

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: P265849

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265849  
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-M-AF48-140-D-U-T4W-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 905mA 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: 10962.1 lumens  
Efficiency: N/A  
Efficacy: 77.7 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G3

Input Watts (W): 141  
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

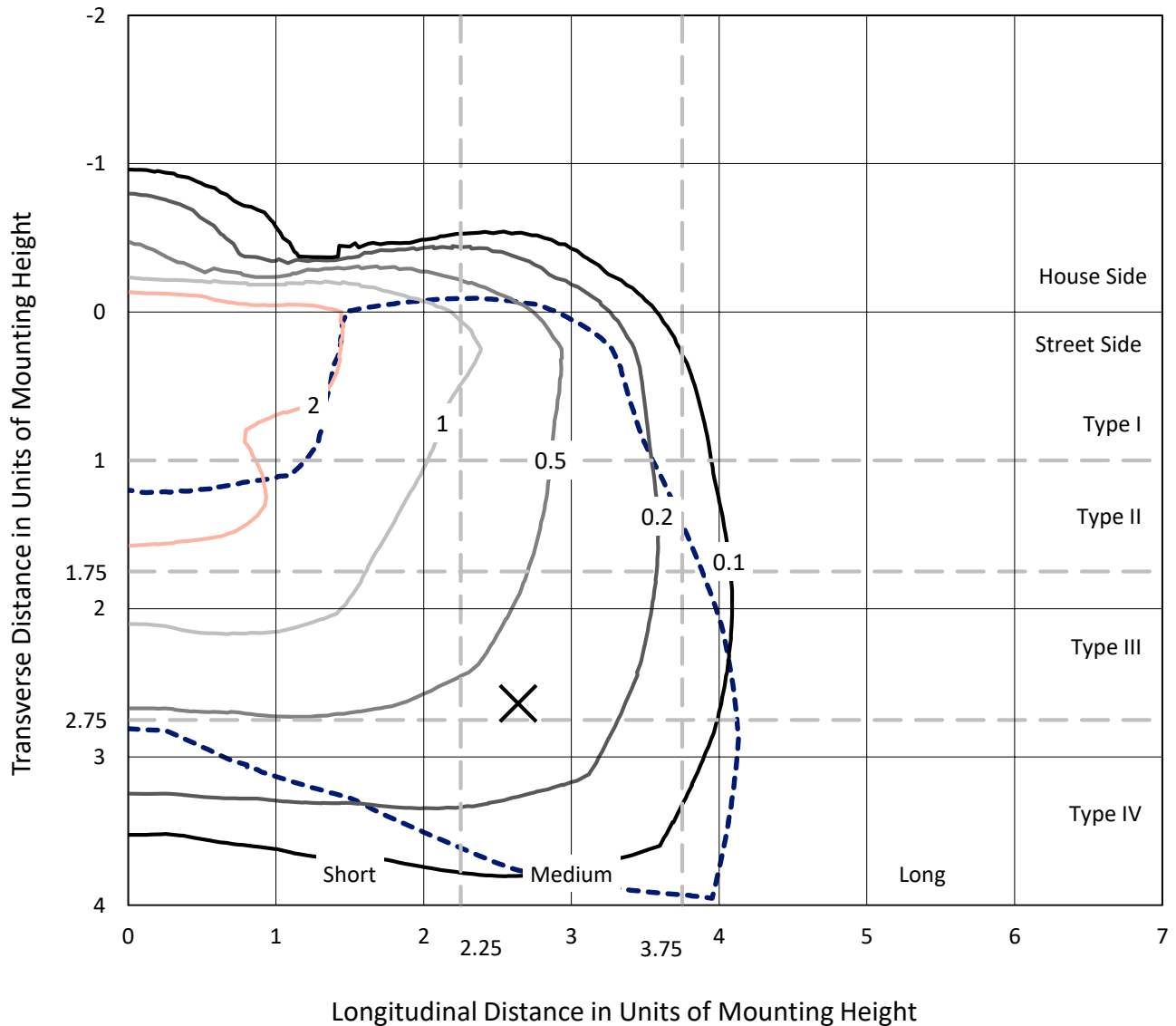


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

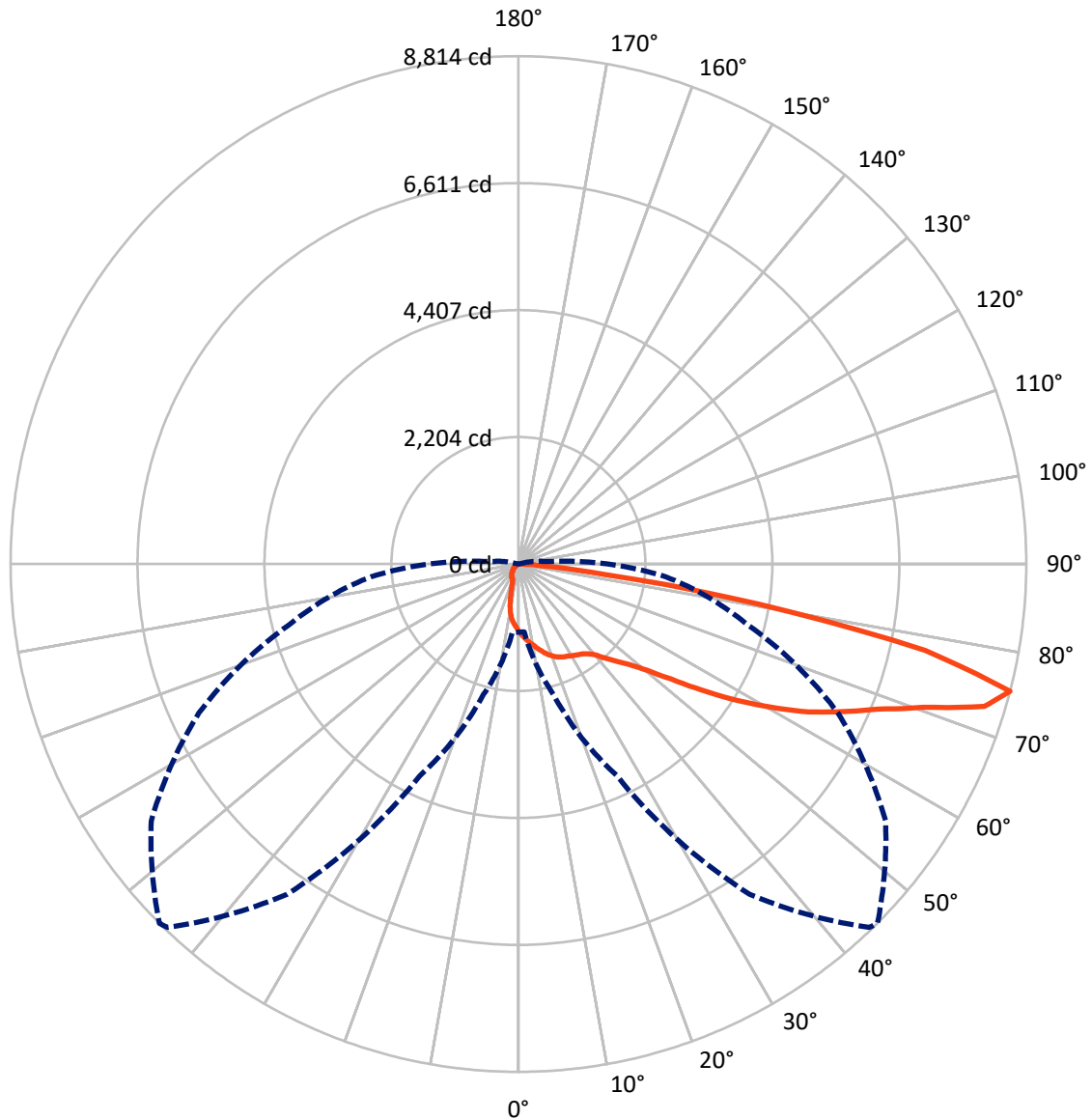


Based on 20 foot mounting height. Maximum calculated value = 3.9 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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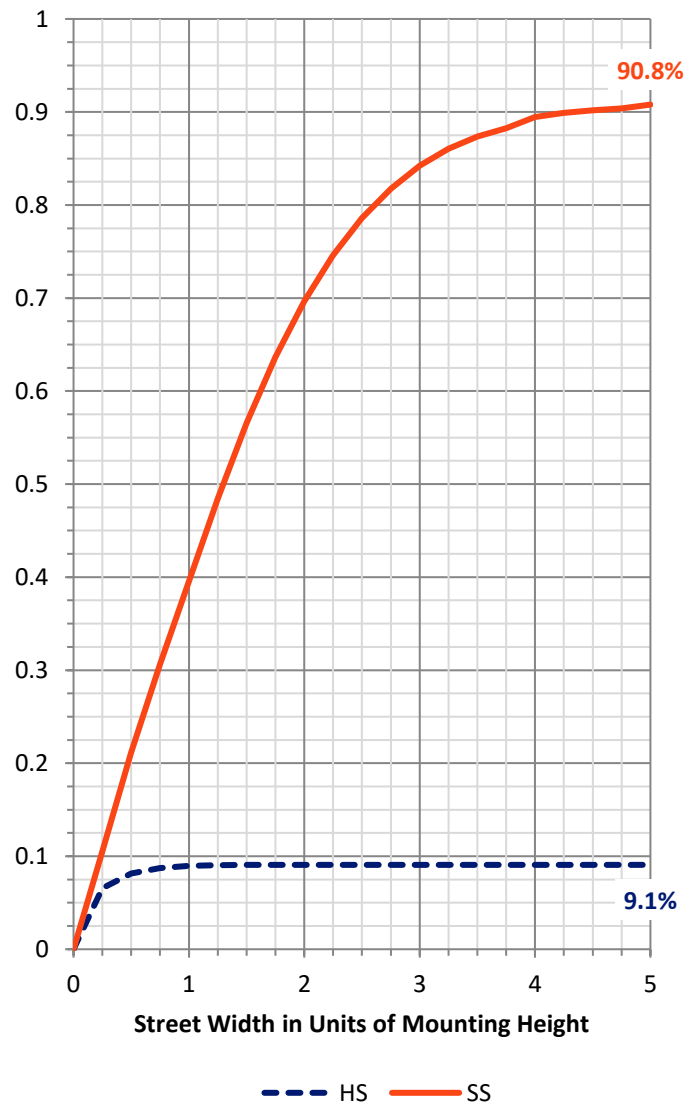
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1002.7	0.0	1002.7
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	9959.4	0.0	9959.4
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	10962.1	0.0	10962.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.7	1.0
10°-20°	313.5	2.9
20°-30°	519.2	4.7
30°-40°	751.4	6.9
