

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: P257853

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2U-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257853  
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-AF48-110-D-U-T2U-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 720mA 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: 10143.6 lumens  
Efficiency: N/A  
Efficacy: 91.4 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): 111  
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

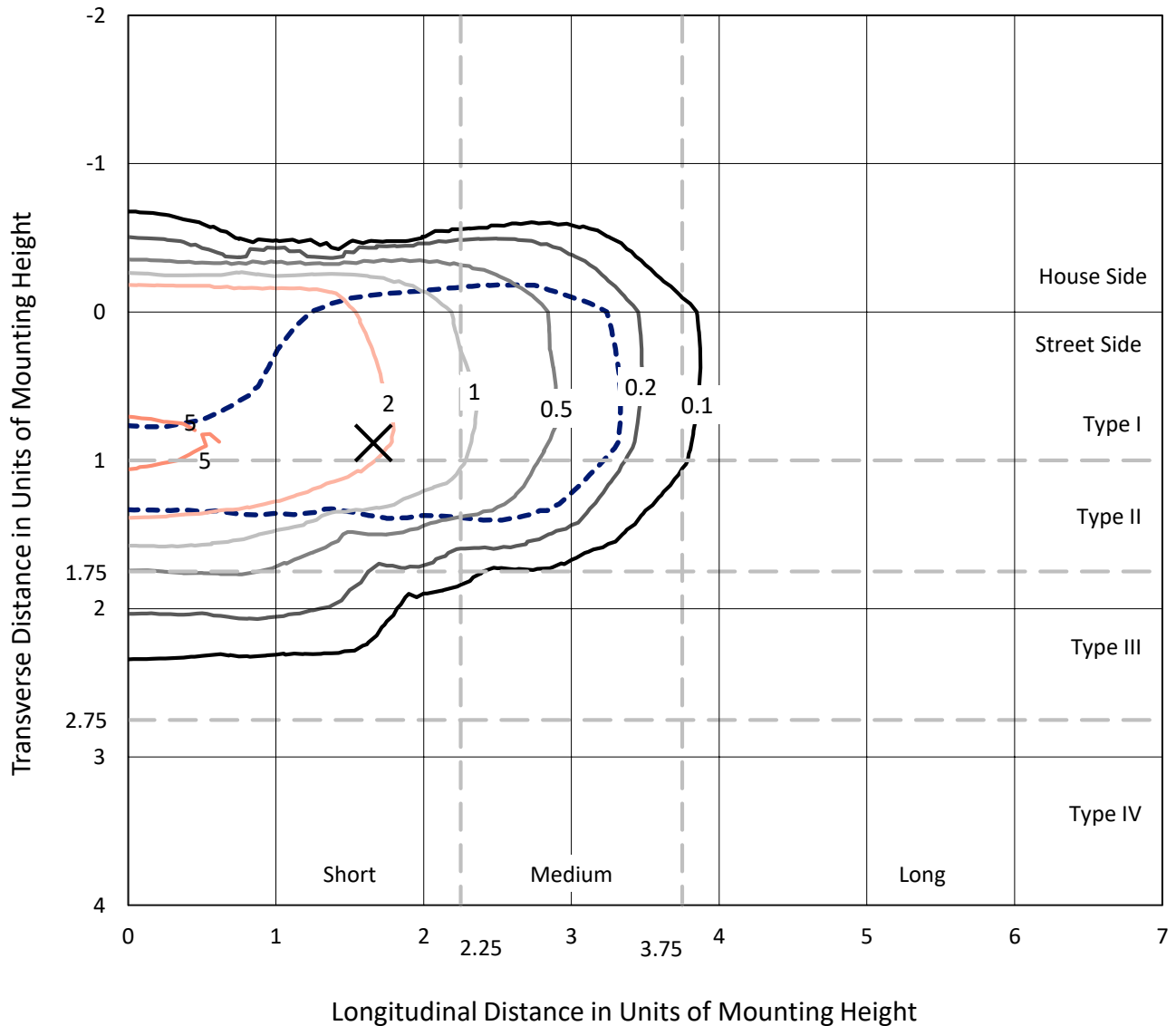


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### Iso-Footcandle Lines of Horizontal Illumination

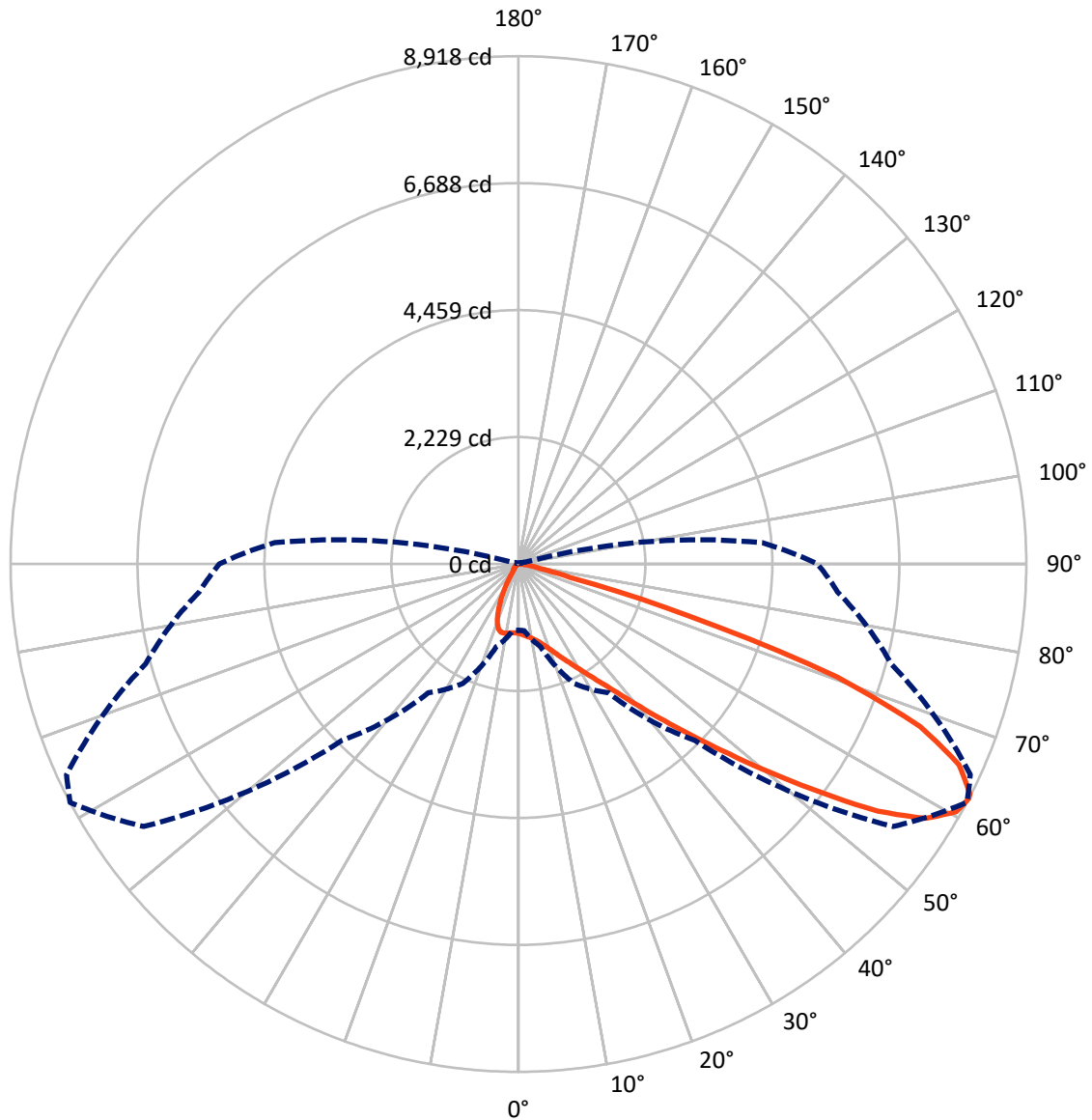
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.8 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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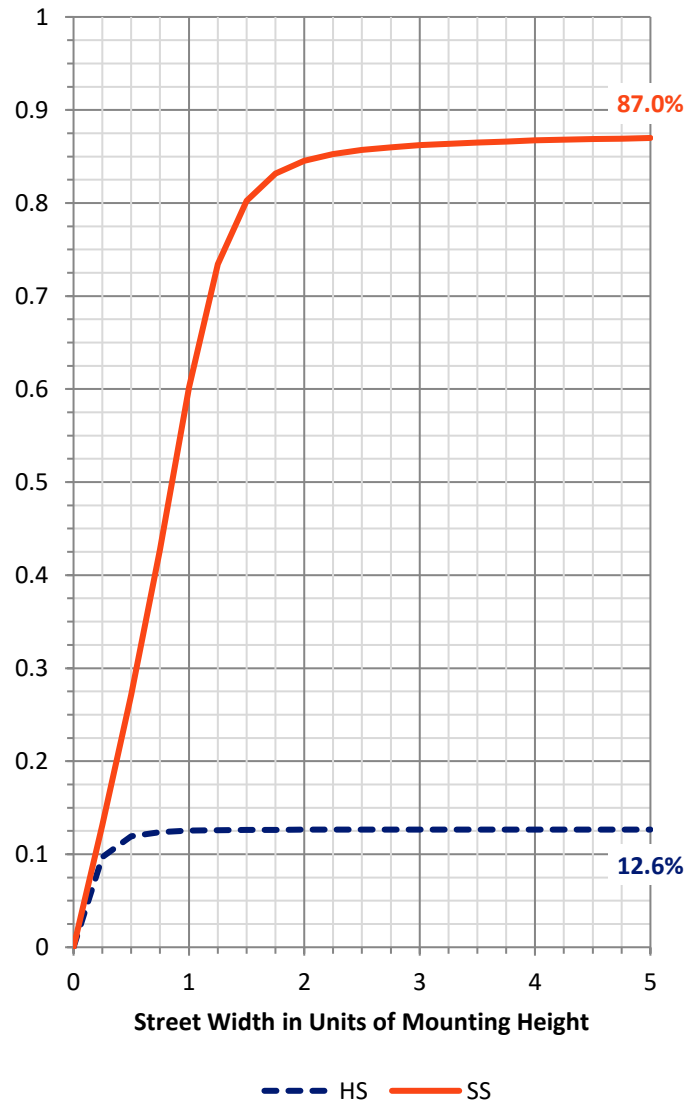
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1297.0	0.0	1297.0
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	8846.6	0.0	8846.6
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	10143.6	0.0	10143.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.6	1.2
