

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: P265816

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265816  
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-AF48-110-D-U-T2R-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 720mA 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: 10090.6 lumens  
Efficiency: N/A  
Efficacy: 90.9 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): 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

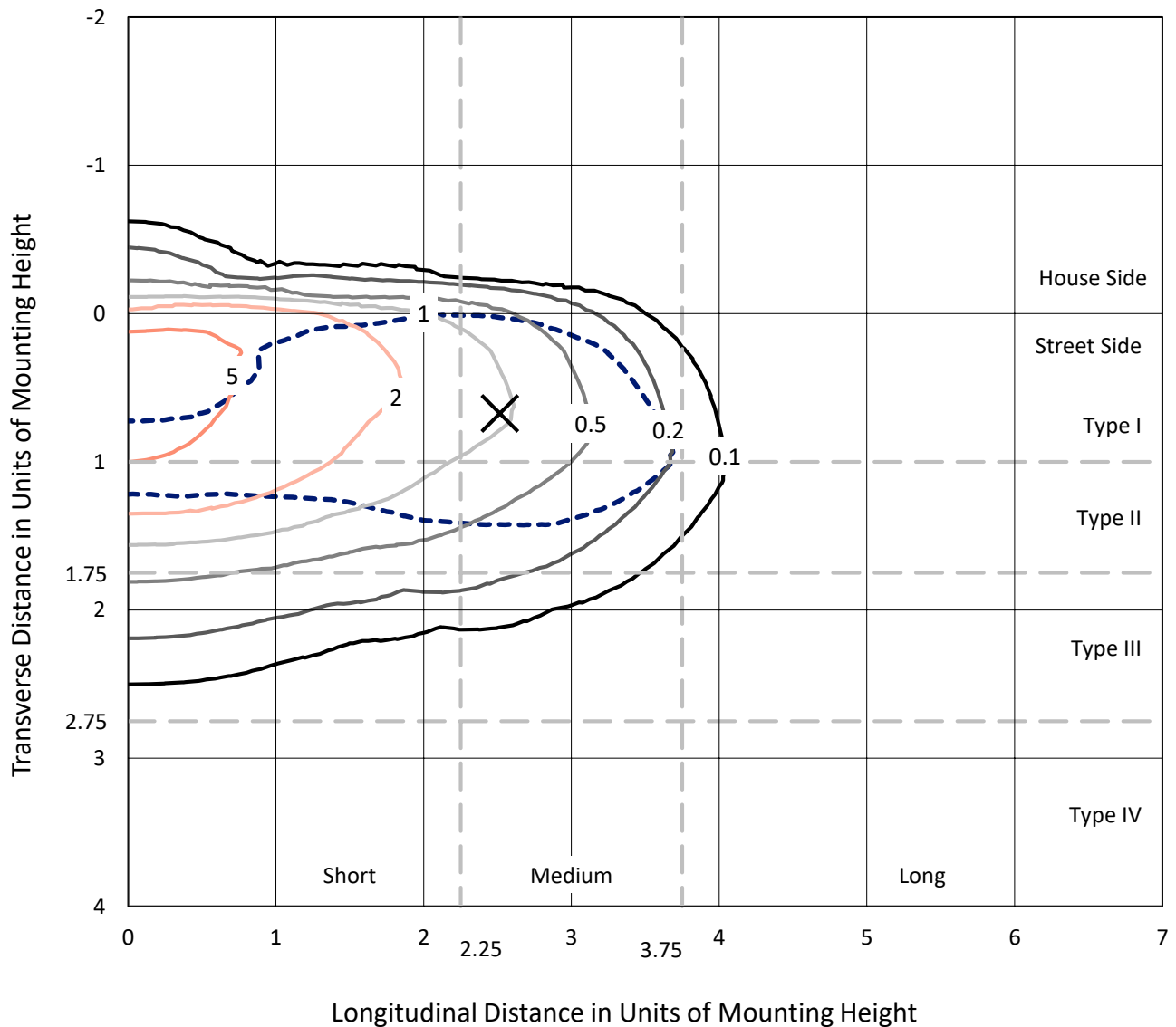


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

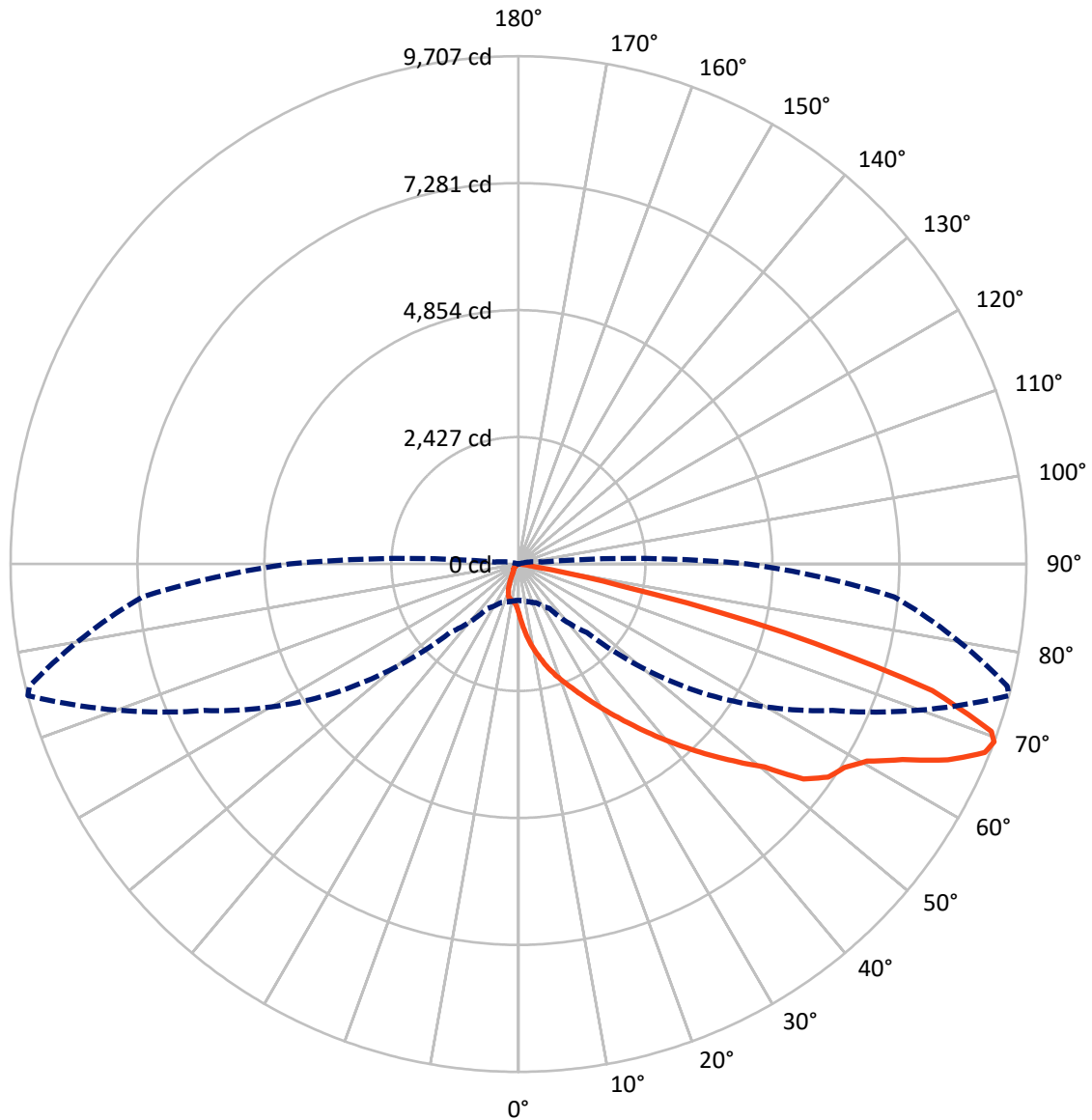


Based on 20 foot mounting height. Maximum calculated value = 6.4 fc  
Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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



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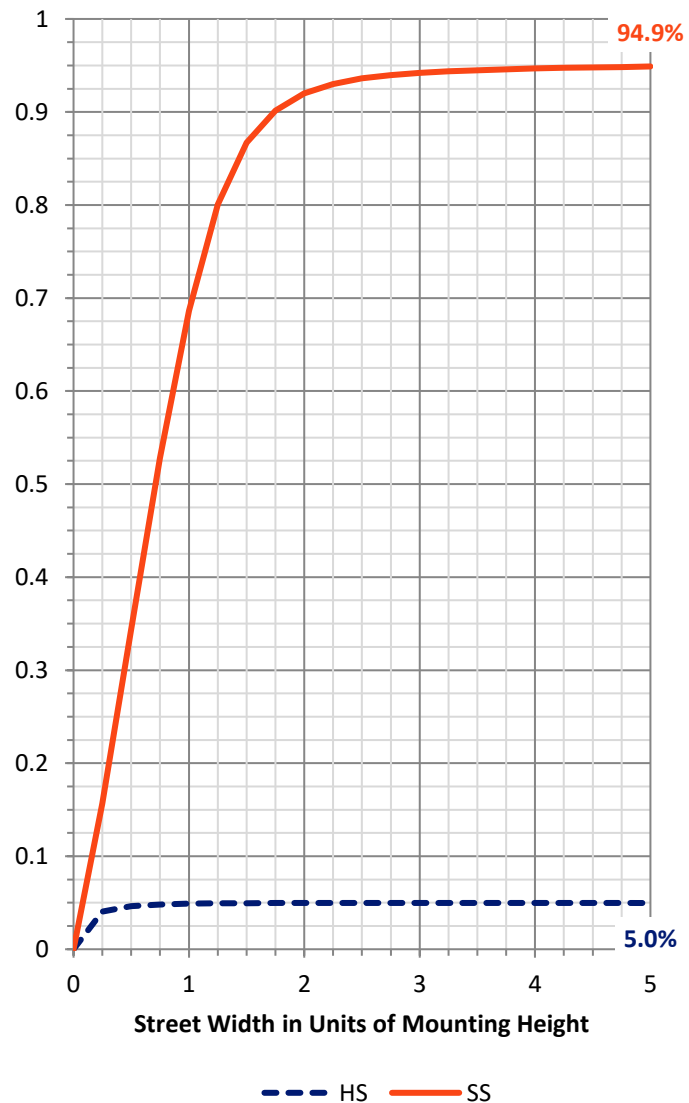
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	503.5	0.0	503.5
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	9587.2	0.0	9587.2
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	10090.6	0.0	10090.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.5	1.1
10°-20°	391.4	3.9
