

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: P231084

Luminaire Tested: **ARCH-M-AF48-130-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231084  
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-AF48-130-D-U-T2R-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 845mA 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: 11656 lumens  
Efficiency: N/A  
Efficacy: 89.0 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): 131  
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

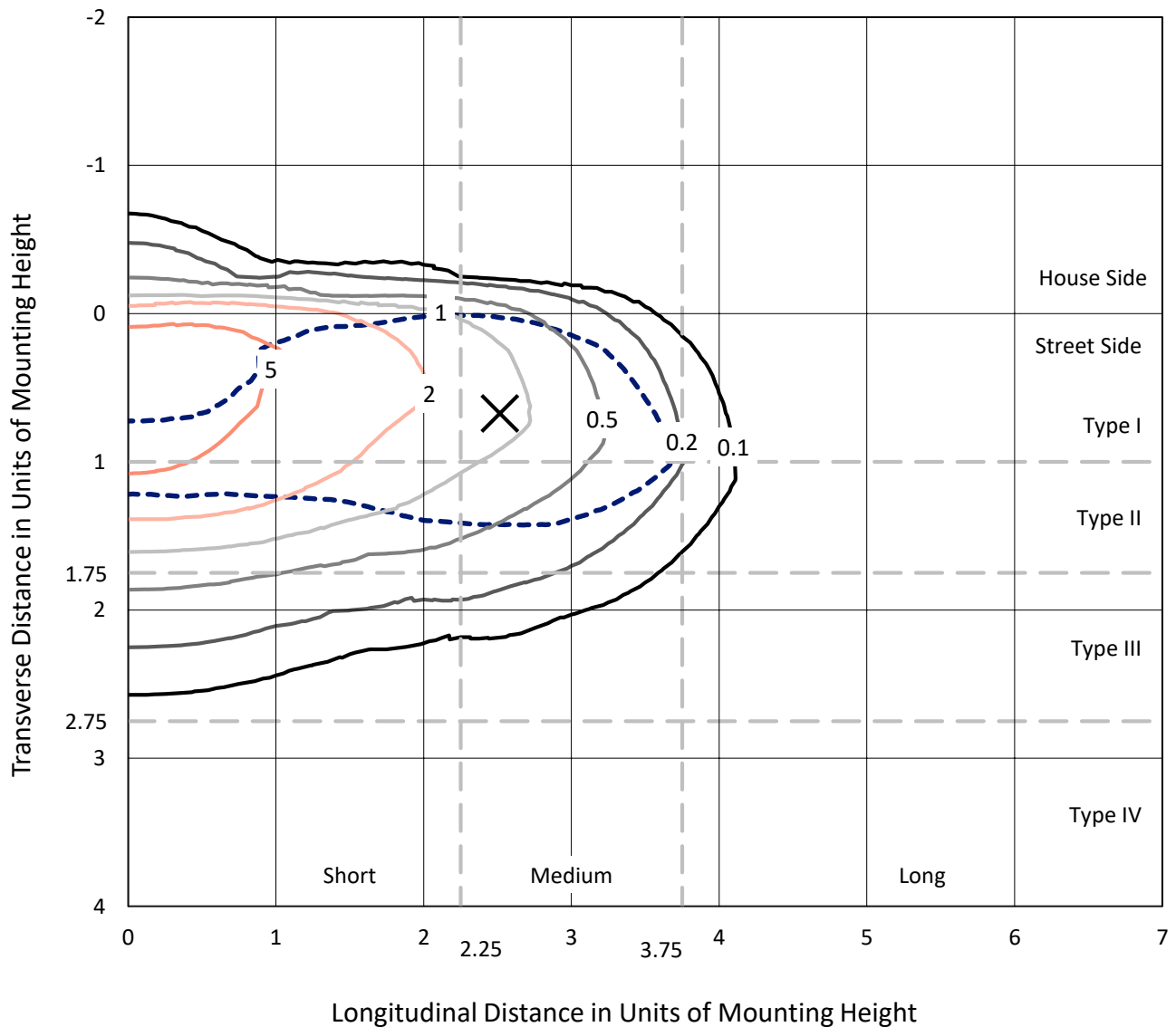


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

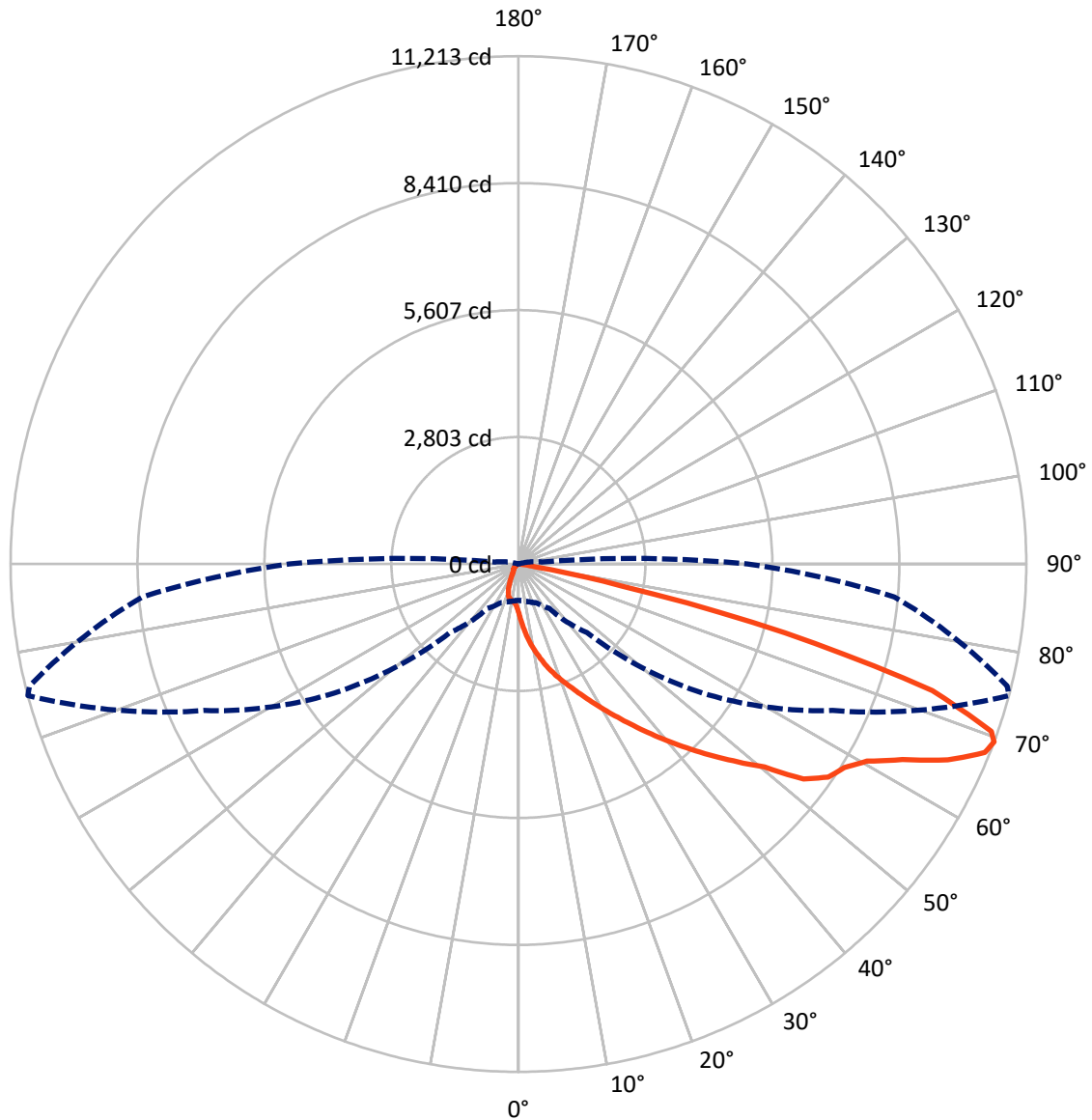


Based on 20 foot mounting height. Maximum calculated value = 7.4 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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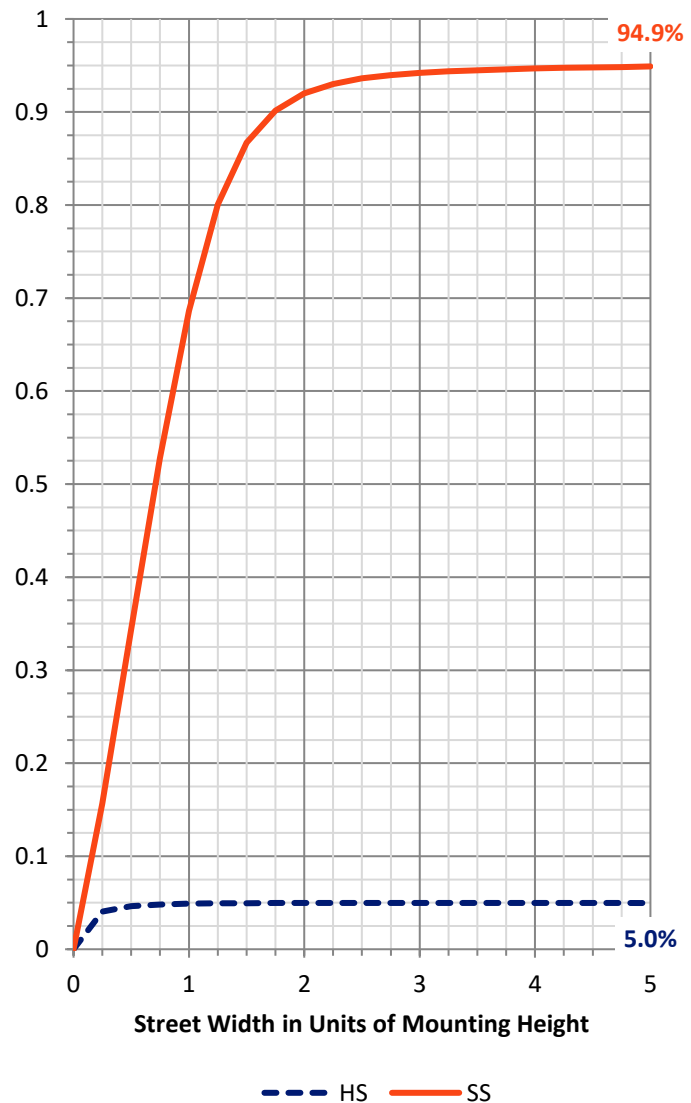
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	581.5	0.0	581.5
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	11074.4	0.0	11074.4
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	11656.0	0.0	11656.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.5	1.1
10°-20°	452.1	3.9
20°-30°	863.2	7.4
30°-40°	1548.3	13.3
