

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: P237447

Luminaire Tested: **ARCH-L-AF72-140-D-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237447  
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-AF72-140-D-U-T4W-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 620mA 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: 13949 lumens  
Efficiency: N/A  
Efficacy: 97.5 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 - G3

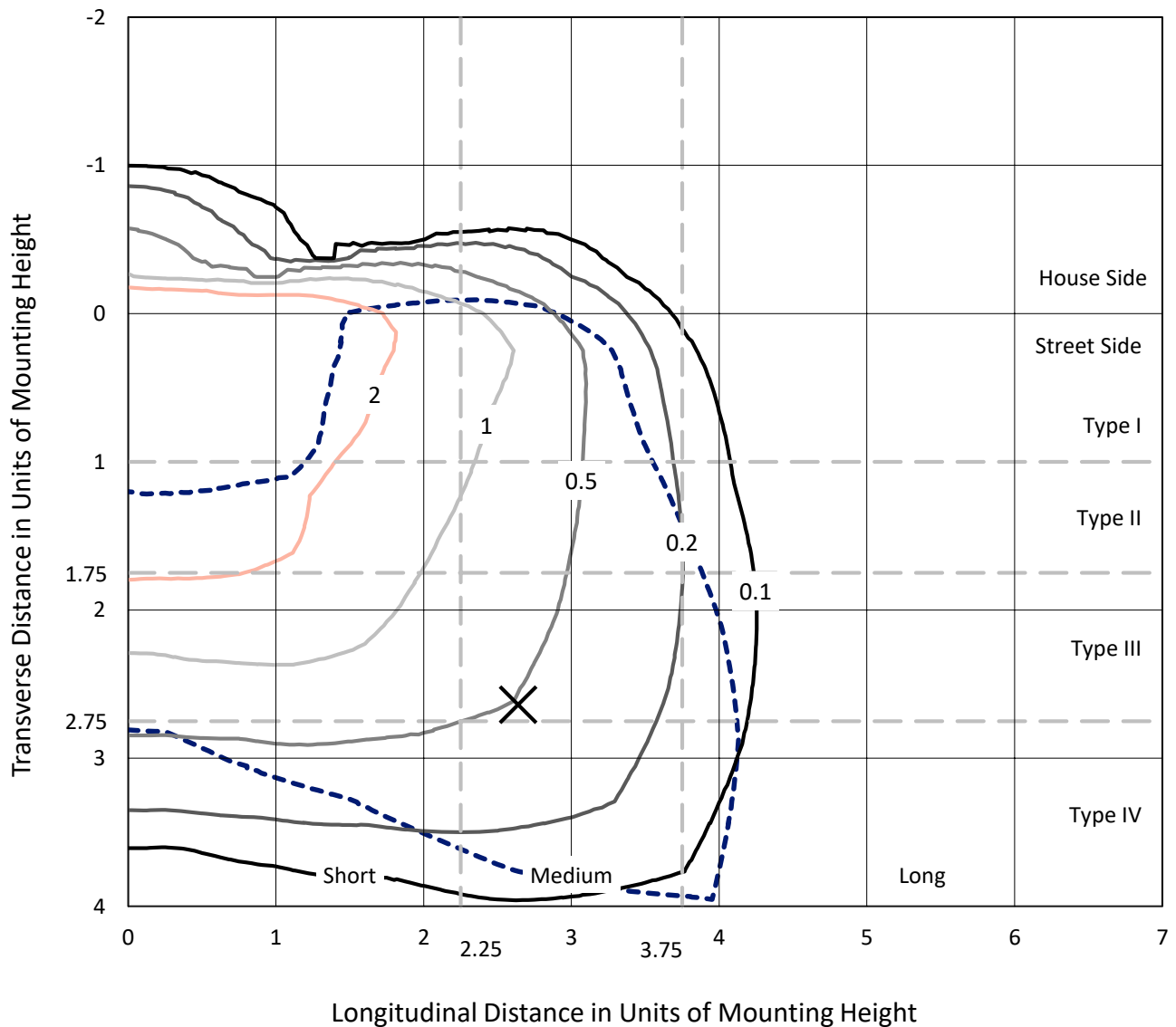
Input Watts (W): 143  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

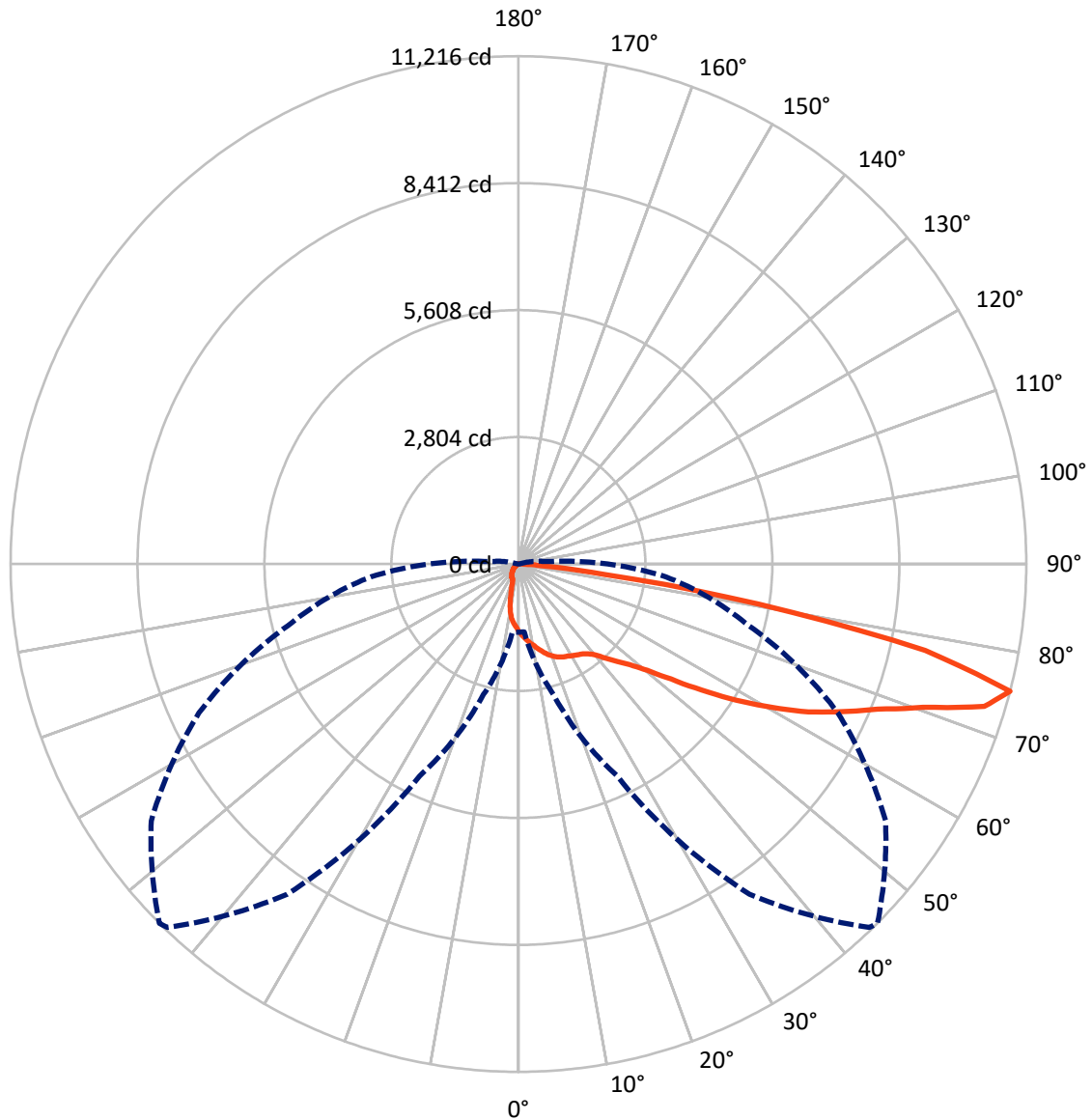
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5 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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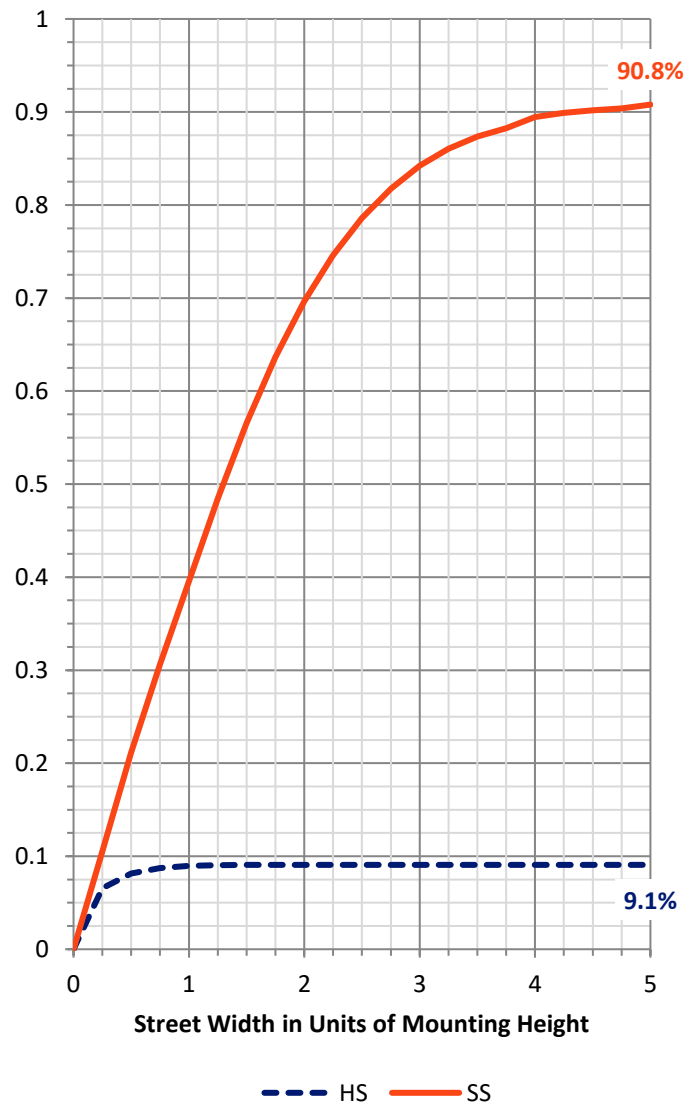
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1275.9	0.0	1275.9
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	12673.1	0.0	12673.1
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	13949.0	0.0	13949.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.8	1.0
10°-20°	398.9	2.9
20°-30°	660.6	4.7
30°-40°	956.1	6.9
40°-50°	1565.6	11.2
50°-60°	2789.5	20.0
