

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: P265798

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265798  
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-AF48-90-D-U-T2R-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 600mA 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: 8717.5 lumens  
Efficiency: N/A  
Efficacy: 94.8 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): 92  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

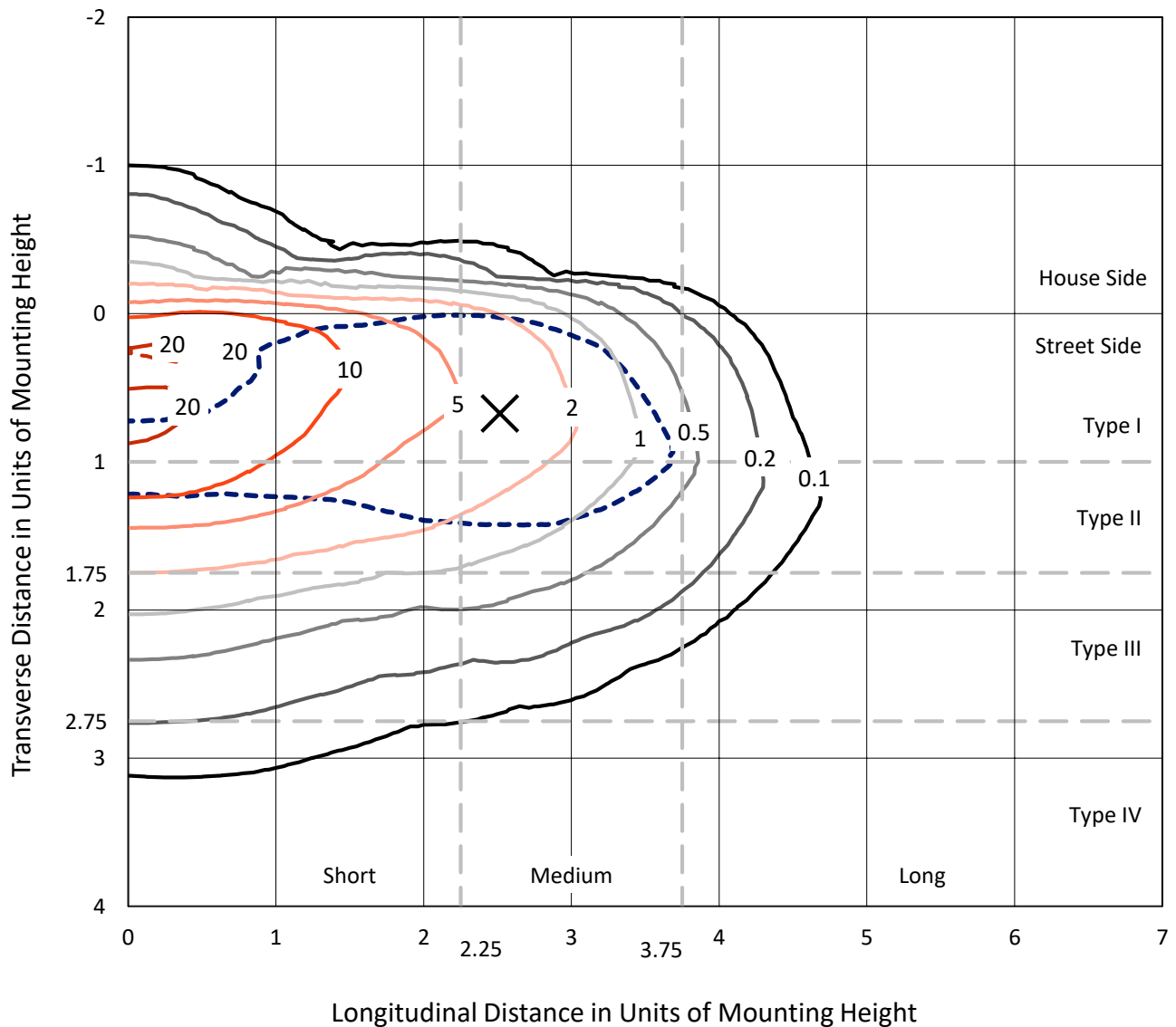


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

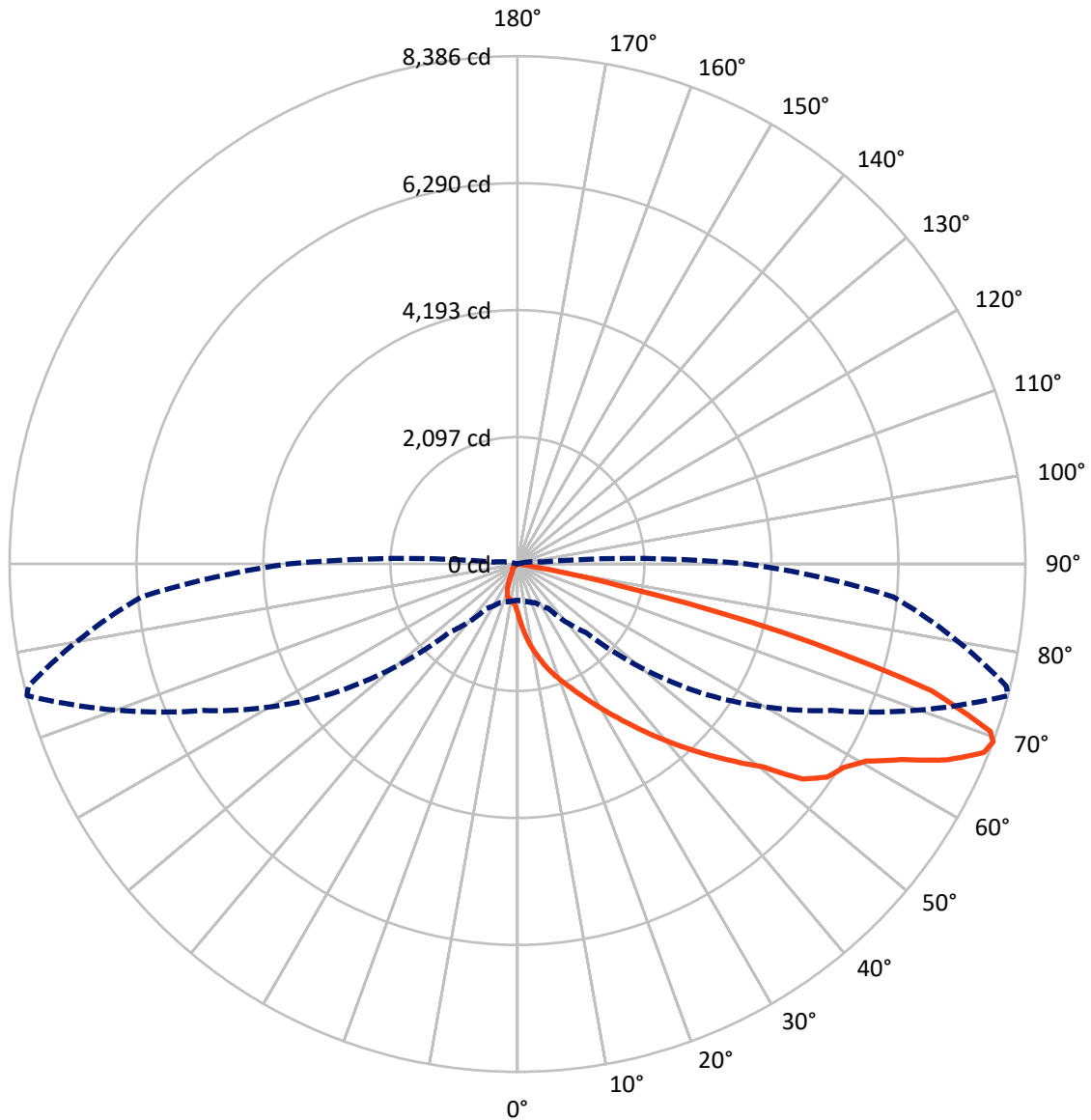


Based on 10 foot mounting height. Maximum calculated value = 22.2 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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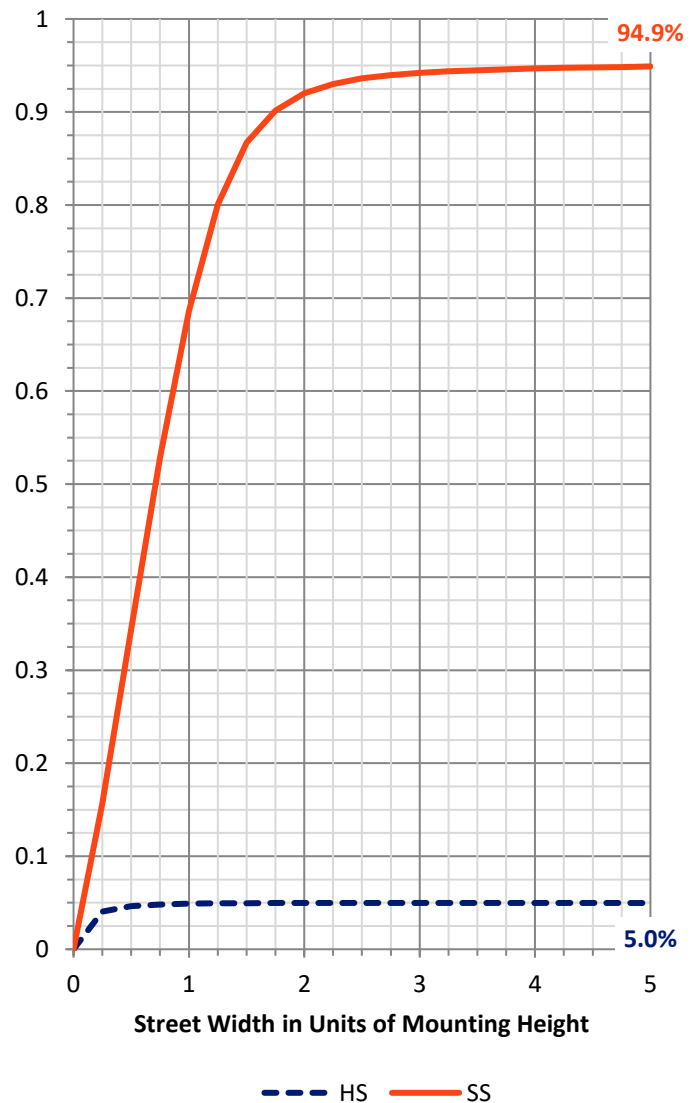
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	434.9	0.0	434.9
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	8282.6	0.0	8282.6
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	8717.5	0.0	8717.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.6	1.1
10°-20°	338.2	3.9
20°-30°	645.5	7.4
30°-40°	1158.0	13.3
40°-50°	1774.2	20.4
