

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: P237221

Luminaire Tested: **ARCH-L-AF72-280-D-U-T3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237221  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-280-D-U-T3-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 1180mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22516.2 lumens  
Efficiency: N/A  
Efficacy: 80.7 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B2 - U0 - G4

Input Watts (W): 279  
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

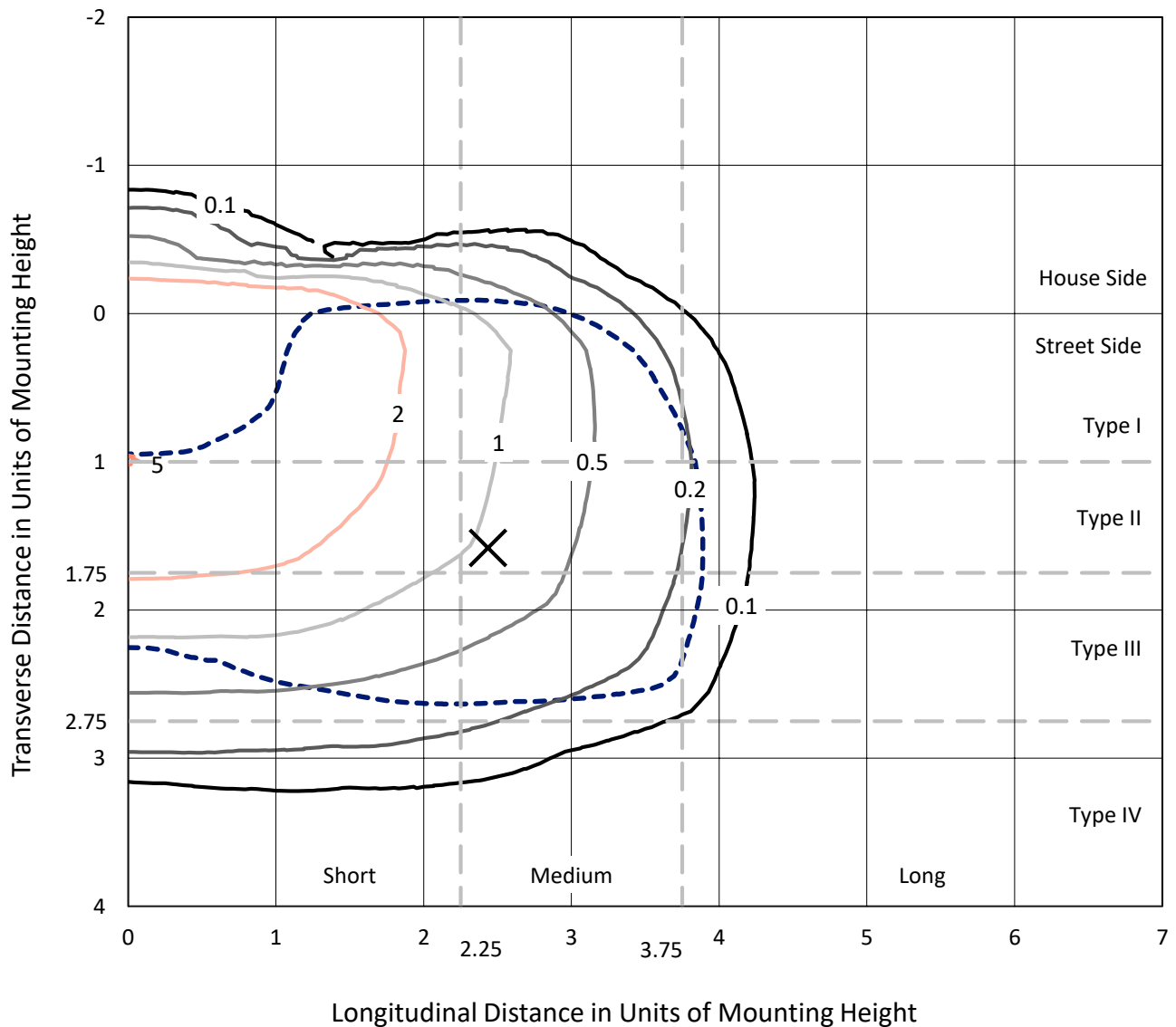


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

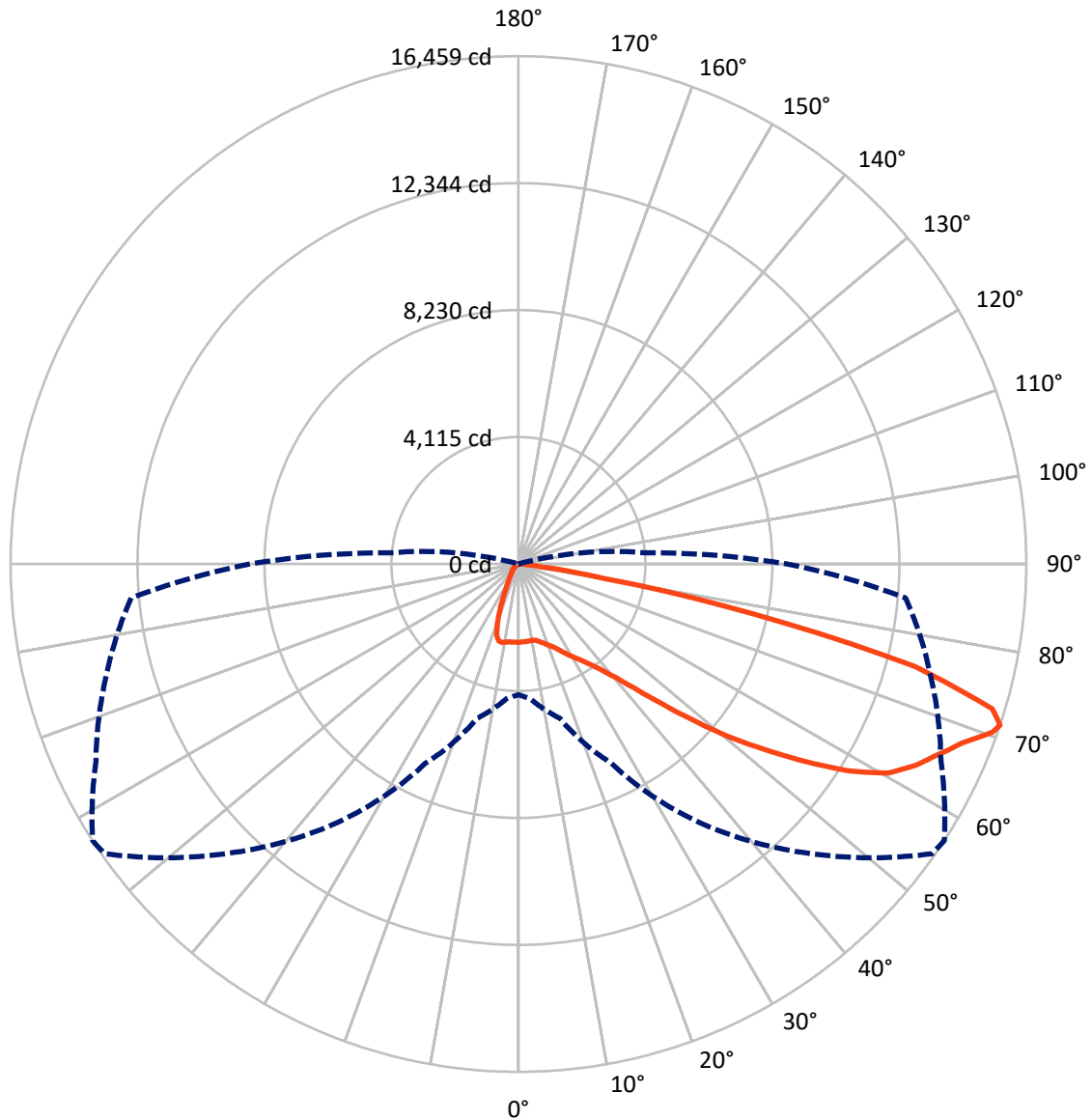


Based on 25 foot mounting height. Maximum calculated value = 5.1 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical



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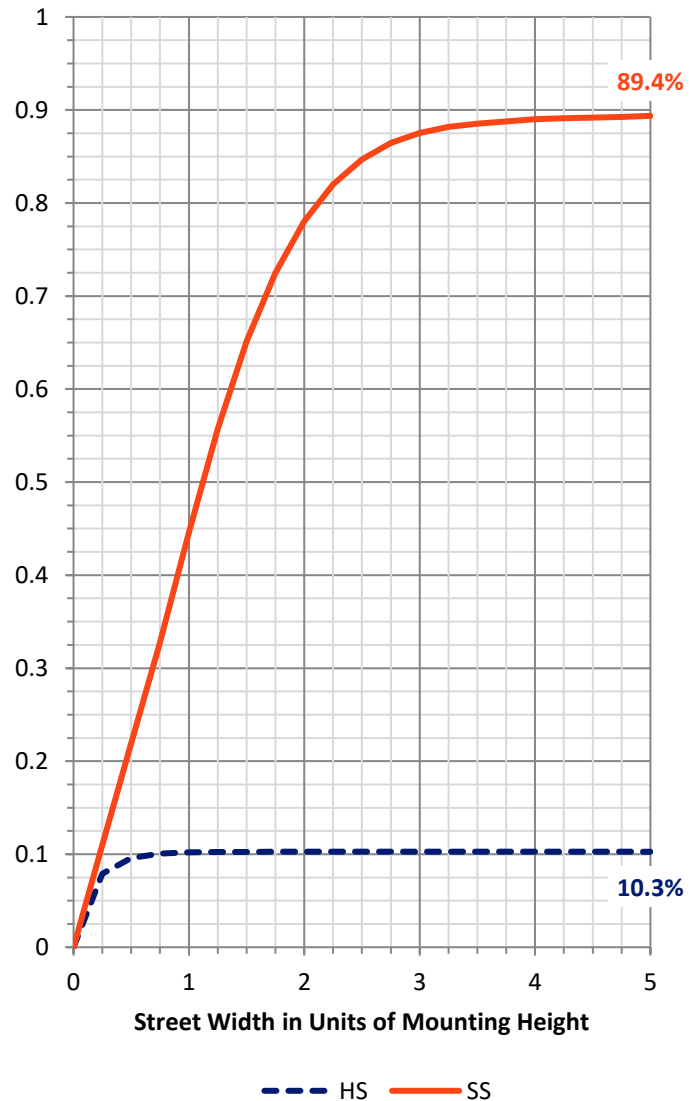
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2333.4	0.0	2333.4
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	20182.8	0.0	20182.8
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	22516.2	0.0	22516.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.0	1.1
10°-20°	639.0	2.8
20°-30°	996.8	4.4
30°-40°	1684.7	7.5
40°-50°	3272.2	14.5
