

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: P236963

Luminaire Tested: **ARCH-L-AF72-100-D-U-T2R-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P236963  
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-L-AF72-100-D-U-T2R-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 440mA 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: 11493.9 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

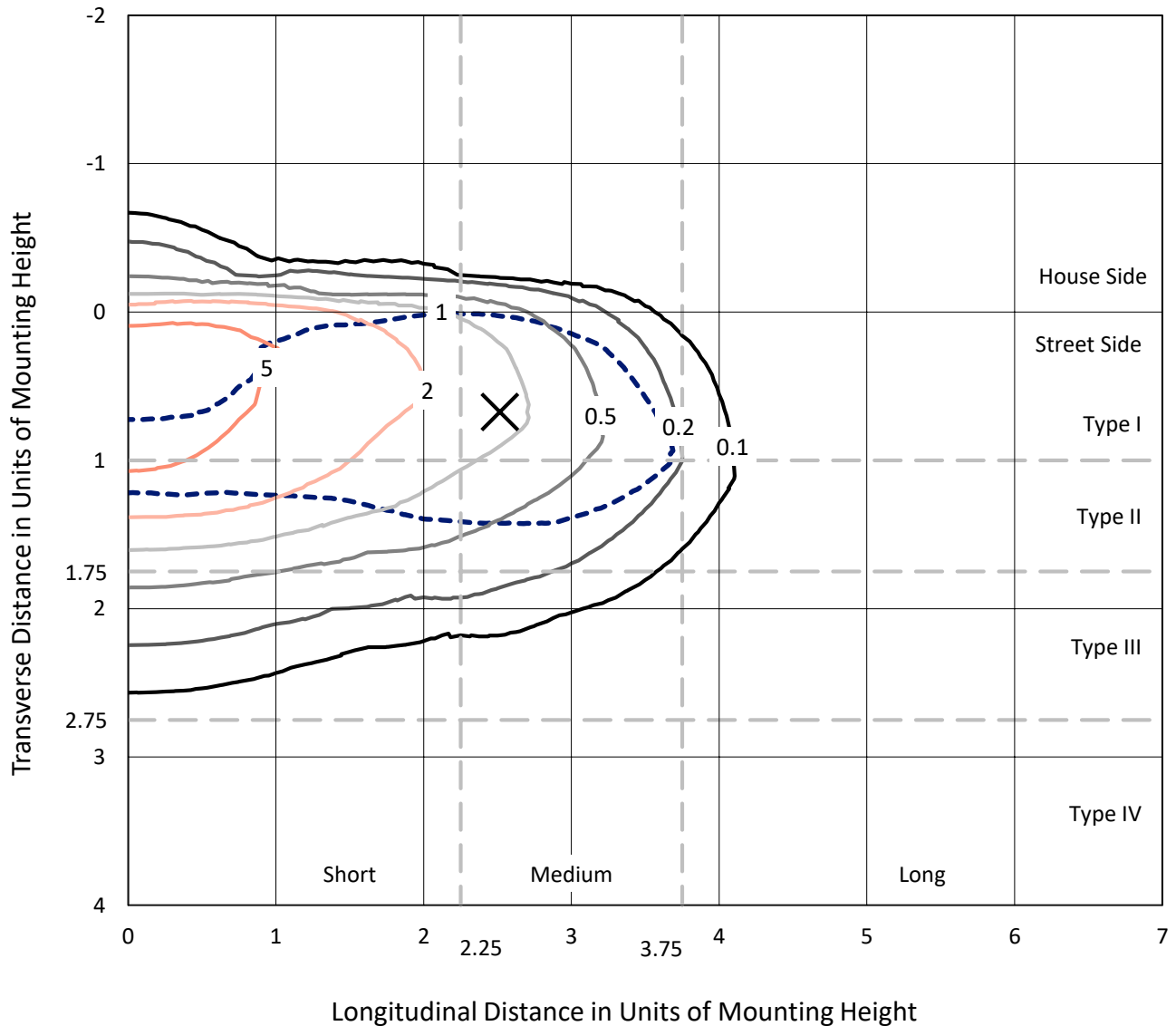
Input Watts (W): 102  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

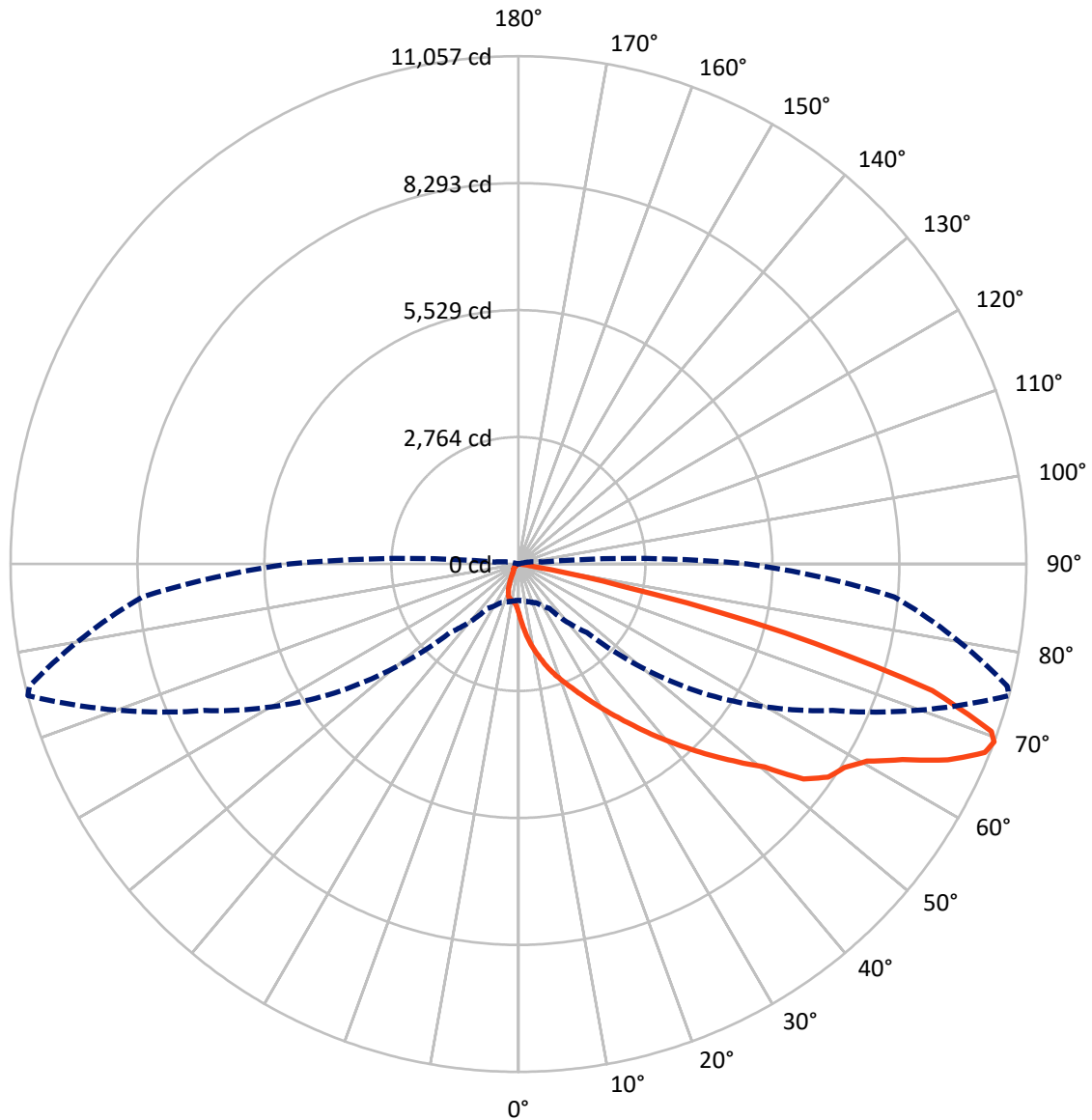
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.3 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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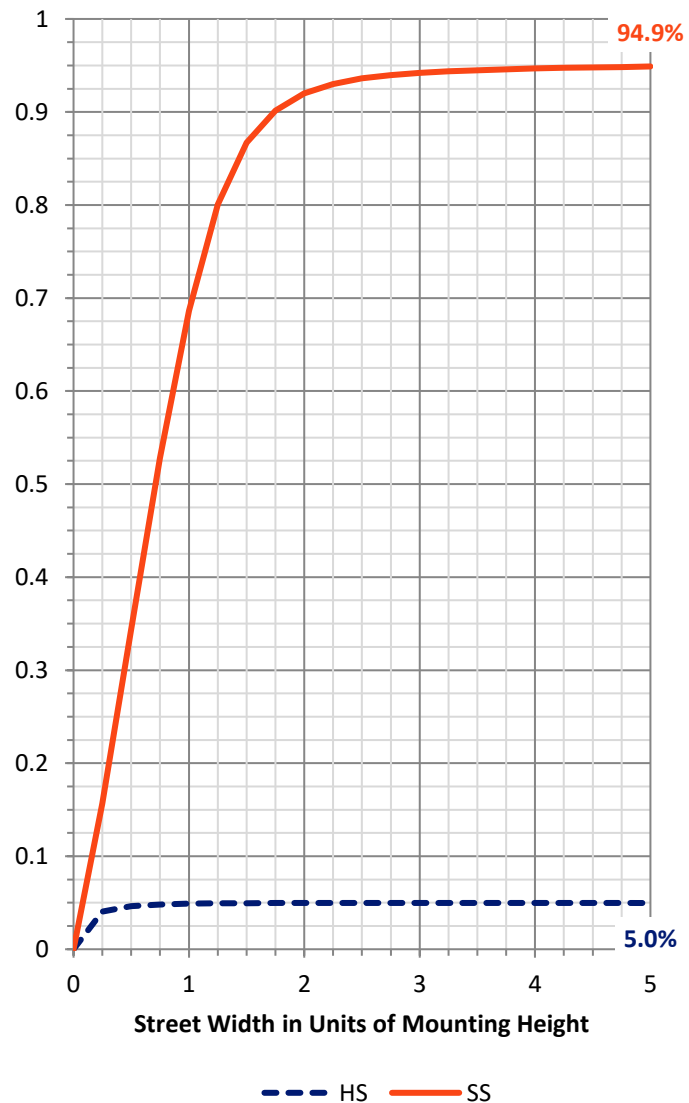
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	573.5	0.0	573.5
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	10920.4	0.0	10920.4
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	11493.9	0.0	11493.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.7	1.1
10°-20°	445.8	3.9
20°-30°	851.1	7.4
30°-40°	1526.8	13.3
40°-50°	2339.2	20.4
50°-60°	2718.7	23.7
