

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: P231366

Luminaire Tested: **ARCH-M-AF48-90-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231366
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
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-T4W-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9138 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-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

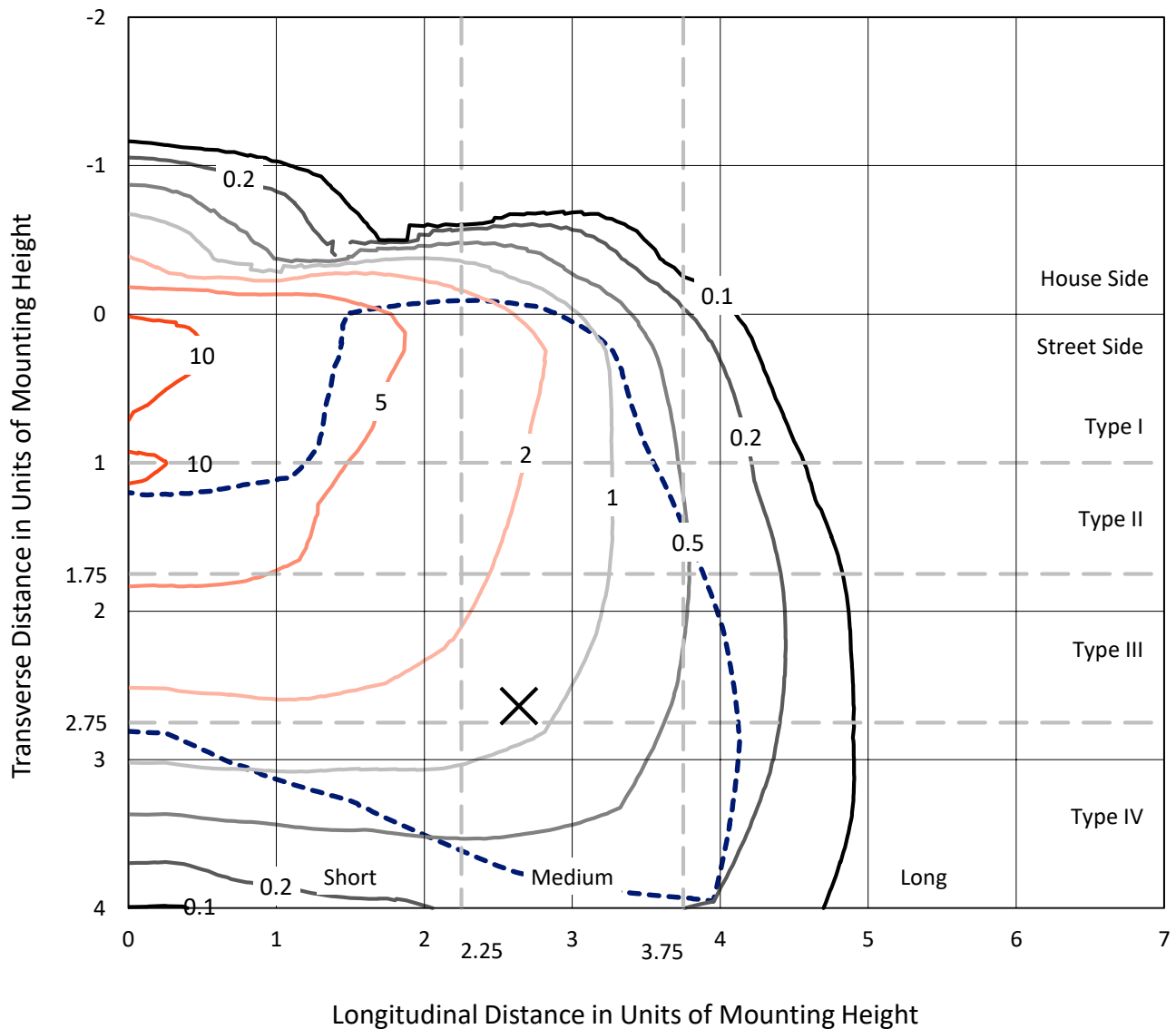


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

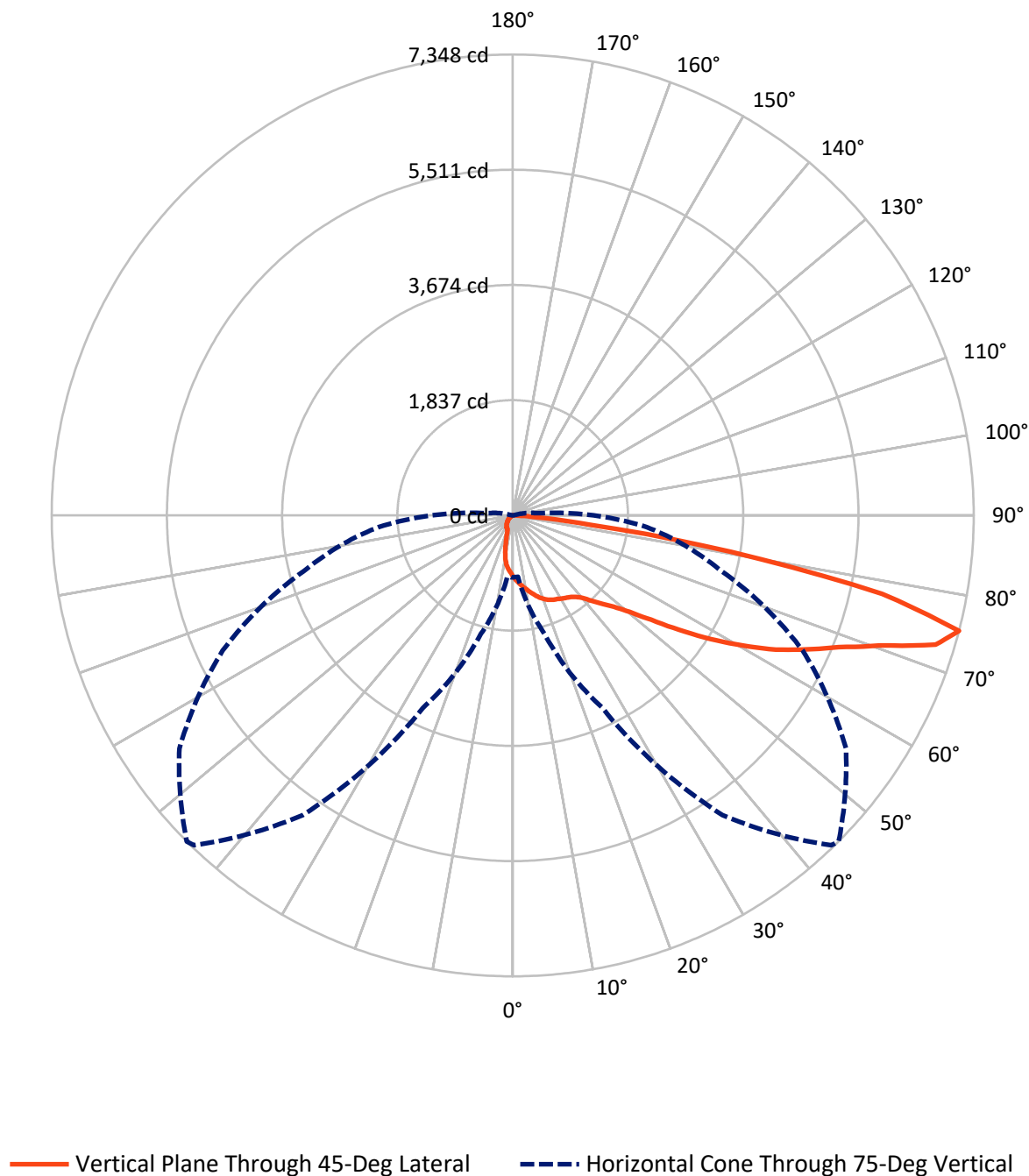


Based on 10 foot mounting height. Maximum calculated value = 13 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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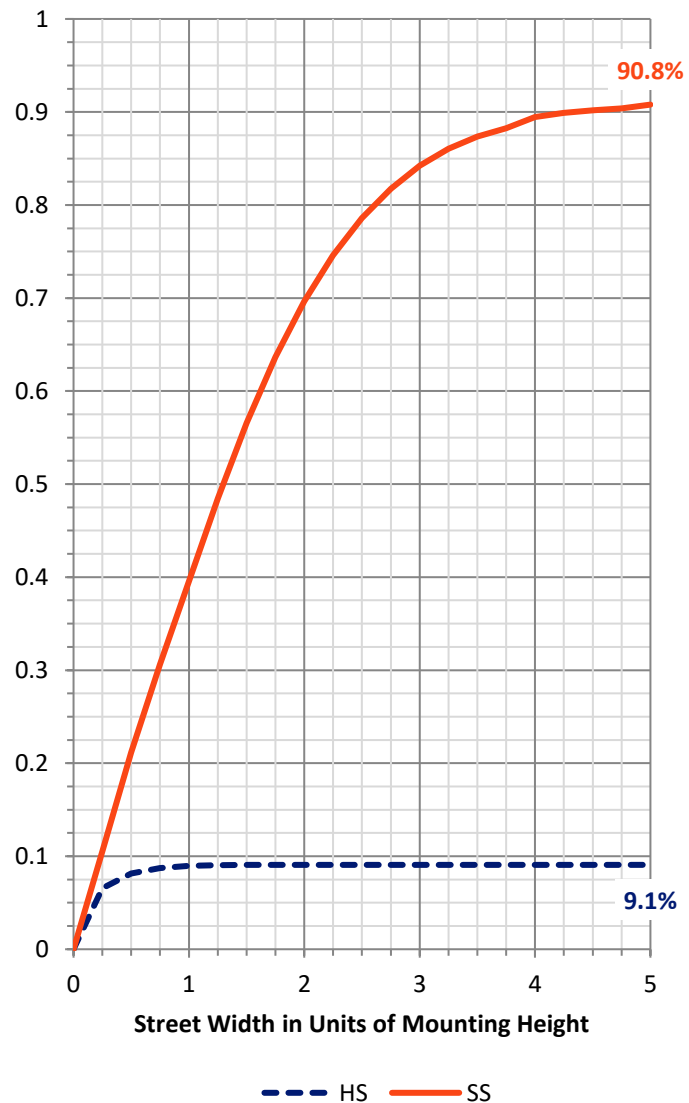
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	835.9	0.0	835.9
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	8302.1	0.0	8302.1
	% Fixture	90.9	0.0	90.9
Total	Lumens	9138.0	0.0	9138.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.2	1.0
10°-20°	261.3	2.9
20°-30°	432.8	4.7
30°-40°	626.3	6.9
40°-50°	1025.6	11.2
50°-60°	1827.4	20.0
60°-70°	2686.5	29.4
70°-80°	2026.8	22.2
