

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: P257854

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257854  
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-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 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: 10886.2 lumens  
Efficiency: N/A  
Efficacy: 89.2 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

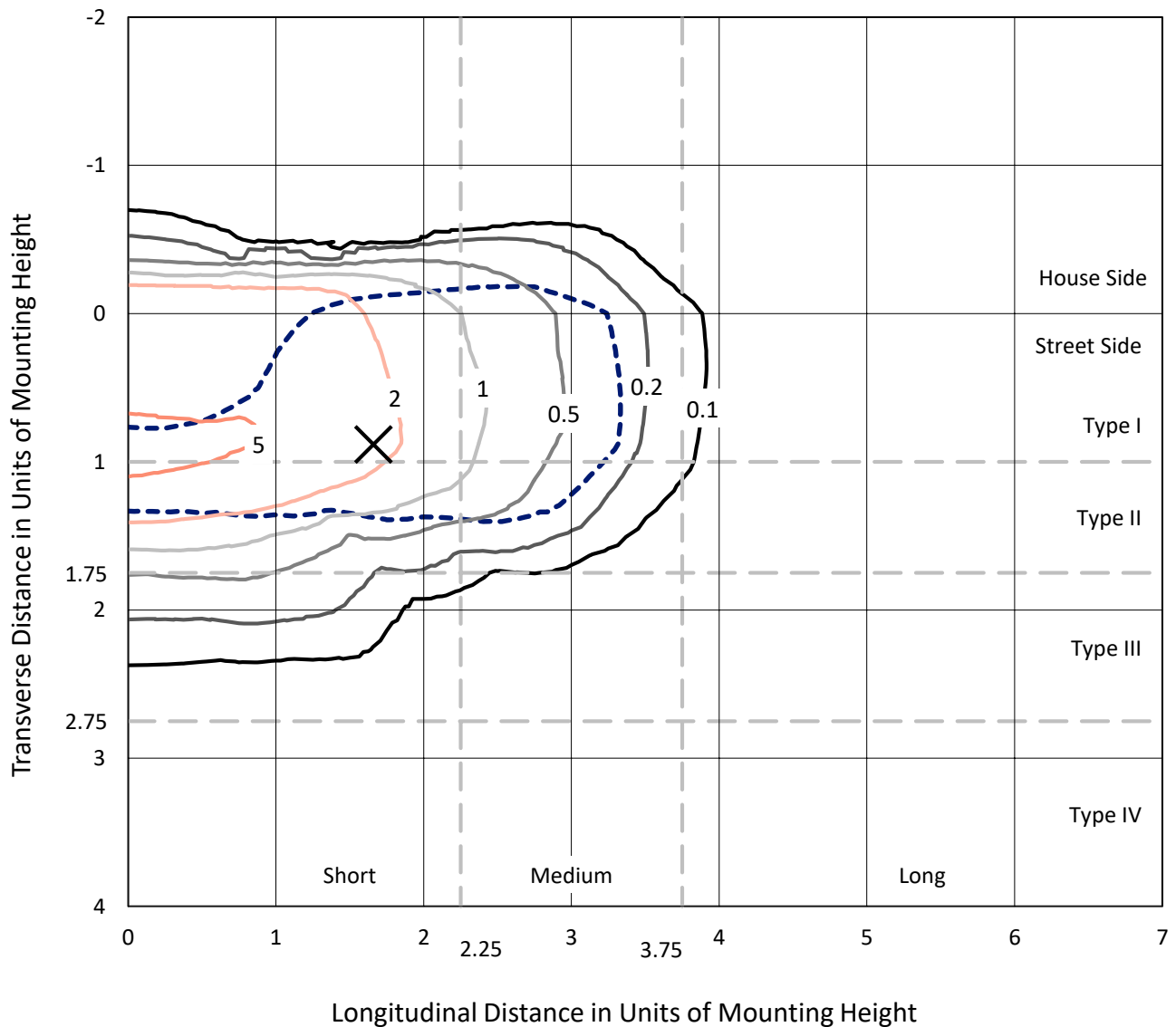


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

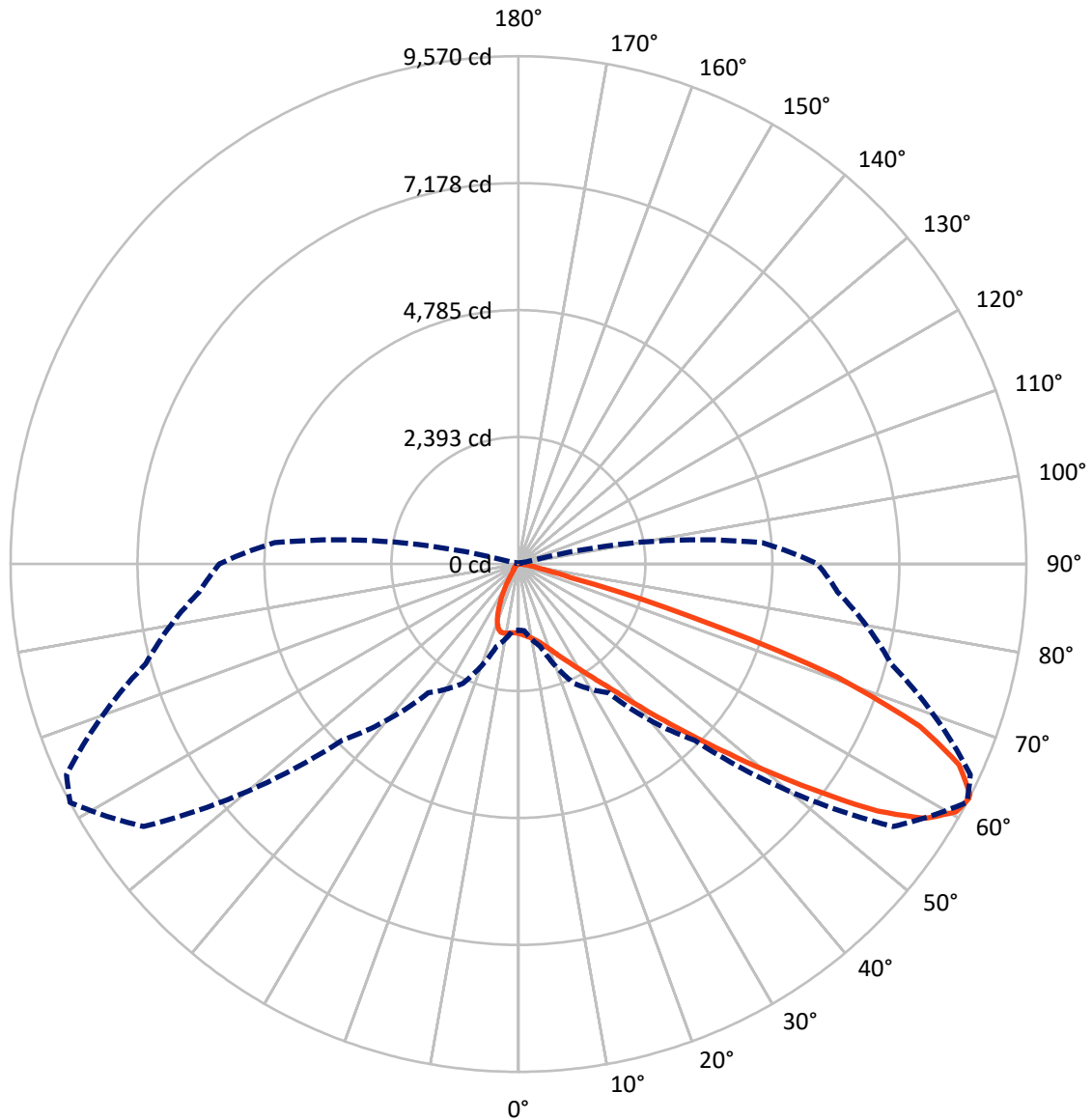


Based on 20 foot mounting height. Maximum calculated value = 6.3 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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



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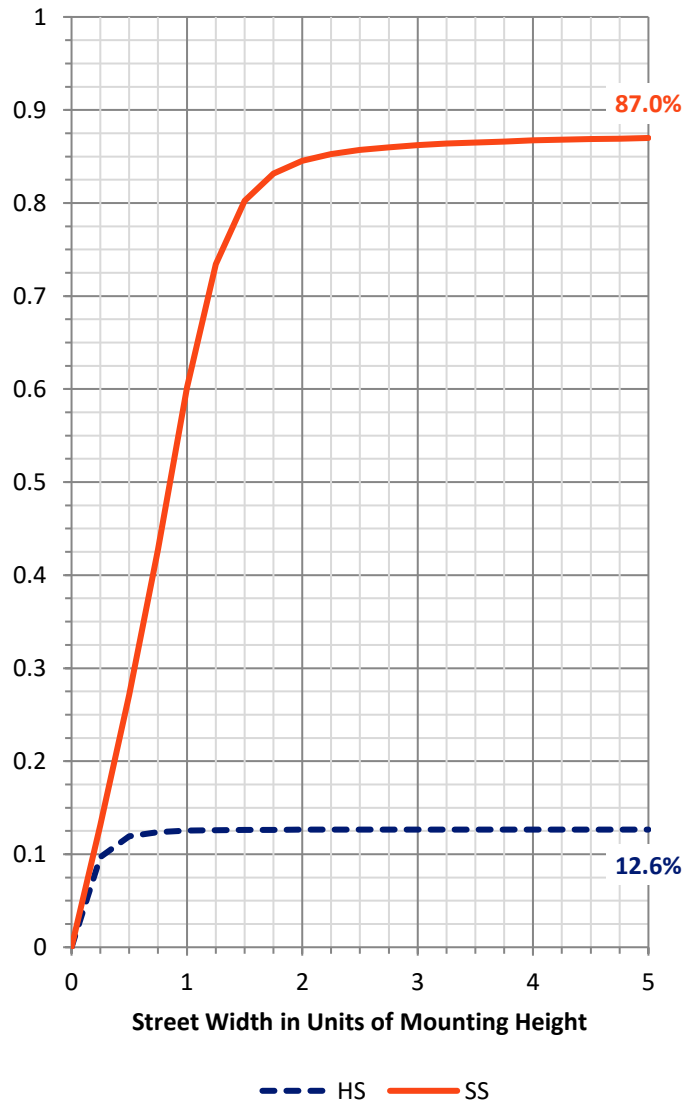
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1391.9	0.0	1391.9
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	9494.3	0.0	9494.3
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	10886.2	0.0	10886.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.2	1.2
10°-20°	352.4	3.2
20°-30°	591.9	5.4
30°-40°	1134.6	10.4
40°-50°	2317.4	21.3
50°-60°	3066.7	28.2
60°-70°	2382.3	21.9