60°-70°	2407.5	20.9
70°-80°	1038.4	9.0
80°-90°	41.6	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°	11493.9	100.0
0°-180°	11493.9	100.0

**Coefficient of Utilization**



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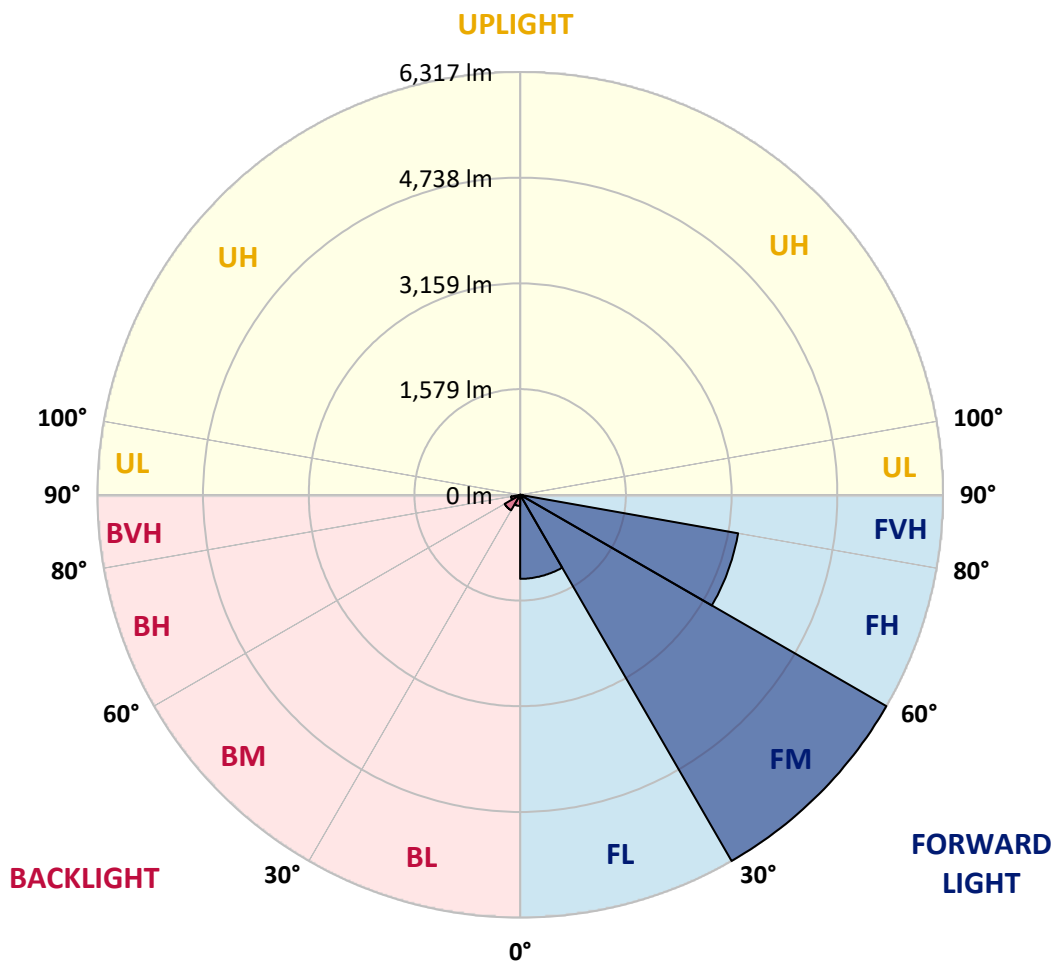
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1255.1	10.9			
FM	(30°-60°)	6317.3	55.0			
FH	(60°-80°)	3306.9	28.8			G2/5000
FVH	(80°-90°)	41.0	0.4			G1/100
BL	(0°-30°)	166.6	1.4	B1/500		
BM	(30°-60°)	267.4	2.3	B1/1000		
BH	(60°-80°)	138.9	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°	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5
2.5°	1761.8	1744.4	1727.0	1707.2	1662.6	1585.7	1488.9	1384.7	1255.6	1233.3	1129.0
5°	2139.0	2131.5	2114.2	2086.9	2037.3	1952.9	1843.7	1689.8	1474.0	1436.7	1215.9
7.5°	2404.5	2399.5	2384.7	2352.4	2307.8	2223.4	2109.2	1943.0	1692.4	1650.1	1325.1
10°	2642.7	2640.2	2627.9	2598.1	2553.4	2461.6	2340.0	2166.3	1900.7	1853.6	1451.7
12.5°	2858.6	2861.1	2856.2	2841.2	2809.0	2722.2	2583.2	2394.6	2101.8	2049.7	1603.0
15°	2985.2	2992.6	3012.5	3042.3	3052.2	2982.7	2838.8	2630.3	2307.8	2263.1	1776.7
17.5°	2943.0	2950.4	3012.5	3114.2	3210.9	3220.9	3091.9	2853.6	2511.2	2466.5	1947.9
