

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: P258185

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258185  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-120-D-U-T2U-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10292.2 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 122  
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

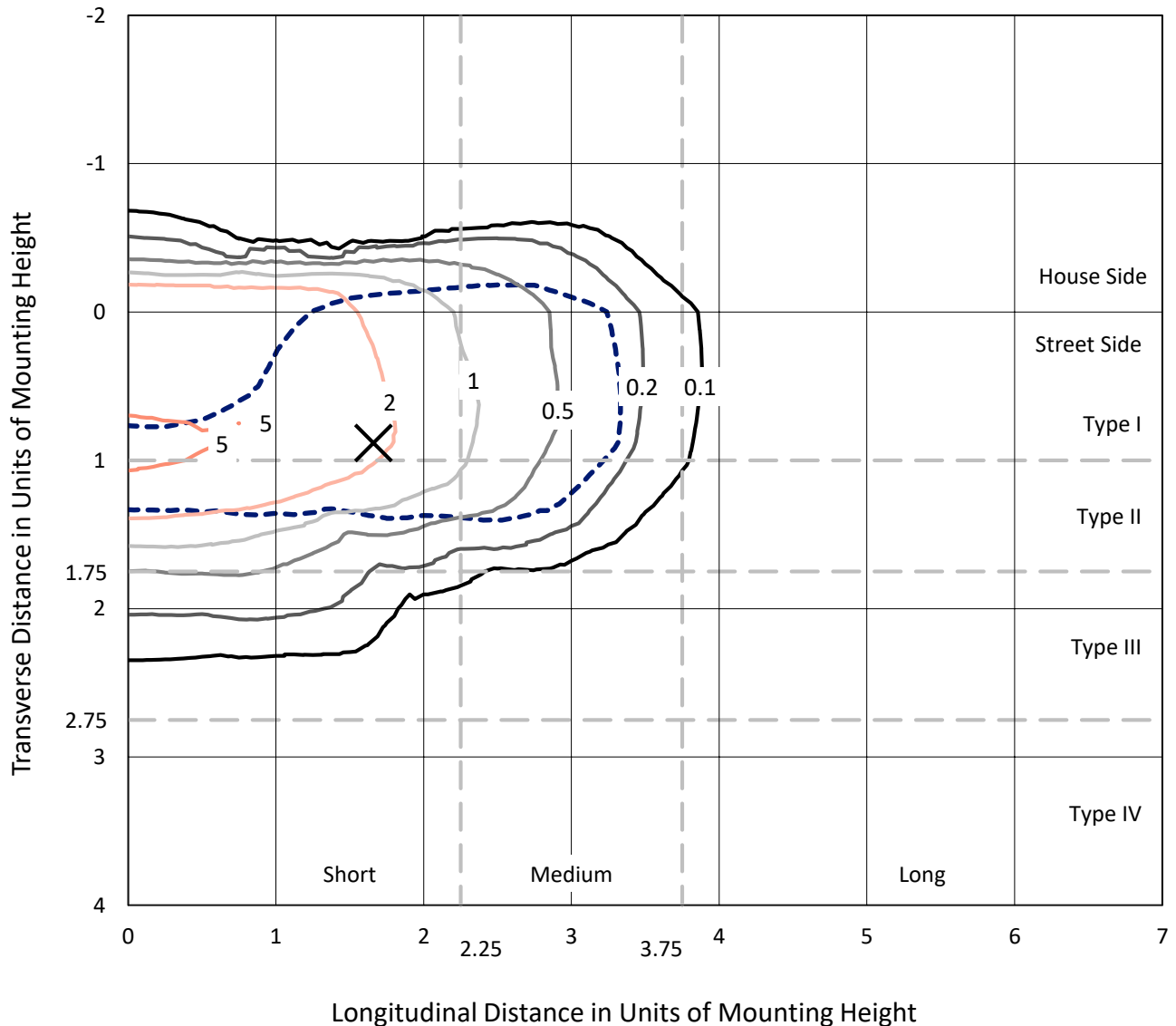


REPORT NUMBER: P258185

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7030-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