40°-50°	1230.3	11.2
50°-60°	2192.2	20.0
60°-70°	3222.8	29.4
70°-80°	2431.3	22.2
80°-90°	190.8	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°	10962.1	100.0
0°-180°	10962.1	100.0



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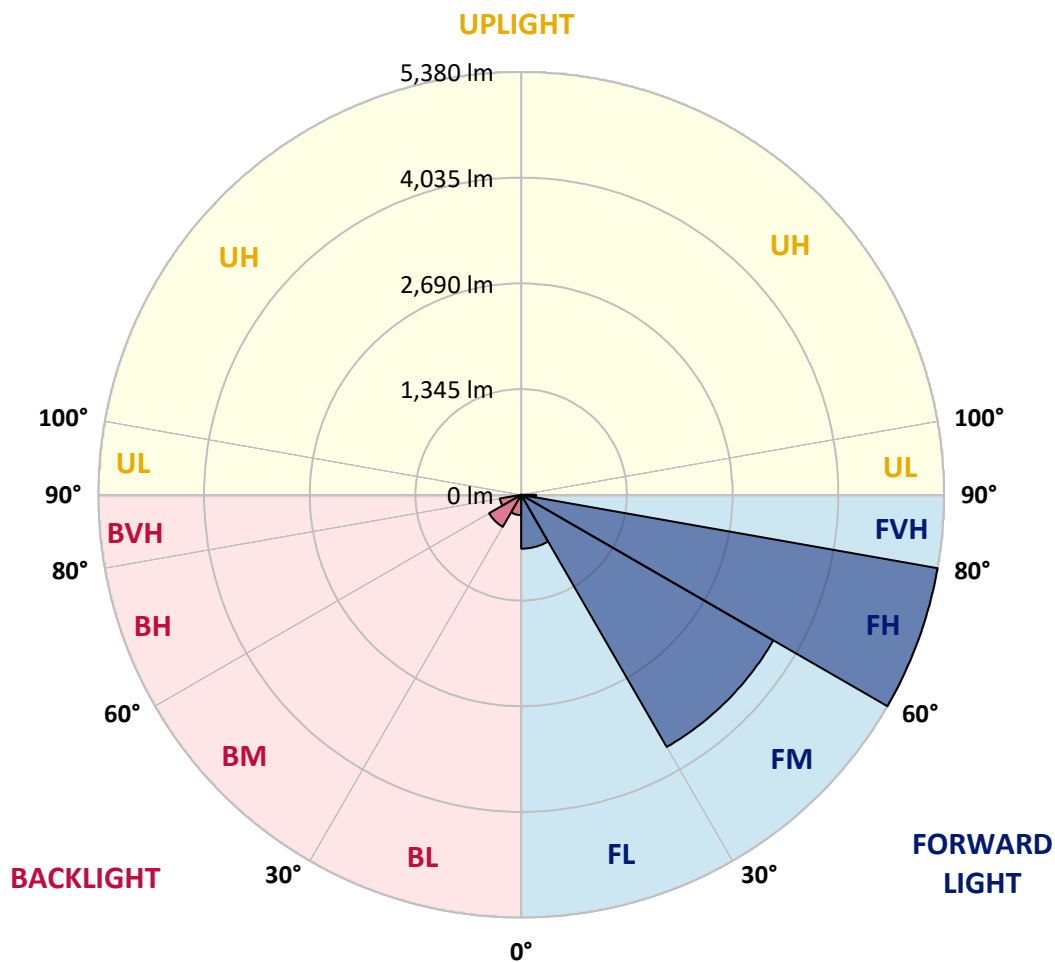
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	685.7	6.3			
FM	(30°-60°)	3704.1	33.8			
FH	(60°-80°)	5379.5	49.1			G3/7500
FVH	(80°-90°)	190.2	1.7			G2/225
BL	(0°-30°)	257.7	2.4	B1/500		
BM	(30°-60°)	469.9	4.3	B1/1000		
BH	(60°-80°)	274.6	2.5	B1/500		G1/500
BVH	(80°-90°)	0.5	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°	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5
2.5°	1273.6	1273.6	1271.0	1268.4	1255.6	1242.4	1239.9	1232.1	1208.8	1193.2	1177.7
5°	1379.9	1382.6	1377.5	1364.4	1335.9	1307.4	1304.8	1283.9	1239.9	1208.8	1175.1
7.5°	1481.1	1486.3	1473.4	1450.0	1416.3	1374.8	1372.3	1333.3	1276.2	1232.1	1182.9
10°	1566.7	1566.7	1548.6	1520.0	1483.7	1439.7	1434.5	1390.3	1325.4	1271.0	1206.2
12.5°	1660.1	1657.6	1631.6	1592.7	1551.2	1509.7	1507.0	1452.6	1390.3	1320.2	1239.9
15°	1745.8	1740.6	1706.8	1670.5	1626.4	1582.4	1579.7	1525.2	1460.4	1377.5	1289.2