50°-60°	5495.0	24.4
60°-70°	6557.8	29.1
70°-80°	3456.0	15.3
80°-90°	175.6	0.8
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°	22516.2	100.0
0°-180°	22516.2	100.0



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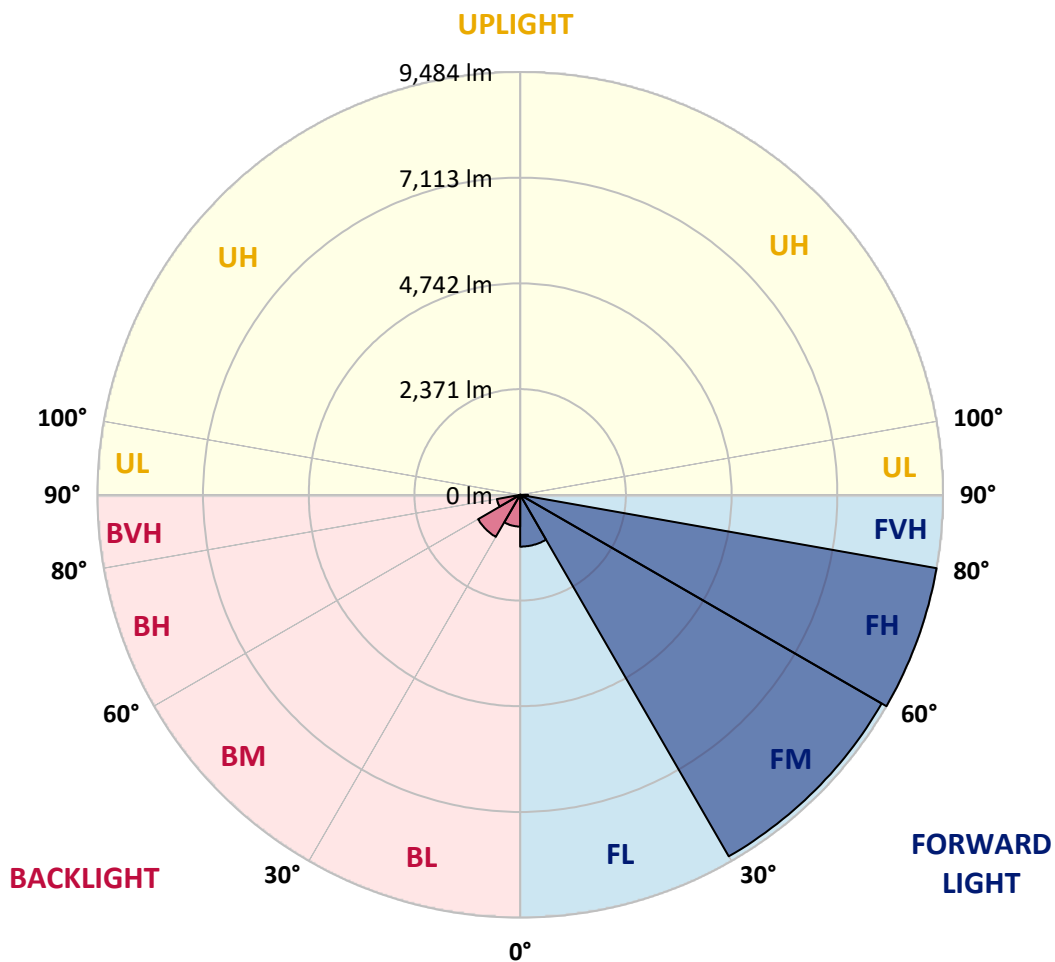
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1162.5	5.2			
FM	(30°-60°)	9362.4	41.6			
FH	(60°-80°)	9484.0	42.1			G4/12000
FVH	(80°-90°)	173.9	0.8			G2/225
BL	(0°-30°)	712.3	3.2	B2/1000		
BM	(30°-60°)	1089.5	4.8	B2/2500		
BH	(60°-80°)	529.9	2.4	B2/1000		G2/1000
BVH	(80°-90°)	1.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7
2.5°	2508.0	2508.0	2508.0	2513.2	2518.4	2518.4	2528.9	2523.7	2523.7	2523.7	2534.2
5°	2439.7	2445.0	2450.3	2460.7	2481.7	2497.4	2523.7	2523.7	2528.9	2539.4	2544.7
7.5°	2345.3	2350.5	2366.3	2387.3	2429.2	2465.9	2508.0	2518.4	2534.2	2560.4	2570.9
10°	2287.6	2298.1	2319.0	2345.3	2392.5	2439.7	2492.2	2508.0	2555.1	2602.4	2628.6
12.5°	2271.9	2277.1	2298.1	2340.0	2397.8	2455.5	2523.7	2539.4	2607.6	2681.1	2723.1
15°	2298.1	2303.3	2313.8	2361.1	2429.2	2502.6	2591.9	2612.9	2696.8	2780.8	2833.3
17.5°	2345.3	2345.3	2355.8	2397.8	2471.2	2555.1	2670.6	2702.0	2796.5	2891.0	2948.7
20°	2376.7	2376.7	2392.5	2434.5	2518.4	2628.6	2765.0	2807.0	2911.9	3016.9	3069.4
