

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: P231086

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231086  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-150-D-U-T2R-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12871 lumens  
Efficiency: N/A  
Efficacy: 85.2 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 151  
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

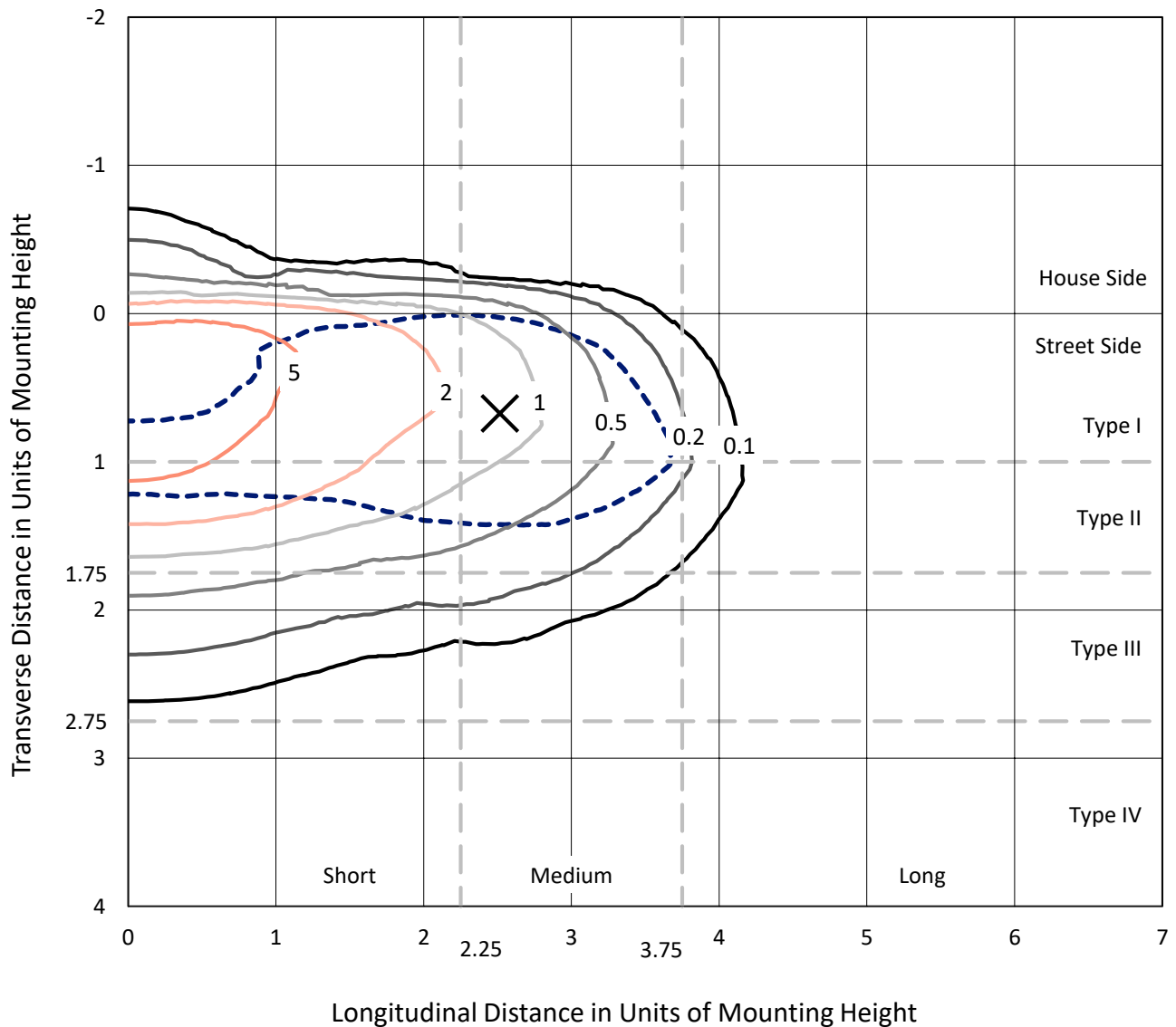


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

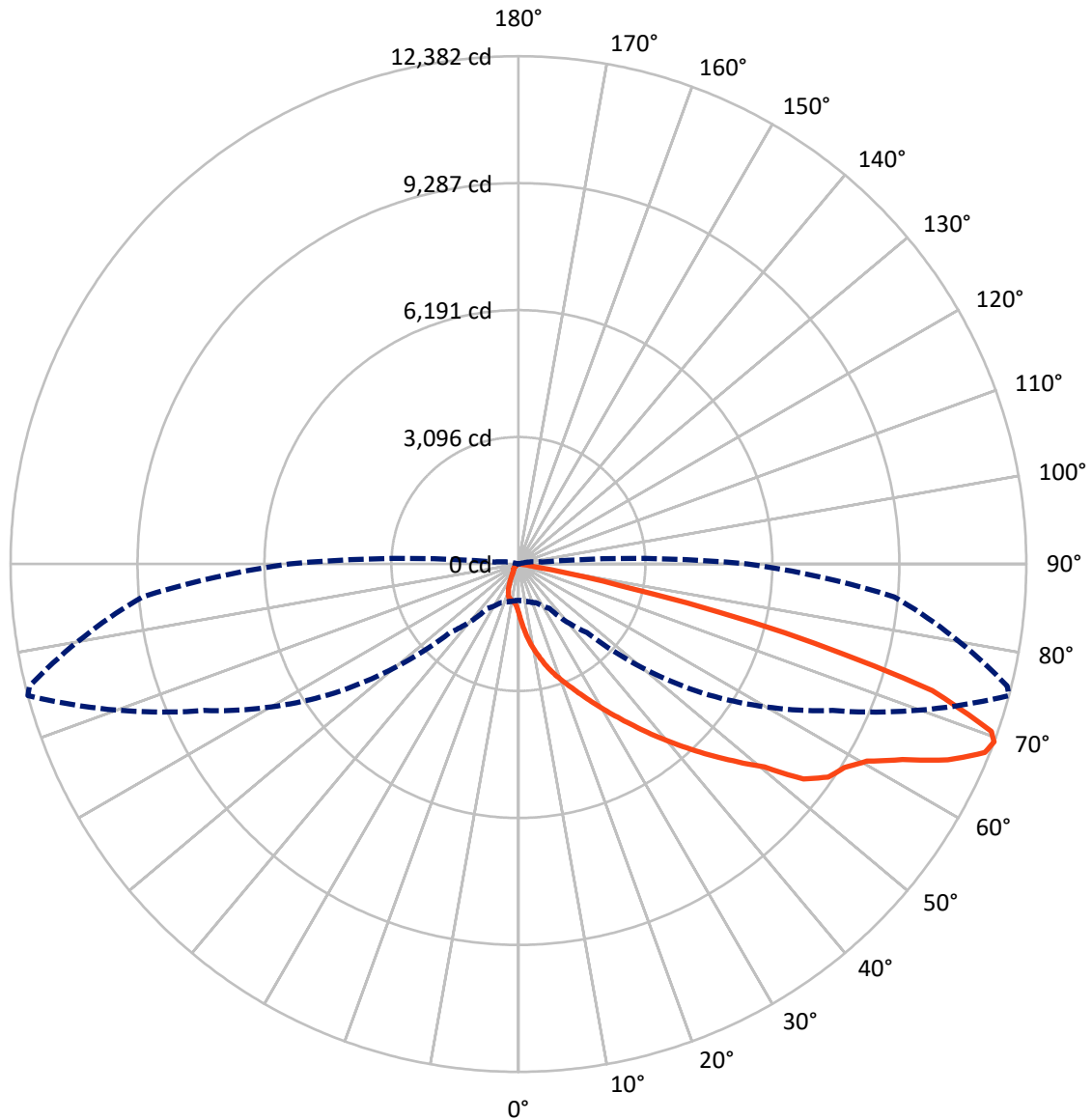


Based on 20 foot mounting height. Maximum calculated value = 8.2 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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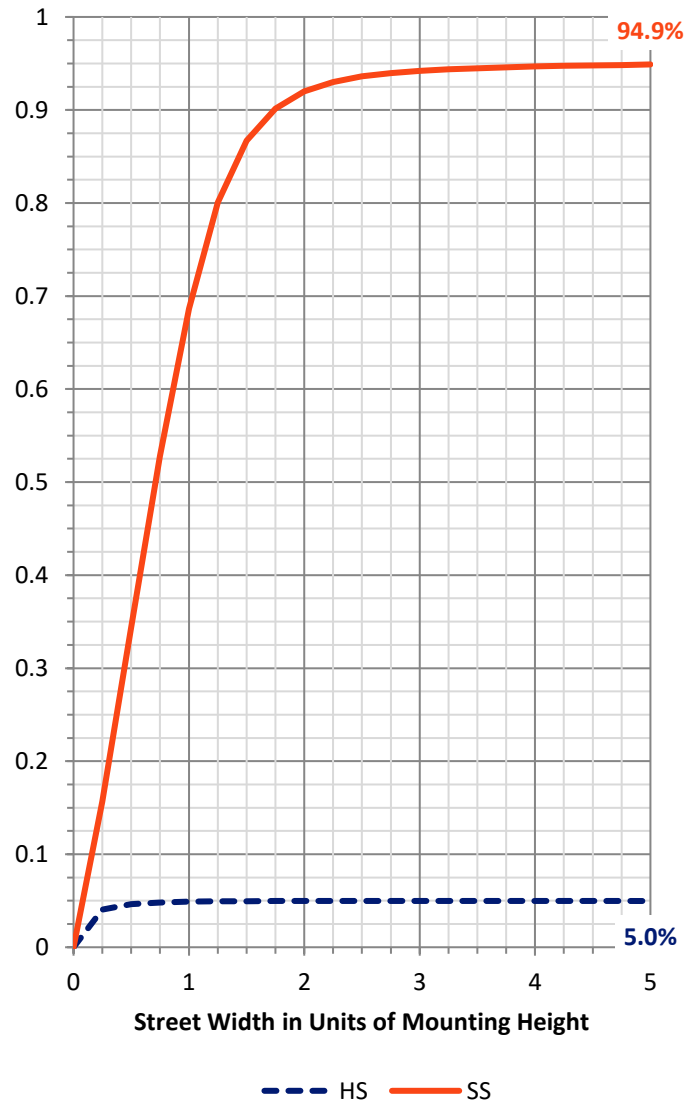
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	642.2	0.0	642.2
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	12228.8	0.0	12228.8
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	12871.0	0.0	12871.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.7	1.1
10°-20°	499.3	3.9
20°-30°	953.1	7.4
30°-40°	1709.7	13.3
40°-50°	2619.5	20.4
50°-60°	3044.4	23.7
60°-70°	2695.9	20.9
70°-80°	1162.8	9.0
