

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: P265827

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265827  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-120-D-U-T2U-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9245.5 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 122  
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

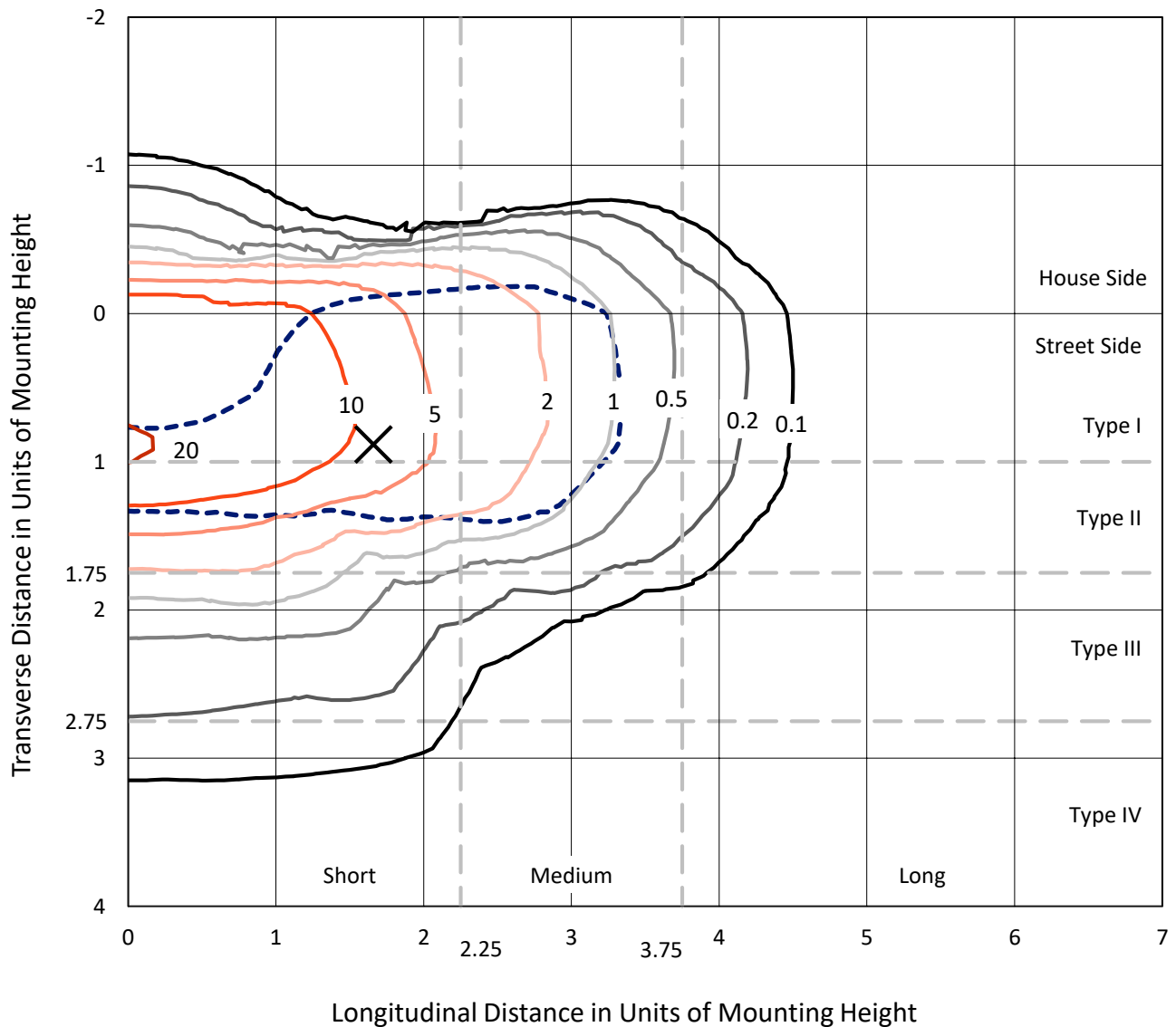


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

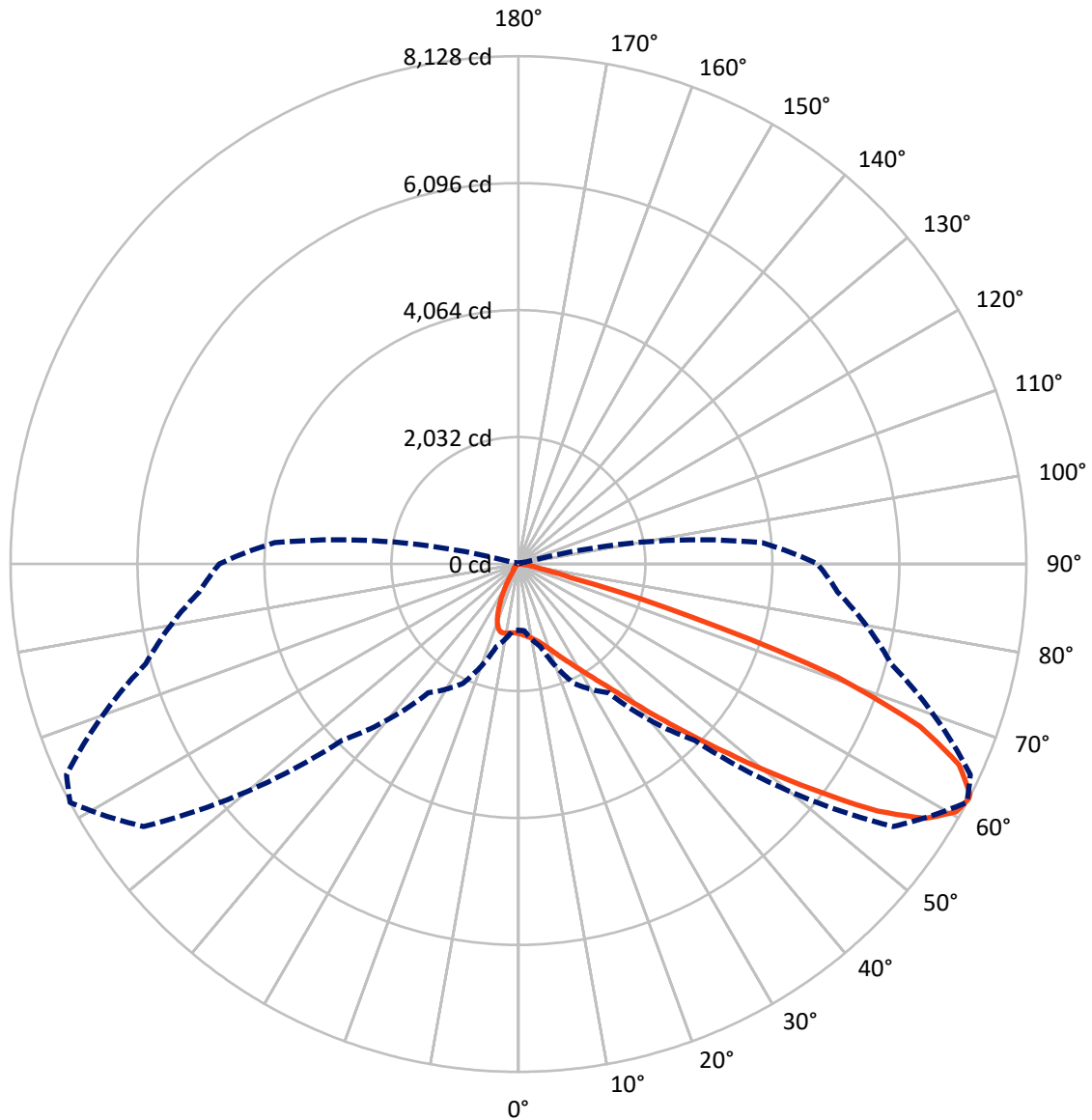


Based on 10 foot mounting height. Maximum calculated value = 21.3 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral    - - - Horizontal Cone Through 62-Deg Vertical

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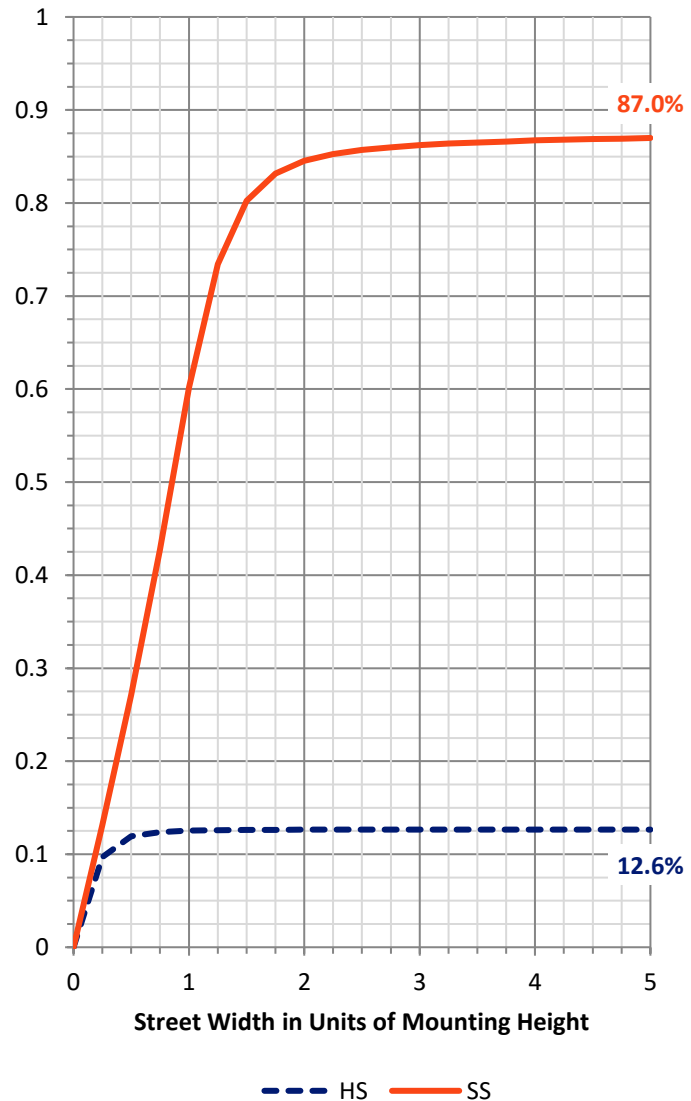
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1182.1	0.0	1182.1
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	8063.4	0.0	8063.4
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	9245.5	0.0	9245.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	1.2
10°-20°	299.3	3.2
20°-30°	502.7	5.4
30°-40°	963.6	10.4
40°-50°	1968.1	21.3
50°-60°	2604.5	28.2
60°-70°	2023.3	21.9
70°-80°	730.3	7.9
80°-90°	46.5	0.5
