

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: P231344

Luminaire Tested: **ARCH-M-AF48-130-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231344  
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-AF48-130-D-U-T4W-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 845mA 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: 10616 lumens  
Efficiency: N/A  
Efficacy: 81.0 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): 131  
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

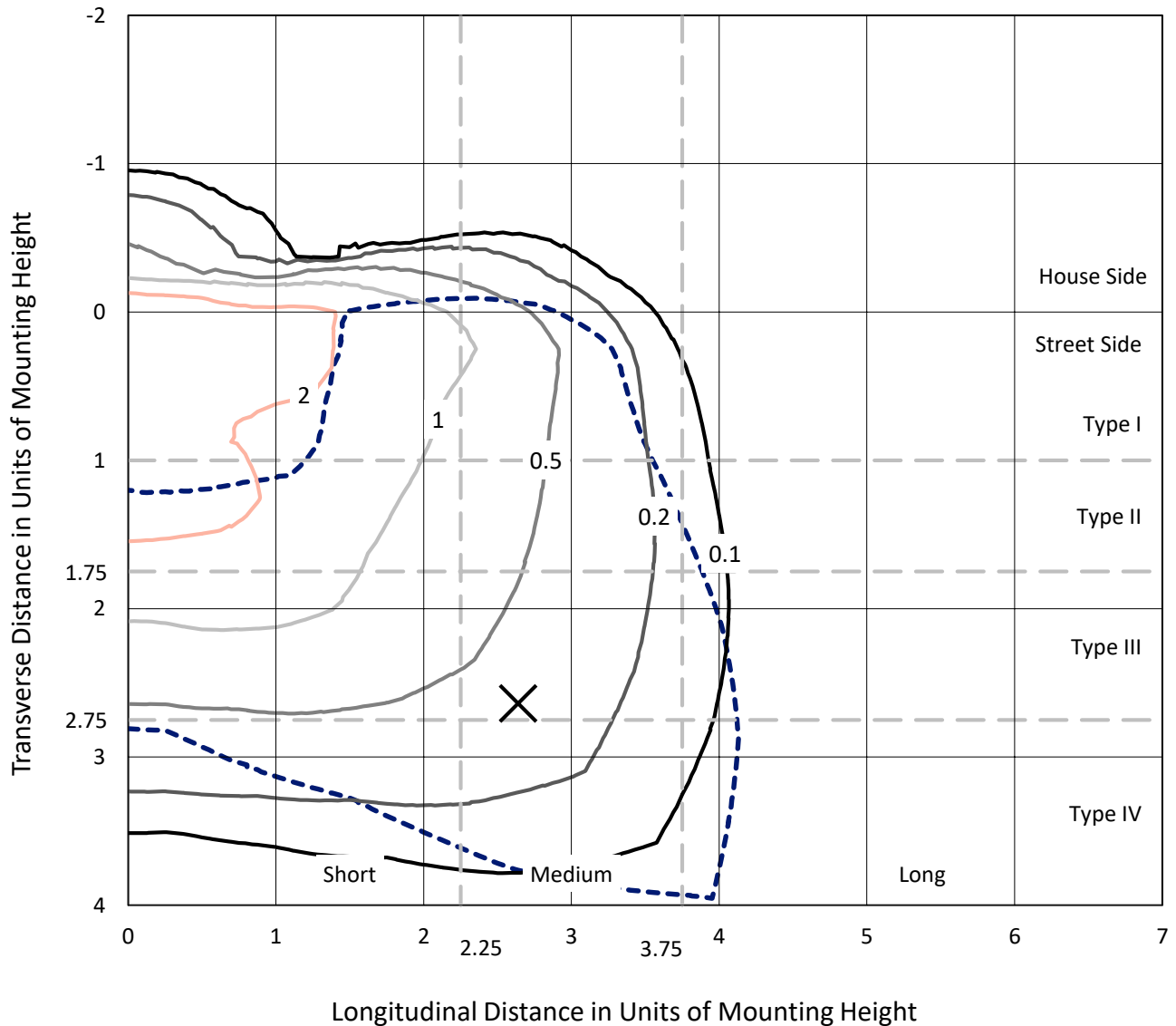


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

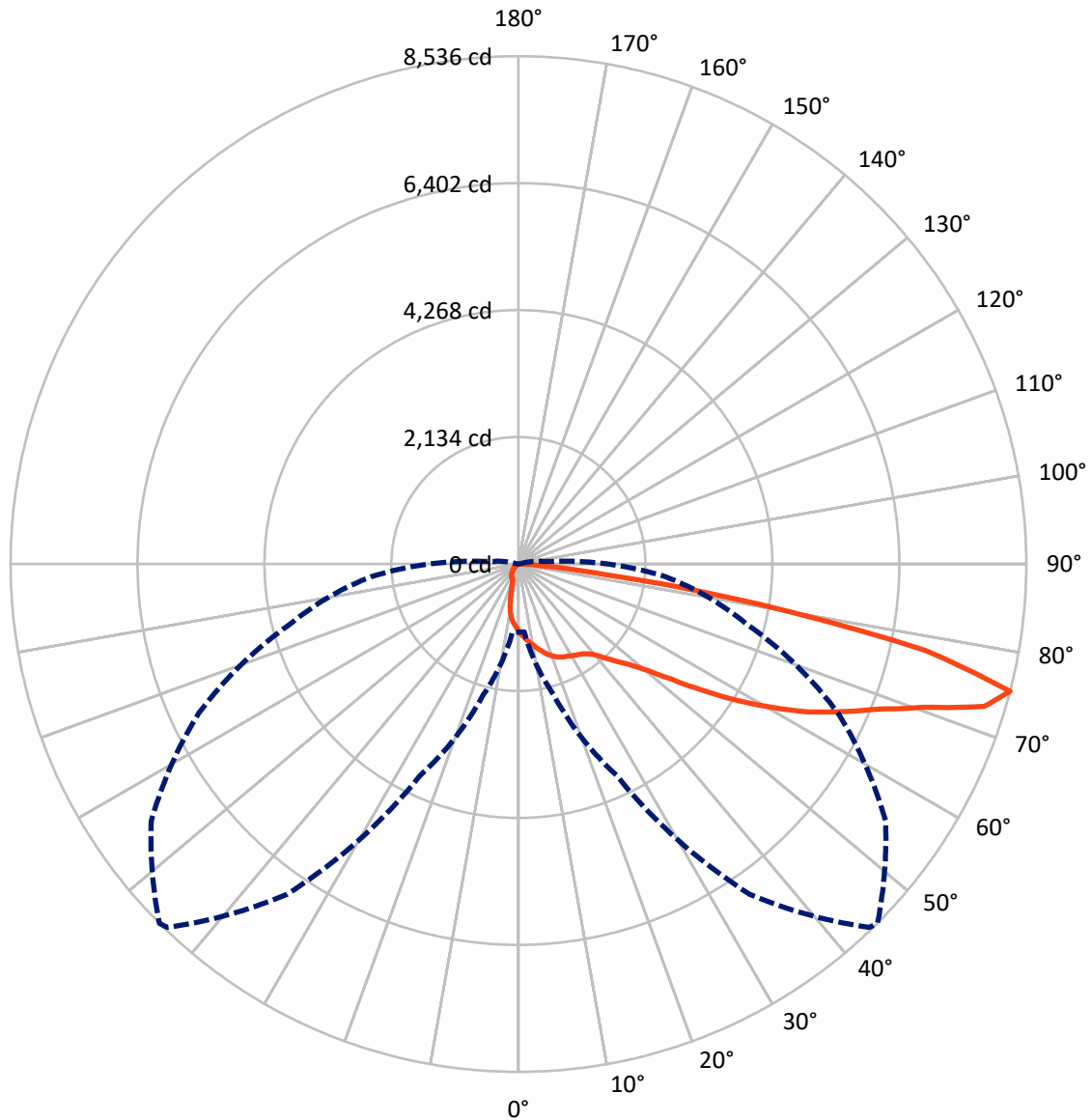


Based on 20 foot mounting height. Maximum calculated value = 3.8 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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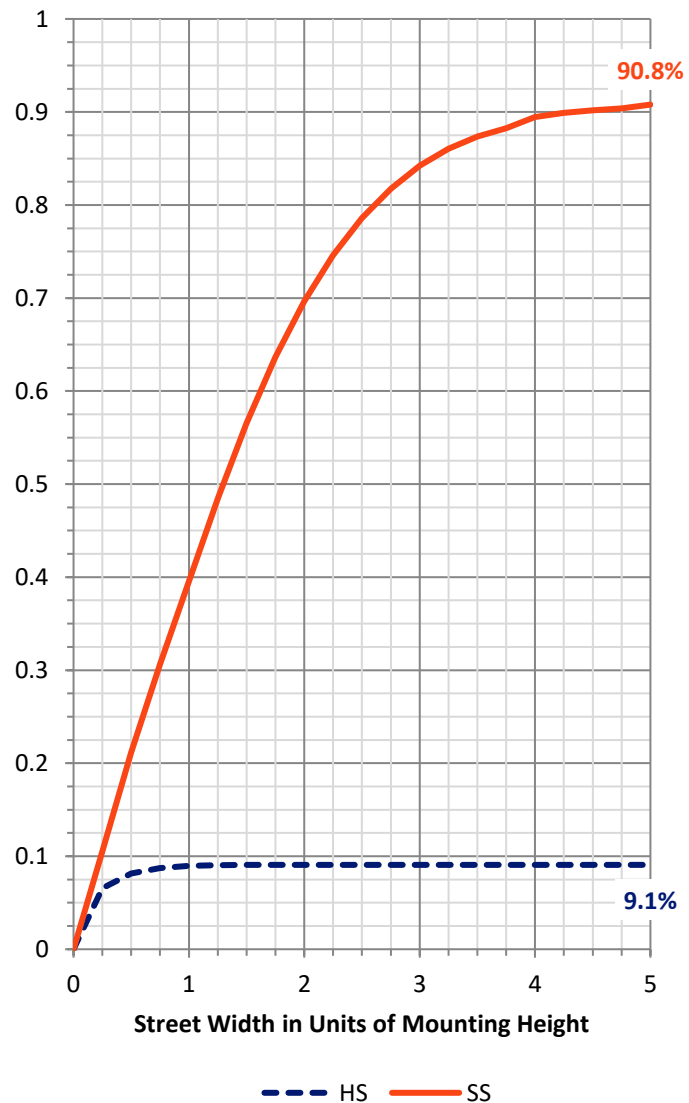
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	971.0	0.0	971.0
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	9645.0	0.0	9645.0
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	10616.0	0.0	10616.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	1.0
10°-20°	303.6	2.9
20°-30°	502.8	4.7