20°-30°	747.2	7.4
30°-40°	1340.4	13.3
40°-50°	2053.6	20.4
50°-60°	2386.8	23.7
60°-70°	2113.5	20.9
70°-80°	911.6	9.0
80°-90°	36.5	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°	10090.6	100.0
0°-180°	10090.6	100.0

**Coefficient of Utilization**



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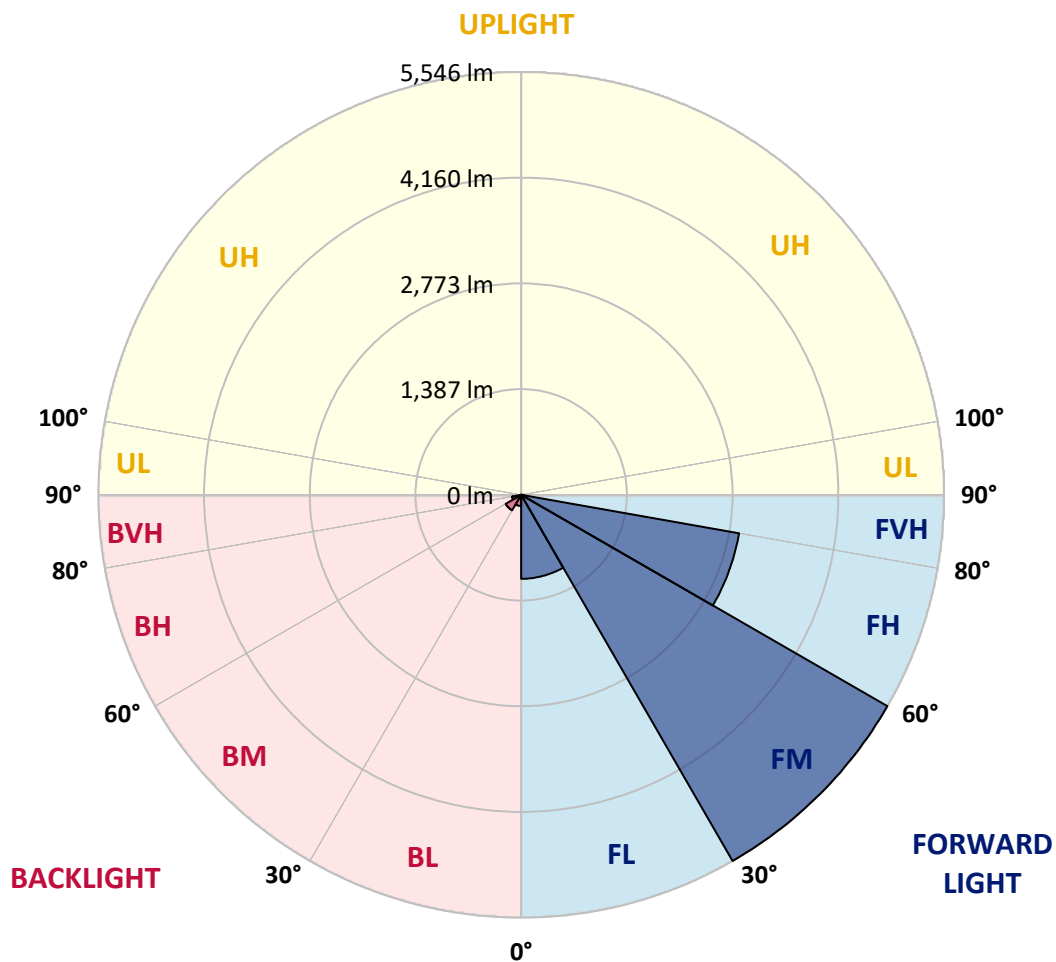
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1101.9	10.9			
FM	(30°-60°)	5546.0	55.0			
FH	(60°-80°)	2903.2	28.8			G2/5000
FVH	(80°-90°)	36.0	0.4			G1/100
BL	(0°-30°)	146.2	1.4	B1/500		
BM	(30°-60°)	234.7	2.3	B1/1000		
BH	(60°-80°)	122.0	1.2	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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9
2.5°	1546.7	1531.5	1516.2	1498.8	1459.6	1392.1	1307.2	1215.5	1102.3	1082.6	991.2
5°	1877.8	1871.3	1856.1	1832.2	1788.5	1714.4	1618.7	1483.6	1294.0	1261.3	1067.5
7.5°	2110.9	2106.5	2093.5	2065.3	2025.9	1951.9	1851.8	1705.7	1485.7	1448.6	1163.3
10°	2320.1	2317.8	2306.9	2280.8	2241.7	2161.1	2054.3	1901.8	1668.7	1627.3	1274.4
12.5°	2509.7	2511.8	2507.3	2494.4	2466.0	2389.9	2267.9	2102.3	1845.2	1799.5	1407.4
15°	2620.7	2627.3	2644.7	2670.8	2679.6	2618.5	2492.2	2309.3	2025.9	1986.8	1559.7
