

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: P265789

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265789  
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-AF48-80-D-U-T2R-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 535mA 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: 7878.4 lumens  
Efficiency: N/A  
Efficacy: 94.9 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): 83  
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

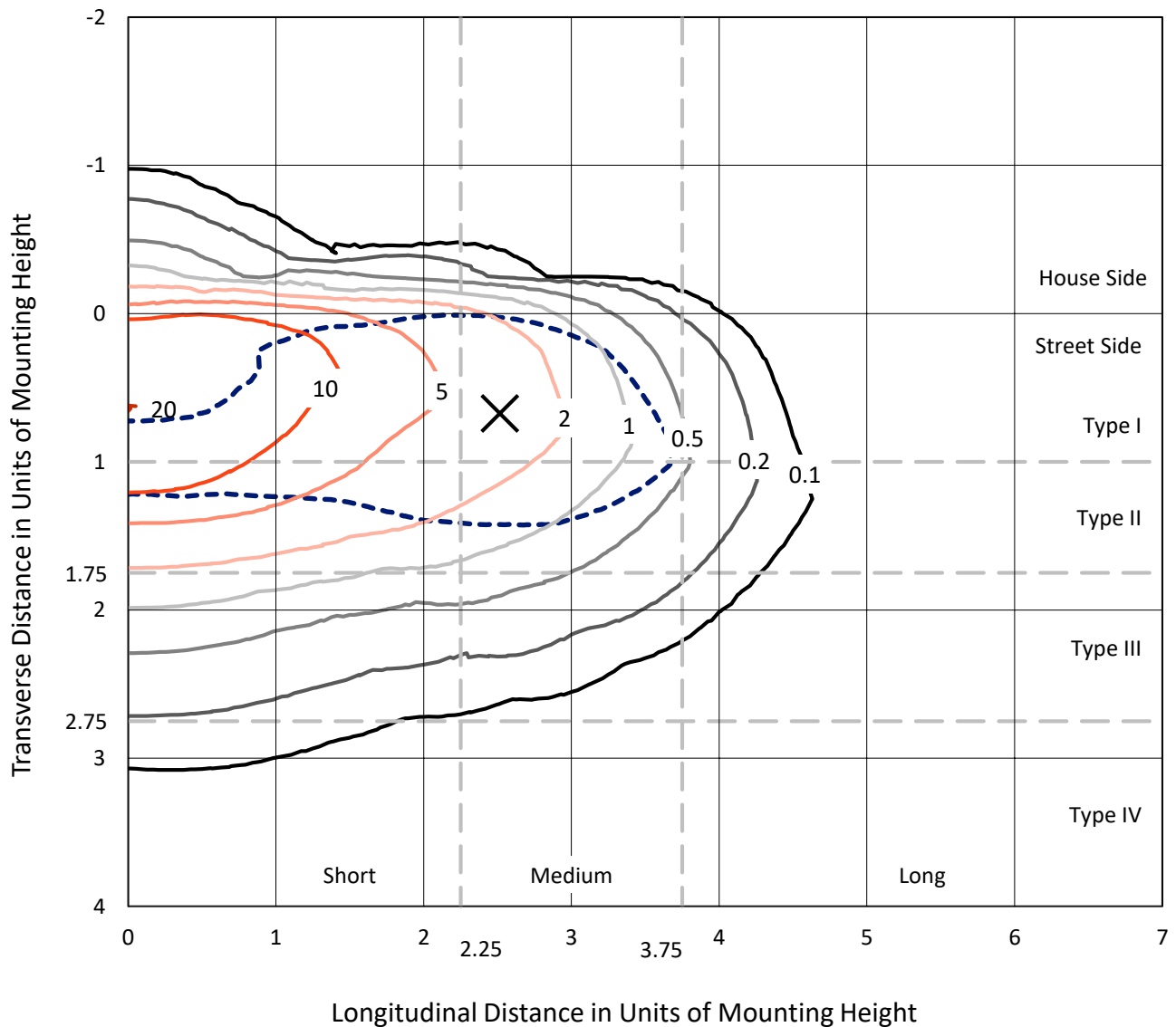


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

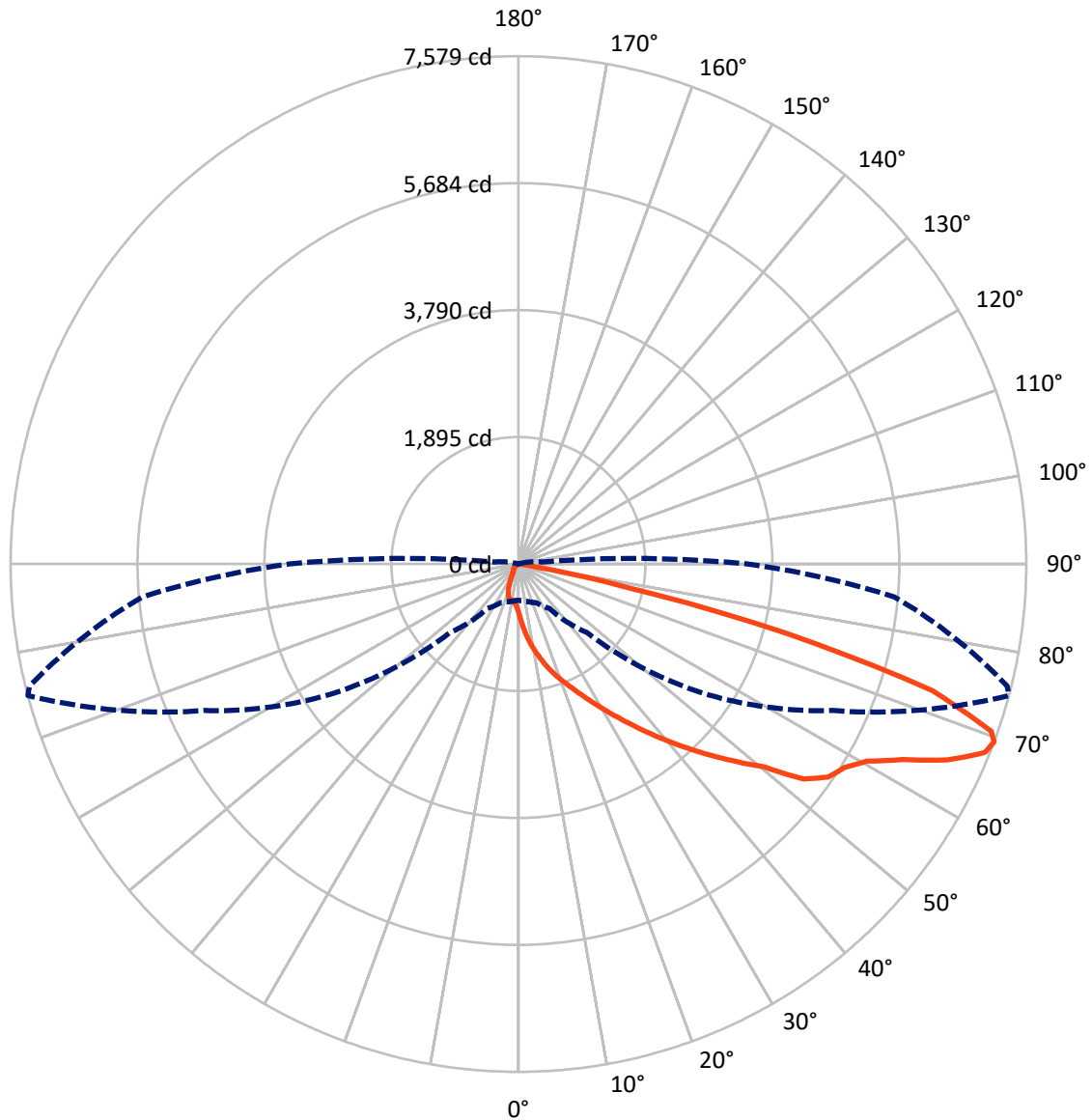


Based on 10 foot mounting height. Maximum calculated value = 20.1 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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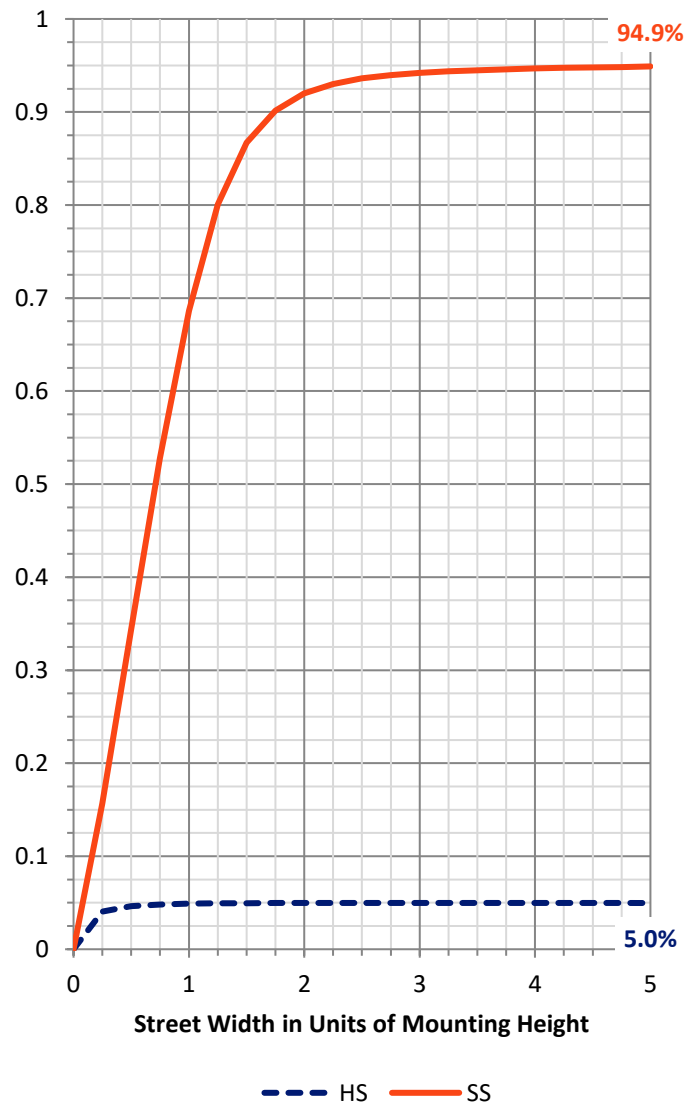
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	393.1	0.0	393.1
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	7485.3	0.0	7485.3
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	7878.4	0.0	7878.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.5	1.1
10°-20°	305.6	3.9
20°-30°	583.4	7.4
30°-40°	1046.5	13.3