80°-90°	46.6	0.4
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°	12871.0	100.0
0°-180°	12871.0	100.0

**Coefficient of Utilization**



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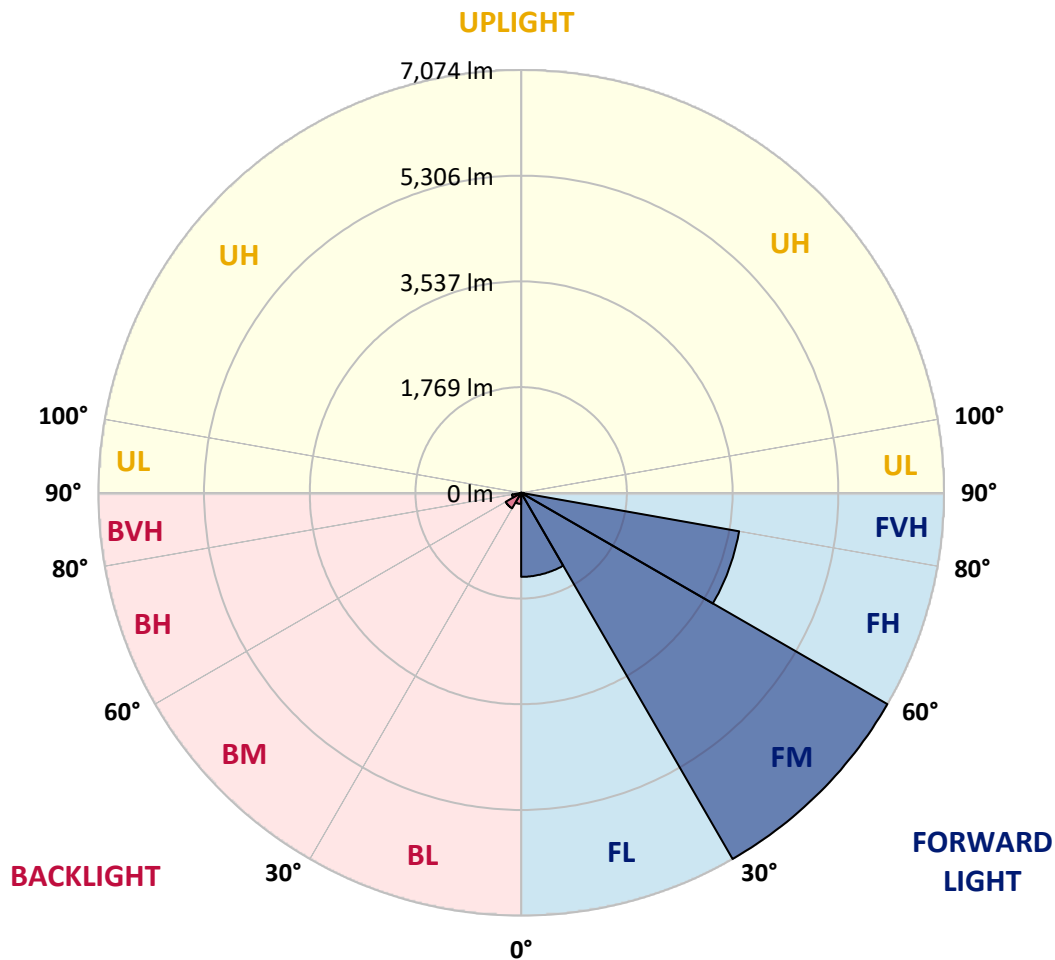
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1405.5	10.9			
FM	(30°-60°)	7074.2	55.0			
FH	(60°-80°)	3703.2	28.8			G2/5000
FVH	(80°-90°)	45.9	0.4			G1/100
BL	(0°-30°)	186.5	1.4	B1/500		
BM	(30°-60°)	299.4	2.3	B1/1000		
BH	(60°-80°)	155.6	1.2	B1/500		G1/500
BVH	(80°-90°)	0.7	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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6
2.5°	1972.9	1953.5	1934.0	1911.8	1861.8	1775.6	1667.3	1550.5	1406.0	1381.0	1264.3
5°	2395.3	2386.9	2367.5	2336.9	2281.4	2186.9	2064.6	1892.3	1650.6	1608.9	1361.6
7.5°	2692.6	2687.1	2670.4	2634.3	2584.2	2489.8	2361.9	2175.8	1895.1	1847.9	1483.9
10°	2959.4	2956.6	2942.7	2909.4	2859.3	2756.5	2620.4	2425.8	2128.5	2075.7	1625.6
12.5°	3201.1	3203.9	3198.3	3181.7	3145.5	3048.3	2892.7	2681.5	2353.6	2295.2	1795.1
15°	3342.8	3351.2	3373.4	3406.7	3417.9	3340.1	3178.9	2945.5	2584.2	2534.2	1989.6
17.5°	3295.6	3303.9	3373.4	3487.3	3595.7	3606.8	3462.3	3195.6	2812.1	2762.1	2181.3