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°	9245.5	100.0
0°-180°	9245.5	100.0

**Coefficient of Utilization**



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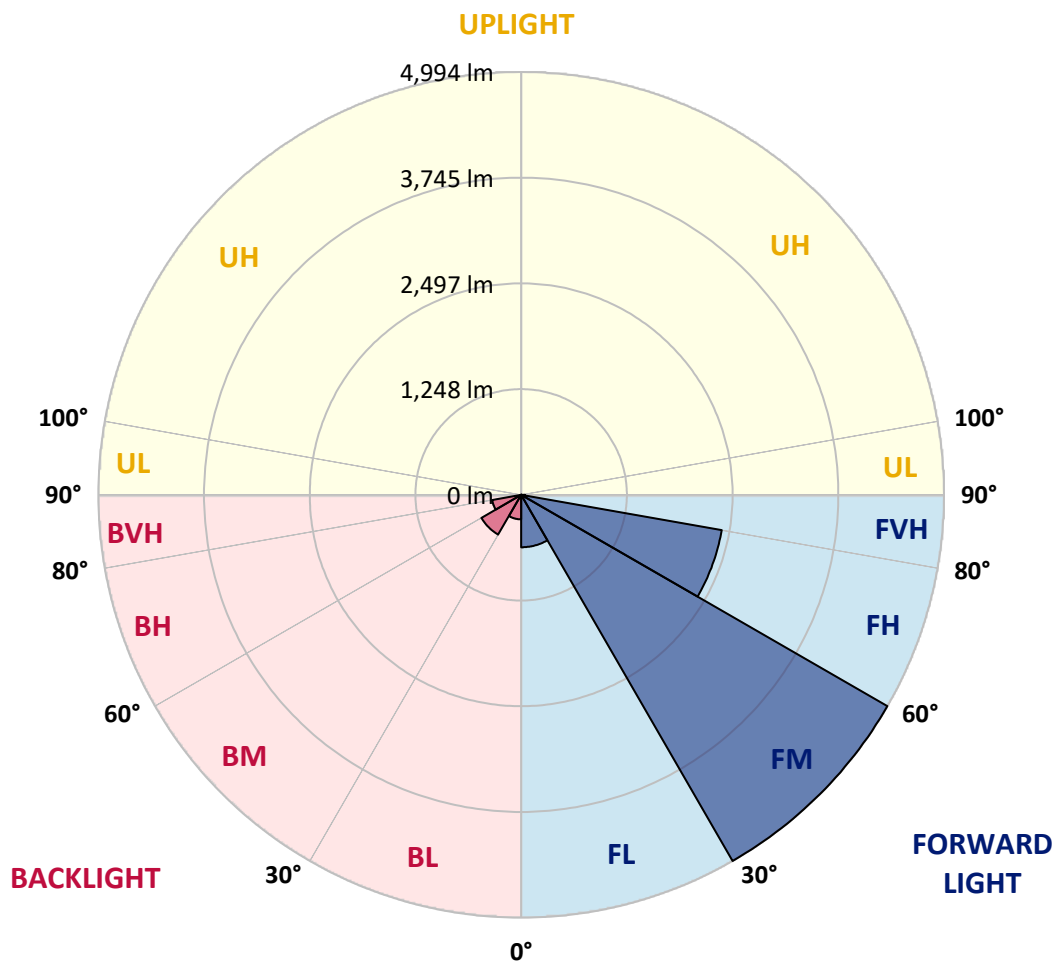
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	619.8	6.7			
FM (30°-60°)	4993.5	54.0			
FH (60°-80°)	2405.5	26.0			G2/5000
FVH (80°-90°)	44.5	0.5			G1/100
BL (0°-30°)	289.3	3.1	B1/500		
BM (30°-60°)	542.7	5.9	B1/1000		
BH (60°-80°)	348.1	3.8	B1/500		G1/500
BVH (80°-90°)	2.0	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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8
2.5°	1143.4	1141.0	1138.7	1136.4	1136.4	1134.2	1132.0	1127.5	1122.8	1118.3	1116.1
5°	1163.8	1161.5	1159.3	1161.5	1159.3	1159.3	1156.9	1152.3	1147.9	1141.0	1134.2
7.5°	1179.7	1177.4	1175.2	1177.4	1179.7	1181.9	1184.2	1179.7	1177.4	1168.2	1161.5
10°	1200.1	1197.8	1195.6	1200.1	1200.1	1211.5	1213.8	1211.5	1209.2	1202.4	1191.1
12.5°	1229.7	1231.9	1231.9	1236.4	1241.0	1254.7	1259.2	1252.3	1252.3	1243.3	1229.7
15°	1284.1	1284.1	1284.1	1288.8	1291.0	1309.2	1313.9	1306.9	1311.4	1295.5	1281.9
17.5°	1336.5	1338.7	1343.3	1352.4	1352.4	1368.3	1377.5	1377.5	1386.5	1366.1	1347.8
