

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: P265829

Luminaire Tested: **ARCH-M-AF48-120-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265829  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-120-D-U-T3-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9982.6 lumens  
Efficiency: N/A  
Efficacy: 81.8 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Semi-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

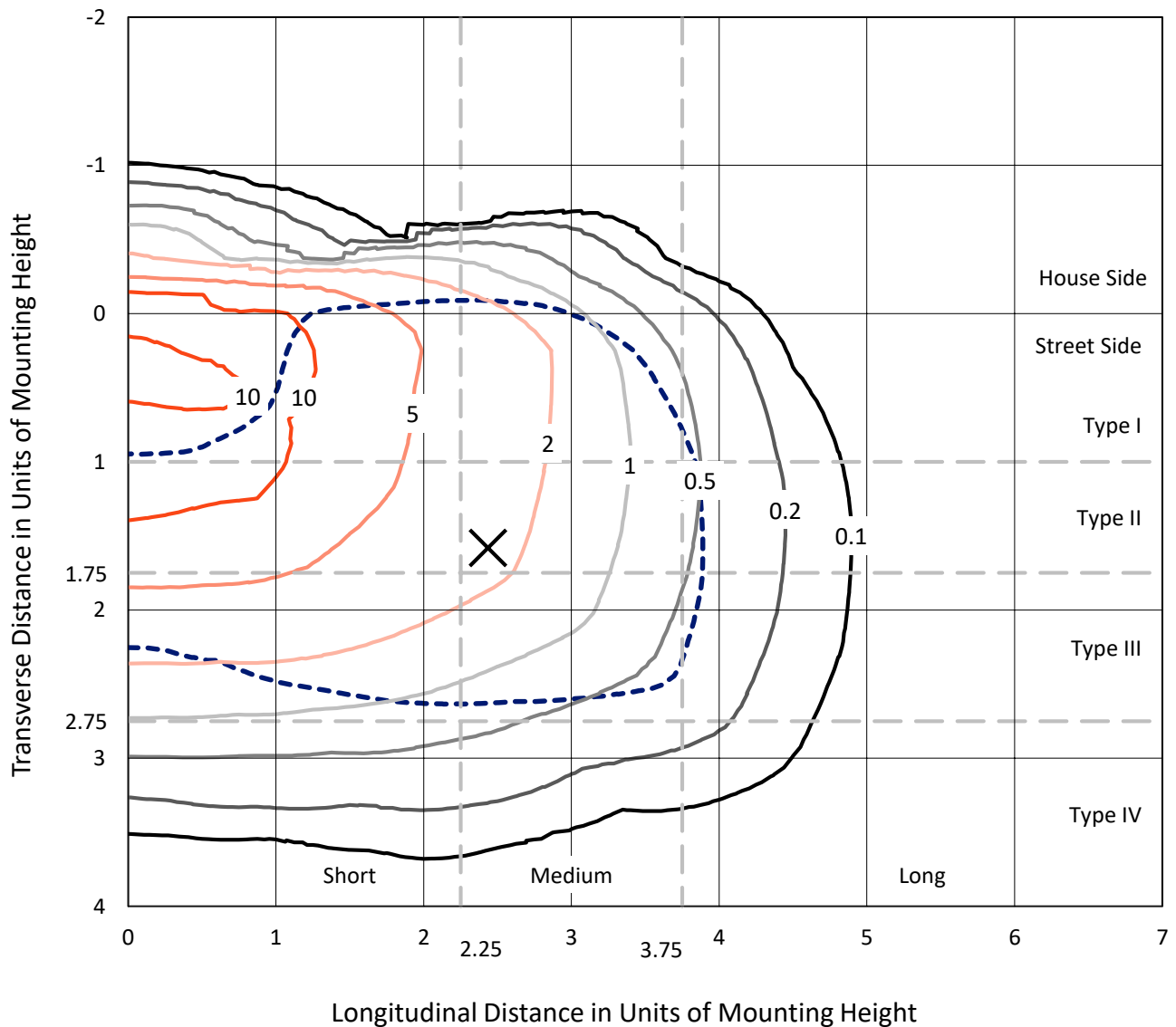


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

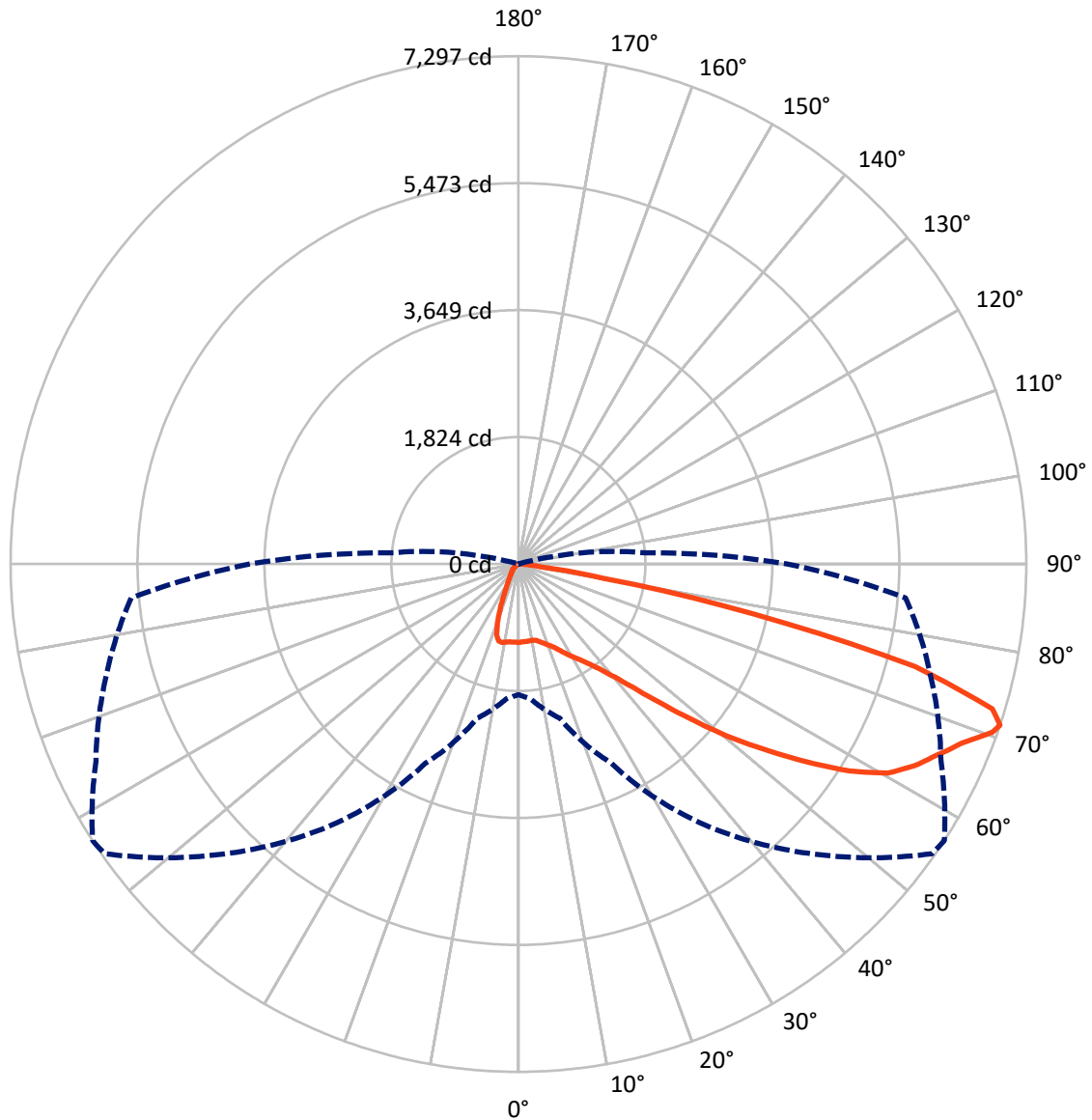


Based on 10 foot mounting height. Maximum calculated value = 14 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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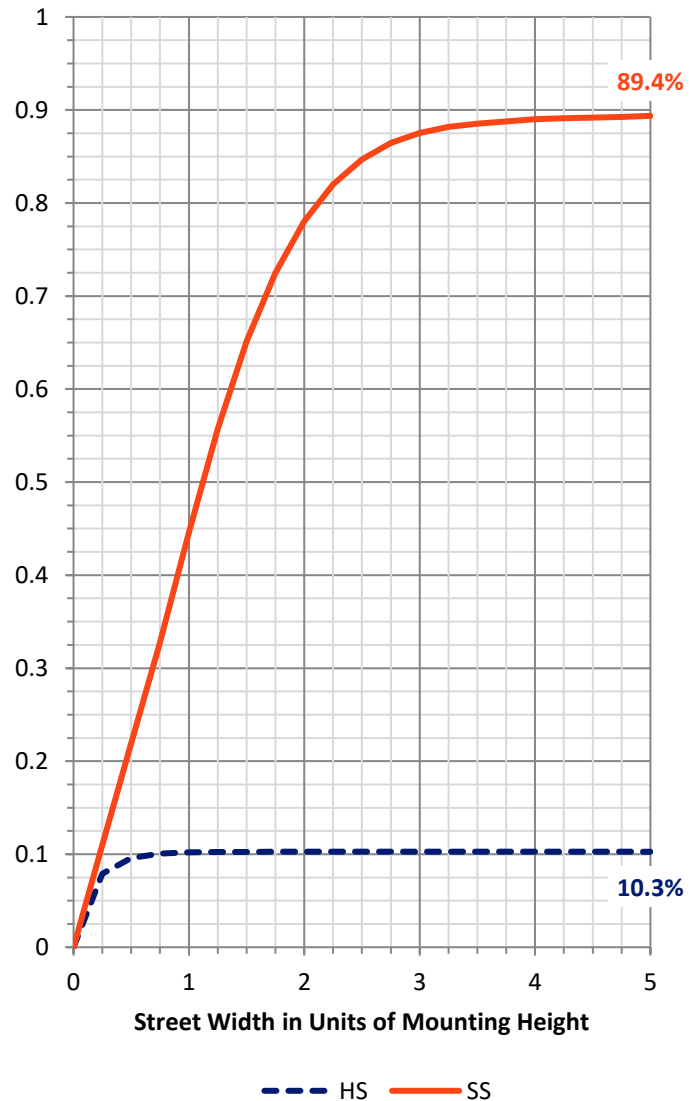
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1034.5	0.0	1034.5
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	8948.1	0.0	8948.1
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	9982.6	0.0	9982.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.0	1.1
10°-20°	283.3	2.8
20°-30°	441.9	4.4
30°-40°	746.9	7.5
40°-50°	1450.7	14.5
50°-60°	2436.2	24.4
60°-70°	2907.4	29.1
70°-80°	1532.3	15.3
