

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: P265834

Luminaire Tested: **ARCH-M-AF48-130-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265834  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
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-T2R-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11440.1 lumens  
Efficiency: N/A  
Efficacy: 87.3 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

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

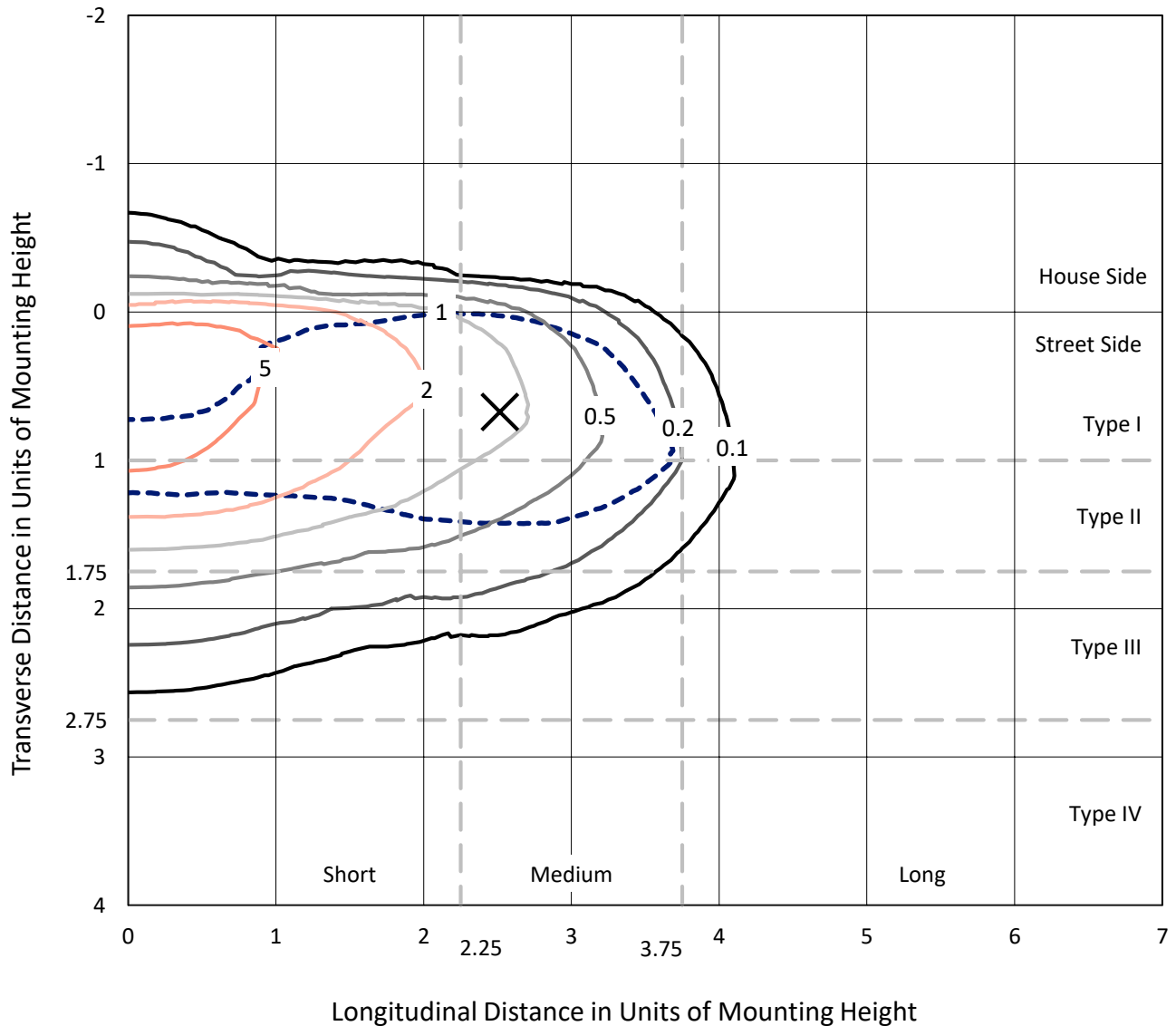


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

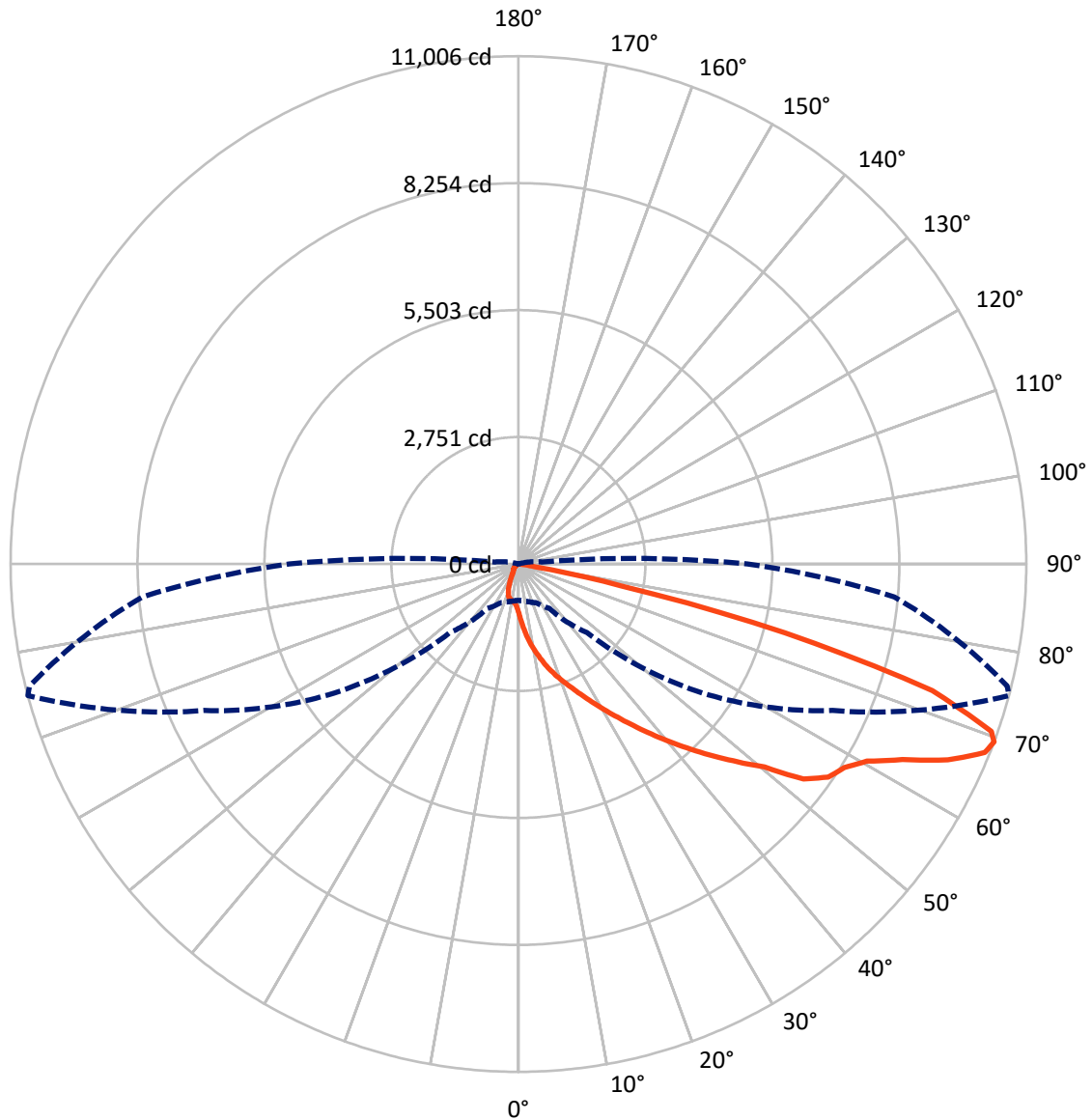


Based on 20 foot mounting height. Maximum calculated value = 7.3 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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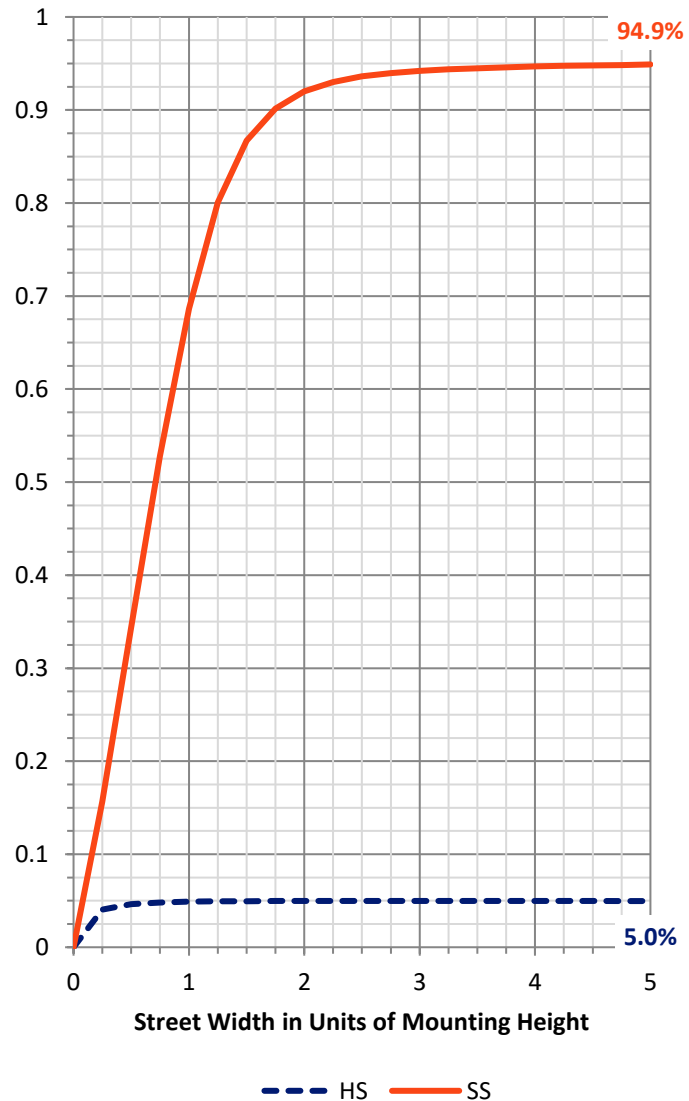
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	570.7	0.0	570.7
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	10869.4	0.0	10869.4
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	11440.1	0.0	11440.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.1	1.1
10°-20°	443.8	3.9
20°-30°	847.2	7.4
30°-40°	1519.7	13.3
40°-50°	2328.2	20.4
