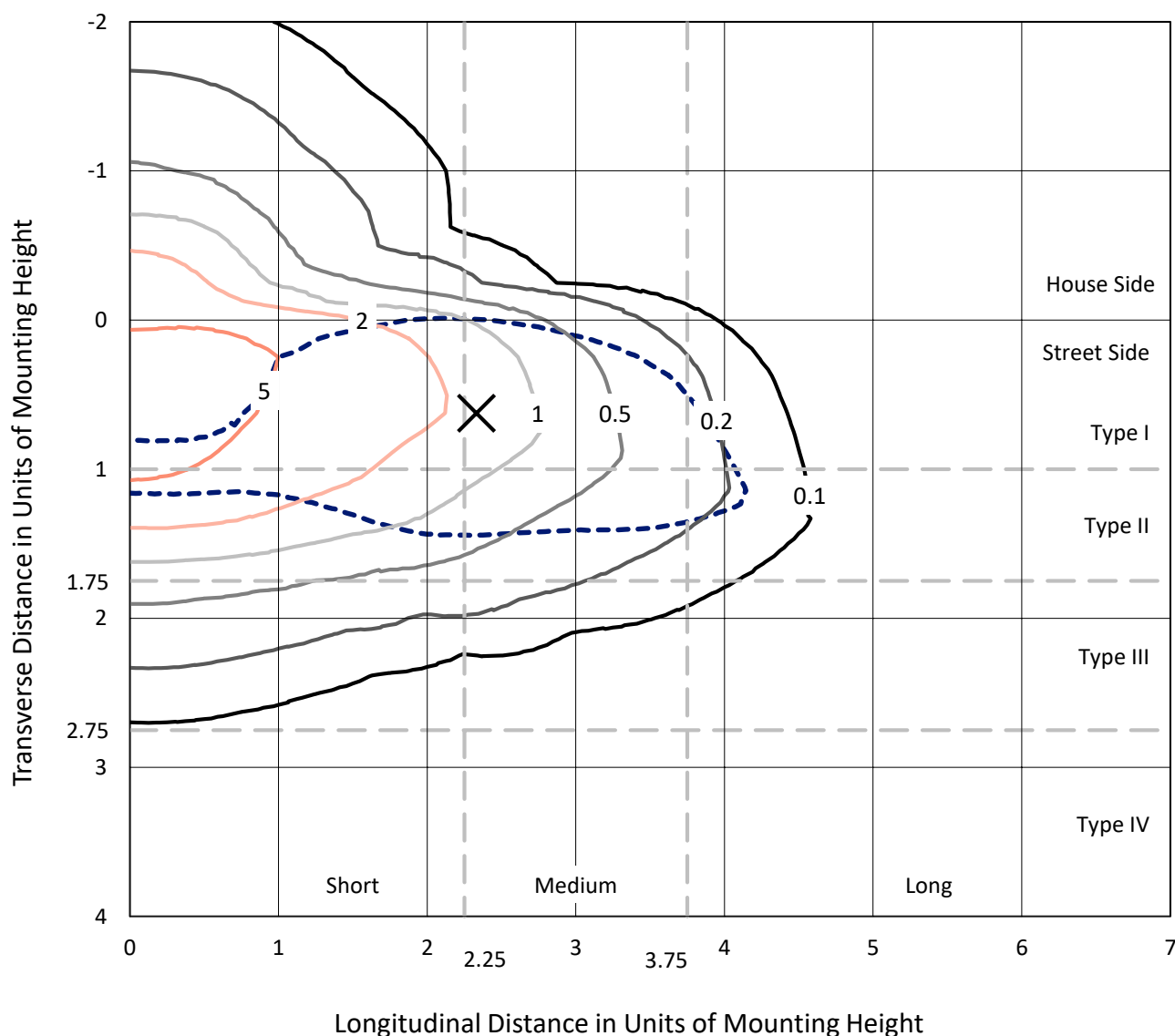
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

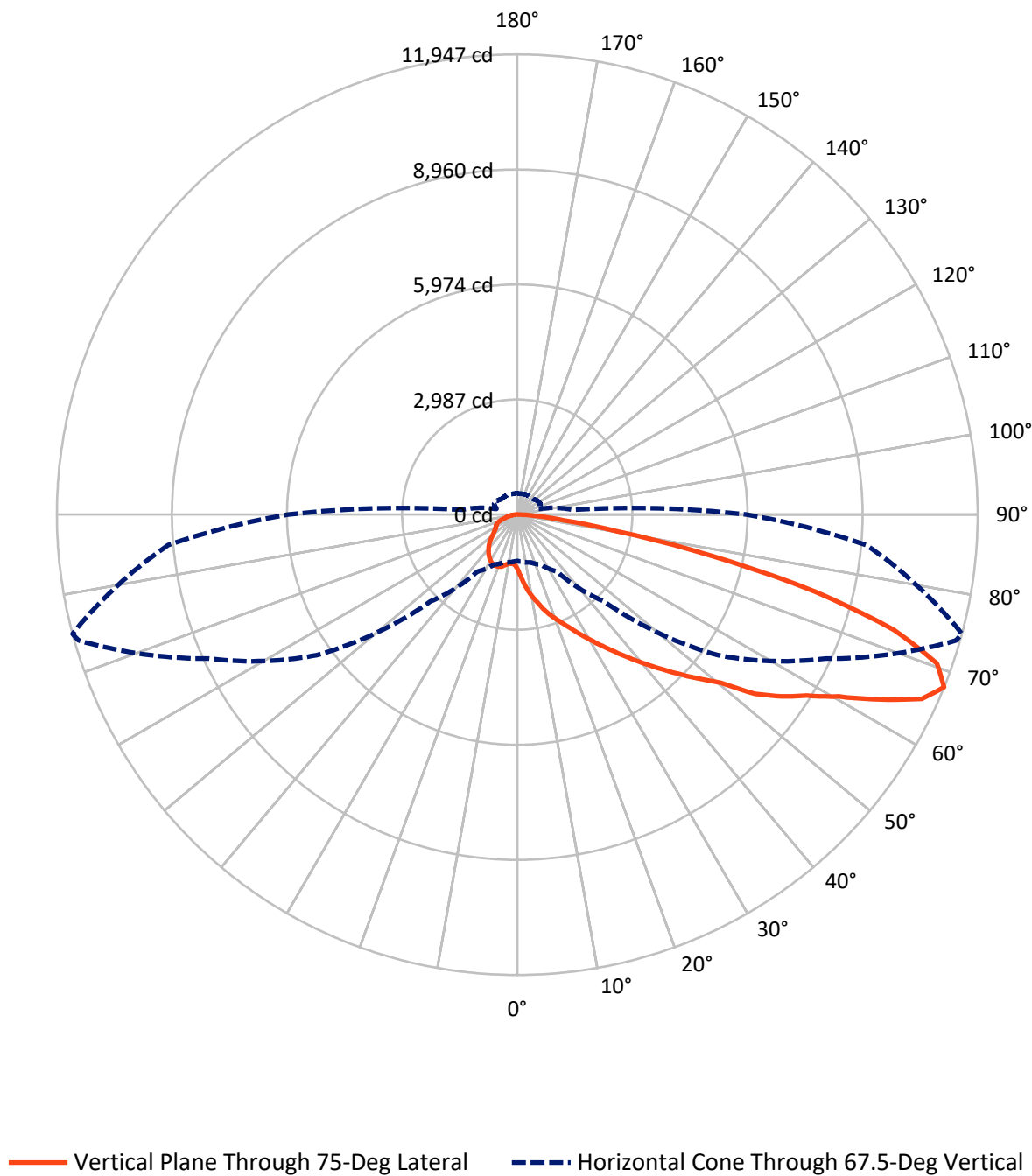


Based on 20 foot mounting height. Maximum calculated value = 7.4 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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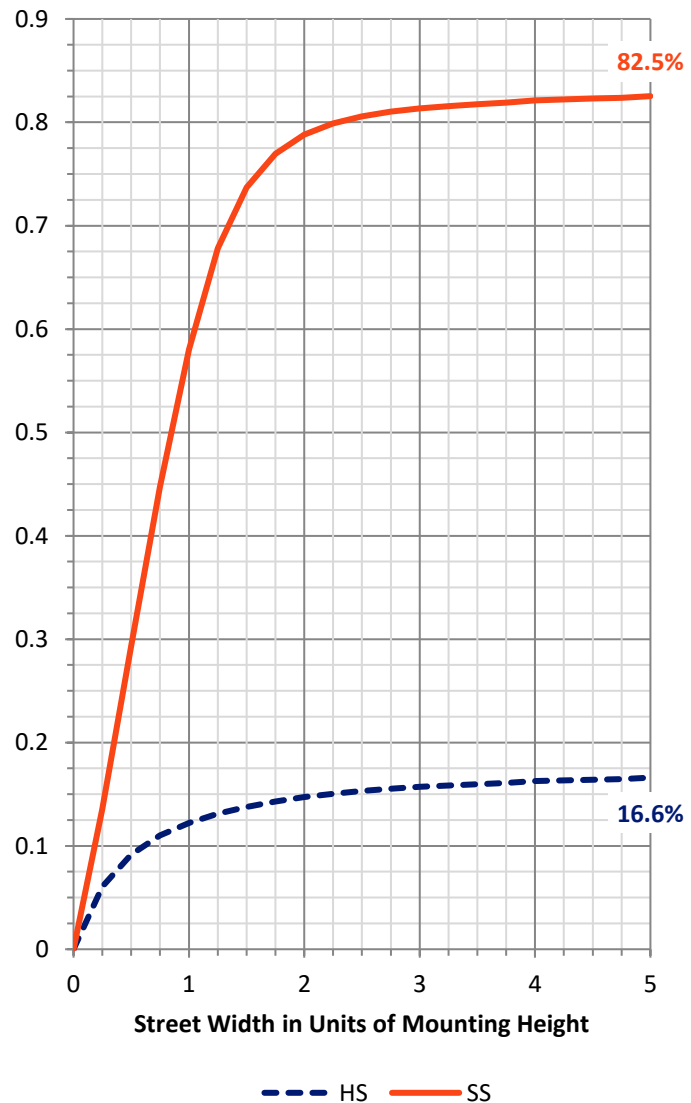
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2447.7	0.0	2447.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	11886.3	0.0	11886.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	14334.0	0.0	14334.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.9	1.2
10°-20°	603.0	4.2
20°-30°	1099.9	7.7
30°-40°	1805.3	12.6
40°-50°	2610.7	18.2
50°-60°	3076.8	21.5
60°-70°	2989.9	20.9
70°-80°	1662.0	11.6
80°-90°	319.6	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°	14334.0	100.0
0°-180°	14334.0	100.0

Coefficient of Utilization



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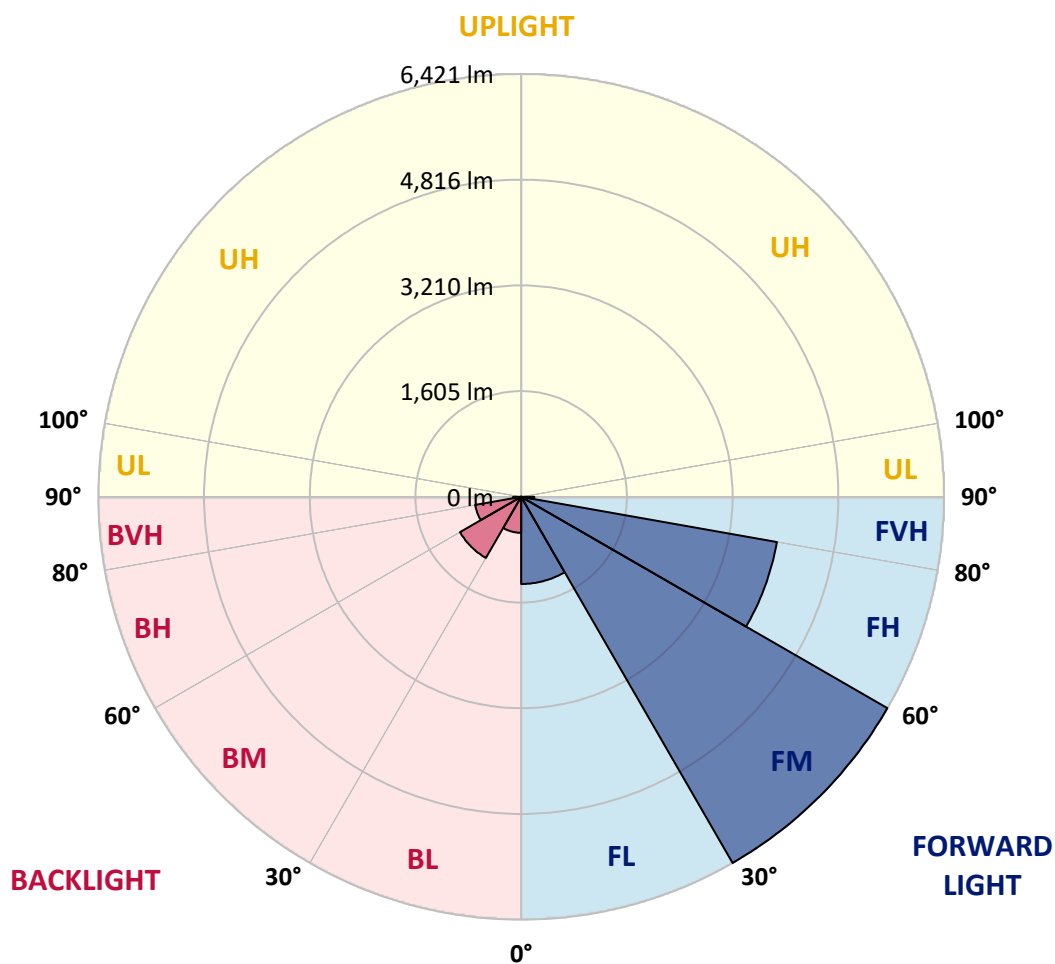
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1323.4	9.2			
FM	(30°-60°)	6420.9	44.8			
FH	(60°-80°)	3943.1	27.5			G2/5000
FVH	(80°-90°)	198.9	1.4			G2/225
BL	(0°-30°)	546.3	3.8	B2/1000		