40°-50°	2372.2	20.4
50°-60°	2757.1	23.7
60°-70°	2441.4	20.9
70°-80°	1053.1	9.0
80°-90°	42.2	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°	11656.0	100.0
0°-180°	11656.0	100.0

**Coefficient of Utilization**



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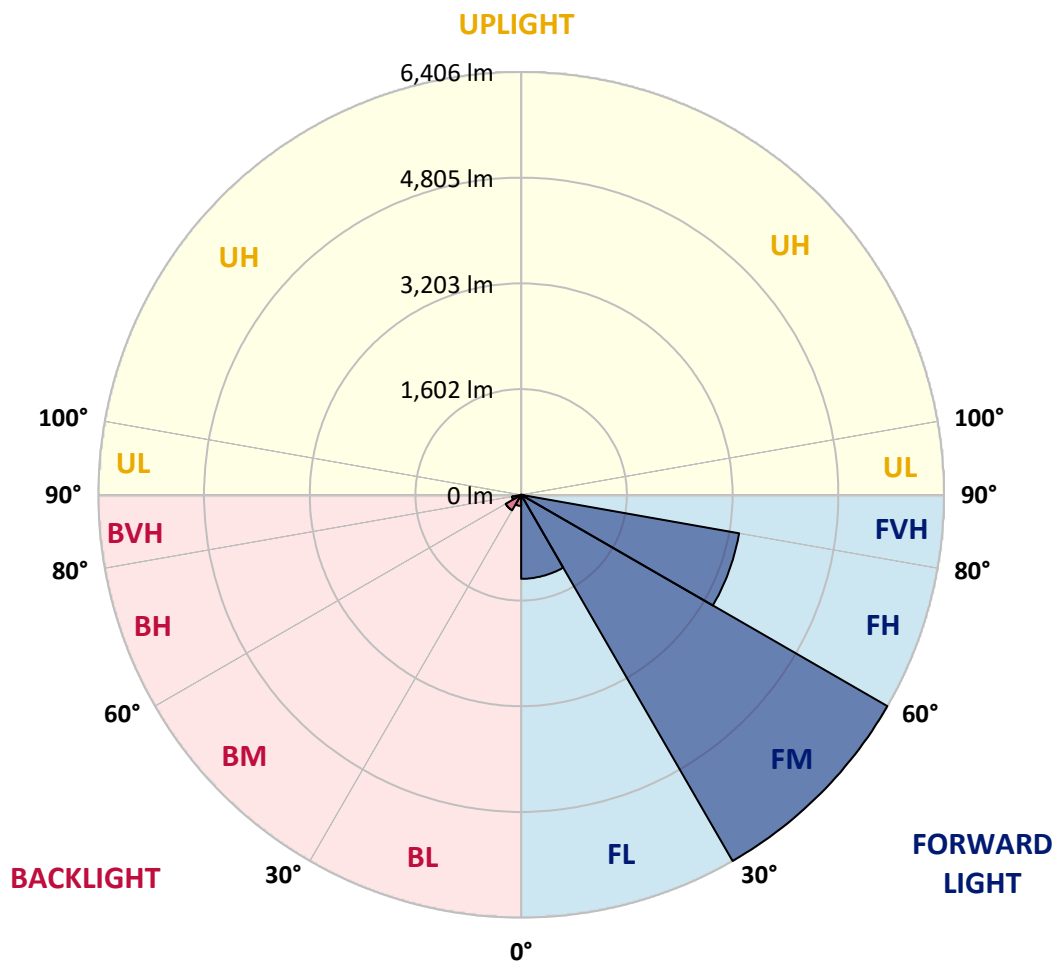
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1272.9	10.9			
FM	(30°-60°)	6406.4	55.0			
FH	(60°-80°)	3353.6	28.8			G2/5000
FVH	(80°-90°)	41.6	0.4			G1/100
BL	(0°-30°)	168.9	1.4	B1/500		
BM	(30°-60°)	271.1	2.3	B1/1000		
BH	(60°-80°)	140.9	1.2	B1/500		G1/500
BVH	(80°-90°)	0.6	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°	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6
2.5°	1786.7	1769.1	1751.4	1731.3	1686.0	1608.0	1509.9	1404.2	1273.3	1250.7	1145.0
5°	2169.2	2161.6	2144.0	2116.3	2066.0	1980.4	1869.7	1713.7	1494.8	1457.0	1233.1
7.5°	2438.4	2433.4	2418.3	2385.6	2340.3	2254.7	2139.0	1970.4	1716.2	1673.4	1343.8
10°	2680.0	2677.5	2664.9	2634.7	2589.4	2496.3	2373.0	2196.9	1927.6	1879.8	1472.1
12.5°	2898.9	2901.5	2896.4	2881.3	2848.6	2760.5	2619.6	2428.4	2131.4	2078.6	1625.6
15°	3027.3	3034.8	3055.0	3085.2	3095.2	3024.8	2878.8	2667.4	2340.3	2295.0	1801.8