50°-60°	2062.0	23.7
60°-70°	1825.9	20.9
70°-80°	787.6	9.0
80°-90°	31.5	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°	8717.5	100.0
0°-180°	8717.5	100.0

**Coefficient of Utilization**



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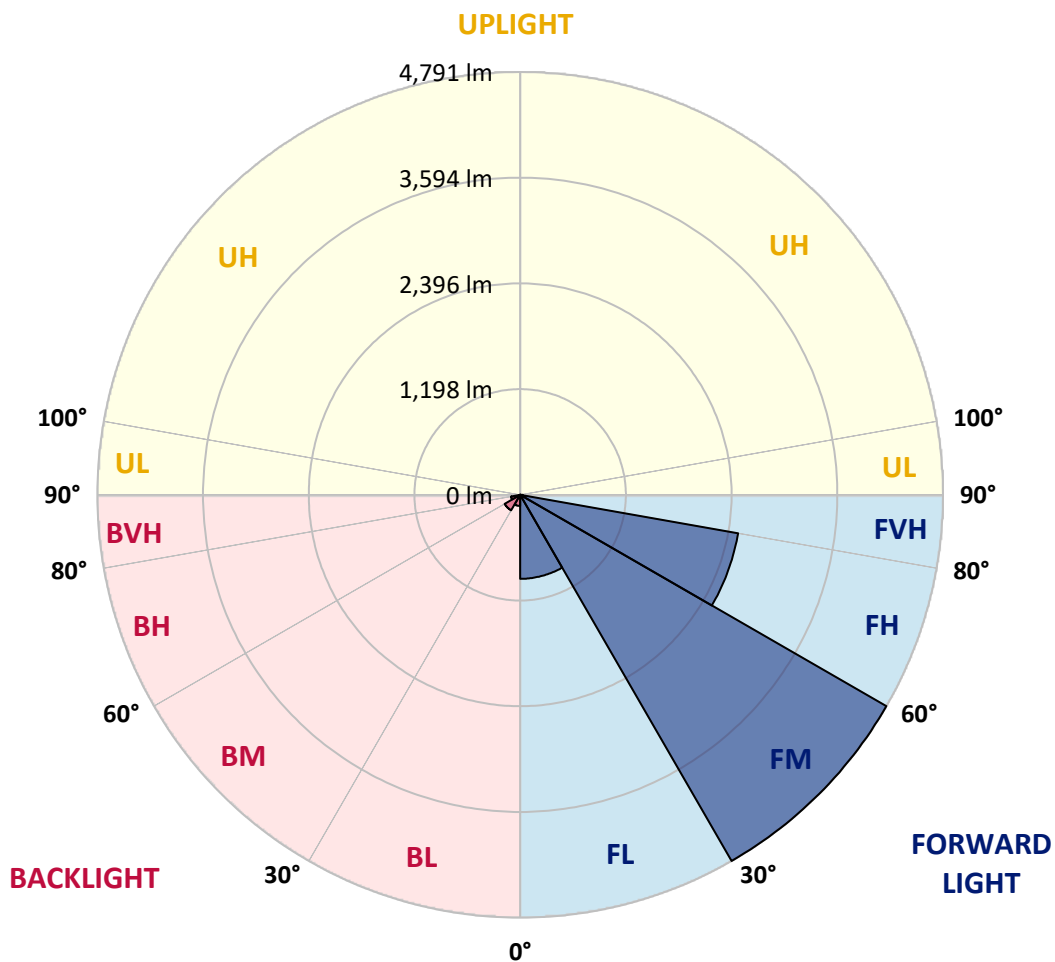
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	952.0	10.9			
FM	(30°-60°)	4791.4	55.0			
FH	(60°-80°)	2508.1	28.8			G2/5000
FVH	(80°-90°)	31.1	0.4			G1/100
BL	(0°-30°)	126.3	1.4	B1/500		
BM	(30°-60°)	202.8	2.3	B0/220		
BH	(60°-80°)	105.4	1.2	B0/110		G0/110
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°	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2
2.5°	1336.3	1323.1	1309.9	1294.8	1261.0	1202.7	1129.2	1050.2	952.4	935.3	856.4
5°	1622.2	1616.7	1603.6	1582.9	1545.2	1481.1	1398.3	1281.7	1117.9	1089.7	922.2
7.5°	1823.6	1820.0	1808.6	1784.2	1750.3	1686.3	1599.7	1473.6	1283.6	1251.6	1005.1
10°	2004.4	2002.5	1993.1	1970.5	1936.7	1866.9	1774.8	1643.0	1441.6	1405.8	1101.1
12.5°	2168.1	2169.9	2166.3	2154.9	2130.5	2064.7	1959.3	1816.2	1594.1	1554.5	1215.8
15°	2264.1	2269.7	2284.7	2307.3	2314.9	2262.2	2153.1	1995.0	1750.3	1716.4	1347.5