22.5°	2408.2	2413.6	2429.2	2476.5	2570.9	2723.1	2880.4	2922.5	3043.1	3153.2	3205.7
25°	2497.4	2492.2	2497.4	2539.4	2649.6	2838.5	3037.9	3090.3	3216.3	3337.0	3363.2
27.5°	2744.1	2733.5	2665.3	2639.1	2723.1	2959.2	3237.2	3289.7	3436.6	3557.3	3557.3
30°	3310.7	3289.7	3121.8	2906.7	2838.5	3069.4	3426.2	3499.6	3688.5	3793.4	3761.9
32.5°	4029.5	3982.2	3767.1	3399.9	3127.1	3216.3	3625.5	3709.4	3950.8	4039.9	3971.8
35°	4816.5	4811.2	4543.6	4071.4	3683.2	3520.6	3882.6	3982.2	4286.6	4365.2	4255.1
37.5°	5650.8	5671.8	5493.3	4842.8	4386.3	4019.0	4223.7	4339.1	4711.6	4806.0	4701.1
40°	6579.4	6574.2	6506.0	5734.7	5231.0	4727.4	4716.8	4821.8	5273.0	5419.9	5273.0
42.5°	7754.7	7744.1	7497.6	6805.0	6254.1	5650.8	5435.7	5472.4	5976.1	6217.4	6002.3
45°	8950.9	8877.5	8594.1	7996.0	7508.0	6794.5	6385.3	6385.3	6815.5	7146.0	6810.3
47.5°	9617.3	9543.8	9428.4	9097.8	8950.9	8153.4	7550.1	7476.6	7812.4	8148.2	7676.0
50°	10493.4	10493.4	10205.0	10079.0	10330.8	9769.4	8835.5	8762.1	8924.7	9192.3	8573.1
52.5°	11186.1	11060.1	10855.6	10965.7	11684.5	11427.4	10121.0	9979.3	10105.2	10173.5	9355.0
55°	11474.6	11353.9	11338.2	11742.2	12854.5	12497.7	11437.9	11312.0	11301.5	10965.7	10037.0
57.5°	11532.3	11427.4	11626.8	12335.0	13993.0	13374.0	12749.5	12655.1	12361.3	11521.8	10734.8
