

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: P258187

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258187  
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-AF48-140-D-U-T2U-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 905mA 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: 11440.5 lumens  
Efficiency: N/A  
Efficacy: 81.1 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): 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

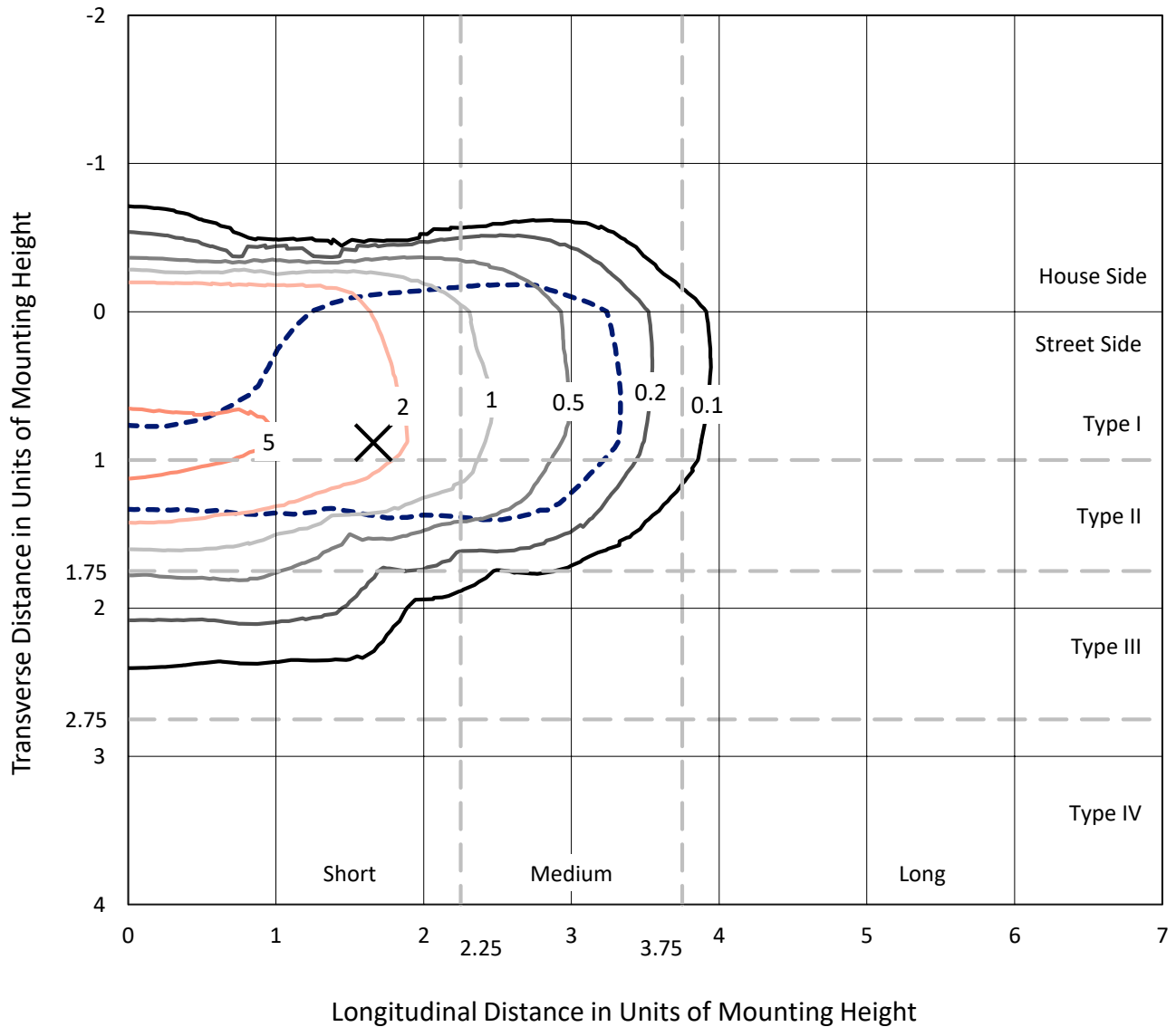


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

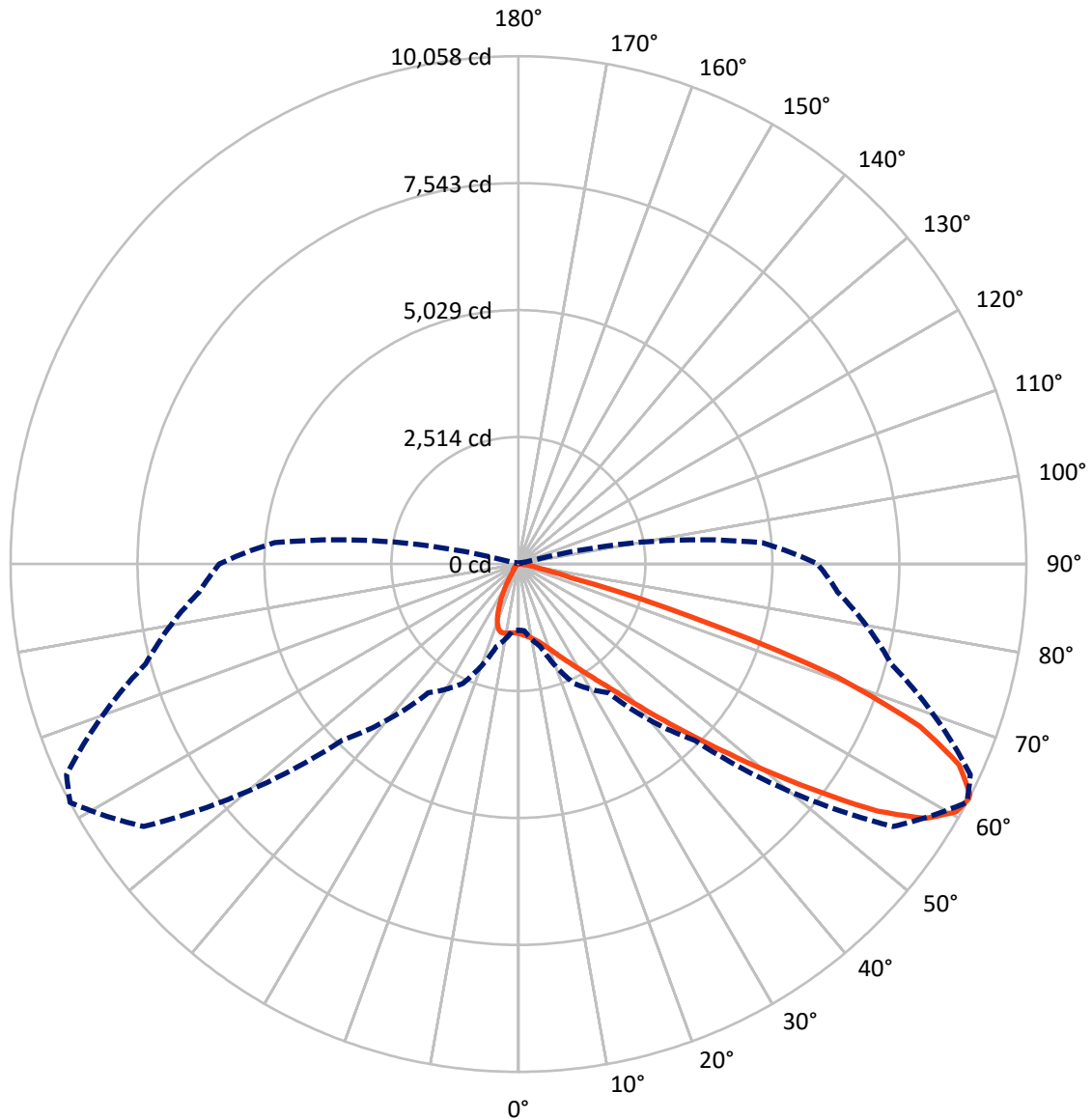


Based on 20 foot mounting height. Maximum calculated value = 6.6 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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



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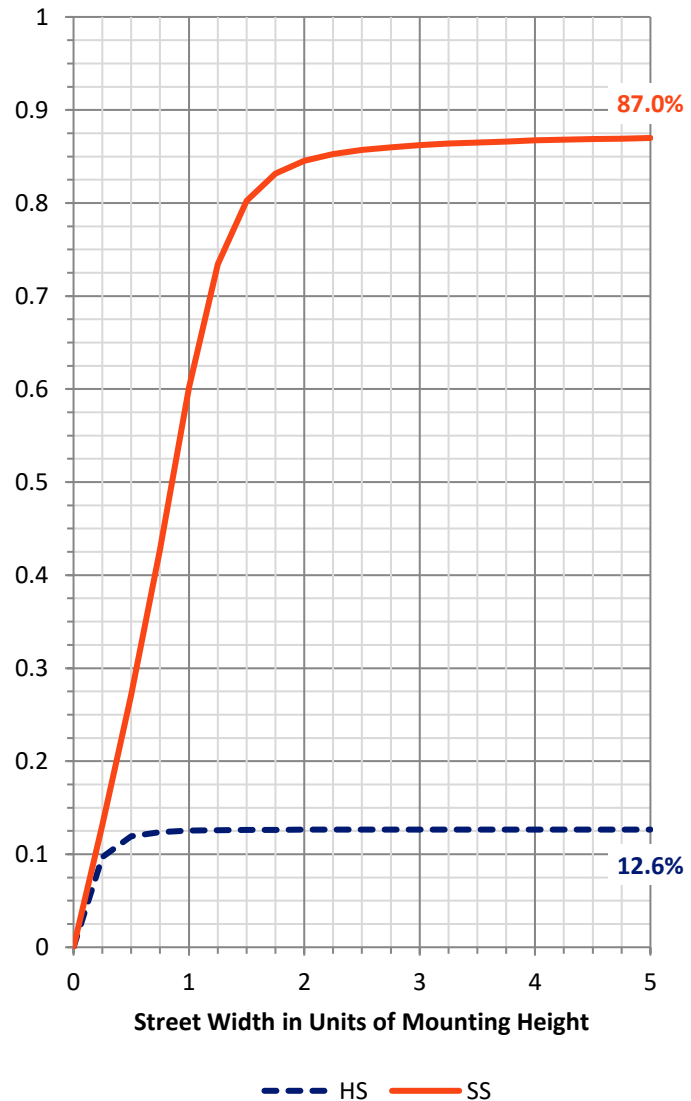
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1462.8	0.0	1462.8
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	9977.7	0.0	9977.7
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	11440.5	0.0	11440.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.6	1.2
10°-20°	370.4	3.2
20°-30°	622.0	5.4
30°-40°	1192.3	10.4
