

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: P231236

Luminaire Tested: **ARCH-M-AF48-90-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-90-D-U-T3-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9250 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 92
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

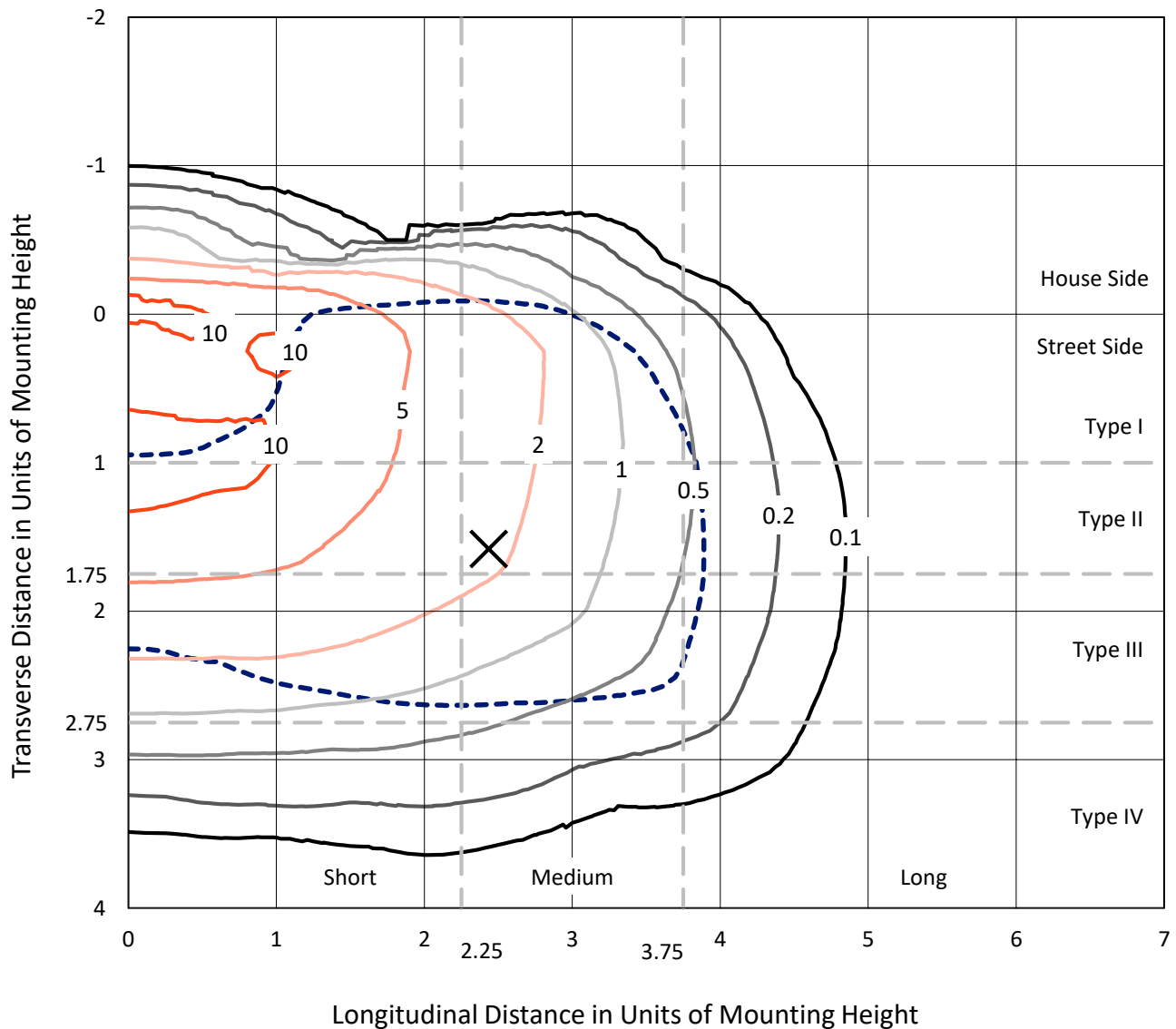


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Iso-Footcandle Lines of Horizontal Illumination

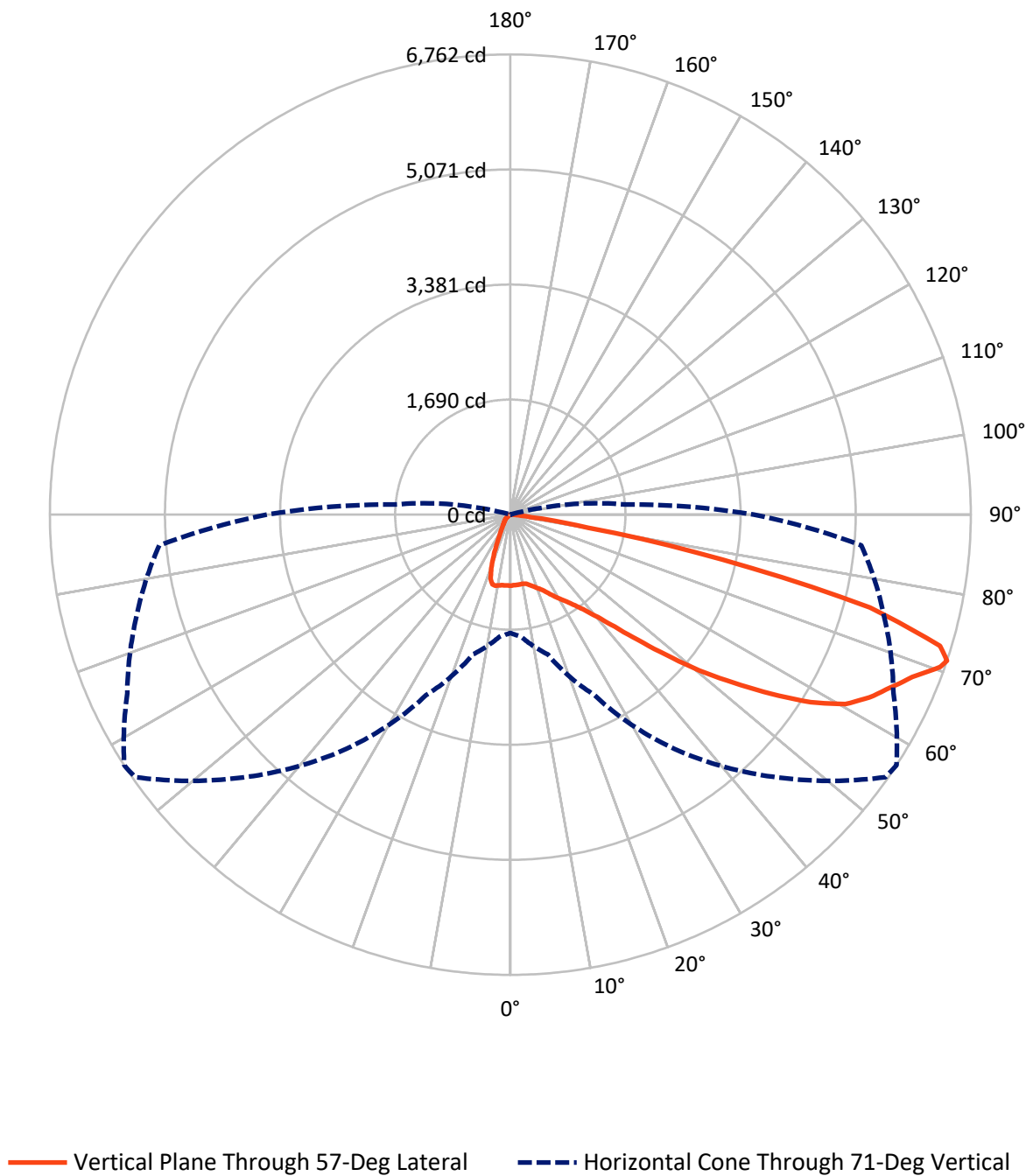
× Max cd
- - - 1/2 Max cd



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Luminous Intensity Polar Plot



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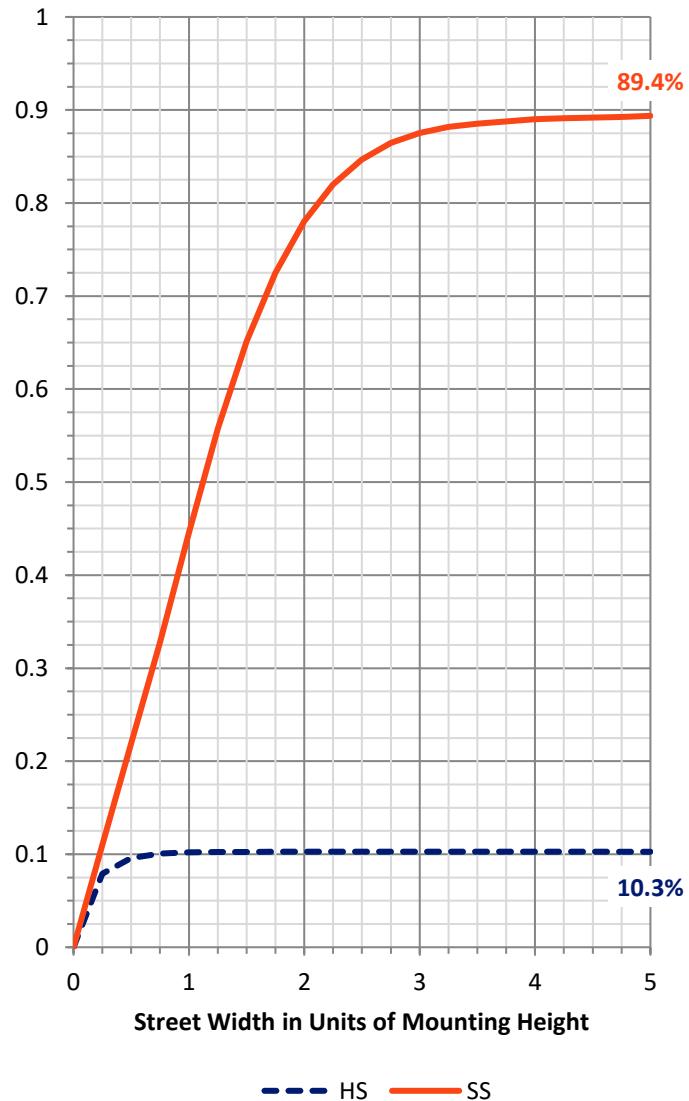
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	958.6	0.0	958.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	8291.4	0.0	8291.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	9250.0	0.0	9250.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.2	1.1
10°-20°	262.5	2.8
20°-30°	409.5	4.4
30°-40°	692.1	7.5
40°-50°	1344.3	14.5
50°-60°	2257.4	24.4
60°-70°	2694.1	29.1
70°-80°	1419.8	15.3
80°-90°	72.1	0.8
