

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: P237455

Luminaire Tested: **ARCH-L-AF72-220-D-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237455  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-220-D-U-T4W-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 945mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19210 lumens  
Efficiency: N/A  
Efficacy: 86.5 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G4

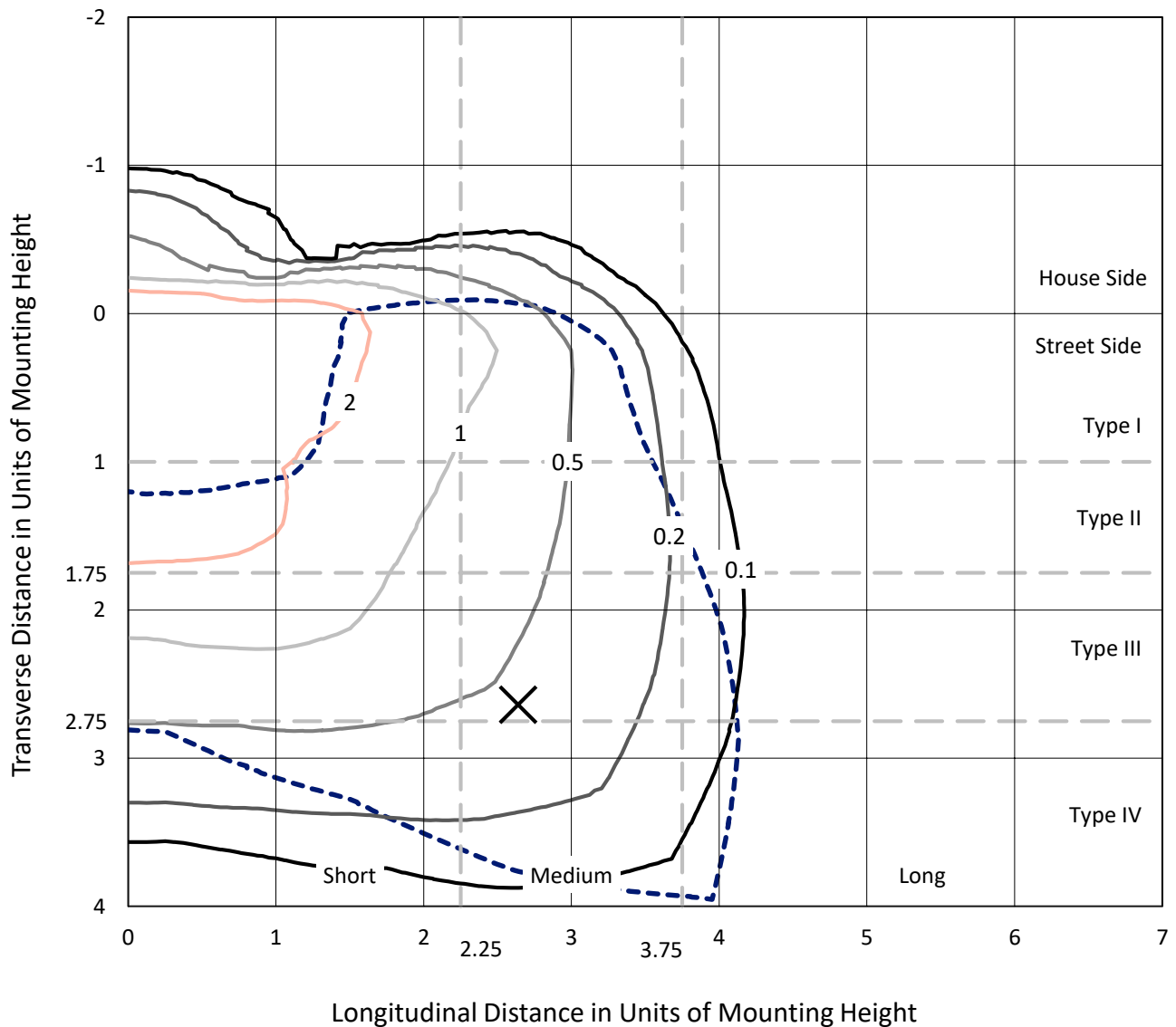
Input Watts (W): 222  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

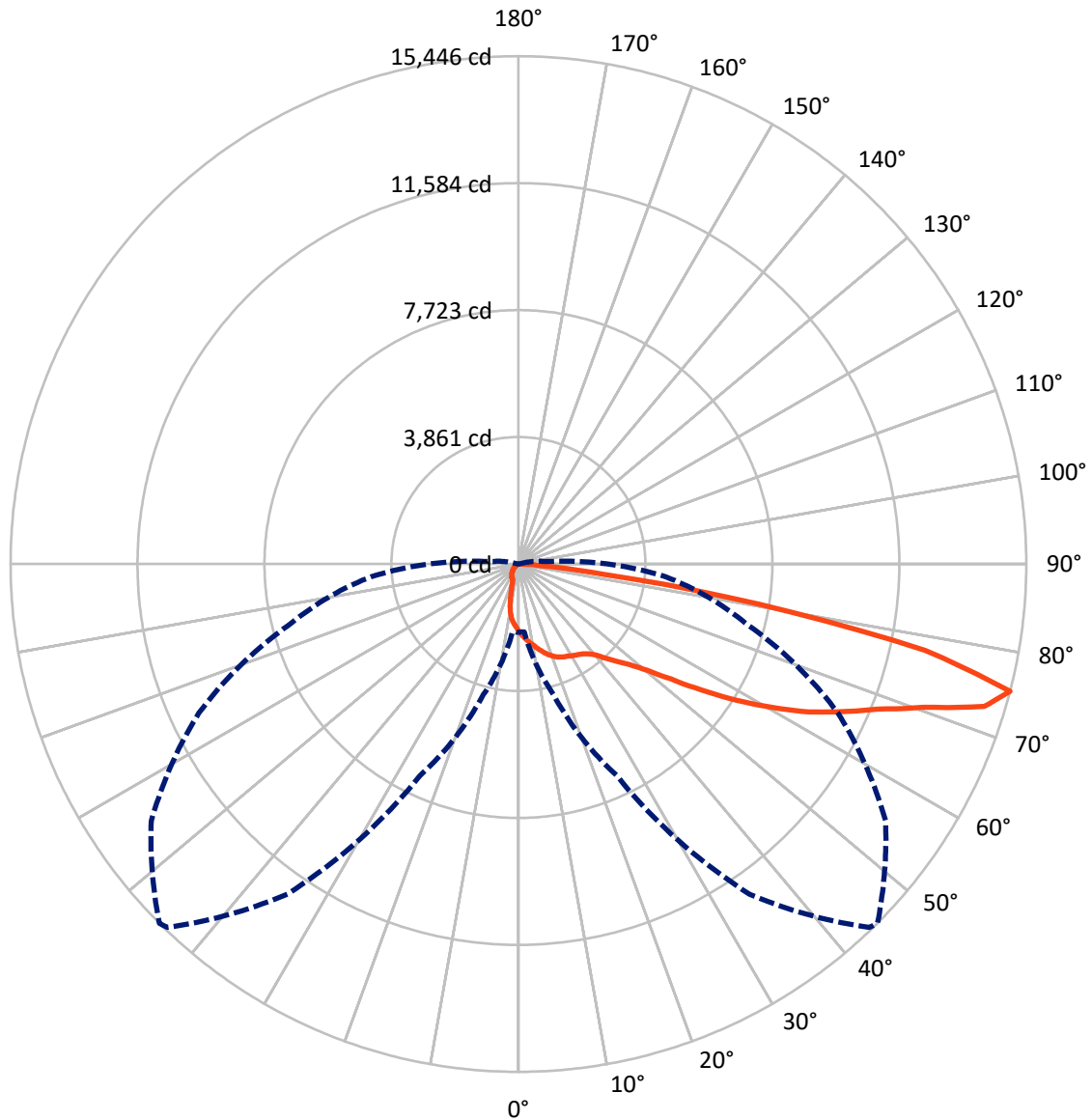


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical



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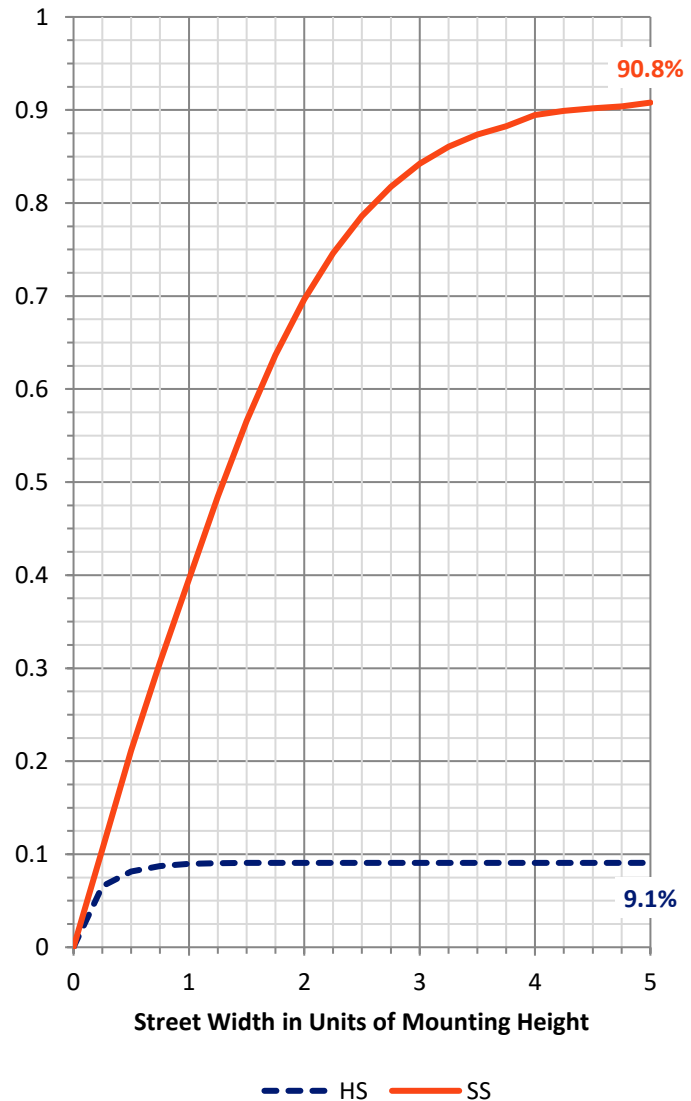
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1757.1	0.0	1757.1
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	17452.9	0.0	17452.9
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	19210.0	0.0	19210.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.9	1.0
10°-20°	549.4	2.9
20°-30°	909.8	4.7
30°-40°	1316.7	6.9
40°-50°	2156.0	11.2
50°-60°	3841.6	20.0
60°-70°	5647.7	29.4
70°-80°	4260.6	22.2
80°-90°	334.3	1.7
