

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: P231364

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231364
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-AF48-70-D-U-T4W-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 470mA 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: 7385 lumens
Efficiency: N/A
Efficacy: 101.2 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): 73
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

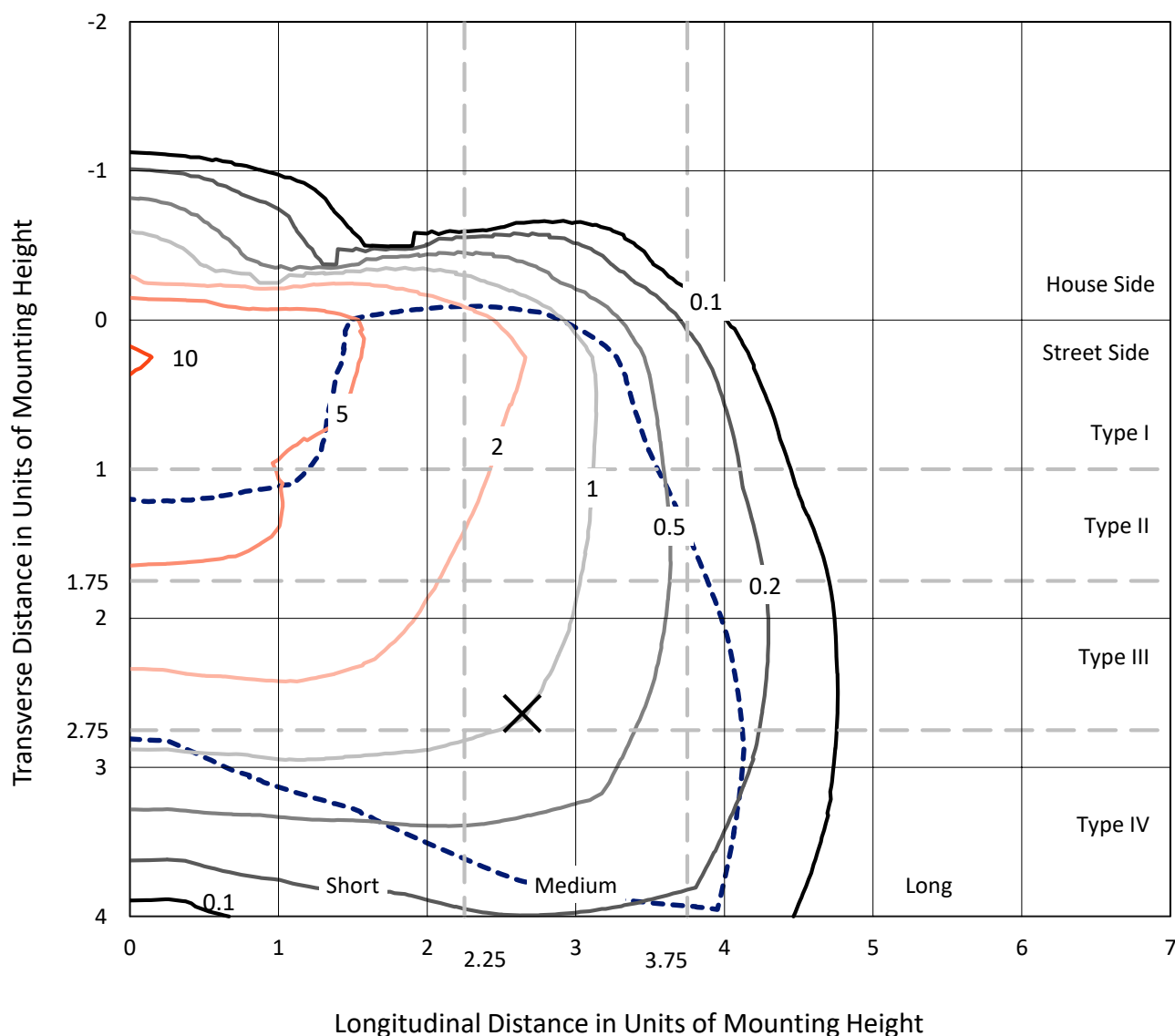


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

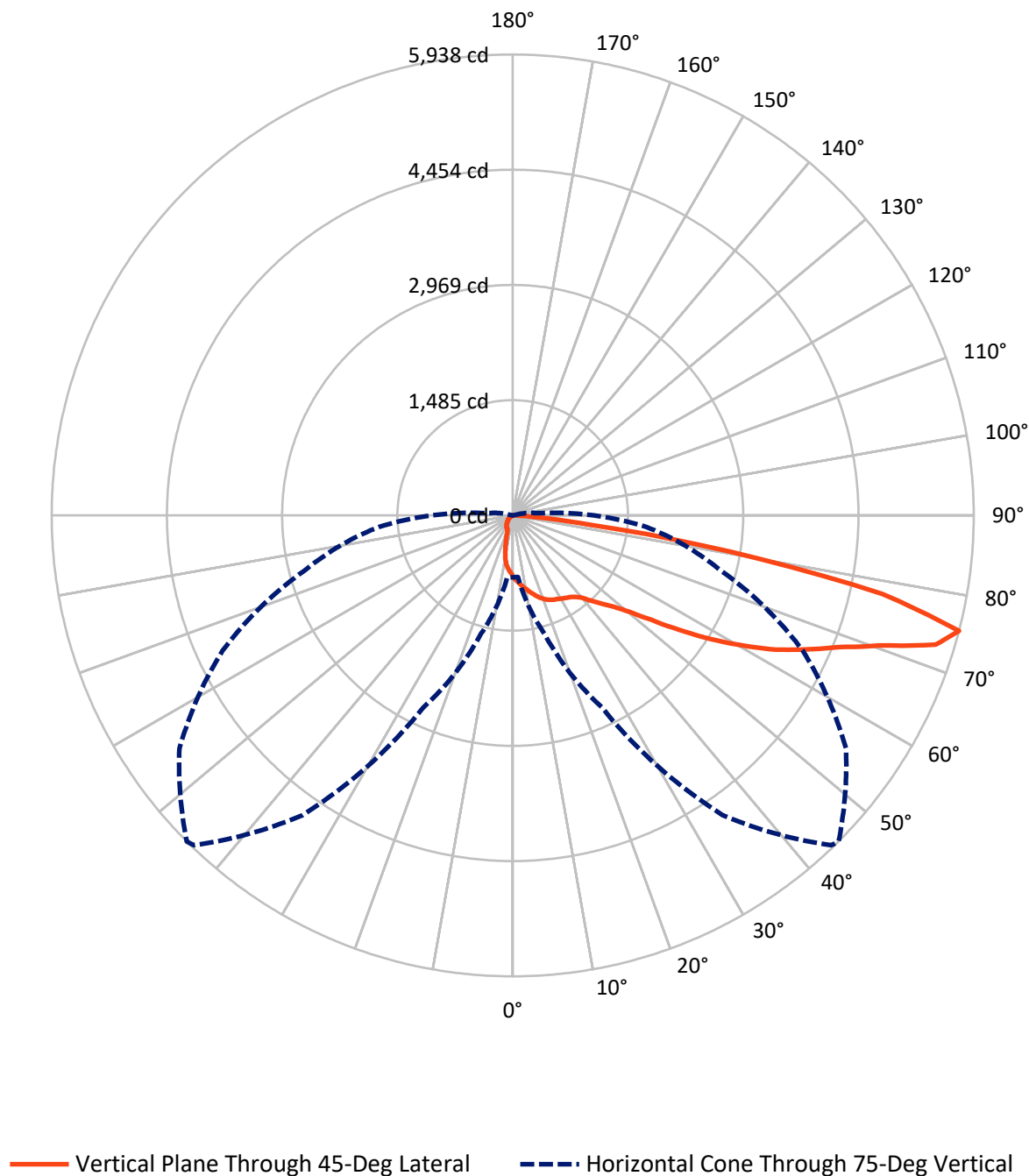


Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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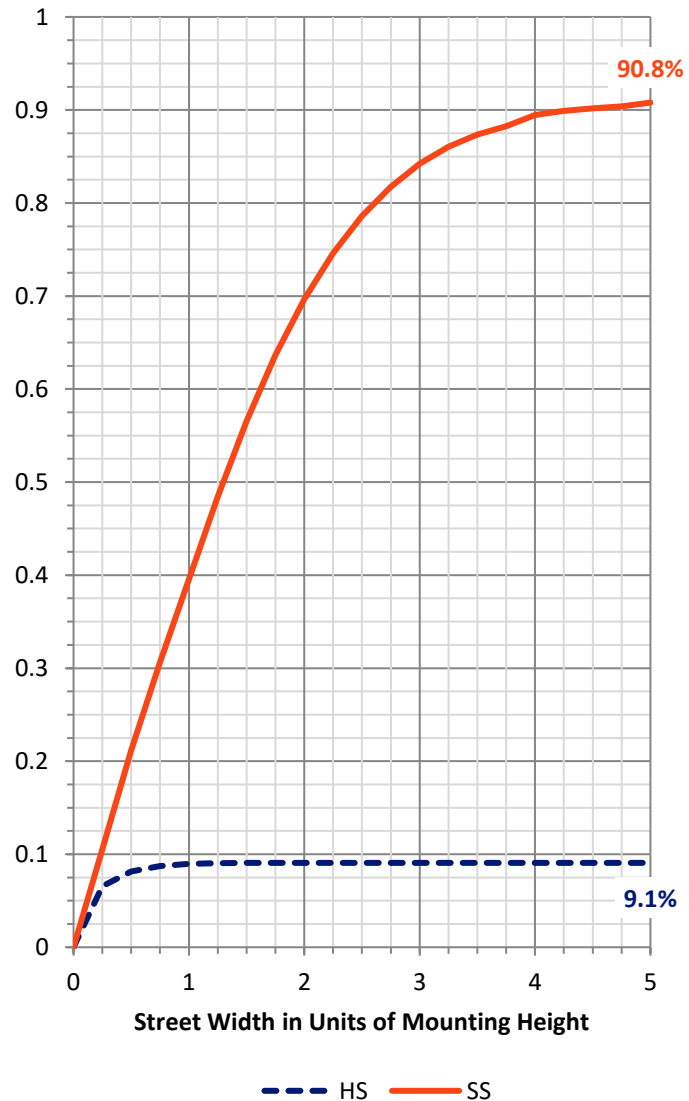
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	675.5	0.0	675.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6709.5	0.0	6709.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	7385.0	0.0	7385.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	1.0
10°-20°	211.2	2.9
20°-30°	349.8	4.7
30°-40°	506.2	6.9
40°-50°	828.9	11.2
50°-60°	1476.8	20.0
60°-70°	2171.2	29.4