50°-60°	2706.0	23.7
60°-70°	2396.2	20.9
70°-80°	1033.6	9.0
80°-90°	41.4	0.4
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°	11440.1	100.0
0°-180°	11440.1	100.0

**Coefficient of Utilization**



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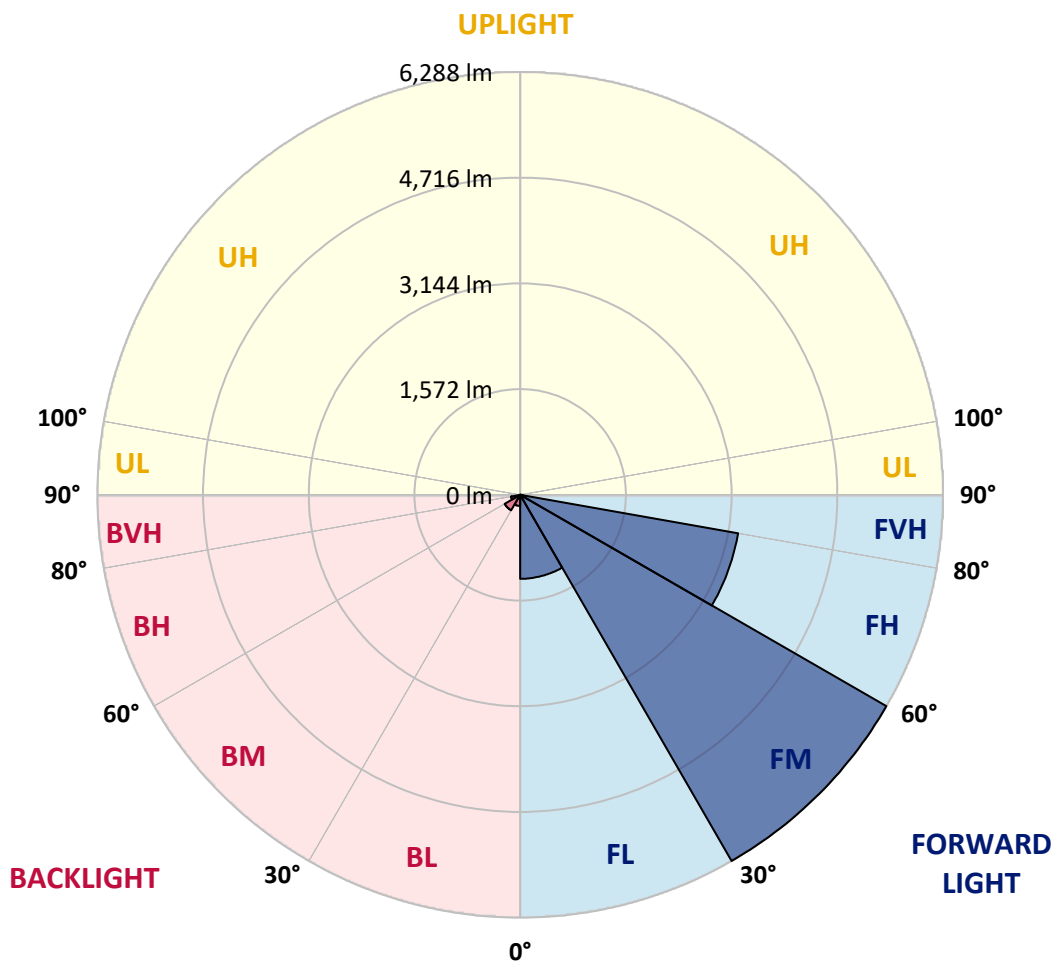
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1249.3	10.9			
FM	(30°-60°)	6287.8	55.0			
FH	(60°-80°)	3291.5	28.8			G2/5000
FVH	(80°-90°)	40.8	0.4			G1/100
BL	(0°-30°)	165.8	1.4	B1/500		
BM	(30°-60°)	266.1	2.3	B1/1000		
BH	(60°-80°)	138.3	1.2	B1/500		G1/500
BVH	(80°-90°)	0.6	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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5
2.5°	1753.6	1736.3	1718.9	1699.2	1654.8	1578.2	1481.9	1378.2	1249.7	1227.5	1123.8
5°	2129.1	2121.5	2104.3	2077.2	2027.7	1943.8	1835.1	1681.9	1467.1	1430.0	1210.2
7.5°	2393.3	2388.4	2373.5	2341.4	2297.0	2213.0	2099.3	1934.0	1684.4	1642.5	1318.9
10°	2630.3	2627.9	2615.5	2586.0	2541.5	2450.0	2329.0	2156.2	1891.9	1844.9	1444.8
12.5°	2845.2	2847.7	2842.7	2828.0	2795.9	2709.4	2571.0	2383.5	2092.0	2040.1	1595.5
15°	2971.2	2978.6	2998.5	3028.0	3037.9	2968.8	2825.4	2618.0	2297.0	2252.5	1768.5