80°-90°	159.0	1.7
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°	9138.0	100.0
0°-180°	9138.0	100.0

Coefficient of Utilization



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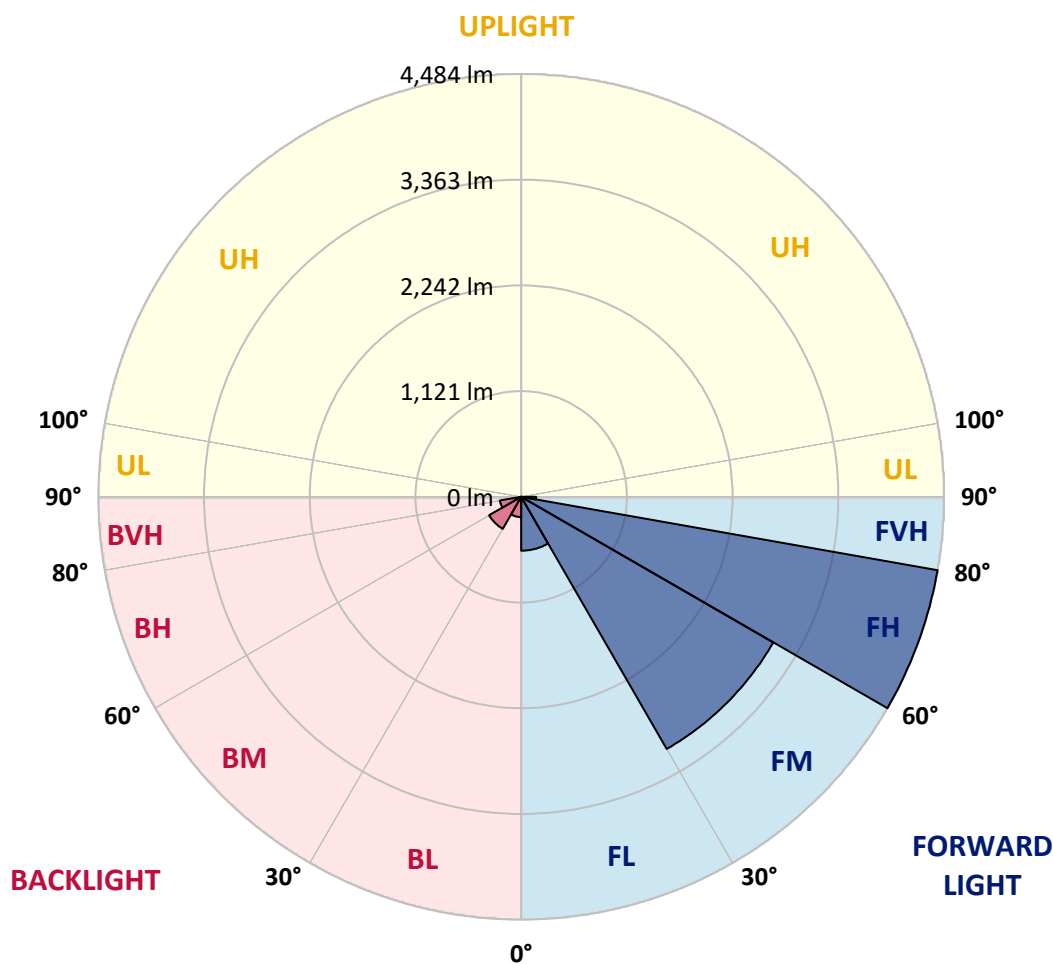
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	571.6	6.3			
FM	(30°-60°)	3087.7	33.8			
FH	(60°-80°)	4484.3	49.1			G2/5000
FVH	(80°-90°)	158.6	1.7			G2/225
BL	(0°-30°)	214.8	2.4	B1/500		
BM	(30°-60°)	391.7	4.3	B1/1000		
BH	(60°-80°)	228.9	2.5	B1/500		G1/500
BVH	(80°-90°)	0.4	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	977.4	977.4	977.4	977.4	977.4	977.4	977.4	977.4	977.4	977.4	977.4
2.5°	1061.7	1061.7	1059.5	1057.4	1046.6	1035.7	1033.6	1027.1	1007.6	994.7	981.7
5°	1150.3	1152.5	1148.2	1137.4	1113.6	1089.8	1087.6	1070.3	1033.6	1007.6	979.5
7.5°	1234.7	1239.0	1228.2	1208.7	1180.6	1146.0	1143.9	1111.4	1063.9	1027.1	986.0
10°	1306.0	1306.0	1290.9	1267.1	1236.8	1200.1	1195.8	1159.0	1104.9	1059.5	1005.5
12.5°	1383.9	1381.7	1360.1	1327.7	1293.1	1258.5	1256.3	1210.9	1159.0	1100.6	1033.6
15°	1455.2	1450.9	1422.8	1392.5	1355.8	1319.0	1316.8	1271.4	1217.4	1148.2	1074.7
17.5°	1494.1	1492.0	1466.0	1435.8	1405.5	1377.4	1375.2	1327.7	1269.3	1197.9	1115.7