17.5°	2583.6	2590.3	2644.7	2734.0	2818.9	2827.7	2714.4	2505.3	2204.6	2165.5	1710.2
20°	2494.4	2503.0	2559.7	2681.7	2847.3	2962.7	2916.9	2718.7	2374.6	2326.6	1853.9
22.5°	2594.6	2594.6	2612.0	2686.1	2836.4	3017.1	3078.2	2932.2	2548.9	2490.0	1997.7
25°	2938.7	2932.2	2895.1	2864.8	2912.7	3073.8	3200.2	3150.0	2753.7	2686.1	2150.2
27.5°	3374.5	3404.9	3335.2	3224.1	3115.2	3184.9	3309.1	3365.8	2980.1	2910.5	2306.9
30°	3862.4	3875.6	3792.7	3644.7	3452.8	3385.4	3437.6	3550.9	3226.4	3150.0	2470.3
32.5°	4302.5	4291.7	4221.9	4067.3	3829.7	3683.8	3603.2	3699.1	3494.2	3407.1	2638.1
35°	4692.4	4701.2	4616.2	4437.5	4204.4	4049.7	3858.1	3866.8	3794.9	3694.6	2832.0
37.5°	5043.3	5028.0	4947.3	4768.7	4557.5	4389.7	4187.1	4041.0	4123.8	4019.2	3049.8
40°	5328.6	5313.4	5228.3	5054.0	4855.9	4718.5	4559.5	4274.1	4470.2	4350.4	3282.9
42.5°	5555.2	5537.7	5465.8	5298.1	5106.3	4984.3	4908.1	4561.8	4840.5	4720.9	3544.4
45°	5666.2	5651.0	5607.4	5481.1	5313.4	5206.5	5243.6	4892.9	5237.1	5136.9	3832.0
47.5°	5535.5	5529.0	5579.2	5557.4	5461.4	5404.8	5533.4	5254.5	5653.2	5555.2	4163.0
50°	5139.1	5150.0	5295.9	5476.6	5522.5	5590.1	5770.8	5635.7	6099.9	5995.2	4544.3