30°-40°	727.6	6.9
40°-50°	1191.5	11.2
50°-60°	2123.0	20.0
60°-70°	3121.1	29.4
70°-80°	2354.6	22.2
80°-90°	184.7	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°	10616.0	100.0
0°-180°	10616.0	100.0



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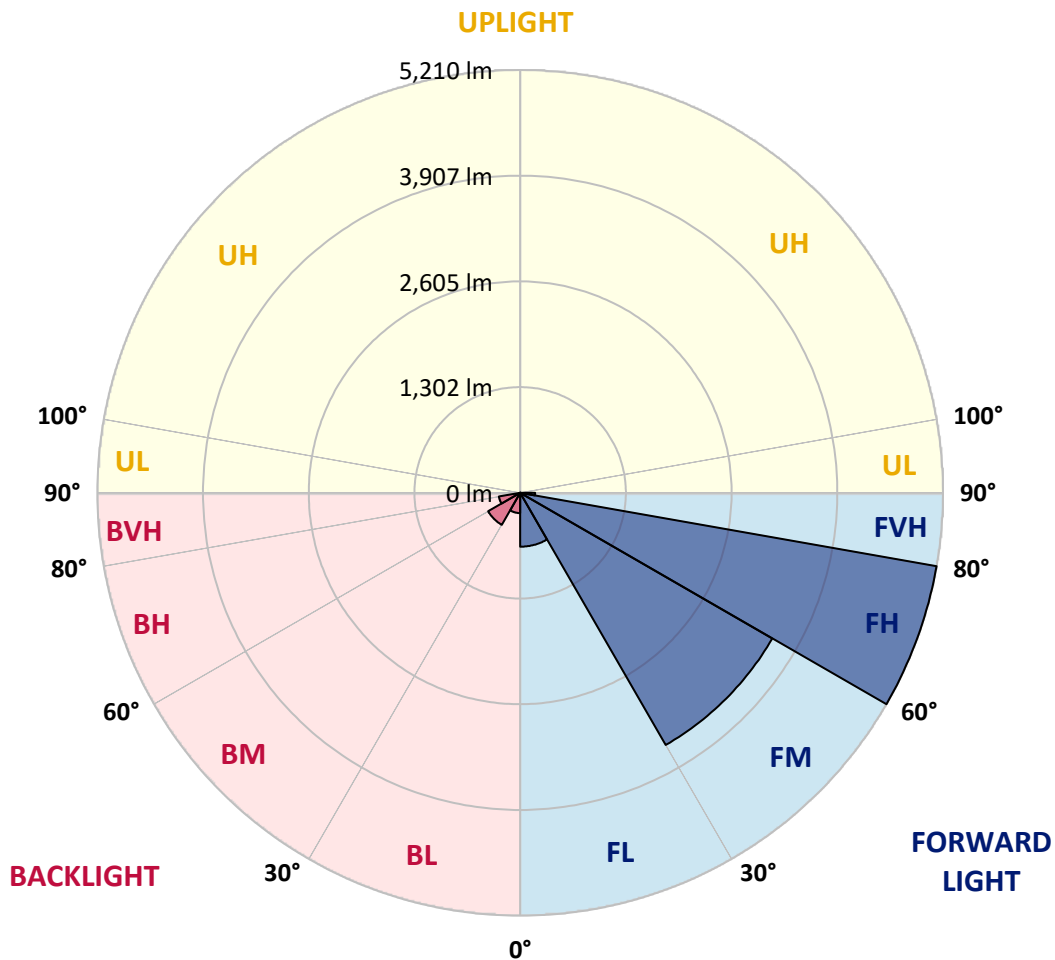
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	664.0	6.3			
FM	(30°-60°)	3587.1	33.8			
FH	(60°-80°)	5209.7	49.1			G3/7500
FVH	(80°-90°)	184.2	1.7			G2/225
BL	(0°-30°)	249.5	2.4	B1/500		
BM	(30°-60°)	455.0	4.3	B1/1000		
BH	(60°-80°)	266.0	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°	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4
2.5°	1233.4	1233.4	1230.9	1228.4	1215.8	1203.3	1200.8	1193.2	1170.6	1155.5	1140.5
5°	1336.4	1338.9	1333.9	1321.3	1293.7	1266.1	1263.6	1243.5	1200.8	1170.6	1138.0
7.5°	1434.4	1439.4	1426.8	1404.2	1371.6	1331.4	1328.9	1291.2	1235.9	1193.2	1145.5
10°	1517.3	1517.3	1499.7	1472.1	1436.9	1394.2	1389.2	1346.4	1283.6	1230.9	1168.1
12.5°	1607.7	1605.2	1580.1	1542.4	1502.2	1462.0	1459.5	1406.7	1346.4	1278.6	1200.8
15°	1690.6	1685.6	1652.9	1617.7	1575.0	1532.3	1529.8	1477.1	1414.3	1333.9	1248.5
17.5°	1735.8	1733.3	1703.2	1668.0	1632.8	1600.2	1597.7	1542.4	1474.6	1391.7	1296.2