17.5°	2984.5	2992.0	3055.0	3158.1	3256.3	3266.3	3135.5	2893.9	2546.6	2501.3	1975.4
20°	2881.3	2891.4	2956.8	3097.7	3289.0	3422.4	3369.5	3140.5	2742.9	2687.6	2141.5
22.5°	2997.1	2997.1	3017.2	3102.8	3276.4	3485.3	3555.7	3387.1	2944.2	2876.3	2307.6
25°	3394.7	3387.1	3344.4	3309.1	3364.5	3550.7	3696.7	3638.8	3180.8	3102.8	2483.7
27.5°	3898.0	3933.2	3852.7	3724.3	3598.5	3679.0	3822.5	3887.9	3442.5	3362.0	2664.9
30°	4461.7	4476.8	4381.1	4210.0	3988.6	3910.6	3970.9	4101.8	3726.9	3638.8	2853.6
32.5°	4970.0	4957.4	4876.9	4698.2	4423.9	4255.3	4162.2	4272.9	4036.4	3935.7	3047.4
35°	5420.4	5430.5	5332.3	5126.0	4856.7	4678.1	4456.6	4466.7	4383.6	4267.9	3271.4
37.5°	5825.6	5807.9	5714.8	5508.5	5264.4	5070.6	4836.6	4668.0	4763.6	4642.8	3523.0
40°	6155.2	6137.6	6039.5	5838.1	5609.1	5450.6	5266.9	4937.3	5163.7	5025.3	3792.3
42.5°	6416.9	6396.8	6313.8	6120.0	5898.5	5757.6	5669.5	5269.4	5591.5	5453.1	4094.3
45°	6545.3	6527.7	6477.3	6331.4	6137.6	6014.3	6057.1	5651.9	6049.5	5933.8	4426.4
47.5°	6394.3	6386.7	6444.6	6419.4	6308.7	6243.3	6391.8	6069.7	6530.2	6416.9	4808.9
50°	5936.3	5948.9	6117.5	6326.3	6379.2	6457.2	6666.1	6510.0	7046.0	6925.2	5249.3
52.5°	4806.4	4892.0	5400.3	5903.6	6293.6	6588.0	6988.2	7139.1	7886.5	7768.3	5936.3