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°	19210.0	100.0
0°-180°	19210.0	100.0



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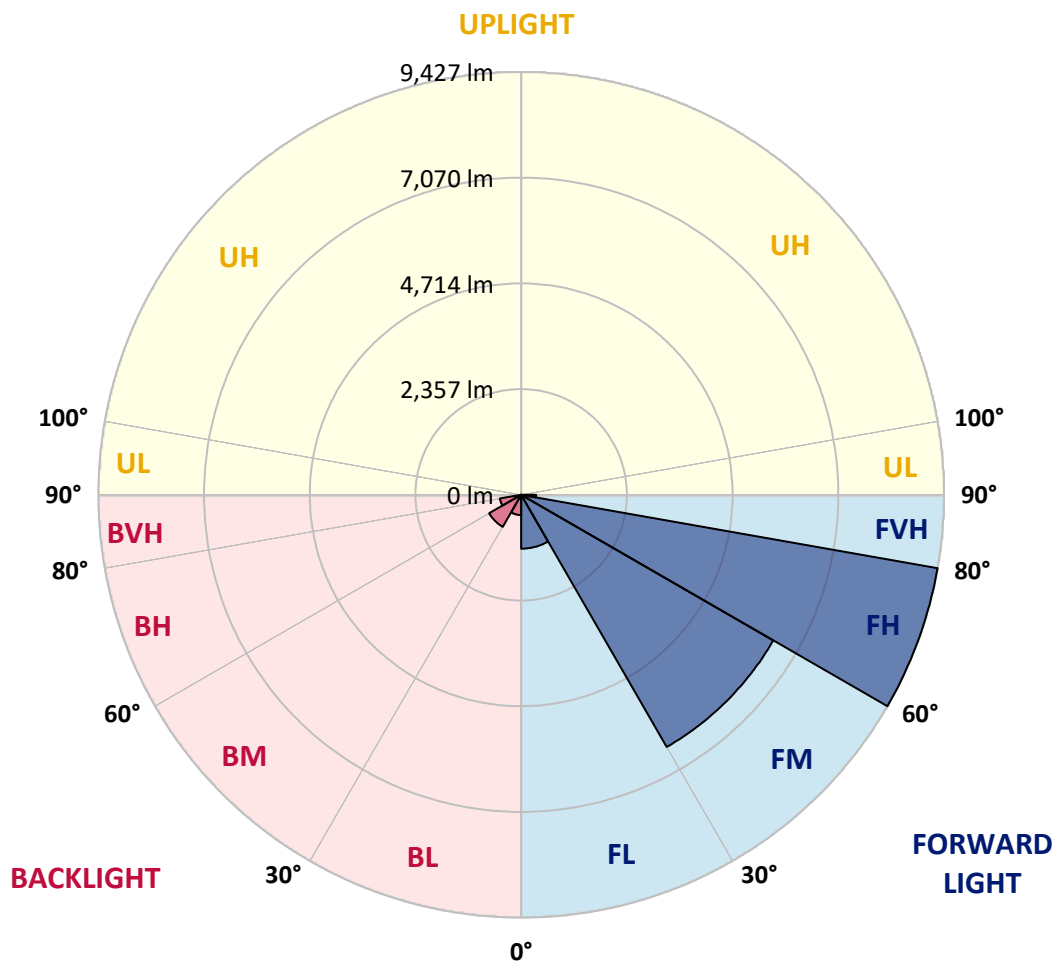
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1201.5	6.3			
FM	(30°-60°)	6490.9	33.8			
FH	(60°-80°)	9427.0	49.1			G4/12000
FVH	(80°-90°)	333.3	1.7			G3/500
BL	(0°-30°)	451.5	2.4	B1/500		
BM	(30°-60°)	823.4	4.3	B1/1000		
BH	(60°-80°)	481.3	2.5	B1/500		G1/500
BVH	(80°-90°)	0.9	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-G4**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6
2.5°	2231.9	2231.9	2227.4	2222.8	2200.1	2177.4	2172.7	2159.1	2118.2	2091.0	2063.7
5°	2418.3	2422.8	2413.8	2390.9	2341.0	2291.0	2286.4	2250.1	2172.7	2118.2	2059.2
7.5°	2595.5	2604.6	2581.9	2541.0	2481.9	2409.2	2404.7	2336.4	2236.5	2159.1	2072.8
10°	2745.5	2745.5	2713.7	2663.8	2600.1	2522.8	2513.7	2436.5	2322.8	2227.4	2113.7
12.5°	2909.2	2904.7	2859.1	2791.0	2718.3	2645.6	2641.0	2545.5	2436.5	2313.7	2172.7
15°	3059.2	3050.1	2991.0	2927.4	2850.0	2772.8	2768.3	2672.8	2559.2	2413.8	2259.2
17.5°	3141.0	3136.5	3081.9	3018.3	2954.7	2895.6	2891.0	2791.0	2668.3	2518.3	2345.5
20°	3154.7	3159.2	3113.8	3059.2	3022.8	2991.0	2991.0	2900.1	2768.3	2609.1	2436.5
