

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: P231226

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231226  
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-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 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: 11753.7 lumens  
Efficiency: N/A  
Efficacy: 96.3 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

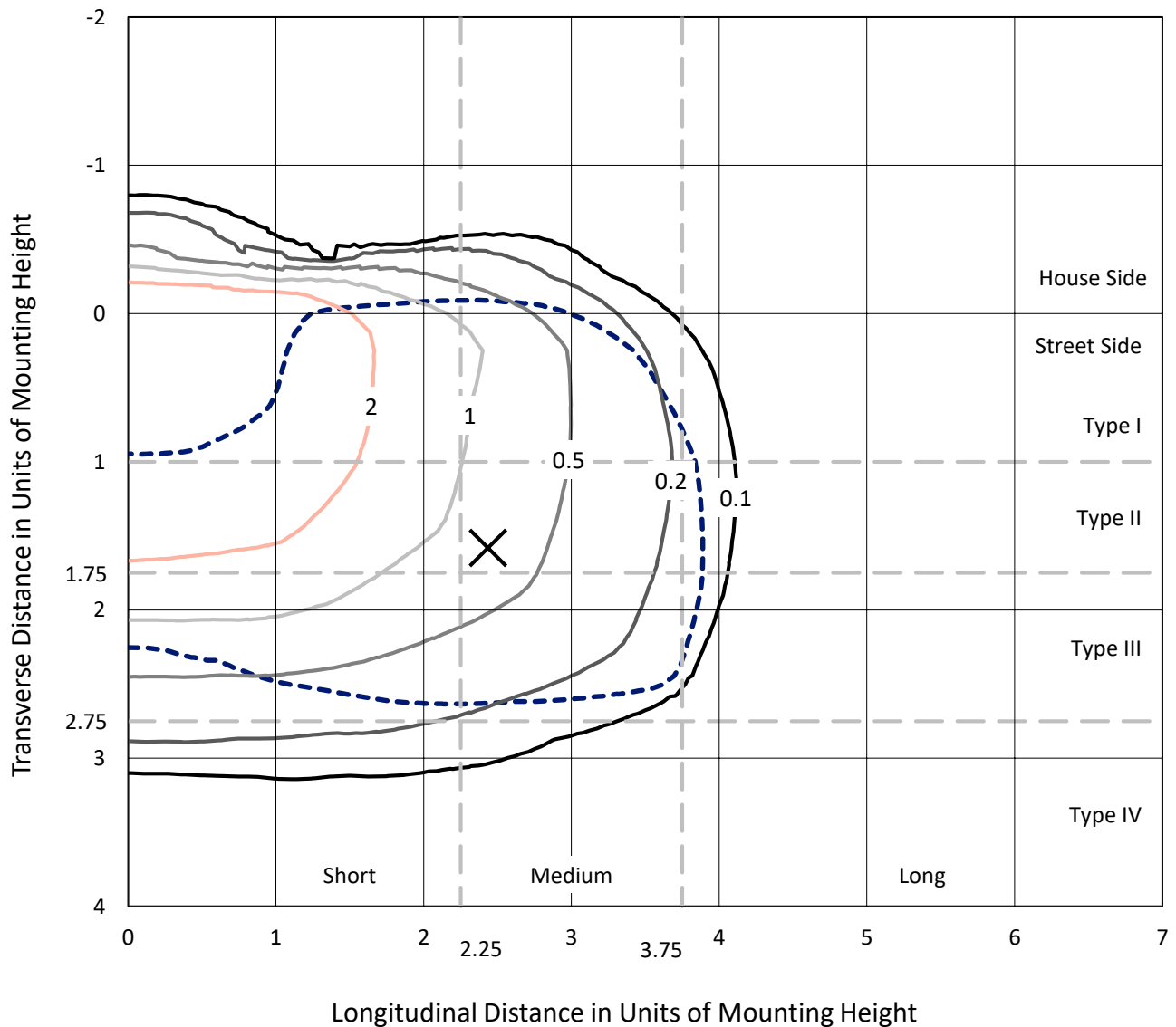
Input Watts (W): 122  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

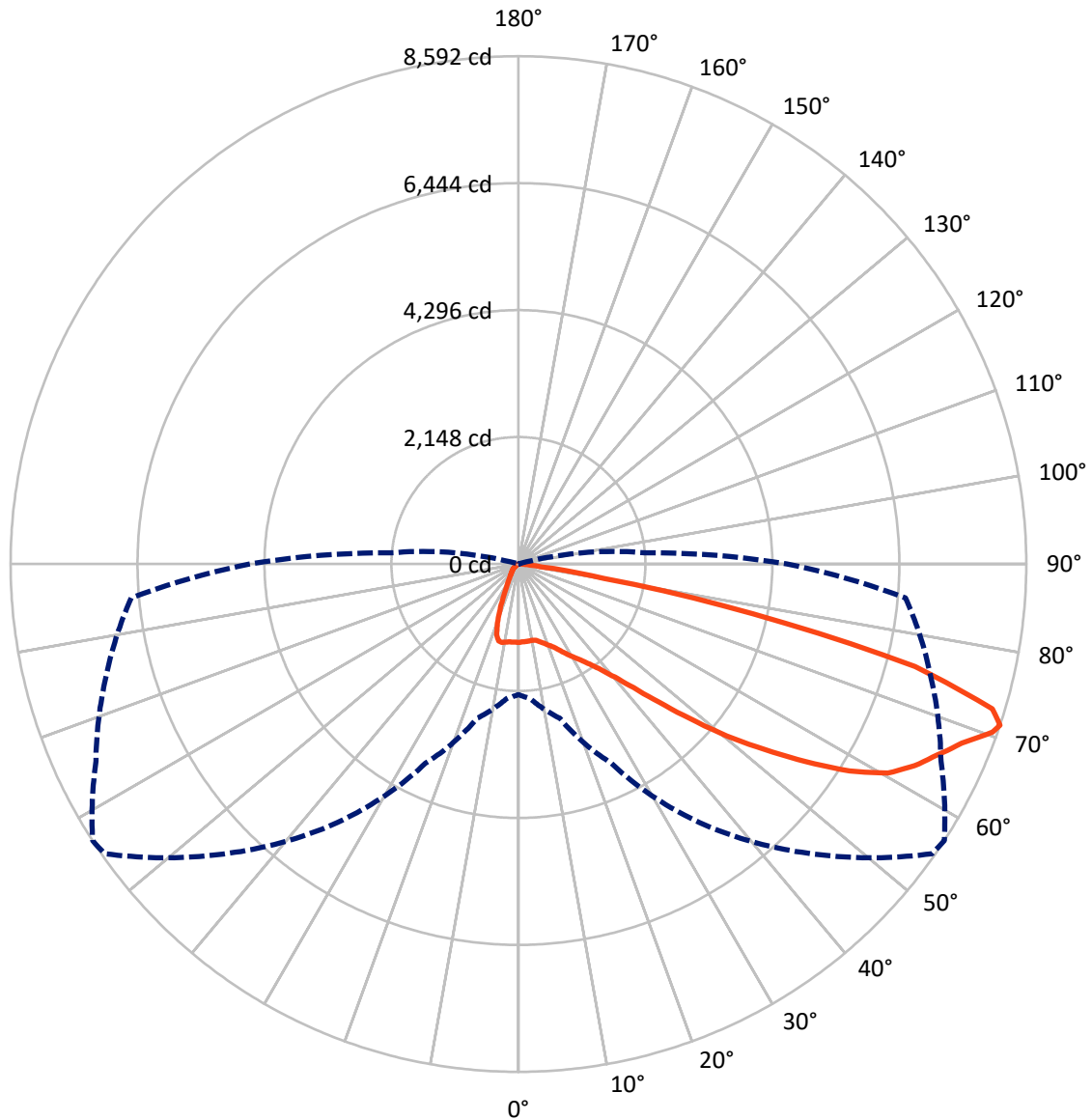
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.1 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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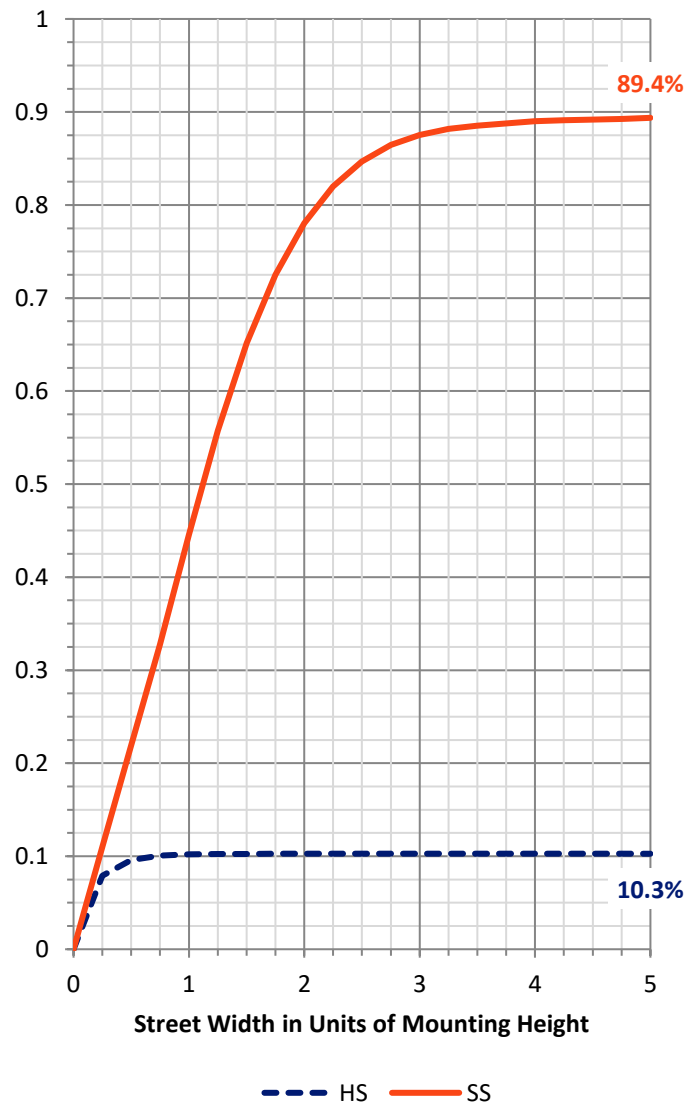
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1218.1	0.0	1218.1
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	10535.7	0.0	10535.7
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	11753.7	0.0	11753.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.7	1.1
10°-20°	333.5	2.8
20°-30°	520.3	4.4
30°-40°	879.4	7.5
40°-50°	1708.1	14.5
50°-60°	2868.5	24.4
60°-70°	3423.3	29.1
70°-80°	1804.1	15.3