17.5°	1792.4	1789.9	1758.7	1722.4	1686.1	1652.3	1649.7	1592.7	1522.6	1437.1	1338.5
20°	1800.3	1802.8	1776.8	1745.8	1724.9	1706.8	1706.8	1654.9	1579.7	1488.9	1390.3
22.5°	1802.8	1810.5	1792.4	1750.8	1745.8	1748.3	1753.5	1712.0	1634.1	1548.6	1444.8
25°	1821.0	1831.4	1818.3	1769.0	1763.9	1782.1	1787.2	1769.0	1699.1	1613.4	1507.0
27.5°	1857.2	1867.7	1857.2	1795.1	1787.2	1805.4	1810.5	1821.0	1769.0	1675.7	1571.9
30°	1929.9	1932.6	1909.2	1831.4	1815.7	1839.1	1846.8	1875.4	1833.9	1735.3	1634.1
32.5°	2056.9	2031.1	1961.0	1857.2	1844.3	1870.2	1878.0	1909.2	1893.5	1792.4	1699.1
35°	2316.4	2181.5	2020.6	1893.5	1880.6	1906.6	1917.0	1961.0	1968.8	1872.8	1779.5
37.5°	2313.9	2191.9	2160.8	1963.7	1945.5	1963.7	1976.6	2031.1	2062.1	1979.1	1896.2
40°	2477.3	2425.3	2425.3	2095.9	2036.3	2062.1	2075.2	2129.6	2184.0	2119.2	2033.7
42.5°	2990.7	2957.1	2920.7	2350.1	2163.4	2236.1	2243.7	2277.6	2342.3	2321.6	2220.4
45°	3564.0	3532.9	3392.9	2780.8	2381.2	2394.3	2412.4	2466.8	2560.2	2599.2	2479.9
47.5°	4012.8	3981.6	3862.4	3299.6	2721.1	2606.9	2606.9	2713.3	2858.5	2957.1	2843.0
50°	4373.4	4337.0	4264.4	3852.0	3278.8	2913.1	2897.5	3022.0	3237.2	3390.4	3312.5
52.5°	4723.6	4617.2	4573.1	4422.6	3909.1	3356.5	3315.0	3403.3	3701.6	3890.9	3826.2