52.5°	4160.9	4235.0	4675.0	5110.7	5448.4	5703.2	6049.6	6180.3	6827.4	6725.0	5139.1
55°	3106.5	3137.1	3616.2	4361.4	5150.0	5694.5	6256.6	6500.7	7186.8	7082.2	5295.9
57.5°	2464.0	2474.8	2712.3	3472.5	4535.6	5498.4	6365.5	6616.0	7343.6	7256.6	5529.0
60°	1934.5	1947.5	2119.7	2642.5	3670.7	4969.2	6208.6	6716.3	7650.9	7581.2	5936.4
62.5°	1505.3	1518.5	1623.0	1930.2	2753.7	4154.4	5892.8	6877.5	8234.7	8202.1	6603.0
65°	1165.6	1169.9	1241.7	1385.5	1945.4	3272.0	5507.1	7027.8	9023.3	8995.0	7143.2
67.5°	860.4	867.0	917.1	1006.6	1313.6	2350.5	4875.5	6912.4	9618.1	9535.1	7339.3
69°	694.8	701.4	745.1	816.9	1037.0	1851.8	4298.2	6626.9	9707.4	9628.9	7215.1
70°	594.7	599.1	642.6	703.6	884.6	1572.8	3840.7	6380.8	9589.6	9513.4	6932.0
72.5°	381.2	403.0	446.5	485.9	586.1	1041.3	2592.4	5291.6	8273.8	8143.1	5428.7
75°	211.3	217.8	296.4	344.2	390.0	677.5	1442.1	3300.5	5263.2	5171.7	2904.0
77.5°	174.4	178.7	209.1	261.4	261.4	379.1	544.6	1300.6	2002.1	1806.0	786.5
80°	122.0	126.3	159.0	172.0	187.3	213.4	176.4	285.4	309.3	274.5	117.7
82.5°	85.0	89.3	109.0	141.7	150.3	100.3	65.3	85.0	89.3	89.3	45.8
85°	15.2	21.7	80.6	117.7	89.3	30.5	37.0	30.5	28.3	30.5	10.9
87.5°	0.0	0.0	50.1	56.7	47.9	13.0	15.2	10.9	6.6	8.8	4.3