10°-20°	328.4	3.2
20°-30°	551.5	5.4
30°-40°	1057.2	10.4
40°-50°	2159.3	21.3
50°-60°	2857.5	28.2
60°-70°	2219.8	21.9
70°-80°	801.2	7.9
80°-90°	51.1	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°	10143.6	100.0
0°-180°	10143.6	100.0

**Coefficient of Utilization**



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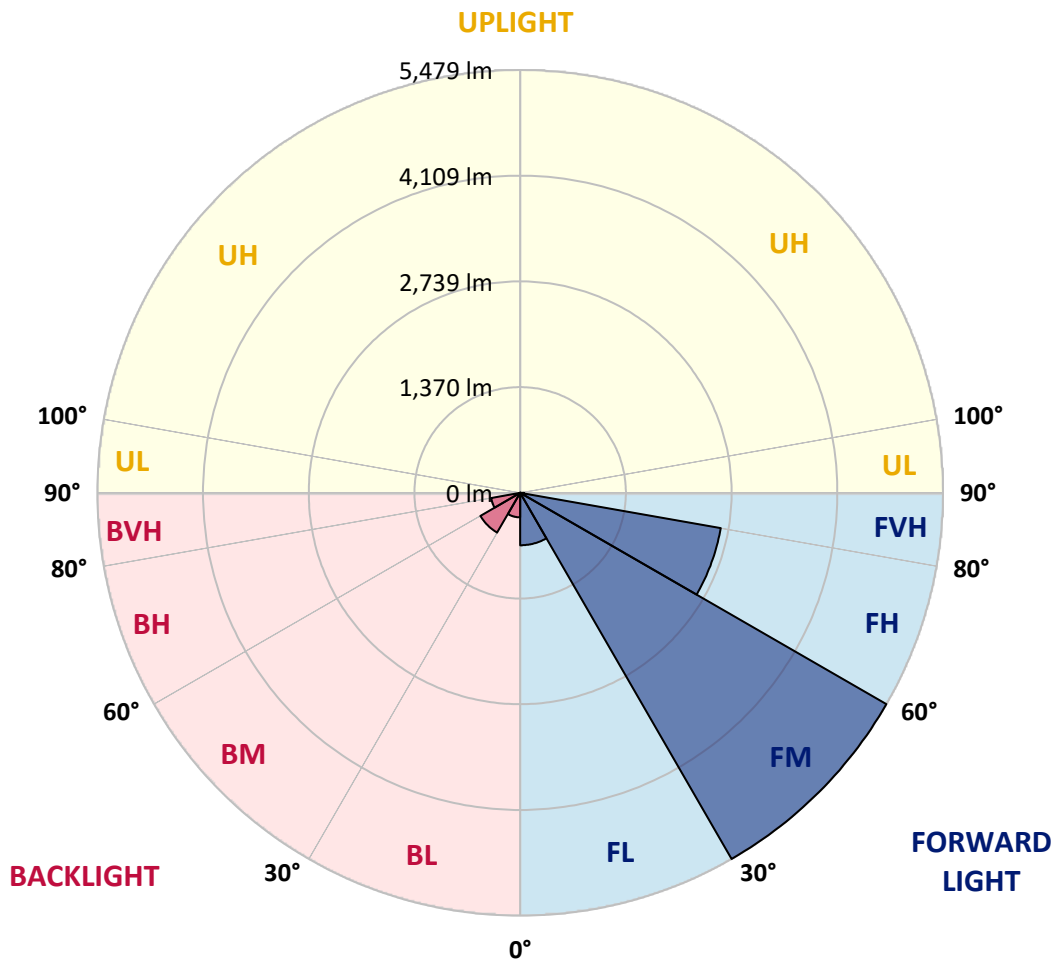
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	680.0	6.7			
FM	(30°-60°)	5478.6	54.0			
FH	(60°-80°)	2639.1	26.0			G2/5000
FVH	(80°-90°)	48.8	0.5			G1/100
BL	(0°-30°)	317.4	3.1	B1/500		
BM	(30°-60°)	595.4	5.9	B1/1000		
BH	(60°-80°)	381.9	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9
2.5°	1254.3	1251.9	1249.3	1246.9	1246.9	1244.4	1241.9	1236.8	1231.9	1226.9	1224.4
5°	1276.7	1274.3	1271.8	1274.3	1271.8	1271.8	1269.3	1264.4	1259.4	1251.9	1244.4
7.5°	1294.2	1291.8	1289.2	1291.8	1294.2	1296.7	1299.2	1294.2	1291.8	1281.8	1274.3
10°	1316.6	1314.2	1311.7	1316.6	1316.6	1329.1	1331.7	1329.1	1326.7	1319.2	1306.7
12.5°	1349.1	1351.6	1351.6	1356.6	1361.5	1376.6	1381.5	1374.0	1374.0	1364.1	1349.1
15°	1408.9	1408.9	1408.9	1413.9	1416.5	1436.4	1441.3	1433.9	1438.9	1421.4	1406.5
17.5°	1466.3	1468.9	1473.8	1483.8	1483.8	1501.2	1511.2	1511.2	1521.1	1498.7	1478.8
