

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: P231367

Luminaire Tested: **ARCH-M-AF48-100-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231367
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-AF48-100-D-U-T4W-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 660mA 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: 9889 lumens
Efficiency: N/A
Efficacy: 97.9 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): 101
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



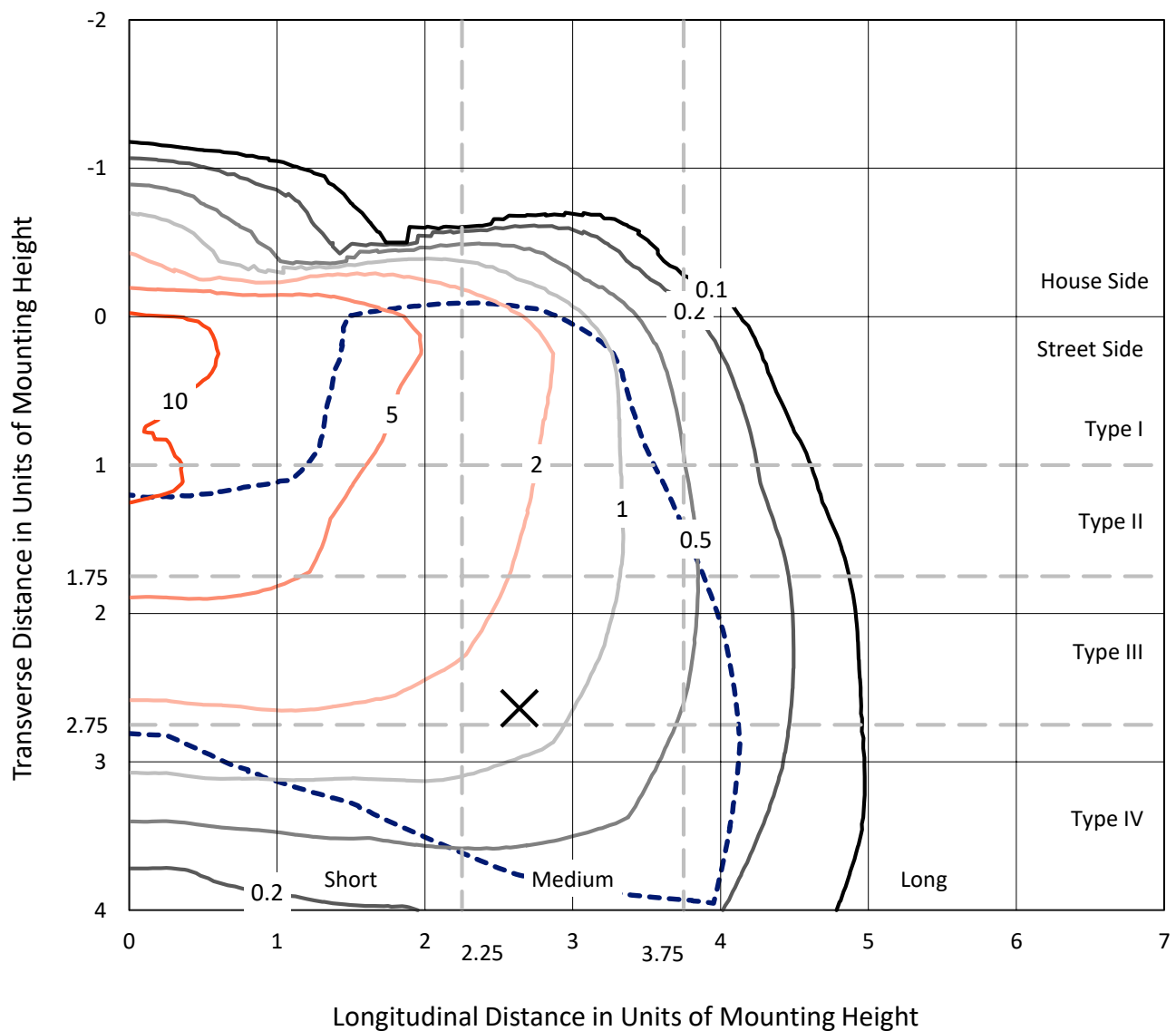
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Iso-Footcandle Lines of Horizontal Illumination

✗ Max cd

--- 1/2 Max cd

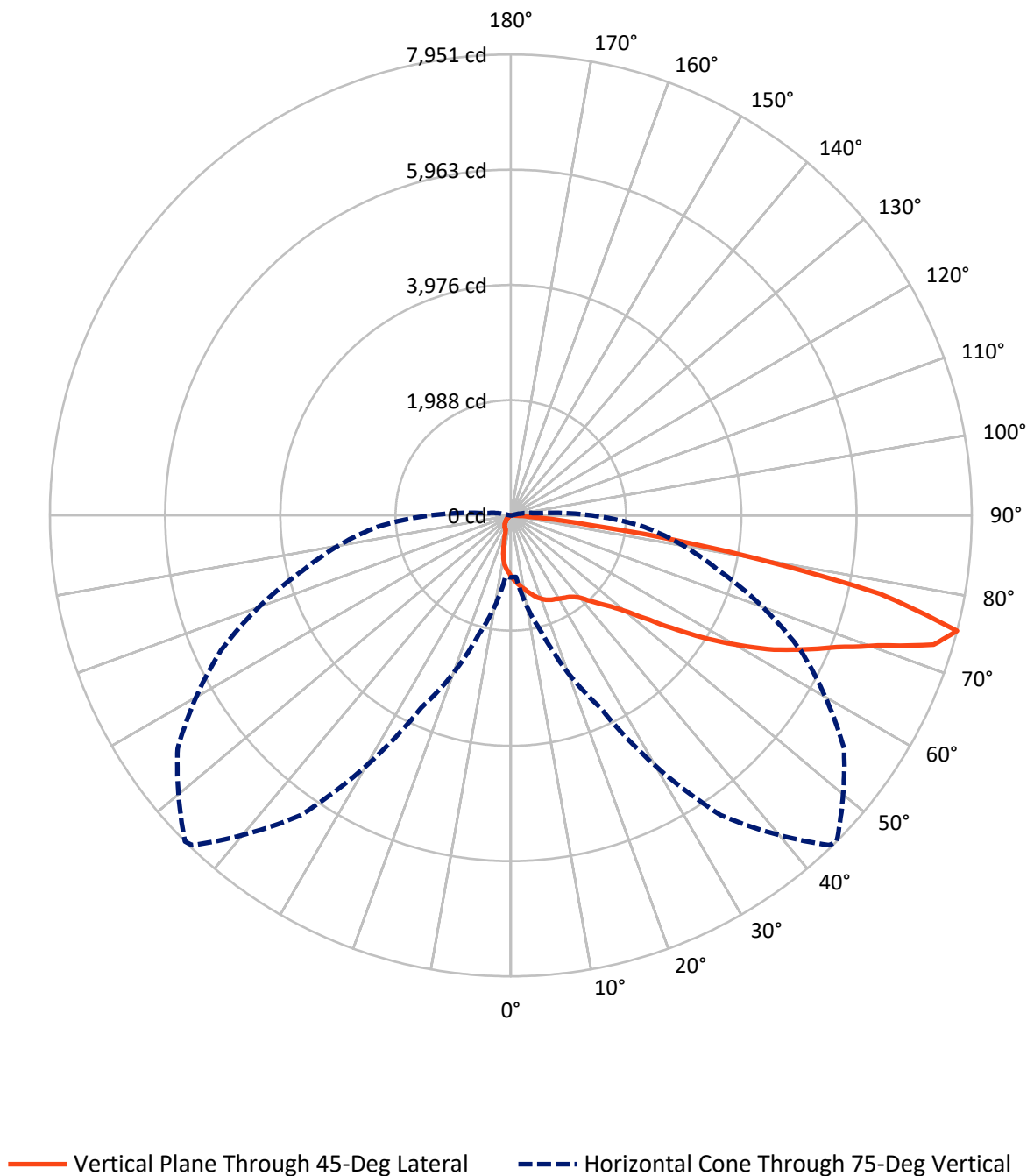


Based on 10 foot mounting height. Maximum calculated value = 14.1 fc
Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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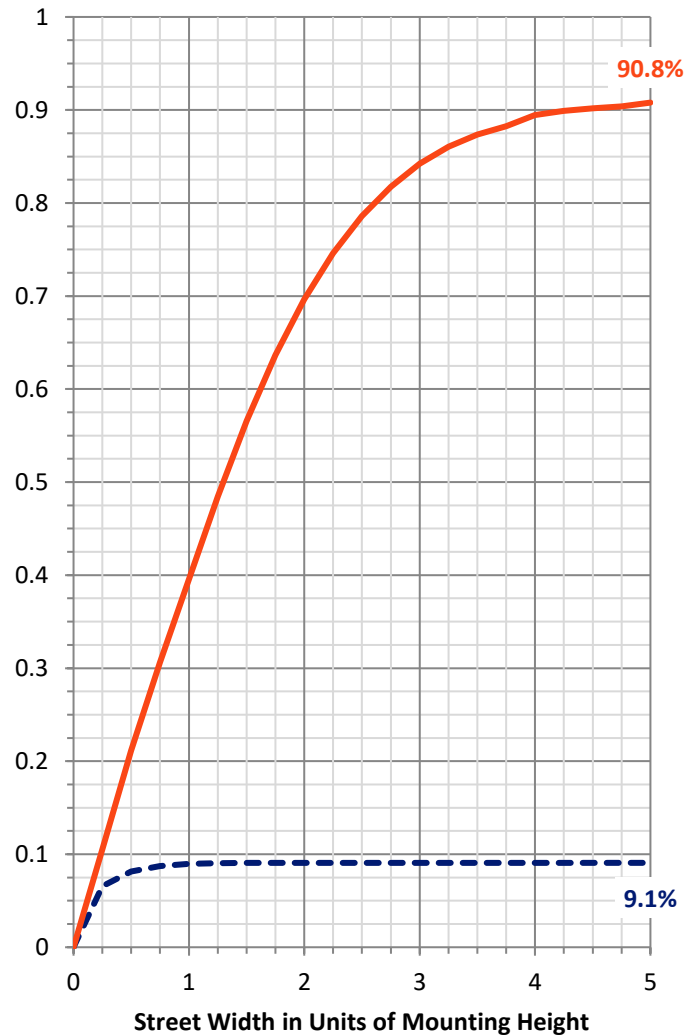
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	904.5	0.0	904.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	8984.5	0.0	8984.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	9889.0	0.0	9889.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.8	1.0