55°	4957.0	4941.4	4894.8	4946.6	4570.5	3896.0	3859.7	3878.0	4251.5	4378.6	4298.2
57.5°	5175.0	5172.4	5276.0	5517.3	5291.6	4513.4	4456.4	4427.8	4783.3	4752.2	4822.1
60°	5444.6	5397.9	5639.2	5984.1	5953.1	5115.3	5050.5	4993.4	5190.4	5102.4	5449.8
62.5°	5457.7	5444.6	5934.9	6430.3	6609.4	5727.5	5652.2	5447.3	5545.9	5444.6	6049.0
65°	4962.1	5027.1	6059.4	6666.4	7159.3	6264.4	6173.6	5854.6	5862.2	5794.8	6754.6
67.5°	4850.7	4884.4	5717.1	6920.6	7556.2	6806.5	6720.8	6324.1	6230.6	6235.9	7172.2
70°	4573.1	4625.1	5291.6	6902.4	7870.1	7530.2	7444.7	7014.1	6788.3	6536.7	6850.7
72.5°	3494.0	3582.3	4458.9	6051.7	7784.4	8477.0	8453.7	7888.1	7011.5	6002.4	5182.7
75°	1182.9	1180.3	2342.3	4064.7	6993.2	8767.5	8814.2	7779.2	6116.5	4139.8	2573.1
77.5°	254.2	256.7	482.5	1647.1	4645.8	7039.9	7219.0	5867.5	3945.4	1844.3	588.7
80°	124.5	127.1	199.8	435.8	1857.2	3948.1	4228.1	3016.8	1457.8	368.3	98.5
82.5°	62.3	64.9	103.8	230.9	687.5	1403.3	1499.4	1110.2	417.6	207.5	49.2
85°	23.4	23.4	51.9	137.5	313.9	329.4	404.6	321.7	251.6	168.6	12.9
87.5°	5.2	5.2	28.6	67.5	140.0	103.8	103.8	98.5	153.0	114.2	5.2
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°	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5	1172.5