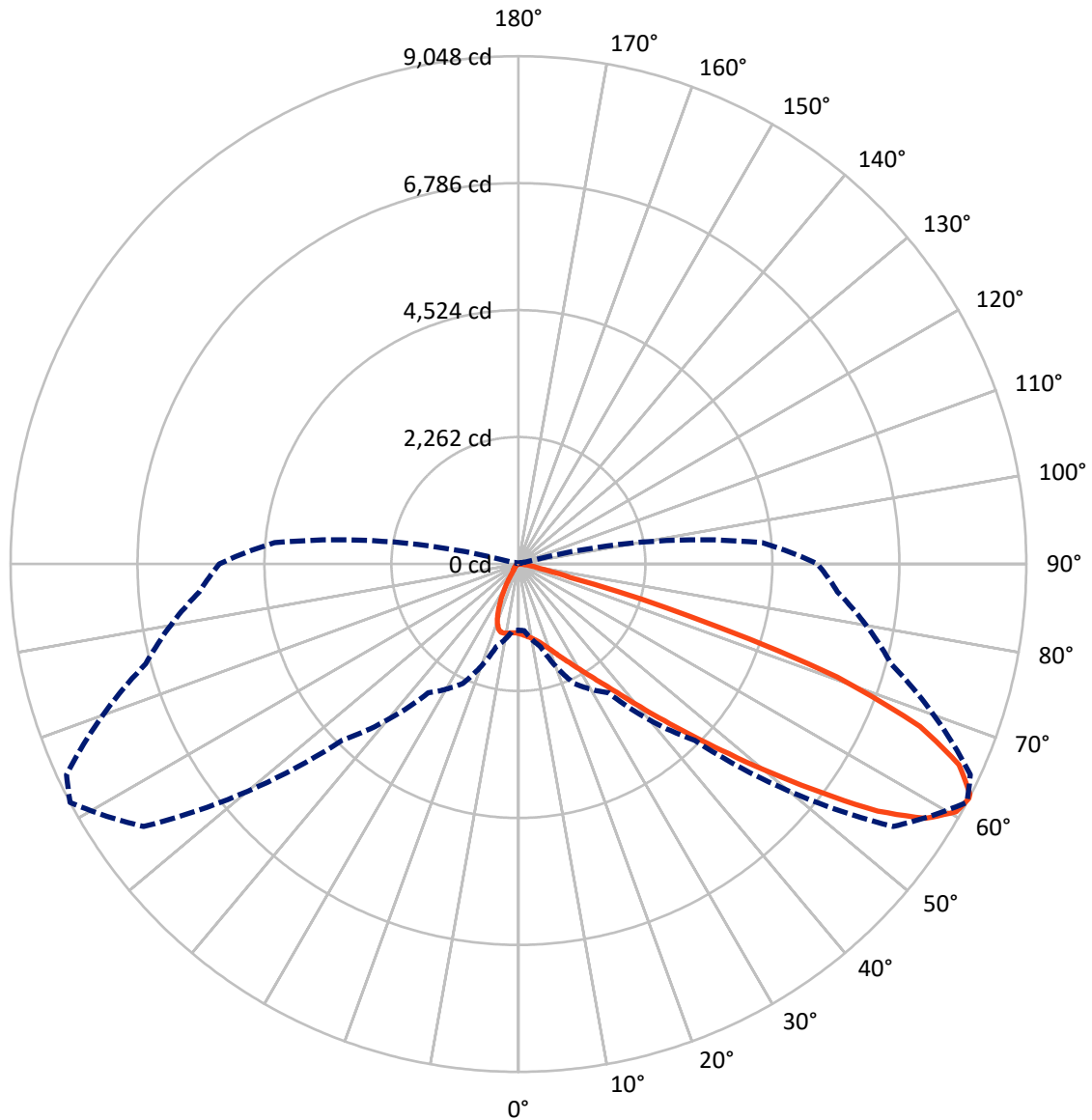


Based on 20 foot mounting height. Maximum calculated value = 5.9 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P258185

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7030-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral    - - - Horizontal Cone Through 62-Deg Vertical

