

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: P231110

Luminaire Tested: **ARCH-M-AF48-130-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231110
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-130-D-U-T2R-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13168 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 131
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



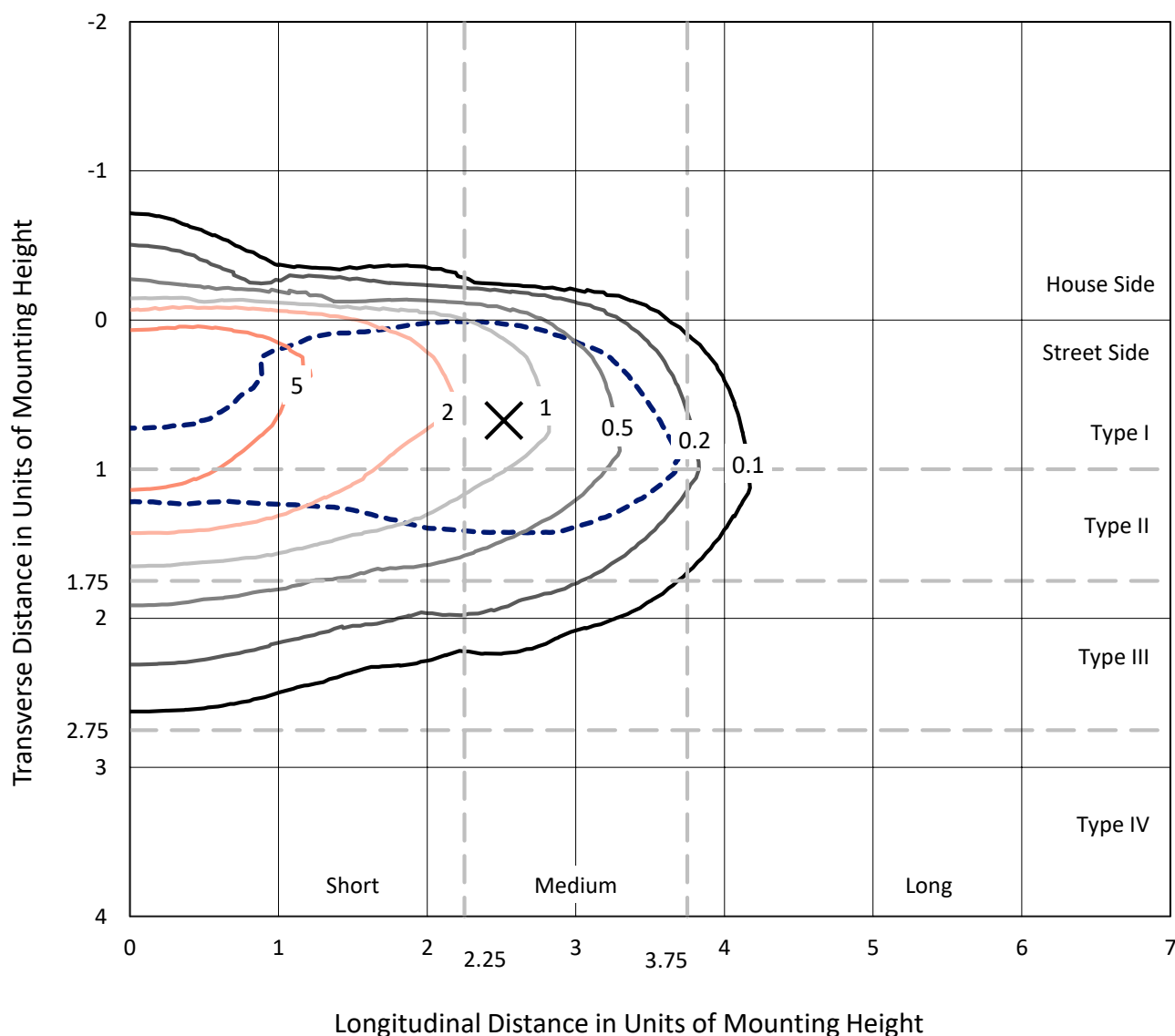
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

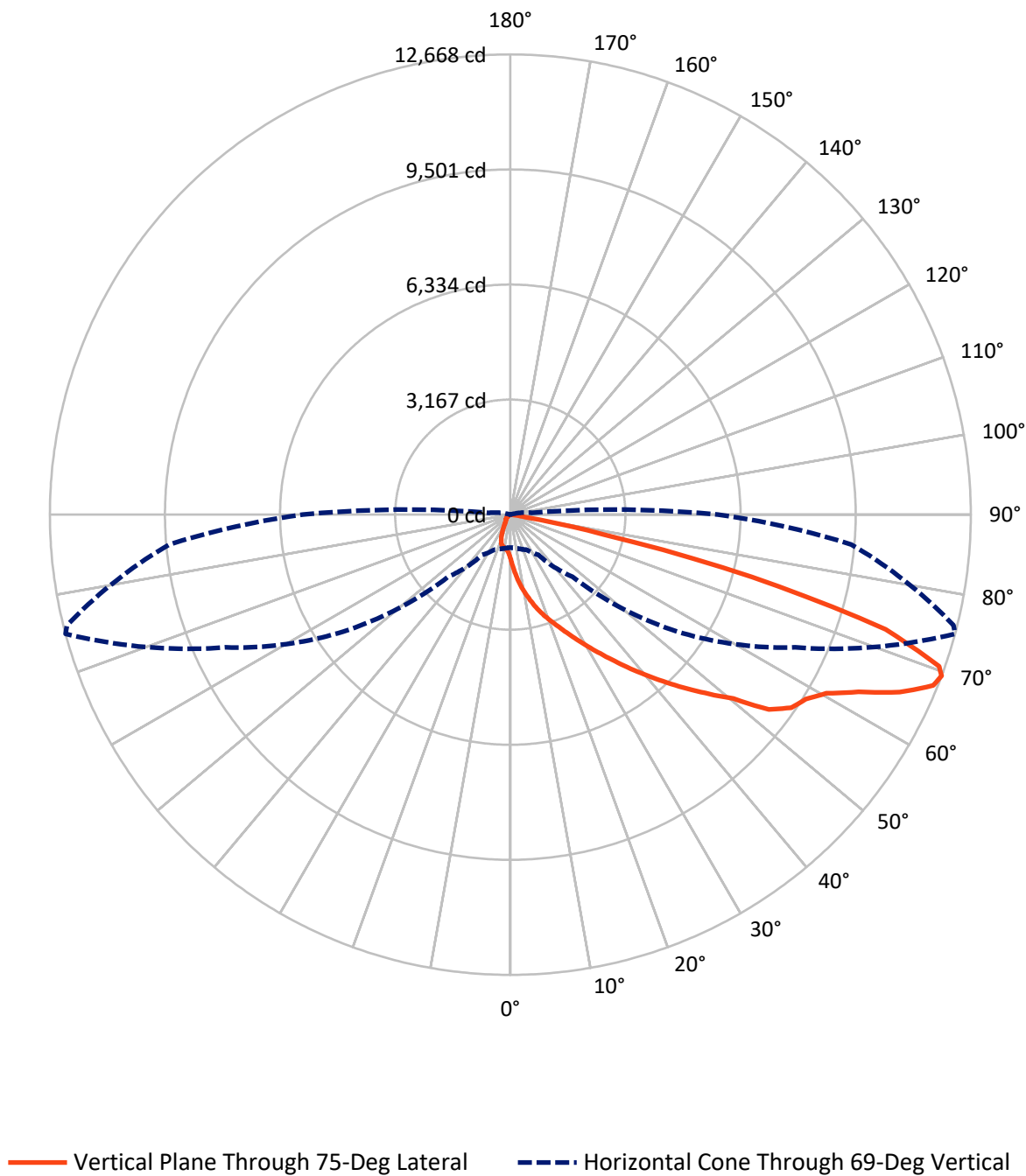


Based on 20 foot mounting height. Maximum calculated value = 8.4 fc
Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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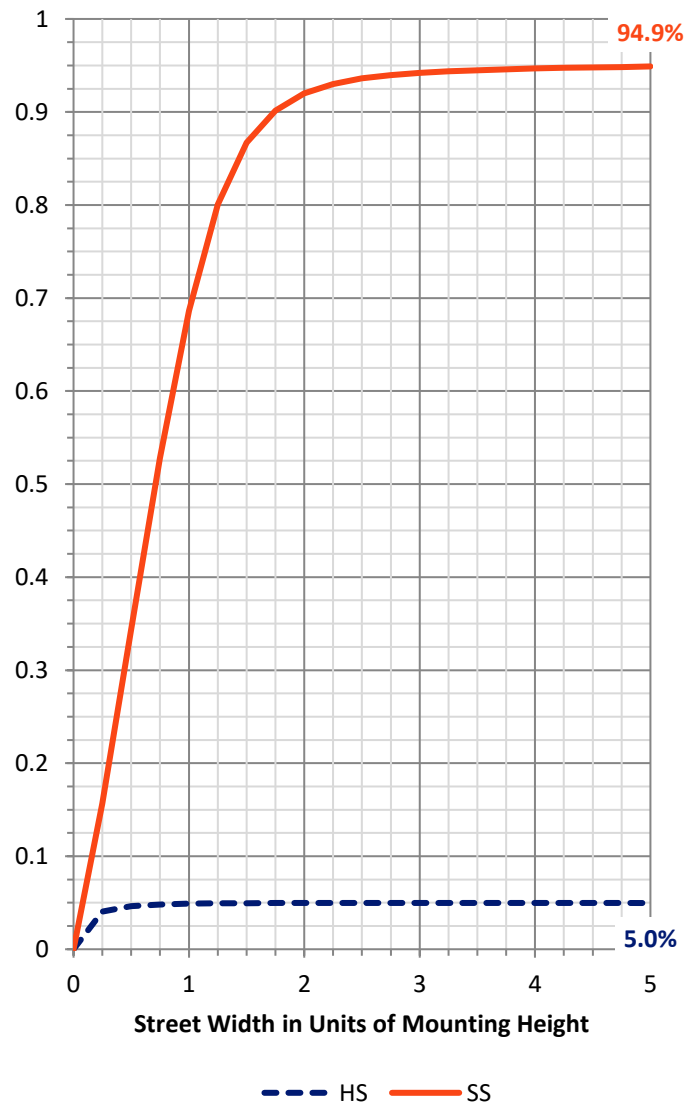
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	657.0	0.0	657.0
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	12511.0	0.0	12511.0
	% Fixture	95.0	0.0	95.0
Total	Lumens	13168.0	0.0	13168.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.9	1.1
10°-20°	510.8	3.9
20°-30°	975.1	7.4
30°-40°	1749.2	13.3
40°-50°	2679.9	20.4
50°-60°	3114.7	23.7
60°-70°	2758.1	20.9
70°-80°	1189.7	9.0
80°-90°	47.7	0.4