10°-20°	282.8	2.9
20°-30°	468.3	4.7
30°-40°	677.8	6.9
40°-50°	1109.9	11.2
50°-60°	1977.6	20.0
60°-70°	2907.3	29.4
70°-80°	2193.3	22.2
80°-90°	172.1	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°	9889.0	100.0
0°-180°	9889.0	100.0

Coefficient of Utilization



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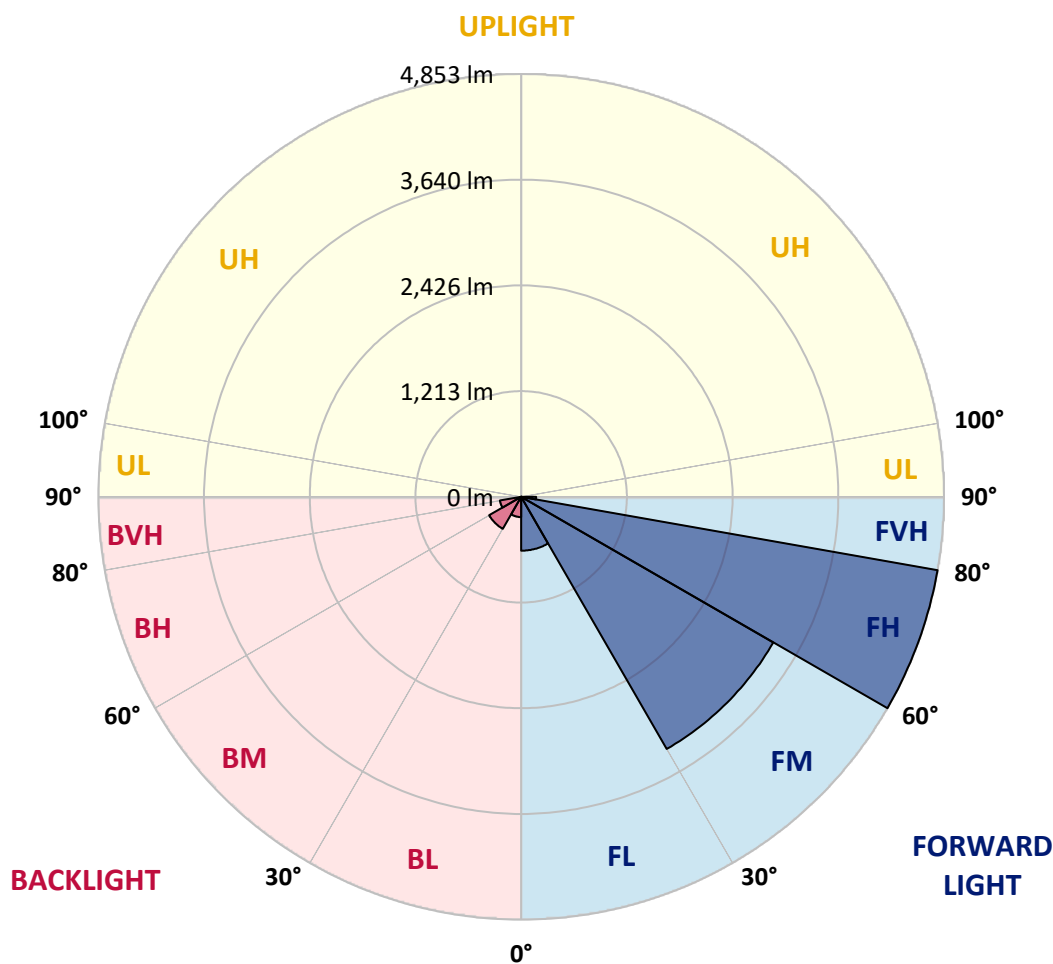
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	618.5	6.3			
FM	(30°-60°)	3341.4	33.8			
FH	(60°-80°)	4852.9	49.1			G2/5000
FVH	(80°-90°)	171.6	1.7			G2/225
BL	(0°-30°)	232.4	2.4	B1/500		
BM	(30°-60°)	423.9	4.3	B1/1000		
BH	(60°-80°)	247.7	2.5	B1/500		G1/500
BVH	(80°-90°)	0.5	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°	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7
2.5°	1148.9	1148.9	1146.6	1144.3	1132.6	1120.9	1118.5	1111.5	1090.4	1076.4	1062.4
5°	1244.9	1247.2	1242.5	1230.8	1205.1	1179.4	1177.0	1158.3	1118.5	1090.4	1060.0
7.5°	1336.1	1340.8	1329.1	1308.1	1277.6	1240.2	1237.9	1202.8	1151.3	1111.5	1067.0
10°	1413.4	1413.4	1397.0	1371.2	1338.5	1298.7	1294.0	1254.2	1195.7	1146.6	1088.1
12.5°	1497.6	1495.3	1471.9	1436.8	1399.3	1361.9	1359.5	1310.4	1254.2	1191.1	1118.5