BM	(30°-60°)	1072.0	7.5	B2/2500		
BH	(60°-80°)	708.7	4.9	B2/1000		G2/1000
BVH	(80°-90°)	120.7	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°	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4
2.5°	2013.7	2019.7	2007.7	1980.7	1941.8	1869.8	1806.9	1696.0	1597.2	1585.2	1480.3
5°	2367.3	2373.3	2358.3	2325.3	2283.4	2205.5	2118.6	1974.7	1815.9	1785.9	1564.2
7.5°	2610.0	2613.0	2595.0	2562.0	2529.1	2451.2	2364.3	2202.5	2007.7	1983.7	1672.1
10°	2816.7	2822.7	2798.8	2777.8	2741.8	2663.9	2574.0	2403.2	2202.5	2169.5	1782.9
12.5°	3008.5	3014.5	2999.5	2981.6	2969.6	2897.7	2798.8	2595.0	2379.3	2343.3	1914.8
15°	3137.4	3143.4	3146.4	3170.3	3185.3	3134.4	3035.5	2813.7	2571.0	2538.1	2070.6
17.5°	3101.4	3116.4	3161.3	3248.2	3341.1	3344.1	3263.2	3029.5	2759.8	2723.9	2229.4
20°	2996.5	3008.5	3062.5	3194.3	3377.1	3482.0	3476.0	3248.2	2936.6	2897.7	2376.3
22.5°	3083.4	3098.4	3098.4	3179.3	3359.1	3553.9	3631.8	3464.0	3113.4	3077.4	2523.1
25°	3455.0	3464.0	3401.1	3368.1	3434.0	3613.8	3760.7	3697.7	3329.2	3287.2	2681.9
27.5°	3973.4	3958.4	3880.5	3748.7	3676.8	3724.7	3874.5	3919.5	3577.9	3526.9	2846.7
30°	4488.8	4479.8	4389.9	4213.1	4051.3	3949.4	4000.4	4117.2	3847.6	3787.6	3005.5
