

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: P237450

Luminaire Tested: **ARCH-L-AF72-170-D-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237450  
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-AF72-170-D-U-T4W-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 750mA 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: 16209.7 lumens  
Efficiency: N/A  
Efficacy: 93.7 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

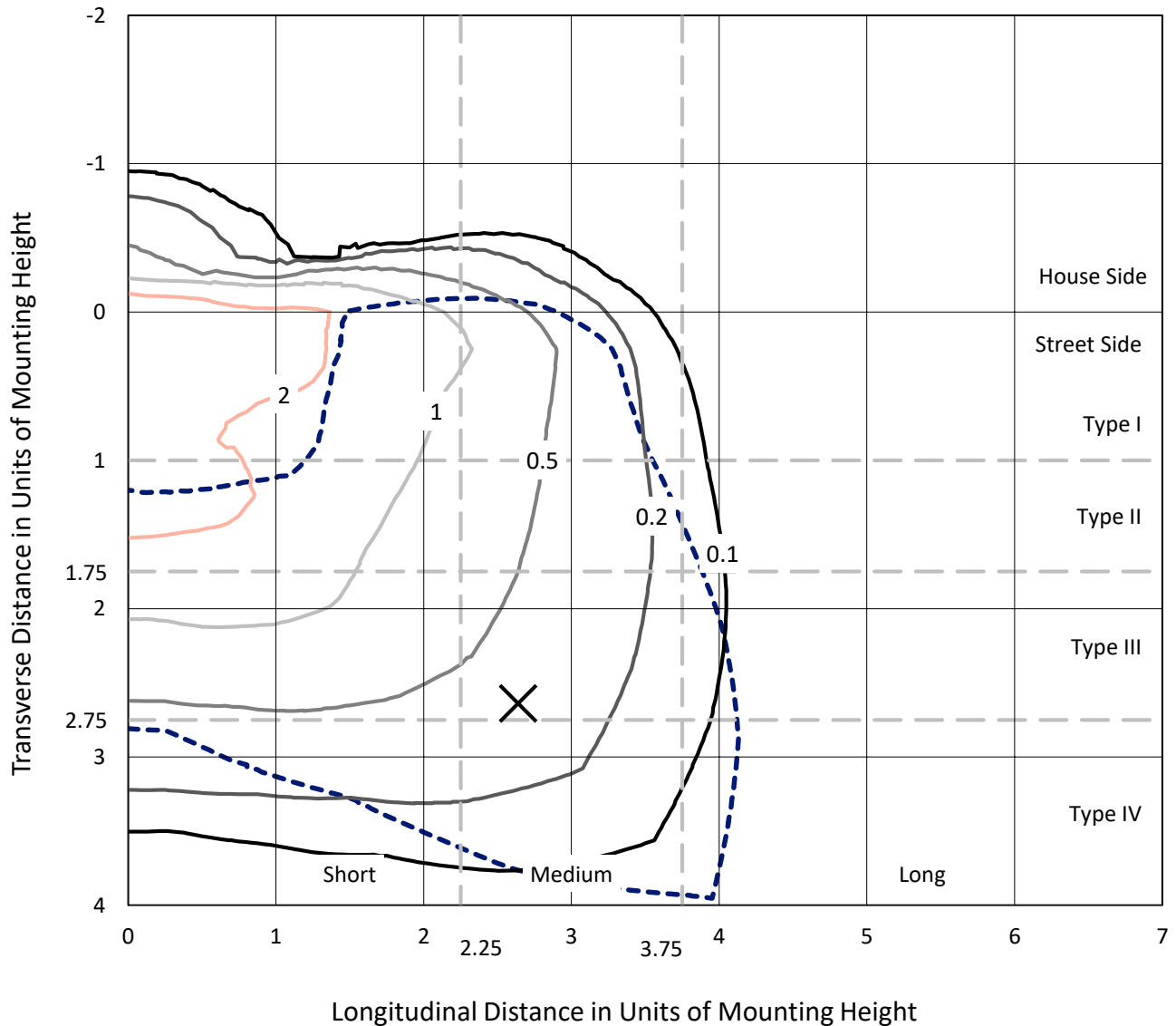
Input Watts (W): 173  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

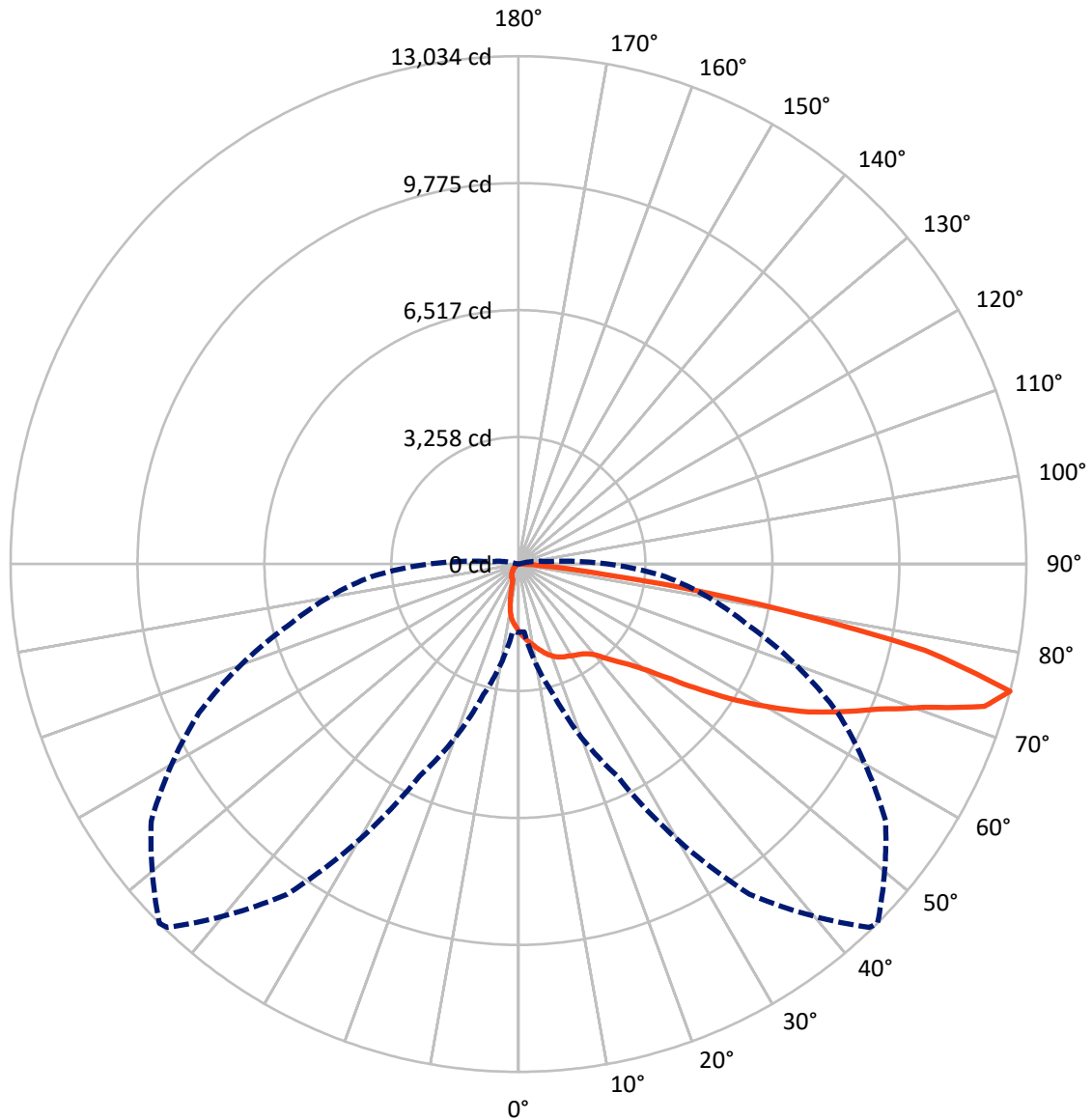
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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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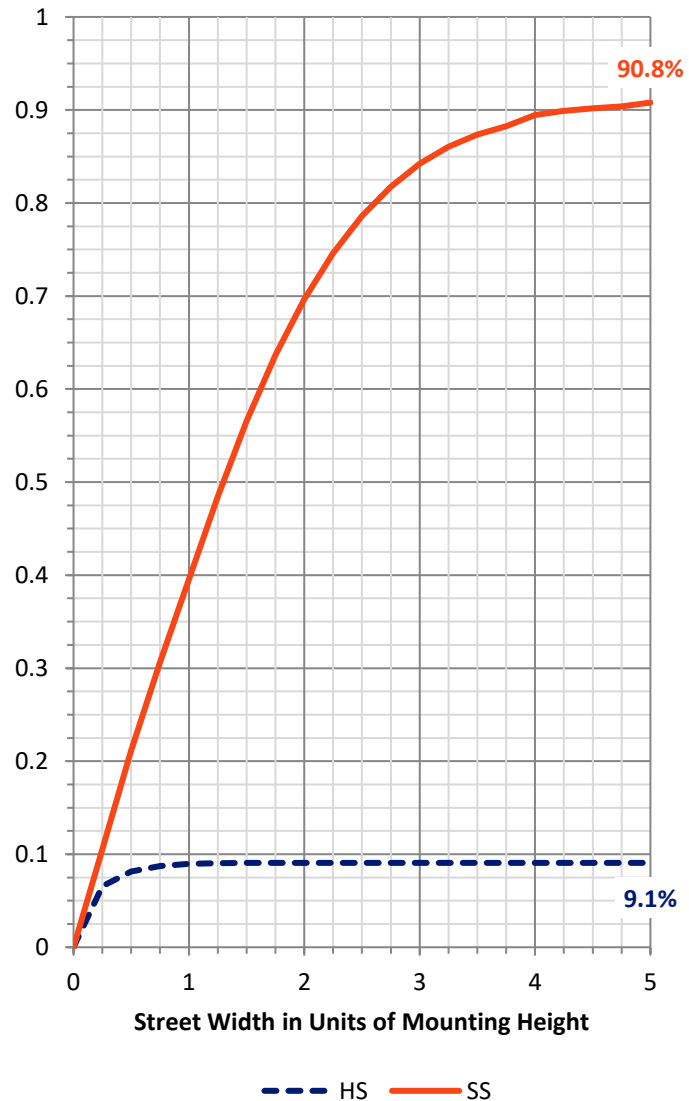
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1482.7	0.0	1482.7
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	14727.0	0.0	14727.0
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	16209.7	0.0	16209.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.6	1.0
10°-20°	463.6	2.9
20°-30°	767.7	4.7
30°-40°	1111.1	6.9
40°-50°	1819.3	11.2
50°-60°	3241.6	20.0
60°-70°	4765.6	29.4