15°	1574.8	1570.1	1539.7	1507.0	1467.2	1427.4	1425.1	1375.9	1317.4	1242.5	1163.0
17.5°	1616.9	1614.6	1586.5	1553.8	1521.0	1490.6	1488.2	1436.8	1373.6	1296.4	1207.4
20°	1624.0	1626.3	1602.9	1574.8	1556.1	1539.7	1539.7	1492.9	1425.1	1343.2	1254.2
22.5°	1626.3	1633.3	1616.9	1579.5	1574.8	1577.2	1581.8	1544.4	1474.2	1397.0	1303.4
25°	1642.7	1652.0	1640.3	1595.9	1591.2	1607.6	1612.3	1595.9	1532.7	1455.5	1359.5
27.5°	1675.4	1684.8	1675.4	1619.3	1612.3	1628.6	1633.3	1642.7	1595.9	1511.6	1418.0
30°	1741.0	1743.3	1722.2	1652.0	1638.0	1659.1	1666.1	1691.8	1654.4	1565.5	1474.2
32.5°	1855.6	1832.2	1769.0	1675.4	1663.7	1687.1	1694.2	1722.2	1708.2	1616.9	1532.7
35°	2089.6	1967.9	1822.9	1708.2	1696.5	1719.9	1729.3	1769.0	1776.1	1689.5	1605.2
37.5°	2087.3	1977.3	1949.2	1771.4	1755.0	1771.4	1783.1	1832.2	1860.3	1785.4	1710.5
40°	2234.7	2187.9	2187.9	1890.7	1836.9	1860.3	1872.0	1921.1	1970.3	1911.8	1834.6
42.5°	2698.0	2667.6	2634.8	2120.0	1951.6	2017.1	2024.1	2054.5	2113.0	2094.3	2003.0
45°	3215.2	3187.1	3060.7	2508.5	2148.1	2159.8	2176.2	2225.3	2309.6	2344.7	2237.0
47.5°	3620.0	3591.9	3484.3	2976.5	2454.7	2351.7	2351.7	2447.6	2578.7	2667.6	2564.6
50°	3945.2	3912.5	3847.0	3474.9	2957.8	2627.8	2613.8	2726.1	2920.3	3058.4	2988.2