20°	1523.7	1526.1	1533.6	1556.1	1556.1	1578.5	1596.0	1603.5	1613.4	1591.0	1556.1
22.5°	1586.0	1586.0	1598.5	1633.3	1625.9	1670.8	1703.2	1715.7	1725.6	1695.7	1640.9
25°	1680.8	1670.8	1680.8	1713.2	1708.2	1770.5	1830.4	1842.8	1855.3	1820.4	1738.1
27.5°	1860.3	1845.4	1810.4	1813.0	1813.0	1885.3	1970.0	1987.5	1995.0	1965.1	1862.8
30°	2219.4	2219.4	2089.8	2002.4	1945.1	2009.9	2129.7	2159.6	2169.6	2124.7	1989.9
32.5°	2845.3	2845.3	2606.0	2384.0	2167.0	2167.0	2304.2	2359.0	2369.1	2316.7	2159.6
35°	3643.3	3638.3	3279.3	2975.0	2551.0	2391.5	2508.7	2601.0	2630.9	2561.1	2379.0
37.5°	4491.2	4458.7	4072.3	3723.1	3142.1	2750.6	2785.5	2907.6	2935.2	2877.8	2663.3
40°	5179.5	5142.1	4830.4	4538.6	3905.2	3324.2	3184.4	3296.7	3329.1	3249.3	3002.5
42.5°	5802.9	5710.6	5496.2	5286.7	4783.0	4316.6	3715.7	3760.6	3795.5	3710.7	3384.0
45°	6254.2	6112.1	6002.4	5937.6	5670.7	5406.4	4403.9	4314.2	4326.6	4221.9	3800.5
47.5°	6266.7	6167.0	6177.0	6346.5	6456.3	6446.3	5299.2	4979.9	4932.6	4758.1	4244.3
50°	5668.3	5725.6	5907.6	6391.4	6984.9	7344.1	6364.0	5768.0	5625.8	5311.7	4685.7
52.5°	4670.8	4760.5	5102.2	5917.6	7062.2	7935.0	7468.7	6668.2	6413.9	5860.3	5024.8