70°-80°	3595.2	22.2
80°-90°	282.1	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°	16209.7	100.0
0°-180°	16209.7	100.0

**Coefficient of Utilization**



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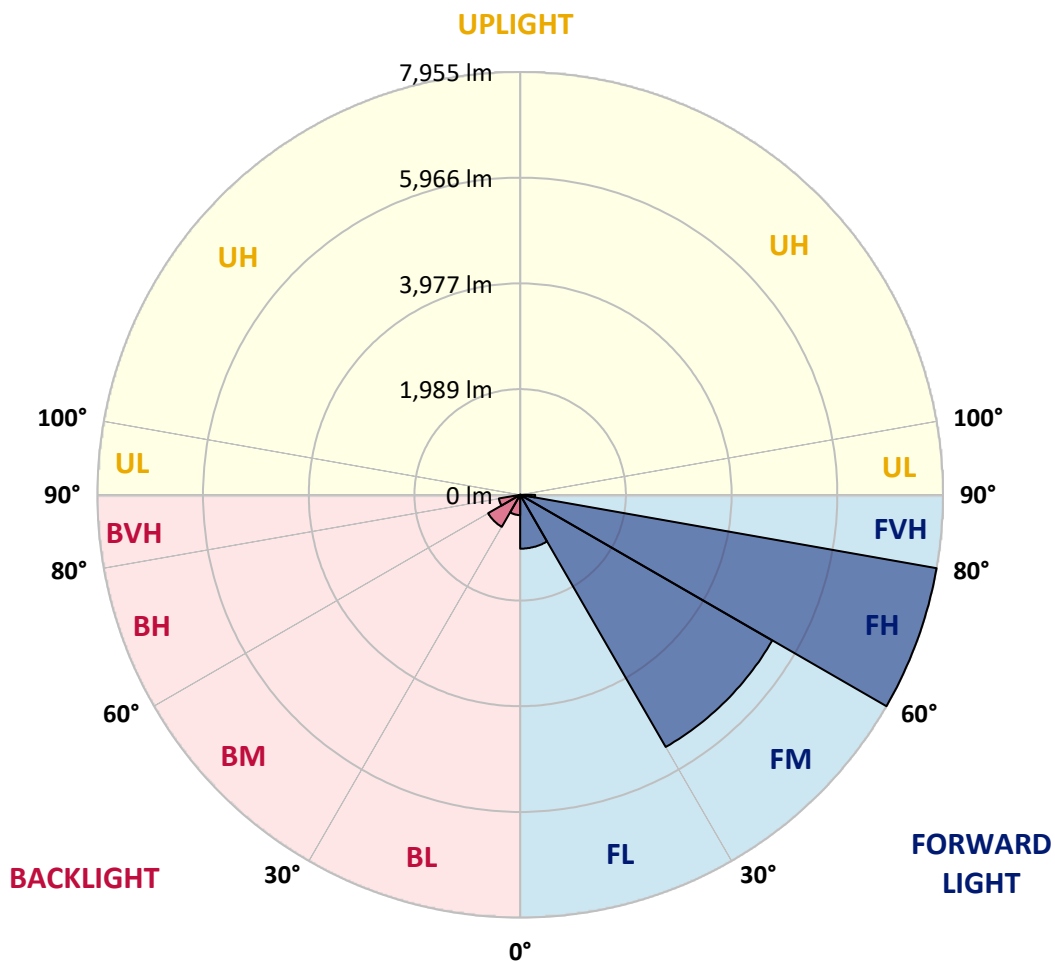
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1013.9	6.3			
FM	(30°-60°)	5477.2	33.8			
FH	(60°-80°)	7954.7	49.1			G4/12000
FVH	(80°-90°)	281.3	1.7			G3/500
BL	(0°-30°)	381.0	2.4	B1/500		
BM	(30°-60°)	694.8	4.3	B1/1000		
BH	(60°-80°)	406.1	2.5	B1/500		G1/500
BVH	(80°-90°)	0.8	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°	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7
2.5°	1883.3	1883.3	1879.5	1875.7	1856.5	1837.3	1833.4	1822.0	1787.4	1764.4	1741.4
5°	2040.6	2044.4	2036.7	2017.6	1975.3	1933.2	1929.3	1898.6	1833.4	1787.4	1737.6
7.5°	2190.1	2197.8	2178.7	2144.1	2094.3	2032.9	2029.0	1971.5	1887.1	1822.0	1749.0
10°	2316.8	2316.8	2289.9	2247.7	2194.0	2128.8	2121.1	2055.9	1960.0	1879.5	1783.6
12.5°	2454.8	2451.0	2412.6	2355.0	2293.8	2232.4	2228.5	2148.0	2055.9	1952.3	1833.4
15°	2581.4	2573.7	2523.8	2470.1	2405.0	2339.8	2335.9	2255.4	2159.4	2036.7	1906.3
17.5°	2650.5	2646.6	2600.5	2546.8	2493.1	2443.3	2439.4	2355.0	2251.5	2125.0	1979.2