70°-80°	1637.9	22.2
80°-90°	128.5	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°	7385.0	100.0
0°-180°	7385.0	100.0

Coefficient of Utilization



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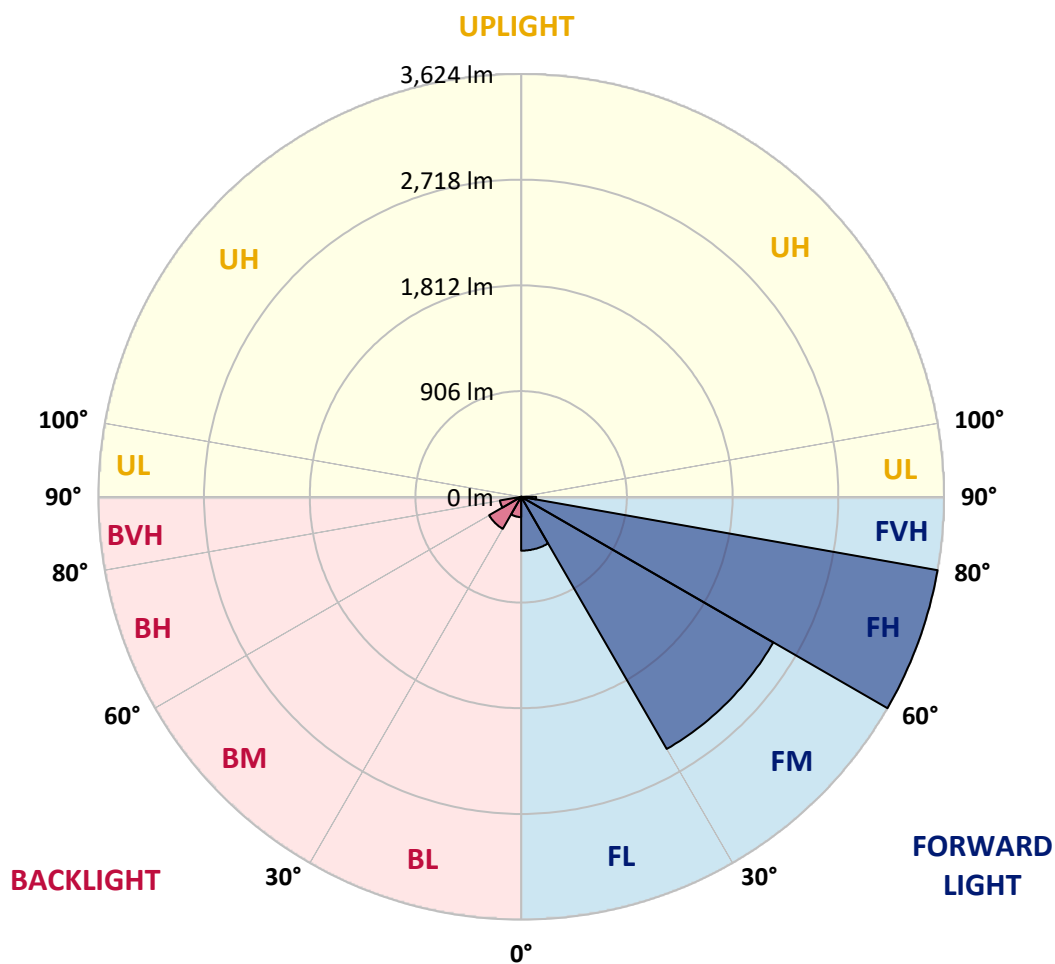
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	461.9	6.3			
FM	(30°-60°)	2495.4	33.8			
FH	(60°-80°)	3624.1	49.1			G2/5000
FVH	(80°-90°)	128.1	1.7			G2/225
BL	(0°-30°)	173.6	2.4	B1/500		
BM	(30°-60°)	316.5	4.3	B1/1000		
BH	(60°-80°)	185.0	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°	789.9	789.9	789.9	789.9	789.9	789.9	789.9	789.9	789.9	789.9	789.9
2.5°	858.0	858.0	856.3	854.5	845.8	837.0	835.3	830.1	814.3	803.8	793.4
5°	929.7	931.4	927.9	919.2	900.0	880.7	879.0	865.0	835.3	814.3	791.6
7.5°	997.8	1001.3	992.6	976.8	954.1	926.2	924.4	898.2	859.8	830.1	796.9
10°	1055.5	1055.5	1043.3	1024.0	999.6	969.9	966.4	936.7	893.0	856.3	812.6
12.5°	1118.4	1116.6	1099.2	1073.0	1045.0	1017.0	1015.3	978.6	936.7	889.5	835.3
15°	1176.1	1172.6	1149.8	1125.4	1095.7	1066.0	1064.2	1027.5	983.8	927.9	868.5
17.5°	1207.5	1205.8	1184.8	1160.3	1135.9	1113.2	1111.4	1073.0	1025.8	968.1	901.7