80°-90°	77.9	0.8
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°	9982.6	100.0
0°-180°	9982.6	100.0



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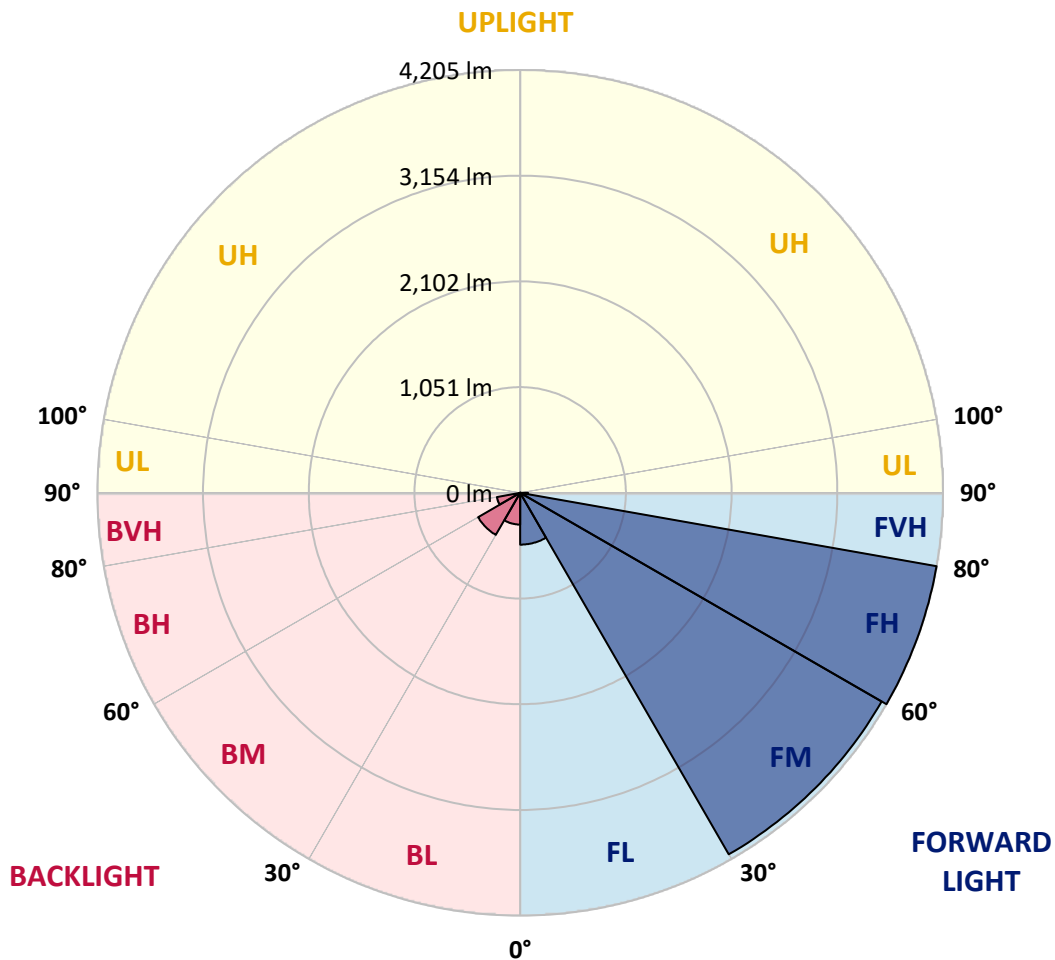
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	515.4	5.2			
FM	(30°-60°)	4150.9	41.6			
FH	(60°-80°)	4204.8	42.1			G2/5000
FVH	(80°-90°)	77.1	0.8			G1/100
BL	(0°-30°)	315.8	3.2	B1/500		
BM	(30°-60°)	483.1	4.8	B1/1000		
BH	(60°-80°)	234.9	2.4	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-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2
2.5°	1111.9	1111.9	1111.9	1114.3	1116.6	1116.6	1121.3	1118.8	1118.8	1118.8	1123.5
5°	1081.6	1084.0	1086.3	1091.0	1100.2	1107.3	1118.8	1118.8	1121.3	1125.8	1128.2
7.5°	1039.8	1042.2	1049.1	1058.5	1077.0	1093.2	1111.9	1116.6	1123.5	1135.2	1139.8
10°	1014.1	1018.9	1028.2	1039.8	1060.7	1081.6	1104.9	1111.9	1132.9	1153.8	1165.5
12.5°	1007.2	1009.5	1018.9	1037.5	1063.1	1088.7	1118.8	1125.8	1156.1	1188.6	1207.3
15°	1018.9	1021.3	1025.9	1046.7	1077.0	1109.5	1149.1	1158.5	1195.6	1232.8	1256.1
17.5°	1039.8	1039.8	1044.5	1063.1	1095.7	1132.9	1184.1	1198.0	1239.8	1281.7	1307.4
20°	1053.7	1053.7	1060.7	1079.4	1116.6	1165.5	1225.8	1244.5	1291.0	1337.5	1360.8