80°-90°	91.7	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°	11753.7	100.0
0°-180°	11753.7	100.0



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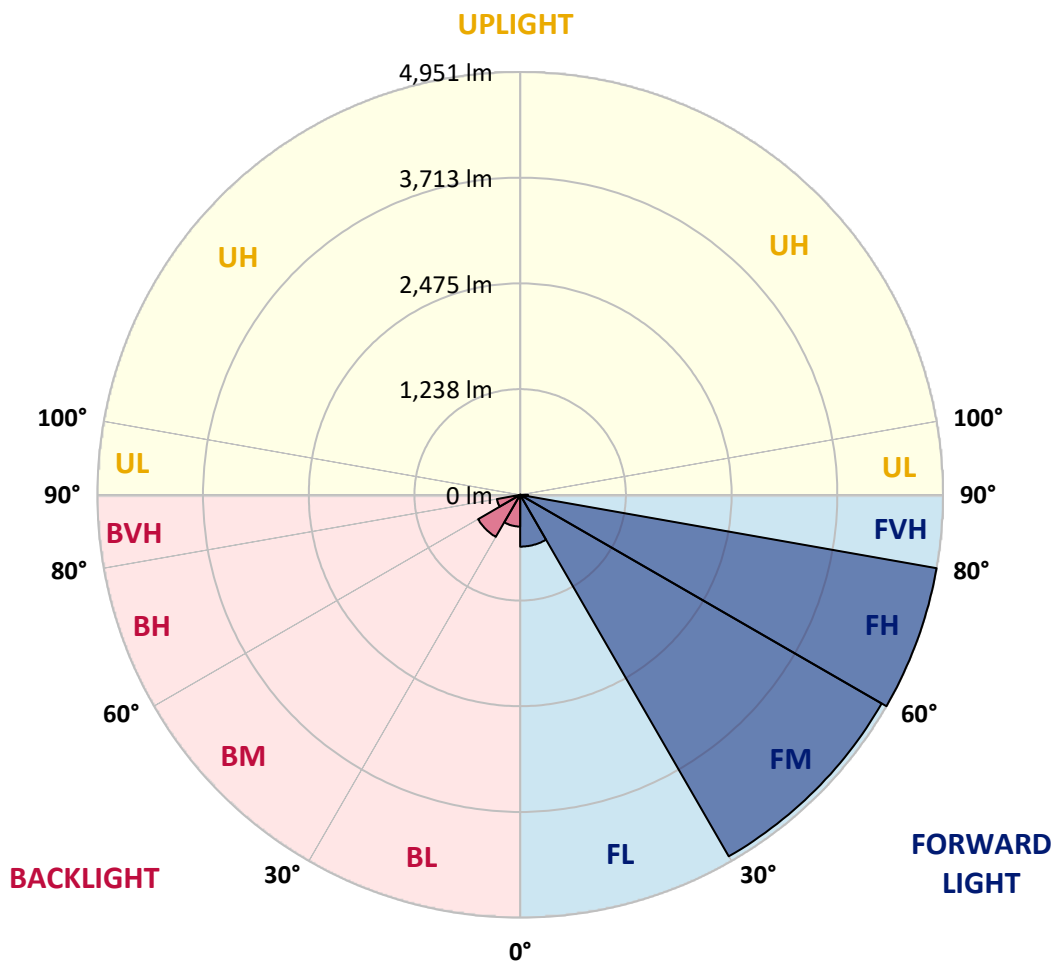
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	606.8	5.2			
FM	(30°-60°)	4887.3	41.6			
FH	(60°-80°)	4950.7	42.1			G2/5000
FVH	(80°-90°)	90.8	0.8			G1/100
BL	(0°-30°)	371.8	3.2	B1/500		
BM	(30°-60°)	568.8	4.8	B1/1000		
BH	(60°-80°)	276.6	2.4	B1/500		G1/500
BVH	(80°-90°)	0.9	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°	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3
2.5°	1309.2	1309.2	1309.2	1311.9	1314.7	1314.7	1320.1	1317.4	1317.4	1317.4	1322.9
5°	1273.6	1276.3	1279.1	1284.5	1295.5	1303.6	1317.4	1317.4	1320.1	1325.6	1328.3
7.5°	1224.3	1227.0	1235.2	1246.2	1268.0	1287.3	1309.2	1314.7	1322.9	1336.6	1342.0
10°	1194.2	1199.6	1210.6	1224.3	1248.9	1273.6	1301.0	1309.2	1333.8	1358.5	1372.2
12.5°	1185.9	1188.7	1199.6	1221.5	1251.7	1281.8	1317.4	1325.6	1361.2	1399.6	1421.5
15°	1199.6	1202.4	1207.8	1232.5	1268.0	1306.4	1353.0	1364.0	1407.8	1451.6	1479.0
17.5°	1224.3	1224.3	1229.8	1251.7	1290.0	1333.8	1394.1	1410.5	1459.9	1509.2	1539.2
20°	1240.7	1240.7	1248.9	1270.8	1314.7	1372.2	1443.4	1465.3	1520.1	1574.8	1602.2