20°	1212.8	1214.5	1197.0	1176.1	1162.1	1149.8	1149.8	1114.9	1064.2	1003.1	936.7
22.5°	1214.5	1219.7	1207.5	1179.6	1176.1	1177.8	1181.3	1153.3	1100.9	1043.3	973.4
25°	1226.7	1233.7	1225.0	1191.8	1188.3	1200.5	1204.0	1191.8	1144.6	1086.9	1015.3
27.5°	1251.2	1258.2	1251.2	1209.3	1204.0	1216.3	1219.7	1226.7	1191.8	1128.9	1059.0
30°	1300.1	1301.9	1286.2	1233.7	1223.2	1239.0	1244.2	1263.4	1235.5	1169.1	1100.9
32.5°	1385.8	1368.3	1321.1	1251.2	1242.5	1259.9	1265.2	1286.2	1275.7	1207.5	1144.6
35°	1560.5	1469.6	1361.3	1275.7	1266.9	1284.4	1291.4	1321.1	1326.3	1261.7	1198.8
37.5°	1558.8	1476.6	1455.7	1322.9	1310.6	1322.9	1331.6	1368.3	1389.3	1333.3	1277.4
40°	1668.9	1633.9	1633.9	1412.0	1371.8	1389.3	1398.0	1434.7	1471.4	1427.7	1370.0
42.5°	2014.9	1992.1	1967.7	1583.2	1457.4	1506.3	1511.6	1534.3	1578.0	1564.0	1495.9
45°	2401.1	2380.1	2285.7	1873.3	1604.2	1612.9	1625.2	1661.9	1724.8	1751.0	1670.6
47.5°	2703.4	2682.4	2602.0	2222.8	1833.1	1756.2	1756.2	1827.9	1925.7	1992.1	1915.2
50°	2946.3	2921.8	2872.9	2595.0	2208.8	1962.4	1951.9	2035.8	2180.9	2284.0	2231.5
52.5°	3182.2	3110.5	3080.8	2979.5	2633.5	2261.3	2233.3	2292.7	2493.7	2621.2	2577.5
