

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: P231245

Luminaire Tested: **ARCH-M-AF48-50-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231245
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-AF48-50-D-U-T3-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 305mA 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: 5068 lumens
Efficiency: N/A
Efficacy: 105.6 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): 48
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

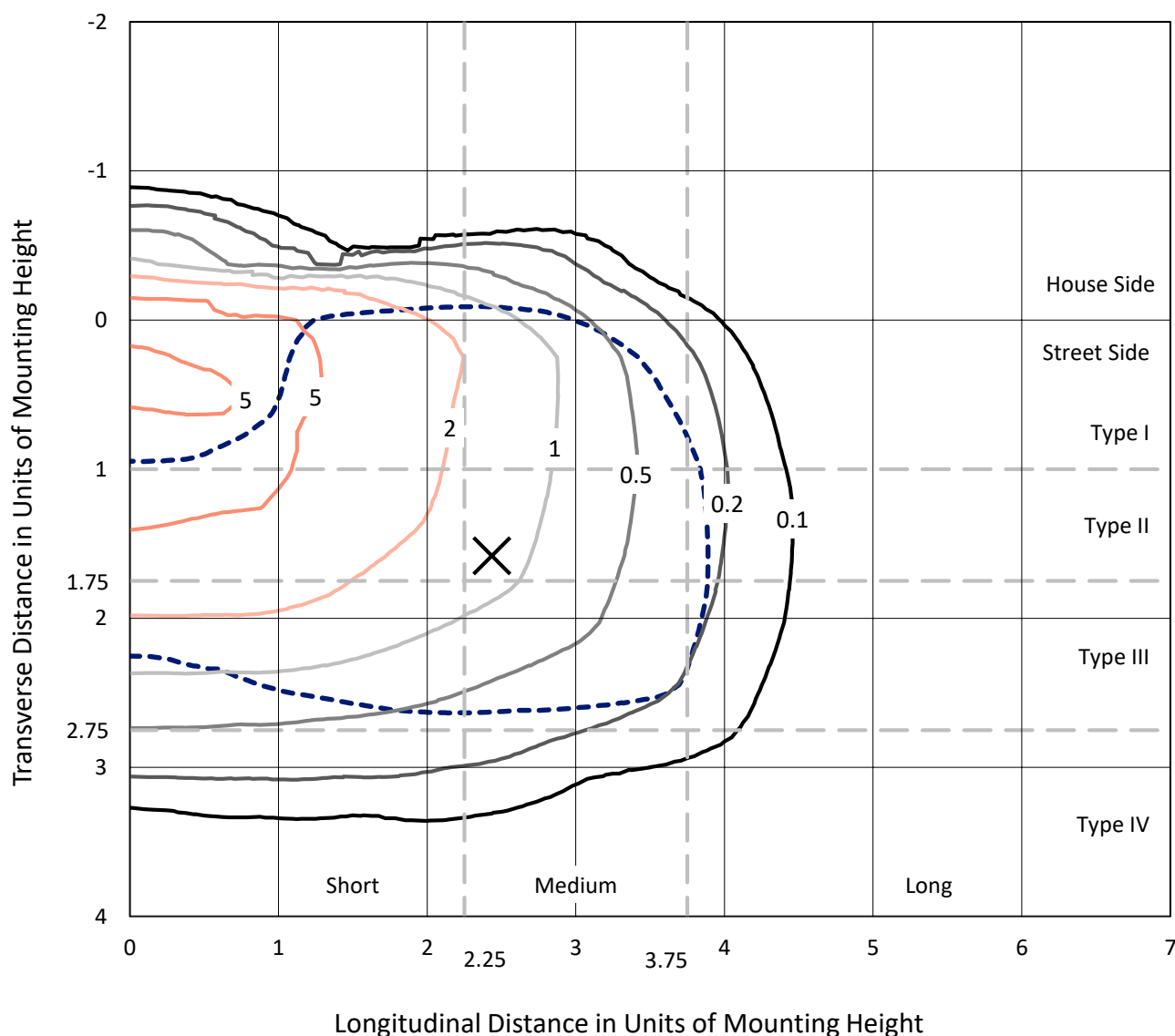


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

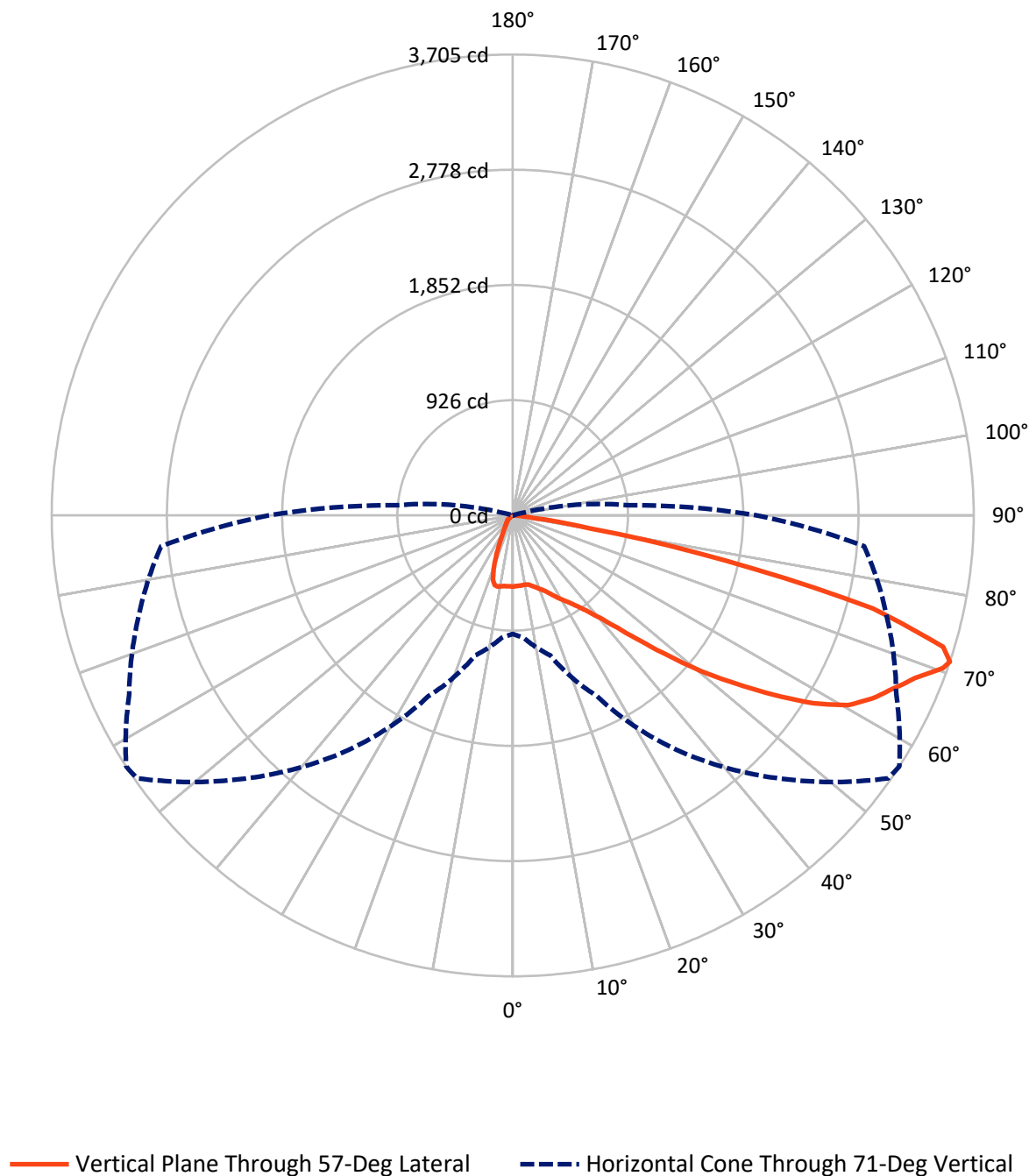


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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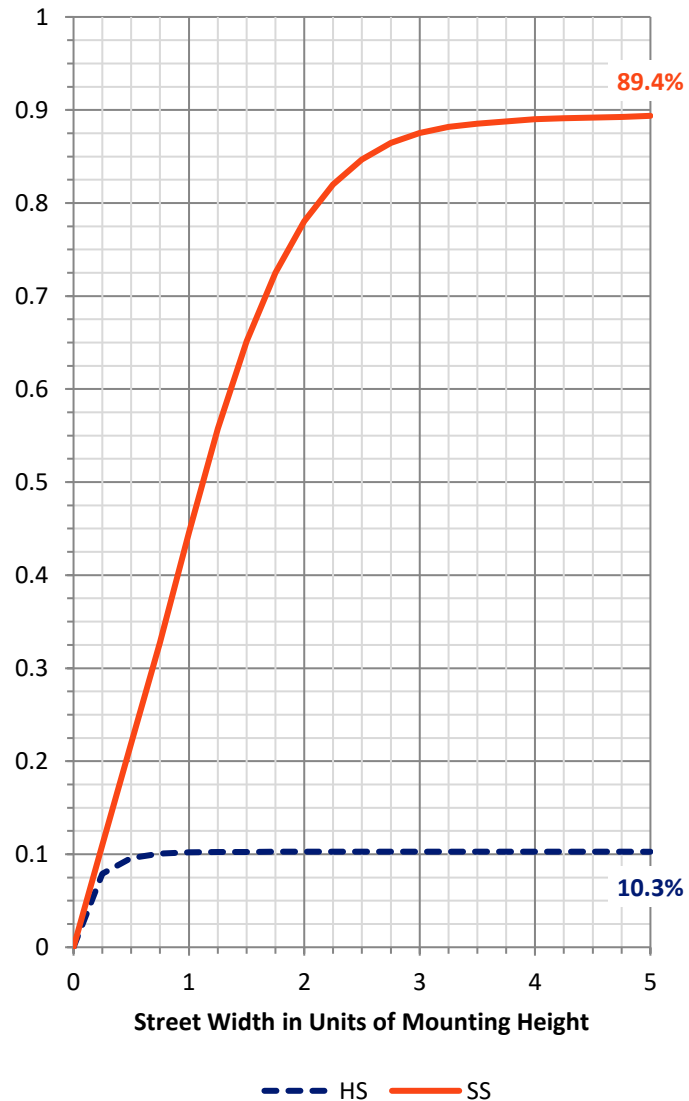
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	525.2	0.0	525.2