17.5°	2929.3	2936.6	2998.5	3099.6	3196.0	3205.8	3077.5	2840.4	2499.4	2455.0	1938.8
20°	2828.0	2837.8	2902.1	3040.4	3228.1	3359.0	3307.1	3082.4	2692.1	2637.9	2101.9
22.5°	2941.6	2941.6	2961.4	3045.3	3215.8	3420.7	3489.8	3324.4	2889.7	2823.1	2264.8
25°	3331.9	3324.4	3282.4	3247.8	3302.2	3485.0	3628.3	3571.4	3121.9	3045.3	2437.7
27.5°	3825.8	3860.3	3781.3	3655.4	3531.9	3610.8	3751.7	3815.9	3378.7	3299.7	2615.5
30°	4379.1	4393.9	4299.9	4132.1	3914.8	3838.2	3897.3	4025.8	3657.9	3571.4	2800.7
32.5°	4877.9	4865.6	4786.6	4611.2	4342.0	4176.5	4085.1	4193.7	3961.6	3862.8	2990.9
35°	5320.0	5330.0	5233.5	5031.0	4766.8	4591.4	4374.0	4384.0	4302.4	4188.8	3210.8
37.5°	5717.7	5700.4	5608.9	5406.4	5167.0	4976.7	4747.1	4581.5	4675.4	4556.8	3457.8
40°	6041.2	6023.9	5927.6	5730.0	5505.3	5349.6	5169.3	4845.8	5068.1	4932.2	3722.0
42.5°	6298.0	6278.3	6196.9	6006.6	5789.2	5651.0	5564.6	5171.8	5487.9	5352.1	4018.5
45°	6424.0	6406.8	6357.3	6214.1	6023.9	5902.9	5945.0	5547.3	5937.4	5823.9	4344.5
47.5°	6275.9	6268.5	6325.2	6300.5	6191.8	6127.7	6273.5	5957.3	6409.2	6298.0	4719.9
50°	5826.3	5838.8	6004.2	6209.2	6261.0	6337.6	6542.6	6389.5	6915.5	6796.9	5152.0
52.5°	4717.4	4801.4	5300.3	5794.2	6177.0	6466.0	6858.7	7006.9	7740.4	7624.5	5826.3