22.5°	1067.7	1070.1	1077.0	1098.0	1139.8	1207.3	1277.1	1295.6	1349.2	1398.0	1421.3
25°	1107.3	1104.9	1107.3	1125.8	1174.8	1258.4	1346.9	1370.2	1425.9	1479.5	1491.0
27.5°	1216.6	1212.0	1181.7	1170.0	1207.3	1312.0	1435.2	1458.5	1523.6	1577.2	1577.2
30°	1467.8	1458.5	1384.1	1288.7	1258.4	1360.8	1518.9	1551.6	1635.3	1681.8	1667.9
32.5°	1786.5	1765.6	1670.2	1507.4	1386.4	1425.9	1607.3	1644.5	1751.7	1791.1	1760.9
35°	2135.5	2133.0	2014.4	1805.1	1632.9	1560.8	1721.3	1765.6	1900.5	1935.4	1886.5
37.5°	2505.4	2514.5	2435.5	2147.0	1944.7	1781.9	1872.5	1923.7	2088.9	2130.8	2084.2
40°	2917.1	2914.7	2884.5	2542.6	2319.2	2095.8	2091.3	2137.7	2337.7	2403.0	2337.7
42.5°	3438.1	3433.4	3324.1	3017.0	2772.8	2505.4	2410.0	2426.2	2649.6	2756.4	2661.0
45°	3968.4	3935.8	3810.3	3545.2	3328.8	3012.3	2831.0	2831.0	3021.7	3168.2	3019.4
47.5°	4263.9	4231.2	4180.2	4033.6	3968.4	3614.9	3347.4	3314.7	3463.7	3612.5	3403.1
50°	4652.3	4652.3	4524.5	4468.6	4580.2	4331.3	3917.2	3884.7	3956.9	4075.4	3801.0
52.5°	4959.5	4903.6	4812.8	4861.6	5180.3	5066.4	4487.2	4424.3	4480.1	4510.4	4147.6
55°	5087.3	5033.8	5026.8	5205.9	5699.0	5540.9	5071.0	5015.1	5010.6	4861.6	4449.9
57.5°	5113.0	5066.4	5154.7	5468.8	6203.9	5929.4	5652.6	5610.8	5480.5	5108.2	4759.3