20°	1500.6	1502.8	1481.2	1455.2	1437.9	1422.8	1422.8	1379.5	1316.8	1241.2	1159.0
22.5°	1502.8	1509.3	1494.1	1459.6	1455.2	1457.4	1461.7	1427.1	1362.2	1290.9	1204.4
25°	1517.9	1526.6	1515.8	1474.7	1470.4	1485.5	1489.8	1474.7	1416.3	1344.9	1256.3
27.5°	1548.2	1556.9	1548.2	1496.3	1489.8	1505.0	1509.3	1517.9	1474.7	1396.8	1310.4
30°	1608.7	1610.9	1591.5	1526.6	1513.6	1533.1	1539.6	1563.3	1528.7	1446.6	1362.2
32.5°	1714.7	1693.1	1634.7	1548.2	1537.4	1559.0	1565.5	1591.5	1578.5	1494.1	1416.3
35°	1930.9	1818.5	1684.4	1578.5	1567.7	1589.3	1597.9	1634.7	1641.2	1561.2	1483.3
37.5°	1928.8	1827.1	1801.2	1636.9	1621.7	1636.9	1647.7	1693.1	1719.0	1649.8	1580.6
40°	2065.0	2021.7	2021.7	1747.1	1697.4	1719.0	1729.8	1775.2	1820.7	1766.6	1695.2
42.5°	2493.1	2465.0	2434.7	1959.0	1803.4	1863.9	1870.4	1898.5	1952.6	1935.3	1850.9
45°	2971.0	2945.0	2828.3	2318.0	1985.0	1995.8	2010.9	2056.3	2134.2	2166.6	2067.2
47.5°	3345.1	3319.1	3219.7	2750.4	2268.3	2173.1	2173.1	2261.8	2382.9	2465.0	2369.9
50°	3645.6	3615.4	3554.8	3211.0	2733.1	2428.3	2415.3	2519.1	2698.5	2826.1	2761.3
52.5°	3937.5	3848.9	3812.1	3686.7	3258.6	2798.0	2763.4	2836.9	3085.6	3243.4	3189.4