22.5°	3159.2	3172.8	3141.0	3068.2	3059.2	3063.7	3072.8	3000.1	2863.8	2713.7	2531.9
25°	3191.0	3209.2	3186.5	3100.1	3091.1	3122.9	3132.0	3100.1	2977.4	2827.3	2641.0
27.5°	3254.6	3272.8	3254.6	3145.6	3132.0	3163.8	3172.8	3191.0	3100.1	2936.5	2754.6
30°	3382.0	3386.5	3345.6	3209.2	3181.9	3222.8	3236.5	3286.4	3213.7	3041.0	2863.8
32.5°	3604.7	3559.3	3436.5	3254.6	3231.9	3277.3	3291.0	3345.6	3318.2	3141.0	2977.4
35°	4059.3	3822.9	3541.0	3318.2	3295.5	3341.1	3359.2	3436.5	3450.1	3281.9	3118.3
37.5°	4054.7	3841.1	3786.5	3441.0	3409.2	3441.0	3463.7	3559.3	3613.8	3468.3	3322.9
40°	4341.1	4250.2	4250.2	3672.8	3568.3	3613.8	3636.5	3731.9	3827.4	3713.7	3563.8
42.5°	5241.1	5182.0	5118.3	4118.3	3791.1	3918.3	3931.9	3991.0	4104.7	4068.3	3891.0
45°	6245.6	6191.1	5945.7	4872.9	4172.8	4195.6	4227.4	4322.9	4486.6	4554.7	4345.6
47.5°	7032.1	6977.5	6768.4	5782.0	4768.4	4568.3	4568.3	4754.7	5009.3	5182.0	4982.0
50°	7663.8	7600.2	7473.0	6750.2	5745.6	5104.7	5077.4	5295.6	5672.9	5941.1	5804.7
52.5°	8277.5	8091.1	8013.9	7750.3	6850.2	5882.0	5809.2	5963.8	6486.5	6818.4	6704.7
55°	8686.7	8659.4	8577.5	8668.5	8009.4	6827.5	6763.9	6795.7	7450.3	7672.9	7532.1