40°-50°	1603.4	20.4
50°-60°	1863.5	23.7
60°-70°	1650.2	20.9
70°-80°	711.8	9.0
80°-90°	28.5	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°	7878.4	100.0
0°-180°	7878.4	100.0

**Coefficient of Utilization**



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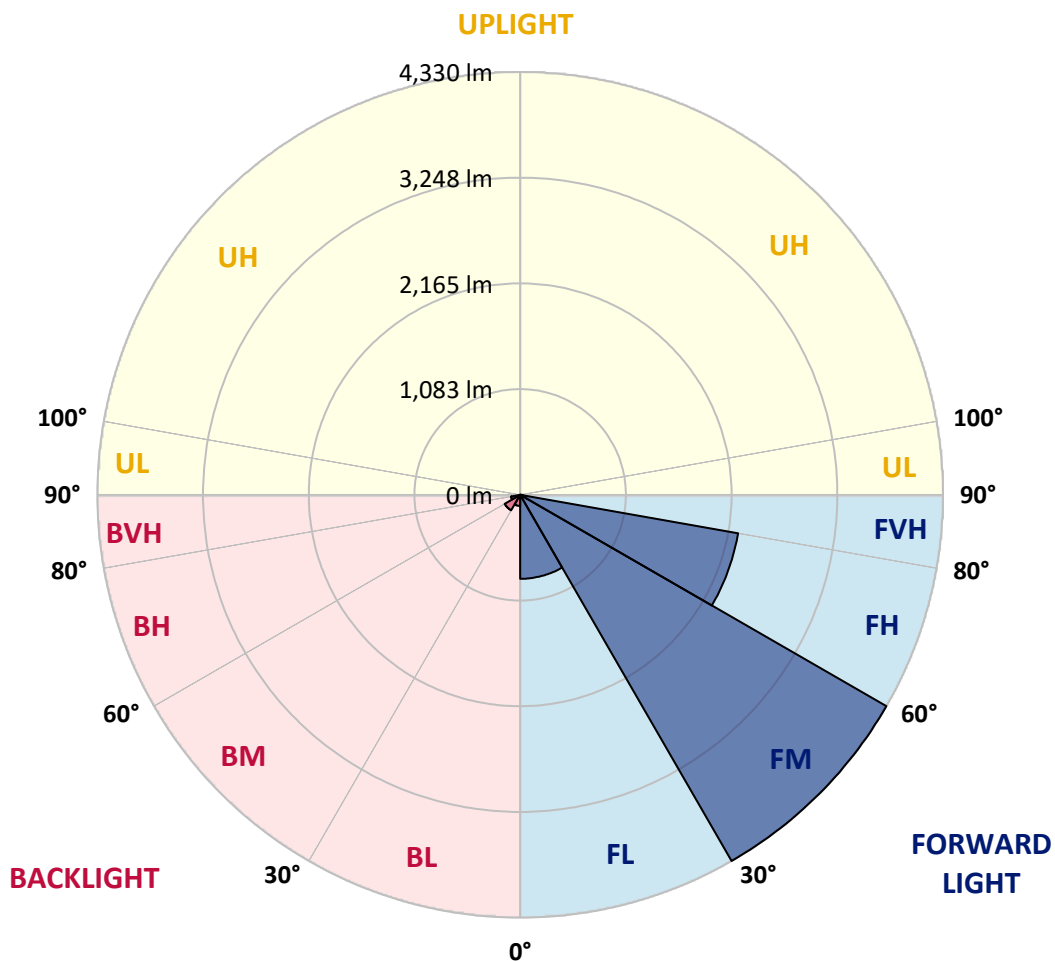
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	860.3	10.9			
FM	(30°-60°)	4330.2	55.0			
FH	(60°-80°)	2266.7	28.8			G2/5000
FVH	(80°-90°)	28.1	0.4			G1/100
BL	(0°-30°)	114.2	1.4	B1/500		
BM	(30°-60°)	183.3	2.3	B0/220		
BH	(60°-80°)	95.2	1.2	B0/110		G0/110
BVH	(80°-90°)	0.4	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°	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0
2.5°	1207.6	1195.7	1183.7	1170.2	1139.6	1086.9	1020.6	949.1	860.7	845.3	773.9
5°	1466.2	1461.1	1449.1	1430.5	1396.4	1338.6	1263.7	1158.4	1010.4	984.8	833.4
7.5°	1648.1	1644.7	1634.6	1612.5	1581.8	1524.0	1445.7	1331.7	1160.0	1131.1	908.2
10°	1811.4	1809.7	1801.2	1780.8	1750.2	1687.2	1604.0	1484.9	1302.9	1270.6	995.1
12.5°	1959.5	1961.1	1957.6	1947.4	1925.3	1865.9	1770.6	1641.4	1440.6	1404.9	1098.7
15°	2046.2	2051.3	2064.8	2085.2	2092.2	2044.5	1945.8	1802.9	1581.8	1551.3	1217.8