32.5°	4971.3	4956.3	4857.4	4650.6	4467.8	4279.1	4180.2	4297.0	4135.2	4066.3	3182.3
35°	5414.7	5375.8	5276.9	5061.2	4872.4	4692.6	4449.9	4467.8	4446.9	4374.9	3377.1
37.5°	5774.3	5744.4	5636.5	5435.7	5235.0	5064.1	4809.4	4662.6	4782.5	4713.6	3601.8
40°	6092.0	6059.0	5948.1	5747.4	5561.6	5399.8	5199.0	4899.3	5160.0	5082.1	3853.5
42.5°	6331.7	6307.7	6217.8	6020.0	5840.3	5693.4	5594.5	5199.0	5552.6	5477.7	4129.2
45°	6460.5	6436.6	6388.6	6229.8	6065.0	5951.1	5960.1	5555.6	5963.1	5900.2	4455.9
47.5°	6301.7	6319.7	6361.6	6331.7	6229.8	6175.9	6286.7	5924.2	6421.6	6361.6	4809.4
50°	5876.2	5894.2	6062.0	6268.8	6304.7	6370.6	6580.4	6349.7	6907.0	6859.1	5246.9
52.5°	4830.4	4929.3	5393.8	5888.2	6226.8	6499.5	6907.0	6981.9	7725.1	7725.1	6020.0
55°	3649.8	3736.7	4267.1	5130.1	5924.2	6511.5	7146.7	7410.4	8315.4	8327.4	6424.6
57.5°	2957.6	3011.5	3272.2	4156.2	5288.9	6361.6	7431.4	7779.0	8806.8	8860.8	6946.0
60°	2400.2	2430.2	2601.0	3215.3	4410.9	5957.1	7635.2	8306.4	9508.0	9582.9	7611.2
62.5°	1929.8	1959.7	2073.6	2442.2	3461.0	5199.0	7599.2	8854.8	10442.9	10565.8	8483.2
65°	1540.2	1573.2	1648.1	1875.8	2565.0	4258.1	7230.6	9136.4	11410.8	11530.7	9061.5