20°	2841.2	2851.2	2915.7	3054.6	3243.3	3374.7	3322.6	3096.9	2704.8	2650.2	2111.7
22.5°	2955.4	2955.4	2975.3	3059.6	3230.8	3436.8	3506.3	3340.0	2903.2	2836.3	2275.5
25°	3347.5	3340.0	3297.8	3263.1	3317.7	3501.4	3645.3	3588.2	3136.6	3059.6	2449.1
27.5°	3843.7	3878.5	3799.0	3672.5	3548.4	3627.9	3769.3	3833.8	3394.6	3315.2	2627.9
30°	4399.6	4414.4	4320.2	4151.4	3933.0	3856.1	3915.8	4044.7	3675.1	3588.2	2813.9
32.5°	4900.9	4888.5	4809.0	4632.8	4362.4	4196.1	4104.3	4213.5	3980.2	3881.0	3005.0
35°	5345.0	5354.9	5258.2	5054.7	4789.1	4613.0	4394.6	4404.5	4322.7	4208.5	3225.9
37.5°	5744.6	5727.2	5635.3	5431.9	5191.2	5000.1	4769.3	4603.1	4697.4	4578.2	3474.0
40°	6069.6	6052.2	5955.4	5757.0	5531.1	5374.8	5193.6	4868.6	5091.9	4955.5	3739.5
42.5°	6327.7	6307.8	6225.9	6034.9	5816.5	5677.6	5590.7	5196.2	5513.8	5377.2	4037.3
45°	6454.2	6436.8	6387.2	6243.3	6052.2	5930.7	5972.8	5573.3	5965.3	5851.3	4364.8
47.5°	6305.4	6297.9	6355.0	6330.1	6221.0	6156.4	6302.8	5985.3	6439.4	6327.7	4742.0
50°	5853.7	5866.1	6032.3	6238.4	6290.4	6367.4	6573.4	6419.5	6948.0	6828.9	5176.3
52.5°	4739.5	4823.9	5325.2	5821.4	6206.0	6496.5	6891.0	7039.8	7776.9	7660.2	5853.7