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°	13168.0	100.0
0°-180°	13168.0	100.0

Coefficient of Utilization



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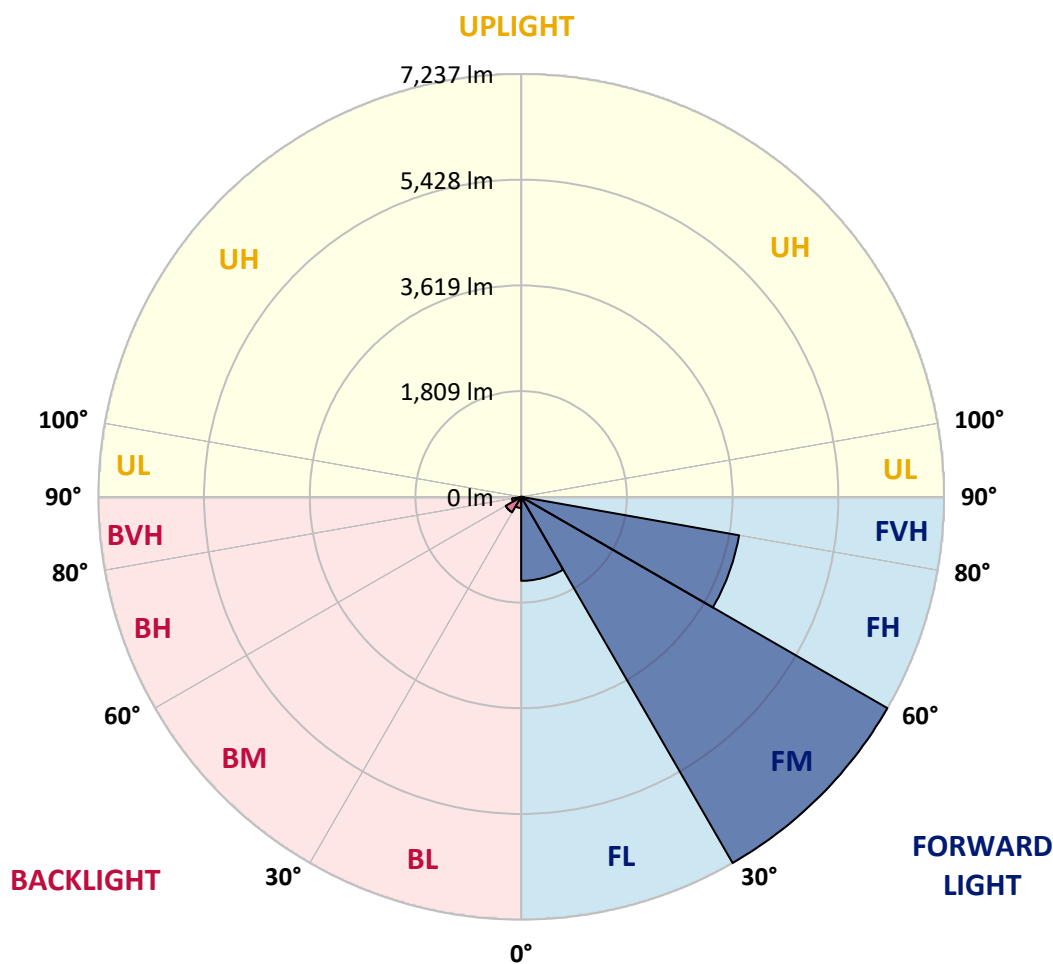
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1438.0	10.9			
FM	(30°-60°)	7237.5	55.0			
FH	(60°-80°)	3788.6	28.8			G2/5000
FVH	(80°-90°)	47.0	0.4			G1/100
BL	(0°-30°)	190.8	1.4	B1/500		
BM	(30°-60°)	306.3	2.3	B1/1000		
BH	(60°-80°)	159.2	1.2	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-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3
2.5°	2018.4	1998.5	1978.6	1955.9	1904.7	1816.6	1705.7	1586.3	1438.5	1412.9	1293.5
5°	2450.6	2442.0	2422.1	2390.9	2334.0	2237.3	2112.3	1936.0	1688.7	1646.0	1393.0
7.5°	2754.7	2749.1	2732.0	2695.0	2643.9	2547.2	2416.4	2226.0	1938.8	1890.5	1518.1
10°	3027.7	3024.8	3010.6	2976.5	2925.3	2820.1	2680.8	2481.8	2177.6	2123.6	1663.1
12.5°	3275.0	3277.8	3272.1	3255.1	3218.1	3118.6	2959.4	2743.4	2407.9	2348.2	1836.5
15°	3420.0	3428.5	3451.2	3485.4	3496.7	3417.1	3252.2	3013.4	2643.9	2592.7	2035.5
17.5°	3371.6	3380.2	3451.2	3567.8	3678.7	3690.0	3542.2	3269.3	2877.0	2825.8	2231.7