20°	1743.4	1745.9	1720.7	1690.6	1670.5	1652.9	1652.9	1602.7	1529.8	1441.9	1346.4
22.5°	1745.9	1753.4	1735.8	1695.6	1690.6	1693.1	1698.1	1657.9	1582.6	1499.7	1399.2
25°	1763.4	1773.5	1760.9	1713.2	1708.2	1725.8	1730.8	1713.2	1645.4	1562.5	1459.5
27.5°	1798.6	1808.7	1798.6	1738.3	1730.8	1748.4	1753.4	1763.4	1713.2	1622.8	1522.3
30°	1869.0	1871.5	1848.9	1773.5	1758.4	1781.0	1788.6	1816.2	1776.0	1680.5	1582.6
32.5°	1992.0	1966.9	1899.1	1798.6	1786.1	1811.2	1818.7	1848.9	1833.8	1735.8	1645.4
35°	2243.2	2112.6	1956.9	1833.8	1821.2	1846.3	1856.4	1899.1	1906.6	1813.7	1723.3
37.5°	2240.7	2122.7	2092.5	1901.6	1884.0	1901.6	1914.2	1966.9	1997.1	1916.7	1836.3
40°	2399.0	2348.8	2348.8	2029.7	1971.9	1997.1	2009.6	2062.4	2115.1	2052.3	1969.4
42.5°	2896.4	2863.7	2828.5	2275.9	2095.0	2165.4	2172.9	2205.6	2268.4	2248.3	2150.3
45°	3451.5	3421.4	3285.7	2692.9	2306.0	2318.6	2336.2	2388.9	2479.4	2517.1	2401.5
47.5°	3886.1	3856.0	3740.4	3195.3	2635.1	2524.6	2524.6	2627.6	2768.3	2863.7	2753.2
50°	4235.3	4200.1	4129.8	3730.4	3175.2	2821.0	2805.9	2926.5	3135.0	3283.2	3207.9
52.5°	4574.4	4471.4	4428.7	4283.0	3785.6	3250.6	3210.4	3295.8	3584.7	3768.0	3705.2