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°	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9	938.9
2.5°	945.5	899.7	821.3	764.6	716.7	679.7	664.4	640.5	623.1	631.8	620.9
5°	971.5	890.9	764.6	684.1	627.3	579.4	540.3	509.8	485.9	481.4	477.1
7.5°	1013.0	897.5	731.9	631.8	546.8	472.8	411.8	366.0	331.1	331.1	318.1
10°	1069.6	915.0	712.4	579.4	453.1	352.9	291.9	248.3	231.0	228.8	224.3
12.5°	1148.0	947.6	697.2	511.9	352.9	257.1	220.1	204.8	198.3	196.1	193.9
15°	1254.8	995.6	679.7	429.2	268.0	211.3	196.1	183.0	176.4	174.4	172.0
17.5°	1357.2	1039.1	642.6	344.2	217.8	191.7	174.4	163.4	154.7	152.5	152.5
20°	1453.1	1076.2	579.4	268.0	196.1	172.0	154.7	141.7	132.9	130.8	130.8
22.5°	1553.3	1106.7	501.1	217.8	178.7	152.5	135.0	122.0	113.2	111.1	109.0
25°	1660.0	1128.5	411.8	193.9	161.2	135.0	115.4	104.6	98.1	95.8	93.7
27.5°	1775.5	1137.2	326.8	176.4	141.7	117.7	100.3	89.3	85.0	82.7	82.7
30°	1880.1	1128.5	252.8	156.8	124.1	102.3	87.1	78.4	74.1	71.9	71.9
32.5°	1988.9	1106.7	202.6	139.4	109.0	87.1	74.1	67.6	65.3	63.2	63.2
35°	2104.4	1078.3	174.4	124.1	93.7	76.3	65.3	60.9	58.7	56.7	56.7
37.5°	2239.5	1043.6	159.0	111.1	82.7	67.6	56.7	54.4	52.3	52.3	52.3
