

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: P236978

Luminaire Tested: **ARCH-L-AF72-250-D-U-T2R-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P236978  
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-AF72-250-D-U-T2R-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 1070mA 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: 23053.2 lumens  
Efficiency: N/A  
Efficacy: 91.8 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 - G3

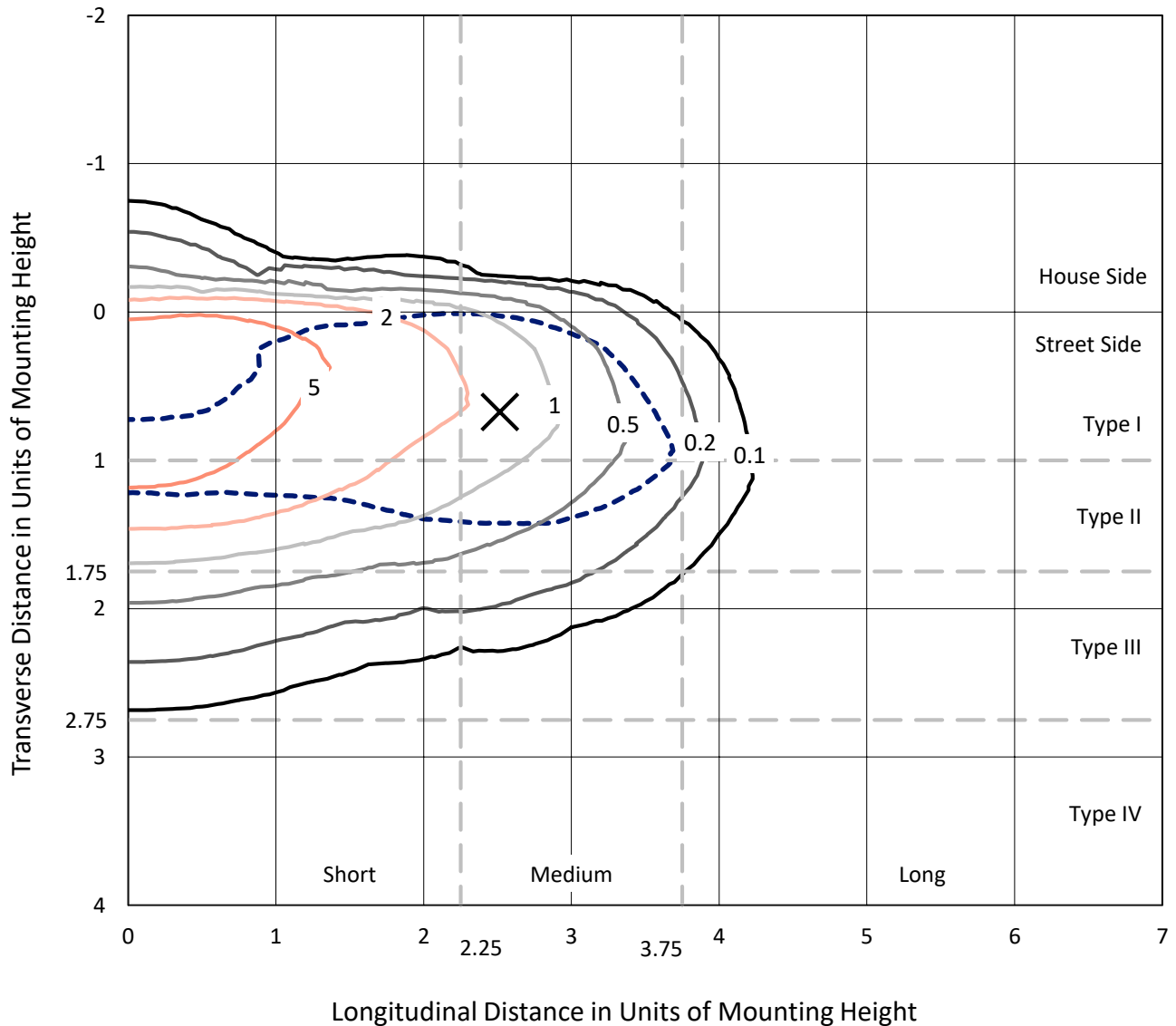
Input Watts (W): 251  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

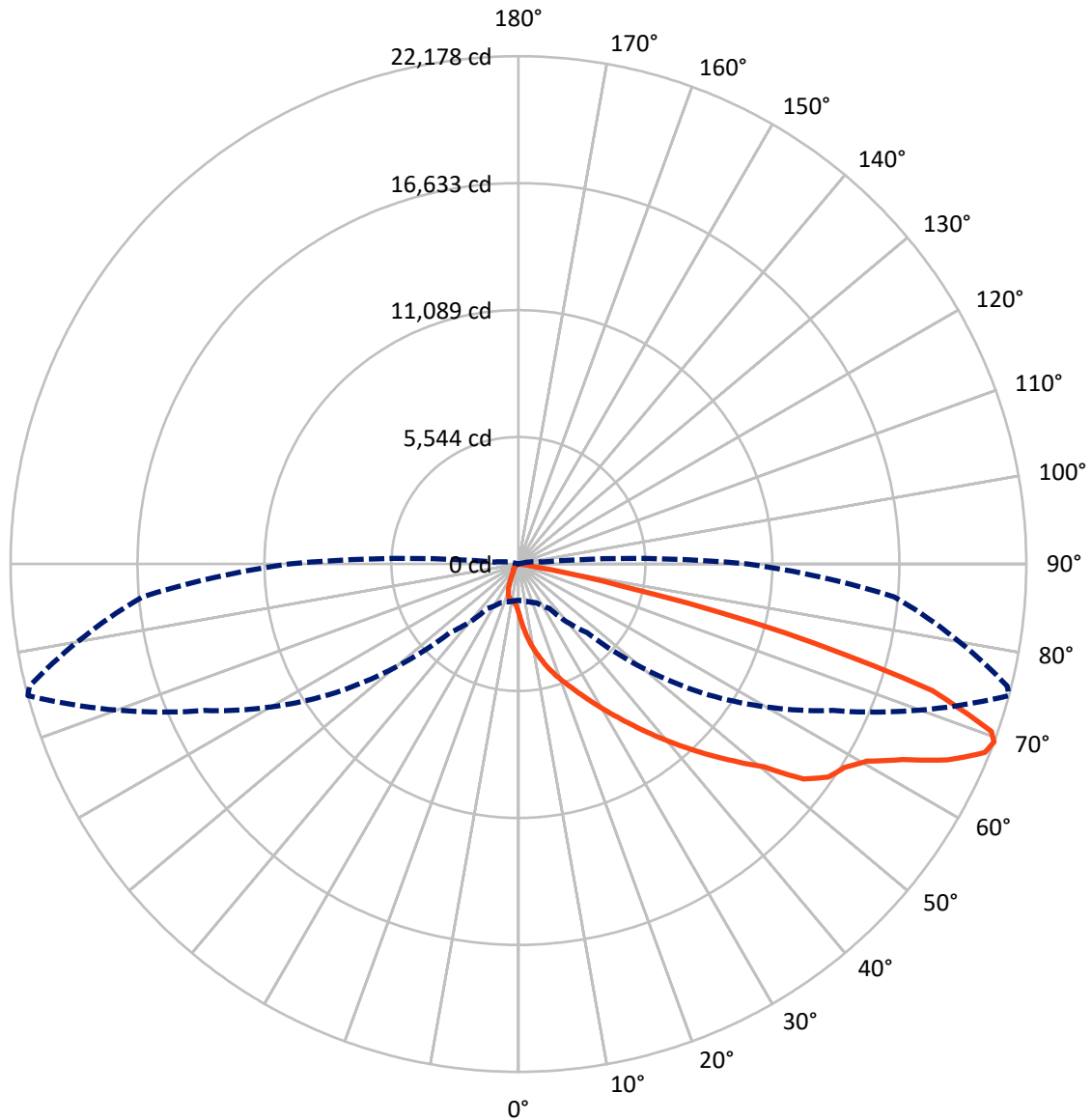
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 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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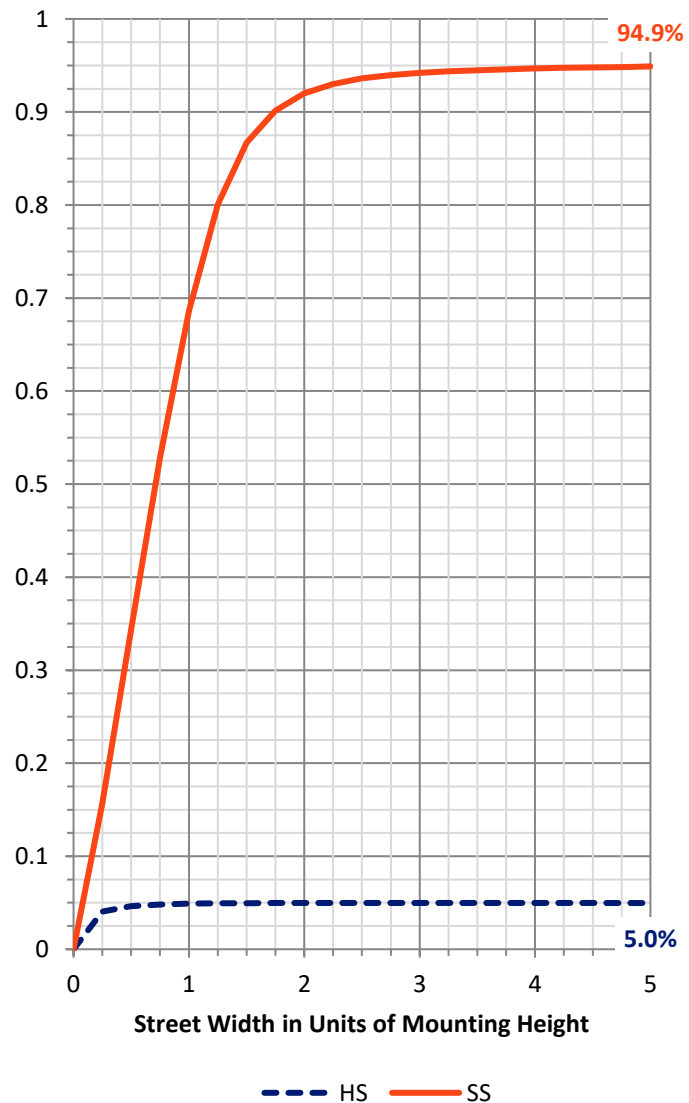
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1150.2	0.0	1150.2
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	21903.0	0.0	21903.0
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	23053.2	0.0	23053.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.1	1.1
10°-20°	894.2	3.9
20°-30°	1707.1	7.4
30°-40°	3062.3	13.3
40°-50°	4691.7	20.4
50°-60°	5452.9	23.7
60°-70°	4828.6	20.9