55°	3339.5	3329.0	3297.5	3332.5	3079.1	2624.7	2600.3	2612.5	2864.1	2949.8	2895.6
57.5°	3486.2	3484.5	3554.4	3716.9	3564.9	3040.6	3002.2	2983.0	3222.4	3201.4	3248.6
60°	3668.0	3636.5	3799.0	4031.5	4010.5	3446.1	3402.4	3363.9	3496.7	3437.3	3671.5
62.5°	3676.7	3668.0	3998.3	4332.0	4452.6	3858.5	3807.8	3669.7	3736.1	3668.0	4075.1
65°	3342.9	3386.6	4082.1	4491.1	4823.1	4220.2	4159.0	3944.1	3949.3	3903.9	4550.5
67.5°	3267.8	3290.5	3851.5	4662.3	5090.4	4585.4	4527.7	4260.4	4197.5	4201.0	4831.8
70°	3080.8	3115.8	3564.9	4650.1	5301.9	5073.0	5015.3	4725.2	4573.2	4403.7	4615.1
72.5°	2353.9	2413.3	3003.9	4076.9	5244.2	5710.8	5695.1	5314.1	4723.5	4043.7	3491.5
75°	796.9	795.1	1578.0	2738.3	4711.2	5906.5	5938.0	5240.7	4120.6	2789.0	1733.5
77.5°	171.3	173.0	325.0	1109.7	3129.8	4742.7	4863.3	3952.8	2657.9	1242.5	396.7
80°	83.9	85.6	134.6	293.6	1251.2	2659.7	2848.4	2032.3	982.1	248.1	66.4
82.5°	41.9	43.7	69.9	155.5	463.1	945.4	1010.0	747.9	281.3	139.8	33.2
85°	15.7	15.7	34.9	92.6	211.4	221.9	272.6	216.7	169.5	113.6	8.7
87.5°	3.5	3.5	19.2	45.4	94.4	69.9	69.9	66.4	103.1	76.9	3.5
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°	789.9	789.9	789.9	789.9	789.9	789.9	789.9	789.9	789.9	789.9	789.9