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°	9250.0	100.0
0°-180°	9250.0	100.0

Coefficient of Utilization



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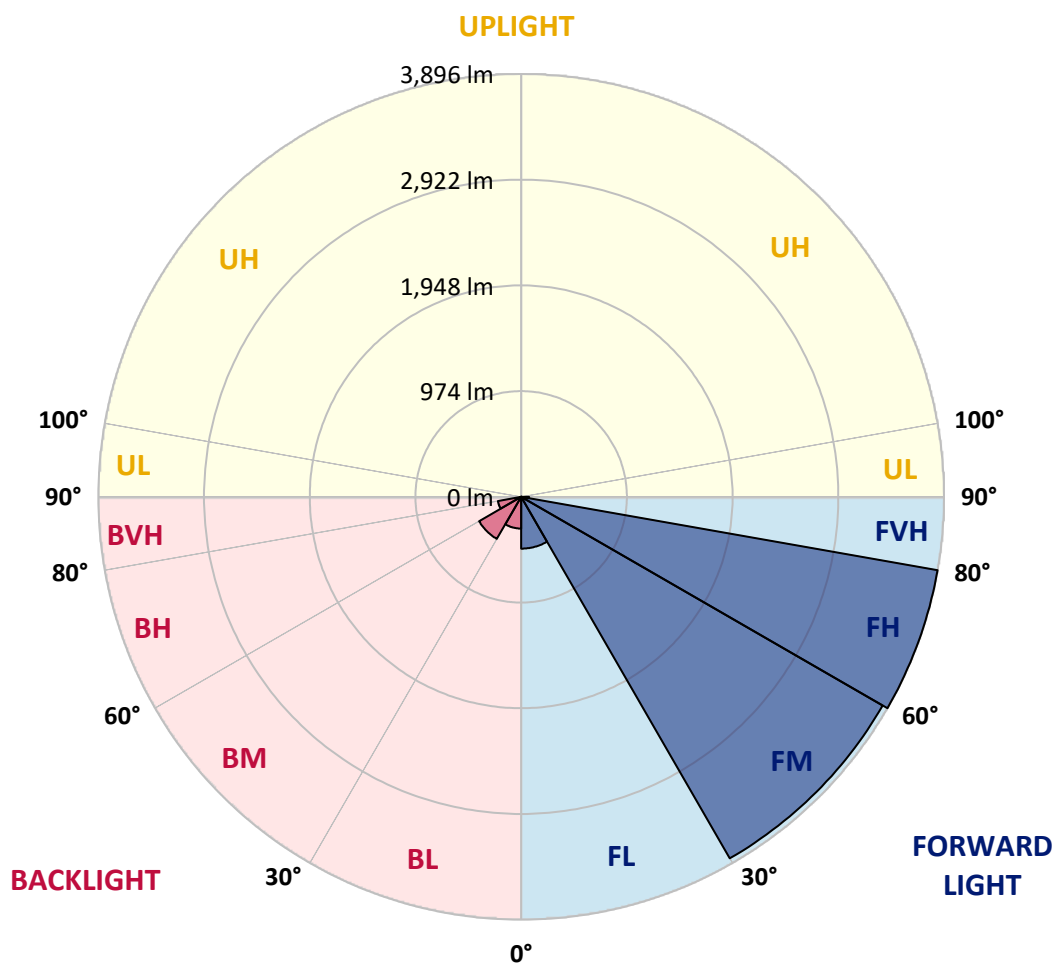
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	477.6	5.2			
FM	(30°-60°)	3846.2	41.6			
FH	(60°-80°)	3896.2	42.1			G2/5000
FVH	(80°-90°)	71.5	0.8			G1/100
BL	(0°-30°)	292.6	3.2	B1/500		
BM	(30°-60°)	447.6	4.8	B1/1000		
BH	(60°-80°)	217.7	2.4	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4
2.5°	1030.3	1030.3	1030.3	1032.5	1034.6	1034.6	1038.9	1036.8	1036.8	1036.8	1041.1
5°	1002.3	1004.4	1006.6	1010.9	1019.5	1026.0	1036.8	1036.8	1038.9	1043.2	1045.4
7.5°	963.5	965.6	972.1	980.7	998.0	1013.1	1030.3	1034.6	1041.1	1051.9	1056.2
10°	939.8	944.1	952.7	963.5	982.9	1002.3	1023.8	1030.3	1049.7	1069.1	1079.9
12.5°	933.3	935.5	944.1	961.3	985.0	1008.7	1036.8	1043.2	1071.3	1101.4	1118.7
15°	944.1	946.2	950.6	969.9	998.0	1028.1	1064.8	1073.4	1107.9	1142.4	1163.9
17.5°	963.5	963.5	967.8	985.0	1015.2	1049.7	1097.1	1110.1	1148.9	1187.6	1211.4
20°	976.4	976.4	982.9	1000.1	1034.6	1079.9	1135.9	1153.2	1196.3	1239.4	1260.9
22.5°	989.3	991.5	998.0	1017.4	1056.2	1118.7	1183.3	1200.6	1250.2	1295.4	1317.0