20°	3181.7	3192.8	3265.0	3420.6	3631.8	3779.1	3720.7	3467.9	3028.8	2967.7	2364.7
22.5°	3309.5	3309.5	3331.7	3426.2	3617.9	3848.6	3926.4	3740.2	3251.1	3176.1	2548.1
25°	3748.5	3740.2	3693.0	3654.1	3715.2	3920.8	4082.0	4018.1	3512.3	3426.2	2742.6
27.5°	4304.3	4343.2	4254.3	4112.6	3973.6	4062.5	4220.9	4293.2	3801.3	3712.4	2942.7
30°	4926.7	4943.4	4837.8	4648.9	4404.3	4318.2	4384.9	4529.4	4115.3	4018.1	3151.1
32.5°	5488.0	5474.1	5385.2	5187.9	4885.0	4698.9	4596.1	4718.3	4457.1	4346.0	3365.1
35°	5985.4	5996.5	5888.2	5660.3	5363.0	5165.7	4921.2	4932.3	4840.6	4712.8	3612.4
37.5°	6432.8	6413.4	6310.5	6082.7	5813.1	5599.2	5340.8	5154.6	5260.2	5126.8	3890.3
40°	6796.8	6777.4	6669.0	6446.7	6193.8	6018.8	5815.9	5451.9	5702.0	5549.2	4187.6
42.5°	7085.8	7063.6	6971.9	6757.9	6513.4	6357.8	6260.5	5818.7	6174.4	6021.6	4521.0
45°	7227.5	7208.1	7152.5	6991.3	6777.4	6641.2	6688.5	6241.1	6680.1	6552.3	4887.8
47.5°	7060.8	7052.5	7116.4	7088.6	6966.3	6894.1	7058.0	6702.3	7210.9	7085.8	5310.2
50°	6555.1	6569.0	6755.1	6985.8	7044.1	7130.3	7360.9	7188.6	7780.5	7647.1	5796.5
52.5°	5307.4	5401.9	5963.2	6519.0	6949.7	7274.8	7716.6	7883.3	8708.6	8578.0	6555.1