67.5°	1201.6	1231.6	1282.5	1432.3	1806.9	3185.3	6358.7	8839.8	11845.3	11947.2	9091.5
70°	908.0	922.9	964.9	1060.8	1291.5	2115.6	4977.2	7844.9	11455.8	11548.7	8492.2
72.5°	704.2	701.2	725.2	773.1	902.0	1456.3	3299.2	6379.6	10128.3	10224.2	7245.6
75°	575.3	572.3	587.3	602.3	653.2	976.9	1947.7	4803.5	8174.6	7991.8	5435.7
77.5°	485.4	482.4	497.4	500.4	521.4	674.2	1108.7	3161.3	5453.7	5139.1	3062.5
80°	410.5	407.5	425.5	431.5	446.5	494.4	638.3	1711.0	2738.8	2595.0	1462.3
82.5°	308.6	320.6	353.6	368.6	386.6	365.6	395.5	755.1	1270.5	1213.6	635.3
85°	149.8	176.8	266.7	296.7	317.6	230.7	269.7	356.6	572.3	545.4	257.7
87.5°	50.9	44.9	158.8	188.8	206.8	104.9	149.8	197.8	236.7	215.8	80.9
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°	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4	1420.4
2.5°	1435.3	1390.4	1324.5	1273.5	1240.6	1213.6	1201.6	1198.6	1192.6	1189.6	1189.6
5°	1465.3	1384.4	1282.5	1228.6	1213.6	1201.6	1207.6	1210.6	1210.6	1210.6	1210.6
7.5°	1510.3	1396.4	1273.5	1237.6	1234.6	1234.6	1252.6	1261.5	1267.5	1267.5	1267.5
10°	1570.2	1417.4	1288.5	1258.5	1267.5	1273.5	1294.5	1306.5	1312.5	1315.5	1318.5