20°	1388.8	1391.0	1397.9	1418.3	1418.3	1438.7	1454.6	1461.5	1470.5	1450.1	1418.3
22.5°	1445.6	1445.6	1457.1	1488.9	1481.9	1522.8	1552.5	1563.8	1572.9	1545.7	1495.6
25°	1532.0	1522.8	1532.0	1561.6	1557.0	1613.7	1668.3	1679.7	1691.1	1659.3	1584.3
27.5°	1695.6	1681.9	1650.1	1652.4	1652.4	1718.4	1795.6	1811.5	1818.3	1791.1	1697.8
30°	2023.0	2023.0	1904.8	1825.1	1773.0	1832.1	1941.1	1968.4	1977.4	1936.6	1813.8
32.5°	2593.4	2593.4	2375.3	2172.9	1975.3	1975.3	2100.1	2150.3	2159.3	2111.6	1968.4
35°	3320.8	3316.3	2988.9	2711.7	2325.3	2179.7	2286.5	2370.6	2397.9	2334.3	2168.4
37.5°	4093.5	4064.0	3711.7	3393.4	2863.9	2507.1	2538.9	2650.3	2675.2	2623.1	2427.5
40°	4721.0	4686.8	4402.8	4136.8	3559.4	3029.9	2902.6	3004.8	3034.4	2961.6	2736.6
42.5°	5289.2	5205.0	5009.6	4818.7	4359.6	3934.4	3386.7	3427.7	3459.5	3382.2	3084.4
45°	5700.6	5571.0	5470.9	5411.8	5168.7	4927.7	4014.0	3932.2	3943.6	3848.1	3464.0
47.5°	5712.0	5621.1	5630.0	5784.6	5884.6	5875.5	4830.0	4539.0	4495.8	4336.7	3868.6
50°	5166.4	5218.8	5384.6	5825.6	6366.6	6693.8	5800.5	5257.3	5127.7	4841.3	4270.9
52.5°	4257.2	4339.1	4650.4	5393.8	6437.1	7232.6	6807.4	6077.9	5846.0	5341.4	4580.0
55°	3334.4	3339.0	3666.3	4423.2	5966.5	7330.3	7612.1	6980.2	6625.7	5721.0	4784.6