55°	3962.5	4001.4	4612.7	5563.1	6569.0	7263.7	7980.6	8291.8	9167.1	9033.7	6755.1
57.5°	3142.8	3156.7	3459.5	4429.3	5785.4	7013.6	8119.5	8439.1	9367.2	9256.0	7052.5
60°	2467.5	2484.2	2703.7	3370.6	4682.2	6338.3	7919.4	8566.9	9759.0	9670.1	7572.1
62.5°	1920.1	1936.8	2070.2	2462.0	3512.3	5299.1	7516.5	8772.5	10503.7	10462.0	8422.4
65°	1486.6	1492.2	1583.9	1767.3	2481.4	4173.7	7024.7	8964.3	11509.6	11473.5	9111.5
67.5°	1097.6	1105.9	1169.9	1283.8	1675.6	2998.3	6218.8	8817.0	12268.2	12162.6	9361.6
69°	886.4	894.8	950.3	1042.0	1322.7	2361.9	5482.5	8453.0	12382.1	12282.1	9203.2
70°	758.6	764.2	819.7	897.5	1128.2	2006.3	4898.9	8139.0	12232.1	12134.8	8842.0
72.5°	486.3	514.1	569.6	619.7	747.5	1328.2	3306.7	6749.6	10553.7	10387.0	6924.6
75°	269.5	277.9	377.9	439.0	497.4	864.2	1839.5	4209.8	6713.5	6596.8	3704.1
77.5°	222.3	227.9	266.8	333.5	333.5	483.5	694.7	1658.9	2553.7	2303.6	1003.1
80°	155.6	161.2	202.8	219.5	239.0	272.3	225.1	364.0	394.6	350.1	150.1
82.5°	108.4	113.9	138.9	180.6	191.7	127.8	83.4	108.4	113.9	113.9	58.4
85°	19.5	27.8	102.8	150.1	113.9	38.9	47.2	38.9	36.1	38.9	13.9
87.5°	0.0	0.0	63.9	72.2	61.1	16.7	19.5	13.9	8.3	11.1	5.6