52.5°	4261.1	4165.2	4125.4	3989.7	3526.4	3028.0	2990.5	3070.1	3339.2	3510.0	3451.5
55°	4471.7	4457.7	4415.6	4462.4	4123.1	3514.7	3481.9	3498.3	3835.3	3949.9	3877.4
57.5°	4668.3	4666.0	4759.6	4977.2	4773.6	4071.6	4020.1	3994.4	4315.0	4286.9	4350.1
60°	4911.7	4869.5	5087.2	5398.4	5370.3	4614.5	4556.0	4504.5	4682.3	4602.8	4916.3
62.5°	4923.4	4911.7	5353.9	5800.9	5962.3	5166.7	5098.9	4914.0	5002.9	4911.7	5456.9
65°	4476.4	4534.9	5466.3	6013.8	6458.4	5651.1	5569.2	5281.4	5288.4	5227.6	6093.4
67.5°	4375.8	4406.2	5157.4	6243.1	6816.4	6140.2	6063.0	5704.9	5620.7	5625.4	6470.1
70°	4125.4	4172.2	4773.6	6226.8	7099.6	6793.0	6715.8	6327.4	6123.8	5896.8	6180.0
72.5°	3152.0	3231.5	4022.5	5459.2	7022.4	7647.1	7626.1	7116.0	6325.0	5414.8	4675.3
75°	1067.0	1064.7	2113.0	3666.8	6308.7	7909.2	7951.3	7017.7	5517.7	3734.6	2321.3
77.5°	229.3	231.7	435.2	1485.9	4190.9	6350.8	6512.2	5293.1	3559.1	1663.7	531.2
80°	112.3	114.7	180.2	393.1	1675.4	3561.5	3814.2	2721.4	1315.1	332.3	88.9
82.5°	56.2	58.5	93.6	208.3	620.1	1265.9	1352.5	1001.5	376.7	187.2	44.5
85°	21.1	21.1	46.8	124.0	283.1	297.2	365.0	290.2	227.0	152.1	11.7
87.5°	4.7	4.7	25.7	60.8	126.4	93.6	93.6	88.9	138.1	103.0	4.7