60°	11044.4	11096.9	11579.6	12660.3	14664.6	14134.7	13856.7	13756.9	13080.2	11994.0	11511.4
62.5°	10042.3	10168.1	11070.6	12691.9	14418.1	14444.3	14470.5	14402.3	13636.2	12424.2	12293.1
65°	8856.5	8893.2	9979.3	12256.4	13987.8	14349.9	14921.7	14916.5	14061.3	12907.0	13174.6
67.5°	7298.2	7361.2	8300.3	10787.3	13127.3	14307.8	15514.6	15498.8	14544.0	13457.8	13699.3
70°	5430.3	5509.1	6269.9	8389.5	11207.0	13783.1	16291.1	16301.6	15052.9	13877.7	13337.2
71°	4234.1	4375.8	5173.3	7125.1	10225.9	13253.2	16364.6	16459.0	15110.6	13819.9	12592.2
72.5°	2077.7	2245.6	3247.8	5015.8	8415.8	12067.5	15881.9	16065.5	14748.6	13101.1	10766.4
75°	540.4	571.9	970.7	2051.4	4512.2	7996.0	12807.2	13274.2	12057.0	9974.1	6579.4
77.5°	341.1	351.5	456.4	797.5	1689.4	3037.9	7523.8	7754.7	6889.0	5052.7	2319.0
80°	241.3	246.6	288.6	514.1	986.4	886.7	2707.3	2807.0	2492.2	1337.9	414.5
82.5°	146.9	146.9	209.9	330.5	608.7	482.7	713.5	760.8	671.6	372.6	136.5
85°	84.0	89.2	131.1	225.6	288.6	236.1	267.6	283.4	288.6	246.6	57.7
87.5°	68.2	73.4	115.4	188.8	157.4	115.4	115.4	120.7	125.9	146.9	26.2
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°	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7	2544.7