55°	3658.3	3663.3	4022.3	4852.8	6546.1	8042.2	8351.5	7658.2	7269.2	6276.7	5249.3
57.5°	2516.2	2653.3	3109.7	3668.3	5381.4	7508.7	8683.1	8426.4	7925.1	6533.6	5406.4
60°	1648.4	1655.9	2187.0	2832.9	3663.3	6109.7	8481.2	8832.8	8456.2	6685.7	5513.6
62°	1162.1	1174.6	1503.7	2314.2	2760.5	4378.9	8034.8	8917.6	8755.4	6775.4	5625.8
62.5°	1077.3	1087.3	1364.1	2184.5	2593.5	3927.6	7875.2	8897.6	8800.3	6805.4	5665.7
65°	790.5	790.5	892.7	1501.2	1900.2	2122.1	6673.2	8501.1	8740.5	7044.8	5815.4
67.5°	611.0	615.9	650.9	925.2	1433.9	1286.8	4259.3	7608.4	8117.1	7398.9	5900.2
70°	526.2	523.6	548.6	613.5	1034.9	855.4	1875.3	5937.6	6797.9	7309.1	5822.8
72.5°	389.0	391.5	448.9	538.7	720.7	556.1	847.8	3152.1	4408.9	5720.6	4990.0
75°	249.4	251.9	316.7	423.9	518.7	364.1	488.8	940.1	1805.5	3172.1	3052.3
77.5°	167.0	172.1	206.9	296.8	453.9	226.9	306.7	394.0	543.6	1189.5	1094.8
80°	112.2	112.2	132.2	199.5	286.7	189.6	164.6	261.9	281.8	369.1	184.5
82.5°	74.8	74.8	87.3	132.2	187.0	169.6	99.7	142.2	164.6	184.5	64.9
85°	44.9	44.9	59.8	82.2	122.2	94.7	64.9	79.8	84.8	117.2	34.9
87.5°	27.4	25.0	39.9	57.4	64.9	57.4	42.4	42.4	44.9	64.9	17.5
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°	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9	1221.9