40°-50°	2435.4	21.3
50°-60°	3222.9	28.2
60°-70°	2503.6	21.9
70°-80°	903.7	7.9
80°-90°	57.6	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°	11440.5	100.0
0°-180°	11440.5	100.0



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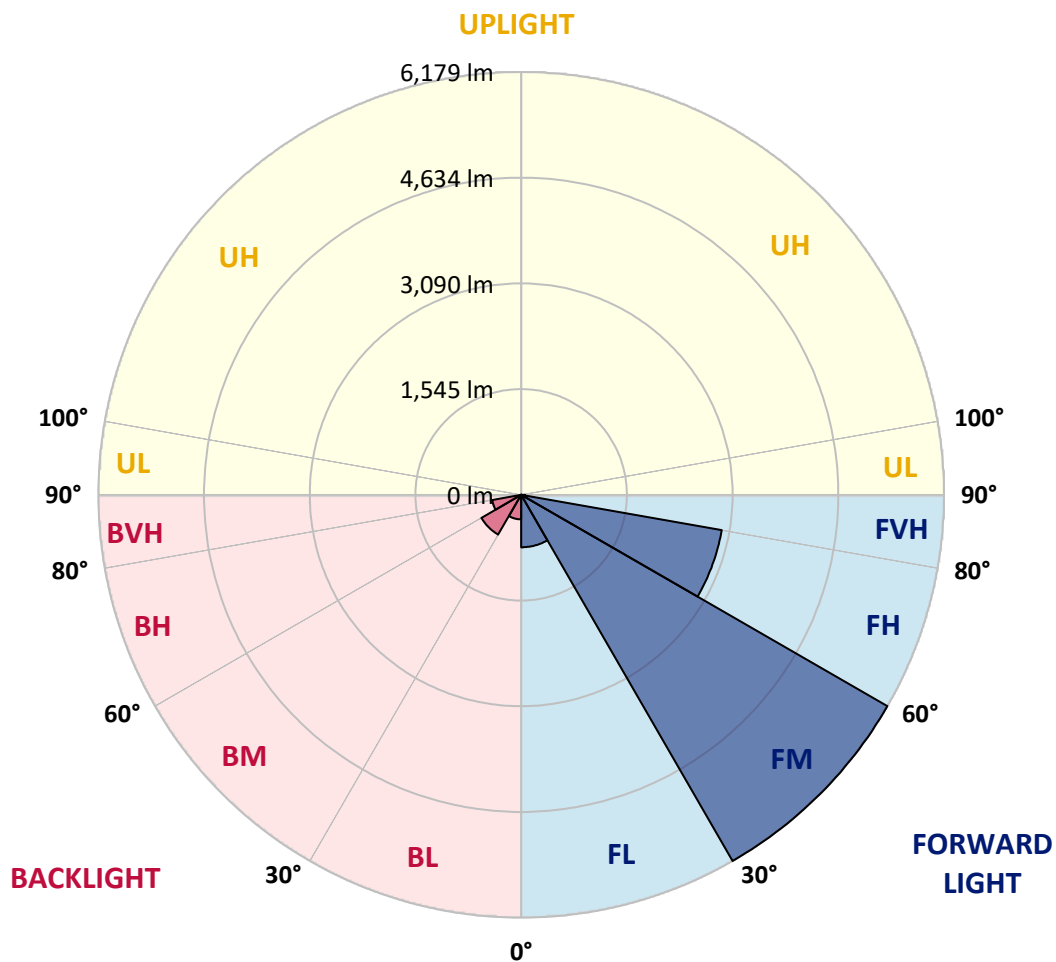
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	767.0	6.7			
FM	(30°-60°)	6179.1	54.0			
FH	(60°-80°)	2976.6	26.0			G2/5000
FVH	(80°-90°)	55.1	0.5			G1/100
BL	(0°-30°)	358.0	3.1	B1/500		
BM	(30°-60°)	671.5	5.9	B1/1000		
BH	(60°-80°)	430.7	3.8	B1/500		G1/500
BVH	(80°-90°)	2.5	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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2
2.5°	1414.7	1411.9	1409.1	1406.2	1406.2	1403.4	1400.7	1395.0	1389.4	1383.8	1380.9
5°	1440.0	1437.2	1434.5	1437.2	1434.5	1434.5	1431.7	1426.0	1420.4	1411.9	1403.4
7.5°	1459.7	1456.9	1454.1	1456.9	1459.7	1462.6	1465.3	1459.7	1456.9	1445.6	1437.2
10°	1485.1	1482.2	1479.4	1485.1	1485.1	1499.1	1501.9	1499.1	1496.3	1487.9	1473.8
12.5°	1521.7	1524.3	1524.3	1530.0	1535.6	1552.6	1558.1	1549.8	1549.8	1538.5	1521.7
15°	1589.0	1589.0	1589.0	1594.7	1597.6	1620.1	1625.7	1617.2	1622.8	1603.2	1586.3
17.5°	1653.7	1656.6	1662.3	1673.6	1673.6	1693.2	1704.5	1704.5	1715.7	1690.4	1667.9