25°	1026.0	1023.8	1026.0	1043.2	1088.5	1166.1	1248.0	1269.6	1321.3	1370.9	1381.6
27.5°	1127.3	1123.0	1095.0	1084.2	1118.7	1215.7	1329.9	1351.5	1411.8	1461.4	1461.4
30°	1360.1	1351.5	1282.5	1194.1	1166.1	1260.9	1407.5	1437.7	1515.3	1558.4	1545.5
32.5°	1655.4	1636.0	1547.6	1396.7	1284.6	1321.3	1489.4	1523.9	1623.0	1659.7	1631.7
35°	1978.7	1976.5	1866.6	1672.6	1513.1	1446.3	1595.0	1636.0	1761.0	1793.3	1748.1
37.5°	2321.4	2330.0	2256.7	1989.5	1802.0	1651.1	1735.1	1782.6	1935.6	1974.4	1931.3
40°	2702.9	2700.8	2672.8	2355.9	2149.0	1942.1	1937.7	1980.9	2166.2	2226.6	2166.2
42.5°	3185.7	3181.4	3080.1	2795.6	2569.3	2321.4	2233.0	2248.1	2455.1	2554.2	2465.8
45°	3677.2	3647.0	3530.6	3284.9	3084.4	2791.3	2623.2	2623.2	2799.9	2935.7	2797.8
47.5°	3950.9	3920.8	3873.3	3737.5	3677.2	3349.6	3101.7	3071.5	3209.5	3347.4	3153.4
50°	4310.9	4310.9	4192.3	4140.6	4244.1	4013.4	3629.8	3599.6	3666.4	3776.3	3522.0
52.5°	4595.4	4543.7	4459.6	4504.9	4800.2	4694.6	4157.9	4099.7	4151.4	4179.4	3843.2
55°	4714.0	4664.4	4657.9	4823.9	5280.8	5134.3	4698.9	4647.1	4642.8	4504.9	4123.4
57.5°	4737.7	4694.6	4776.5	5067.4	5748.6	5494.2	5237.7	5198.9	5078.2	4733.4	4410.0