70°-80°	859.9	7.9
80°-90°	54.8	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°	10886.2	100.0
0°-180°	10886.2	100.0

**Coefficient of Utilization**



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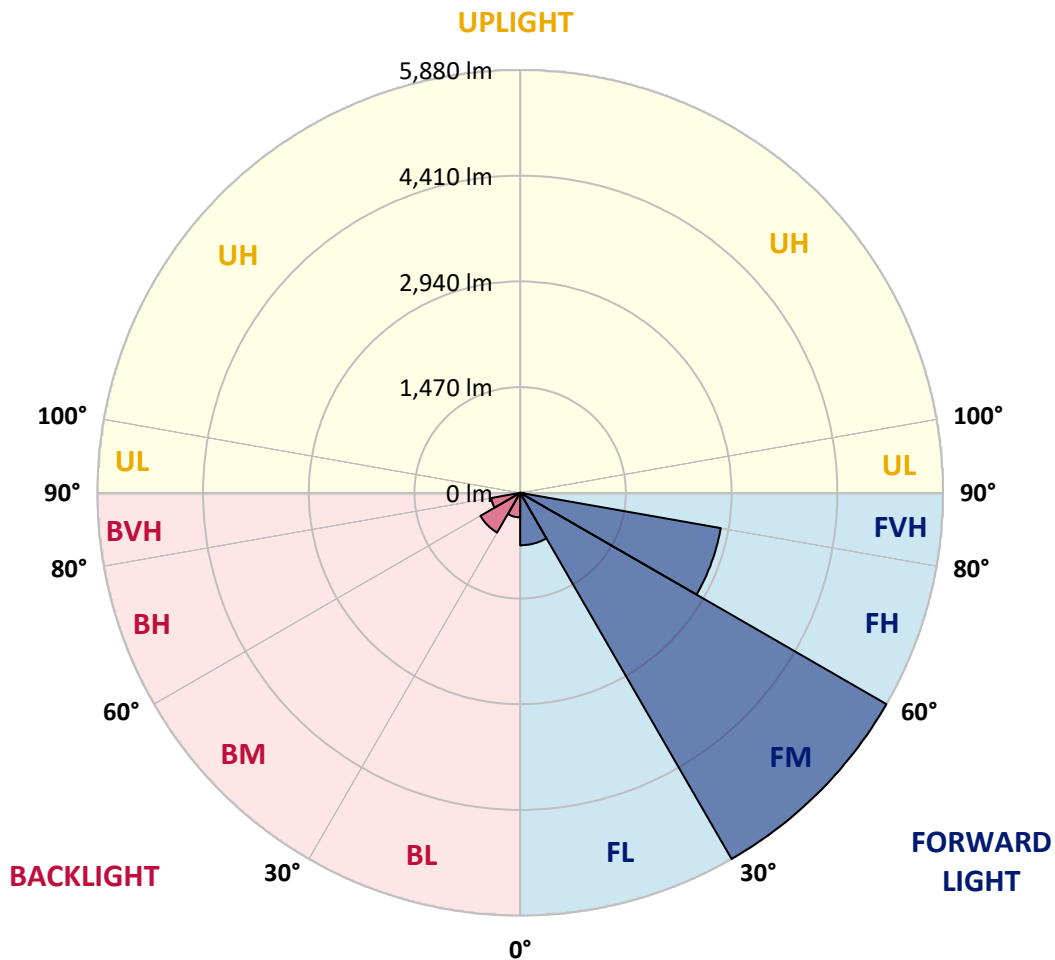
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	729.8	6.7			
FM	(30°-60°)	5879.7	54.0			
FH	(60°-80°)	2832.4	26.0			G2/5000
FVH	(80°-90°)	52.4	0.5			G1/100
BL	(0°-30°)	340.7	3.1	B1/500		
BM	(30°-60°)	639.0	5.9	B1/1000		
BH	(60°-80°)	409.9	3.8	B1/500		G1/500
BVH	(80°-90°)	2.4	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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4
2.5°	1346.2	1343.5	1340.8	1338.1	1338.1	1335.5	1332.8	1327.5	1322.1	1316.7	1314.1
5°	1370.2	1367.6	1364.9	1367.6	1364.9	1364.9	1362.3	1356.8	1351.5	1343.5	1335.5
7.5°	1389.0	1386.3	1383.6	1386.3	1389.0	1391.7	1394.4	1389.0	1386.3	1375.7	1367.6
10°	1413.1	1410.4	1407.8	1413.1	1413.1	1426.5	1429.2	1426.5	1423.8	1415.8	1402.4
12.5°	1447.9	1450.5	1450.5	1455.9	1461.3	1477.3	1482.7	1474.7	1474.7	1463.9	1447.9
15°	1512.1	1512.1	1512.1	1517.4	1520.1	1541.6	1546.9	1538.8	1544.2	1525.5	1509.5
17.5°	1573.7	1576.4	1581.7	1592.4	1592.4	1611.1	1621.9	1621.9	1632.5	1608.5	1587.0