55°	4800.5	4785.4	4740.2	4790.4	4426.2	3773.1	3737.9	3755.5	4117.2	4240.3	4162.4
57.5°	5011.5	5009.0	5109.5	5343.1	5124.5	4370.9	4315.7	4288.0	4632.2	4602.0	4669.9
60°	5272.8	5227.5	5461.2	5795.3	5765.1	4953.7	4890.9	4835.7	5026.6	4941.2	5277.8
62.5°	5285.3	5272.8	5747.5	6227.3	6400.7	5546.6	5473.7	5275.3	5370.7	5272.8	5858.1
65°	4805.5	4868.3	5868.1	6455.9	6933.2	6066.6	5978.6	5669.7	5677.2	5611.9	6541.3
67.5°	4697.5	4730.2	5536.5	6702.1	7317.6	6591.6	6508.7	6124.3	6033.9	6038.9	6945.8
70°	4428.7	4479.0	5124.5	6684.5	7621.5	7292.4	7209.5	6792.5	6574.0	6330.3	6634.3
72.5°	3383.7	3469.1	4318.2	5860.6	7538.6	8209.3	8186.7	7639.1	6790.0	5812.8	5019.0
75°	1145.5	1143.0	2268.4	3936.4	6772.4	8490.7	8535.9	7533.6	5923.4	4009.2	2491.9
77.5°	246.2	248.7	467.2	1595.1	4499.1	6817.7	6991.0	5682.2	3820.8	1786.1	570.2
80°	120.6	123.1	193.4	422.0	1798.6	3823.3	4094.6	2921.5	1411.8	356.7	95.5
82.5°	60.3	62.8	100.5	223.6	665.7	1359.0	1452.0	1075.1	404.4	201.0	47.7
85°	22.6	22.6	50.2	133.1	304.0	319.0	391.9	311.5	243.7	163.3	12.6
87.5°	5.0	5.0	27.6	65.3	135.6	100.5	100.5	95.5	148.2	110.5	5.0
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°	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4	1135.4