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°	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7	1057.7
2.5°	1055.3	1046.0	1029.6	1013.2	1001.5	987.5	980.5	973.4	971.1	968.8	973.4
5°	1043.6	1029.6	999.2	973.4	950.0	931.3	917.3	903.2	896.2	891.5	893.9
7.5°	1043.6	1022.6	978.1	938.3	900.9	861.1	821.3	790.9	767.5	753.5	755.8
10°	1055.3	1027.3	968.8	914.9	844.7	760.5	673.9	608.4	563.9	538.2	538.2
12.5°	1081.1	1043.6	971.1	886.9	767.5	620.1	489.1	409.5	376.7	358.0	360.4
15°	1116.2	1071.7	982.8	849.4	659.9	461.0	341.6	290.2	290.2	294.8	297.2
17.5°	1156.0	1106.8	992.2	793.3	521.8	329.9	269.1	264.4	271.4	283.1	283.1
20°	1195.7	1141.9	996.8	704.3	390.8	262.1	255.1	255.1	259.7	271.4	273.8
22.5°	1244.9	1186.4	992.2	594.4	292.5	248.0	245.7	245.7	245.7	259.7	259.7
25°	1296.4	1237.9	973.4	477.4	248.0	238.7	236.3	234.0	234.0	245.7	248.0
27.5°	1354.9	1291.7	929.0	365.0	234.0	229.3	227.0	222.3	222.3	231.7	231.7
30°	1413.4	1352.5	861.1	276.1	222.3	220.0	215.3	210.6	205.9	215.3	215.3
32.5°	1476.5	1415.7	772.2	220.0	205.9	205.9	203.6	196.6	191.9	196.6	198.9
35°	1560.8	1488.2	671.6	191.9	184.9	184.9	184.9	182.5	173.2	177.8	177.8
37.5°	1673.1	1588.9	554.6	177.8	168.5	163.8	163.8	163.8	156.8	159.1	159.1