20°	1718.4	1721.3	1729.7	1755.0	1755.0	1780.4	1800.0	1808.5	1819.7	1794.5	1755.0
22.5°	1788.8	1788.8	1802.9	1842.2	1833.8	1884.4	1921.0	1935.1	1946.4	1912.6	1850.7
25°	1895.6	1884.4	1895.6	1932.2	1926.6	1996.9	2064.5	2078.4	2092.6	2053.2	1960.3
27.5°	2098.3	2081.3	2041.9	2044.8	2044.8	2126.3	2221.9	2241.7	2250.0	2216.4	2100.9
30°	2503.2	2503.2	2356.9	2258.5	2193.8	2266.9	2401.9	2435.7	2447.0	2396.3	2244.4
32.5°	3209.2	3209.2	2939.2	2688.9	2444.1	2444.1	2598.8	2660.7	2671.9	2612.9	2435.7
35°	4109.1	4103.6	3698.5	3355.4	2877.3	2697.3	2829.5	2933.5	2967.3	2888.5	2683.2
37.5°	5065.5	5028.8	4592.9	4199.2	3543.9	3102.3	3141.6	3279.4	3310.4	3245.8	3003.9
40°	5841.8	5799.5	5448.0	5118.9	4404.5	3749.1	3591.7	3718.2	3754.8	3664.8	3386.4
42.5°	6544.8	6440.9	6199.0	5962.6	5394.5	4868.6	4190.7	4241.3	4280.8	4185.0	3816.7
45°	7053.9	6893.6	6769.9	6696.7	6395.8	6097.6	4967.0	4865.8	4879.8	4761.7	4286.3
47.5°	7068.0	6955.5	6966.7	7158.0	7281.8	7270.5	5976.7	5616.7	5563.3	5366.4	4786.9
50°	6393.0	6457.7	6662.9	7208.6	7878.0	8283.1	7177.7	6505.6	6345.1	5990.8	5284.9
52.5°	5267.9	5369.2	5754.5	6674.2	7965.2	8949.7	8423.7	7520.9	7233.9	6609.5	5667.4