70°-80°	2082.8	9.0
80°-90°	83.4	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°	23053.2	100.0
0°-180°	23053.2	100.0



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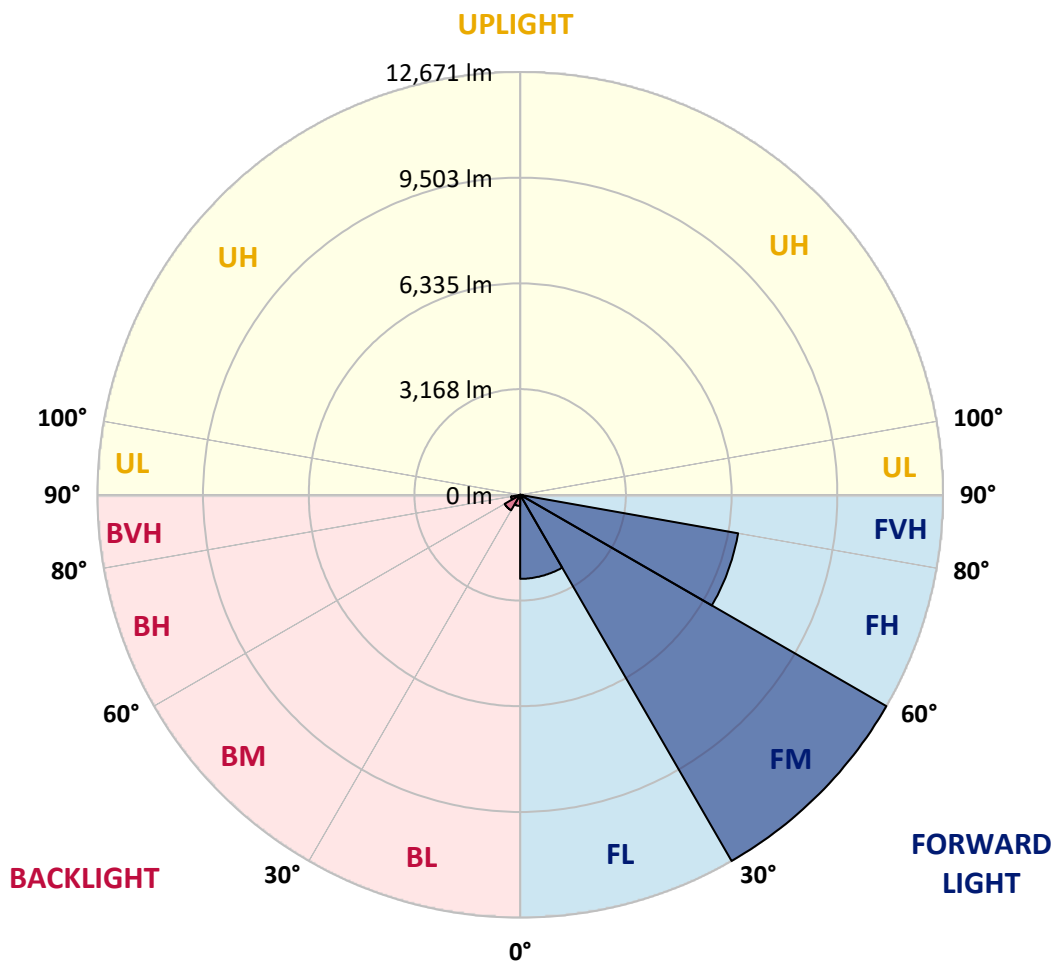
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2517.5	10.9			
FM	(30°-60°)	12670.6	55.0			
FH	(60°-80°)	6632.7	28.8			G3/7500
FVH	(80°-90°)	82.2	0.4			G1/100
BL	(0°-30°)	334.1	1.4	B1/500		
BM	(30°-60°)	536.3	2.3	B1/1000		
BH	(60°-80°)	278.7	1.2	B1/500		G1/500
BVH	(80°-90°)	1.2	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-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1
2.5°	3533.7	3498.8	3464.0	3424.2	3334.6	3180.4	2986.2	2777.2	2518.4	2473.6	2264.5
5°	4290.2	4275.2	4240.4	4185.7	4086.2	3916.9	3698.0	3389.3	2956.3	2881.7	2438.7
7.5°	4822.7	4812.8	4782.9	4718.3	4628.6	4459.5	4230.4	3897.0	3394.4	3309.8	2657.7
10°	5300.5	5295.5	5270.7	5210.9	5121.3	4937.2	4693.3	4345.0	3812.4	3717.8	2911.5
12.5°	5733.5	5738.5	5728.5	5698.7	5634.0	5459.8	5181.0	4802.9	4215.6	4111.0	3215.1
15°	5987.3	6002.3	6042.1	6101.8	6121.7	5982.4	5693.7	5275.7	4628.6	4539.0	3563.6
17.5°	5902.7	5917.7	6042.1	6246.1	6440.3	6460.1	6201.3	5723.6	5036.7	4947.2	3907.0
20°	5698.7	5718.6	5848.0	6126.7	6504.9	6768.8	6664.2	6211.4	5424.9	5315.5	4235.4