55°	3522.0	3556.6	4100.0	4944.6	5838.8	6456.2	7093.3	7370.1	8147.9	8029.5	6004.2
57.5°	2793.4	2805.8	3075.0	3936.9	5142.2	6233.9	7216.9	7500.8	8325.9	8227.0	6268.5
60°	2193.2	2208.0	2403.1	2995.8	4161.7	5633.7	7039.1	7614.6	8674.0	8595.1	6730.3
62.5°	1706.7	1721.5	1840.0	2188.4	3121.9	4710.1	6681.0	7797.3	9336.1	9299.0	7486.0
65°	1321.3	1326.3	1407.9	1570.9	2205.6	3709.7	6243.8	7967.6	10230.1	10198.0	8098.6
67.5°	975.6	982.9	1039.8	1141.0	1489.3	2664.9	5527.5	7836.9	10904.3	10810.6	8320.9
69°	787.9	795.3	844.6	926.2	1175.6	2099.3	4872.9	7513.2	11005.7	10916.7	8180.1
70°	674.3	679.2	728.6	797.8	1002.8	1783.2	4354.4	7234.2	10872.2	10785.8	7859.0
72.5°	432.3	456.9	506.4	550.8	664.3	1180.6	2939.2	5999.2	9380.5	9232.3	6154.8
75°	239.6	246.9	335.8	390.3	442.1	768.1	1635.1	3741.8	5967.1	5863.3	3292.3
77.5°	197.5	202.5	237.2	296.4	296.4	429.7	617.5	1474.5	2269.7	2047.4	891.6
80°	138.2	143.3	180.3	195.1	212.4	242.1	200.1	323.6	350.7	311.3	133.4
82.5°	96.3	101.2	123.4	160.5	170.4	113.6	74.1	96.3	101.2	101.2	51.8
85°	17.2	24.8	91.4	133.4	101.2	34.6	42.0	34.6	32.1	34.6	12.3
87.5°	0.0	0.0	56.9	64.1	54.3	14.8	17.2	12.3	7.4	9.9	4.9