57.5°	2293.5	2418.4	2834.4	3343.5	4905.0	6843.8	7914.4	7680.2	7223.5	5955.1	4927.7
60°	1502.4	1509.2	1993.3	2582.1	3339.0	5568.8	7730.4	8050.8	7707.5	6093.8	5025.5
62°	1059.2	1070.6	1370.6	2109.3	2516.2	3991.3	7323.4	8128.0	7980.4	6175.6	5127.7
62.5°	981.8	991.0	1243.3	1991.2	2363.9	3579.8	7177.9	8109.9	8021.2	6202.8	5164.1
65°	720.5	720.5	813.8	1368.3	1732.0	1934.3	6082.5	7748.5	7966.7	6421.1	5300.4
67.5°	556.9	561.4	593.2	843.2	1306.9	1172.8	3882.3	6934.7	7398.5	6743.8	5377.9
70°	479.5	477.3	500.0	559.1	943.3	779.5	1709.2	5411.8	6196.1	6662.0	5307.4
72.5°	354.7	356.8	409.2	491.0	656.9	506.9	772.8	2873.0	4018.6	5214.1	4548.2
75°	227.4	229.5	288.6	386.5	472.8	331.8	445.5	857.0	1645.7	2891.1	2782.1
77.5°	152.4	156.8	188.6	270.5	413.7	206.8	279.6	359.1	495.5	1084.3	997.8
80°	102.2	102.2	120.5	181.8	261.3	172.7	149.9	238.7	256.8	336.3	168.3
82.5°	68.2	68.2	79.6	120.5	170.5	154.6	90.9	129.5	149.9	168.3	59.1
85°	41.0	41.0	54.5	75.0	111.4	86.3	59.1	72.8	77.3	106.8	31.8
87.5°	25.1	22.7	36.4	52.3	59.1	52.3	38.6	38.6	41.0	59.1	15.9
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°	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8	1113.8