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	4542.8	0.0	4542.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	5068.0	0.0	5068.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.8	1.1
10°-20°	143.8	2.8
20°-30°	224.4	4.4
30°-40°	379.2	7.5
40°-50°	736.5	14.5
50°-60°	1236.8	24.4
60°-70°	1476.1	29.1
70°-80°	777.9	15.3
80°-90°	39.5	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°	5068.0	100.0
0°-180°	5068.0	100.0

Coefficient of Utilization



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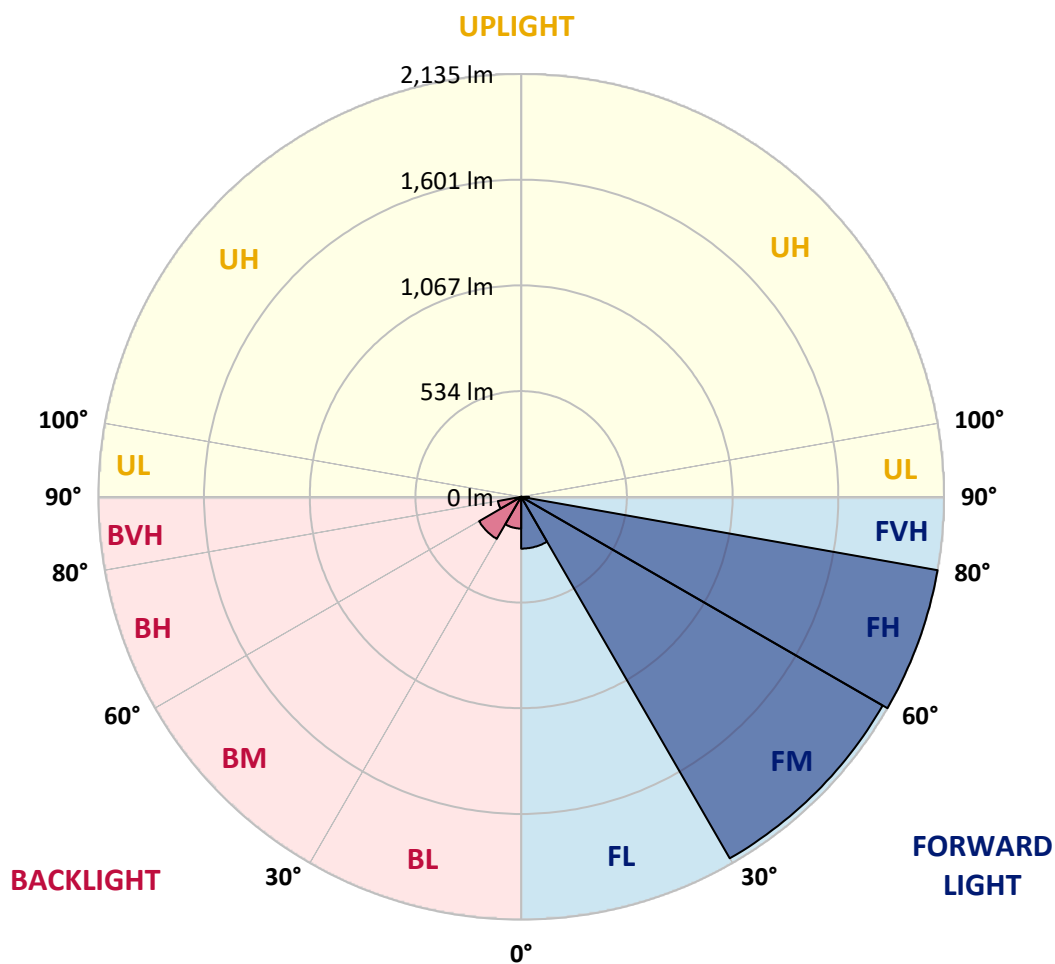
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	261.7	5.2			
FM	(30°-60°)	2107.3	41.6			
FH	(60°-80°)	2134.7	42.1			G2/5000
FVH	(80°-90°)	39.2	0.8			G1/100
BL	(0°-30°)	160.3	3.2	B1/500		
BM	(30°-60°)	245.2	4.8	B1/1000		
BH	(60°-80°)	119.3	2.4	B1/500		G1/500
BVH	(80°-90°)	0.4	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°	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8