60°	4896.7	4919.8	5133.9	5613.0	6501.7	6266.7	6143.4	6099.2	5799.1	5317.5	5103.6
62.5°	4452.3	4508.1	4908.2	5627.1	6392.2	6403.9	6415.5	6385.3	6045.8	5508.3	5450.1
65°	3926.6	3942.8	4424.3	5433.9	6201.5	6362.1	6615.6	6613.3	6234.1	5722.4	5841.0
67.5°	3235.7	3263.6	3679.9	4782.5	5820.1	6343.4	6878.5	6871.5	6448.2	5966.6	6073.6
70°	2407.5	2442.5	2779.7	3719.5	4968.6	6110.8	7222.7	7227.5	6673.8	6152.8	5913.2
71°	1877.2	1940.0	2293.6	3158.9	4533.7	5876.0	7255.3	7297.2	6699.4	6127.1	5582.7
72.5°	921.1	995.6	1440.0	2223.8	3731.2	5350.1	7041.4	7122.8	6538.9	5808.4	4773.4
75°	239.6	253.5	430.4	909.5	2000.4	3545.2	5678.1	5885.2	5345.5	4422.0	2917.1
77.5°	151.3	155.9	202.4	353.6	749.0	1346.9	3335.8	3438.1	3054.2	2240.2	1028.2
80°	107.0	109.4	128.0	228.0	437.4	393.1	1200.2	1244.5	1104.9	593.2	183.8
82.5°	65.1	65.1	93.1	146.6	269.9	213.9	316.4	337.4	297.8	165.2	60.5
85°	37.2	39.5	58.2	100.0	128.0	104.7	118.7	125.7	128.0	109.4	25.6
87.5°	30.3	32.6	51.2	83.7	69.8	51.2	51.2	53.4	55.9	65.1	11.7
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°	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2	1128.2
2.5°	1123.5	1123.5	1125.8	1123.5	1123.5	1123.5	1125.8	1125.8	1125.8	1130.4	1132.9