60°-70°	4100.9	29.4
70°-80°	3093.8	22.2
80°-90°	242.7	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°	13949.0	100.0
0°-180°	13949.0	100.0



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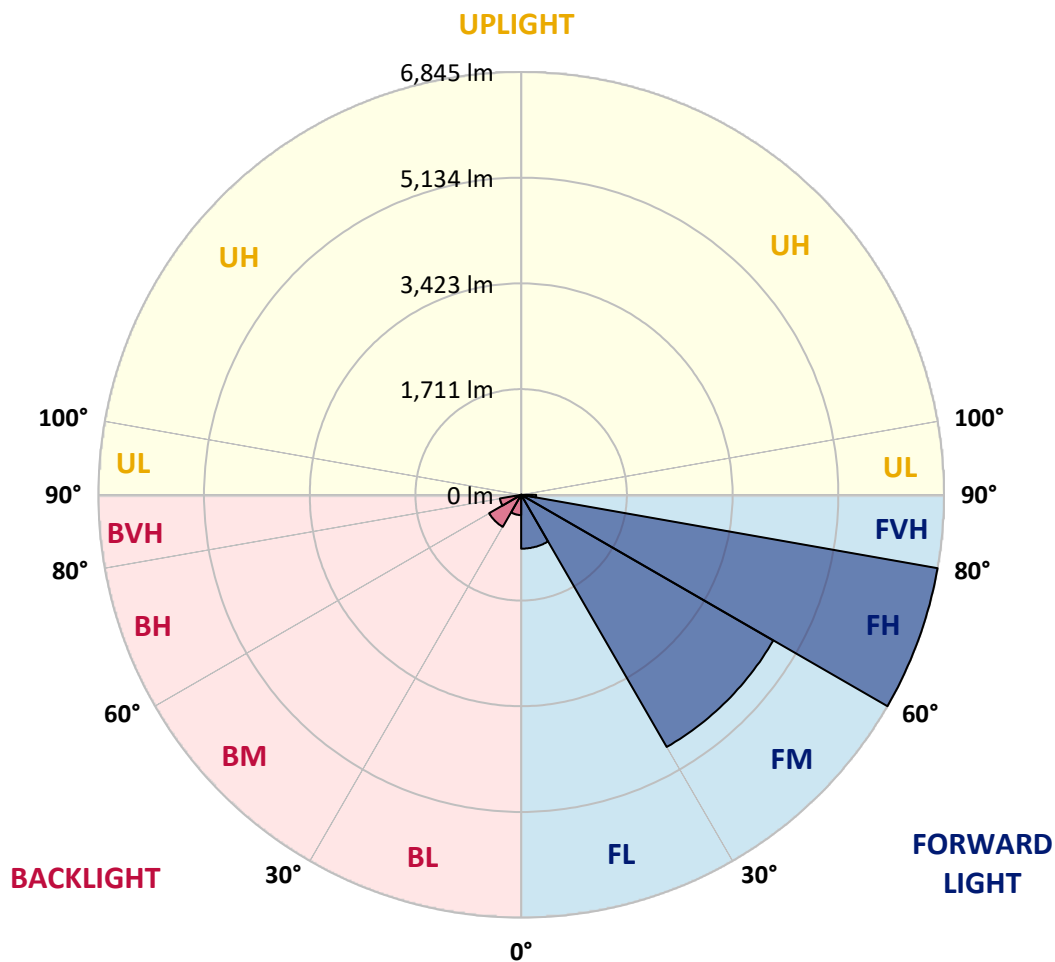
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	872.5	6.3			
FM	(30°-60°)	4713.3	33.8			
FH	(60°-80°)	6845.3	49.1			G3/7500
FVH	(80°-90°)	242.1	1.7			G3/500
BL	(0°-30°)	327.9	2.4	B1/500		
BM	(30°-60°)	597.9	4.3	B1/1000		
BH	(60°-80°)	349.5	2.5	B1/500		G1/500
BVH	(80°-90°)	0.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9
2.5°	1620.7	1620.7	1617.4	1614.0	1597.5	1581.1	1577.7	1567.9	1538.1	1518.4	1498.5
5°	1756.0	1759.3	1752.6	1736.2	1699.8	1663.5	1660.2	1633.9	1577.7	1538.1	1495.2
7.5°	1884.7	1891.3	1874.8	1845.1	1802.1	1749.3	1746.1	1696.6	1623.9	1567.9	1505.2
10°	1993.6	1993.6	1970.5	1934.2	1888.0	1831.9	1825.3	1769.2	1686.6	1617.4	1534.8
12.5°	2112.5	2109.1	2076.2	2026.7	1973.8	1921.0	1917.7	1848.4	1769.2	1680.1	1577.7
15°	2221.3	2214.8	2171.8	2125.7	2069.5	2013.5	2010.1	1940.8	1858.3	1752.6	1640.4
17.5°	2280.8	2277.5	2237.9	2191.7	2145.4	2102.6	2099.2	2026.7	1937.5	1828.6	1703.1
20°	2290.7	2294.0	2261.0	2221.3	2194.9	2171.8	2171.8	2105.8	2010.1	1894.6	1769.2