55°	3588.4	3623.7	4177.3	5037.9	5948.9	6578.0	7227.2	7509.1	8301.7	8181.0	6117.5
57.5°	2846.1	2858.7	3133.0	4011.2	5239.2	6351.5	7353.0	7642.4	8482.9	8382.3	6386.7
60°	2234.6	2249.7	2448.5	3052.4	4240.2	5740.0	7171.9	7758.2	8837.7	8757.2	6857.3
62.5°	1738.9	1754.0	1874.7	2229.6	3180.8	4798.9	6807.0	7944.4	9512.2	9474.4	7627.3
65°	1346.3	1351.3	1434.4	1600.5	2247.2	3779.7	6361.6	8118.0	10423.1	10390.4	8251.4
67.5°	994.0	1001.5	1059.4	1162.6	1517.4	2715.2	5631.8	7984.7	11110.1	11014.5	8477.9
69°	802.7	810.3	860.6	943.7	1197.8	2139.0	4964.9	7655.0	11213.3	11122.7	8334.5
70°	687.0	692.0	742.4	812.8	1021.7	1816.9	4436.5	7370.7	11077.4	10989.3	8007.3
72.5°	440.4	465.5	515.9	561.2	676.9	1202.9	2994.6	6112.4	9557.4	9406.5	6271.0
75°	244.1	251.6	342.2	397.6	450.4	782.6	1665.9	3812.4	6079.7	5974.0	3354.4
77.5°	201.3	206.3	241.6	302.0	302.0	437.9	629.1	1502.3	2312.6	2086.1	908.4
80°	140.9	146.0	183.7	198.8	216.4	246.6	203.8	329.7	357.3	317.1	135.9
82.5°	98.1	103.2	125.8	163.6	173.6	115.8	75.5	98.1	103.2	103.2	52.8
85°	17.6	25.2	93.1	135.9	103.2	35.2	42.8	35.2	32.7	35.2	12.6
87.5°	0.0	0.0	57.9	65.4	55.4	15.1	17.6	12.6	7.5	10.1	5.0