17.5°	2232.1	2237.8	2284.7	2362.0	2435.3	2442.9	2345.0	2164.3	1904.6	1870.8	1477.4
20°	2154.9	2162.5	2211.4	2316.8	2459.7	2559.6	2520.0	2348.8	2051.4	2010.0	1601.6
22.5°	2241.5	2241.5	2256.6	2320.5	2450.4	2606.6	2659.3	2533.2	2201.9	2151.3	1725.9
25°	2538.9	2533.2	2501.2	2474.9	2516.3	2655.6	2764.8	2721.4	2378.9	2320.5	1857.5
27.5°	2915.3	2941.6	2881.5	2785.5	2691.3	2751.6	2858.9	2907.8	2574.6	2514.4	1993.1
30°	3336.8	3348.2	3276.7	3148.6	2983.0	2924.7	2969.8	3067.7	2787.4	2721.4	2134.3
32.5°	3717.0	3707.7	3647.4	3513.8	3308.6	3182.5	3112.8	3195.7	3018.8	2943.6	2279.2
35°	4054.0	4061.4	3988.0	3833.7	3632.3	3498.7	3333.2	3340.6	3278.5	3191.9	2446.7
37.5°	4356.9	4343.8	4274.1	4119.7	3937.2	3792.4	3617.2	3491.3	3562.7	3472.4	2634.9
40°	4603.5	4590.2	4516.9	4366.3	4195.1	4076.5	3939.1	3692.6	3862.0	3758.5	2836.3
42.5°	4799.3	4784.2	4722.0	4577.1	4411.5	4306.1	4240.3	3941.0	4181.9	4078.3	3062.1
45°	4895.3	4882.0	4844.4	4735.2	4590.2	4498.2	4530.2	4227.1	4524.5	4437.8	3310.6
47.5°	4782.2	4776.6	4819.9	4801.1	4718.3	4669.4	4780.4	4539.4	4883.9	4799.3	3596.6
50°	4439.8	4449.1	4575.2	4731.5	4771.0	4829.3	4985.6	4868.9	5269.7	5179.4	3926.0
52.5°	3594.7	3658.6	4038.9	4415.3	4706.9	4927.3	5226.5	5339.3	5898.4	5809.9	4439.8