57.5°	9068.5	9064.0	9245.7	9668.5	9273.0	7909.4	7809.3	7759.4	8382.1	8327.5	8450.3
60°	9541.3	9459.4	9882.1	10486.7	10432.2	8963.9	8850.3	8750.3	9095.8	8941.2	9550.3
62.5°	9564.0	9541.3	10400.3	11268.5	11582.2	10036.7	9904.8	9545.8	9718.5	9541.3	10600.3
65°	8695.7	8809.3	10618.5	11682.2	12545.9	10977.6	10818.5	10259.4	10273.1	10154.8	11836.8
67.5°	8500.3	8559.3	10018.5	12127.7	13241.4	11927.7	11777.6	11082.1	10918.6	10927.7	12568.6
70°	8013.9	8104.8	9273.0	12095.9	13791.3	13195.9	13045.9	12291.3	11895.9	11454.9	12004.9
72.5°	6123.0	6277.4	7813.9	10604.9	13641.4	14855.0	14814.2	13823.1	12286.8	10518.5	9082.2
75°	2072.8	2068.2	4104.7	7123.0	12255.0	15364.1	15445.9	13632.3	10718.6	7254.8	4509.3
77.5°	445.5	450.0	845.5	2886.5	8141.2	12336.8	12650.4	10282.2	6913.8	3231.9	1031.9
80°	218.2	222.7	350.1	763.6	3254.6	6918.4	7409.3	5286.5	2554.6	645.5	172.8
82.5°	109.0	113.6	181.8	404.6	1204.6	2459.2	2627.3	1945.6	731.8	363.7	86.3
85°	40.9	40.9	90.9	240.9	550.0	577.3	709.1	563.6	440.9	295.4	22.7
87.5°	9.1	9.1	50.0	118.2	245.5	181.8	181.8	172.8	268.2	200.0	9.1
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°	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6	2054.6
2.5°	2050.1	2031.9	2000.1	1968.3	1945.6	1918.2	1904.6	1890.9	1886.4	1881.9	1890.9