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°	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6	1084.6
2.5°	1092.1	1039.3	948.7	883.3	827.9	785.1	767.5	739.8	719.7	729.8	717.2
5°	1122.3	1029.2	883.3	790.2	724.7	669.4	624.1	588.8	561.2	556.1	551.1
7.5°	1170.1	1036.8	845.5	729.8	631.6	546.1	475.6	422.8	382.5	382.5	367.4
10°	1235.6	1056.9	822.9	669.4	523.4	407.7	337.2	286.9	266.7	264.2	259.2
12.5°	1326.2	1094.7	805.3	591.4	407.7	296.9	254.2	236.5	229.0	226.5	224.0
15°	1449.5	1150.0	785.1	495.7	309.5	244.1	226.5	211.4	203.8	201.3	198.8
17.5°	1567.7	1200.3	742.4	397.6	251.6	221.4	201.3	188.7	178.7	176.2	176.2
20°	1678.5	1243.1	669.4	309.5	226.5	198.8	178.7	163.6	153.5	151.0	151.0
22.5°	1794.2	1278.4	578.8	251.6	206.3	176.2	156.0	140.9	130.9	128.3	125.8
25°	1917.5	1303.5	475.6	224.0	186.2	156.0	133.4	120.8	113.2	110.7	108.2
27.5°	2050.9	1313.6	377.5	203.8	163.6	135.9	115.8	103.2	98.1	95.6	95.6
30°	2171.7	1303.5	291.9	181.2	143.4	118.3	100.7	90.6	85.6	83.0	83.0
32.5°	2297.5	1278.4	234.0	161.1	125.8	100.7	85.6	78.0	75.5	73.0	73.0
35°	2430.9	1245.6	201.3	143.4	108.2	88.1	75.5	70.5	67.9	65.4	65.4
37.5°	2586.9	1205.4	183.7	128.3	95.6	78.0	65.4	62.9	60.4	60.4	60.4
40°	2763.1	1155.0	171.1	115.8	85.6	67.9	57.9	55.4	52.8	52.8	52.8