20°	3255.1	3266.5	3340.4	3499.6	3715.6	3866.3	3806.6	3547.9	3098.7	3036.2	2419.3
22.5°	3385.9	3385.9	3408.6	3505.3	3701.4	3937.4	4017.0	3826.5	3326.2	3249.4	2606.9
25°	3835.0	3826.5	3778.2	3738.4	3800.9	4011.3	4176.2	4110.8	3593.4	3505.3	2805.9
27.5°	4403.6	4443.4	4352.4	4207.4	4065.3	4156.3	4318.3	4392.2	3889.0	3798.1	3010.6
30°	5040.4	5057.5	4949.4	4756.1	4506.0	4417.8	4486.1	4633.9	4210.3	4110.8	3223.8
32.5°	5614.7	5600.5	5509.5	5307.6	4997.8	4807.3	4702.1	4827.2	4560.0	4446.3	3442.7
35°	6123.5	6134.9	6024.0	5790.9	5486.7	5284.9	5034.7	5046.1	4952.3	4821.5	3695.7
37.5°	6581.2	6561.3	6456.2	6223.0	5947.3	5728.4	5464.0	5273.5	5381.6	5245.1	3980.0
40°	6953.7	6933.8	6822.9	6595.5	6336.8	6157.7	5950.1	5577.7	5833.6	5677.2	4284.2
42.5°	7249.3	7226.6	7132.8	6913.9	6663.7	6504.5	6405.0	5953.0	6316.9	6160.5	4625.4
45°	7394.3	7374.4	7317.6	7152.7	6933.8	6794.5	6842.8	6385.1	6834.3	6703.5	5000.6
47.5°	7223.7	7215.2	7280.6	7252.2	7127.1	7053.2	7220.9	6857.0	7377.3	7249.3	5432.7
50°	6706.3	6720.5	6911.0	7147.0	7206.7	7294.8	7530.8	7354.5	7960.0	7823.6	5930.2
52.5°	5429.9	5526.5	6100.8	6669.4	7110.0	7442.6	7894.7	8065.2	8909.6	8775.9	6706.3
55°	4053.9	4093.7	4719.2	5691.4	6720.5	7431.3	8164.7	8483.1	9378.6	9242.2	6911.0