12.5°	1651.1	1462.3	1318.5	1294.5	1306.5	1309.5	1324.5	1330.5	1336.5	1339.5	1339.5
15°	1759.0	1528.2	1366.4	1336.5	1339.5	1336.5	1336.5	1330.5	1327.5	1327.5	1333.5
17.5°	1869.8	1591.2	1408.4	1366.4	1354.4	1330.5	1312.5	1297.5	1288.5	1282.5	1285.5
20°	1980.7	1648.1	1432.3	1372.4	1339.5	1300.5	1267.5	1246.6	1234.6	1222.6	1228.6
22.5°	2091.6	1702.0	1441.3	1354.4	1306.5	1249.6	1213.6	1180.6	1153.7	1135.7	1138.7
25°	2214.4	1762.0	1441.3	1333.5	1261.5	1201.6	1156.7	1102.7	1063.8	1048.8	1054.8
27.5°	2337.3	1812.9	1426.4	1294.5	1210.6	1150.7	1084.7	1021.8	997.8	988.9	991.9
30°	2460.2	1851.9	1393.4	1246.6	1156.7	1090.7	1003.8	961.9	931.9	908.0	910.9
32.5°	2583.0	1878.8	1348.4	1186.6	1099.7	1015.8	943.9	896.0	842.0	812.1	815.1
35°	2723.9	1899.8	1294.5	1126.7	1036.8	949.9	896.0	818.1	761.1	737.1	731.2
37.5°	2870.7	1914.8	1237.6	1060.8	973.9	902.0	848.0	752.1	698.2	665.2	662.2
40°	3029.5	1920.8	1168.6	991.9	913.9	872.0	785.1	713.2	620.3	599.3	599.3
42.5°	3218.3	1917.8	1099.7	922.9	848.0	803.1	740.1	707.2	626.3	605.3	593.3
45°	3434.0	1917.8	1024.8	842.0	782.1	716.2	689.2	668.2	614.3	623.3	629.3
47.5°	3679.7	1911.8	934.9	776.1	728.2	671.2	656.2	611.3	590.3	596.3	602.3