22.5°	2294.0	2303.9	2280.8	2228.0	2221.3	2224.7	2231.3	2178.5	2079.5	1970.5	1838.4
25°	2317.1	2330.3	2313.8	2251.1	2244.5	2267.6	2274.2	2251.1	2162.0	2053.1	1917.7
27.5°	2363.3	2376.5	2363.3	2284.0	2274.2	2297.2	2303.9	2317.1	2251.1	2132.2	2000.2
30°	2455.7	2459.1	2429.3	2330.3	2310.5	2340.2	2350.1	2386.4	2333.6	2208.1	2079.5
32.5°	2617.4	2584.5	2495.3	2363.3	2346.8	2379.8	2389.7	2429.3	2409.6	2280.8	2162.0
35°	2947.5	2775.9	2571.3	2409.6	2393.0	2426.0	2439.2	2495.3	2505.2	2383.1	2264.3
37.5°	2944.3	2789.1	2749.5	2498.7	2475.5	2498.7	2515.1	2584.5	2624.1	2518.4	2412.8
40°	3152.1	3086.1	3086.1	2666.9	2591.0	2624.1	2640.5	2709.9	2779.2	2696.7	2587.8
42.5°	3805.7	3762.8	3716.6	2990.4	2752.8	2845.2	2855.1	2898.0	2980.6	2954.1	2825.4
45°	4535.2	4495.6	4317.4	3538.4	3030.1	3046.6	3069.7	3138.9	3257.8	3307.3	3155.5
47.5°	5106.2	5066.6	4914.8	4198.5	3462.5	3317.2	3317.2	3452.6	3637.4	3762.8	3617.6
50°	5565.0	5518.8	5426.3	4901.6	4172.1	3706.7	3686.9	3845.3	4119.3	4314.0	4215.0
52.5°	6010.6	5875.2	5819.2	5627.7	4974.2	4271.1	4218.3	4330.6	4710.1	4951.1	4868.5
55°	6307.6	6287.9	6228.4	6294.4	5815.9	4957.6	4911.4	4934.5	5409.9	5571.6	5469.3