5°	2027.4	2000.1	1940.9	1890.9	1845.5	1809.2	1781.9	1754.6	1741.0	1731.9	1736.5
7.5°	2027.4	1986.5	1900.0	1822.8	1750.1	1672.8	1595.5	1536.4	1491.0	1463.6	1468.2
10°	2050.1	1995.5	1881.9	1777.4	1640.9	1477.3	1309.2	1181.8	1095.5	1045.5	1045.5
12.5°	2100.1	2027.4	1886.4	1722.8	1491.0	1204.6	950.0	795.4	731.8	695.5	700.0
15°	2168.2	2081.9	1909.1	1650.0	1281.9	895.5	663.7	563.6	563.6	572.8	577.3
17.5°	2245.5	2150.0	1927.3	1541.0	1013.6	641.0	522.7	513.6	527.3	550.0	550.0
20°	2322.8	2218.3	1936.4	1368.2	759.1	509.1	495.5	495.5	504.5	527.3	531.8
22.5°	2418.3	2304.6	1927.3	1154.6	568.2	481.8	477.3	477.3	477.3	504.5	504.5
25°	2518.3	2404.7	1890.9	927.3	481.8	463.6	459.1	454.6	454.6	477.3	481.8
27.5°	2632.0	2509.2	1804.6	709.1	454.6	445.5	440.9	431.8	431.8	450.0	450.0
30°	2745.5	2627.3	1672.8	536.3	431.8	427.3	418.2	409.1	400.0	418.2	418.2
32.5°	2868.3	2750.1	1500.1	427.3	400.0	400.0	395.5	381.9	372.8	381.9	386.4
35°	3031.9	2891.0	1304.6	372.8	359.1	359.1	359.1	354.6	336.3	345.5	345.5
37.5°	3250.1	3086.4	1077.3	345.5	327.2	318.2	318.2	318.2	304.5	309.1	309.1
40°	3527.3	3313.7	859.1	322.7	304.5	281.8	272.7	277.3	268.2	268.2	263.6
42.5°	3904.7	3559.3	645.5	304.5	286.3	254.5	236.4	231.8	222.7	218.2	218.2