60°	4537.2	4558.8	4757.1	5201.1	6024.5	5806.8	5692.5	5651.6	5373.5	4927.3	4729.0
62.5°	4125.5	4177.3	4548.0	5214.0	5923.2	5933.9	5944.7	5916.7	5602.0	5104.1	5050.2
65°	3638.4	3653.5	4099.7	5035.1	5746.4	5895.1	6130.1	6127.9	5776.6	5302.4	5412.3
67.5°	2998.2	3024.1	3409.9	4431.6	5392.9	5877.9	6373.6	6367.2	5974.9	5528.7	5627.9
70°	2230.9	2263.2	2575.8	3446.6	4604.0	5662.4	6692.7	6697.0	6184.0	5701.1	5479.1
71°	1739.4	1797.6	2125.3	2927.1	4201.0	5444.7	6722.8	6761.6	6207.7	5677.4	5173.1
72.5°	853.6	922.5	1334.2	2060.6	3457.3	4957.5	6524.5	6600.0	6059.0	5382.1	4423.0
75°	222.0	234.9	398.8	842.8	1853.7	3284.9	5261.4	5453.3	4953.2	4097.5	2702.9
77.5°	140.1	144.4	187.5	327.6	694.1	1248.0	3090.9	3185.7	2830.1	2075.7	952.7
80°	99.2	101.3	118.5	211.2	405.2	364.3	1112.2	1153.2	1023.8	549.6	170.3
82.5°	60.4	60.4	86.2	135.8	250.0	198.3	293.1	312.5	275.9	153.0	56.0
85°	34.5	36.6	53.9	92.7	118.5	97.0	109.9	116.4	118.5	101.3	23.7
87.5°	28.0	30.2	47.4	77.6	64.7	47.4	47.4	49.6	51.7	60.4	10.8
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°	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4
2.5°	1041.1	1041.1	1043.2	1041.1	1041.1	1041.1	1043.2	1043.2	1043.2	1047.5	1049.7