2.5°	788.1	781.1	768.9	756.7	747.9	737.4	732.2	727.0	725.2	723.5	727.0
5°	779.4	768.9	746.2	727.0	709.5	695.5	685.0	674.5	669.3	665.8	667.5
7.5°	779.4	763.7	730.5	700.7	672.8	643.1	613.4	590.7	573.2	562.7	564.4
10°	788.1	767.1	723.5	683.3	630.8	567.9	503.3	454.3	421.1	401.9	401.9
12.5°	807.3	779.4	725.2	662.3	573.2	463.1	365.2	305.8	281.3	267.4	269.1
15°	833.6	800.4	733.9	634.3	492.8	344.3	255.1	216.7	216.7	220.2	221.9
17.5°	863.3	826.6	740.9	592.4	389.7	246.4	201.0	197.5	202.7	211.4	211.4
20°	893.0	852.8	744.4	526.0	291.8	195.7	190.5	190.5	194.0	202.7	204.5
22.5°	929.7	886.0	740.9	443.9	218.4	185.2	183.5	183.5	183.5	194.0	194.0
25°	968.1	924.4	727.0	356.5	185.2	178.2	176.5	174.7	174.7	183.5	185.2
27.5°	1011.8	964.6	693.8	272.6	174.7	171.3	169.5	166.0	166.0	173.0	173.0
30°	1055.5	1010.0	643.1	206.2	166.0	164.3	160.8	157.3	153.8	160.8	160.8
32.5°	1102.7	1057.2	576.7	164.3	153.8	153.8	152.0	146.8	143.3	146.8	148.5
35°	1165.6	1111.4	501.5	143.3	138.1	138.1	138.1	136.3	129.3	132.8	132.8
37.5°	1249.5	1186.5	414.2	132.8	125.8	122.3	122.3	122.3	117.1	118.8	118.8