5°	1128.2	1128.2	1128.2	1125.8	1123.5	1123.5	1128.2	1130.4	1130.4	1137.6	1137.6
7.5°	1139.8	1139.8	1135.2	1130.4	1125.8	1118.8	1121.3	1123.5	1121.3	1123.5	1123.5
10°	1165.5	1165.5	1158.5	1149.1	1135.2	1114.3	1086.3	1051.5	1018.9	1007.2	1002.6
12.5°	1207.3	1204.9	1191.1	1174.8	1144.5	1072.3	967.7	844.3	742.0	714.2	704.8
15°	1253.9	1249.2	1232.8	1204.9	1123.5	932.8	714.2	556.0	458.2	435.0	430.4
17.5°	1302.6	1295.6	1272.4	1216.6	1028.2	693.2	460.7	348.9	295.5	290.8	293.0
20°	1353.8	1344.6	1312.0	1193.3	830.5	462.8	297.8	269.9	265.2	265.2	267.5
22.5°	1412.0	1400.4	1356.1	1109.5	604.7	307.0	255.8	253.5	251.3	248.9	248.9
25°	1479.5	1465.5	1398.0	958.4	416.4	251.3	244.2	237.2	232.7	228.0	225.7
27.5°	1560.8	1542.2	1430.6	772.4	286.1	234.9	230.2	218.6	209.3	200.1	200.1
30°	1642.3	1619.0	1421.3	581.6	232.7	218.6	209.3	195.4	181.5	172.1	169.8
32.5°	1728.3	1705.2	1360.8	390.9	211.7	200.1	188.5	167.4	151.3	139.5	137.3
35°	1856.3	1837.7	1242.1	258.3	190.7	176.7	160.4	139.5	118.7	107.0	104.7
37.5°	2047.0	2023.7	1095.7	197.7	167.4	146.6	132.6	109.4	88.5	76.7	74.4
40°	2303.0	2233.1	921.1	174.5	146.6	120.9	102.3	79.1	62.8	55.9	55.9
42.5°	2600.7	2435.5	732.7	158.2	130.3	100.0	74.4	53.4	44.1	42.0	42.0