55°	2683.7	2710.1	3124.1	3767.9	4449.1	4919.7	5405.2	5616.1	6208.8	6118.5	4575.2
57.5°	2128.7	2138.0	2343.1	3000.0	3918.4	4750.2	5499.3	5715.7	6344.4	6269.1	4776.6
60°	1671.2	1682.5	1831.3	2283.0	3171.2	4292.9	5363.8	5802.3	6609.8	6549.5	5128.6
62.5°	1300.4	1311.7	1402.2	1667.6	2378.9	3589.1	5091.0	5941.6	7114.1	7085.9	5704.4
65°	1006.9	1010.7	1072.8	1197.0	1680.6	2826.8	4757.9	6071.5	7795.4	7771.0	6171.3
67.5°	743.3	749.0	792.3	869.5	1134.9	2030.7	4212.1	5971.8	8309.2	8237.6	6340.5
69°	600.3	606.0	643.6	705.8	895.9	1599.7	3713.2	5725.2	8386.3	8318.7	6233.2
70°	513.8	517.6	555.2	608.0	764.1	1358.9	3318.1	5512.4	8284.8	8219.0	5988.7
72.5°	329.4	348.2	385.8	419.7	506.3	899.7	2239.7	4571.5	7148.1	7035.0	4690.1
75°	182.5	188.3	255.9	297.3	336.9	585.3	1245.9	2851.3	4547.0	4468.0	2508.7
77.5°	150.6	154.2	180.6	225.8	225.8	327.5	470.5	1123.6	1729.5	1560.3	679.4
80°	105.5	109.1	137.4	148.7	161.9	184.4	152.4	246.6	267.2	237.2	101.6
82.5°	73.4	77.2	94.1	122.3	129.8	86.5	56.5	73.4	77.2	77.2	39.5
85°	13.1	18.9	69.6	101.6	77.2	26.3	32.0	26.3	24.4	26.3	9.4
87.5°	0.0	0.0	43.3	49.0	41.4	11.3	13.1	9.4	5.7	7.5	3.8
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°	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2	811.2