REPORT NUMBER: P258185

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7030-HSS

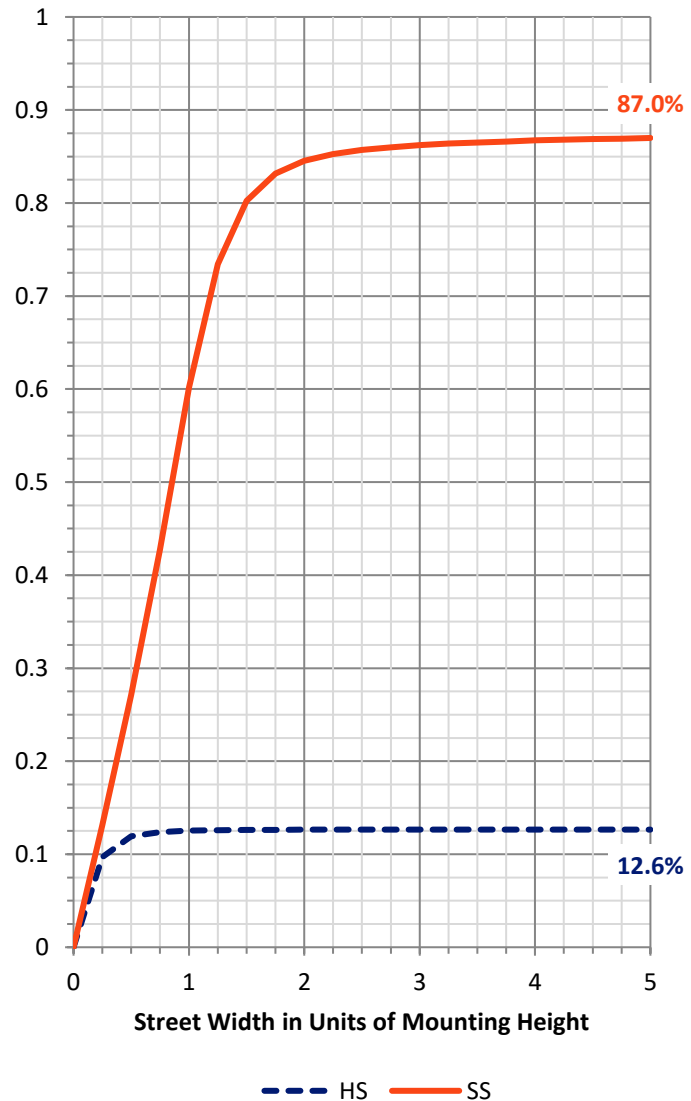
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1316.0	0.0	1316.0
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	8976.2	0.0	8976.2
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	10292.2	0.0	10292.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.3	1.2
10°-20°	333.2	3.2
20°-30°	559.6	5.4
30°-40°	1072.7	10.4
40°-50°	2190.9	21.3
50°-60°	2899.4	28.2
60°-70°	2252.3	21.9
70°-80°	813.0	7.9
80°-90°	51.8	0.5
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°	10292.2	100.0
0°-180°	10292.2	100.0