55°	4126.0	4131.6	4536.7	5473.3	7382.9	9070.6	9419.4	8637.4	8198.7	7079.2	5920.4
57.5°	2837.9	2992.6	3507.3	4137.3	6069.6	8468.6	9793.4	9503.7	8938.4	7369.0	6097.6
60°	1859.1	1867.6	2466.6	3195.1	4131.6	6890.8	9565.5	9962.1	9537.5	7540.5	6218.6
62°	1310.7	1324.8	1696.0	2610.1	3113.6	4938.8	9062.1	10057.8	9875.0	7641.8	6345.1
62.5°	1215.1	1226.3	1538.5	2463.8	2925.1	4429.8	8882.1	10035.3	9925.5	7675.5	6390.1
65°	891.5	891.5	1007.0	1693.2	2143.2	2393.6	7526.5	9588.0	9858.0	7945.6	6559.0
67.5°	689.1	694.7	734.1	1043.4	1617.2	1451.3	4803.9	8581.1	9155.0	8344.9	6654.6
70°	593.5	590.6	618.7	691.9	1167.2	964.8	2115.0	6696.7	7667.0	8243.6	6567.3
72.5°	438.7	441.6	506.3	607.5	812.8	627.2	956.2	3555.1	4972.6	6452.1	5628.0
75°	281.3	284.1	357.2	478.1	585.0	410.6	551.2	1060.4	2036.3	3577.5	3442.5
77.5°	188.5	194.1	233.5	334.7	511.9	256.0	346.0	444.3	613.2	1341.6	1234.7
80°	126.5	126.5	149.0	225.0	323.4	213.7	185.6	295.3	317.8	416.3	208.1
82.5°	84.3	84.3	98.5	149.0	211.0	191.2	112.5	160.3	185.6	208.1	73.1
85°	50.6	50.6	67.5	92.8	137.7	106.8	73.1	90.0	95.6	132.2	39.4
87.5°	30.9	28.1	45.1	64.7	73.1	64.7	47.8	47.8	50.6	73.1	19.6
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°	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2	1378.2