2.5°	1169.9	1159.5	1141.3	1123.2	1110.2	1094.7	1086.9	1079.0	1076.4	1074.0	1079.0
5°	1156.8	1141.3	1107.6	1079.0	1053.2	1032.4	1016.8	1001.3	993.4	988.2	990.9
7.5°	1156.8	1133.5	1084.3	1040.1	998.6	954.5	910.5	876.7	850.9	835.2	837.8
10°	1169.9	1138.7	1074.0	1014.2	936.5	843.0	747.1	674.4	625.1	596.7	596.7
12.5°	1198.3	1156.8	1076.4	983.1	850.9	687.5	542.1	454.0	417.6	397.0	399.4
15°	1237.3	1188.0	1089.5	941.7	731.5	511.0	378.7	321.7	321.7	326.9	329.4
17.5°	1281.4	1226.9	1099.9	879.4	578.5	365.7	298.2	293.0	300.9	313.9	313.9
20°	1325.4	1265.8	1105.0	780.7	433.3	290.5	282.7	282.7	287.9	300.9	303.4
22.5°	1379.9	1315.1	1099.9	658.8	324.3	274.9	272.4	272.4	272.4	287.9	287.9
25°	1437.1	1372.3	1079.0	529.1	274.9	264.6	261.9	259.4	259.4	272.4	274.9
27.5°	1501.8	1431.9	1029.7	404.6	259.4	254.2	251.6	246.4	246.4	256.7	256.7
30°	1566.7	1499.4	954.5	306.1	246.4	243.8	238.6	233.5	228.3	238.6	238.6
32.5°	1636.8	1569.2	856.1	243.8	228.3	228.3	225.7	217.8	212.7	217.8	220.4
35°	1730.1	1649.7	744.4	212.7	205.0	205.0	205.0	202.3	192.0	197.2	197.2
37.5°	1854.7	1761.2	614.8	197.2	186.8	181.5	181.5	181.5	173.8	176.3	176.3
40°	2012.9	1891.0	490.3	184.2	173.8	160.8	155.6	158.2	153.0	153.0	150.5