42.5°	2949.3	1097.2	158.5	103.2	75.5	57.9	50.3	50.3	47.8	47.8	45.3
45°	3158.1	1039.3	146.0	90.6	65.4	50.3	42.8	40.3	40.3	37.7	37.7
47.5°	3404.7	986.4	133.4	80.5	57.9	42.8	37.7	35.2	32.7	30.2	30.2
50°	3752.0	981.4	118.3	70.5	52.8	35.2	30.2	27.7	25.2	22.6	22.6
52.5°	4096.8	936.1	100.7	57.9	42.8	30.2	22.6	20.1	17.6	17.6	15.1
55°	4174.8	860.6	88.1	50.3	32.7	22.6	17.6	12.6	12.6	10.1	10.1
57.5°	4345.9	825.4	75.5	40.3	25.2	17.6	10.1	7.5	7.5	7.5	7.5
60°	4683.1	815.3	65.4	35.2	17.6	12.6	7.5	5.0	5.0	2.5	2.5
62.5°	5148.6	805.3	55.4	30.2	12.6	7.5	5.0	2.5	0.0	0.0	0.0
65°	5405.3	737.3	45.3	22.6	10.1	7.5	2.5	0.0	0.0	0.0	0.0
67.5°	5337.4	609.0	40.3	15.1	7.5	5.0	2.5	0.0	0.0	0.0	0.0
69°	5053.0	513.4	32.7	12.6	7.5	5.0	2.5	0.0	0.0	0.0	0.0
70°	4710.8	442.9	30.2	10.1	5.0	2.5	2.5	0.0	0.0	0.0	0.0
72.5°	3344.4	231.5	20.1	7.5	5.0	2.5	0.0	0.0	0.0	0.0	0.0
75°	1562.7	103.2	12.6	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
77.5°	344.8	47.8	7.5	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	65.4	17.6	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	22.6	7.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	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)