55°	3538.5	3573.3	4119.2	4967.9	5866.1	6486.5	7126.7	7404.6	8186.3	8067.2	6032.3
57.5°	2806.5	2818.9	3089.4	3955.4	5166.3	6263.1	7250.8	7536.2	8365.0	8265.6	6297.9
60°	2203.5	2218.4	2414.5	3010.0	4181.2	5660.2	7072.1	7650.2	8714.8	8635.4	6761.9
62.5°	1714.7	1729.6	1848.7	2198.5	3136.6	4732.1	6712.3	7833.9	9379.8	9342.6	7521.2
65°	1327.6	1332.5	1414.4	1578.2	2215.9	3727.1	6273.0	8005.1	10278.1	10245.9	8136.7
67.5°	980.2	987.7	1044.6	1146.4	1496.3	2677.5	5553.5	7873.7	10955.6	10861.3	8360.0
69°	791.6	799.0	848.6	930.6	1181.2	2109.2	4895.8	7548.6	11057.3	10968.0	8218.5
70°	677.4	682.4	732.0	801.5	1007.5	1791.6	4374.8	7268.2	10923.3	10836.4	7896.0
72.5°	434.2	459.1	508.7	553.3	667.5	1186.1	2953.0	6027.4	9424.5	9275.6	6183.7
75°	240.7	248.2	337.5	392.1	444.2	771.7	1642.8	3759.3	5995.2	5891.0	3307.7
77.5°	198.6	203.5	238.2	297.8	297.8	431.8	620.3	1481.4	2280.5	2057.2	895.8
80°	138.9	143.9	181.2	196.0	213.4	243.2	201.0	325.1	352.4	312.6	134.0
82.5°	96.8	101.8	124.1	161.3	171.2	114.2	74.5	96.8	101.8	101.8	52.1
85°	17.4	24.9	91.9	134.0	101.8	34.8	42.1	34.8	32.2	34.8	12.4