57.5°	3215.3	3229.5	3539.4	4531.5	5918.9	7175.4	8306.9	8633.8	9583.3	9469.6	7215.2
60°	2524.5	2541.5	2766.1	3448.4	4790.2	6484.6	8102.2	8764.6	9984.2	9893.2	7746.8
62.5°	1964.4	1981.5	2117.9	2518.8	3593.4	5421.4	7690.0	8974.9	10746.1	10703.4	8616.7
65°	1520.9	1526.6	1620.4	1808.1	2538.7	4270.0	7186.8	9171.1	11775.2	11738.2	9321.8
67.5°	1122.9	1131.5	1196.8	1313.4	1714.3	3067.5	6362.3	9020.4	12551.3	12443.2	9577.6
69°	906.9	915.4	972.3	1066.1	1353.2	2416.4	5609.0	8648.0	12667.8	12565.5	9415.6
70°	776.1	781.8	838.6	918.2	1154.2	2052.6	5012.0	8326.8	12514.3	12414.8	9046.0
72.5°	497.5	525.9	582.8	634.0	764.7	1358.9	3383.0	6905.3	10797.2	10626.7	7084.4
75°	275.8	284.3	386.6	449.2	508.9	884.1	1882.0	4306.9	6868.4	6749.0	3789.5
77.5°	227.4	233.1	272.9	341.1	341.1	494.7	710.7	1697.2	2612.6	2356.7	1026.3
80°	159.2	164.9	207.5	224.6	244.5	278.6	230.3	372.4	403.7	358.2	153.5
82.5°	110.9	116.6	142.1	184.8	196.2	130.8	85.3	110.9	116.6	116.6	59.7
85°	19.9	28.4	105.2	153.5	116.6	39.8	48.3	39.8	37.0	39.8	14.2
87.5°	0.0	0.0	65.4	73.9	62.5	17.1	19.9	14.2	8.5	11.4	5.7
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°	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3	1225.3