42.5°	2228.2	2031.1	368.3	173.8	163.4	145.3	134.8	132.3	127.1	124.5	124.5
45°	2536.9	2202.3	264.6	163.4	155.6	127.1	116.7	109.0	95.9	88.3	88.3
47.5°	2936.3	2396.8	197.2	153.0	147.9	111.5	98.5	83.1	64.9	59.6	59.6
50°	3424.0	2614.6	165.9	137.5	134.8	98.5	77.9	54.4	36.3	31.1	33.7
52.5°	3898.7	2819.6	147.9	121.9	119.4	85.6	57.0	28.6	15.6	15.6	15.6
55°	4298.2	2964.9	134.8	109.0	103.8	67.5	31.1	12.9	7.7	7.7	7.7
57.5°	4658.7	3047.9	121.9	95.9	83.1	46.7	12.9	5.2	5.2	2.5	2.5
60°	4988.2	3097.1	106.4	83.1	64.9	26.0	5.2	2.5	2.5	0.0	0.0
62.5°	5312.3	3133.5	90.8	67.5	49.2	10.4	2.5	2.5	0.0	0.0	0.0
65°	5558.8	3120.5	72.7	54.4	31.1	5.2	2.5	0.0	0.0	0.0	0.0
67.5°	5551.0	2944.1	54.4	41.5	15.6	2.5	0.0	0.0	0.0	0.0	0.0
70°	4964.8	2479.9	36.3	26.0	5.2	2.5	0.0	0.0	0.0	0.0	0.0
72.5°	3522.6	1590.1	23.4	15.6	2.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	1551.2	482.5	12.9	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	303.4	111.5	7.7	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	72.7	12.9	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	31.1	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.2	2.5	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)