22.5°	1257.1	1259.9	1268.0	1292.7	1342.0	1421.5	1503.6	1525.5	1588.5	1646.0	1673.4
25°	1303.6	1301.0	1303.6	1325.6	1383.1	1481.7	1585.8	1613.2	1679.0	1741.9	1755.6
27.5°	1432.4	1426.9	1391.3	1377.6	1421.5	1544.8	1689.9	1717.2	1793.9	1857.0	1857.0
30°	1728.2	1717.2	1629.7	1517.3	1481.7	1602.2	1788.4	1826.8	1925.4	1980.2	1963.8
32.5°	2103.5	2078.8	1966.5	1774.8	1632.3	1679.0	1892.6	1936.3	2062.4	2108.9	2073.3
35°	2514.3	2511.5	2371.8	2125.4	1922.6	1837.7	2026.8	2078.8	2237.6	2278.7	2221.2
37.5°	2949.8	2960.7	2867.5	2528.0	2289.7	2098.0	2204.8	2265.0	2459.5	2508.8	2454.1
40°	3434.6	3431.8	3396.2	2993.6	2730.7	2467.7	2462.2	2517.0	2752.6	2829.3	2752.6
42.5°	4048.0	4042.6	3913.8	3552.3	3264.7	2949.8	2837.5	2856.6	3119.6	3245.5	3133.3
45°	4672.5	4634.2	4486.3	4174.0	3919.3	3546.8	3333.2	3333.2	3557.8	3730.3	3555.1
47.5°	5020.3	4982.0	4921.7	4749.2	4672.5	4256.2	3941.2	3902.9	4078.2	4253.4	4007.0
50°	5477.7	5477.7	5327.1	5261.3	5392.8	5099.7	4612.3	4573.9	4658.8	4798.5	4475.3
52.5°	5839.2	5773.5	5666.7	5724.2	6099.4	5965.2	5283.2	5209.3	5275.1	5310.6	4883.4
55°	5989.9	5926.9	5918.7	6129.5	6710.3	6524.0	5970.8	5905.0	5899.5	5724.2	5239.5
57.5°	6020.0	5965.2	6069.3	6439.1	7304.6	6981.3	6655.4	6606.1	6452.8	6014.5	5603.7