REPORT NUMBER: P258185

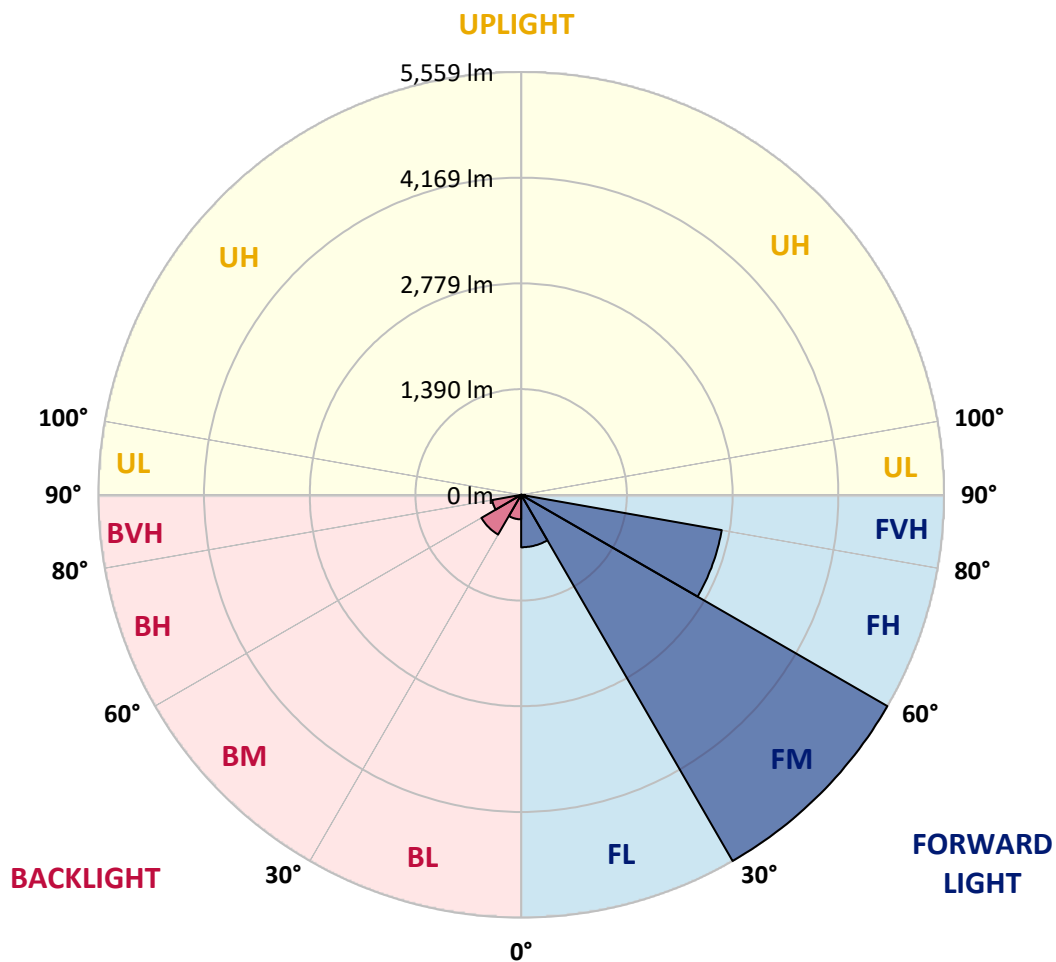
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	690.0	6.7			
FM (30°-60°)	5558.9	54.0			
FH (60°-80°)	2677.8	26.0			G2/5000
FVH (80°-90°)	49.6	0.5			G1/100
BL (0°-30°)	322.1	3.1	B1/500		
BM (30°-60°)	604.1	5.9	B1/1000		
BH (60°-80°)	387.5	3.8	B1/500		G1/500
BVH (80°-90°)	2.2	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 Short