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°	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6	1197.6
2.5°	1206.0	1147.6	1047.6	975.3	914.2	867.0	847.5	817.0	794.7	805.8	791.9
5°	1239.3	1136.5	975.3	872.5	800.3	739.1	689.1	650.2	619.7	614.1	608.5
7.5°	1292.1	1144.8	933.7	805.8	697.5	603.0	525.2	466.8	422.4	422.4	405.7
10°	1364.4	1167.1	908.7	739.1	578.0	450.2	372.4	316.8	294.5	291.8	286.2
12.5°	1464.4	1208.8	889.2	653.0	450.2	327.9	280.7	261.2	252.9	250.1	247.3
15°	1600.6	1269.9	867.0	547.4	341.8	269.5	250.1	233.4	225.1	222.3	219.5
17.5°	1731.2	1325.5	819.7	439.0	277.9	244.5	222.3	208.4	197.3	194.5	194.5
20°	1853.4	1372.7	739.1	341.8	250.1	219.5	197.3	180.6	169.5	166.7	166.7
22.5°	1981.2	1411.6	639.1	277.9	227.9	194.5	172.3	155.6	144.5	141.7	138.9
25°	2117.4	1439.4	525.2	247.3	205.6	172.3	147.3	133.4	125.0	122.3	119.5
27.5°	2264.7	1450.5	416.8	225.1	180.6	150.1	127.8	113.9	108.4	105.6	105.6
30°	2398.1	1439.4	322.3	200.1	158.4	130.6	111.2	100.0	94.5	91.7	91.7
32.5°	2537.0	1411.6	258.4	177.8	138.9	111.2	94.5	86.1	83.4	80.6	80.6
35°	2684.3	1375.5	222.3	158.4	119.5	97.3	83.4	77.8	75.0	72.2	72.2
37.5°	2856.6	1331.0	202.8	141.7	105.6	86.1	72.2	69.5	66.7	66.7	66.7
40°	3051.1	1275.4	189.0	127.8	94.5	75.0	63.9	61.1	58.4	58.4	58.4