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°	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5	1064.5
2.5°	1071.9	1020.0	931.2	867.0	812.5	770.6	753.3	726.1	706.3	716.3	703.9
5°	1101.5	1010.1	867.0	775.5	711.3	657.0	612.6	577.9	550.8	545.8	540.9
7.5°	1148.5	1017.6	829.9	716.3	619.9	536.0	466.8	414.9	375.4	375.4	360.6
10°	1212.7	1037.4	807.7	657.0	513.7	400.1	330.9	281.6	261.8	259.3	254.4
12.5°	1301.6	1074.5	790.4	580.5	400.1	291.4	249.5	232.1	224.8	222.3	219.8
15°	1422.6	1128.7	770.6	486.5	303.7	239.6	222.3	207.5	200.1	197.5	195.1
17.5°	1538.6	1178.0	728.6	390.3	246.9	217.3	197.5	185.2	175.3	173.0	173.0
20°	1647.4	1220.1	657.0	303.7	222.3	195.1	175.3	160.5	150.6	148.2	148.2
22.5°	1760.9	1254.8	568.1	246.9	202.5	173.0	153.2	138.2	128.5	125.9	123.4
25°	1881.9	1279.4	466.8	219.8	182.7	153.2	131.0	118.5	111.1	108.7	106.2
27.5°	2012.9	1289.2	370.6	200.1	160.5	133.4	113.6	101.2	96.3	93.9	93.9
30°	2131.5	1279.4	286.5	177.9	140.8	116.2	98.9	88.9	84.0	81.4	81.4
32.5°	2254.9	1254.8	229.6	158.1	123.4	98.9	84.0	76.5	74.1	71.7	71.7
35°	2385.9	1222.6	197.5	140.8	106.2	86.4	74.1	69.2	66.7	64.1	64.1
37.5°	2539.0	1183.1	180.3	125.9	93.9	76.5	64.1	61.8	59.3	59.3	59.3