5°	1045.4	1045.4	1045.4	1043.2	1041.1	1041.1	1045.4	1047.5	1047.5	1054.0	1054.0
7.5°	1056.2	1056.2	1051.9	1047.5	1043.2	1036.8	1038.9	1041.1	1038.9	1041.1	1041.1
10°	1079.9	1079.9	1073.4	1064.8	1051.9	1032.5	1006.6	974.3	944.1	933.3	929.0
12.5°	1118.7	1116.5	1103.6	1088.5	1060.5	993.7	896.7	782.4	687.6	661.7	653.1
15°	1161.8	1157.5	1142.4	1116.5	1041.1	864.3	661.7	515.2	424.6	403.1	398.8
17.5°	1207.0	1200.6	1179.0	1127.3	952.7	642.3	426.8	323.3	273.7	269.4	271.6
20°	1254.5	1245.8	1215.7	1105.7	769.5	428.9	275.9	250.0	245.7	245.7	247.9
22.5°	1308.4	1297.6	1256.6	1028.1	560.4	284.5	237.1	234.9	232.8	230.6	230.6
25°	1370.9	1357.9	1295.4	888.0	385.8	232.8	226.3	219.9	215.5	211.2	209.1
27.5°	1446.3	1429.1	1325.6	715.6	265.1	217.7	213.4	202.6	194.0	185.4	185.4
30°	1521.7	1500.2	1317.0	538.9	215.5	202.6	194.0	181.1	168.1	159.5	157.3
32.5°	1601.5	1579.9	1260.9	362.1	196.1	185.4	174.6	155.2	140.1	129.3	127.2
35°	1720.0	1702.8	1151.0	239.3	176.7	163.8	148.7	129.3	109.9	99.2	97.0
37.5°	1896.8	1875.2	1015.2	183.2	155.2	135.8	122.9	101.3	81.9	71.1	69.0
40°	2133.9	2069.2	853.6	161.7	135.8	112.1	94.8	73.3	58.2	51.7	51.7