45°	4445.6	3859.2	463.6	286.3	272.7	222.7	204.6	190.9	168.2	154.6	154.6
47.5°	5145.6	4200.1	345.5	268.2	259.1	195.5	172.8	145.5	113.6	104.5	104.5
50°	6000.2	4582.0	290.9	240.9	236.4	172.8	136.4	95.4	63.6	54.5	59.1
52.5°	6832.1	4941.1	259.1	213.7	209.1	150.0	100.0	50.0	27.3	27.3	27.3
55°	7532.1	5195.7	236.4	190.9	181.8	118.2	54.5	22.7	13.6	13.6	13.6
57.5°	8163.9	5341.1	213.7	168.2	145.5	81.8	22.7	9.1	9.1	4.5	4.5
60°	8741.2	5427.5	186.4	145.5	113.6	45.4	9.1	4.5	4.5	0.0	0.0
62.5°	9309.4	5491.1	159.1	118.2	86.3	18.2	4.5	4.5	0.0	0.0	0.0
65°	9741.3	5468.4	127.3	95.4	54.5	9.1	4.5	0.0	0.0	0.0	0.0
67.5°	9727.5	5159.3	95.4	72.7	27.3	4.5	0.0	0.0	0.0	0.0	0.0
70°	8700.3	4345.6	63.6	45.4	9.1	4.5	0.0	0.0	0.0	0.0	0.0
72.5°	6172.9	2786.4	40.9	27.3	4.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	2718.3	845.5	22.7	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	531.8	195.5	13.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	127.3	22.7	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	54.5	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	13.6	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.1	4.5	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)