20°	2661.9	2665.8	2627.4	2581.4	2550.7	2523.8	2523.8	2447.1	2335.9	2201.7	2055.9
22.5°	2665.8	2677.3	2650.5	2589.1	2581.4	2585.2	2592.9	2531.5	2416.4	2289.9	2136.4
25°	2692.6	2708.0	2688.8	2615.9	2608.2	2635.1	2642.8	2615.9	2512.4	2385.7	2228.5
27.5°	2746.3	2761.7	2746.3	2654.3	2642.8	2669.6	2677.3	2692.6	2615.9	2477.8	2324.5
30°	2853.7	2857.5	2823.0	2708.0	2684.9	2719.5	2731.0	2773.2	2711.8	2566.1	2416.4
32.5°	3041.6	3003.3	2899.8	2746.3	2727.2	2765.5	2777.0	2823.0	2800.0	2650.5	2512.4
35°	3425.2	3225.8	2987.9	2800.0	2780.9	2819.3	2834.5	2899.8	2911.2	2769.3	2631.2
37.5°	3421.4	3241.1	3195.1	2903.5	2876.7	2903.5	2922.8	3003.3	3049.3	2926.6	2803.9
40°	3663.1	3586.4	3586.4	3099.2	3011.0	3049.3	3068.5	3149.1	3229.7	3133.7	3007.2
42.5°	4422.5	4372.6	4318.9	3475.1	3199.0	3306.3	3317.8	3367.7	3463.6	3432.9	3283.4
45°	5270.1	5224.1	5017.1	4111.9	3521.1	3540.3	3567.1	3647.7	3785.7	3843.3	3666.9
47.5°	5933.7	5887.7	5711.2	4879.0	4023.6	3854.8	3854.8	4012.1	4226.9	4372.6	4203.9
50°	6466.9	6413.2	6305.8	5695.9	4848.3	4307.4	4284.4	4468.6	4786.9	5013.2	4898.1
52.5°	6984.7	6827.5	6762.2	6539.8	5780.3	4963.4	4902.0	5032.4	5473.5	5753.5	5657.5
55°	7330.0	7306.9	7237.9	7314.6	6758.4	5761.2	5707.5	5734.3	6286.6	6474.6	6355.7