57.5°	6584.9	6581.6	6713.6	7020.6	6733.5	5743.3	5670.6	5634.3	6086.5	6046.9	6136.0
60°	6928.1	6868.8	7175.7	7614.7	7575.2	6508.9	6426.5	6353.9	6604.7	6492.5	6934.8
62.5°	6944.7	6928.1	7552.0	8182.5	8410.2	7287.9	7192.3	6931.5	7056.9	6928.1	7697.2
65°	6314.3	6396.7	7710.4	8482.8	9109.9	7971.2	7855.6	7449.6	7459.6	7373.7	8595.0
67.5°	6172.3	6215.2	7274.7	8806.3	9614.9	8661.0	8552.1	8047.1	7928.3	7934.9	9126.5
70°	5819.2	5885.1	6733.5	8783.2	10014.3	9582.0	9473.0	8925.1	8637.9	8317.7	8717.2
72.5°	4446.1	4558.3	5673.9	7700.6	9905.4	10786.7	10756.9	10037.4	8921.8	7637.9	6594.8
75°	1505.2	1501.8	2980.6	5172.2	8898.6	11156.4	11215.7	9898.8	7783.0	5267.9	3274.3
77.5°	323.5	326.7	614.0	2095.9	5911.5	8958.1	9185.9	7466.2	5020.3	2346.8	749.2
80°	158.5	161.7	254.2	554.5	2363.3	5023.7	5380.1	3838.7	1855.0	468.7	125.4
82.5°	79.2	82.6	132.1	293.8	874.7	1785.7	1907.8	1412.7	531.4	264.0	62.7
85°	29.7	29.7	66.0	174.9	399.4	419.2	515.0	409.3	320.2	214.5	16.5
87.5°	6.6	6.6	36.3	85.8	178.2	132.1	132.1	125.4	194.8	145.3	6.6
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°	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9	1491.9
2.5°	1488.6	1475.4	1452.3	1429.2	1412.7	1392.8	1383.0	1373.1	1369.8	1366.5	1373.1