87.5°	0.0	0.0	57.1	64.5	54.6	14.9	17.4	12.4	7.5	9.9	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°	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5	1069.5
2.5°	1077.0	1024.8	935.5	870.9	816.4	774.2	756.9	729.6	709.7	719.6	707.2
5°	1106.7	1014.9	870.9	779.2	714.6	660.1	615.4	580.6	553.3	548.4	543.4
7.5°	1153.9	1022.3	833.8	719.6	622.9	538.5	469.0	416.9	377.2	377.2	362.3
10°	1218.4	1042.2	811.4	660.1	516.2	402.0	332.6	282.8	263.0	260.5	255.6
12.5°	1307.7	1079.4	794.0	583.2	402.0	292.8	250.6	233.2	225.8	223.3	220.9
15°	1429.3	1134.0	774.2	488.9	305.2	240.7	223.3	208.5	201.0	198.6	196.0
17.5°	1546.0	1183.7	732.0	392.1	248.2	218.4	198.6	186.1	176.2	173.7	173.7
20°	1655.1	1225.8	660.1	305.2	223.3	196.0	176.2	161.3	151.4	148.8	148.8
22.5°	1769.3	1260.6	570.7	248.2	203.5	173.7	153.9	138.9	129.0	126.5	124.1
25°	1890.8	1285.3	469.0	220.9	183.6	153.9	131.6	119.1	111.7	109.1	106.7
27.5°	2022.4	1295.4	372.3	201.0	161.3	134.0	114.2	101.8	96.8	94.3	94.3
30°	2141.4	1285.3	287.9	178.7	141.5	116.6	99.2	89.3	84.4	81.9	81.9
32.5°	2265.5	1260.6	230.8	158.8	124.1	99.2	84.4	76.9	74.5	71.9	71.9
35°	2397.1	1228.4	198.6	141.5	106.7	86.8	74.5	69.5	67.0	64.5	64.5
37.5°	2550.9	1188.6	181.2	126.5	94.3	76.9	64.5	62.0	59.5	59.5	59.5