2.5°	2534.2	2534.2	2539.4	2534.2	2534.2	2534.2	2539.4	2539.4	2539.4	2549.9	2555.1
5°	2544.7	2544.7	2544.7	2539.4	2534.2	2534.2	2544.7	2549.9	2549.9	2565.7	2565.7
7.5°	2570.9	2570.9	2560.4	2549.9	2539.4	2523.7	2528.9	2534.2	2528.9	2534.2	2534.2
10°	2628.6	2628.6	2612.9	2591.9	2560.4	2513.2	2450.3	2371.5	2298.1	2271.9	2261.3
12.5°	2723.1	2717.8	2686.4	2649.6	2581.4	2418.8	2182.7	1904.5	1673.8	1610.7	1589.8
15°	2827.9	2817.5	2780.8	2717.8	2534.2	2103.9	1610.7	1253.9	1033.6	981.1	970.7
17.5°	2938.2	2922.5	2870.0	2744.1	2319.0	1563.5	1038.8	787.1	666.4	655.8	661.1
20°	3053.6	3032.6	2959.2	2691.6	1873.1	1044.1	671.6	608.7	598.1	598.1	603.3
22.5°	3184.8	3158.6	3058.8	2502.6	1364.1	692.5	577.1	571.9	566.6	561.4	561.4
25°	3337.0	3305.5	3153.2	2161.7	939.2	566.6	550.9	535.2	524.7	514.1	508.9
27.5°	3520.6	3478.5	3226.7	1741.9	645.4	529.9	519.5	493.2	472.2	451.2	451.2
30°	3704.2	3651.7	3205.7	1311.7	524.7	493.2	472.2	440.7	409.3	388.2	383.0
32.5°	3898.4	3845.9	3069.4	881.5	477.4	451.2	425.0	377.8	341.1	314.8	309.5
35°	4186.9	4144.9	2801.8	582.4	430.3	398.7	362.0	314.8	267.6	241.3	236.1
37.5°	4617.1	4564.7	2471.2	446.0	377.8	330.5	299.1	246.6	199.4	173.2	167.9
40°	5194.2	5036.9	2077.7	393.5	330.5	272.8	230.9	178.4	141.7	125.9	125.9
42.5°	5865.8	5493.3	1652.7	356.8	293.8	225.6	167.9	120.7	99.7	94.4	94.4