5°	1472.1	1452.3	1409.4	1373.1	1340.1	1313.7	1293.8	1274.1	1264.2	1257.6	1260.9
7.5°	1472.1	1442.4	1379.7	1323.6	1270.8	1214.7	1158.6	1115.6	1082.6	1062.8	1066.1
10°	1488.6	1449.0	1366.5	1290.6	1191.5	1072.8	950.6	858.2	795.4	759.1	759.1
12.5°	1524.9	1472.1	1369.8	1251.0	1082.6	874.7	689.9	577.7	531.4	505.0	508.3
15°	1574.4	1511.7	1386.3	1198.2	930.8	650.2	481.9	409.3	409.3	415.9	419.2
17.5°	1630.6	1561.2	1399.5	1118.9	736.0	465.4	379.6	373.0	382.9	399.4	399.4
20°	1686.6	1610.7	1406.1	993.5	551.2	369.7	359.8	359.8	366.4	382.9	386.2
22.5°	1756.0	1673.4	1399.5	838.4	412.6	349.8	346.6	346.6	346.6	366.4	366.4
25°	1828.6	1746.1	1373.1	673.3	349.8	336.7	333.4	330.1	330.1	346.6	349.8
27.5°	1911.1	1822.0	1310.4	515.0	330.1	323.5	320.2	313.5	313.5	326.7	326.7
30°	1993.6	1907.8	1214.7	389.4	313.5	310.3	303.7	297.1	290.4	303.7	303.7
32.5°	2082.7	1996.9	1089.2	310.3	290.4	290.4	287.1	277.2	270.7	277.2	280.6
35°	2201.6	2099.2	947.3	270.7	260.8	260.8	260.8	257.5	244.3	250.8	250.8
37.5°	2360.0	2241.2	782.3	250.8	237.6	231.1	231.1	231.1	221.2	224.4	224.4
40°	2561.4	2406.2	623.8	234.4	221.2	204.7	198.0	201.3	194.8	194.8	191.4
42.5°	2835.3	2584.5	468.7	221.2	208.0	184.8	171.7	168.4	161.7	158.5	158.5