60°	5765.2	5792.7	6044.6	6608.9	7655.2	7378.4	7233.3	7181.3	6828.0	6261.1	6009.0
62.5°	5242.2	5307.9	5779.0	6625.3	7526.4	7540.1	7553.8	7518.2	7118.3	6485.6	6417.2
65°	4623.2	4642.4	5209.3	6397.9	7301.8	7490.8	7789.4	7786.6	7340.2	6737.6	6877.3
67.5°	3809.8	3842.6	4332.9	5631.1	6852.6	7468.9	8098.8	8090.6	7592.1	7025.2	7151.1
70°	2834.7	2875.8	3272.9	4379.5	5850.2	7195.0	8504.2	8509.6	7857.8	7244.3	6962.2
71°	2210.3	2284.2	2700.5	3719.3	5338.1	6918.3	8542.5	8591.8	7887.9	7214.2	6573.3
72.5°	1084.6	1172.2	1695.3	2618.3	4393.2	6299.3	8290.5	8386.4	7698.9	6838.9	5620.1
75°	282.1	298.5	506.7	1070.9	2355.4	4174.0	6685.6	6929.3	6293.9	5206.6	3434.6
77.5°	178.0	183.5	238.2	416.3	881.9	1585.8	3927.5	4048.0	3596.1	2637.5	1210.6
80°	126.0	128.7	150.7	268.4	515.0	462.9	1413.2	1465.3	1301.0	698.4	216.4
82.5°	76.7	76.7	109.6	172.6	317.7	252.0	372.5	397.1	350.6	194.5	71.2
85°	43.8	46.5	68.4	117.7	150.7	123.3	139.6	147.9	150.7	128.7	30.2
87.5°	35.6	38.4	60.3	98.6	82.1	60.3	60.3	63.0	65.8	76.7	13.7
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°	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3
2.5°	1322.9	1322.9	1325.6	1322.9	1322.9	1322.9	1325.6	1325.6	1325.6	1331.1	1333.8