42.5°	3256.7	1211.5	175.1	113.9	83.4	63.9	55.6	55.6	52.8	52.8	50.0
45°	3487.3	1147.6	161.2	100.0	72.2	55.6	47.2	44.5	44.5	41.7	41.7
47.5°	3759.7	1089.3	147.3	88.9	63.9	47.2	41.7	38.9	36.1	33.3	33.3
50°	4143.1	1083.7	130.6	77.8	58.4	38.9	33.3	30.6	27.8	25.0	25.0
52.5°	4523.8	1033.7	111.2	63.9	47.2	33.3	25.0	22.2	19.5	19.5	16.7
55°	4609.9	950.3	97.3	55.6	36.1	25.0	19.5	13.9	13.9	11.1	11.1
57.5°	4798.9	911.4	83.4	44.5	27.8	19.5	11.1	8.3	8.3	8.3	8.3
60°	5171.3	900.3	72.2	38.9	19.5	13.9	8.3	5.6	5.6	2.8	2.8
62.5°	5685.3	889.2	61.1	33.3	13.9	8.3	5.6	2.8	0.0	0.0	0.0
65°	5968.8	814.2	50.0	25.0	11.1	8.3	2.8	0.0	0.0	0.0	0.0
67.5°	5893.7	672.5	44.5	16.7	8.3	5.6	2.8	0.0	0.0	0.0	0.0
69°	5579.7	566.9	36.1	13.9	8.3	5.6	2.8	0.0	0.0	0.0	0.0
70°	5201.8	489.1	33.3	11.1	5.6	2.8	2.8	0.0	0.0	0.0	0.0
72.5°	3693.0	255.6	22.2	8.3	5.6	2.8	0.0	0.0	0.0	0.0	0.0
75°	1725.6	113.9	13.9	5.6	2.8	2.8	0.0	0.0	0.0	0.0	0.0
77.5°	380.7	52.8	8.3	5.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	72.2	19.5	5.6	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	25.0	8.3	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	0.0	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)