57.5°	7652.1	7648.3	7801.7	8158.4	7824.8	6674.0	6589.6	6547.5	7072.9	7027.0	7130.5
60°	8051.0	7982.0	8338.7	8848.8	8802.8	7563.9	7468.1	7383.7	7675.1	7544.7	8058.7
62.5°	8070.2	8051.0	8776.0	9508.5	9773.3	8469.1	8357.9	8054.8	8200.6	8051.0	8944.7
65°	7337.6	7433.5	8960.0	9857.7	10586.4	9263.1	9128.8	8657.0	8668.6	8568.8	9988.0
67.5°	7172.6	7222.5	8453.8	10233.5	11173.3	10064.7	9938.2	9351.3	9213.2	9220.9	10605.5
70°	6762.2	6838.9	7824.8	10206.7	11637.4	11134.9	11008.3	10371.6	10037.9	9665.9	10130.0
72.5°	5166.6	5297.0	6593.4	8948.6	11510.8	12534.9	12500.4	11664.2	10367.7	8875.7	7663.6
75°	1749.0	1745.3	3463.6	6010.4	10340.9	12964.5	13033.5	11503.1	9044.4	6121.6	3805.0
77.5°	375.9	379.7	713.4	2435.6	6869.6	10410.0	10674.6	8676.3	5834.0	2727.2	870.7
80°	184.1	187.9	295.3	644.4	2746.3	5837.9	6252.1	4460.9	2155.7	544.6	145.8
82.5°	92.1	95.9	153.4	341.4	1016.4	2075.1	2217.0	1641.6	617.6	306.9	72.8
85°	34.5	34.5	76.7	203.3	464.1	487.1	598.3	475.6	372.0	249.3	19.1
87.5°	7.7	7.7	42.1	99.7	207.1	153.4	153.4	145.8	226.3	168.8	7.7
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°	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7	1733.7