5°	1328.3	1328.3	1328.3	1325.6	1322.9	1322.9	1328.3	1331.1	1331.1	1339.3	1339.3
7.5°	1342.0	1342.0	1336.6	1331.1	1325.6	1317.4	1320.1	1322.9	1320.1	1322.9	1322.9
10°	1372.2	1372.2	1364.0	1353.0	1336.6	1311.9	1279.1	1238.0	1199.6	1185.9	1180.5
12.5°	1421.5	1418.7	1402.3	1383.1	1347.5	1262.6	1139.4	994.2	873.7	840.9	829.9
15°	1476.2	1470.8	1451.6	1418.7	1322.9	1098.2	840.9	654.6	539.5	512.2	506.7
17.5°	1533.8	1525.5	1498.1	1432.4	1210.6	816.2	542.3	410.8	347.8	342.4	345.1
20°	1594.1	1583.0	1544.8	1405.0	977.7	545.0	350.6	317.7	312.2	312.2	315.0
22.5°	1662.5	1648.8	1596.7	1306.4	712.1	361.5	301.3	298.5	295.8	293.1	293.1
25°	1741.9	1725.5	1646.0	1128.4	490.3	295.8	287.6	279.4	273.8	268.4	265.7
27.5°	1837.7	1815.8	1684.4	909.3	336.9	276.6	271.2	257.5	246.5	235.6	235.6
30°	1933.7	1906.3	1673.4	684.8	273.8	257.5	246.5	230.1	213.6	202.6	200.0
32.5°	2035.0	2007.5	1602.2	460.1	249.2	235.6	221.9	197.2	178.0	164.3	161.6
35°	2185.6	2163.7	1462.5	304.0	224.5	208.2	188.9	164.3	139.6	126.0	123.3
37.5°	2410.2	2382.8	1290.0	232.8	197.2	172.6	156.1	128.7	104.0	90.4	87.7
40°	2711.4	2629.3	1084.6	205.4	172.6	142.4	120.5	93.1	74.0	65.8	65.8
42.5°	3062.0	2867.5	862.8	186.3	153.3	117.7	87.7	63.0	52.1	49.3	49.3