2.5°	1219.5	1216.9	1214.4	1209.4	1202.0	1197.0	1192.0	1187.0	1182.0	1182.0	1189.5
5°	1241.9	1234.4	1224.4	1214.4	1199.5	1189.5	1182.0	1172.1	1167.1	1167.1	1169.5
7.5°	1269.3	1261.8	1244.4	1226.9	1204.4	1187.0	1169.5	1147.1	1129.6	1122.2	1129.6
10°	1299.2	1289.2	1264.4	1236.8	1212.0	1167.1	1109.7	1039.9	980.0	952.6	965.1
12.5°	1336.6	1324.2	1294.2	1256.8	1199.5	1089.7	947.7	785.5	683.3	635.9	645.9
15°	1391.5	1374.0	1331.7	1274.3	1147.1	910.2	678.3	491.2	396.5	356.6	361.6
17.5°	1456.4	1433.9	1376.6	1269.3	1012.4	655.8	404.0	286.7	246.8	236.9	236.9
20°	1526.1	1496.3	1421.4	1231.9	807.9	411.4	251.9	219.4	204.5	197.0	197.0
22.5°	1598.5	1558.6	1458.8	1144.6	576.0	256.9	206.9	184.5	167.0	159.6	159.6
25°	1685.7	1633.3	1496.3	992.5	366.6	206.9	177.1	154.6	137.2	127.2	129.7
27.5°	1788.0	1720.7	1528.7	803.0	236.9	179.5	147.1	124.7	109.8	104.8	104.8
30°	1895.2	1815.4	1536.2	601.0	192.0	154.6	122.2	102.2	92.3	87.3	87.3
32.5°	2042.3	1937.7	1513.7	399.0	162.1	129.7	102.2	84.8	77.3	74.8	74.8
35°	2236.9	2097.3	1461.3	246.8	137.2	107.2	84.8	74.8	67.3	64.9	64.9
37.5°	2483.7	2319.1	1369.0	169.6	117.2	87.3	72.3	64.9	59.8	57.4	57.4
40°	2812.9	2588.5	1249.3	147.1	99.7	74.8	62.3	57.4	52.4	52.4	52.4