45°	3228.1	2802.3	336.7	208.0	198.0	161.7	148.5	138.6	122.1	112.2	112.2
47.5°	3736.4	3049.8	250.8	194.8	188.1	141.9	125.4	105.7	82.6	75.9	75.9
50°	4357.0	3327.1	211.2	174.9	171.7	125.4	99.0	69.4	46.2	39.6	42.9
52.5°	4960.9	3587.9	188.1	155.2	151.8	108.9	72.6	36.3	19.8	19.8	19.8
55°	5469.3	3772.7	171.7	138.6	132.1	85.8	39.6	16.5	9.9	9.9	9.9
57.5°	5928.1	3878.3	155.2	122.1	105.7	59.4	16.5	6.6	6.6	3.3	3.3
60°	6347.2	3941.0	135.3	105.7	82.6	33.0	6.6	3.3	3.3	0.0	0.0
62.5°	6759.9	3987.3	115.5	85.8	62.7	13.2	3.3	3.3	0.0	0.0	0.0
65°	7073.4	3970.8	92.4	69.4	39.6	6.6	3.3	0.0	0.0	0.0	0.0
67.5°	7063.5	3746.3	69.4	52.8	19.8	3.3	0.0	0.0	0.0	0.0	0.0
70°	6317.5	3155.5	46.2	33.0	6.6	3.3	0.0	0.0	0.0	0.0	0.0
72.5°	4482.4	2023.3	29.7	19.8	3.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	1973.8	614.0	16.5	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	386.2	141.9	9.9	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	92.4	16.5	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	39.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.9	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.6	3.3	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)