2.5°	564.5	564.5	564.5	565.7	566.9	566.9	569.2	568.0	568.0	568.0	570.4
5°	549.1	550.3	551.5	553.9	558.6	562.1	568.0	568.0	569.2	571.6	572.8
7.5°	527.9	529.1	532.6	537.3	546.8	555.0	564.5	566.9	570.4	576.3	578.7
10°	514.9	517.3	522.0	527.9	538.5	549.1	561.0	564.5	575.1	585.8	591.7
12.5°	511.4	512.5	517.3	526.7	539.7	552.7	568.0	571.6	586.9	603.5	612.9
15°	517.3	518.4	520.8	531.4	546.8	563.3	583.4	588.1	607.0	625.9	637.7
17.5°	527.9	527.9	530.2	539.7	556.2	575.1	601.1	608.2	629.4	650.7	663.7
20°	535.0	535.0	538.5	548.0	566.9	591.7	622.4	631.8	655.4	679.0	690.9
22.5°	542.1	543.2	546.8	557.4	578.7	612.9	648.3	657.8	685.0	709.8	721.6
25°	562.1	561.0	562.1	571.6	596.4	638.9	683.8	695.6	723.9	751.1	757.0
27.5°	617.6	615.3	599.9	594.0	612.9	666.1	728.6	740.5	773.5	800.7	800.7
30°	745.2	740.5	702.7	654.2	638.9	690.9	771.2	787.7	830.2	853.8	846.7