45°	2917.1	2623.9	544.4	146.6	113.9	79.1	53.4	37.2	32.6	30.3	30.3
47.5°	3242.7	2777.4	379.2	132.6	95.4	60.5	37.2	27.8	23.3	20.9	20.9
50°	3547.3	2877.5	267.5	118.7	81.4	44.1	27.8	20.9	16.3	16.3	16.3
52.5°	3759.0	2868.2	193.0	102.3	62.8	30.3	18.7	14.0	14.0	14.0	14.0
55°	3945.1	2833.3	151.3	88.5	48.9	20.9	14.0	11.7	11.7	9.3	9.3
57.5°	4103.4	2777.4	128.0	72.1	34.9	16.3	9.3	9.3	6.9	6.9	6.9
60°	4238.3	2707.6	107.0	60.5	23.3	11.7	6.9	4.6	4.6	2.3	4.6
62.5°	4422.0	2663.5	93.1	46.5	16.3	6.9	4.6	2.3	2.3	0.0	0.0
65°	4556.9	2579.8	79.1	32.6	9.3	4.6	2.3	2.3	0.0	0.0	0.0
67.5°	4561.7	2428.5	58.2	18.7	6.9	4.6	2.3	0.0	0.0	0.0	0.0
70°	4194.0	2070.2	37.2	9.3	4.6	2.3	2.3	0.0	0.0	0.0	0.0
71°	3856.9	1833.0	30.3	6.9	4.6	2.3	0.0	0.0	0.0	0.0	0.0
72.5°	3177.6	1346.9	23.3	6.9	2.3	2.3	0.0	0.0	0.0	0.0	0.0
75°	1751.7	488.5	11.7	4.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	560.6	148.8	6.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	95.4	23.3	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	32.6	9.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.3	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.6	2.3	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)