55°	4132.2	4119.2	4080.3	4123.5	3810.0	3247.8	3217.5	3232.6	3544.0	3650.0	3582.9
57.5°	4313.8	4311.6	4398.1	4599.2	4411.1	3762.4	3714.8	3691.0	3987.3	3961.3	4019.7
60°	4538.7	4499.7	4700.8	4988.4	4962.5	4264.1	4210.0	4162.4	4326.8	4253.2	4543.0
62.5°	4549.5	4538.7	4947.3	5360.3	5509.5	4774.4	4711.6	4540.8	4623.0	4538.7	5042.5
65°	4136.5	4190.5	5051.1	5557.1	5967.9	5221.9	5146.3	4880.3	4886.8	4830.6	5630.6
67.5°	4043.5	4071.6	4765.7	5769.0	6298.8	5673.9	5602.5	5271.7	5193.8	5198.2	5978.8
70°	3812.1	3855.4	4411.1	5753.9	6560.4	6277.2	6205.8	5846.9	5658.7	5449.0	5710.6
72.5°	2912.6	2986.1	3717.0	5044.6	6489.1	7066.4	7046.9	6575.5	5844.7	5003.6	4320.3
75°	986.0	983.8	1952.6	3388.3	5829.6	7308.6	7347.5	6484.7	5098.7	3451.0	2145.0
77.5°	211.9	214.1	402.2	1373.1	3872.7	5868.5	6017.7	4891.1	3288.9	1537.4	490.8
80°	103.8	106.0	166.5	363.3	1548.2	3291.0	3524.5	2514.8	1215.2	307.0	82.2
82.5°	51.9	54.1	86.5	192.4	573.0	1169.8	1249.8	925.5	348.1	173.0	41.1
85°	19.5	19.5	43.2	114.6	261.6	274.6	337.3	268.1	209.7	140.5	10.8
87.5°	4.3	4.3	23.8	56.2	116.8	86.5	86.5	82.2	127.6	95.1	4.3
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°	977.4	977.4	977.4	977.4	977.4	977.4	977.4	977.4	977.4	977.4	977.4