2.5°	816.7	777.4	709.5	660.7	619.2	587.2	574.0	553.4	538.3	545.8	536.4
5°	839.3	769.8	660.7	590.9	542.0	500.6	466.8	440.3	419.7	415.9	412.1
7.5°	875.2	775.3	632.3	545.8	472.4	408.4	355.6	316.2	286.1	286.1	274.8
10°	924.0	790.5	615.3	500.6	391.5	304.9	252.2	214.5	199.6	197.5	193.9
12.5°	991.9	818.6	602.3	442.2	304.9	222.2	190.1	177.0	171.2	169.4	167.5
15°	1084.1	860.0	587.2	370.8	231.6	182.5	169.4	158.1	152.4	150.6	148.7
17.5°	1172.5	897.8	555.2	297.3	188.3	165.6	150.6	141.2	133.6	131.7	131.7
20°	1255.3	929.7	500.6	231.6	169.4	148.7	133.6	122.3	114.9	112.9	112.9
22.5°	1341.9	956.1	432.9	188.3	154.2	131.7	116.7	105.5	97.8	95.9	94.1
25°	1434.1	974.9	355.6	167.5	139.2	116.7	99.7	90.3	84.7	82.9	80.9
27.5°	1533.9	982.4	282.2	152.4	122.3	101.6	86.5	77.2	73.4	71.5	71.5
30°	1624.2	974.9	218.3	135.6	107.3	88.5	75.3	67.7	64.0	62.2	62.2
32.5°	1718.3	956.1	175.0	120.5	94.1	75.3	64.0	58.3	56.5	54.5	54.5
35°	1818.1	931.6	150.6	107.3	80.9	65.8	56.5	52.7	50.8	49.0	49.0
37.5°	1934.7	901.4	137.4	95.9	71.5	58.3	49.0	47.0	45.2	45.2	45.2
40°	2066.6	863.9	128.0	86.5	64.0	50.8	43.3	41.4	39.5	39.5	39.5