45°	3434.6	3089.4	640.9	172.6	134.2	93.1	63.0	43.8	38.4	35.6	35.6
47.5°	3818.0	3270.2	446.4	156.1	112.3	71.2	43.8	32.8	27.4	24.7	24.7
50°	4176.8	3388.0	315.0	139.6	95.9	52.1	32.8	24.7	19.1	19.1	19.1
52.5°	4426.0	3377.0	227.3	120.5	74.0	35.6	21.9	16.5	16.5	16.5	16.5
55°	4645.1	3335.9	178.0	104.0	57.5	24.7	16.5	13.7	13.7	10.9	10.9
57.5°	4831.4	3270.2	150.7	84.9	41.1	19.1	10.9	10.9	8.2	8.2	8.2
60°	4990.2	3188.0	126.0	71.2	27.4	13.7	8.2	5.5	5.5	2.8	5.5
62.5°	5206.6	3136.0	109.6	54.7	19.1	8.2	5.5	2.8	2.8	0.0	0.0
65°	5365.4	3037.3	93.1	38.4	10.9	5.5	2.8	2.8	0.0	0.0	0.0
67.5°	5370.9	2859.4	68.4	21.9	8.2	5.5	2.8	0.0	0.0	0.0	0.0
70°	4938.2	2437.6	43.8	10.9	5.5	2.8	2.8	0.0	0.0	0.0	0.0
71°	4541.0	2158.2	35.6	8.2	5.5	2.8	0.0	0.0	0.0	0.0	0.0
72.5°	3741.2	1585.8	27.4	8.2	2.8	2.8	0.0	0.0	0.0	0.0	0.0
75°	2062.4	575.2	13.7	5.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	660.1	175.3	8.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	112.3	27.4	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	38.4	10.9	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	10.9	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.5	2.8	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)