42.5°	3162.0	2915.2	1094.8	129.7	84.8	64.9	54.8	49.9	47.4	44.9	44.9
45°	3543.6	3249.3	902.8	114.7	72.3	57.4	49.9	42.4	39.9	39.9	39.9
47.5°	3922.6	3593.4	693.3	99.7	62.3	49.9	42.4	37.4	34.9	32.4	32.4
50°	4311.6	3905.2	508.7	87.3	54.8	44.9	37.4	32.4	27.4	25.0	25.0
52.5°	4593.5	4092.2	371.5	74.8	47.4	37.4	30.0	25.0	19.9	17.5	17.5
55°	4800.4	4206.9	271.8	62.3	42.4	32.4	25.0	19.9	14.9	14.9	12.5
57.5°	4962.5	4261.8	204.5	54.8	37.4	27.4	19.9	14.9	12.5	10.0	10.0
60°	5087.2	4264.3	152.1	44.9	32.4	22.4	14.9	10.0	7.5	7.5	7.5
62°	5251.8	4296.7	124.7	37.4	30.0	19.9	12.5	7.5	5.0	2.5	2.5
62.5°	5299.2	4309.2	119.7	37.4	27.4	17.5	10.0	7.5	5.0	2.5	2.5
65°	5518.6	4331.6	92.3	30.0	22.4	14.9	7.5	5.0	0.0	0.0	0.0
67.5°	5718.1	4296.7	67.3	22.4	17.5	10.0	7.5	2.5	0.0	0.0	0.0
70°	5698.1	4057.3	47.4	14.9	12.5	7.5	5.0	0.0	0.0	0.0	0.0
72.5°	4695.7	3037.3	32.4	12.5	7.5	5.0	2.5	0.0	0.0	0.0	0.0
75°	2835.4	1329.1	22.4	7.5	7.5	5.0	2.5	0.0	0.0	0.0	0.0
77.5°	930.2	481.3	14.9	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0
80°	152.1	79.8	7.5	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0
82.5°	47.4	19.9	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
85°	17.5	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)