42.5°	2409.8	2256.7	679.0	146.6	120.7	92.7	69.0	49.6	41.0	38.8	38.8
45°	2702.9	2431.3	504.4	135.8	105.6	73.3	49.6	34.5	30.2	28.0	28.0
47.5°	3004.7	2573.6	351.3	122.9	88.4	56.0	34.5	25.9	21.6	19.4	19.4
50°	3287.1	2666.3	247.9	109.9	75.4	41.0	25.9	19.4	15.1	15.1	15.1
52.5°	3483.2	2657.7	178.9	94.8	58.2	28.0	17.2	12.9	12.9	12.9	12.9
55°	3655.6	2625.3	140.1	81.9	45.3	19.4	12.9	10.8	10.8	8.6	8.6
57.5°	3802.2	2573.6	118.5	66.8	32.3	15.1	8.6	8.6	6.5	6.5	6.5
60°	3927.2	2508.9	99.2	56.0	21.6	10.8	6.5	4.3	4.3	2.2	4.3
62.5°	4097.5	2468.0	86.2	43.1	15.1	6.5	4.3	2.2	2.2	0.0	0.0
65°	4222.5	2390.4	73.3	30.2	8.6	4.3	2.2	2.2	0.0	0.0	0.0
67.5°	4226.8	2250.3	53.9	17.2	6.5	4.3	2.2	0.0	0.0	0.0	0.0
70°	3886.3	1918.3	34.5	8.6	4.3	2.2	2.2	0.0	0.0	0.0	0.0
71°	3573.7	1698.5	28.0	6.5	4.3	2.2	0.0	0.0	0.0	0.0	0.0
72.5°	2944.3	1248.0	21.6	6.5	2.2	2.2	0.0	0.0	0.0	0.0	0.0
75°	1623.0	452.6	10.8	4.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	519.5	137.9	6.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	88.4	21.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	30.2	8.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.3	2.2	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)