20°	1635.2	1637.9	1645.9	1670.0	1670.0	1694.1	1712.8	1720.9	1731.5	1707.5	1670.0
22.5°	1702.1	1702.1	1715.5	1753.0	1744.9	1793.1	1827.9	1841.3	1852.1	1819.9	1761.0
25°	1803.9	1793.1	1803.9	1838.7	1833.2	1900.1	1964.4	1977.8	1991.2	1953.7	1865.4
27.5°	1996.5	1980.4	1943.0	1945.7	1945.7	2023.3	2114.2	2133.1	2141.0	2108.9	1999.2
30°	2381.9	2381.9	2242.7	2149.1	2087.5	2157.1	2285.6	2317.7	2328.3	2280.3	2135.7
32.5°	3053.7	3053.7	2796.7	2558.5	2325.7	2325.7	2472.9	2531.8	2542.4	2486.3	2317.7
35°	3910.1	3904.7	3519.4	3192.8	2737.8	2566.6	2692.4	2791.4	2823.5	2748.6	2553.2
37.5°	4820.0	4785.3	4370.5	3995.7	3372.2	2951.9	2989.5	3120.6	3150.0	3088.5	2858.3
40°	5558.7	5518.5	5184.0	4870.9	4191.1	3567.5	3417.7	3538.1	3572.9	3487.2	3222.3
42.5°	6227.7	6128.7	5898.5	5673.8	5133.2	4632.6	3987.7	4035.8	4073.3	3982.3	3631.8
45°	6712.2	6559.7	6441.8	6372.3	6085.9	5802.3	4726.3	4630.0	4643.4	4531.0	4078.7
47.5°	6725.6	6618.5	6629.2	6811.2	6929.0	6918.2	5687.2	5344.6	5293.8	5106.4	4555.1
50°	6083.3	6144.8	6340.1	6859.4	7496.3	7881.7	6829.9	6190.3	6037.8	5700.5	5028.8
52.5°	5012.8	5109.0	5475.8	6350.9	7579.2	8516.0	8015.5	7156.5	6883.4	6289.3	5392.8
55°	3926.2	3931.5	4316.9	5208.0	7025.3	8631.0	8963.0	8218.9	7801.4	6736.2	5633.6