40°	2712.0	1133.7	168.0	113.6	84.0	66.7	56.9	54.3	51.8	51.8	51.8
42.5°	2894.7	1076.9	155.5	101.2	74.1	56.9	49.3	49.3	46.9	46.9	44.5
45°	3099.6	1020.0	143.3	88.9	64.1	49.3	42.0	39.5	39.5	37.0	37.0
47.5°	3341.7	968.2	131.0	79.1	56.9	42.0	37.0	34.6	32.1	29.6	29.6
50°	3682.5	963.3	116.2	69.2	51.8	34.6	29.6	27.2	24.8	22.2	22.2
52.5°	4021.0	918.7	98.9	56.9	42.0	29.6	22.2	19.8	17.2	17.2	14.8
55°	4097.4	844.6	86.4	49.3	32.1	22.2	17.2	12.3	12.3	9.9	9.9
57.5°	4265.4	810.1	74.1	39.5	24.8	17.2	9.9	7.4	7.4	7.4	7.4
60°	4596.4	800.2	64.1	34.6	17.2	12.3	7.4	4.9	4.9	2.4	2.4
62.5°	5053.2	790.4	54.3	29.6	12.3	7.4	4.9	2.4	0.0	0.0	0.0
65°	5305.2	723.7	44.5	22.2	9.9	7.4	2.4	0.0	0.0	0.0	0.0
67.5°	5238.6	597.7	39.5	14.8	7.4	4.9	2.4	0.0	0.0	0.0	0.0
69°	4959.5	503.9	32.1	12.3	7.4	4.9	2.4	0.0	0.0	0.0	0.0
70°	4623.5	434.7	29.6	9.9	4.9	2.4	2.4	0.0	0.0	0.0	0.0
72.5°	3282.4	227.2	19.8	7.4	4.9	2.4	0.0	0.0	0.0	0.0	0.0
75°	1533.8	101.2	12.3	4.9	2.4	2.4	0.0	0.0	0.0	0.0	0.0
77.5°	338.4	46.9	7.4	4.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	64.1	17.2	4.9	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	22.2	7.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	0.0	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)