22.5°	5927.6	5927.6	5967.5	6136.7	6480.1	6893.2	7032.5	6699.1	5823.1	5688.7	4563.9
25°	6714.0	6699.1	6614.5	6544.7	6654.3	7022.6	7311.2	7196.8	6290.9	6136.7	4912.3
27.5°	7709.4	7779.0	7619.9	7366.0	7117.2	7276.4	7560.1	7689.5	6808.6	6649.3	5270.7
30°	8824.3	8854.2	8665.0	8326.5	7888.6	7734.3	7853.7	8112.5	7371.0	7196.8	5643.9
32.5°	9829.6	9804.7	9645.5	9292.1	8749.6	8416.1	8232.0	8451.0	7983.1	7784.0	6027.1
35°	10720.5	10740.4	10546.3	10138.2	9605.6	9252.3	8814.3	8834.2	8669.9	8441.0	6470.2
37.5°	11521.8	11486.9	11302.8	10894.7	10411.9	10028.7	9565.8	9232.3	9421.5	9182.6	6967.8
40°	12173.7	12138.9	11944.8	11546.7	11093.8	10780.3	10416.9	9764.9	10212.8	9939.1	7500.4
42.5°	12691.3	12651.5	12487.4	12104.1	11666.1	11387.4	11213.2	10421.8	11058.9	10785.2	8097.6
45°	12945.2	12910.4	12810.8	12522.1	12138.9	11895.1	11979.7	11178.4	11964.7	11735.8	8754.6
47.5°	12646.6	12631.7	12746.2	12696.4	12477.3	12347.9	12641.6	12004.5	12915.4	12691.3	9511.1
50°	11740.8	11765.7	12099.2	12512.2	12616.8	12771.0	13184.1	12875.6	13935.7	13696.7	10382.0
52.5°	9506.1	9675.3	10680.6	11676.1	12447.5	13029.8	13821.2	14119.8	15598.0	15364.0	11740.8
55°	7097.2	7166.9	8261.9	9964.0	11765.7	13009.9	14294.0	14851.4	16419.2	16180.3	12099.2