REPORT NUMBER: P258185

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9
2.5°	1272.8	1270.2	1267.6	1265.1	1265.1	1262.6	1260.1	1255.1	1249.9	1244.9	1242.4
5°	1295.5	1293.0	1290.5	1293.0	1290.5	1290.5	1287.9	1282.8	1277.8	1270.2	1262.6
7.5°	1313.2	1310.7	1308.2	1310.7	1313.2	1315.7	1318.3	1313.2	1310.7	1300.5	1293.0
10°	1336.0	1333.4	1330.9	1336.0	1336.0	1348.6	1351.2	1348.6	1346.1	1338.5	1325.9
12.5°	1368.9	1371.4	1371.4	1376.4	1381.5	1396.7	1401.8	1394.1	1394.1	1384.1	1368.9
15°	1429.5	1429.5	1429.5	1434.7	1437.2	1457.4	1462.6	1454.9	1459.9	1442.2	1427.0
17.5°	1487.8	1490.3	1495.4	1505.5	1505.5	1523.2	1533.4	1533.4	1543.5	1520.7	1500.4
20°	1546.0	1548.5	1556.1	1578.9	1578.9	1601.6	1619.3	1627.0	1637.0	1614.3	1578.9
22.5°	1609.3	1609.3	1622.0	1657.4	1649.7	1695.2	1728.2	1740.8	1751.0	1720.7	1664.9
25°	1705.4	1695.2	1705.4	1738.4	1733.3	1796.4	1857.2	1869.9	1882.5	1847.1	1763.6
27.5°	1887.6	1872.3	1836.9	1839.5	1839.5	1912.9	1998.9	2016.6	2024.2	1993.9	1890.0
30°	2252.0	2252.0	2120.4	2031.7	1973.7	2039.5	2160.8	2191.2	2201.3	2155.8	2019.1
32.5°	2887.0	2887.0	2644.2	2418.9	2198.9	2198.9	2337.9	2393.7	2403.7	2350.6	2191.2
35°	3696.7	3691.7	3327.3	3018.7	2588.5	2426.5	2545.4	2639.0	2669.4	2598.6	2413.9
37.5°	4556.9	4524.1	4131.9	3777.6	3188.1	2790.9	2826.3	2950.3	2978.1	2920.0	2702.3
40°	5255.4	5217.4	4901.2	4605.1	3962.4	3372.9	3231.2	3345.0	3377.9	3296.9	3046.4
42.5°	5888.0	5794.3	5576.7	5364.2	4853.1	4379.8	3770.1	3815.7	3851.1	3765.1	3433.6
45°	6345.9	6201.7	6090.3	6024.5	5753.8	5485.6	4468.4	4377.4	4390.0	4283.7	3856.1
47.5°	6358.6	6257.4	6267.4	6439.5	6550.8	6540.7	5376.8	5052.9	5004.8	4827.7	4306.6
50°	5751.3	5809.6	5994.2	6485.1	7087.3	7451.6	6457.2	5852.5	5708.2	5389.4	4754.4
52.5°	4739.2	4830.3	5176.9	6004.4	7165.8	8051.4	7578.1	6766.0	6507.8	5946.1	5098.5
55°	3711.9	3717.0	4081.4	4923.9	6642.0	8160.1	8473.8	7770.4	7375.8	6368.7	5326.2
57.5°	2553.1	2692.2	3155.3	3722.0	5460.3	7618.6	8810.4	8549.7	8041.2	6629.3	5485.6
60°	1672.5	1680.1	2219.0	2874.4	3717.0	6199.2	8605.5	8962.2	8580.1	6783.7	5594.4
62°	1179.1	1191.8	1525.8	2348.1	2801.0	4443.1	8152.5	9048.2	8883.8	6874.7	5708.2
62.5°	1093.0	1103.2	1384.1	2216.6	2631.5	3985.1	7990.5	9028.0	8929.3	6905.0	5748.7
65°	802.1	802.1	905.9	1523.2	1928.1	2153.3	6771.1	8625.7	8868.6	7148.0	5900.5
67.5°	619.9	625.0	660.4	938.7	1454.9	1305.6	4321.8	7719.8	8236.1	7507.3	5986.7
70°	533.8	531.3	556.6	622.4	1050.1	867.8	1902.7	6024.5	6897.5	7416.2	5908.2
72.5°	394.8	397.2	455.5	546.6	731.3	564.3	860.3	3198.2	4473.5	5804.4	5063.1
75°	253.1	255.5	321.3	430.2	526.3	369.4	495.9	954.0	1832.0	3218.4	3097.1
77.5°	169.6	174.6	210.0	301.1	460.5	230.2	311.2	399.8	551.6	1207.0	1110.8
80°	113.8	113.8	134.1	202.4	290.9	192.3	166.9	265.7	285.9	374.4	187.3
82.5°	75.9	75.9	88.6	134.1	189.8	172.1	101.2	144.2	166.9	187.3	65.8