2.5°	975.2	966.5	951.4	936.3	925.5	912.5	906.0	899.5	897.4	895.2	899.5
5°	964.4	951.4	923.3	899.5	877.9	860.6	847.6	834.6	828.2	823.8	826.0
7.5°	964.4	944.9	903.8	867.1	832.5	795.7	759.0	730.9	709.2	696.3	698.4
10°	975.2	949.2	895.2	845.5	780.6	702.7	622.7	562.2	521.1	497.3	497.3
12.5°	999.0	964.4	897.4	819.5	709.2	573.0	451.9	378.4	348.1	330.8	333.0
15°	1031.4	990.3	908.2	784.9	609.8	426.0	315.7	268.1	268.1	272.4	274.6
17.5°	1068.2	1022.8	916.8	733.0	482.2	304.9	248.7	244.3	250.8	261.6	261.6
20°	1104.9	1055.2	921.1	650.9	361.1	242.2	235.7	235.7	240.0	250.8	253.0
22.5°	1150.3	1096.3	916.8	549.2	270.3	229.2	227.0	227.0	227.0	240.0	240.0
25°	1197.9	1143.9	899.5	441.1	229.2	220.6	218.4	216.2	216.2	227.0	229.2
27.5°	1252.0	1193.6	858.4	337.3	216.2	211.9	209.7	205.4	205.4	214.1	214.1
30°	1306.0	1249.8	795.7	255.2	205.4	203.3	198.9	194.6	190.3	198.9	198.9
32.5°	1364.4	1308.2	713.6	203.3	190.3	190.3	188.1	181.6	177.3	181.6	183.8
35°	1442.3	1375.2	620.6	177.3	170.8	170.8	170.8	168.7	160.0	164.3	164.3
37.5°	1546.0	1468.2	512.5	164.3	155.7	151.4	151.4	151.4	144.9	147.0	147.0
40°	1677.9	1576.3	408.7	153.5	144.9	134.1	129.7	131.9	127.6	127.6	125.4