17.5°	2017.2	2022.4	2064.8	2134.6	2200.9	2207.8	2119.3	1956.0	1721.3	1690.7	1335.2
20°	1947.4	1954.4	1998.5	2093.8	2223.0	2313.1	2277.5	2122.7	1853.9	1816.6	1447.4
22.5°	2025.8	2025.8	2039.3	2097.2	2214.5	2355.7	2403.3	2289.4	1990.0	1944.1	1559.6
25°	2294.5	2289.4	2260.4	2236.7	2274.1	2399.9	2498.5	2459.5	2150.0	2097.2	1678.8
27.5°	2634.6	2658.4	2604.0	2517.3	2432.3	2486.7	2583.6	2627.8	2326.8	2272.4	1801.2
30°	3015.7	3025.9	2961.3	2845.7	2696.0	2643.2	2684.0	2772.3	2518.9	2459.5	1928.8
32.5°	3359.2	3350.7	3296.3	3175.6	2990.2	2876.2	2813.2	2888.1	2728.2	2660.2	2059.8
35°	3663.6	3670.5	3604.2	3464.8	3282.6	3161.9	3012.2	3019.1	2962.9	2884.6	2211.2
37.5°	3937.5	3925.7	3862.7	3723.3	3558.2	3427.3	3269.1	3155.1	3219.7	3138.0	2381.2
40°	4160.3	4148.5	4082.1	3946.1	3791.2	3684.0	3560.0	3337.2	3490.3	3396.6	2563.3
42.5°	4337.2	4323.6	4267.5	4136.5	3986.9	3891.5	3832.1	3561.6	3779.3	3685.7	2767.3
45°	4424.1	4412.0	4378.1	4279.3	4148.5	4065.1	4094.0	3820.1	4088.9	4010.7	2991.9
47.5°	4321.9	4316.9	4355.9	4339.0	4264.2	4219.9	4320.2	4102.5	4413.8	4337.2	3250.3
50°	4012.4	4020.9	4134.8	4276.0	4311.8	4364.4	4505.5	4400.2	4762.5	4680.8	3548.0