40°	2391.9	1000.0	148.1	100.3	74.1	58.7	50.1	47.9	45.8	45.8	45.8
42.5°	2553.3	949.8	137.3	89.3	65.3	50.1	43.6	43.6	41.4	41.4	39.3
45°	2734.0	899.7	126.3	78.4	56.7	43.6	37.0	34.9	34.9	32.7	32.7
47.5°	2947.5	854.0	115.4	69.7	50.1	37.0	32.7	30.5	28.3	26.1	26.1
50°	3248.1	849.5	102.3	60.9	45.8	30.5	26.1	24.0	21.7	19.7	19.7
52.5°	3546.6	810.5	87.1	50.1	37.0	26.1	19.7	17.4	15.2	15.2	13.0
55°	3614.2	745.1	76.3	43.6	28.3	19.7	15.2	10.9	10.9	8.8	8.8
57.5°	3762.2	714.5	65.3	34.9	21.7	15.2	8.8	6.6	6.6	6.6	6.6
60°	4054.2	705.8	56.7	30.5	15.2	10.9	6.6	4.3	4.3	2.2	2.2
62.5°	4457.2	697.2	47.9	26.1	10.9	6.6	4.3	2.2	0.0	0.0	0.0
65°	4679.5	638.2	39.3	19.7	8.8	6.6	2.2	0.0	0.0	0.0	0.0
67.5°	4620.6	527.1	34.9	13.0	6.6	4.3	2.2	0.0	0.0	0.0	0.0
69°	4374.3	444.4	28.3	10.9	6.6	4.3	2.2	0.0	0.0	0.0	0.0
70°	4078.1	383.3	26.1	8.8	4.3	2.2	2.2	0.0	0.0	0.0	0.0
72.5°	2895.1	200.4	17.4	6.6	4.3	2.2	0.0	0.0	0.0	0.0	0.0
75°	1352.8	89.3	10.9	4.3	2.2	2.2	0.0	0.0	0.0	0.0	0.0
77.5°	298.4	41.4	6.6	4.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	56.7	15.2	4.3	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.7	6.6	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	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)