40°	1815.8	1705.9	442.3	166.1	156.8	145.1	140.4	142.7	138.1	138.1	135.7
42.5°	2010.1	1832.2	332.3	156.8	147.4	131.0	121.7	119.3	114.7	112.3	112.3
45°	2288.5	1986.7	238.7	147.4	140.4	114.7	105.3	98.3	86.6	79.6	79.6
47.5°	2648.9	2162.2	177.8	138.1	133.4	100.6	88.9	74.9	58.5	53.8	53.8
50°	3088.8	2358.7	149.8	124.0	121.7	88.9	70.2	49.1	32.8	28.1	30.4
52.5°	3517.0	2543.6	133.4	110.0	107.6	77.2	51.5	25.7	14.0	14.0	14.0
55°	3877.4	2674.6	121.7	98.3	93.6	60.8	28.1	11.7	7.0	7.0	7.0
57.5°	4202.6	2749.5	110.0	86.6	74.9	42.1	11.7	4.7	4.7	2.3	2.3
60°	4499.8	2794.0	95.9	74.9	58.5	23.4	4.7	2.3	2.3	0.0	0.0
62.5°	4792.3	2826.7	81.9	60.8	44.5	9.4	2.3	2.3	0.0	0.0	0.0
65°	5014.6	2815.0	65.5	49.1	28.1	4.7	2.3	0.0	0.0	0.0	0.0
67.5°	5007.6	2655.9	49.1	37.4	14.0	2.3	0.0	0.0	0.0	0.0	0.0
70°	4478.8	2237.0	32.8	23.4	4.7	2.3	0.0	0.0	0.0	0.0	0.0
72.5°	3177.7	1434.4	21.1	14.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	1399.3	435.2	11.7	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	273.8	100.6	7.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	65.5	11.7	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	28.1	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.7	2.3	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)