85°	45.6	45.6	60.7	83.5	124.0	96.1	65.8	81.0	86.0	118.9	35.4
87.5°	27.9	25.3	40.5	58.2	65.8	58.2	43.0	43.0	45.6	65.8	17.7
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°	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9	1239.9
2.5°	1237.3	1234.7	1232.2	1227.2	1219.6	1214.5	1209.5	1204.4	1199.3	1199.3	1207.0
5°	1260.1	1252.4	1242.4	1232.2	1217.0	1207.0	1199.3	1189.2	1184.2	1184.2	1186.7
7.5°	1287.9	1280.3	1262.6	1244.9	1222.2	1204.4	1186.7	1163.9	1146.2	1138.6	1146.2
10°	1318.3	1308.2	1282.8	1255.1	1229.7	1184.2	1125.9	1055.1	994.4	966.6	979.2
12.5°	1356.2	1343.6	1313.2	1275.3	1217.0	1105.7	961.5	797.0	693.2	645.1	655.3
15°	1411.8	1394.1	1351.2	1293.0	1163.9	923.6	688.3	498.4	402.3	361.8	366.9
17.5°	1477.7	1454.9	1396.7	1287.9	1027.2	665.5	409.9	290.9	250.5	240.4	240.4
20°	1548.5	1518.1	1442.2	1249.9	819.8	417.5	255.5	222.7	207.5	200.0	200.0
22.5°	1622.0	1581.4	1480.3	1161.4	584.5	260.6	210.0	187.3	169.6	161.9	161.9
25°	1710.5	1657.4	1518.1	1007.1	371.9	210.0	179.6	156.9	139.2	129.0	131.5
27.5°	1814.2	1745.9	1551.1	814.7	240.4	182.1	149.2	126.5	111.3	106.3	106.3
30°	1923.0	1842.0	1558.7	609.7	194.8	156.9	124.0	103.7	93.6	88.6	88.6
32.5°	2072.3	1966.0	1535.8	404.8	164.4	131.5	103.7	86.0	78.4	75.9	75.9
35°	2269.7	2128.0	1482.7	250.5	139.2	108.8	86.0	75.9	68.3	65.8	65.8
37.5°	2520.2	2353.1	1389.1	172.1	118.9	88.6	73.4	65.8	60.7	58.2	58.2
40°	2854.2	2626.4	1267.6	149.2	101.2	75.9	63.3	58.2	53.1	53.1	53.1
42.5°	3208.4	2957.8	1110.8	131.5	86.0	65.8	55.6	50.6	48.1	45.6	45.6
45°	3595.5	3296.9	915.9	116.4	73.4	58.2	50.6	43.0	40.5	40.5	40.5
47.5°	3980.1	3646.1	703.4	101.2	63.3	50.6	43.0	37.9	35.4	32.9	32.9
50°	4374.8	3962.4	516.1	88.6	55.6	45.6	37.9	32.9	27.9	25.3	25.3
52.5°	4660.8	4152.2	377.1	75.9	48.1	37.9	30.4	25.3	20.2	17.7	17.7
55°	4870.8	4268.5	275.8	63.3	43.0	32.9	25.3	20.2	15.2	15.2	12.7
57.5°	5035.2	4324.3	207.5	55.6	37.9	27.9	20.2	15.2	12.7	10.2	10.2
60°	5161.7	4326.7	154.4	45.6	32.9	22.7	15.2	10.2	7.5	7.5	7.5
62°	5328.8	4359.7	126.5	37.9	30.4	20.2	12.7	7.5	5.0	2.5	2.5
62.5°	5376.8	4372.3	121.5	37.9	27.9	17.7	10.2	7.5	5.0	2.5	2.5
65°	5599.5	4395.1	93.6	30.4	22.7	15.2	7.5	5.0	0.0	0.0	0.0
67.5°	5801.8	4359.7	68.3	22.7	17.7	10.2	7.5	2.5	0.0	0.0	0.0
70°	5781.7	4116.8	48.1	15.2	12.7	7.5	5.0	0.0	0.0	0.0	0.0
72.5°	4764.5	3081.8	32.9	12.7	7.5	5.0	2.5	0.0	0.0	0.0	0.0
75°	2876.9	1348.6	22.7	7.5	7.5	5.0	2.5	0.0	0.0	0.0	0.0
77.5°	943.8	488.4	15.2	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0
80°	154.4	81.0	7.5	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0
82.5°	48.1	20.2	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
85°	17.7	7.5	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
87.5°	7.5	5.0	5.0	5.0	2.5	2.5	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)