52.5°	3248.7	3306.5	3650.2	3990.2	4254.0	4452.9	4723.4	4825.3	5330.5	5250.7	4012.4
55°	2425.5	2449.3	2823.5	3405.1	4020.9	4446.2	4885.0	5075.5	5611.3	5529.5	4134.8
57.5°	1923.7	1932.3	2117.6	2711.3	3541.2	4293.0	4970.0	5165.6	5733.6	5665.6	4316.9
60°	1510.4	1520.7	1654.9	2063.1	2866.0	3879.7	4847.6	5243.8	5973.5	5919.0	4634.9
62.5°	1175.3	1185.6	1267.1	1506.9	2150.0	3243.6	4600.8	5369.7	6429.3	6403.7	5155.4
65°	910.0	913.3	969.5	1081.7	1518.9	2554.7	4299.7	5487.0	7045.0	7022.9	5577.1
67.5°	671.8	677.0	716.0	785.7	1025.7	1835.2	3806.6	5396.8	7509.4	7444.8	5730.3
69°	542.5	547.6	581.7	637.8	809.6	1445.7	3355.8	5174.1	7579.1	7517.8	5633.4
70°	464.3	467.7	501.8	549.4	690.5	1228.1	2998.6	4981.9	7487.3	7427.7	5412.2
72.5°	297.7	314.6	348.7	379.4	457.5	813.1	2024.1	4131.5	6459.9	6357.8	4238.7
75°	165.0	170.0	231.4	268.8	304.4	529.0	1125.9	2576.8	4109.3	4037.9	2267.2
77.5°	136.1	139.4	163.3	204.2	204.2	295.9	425.2	1015.4	1563.1	1410.0	614.0
80°	95.2	98.6	124.1	134.3	146.2	166.6	137.8	222.8	241.6	214.3	91.8
82.5°	66.4	69.8	85.0	110.5	117.4	78.2	51.1	66.4	69.8	69.8	35.8
85°	11.9	17.0	62.9	91.8	69.8	23.9	28.9	23.9	22.1	23.9	8.5
87.5°	0.0	0.0	39.2	44.2	37.4	10.2	11.9	8.5	5.1	6.7	3.5