57.5°	2700.4	2847.6	3337.4	3936.8	5775.5	8058.4	9318.9	9043.2	8505.3	7011.9	5802.3
60°	1769.0	1777.1	2347.2	3040.3	3931.5	6556.9	9102.1	9479.5	9075.3	7175.2	5917.4
62°	1247.2	1260.6	1613.8	2483.6	2962.7	4699.6	8623.1	9570.4	9396.5	7271.5	6037.8
62.5°	1156.1	1166.9	1463.9	2344.4	2783.3	4215.2	8451.8	9549.0	9444.7	7303.7	6080.5
65°	848.4	848.4	958.1	1611.1	2039.4	2277.5	7161.8	9123.5	9380.5	7560.5	6241.1
67.5°	655.7	661.0	698.5	992.9	1538.8	1381.0	4571.2	8165.4	8711.3	7940.6	6332.2
70°	564.7	562.0	588.8	658.4	1110.6	918.0	2012.6	6372.3	7295.6	7844.3	6249.2
72.5°	417.5	420.2	481.7	578.1	773.5	596.8	909.9	3382.9	4731.7	6139.4	5355.2
75°	267.6	270.3	339.9	455.0	556.7	390.8	524.6	1008.9	1937.7	3404.3	3275.8
77.5°	179.3	184.6	222.1	318.4	487.1	243.6	329.2	422.9	583.4	1276.6	1174.9
80°	120.4	120.4	141.9	214.1	307.8	203.4	176.7	281.0	302.4	396.1	198.0
82.5°	80.3	80.3	93.7	141.9	200.7	182.0	107.1	152.5	176.7	198.0	69.6
85°	48.2	48.2	64.2	88.3	131.1	101.7	69.6	85.6	91.0	125.8	37.4
87.5°	29.5	26.8	42.9	61.6	69.6	61.6	45.5	45.5	48.2	69.6	18.7
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°	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4	1311.4