42.5°	1857.4	1693.1	307.0	144.9	136.2	121.1	112.4	110.3	106.0	103.8	103.8
45°	2114.7	1835.8	220.6	136.2	129.7	106.0	97.3	90.8	80.0	73.5	73.5
47.5°	2447.7	1998.0	164.3	127.6	123.3	93.0	82.2	69.2	54.1	49.7	49.7
50°	2854.2	2179.6	138.4	114.6	112.4	82.2	64.9	45.4	30.3	25.9	28.1
52.5°	3249.9	2350.4	123.3	101.6	99.5	71.4	47.6	23.8	13.0	13.0	13.0
55°	3582.9	2471.5	112.4	90.8	86.5	56.2	25.9	10.8	6.5	6.5	6.5
57.5°	3883.5	2540.7	101.6	80.0	69.2	38.9	10.8	4.3	4.3	2.2	2.2
60°	4158.1	2581.8	88.7	69.2	54.1	21.6	4.3	2.2	2.2	0.0	0.0
62.5°	4428.4	2612.1	75.7	56.2	41.1	8.6	2.2	2.2	0.0	0.0	0.0
65°	4633.8	2601.2	60.5	45.4	25.9	4.3	2.2	0.0	0.0	0.0	0.0
67.5°	4627.3	2454.2	45.4	34.6	13.0	2.2	0.0	0.0	0.0	0.0	0.0
70°	4138.6	2067.2	30.3	21.6	4.3	2.2	0.0	0.0	0.0	0.0	0.0
72.5°	2936.4	1325.5	19.5	13.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	1293.1	402.2	10.8	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	253.0	93.0	6.5	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	60.5	10.8	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	25.9	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.5	2.2	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)