50°	4018.4	1920.8	854.0	722.2	689.2	641.3	623.3	599.3	590.3	593.3	590.3
52.5°	4488.8	1890.8	776.1	689.2	659.2	596.3	596.3	593.3	596.3	593.3	593.3
55°	4746.5	1824.9	719.2	671.2	638.3	575.3	587.3	593.3	599.3	596.3	596.3
57.5°	5112.1	1779.9	674.2	659.2	626.3	569.3	581.3	593.3	596.3	593.3	593.3
60°	5543.6	1750.0	644.3	662.2	617.3	569.3	584.3	593.3	590.3	587.3	587.3
62.5°	6044.0	1738.0	623.3	671.2	608.3	572.3	584.3	593.3	581.3	578.3	578.3
65°	6232.8	1630.1	596.3	677.2	614.3	572.3	581.3	584.3	569.3	566.3	563.3
67.5°	5942.1	1444.3	557.4	665.2	632.3	572.3	572.3	569.3	551.4	548.4	542.4
70°	5291.9	1198.6	497.4	626.3	644.3	575.3	560.4	545.4	527.4	527.4	515.4
72.5°	4333.0	943.9	419.5	557.4	635.3	584.3	536.4	515.4	494.4	494.4	482.4
75°	3122.4	704.2	335.6	464.5	596.3	581.3	506.4	479.4	455.5	452.5	437.5
77.5°	1779.9	494.4	272.7	362.6	530.4	566.3	479.4	437.5	410.5	401.5	392.5
80°	913.9	332.6	221.7	284.7	440.5	524.4	458.5	389.5	359.6	344.6	329.6
82.5°	434.5	221.7	170.8	209.8	332.6	458.5	431.5	335.6	302.7	284.7	266.7
85°	194.8	131.8	113.9	134.8	236.7	356.6	380.6	275.7	236.7	296.7	218.7
87.5°	62.9	59.9	59.9	62.9	113.9	155.8	278.7	203.8	188.8	155.8	131.8
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)