2.5°	1132.9	1122.9	1105.3	1087.7	1075.1	1060.1	1052.5	1045.0	1042.5	1040.0	1045.0
5°	1120.4	1105.3	1072.6	1045.0	1019.9	999.8	984.7	969.6	962.1	957.1	959.6
7.5°	1120.4	1097.8	1050.0	1007.3	967.1	924.4	881.7	849.1	823.9	808.9	811.4
10°	1132.9	1102.8	1040.0	982.2	906.8	816.4	723.5	653.1	605.4	577.8	577.8
12.5°	1160.6	1120.4	1042.5	952.1	823.9	665.7	525.0	439.6	404.4	384.3	386.9
15°	1198.2	1150.5	1055.1	911.9	708.4	494.9	366.8	311.5	311.5	316.5	319.0
17.5°	1240.9	1188.2	1065.1	851.6	560.2	354.2	288.9	283.9	291.4	304.0	304.0
20°	1283.6	1225.9	1070.1	756.1	419.5	281.3	273.8	273.8	278.8	291.4	293.9
22.5°	1336.4	1273.6	1065.1	638.1	314.0	266.3	263.8	263.8	263.8	278.8	278.8
25°	1391.7	1328.9	1045.0	512.5	266.3	256.2	253.7	251.2	251.2	263.8	266.3
27.5°	1454.5	1386.6	997.3	391.9	251.2	246.2	243.7	238.6	238.6	248.7	248.7
30°	1517.3	1452.0	924.4	296.4	238.6	236.1	231.1	226.1	221.1	231.1	231.1
32.5°	1585.1	1519.8	829.0	236.1	221.1	221.1	218.5	211.0	206.0	211.0	213.5
35°	1675.5	1597.7	721.0	206.0	198.5	198.5	198.5	195.9	185.9	190.9	190.9
37.5°	1796.1	1705.7	595.4	190.9	180.9	175.8	175.8	175.8	168.3	170.8	170.8
40°	1949.3	1831.3	474.8	178.4	168.3	155.7	150.7	153.2	148.2	148.2	145.7