2.5°	1375.3	1372.6	1369.7	1364.1	1355.7	1350.0	1344.4	1338.8	1333.2	1333.2	1341.6
5°	1400.7	1392.2	1380.9	1369.7	1352.8	1341.6	1333.2	1321.9	1316.2	1316.2	1319.1
7.5°	1431.7	1423.2	1403.4	1383.8	1358.4	1338.8	1319.1	1293.7	1274.1	1265.7	1274.1
10°	1465.3	1454.1	1426.0	1395.0	1367.0	1316.2	1251.6	1172.9	1105.3	1074.4	1088.4
12.5°	1507.6	1493.5	1459.7	1417.5	1352.8	1229.0	1068.8	886.0	770.6	717.2	728.4
15°	1569.4	1549.8	1501.9	1437.2	1293.7	1026.6	765.1	554.1	447.2	402.2	407.9
17.5°	1642.5	1617.2	1552.6	1431.7	1141.9	739.6	455.6	323.4	278.4	267.2	267.2
20°	1721.3	1687.5	1603.2	1389.4	911.2	464.1	284.1	247.5	230.6	222.3	222.3
22.5°	1802.9	1757.9	1645.3	1291.0	649.6	289.6	233.5	208.1	188.5	180.1	180.1
25°	1901.3	1842.2	1687.5	1119.4	413.4	233.5	199.7	174.4	154.7	143.4	146.3
27.5°	2016.6	1940.7	1724.1	905.6	267.2	202.4	166.0	140.6	123.8	118.1	118.1
30°	2137.5	2047.5	1732.6	677.9	216.6	174.4	137.7	115.3	104.1	98.5	98.5
32.5°	2303.5	2185.4	1707.2	450.0	182.8	146.3	115.3	95.6	87.2	84.3	84.3
35°	2522.9	2365.4	1648.1	278.4	154.7	121.0	95.6	84.3	75.9	73.1	73.1
37.5°	2801.3	2615.6	1544.1	191.2	132.2	98.5	81.6	73.1	67.5	64.7	64.7
40°	3172.6	2919.4	1409.1	166.0	112.5	84.3	70.4	64.7	59.1	59.1	59.1