57.5°	5629.0	5653.8	6196.4	7933.4	10362.2	12561.9	14542.9	15115.2	16777.5	16578.5	12631.7
60°	4419.6	4449.4	4842.6	6037.1	8386.3	11352.6	14184.5	15344.2	17479.3	17320.0	13562.4
62.5°	3439.2	3468.9	3707.9	4409.6	6290.9	9491.1	13462.9	15712.4	18813.1	18738.4	15085.4
65°	2662.7	2672.7	2836.9	3165.4	4444.5	7475.5	12581.9	16055.8	20614.8	20550.1	16319.6
67.5°	1965.9	1980.8	2095.3	2299.4	3001.1	5370.2	11138.6	15792.1	21973.5	21784.4	16767.6
69°	1587.6	1602.6	1702.2	1866.4	2369.1	4230.4	9819.6	15140.1	22177.6	21998.5	16483.8
70°	1358.7	1368.7	1468.2	1607.6	2020.6	3593.4	8774.5	14577.7	21908.8	21734.6	15836.8
72.5°	870.9	920.8	1020.3	1109.9	1338.8	2379.0	5922.7	12089.1	18902.7	18604.1	12402.8
75°	482.7	497.7	676.9	786.3	890.9	1547.8	3294.8	7540.2	12024.5	11815.4	6634.3
77.5°	398.1	408.2	477.8	597.2	597.2	866.0	1244.2	2971.3	4573.9	4126.0	1796.7
80°	278.8	288.7	363.4	393.2	428.0	487.7	403.1	652.0	706.8	627.1	268.7
82.5°	194.1	204.1	248.9	323.5	343.4	228.9	149.4	194.1	204.1	204.1	104.5
85°	34.9	49.8	184.1	268.7	204.1	69.7	84.6	69.7	64.7	69.7	24.9
87.5°	0.0	0.0	114.5	129.4	109.5	29.9	34.9	24.9	14.9	19.9	9.9
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°	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1	2145.1