2.5°	1729.9	1714.6	1687.7	1660.9	1641.6	1618.6	1607.2	1595.6	1591.8	1587.9	1595.6
5°	1710.7	1687.7	1637.8	1595.6	1557.2	1526.5	1503.5	1480.5	1469.1	1461.4	1465.2
7.5°	1710.7	1676.2	1603.3	1538.1	1476.7	1411.5	1346.3	1296.5	1258.1	1235.1	1238.9
10°	1729.9	1683.9	1587.9	1499.7	1384.7	1246.6	1104.7	997.3	924.4	882.2	882.2
12.5°	1772.1	1710.7	1591.8	1453.7	1258.1	1016.4	801.7	671.3	617.6	586.9	590.7
15°	1829.6	1756.7	1610.9	1392.3	1081.7	755.7	560.0	475.6	475.6	483.2	487.1
17.5°	1894.8	1814.3	1626.3	1300.3	855.4	540.8	441.1	433.4	445.0	464.1	464.1
20°	1960.0	1871.8	1634.0	1154.5	640.6	429.6	418.1	418.1	425.8	445.0	448.8
22.5°	2040.6	1944.6	1626.3	974.3	479.5	406.6	402.7	402.7	402.7	425.8	425.8
25°	2125.0	2029.0	1595.6	782.5	406.6	391.3	387.4	383.6	383.6	402.7	406.6
27.5°	2220.8	2117.3	1522.8	598.3	383.6	375.9	372.0	364.4	364.4	379.7	379.7
30°	2316.8	2217.0	1411.5	452.7	364.4	360.6	352.9	345.2	337.6	352.9	352.9
32.5°	2420.3	2320.6	1265.8	360.6	337.6	337.6	333.7	322.2	314.6	322.2	326.0
35°	2558.4	2439.4	1100.8	314.6	303.0	303.0	303.0	299.2	283.9	291.5	291.5
37.5°	2742.5	2604.4	909.1	291.5	276.2	268.5	268.5	268.5	257.0	260.9	260.9
40°	2976.5	2796.2	725.0	272.3	257.0	237.8	230.2	233.9	226.3	226.3	222.5