2.5°	1111.5	1109.1	1106.9	1102.4	1095.6	1091.0	1086.5	1081.9	1077.3	1077.3	1084.3
5°	1132.0	1125.0	1116.1	1106.9	1093.2	1084.3	1077.3	1068.3	1063.8	1063.8	1066.0
7.5°	1156.9	1150.1	1134.2	1118.3	1097.9	1081.9	1066.0	1045.5	1029.6	1022.8	1029.6
10°	1184.2	1175.2	1152.3	1127.5	1104.6	1063.8	1011.4	947.8	893.3	868.3	879.6
12.5°	1218.3	1207.0	1179.7	1145.6	1093.2	993.3	863.7	715.9	622.7	579.5	588.7
15°	1268.2	1252.3	1213.8	1161.5	1045.5	829.7	618.3	447.7	361.4	325.0	329.6
17.5°	1327.4	1306.9	1254.7	1156.9	922.7	597.8	368.2	261.3	225.0	216.0	216.0
20°	1391.0	1363.7	1295.5	1122.8	736.4	375.0	229.5	200.1	186.4	179.7	179.7
22.5°	1457.1	1420.6	1329.8	1043.3	525.1	234.1	188.6	168.3	152.4	145.4	145.4
25°	1536.6	1488.9	1363.7	904.7	334.1	188.6	161.3	140.9	125.0	115.9	118.1
27.5°	1629.7	1568.4	1393.4	731.8	216.0	163.6	134.0	113.6	100.0	95.5	95.5
30°	1727.4	1654.7	1400.2	547.7	175.0	140.9	111.4	93.2	84.1	79.6	79.6
32.5°	1861.6	1766.1	1379.6	363.6	147.7	118.1	93.2	77.3	70.4	68.2	68.2
35°	2038.9	1911.6	1331.9	225.0	125.0	97.7	77.3	68.2	61.4	59.1	59.1
37.5°	2263.9	2113.8	1247.8	154.6	106.8	79.6	65.9	59.1	54.5	52.3	52.3
40°	2563.9	2359.3	1138.7	134.0	90.9	68.2	56.9	52.3	47.7	47.7	47.7