2.5°	1233.8	1174.1	1071.8	997.8	935.3	887.0	867.1	835.8	813.1	824.4	810.2
5°	1267.9	1162.7	997.8	892.7	818.7	756.2	705.0	665.2	634.0	628.3	622.6
7.5°	1321.9	1171.3	955.2	824.4	713.6	616.9	537.3	477.6	432.1	432.1	415.1
10°	1395.8	1194.0	929.6	756.2	591.3	460.5	380.9	324.1	301.3	298.5	292.8
12.5°	1498.2	1236.6	909.7	668.1	460.5	335.5	287.1	267.2	258.7	255.9	253.0
15°	1637.5	1299.2	887.0	560.0	349.7	275.8	255.9	238.8	230.3	227.4	224.6
17.5°	1771.1	1356.0	838.6	449.2	284.3	250.2	227.4	213.2	201.8	199.0	199.0
20°	1896.2	1404.4	756.2	349.7	255.9	224.6	201.8	184.8	173.4	170.6	170.6
22.5°	2027.0	1444.2	653.9	284.3	233.1	199.0	176.3	159.2	147.8	145.0	142.1
25°	2166.3	1472.6	537.3	253.0	210.4	176.3	150.7	136.5	127.9	125.1	122.2
27.5°	2316.9	1484.0	426.4	230.3	184.8	153.5	130.8	116.6	110.9	108.0	108.0
30°	2453.4	1472.6	329.8	204.7	162.0	133.6	113.7	102.3	96.7	93.8	93.8
32.5°	2595.5	1444.2	264.4	181.9	142.1	113.7	96.7	88.1	85.3	82.4	82.4
35°	2746.2	1407.2	227.4	162.0	122.2	99.5	85.3	79.6	76.8	73.9	73.9
37.5°	2922.5	1361.7	207.5	145.0	108.0	88.1	73.9	71.1	68.2	68.2	68.2
40°	3121.5	1304.9	193.3	130.8	96.7	76.8	65.4	62.5	59.7	59.7	59.7