40°	2724.6	1139.0	168.8	114.2	84.4	67.0	57.1	54.6	52.1	52.1	52.1
42.5°	2908.2	1081.9	156.3	101.8	74.5	57.1	49.6	49.6	47.2	47.2	44.7
45°	3114.2	1024.8	143.9	89.3	64.5	49.6	42.1	39.7	39.7	37.2	37.2
47.5°	3357.4	972.7	131.6	79.4	57.1	42.1	37.2	34.8	32.2	29.8	29.8
50°	3699.8	967.7	116.6	69.5	52.1	34.8	29.8	27.3	24.9	22.3	22.3
52.5°	4039.7	923.1	99.2	57.1	42.1	29.8	22.3	19.8	17.4	17.4	14.9
55°	4116.7	848.6	86.8	49.6	32.2	22.3	17.4	12.4	12.4	9.9	9.9
57.5°	4285.4	814.0	74.5	39.7	24.9	17.4	9.9	7.5	7.5	7.5	7.5
60°	4618.0	803.9	64.5	34.8	17.4	12.4	7.5	5.0	5.0	2.5	2.5
62.5°	5077.0	794.0	54.6	29.8	12.4	7.5	5.0	2.5	0.0	0.0	0.0
65°	5330.1	727.0	44.7	22.3	9.9	7.5	2.5	0.0	0.0	0.0	0.0
67.5°	5263.2	600.5	39.7	14.9	7.5	5.0	2.5	0.0	0.0	0.0	0.0
69°	4982.7	506.3	32.2	12.4	7.5	5.0	2.5	0.0	0.0	0.0	0.0
70°	4645.2	436.7	29.8	9.9	5.0	2.5	2.5	0.0	0.0	0.0	0.0
72.5°	3297.8	228.3	19.8	7.5	5.0	2.5	0.0	0.0	0.0	0.0	0.0
75°	1541.0	101.8	12.4	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
77.5°	339.9	47.2	7.5	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	64.5	17.4	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	22.3	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)