42.5°	2205.8	820.6	118.5	77.2	56.5	43.3	37.6	37.6	35.8	35.8	33.9
45°	2362.0	777.4	109.1	67.7	49.0	37.6	32.0	30.2	30.2	28.2	28.2
47.5°	2546.4	737.8	99.7	60.2	43.3	32.0	28.2	26.3	24.4	22.5	22.5
50°	2806.1	733.9	88.5	52.7	39.5	26.3	22.5	20.8	18.9	17.0	17.0
52.5°	3063.9	700.0	75.3	43.3	32.0	22.5	17.0	15.0	13.1	13.1	11.3
55°	3122.2	643.6	65.8	37.6	24.4	17.0	13.1	9.4	9.4	7.5	7.5
57.5°	3250.2	617.3	56.5	30.2	18.9	13.1	7.5	5.7	5.7	5.7	5.7
60°	3502.5	609.8	49.0	26.3	13.1	9.4	5.7	3.8	3.8	1.8	1.8
62.5°	3850.7	602.3	41.4	22.5	9.4	5.7	3.8	1.8	0.0	0.0	0.0
65°	4042.6	551.4	33.9	17.0	7.5	5.7	1.8	0.0	0.0	0.0	0.0
67.5°	3991.8	455.4	30.2	11.3	5.7	3.8	1.8	0.0	0.0	0.0	0.0
69°	3779.2	383.9	24.4	9.4	5.7	3.8	1.8	0.0	0.0	0.0	0.0
70°	3523.2	331.3	22.5	7.5	3.8	1.8	1.8	0.0	0.0	0.0	0.0
72.5°	2501.2	173.2	15.0	5.7	3.8	1.8	0.0	0.0	0.0	0.0	0.0
75°	1168.8	77.2	9.4	3.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0
77.5°	257.9	35.8	5.7	3.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	49.0	13.1	3.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.0	5.7	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.7	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	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)