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°	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0
2.5°	738.1	702.5	641.2	597.1	559.6	530.7	518.9	500.0	486.4	493.3	484.7
5°	758.6	695.6	597.1	534.1	489.8	452.4	421.8	397.9	379.4	375.9	372.4
7.5°	790.9	700.8	571.5	493.3	427.0	369.2	321.5	285.8	258.5	258.5	248.3
10°	835.2	714.3	556.2	452.4	353.8	275.5	227.9	193.9	180.3	178.7	175.2
12.5°	896.4	739.8	544.3	399.7	275.5	200.7	171.8	159.9	154.8	153.2	151.4
15°	979.7	777.4	530.7	335.1	209.2	165.0	153.2	142.9	137.8	136.1	134.3
17.5°	1059.6	811.3	501.8	268.8	170.0	149.7	136.1	127.6	120.7	119.0	119.0
20°	1134.5	840.3	452.4	209.2	153.2	134.3	120.7	110.5	103.8	102.0	102.0
22.5°	1212.7	864.0	391.2	170.0	139.4	119.0	105.5	95.2	88.5	86.7	85.0
25°	1296.1	881.1	321.5	151.4	125.9	105.5	90.1	81.7	76.5	74.9	73.1
27.5°	1386.3	887.9	255.1	137.8	110.5	91.8	78.2	69.8	66.4	64.7	64.7
30°	1467.9	881.1	197.3	122.4	96.9	79.9	68.0	61.3	57.9	56.1	56.1
32.5°	1552.9	864.0	158.2	108.9	85.0	68.0	57.9	52.7	51.1	49.3	49.3
35°	1643.0	841.9	136.1	96.9	73.1	59.6	51.1	47.6	46.0	44.2	44.2
37.5°	1748.6	814.8	124.1	86.7	64.7	52.7	44.2	42.5	40.9	40.9	40.9