45°	6579.4	5918.3	1227.7	330.5	257.1	178.4	120.7	84.0	73.4	68.2	68.2
47.5°	7314.0	6264.7	855.2	299.1	215.1	136.5	84.0	62.9	52.5	47.3	47.3
50°	8001.3	6490.2	603.3	267.6	183.6	99.7	62.9	47.3	36.7	36.7	36.7
52.5°	8478.7	6469.2	435.5	230.9	141.7	68.2	41.9	31.5	31.5	31.5	31.5
55°	8898.4	6390.6	341.1	199.4	110.2	47.3	31.5	26.2	26.2	21.0	21.0
57.5°	9255.2	6264.7	288.6	162.6	78.7	36.7	21.0	21.0	15.8	15.8	15.8
60°	9559.6	6107.2	241.3	136.5	52.5	26.2	15.8	10.5	10.5	5.2	10.5
62.5°	9974.1	6007.5	209.9	105.0	36.7	15.8	10.5	5.2	5.2	0.0	0.0
65°	10278.4	5818.6	178.4	73.4	21.0	10.5	5.2	5.2	0.0	0.0	0.0
67.5°	10288.8	5477.6	131.1	41.9	15.8	10.5	5.2	0.0	0.0	0.0	0.0
70°	9459.8	4669.6	84.0	21.0	10.5	5.2	5.2	0.0	0.0	0.0	0.0
71°	8699.1	4134.5	68.2	15.8	10.5	5.2	0.0	0.0	0.0	0.0	0.0
72.5°	7167.0	3037.9	52.5	15.8	5.2	5.2	0.0	0.0	0.0	0.0	0.0
75°	3950.8	1101.8	26.2	10.5	5.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	1264.5	335.8	15.8	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	215.1	52.5	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	73.4	21.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	21.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.5	5.2	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)