42.5°	3566.3	3287.9	1234.7	146.3	95.6	73.1	61.8	56.3	53.4	50.6	50.6
45°	3996.7	3664.8	1018.2	129.4	81.6	64.7	56.3	47.8	45.1	45.1	45.1
47.5°	4424.2	4053.0	781.9	112.5	70.4	56.3	47.8	42.2	39.4	36.6	36.6
50°	4862.9	4404.5	573.7	98.5	61.8	50.6	42.2	36.6	30.9	28.1	28.1
52.5°	5180.7	4615.4	419.1	84.3	53.4	42.2	33.8	28.1	22.5	19.6	19.6
55°	5414.3	4744.8	306.6	70.4	47.8	36.6	28.1	22.5	16.8	16.8	14.1
57.5°	5597.1	4806.7	230.6	61.8	42.2	30.9	22.5	16.8	14.1	11.3	11.3
60°	5737.6	4809.5	171.5	50.6	36.6	25.3	16.8	11.3	8.4	8.4	8.4
62°	5923.3	4846.0	140.6	42.2	33.8	22.5	14.1	8.4	5.6	2.8	2.8
62.5°	5976.7	4860.2	135.1	42.2	30.9	19.6	11.3	8.4	5.6	2.8	2.8
65°	6224.3	4885.4	104.1	33.8	25.3	16.8	8.4	5.6	0.0	0.0	0.0
67.5°	6449.2	4846.0	75.9	25.3	19.6	11.3	8.4	2.8	0.0	0.0	0.0
70°	6426.7	4576.1	53.4	16.8	14.1	8.4	5.6	0.0	0.0	0.0	0.0
72.5°	5296.2	3425.8	36.6	14.1	8.4	5.6	2.8	0.0	0.0	0.0	0.0
75°	3197.9	1499.1	25.3	8.4	8.4	5.6	2.8	0.0	0.0	0.0	0.0
77.5°	1049.1	542.8	16.8	5.6	5.6	2.8	2.8	0.0	0.0	0.0	0.0
80°	171.5	90.0	8.4	5.6	5.6	2.8	2.8	0.0	0.0	0.0	0.0
82.5°	53.4	22.5	5.6	5.6	2.8	2.8	0.0	0.0	0.0	0.0	0.0
85°	19.6	8.4	5.6	5.6	2.8	2.8	0.0	0.0	0.0	0.0	0.0
87.5°	8.4	5.6	5.6	5.6	2.8	2.8	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)