40°	1867.5	780.6	115.6	78.2	57.9	46.0	39.2	37.4	35.8	35.8	35.8
42.5°	1993.3	741.6	107.2	69.8	51.1	39.2	34.0	34.0	32.2	32.2	30.6
45°	2134.6	702.5	98.6	61.3	44.2	34.0	28.9	27.2	27.2	25.5	25.5
47.5°	2301.3	666.7	90.1	54.4	39.2	28.9	25.5	23.9	22.1	20.4	20.4
50°	2536.1	663.4	79.9	47.6	35.8	23.9	20.4	18.8	17.0	15.4	15.4
52.5°	2769.0	632.8	68.0	39.2	28.9	20.4	15.4	13.7	11.9	11.9	10.2
55°	2821.8	581.7	59.6	34.0	22.1	15.4	11.9	8.5	8.5	6.7	6.7
57.5°	2937.4	557.8	51.1	27.2	17.0	11.9	6.7	5.1	5.1	5.1	5.1
60°	3165.4	551.1	44.2	23.9	11.9	8.5	5.1	3.5	3.5	1.6	1.6
62.5°	3480.0	544.3	37.4	20.4	8.5	5.1	3.5	1.6	0.0	0.0	0.0
65°	3653.4	498.4	30.6	15.4	6.7	5.1	1.6	0.0	0.0	0.0	0.0
67.5°	3607.6	411.7	27.2	10.2	5.1	3.5	1.6	0.0	0.0	0.0	0.0
69°	3415.4	346.9	22.1	8.5	5.1	3.5	1.6	0.0	0.0	0.0	0.0
70°	3184.0	299.3	20.4	6.7	3.5	1.6	1.6	0.0	0.0	0.0	0.0
72.5°	2260.4	156.5	13.7	5.1	3.5	1.6	0.0	0.0	0.0	0.0	0.0
75°	1056.2	69.8	8.5	3.5	1.6	1.6	0.0	0.0	0.0	0.0	0.0
77.5°	233.0	32.2	5.1	3.5	1.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	44.2	11.9	3.5	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.4	5.1	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	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)