32.5°	907.0	896.3	847.9	765.3	703.8	723.9	816.0	834.9	889.3	909.3	894.0
35°	1084.1	1082.9	1022.7	916.4	829.0	792.4	873.9	896.3	964.8	982.6	957.8
37.5°	1271.9	1276.6	1236.5	1090.0	987.3	904.6	950.7	976.6	1060.5	1081.8	1058.1
40°	1480.9	1479.7	1464.4	1290.8	1177.4	1064.0	1061.7	1085.3	1186.9	1219.9	1186.9
42.5°	1745.4	1743.1	1687.6	1531.7	1407.7	1271.9	1223.5	1231.7	1345.1	1399.4	1351.0
45°	2014.7	1998.2	1934.4	1799.8	1689.9	1529.3	1437.2	1437.2	1534.1	1608.5	1532.9
47.5°	2164.7	2148.1	2122.2	2047.8	2014.7	1835.2	1699.4	1682.9	1758.4	1834.0	1727.7
50°	2361.9	2361.9	2296.9	2268.6	2325.3	2198.9	1988.7	1972.2	2008.8	2069.0	1929.7
52.5°	2517.8	2489.4	2443.4	2468.2	2630.0	2572.1	2278.1	2246.2	2274.5	2289.9	2105.6
55°	2582.7	2555.6	2552.0	2643.0	2893.3	2813.0	2574.5	2546.1	2543.8	2468.2	2259.2
57.5°	2595.7	2572.1	2617.0	2776.4	3149.6	3010.2	2869.7	2848.5	2782.3	2593.4	2416.2