2.5°	1308.8	1306.0	1303.3	1298.0	1289.9	1284.6	1279.3	1273.9	1268.6	1268.6	1276.6
5°	1332.8	1324.7	1314.1	1303.3	1287.3	1276.6	1268.6	1257.8	1252.5	1252.5	1255.2
7.5°	1362.3	1354.2	1335.5	1316.7	1292.7	1273.9	1255.2	1231.1	1212.4	1204.3	1212.4
10°	1394.4	1383.6	1356.8	1327.5	1300.7	1252.5	1190.9	1116.0	1051.8	1022.3	1035.7
12.5°	1434.5	1421.1	1389.0	1348.9	1287.3	1169.5	1017.0	843.0	733.4	682.4	693.2
15°	1493.4	1474.7	1429.2	1367.6	1231.1	976.8	727.9	527.2	425.5	382.7	388.1
17.5°	1563.0	1538.8	1477.3	1362.3	1086.6	703.9	433.5	307.8	264.9	254.2	254.2
20°	1637.9	1605.8	1525.5	1322.1	867.2	441.6	270.3	235.5	219.4	211.4	211.4
22.5°	1715.5	1672.7	1565.6	1228.5	618.3	275.7	222.1	198.0	179.3	171.2	171.2
25°	1809.2	1753.0	1605.8	1065.2	393.4	222.1	190.1	165.9	147.2	136.5	139.1
27.5°	1919.0	1846.6	1640.6	861.7	254.2	192.7	157.9	133.8	117.7	112.4	112.4
30°	2034.0	1948.3	1648.6	645.0	206.1	165.9	131.1	109.8	99.0	93.7	93.7
32.5°	2191.9	2079.5	1624.5	428.2	174.0	139.1	109.8	91.0	83.0	80.3	80.3
35°	2400.7	2250.8	1568.3	264.9	147.2	115.1	91.0	80.3	72.2	69.6	69.6
37.5°	2665.6	2488.9	1469.3	182.0	125.8	93.7	77.6	69.6	64.2	61.6	61.6
40°	3018.8	2778.0	1340.8	157.9	107.1	80.3	66.9	61.6	56.2	56.2	56.2