42.5°	2882.1	2657.0	997.8	118.1	77.3	59.1	49.9	45.5	43.2	41.0	41.0
45°	3229.9	2961.6	822.8	104.6	65.9	52.3	45.5	38.6	36.4	36.4	36.4
47.5°	3575.3	3275.3	631.9	90.9	56.9	45.5	38.6	34.0	31.8	29.6	29.6
50°	3929.9	3559.4	463.6	79.6	49.9	41.0	34.0	29.6	25.1	22.7	22.7
52.5°	4186.8	3729.9	338.8	68.2	43.2	34.0	27.3	22.7	18.1	15.9	15.9
55°	4375.5	3834.4	247.8	56.9	38.6	29.6	22.7	18.1	13.7	13.7	11.4
57.5°	4523.1	3884.5	186.4	49.9	34.0	25.1	18.1	13.7	11.4	9.2	9.2
60°	4636.8	3886.7	138.7	41.0	29.6	20.4	13.7	9.2	6.7	6.7	6.7
62°	4786.9	3916.3	113.6	34.0	27.3	18.1	11.4	6.7	4.5	2.2	2.2
62.5°	4830.0	3927.7	109.1	34.0	25.1	15.9	9.2	6.7	4.5	2.2	2.2
65°	5030.1	3948.1	84.1	27.3	20.4	13.7	6.7	4.5	0.0	0.0	0.0
67.5°	5211.8	3916.3	61.4	20.4	15.9	9.2	6.7	2.2	0.0	0.0	0.0
70°	5193.7	3698.1	43.2	13.7	11.4	6.7	4.5	0.0	0.0	0.0	0.0
72.5°	4280.0	2768.4	29.6	11.4	6.7	4.5	2.2	0.0	0.0	0.0	0.0
75°	2584.3	1211.5	20.4	6.7	6.7	4.5	2.2	0.0	0.0	0.0	0.0
77.5°	847.8	438.7	13.7	4.5	4.5	2.2	2.2	0.0	0.0	0.0	0.0
80°	138.7	72.8	6.7	4.5	4.5	2.2	2.2	0.0	0.0	0.0	0.0
82.5°	43.2	18.1	4.5	4.5	2.2	2.2	0.0	0.0	0.0	0.0	0.0
85°	15.9	6.7	4.5	4.5	2.2	2.2	0.0	0.0	0.0	0.0	0.0
87.5°	6.7	4.5	4.5	4.5	2.2	2.2	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)