42.5°	3331.8	1239.5	179.1	116.6	85.3	65.4	56.9	56.9	54.0	54.0	51.2
45°	3567.8	1174.1	164.9	102.3	73.9	56.9	48.3	45.5	45.5	42.6	42.6
47.5°	3846.4	1114.4	150.7	91.0	65.4	48.3	42.6	39.8	37.0	34.1	34.1
50°	4238.7	1108.7	133.6	79.6	59.7	39.8	34.1	31.3	28.4	25.6	25.6
52.5°	4628.2	1057.5	113.7	65.4	48.3	34.1	25.6	22.7	19.9	19.9	17.1
55°	4716.3	972.3	99.5	56.9	37.0	25.6	19.9	14.2	14.2	11.4	11.4
57.5°	4909.6	932.5	85.3	45.5	28.4	19.9	11.4	8.5	8.5	8.5	8.5
60°	5290.6	921.1	73.9	39.8	19.9	14.2	8.5	5.7	5.7	2.8	2.8
62.5°	5816.5	909.7	62.5	34.1	14.2	8.5	5.7	2.8	0.0	0.0	0.0
65°	6106.5	833.0	51.2	25.6	11.4	8.5	2.8	0.0	0.0	0.0	0.0
67.5°	6029.7	688.0	45.5	17.1	8.5	5.7	2.8	0.0	0.0	0.0	0.0
69°	5708.5	579.9	37.0	14.2	8.5	5.7	2.8	0.0	0.0	0.0	0.0
70°	5321.9	500.3	34.1	11.4	5.7	2.8	2.8	0.0	0.0	0.0	0.0
72.5°	3778.2	261.5	22.7	8.5	5.7	2.8	0.0	0.0	0.0	0.0	0.0
75°	1765.4	116.6	14.2	5.7	2.8	2.8	0.0	0.0	0.0	0.0	0.0
77.5°	389.5	54.0	8.5	5.7	2.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	73.9	19.9	5.7	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	25.6	8.5	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	0.0	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)