40°	1356.1	1273.9	330.3	124.1	117.1	108.3	104.8	106.6	103.1	103.1	101.4
42.5°	1501.1	1368.3	248.1	117.1	110.1	97.9	90.9	89.1	85.6	83.9	83.9
45°	1709.0	1483.6	178.2	110.1	104.8	85.6	78.6	73.4	64.7	59.4	59.4
47.5°	1978.2	1614.7	132.8	103.1	99.6	75.1	66.4	55.9	43.7	40.2	40.2
50°	2306.7	1761.5	111.8	92.6	90.9	66.4	52.4	36.7	24.5	21.0	22.7
52.5°	2626.5	1899.5	99.6	82.1	80.4	57.7	38.4	19.2	10.5	10.5	10.5
55°	2895.6	1997.4	90.9	73.4	69.9	45.4	21.0	8.7	5.2	5.2	5.2
57.5°	3138.5	2053.3	82.1	64.7	55.9	31.5	8.7	3.5	3.5	1.7	1.7
60°	3360.4	2086.5	71.6	55.9	43.7	17.5	3.5	1.7	1.7	0.0	0.0
62.5°	3578.9	2111.0	61.2	45.4	33.2	7.0	1.7	1.7	0.0	0.0	0.0
65°	3744.9	2102.2	48.9	36.7	21.0	3.5	1.7	0.0	0.0	0.0	0.0
67.5°	3739.6	1983.4	36.7	28.0	10.5	1.7	0.0	0.0	0.0	0.0	0.0
70°	3344.7	1670.6	24.5	17.5	3.5	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2373.1	1071.2	15.7	10.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	1045.0	325.0	8.7	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	204.5	75.1	5.2	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	48.9	8.7	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	1.7	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)