42.5°	3393.5	3128.6	1174.9	139.1	91.0	69.6	58.9	53.5	50.8	48.2	48.2
45°	3803.0	3487.2	968.8	123.1	77.6	61.6	53.5	45.5	42.9	42.9	42.9
47.5°	4209.9	3856.5	744.0	107.1	66.9	53.5	45.5	40.1	37.4	34.8	34.8
50°	4627.3	4191.1	545.9	93.7	58.9	48.2	40.1	34.8	29.5	26.8	26.8
52.5°	4929.8	4391.8	398.7	80.3	50.8	40.1	32.1	26.8	21.4	18.7	18.7
55°	5151.9	4514.9	291.7	66.9	45.5	34.8	26.8	21.4	16.1	16.1	13.4
57.5°	5325.9	4573.8	219.4	58.9	40.1	29.5	21.4	16.1	13.4	10.7	10.7
60°	5459.7	4576.5	163.3	48.2	34.8	24.0	16.1	10.7	8.0	8.0	8.0
62°	5636.3	4611.3	133.8	40.1	32.1	21.4	13.4	8.0	5.3	2.7	2.7
62.5°	5687.2	4624.7	128.5	40.1	29.5	18.7	10.7	8.0	5.3	2.7	2.7
65°	5922.7	4648.7	99.0	32.1	24.0	16.1	8.0	5.3	0.0	0.0	0.0
67.5°	6136.8	4611.3	72.2	24.0	18.7	10.7	8.0	2.7	0.0	0.0	0.0
70°	6115.4	4354.4	50.8	16.1	13.4	8.0	5.3	0.0	0.0	0.0	0.0
72.5°	5039.5	3259.7	34.8	13.4	8.0	5.3	2.7	0.0	0.0	0.0	0.0
75°	3043.0	1426.5	24.0	8.0	8.0	5.3	2.7	0.0	0.0	0.0	0.0
77.5°	998.3	516.5	16.1	5.3	5.3	2.7	2.7	0.0	0.0	0.0	0.0
80°	163.3	85.6	8.0	5.3	5.3	2.7	2.7	0.0	0.0	0.0	0.0
82.5°	50.8	21.4	5.3	5.3	2.7	2.7	0.0	0.0	0.0	0.0	0.0
85°	18.7	8.0	5.3	5.3	2.7	2.7	0.0	0.0	0.0	0.0	0.0
87.5°	8.0	5.3	5.3	5.3	2.7	2.7	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)