42.5°	2157.8	1966.9	356.7	168.3	158.3	140.7	130.6	128.1	123.1	120.6	120.6
45°	2456.8	2132.7	256.2	158.3	150.7	123.1	113.0	105.5	92.9	85.4	85.4
47.5°	2843.6	2321.1	190.9	148.2	143.2	108.0	95.5	80.4	62.8	57.8	57.8
50°	3315.9	2532.1	160.8	133.1	130.6	95.5	75.4	52.8	35.2	30.1	32.7
52.5°	3775.6	2730.6	143.2	118.1	115.6	82.9	55.3	27.6	15.1	15.1	15.1
55°	4162.4	2871.3	130.6	105.5	100.5	65.3	30.1	12.6	7.5	7.5	7.5
57.5°	4511.6	2951.6	118.1	92.9	80.4	45.2	12.6	5.0	5.0	2.5	2.5
60°	4830.6	2999.4	103.0	80.4	62.8	25.1	5.0	2.5	2.5	0.0	0.0
62.5°	5144.6	3034.5	87.9	65.3	47.7	10.0	2.5	2.5	0.0	0.0	0.0
65°	5383.3	3022.0	70.3	52.8	30.1	5.0	2.5	0.0	0.0	0.0	0.0
67.5°	5375.7	2851.2	52.8	40.2	15.1	2.5	0.0	0.0	0.0	0.0	0.0
70°	4808.0	2401.5	35.2	25.1	5.0	2.5	0.0	0.0	0.0	0.0	0.0
72.5°	3411.3	1539.9	22.6	15.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	1502.2	467.2	12.6	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	293.9	108.0	7.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	70.3	12.6	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	30.1	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.0	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)