2.5°	2160.1	2055.5	1876.3	1746.9	1637.4	1552.8	1518.0	1463.2	1423.4	1443.4	1418.4
5°	2219.7	2035.6	1746.9	1562.8	1433.4	1323.9	1234.3	1164.6	1109.9	1099.9	1090.0
7.5°	2314.3	2050.5	1672.3	1443.4	1249.2	1080.0	940.7	836.2	756.5	756.5	726.6
10°	2443.7	2090.3	1627.5	1323.9	1035.2	806.3	667.0	567.4	527.5	522.6	512.6
12.5°	2622.8	2165.0	1592.6	1169.6	806.3	587.3	502.7	467.8	452.9	448.0	442.9
15°	2866.7	2274.5	1552.8	980.5	612.1	482.7	448.0	418.1	403.1	398.1	393.2
17.5°	3100.7	2374.1	1468.2	786.3	497.7	438.0	398.1	373.3	353.3	348.4	348.4
20°	3319.7	2458.7	1323.9	612.1	448.0	393.2	353.3	323.5	303.6	298.6	298.6
22.5°	3548.6	2528.3	1144.7	497.7	408.2	348.4	308.6	278.8	258.8	253.8	248.9
25°	3792.5	2578.1	940.7	442.9	368.3	308.6	263.8	238.9	223.9	219.0	214.0
27.5°	4056.3	2598.0	746.5	403.1	323.5	268.7	228.9	204.1	194.1	189.1	189.1
30°	4295.2	2578.1	577.4	358.3	283.7	233.9	199.1	179.2	169.2	164.3	164.3
32.5°	4544.0	2528.3	462.9	318.5	248.9	199.1	169.2	154.3	149.4	144.3	144.3
35°	4807.8	2463.6	398.1	283.7	214.0	174.2	149.4	139.3	134.4	129.4	129.4
37.5°	5116.4	2384.0	363.4	253.8	189.1	154.3	129.4	124.4	119.5	119.5	119.5
40°	5464.8	2284.5	338.4	228.9	169.2	134.4	114.5	109.5	104.5	104.5	104.5