42.5°	3294.8	3003.3	544.6	257.0	241.6	214.8	199.5	195.6	187.9	184.1	184.1
45°	3751.3	3256.5	391.3	241.6	230.2	187.9	172.6	161.1	141.9	130.4	130.4
47.5°	4341.9	3544.1	291.5	226.3	218.6	164.9	145.8	122.8	95.9	88.2	88.2
50°	5063.1	3866.3	245.5	203.3	199.5	145.8	115.1	80.5	53.7	46.0	49.8
52.5°	5764.9	4169.3	218.6	180.2	176.5	126.5	84.4	42.1	23.0	23.0	23.0
55°	6355.7	4384.2	199.5	161.1	153.4	99.7	46.0	19.1	11.5	11.5	11.5
57.5°	6888.9	4506.9	180.2	141.9	122.8	69.0	19.1	7.7	7.7	3.8	3.8
60°	7376.0	4579.8	157.2	122.8	95.9	38.4	7.7	3.8	3.8	0.0	0.0
62.5°	7855.4	4633.5	134.2	99.7	72.8	15.3	3.8	3.8	0.0	0.0	0.0
65°	8219.8	4614.3	107.4	80.5	46.0	7.7	3.8	0.0	0.0	0.0	0.0
67.5°	8208.3	4353.5	80.5	61.4	23.0	3.8	0.0	0.0	0.0	0.0	0.0
70°	7341.4	3666.9	53.7	38.4	7.7	3.8	0.0	0.0	0.0	0.0	0.0
72.5°	5208.8	2351.3	34.5	23.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	2293.8	713.4	19.1	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	448.8	164.9	11.5	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	107.4	19.1	3.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	46.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	11.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.7	3.8	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)