42.5°	5833.1	2170.0	313.5	204.1	149.4	114.5	99.5	99.5	94.5	94.5	89.6
45°	6246.1	2055.5	288.7	179.2	129.4	99.5	84.6	79.6	79.6	74.7	74.7
47.5°	6733.9	1951.0	263.8	159.3	114.5	84.6	74.7	69.7	64.7	59.7	59.7
50°	7420.7	1941.0	233.9	139.3	104.5	69.7	59.7	54.7	49.8	44.8	44.8
52.5°	8102.6	1851.4	199.1	114.5	84.6	59.7	44.8	39.8	34.9	34.9	29.9
55°	8256.8	1702.2	174.2	99.5	64.7	44.8	34.9	24.9	24.9	19.9	19.9
57.5°	8595.3	1632.4	149.4	79.6	49.8	34.9	19.9	14.9	14.9	14.9	14.9
60°	9262.2	1612.6	129.4	69.7	34.9	24.9	14.9	9.9	9.9	5.0	5.0
62.5°	10183.0	1592.6	109.5	59.7	24.9	14.9	9.9	5.0	0.0	0.0	0.0
65°	10690.7	1458.2	89.6	44.8	19.9	14.9	5.0	0.0	0.0	0.0	0.0
67.5°	10556.2	1204.4	79.6	29.9	14.9	9.9	5.0	0.0	0.0	0.0	0.0
69°	9993.8	1015.3	64.7	24.9	14.9	9.9	5.0	0.0	0.0	0.0	0.0
70°	9316.9	876.0	59.7	19.9	9.9	5.0	5.0	0.0	0.0	0.0	0.0
72.5°	6614.5	457.9	39.8	14.9	9.9	5.0	0.0	0.0	0.0	0.0	0.0
75°	3090.7	204.1	24.9	9.9	5.0	5.0	0.0	0.0	0.0	0.0	0.0
77.5°	681.9	94.5	14.9	9.9	5.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	129.4	34.9	9.9	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	44.8	14.9	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	14.9	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.0	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)