60°	2485.9	2497.7	2606.4	2849.6	3300.8	3181.5	3118.9	3096.5	2944.1	2699.7	2591.0
62.5°	2260.3	2288.7	2491.8	2856.7	3245.3	3251.2	3257.1	3241.7	3069.3	2796.5	2767.0
65°	1993.4	2001.7	2246.2	2758.7	3148.4	3229.9	3358.6	3357.4	3164.9	2905.1	2965.4
67.5°	1642.7	1656.9	1868.3	2428.0	2954.7	3220.5	3492.1	3488.5	3273.6	3029.1	3083.5
70°	1222.3	1240.0	1411.2	1888.3	2522.5	3102.4	3666.9	3669.2	3388.1	3123.6	3002.0
71°	953.0	984.9	1164.4	1603.7	2301.7	2983.1	3683.4	3704.6	3401.1	3110.6	2834.3
72.5°	467.7	505.4	731.0	1129.0	1894.2	2716.2	3574.7	3616.1	3319.7	2948.8	2423.3
75°	121.6	128.7	218.5	461.8	1015.6	1799.8	2882.7	2987.8	2713.8	2245.0	1480.9
77.5°	76.8	79.1	102.7	179.5	380.3	683.8	1693.5	1745.4	1550.6	1137.3	522.0
80°	54.3	55.5	65.0	115.7	222.0	199.6	609.4	631.8	561.0	301.1	93.3
82.5°	33.1	33.1	47.2	74.4	137.0	108.6	160.6	171.2	151.2	83.8	30.7
85°	18.9	20.1	29.5	50.8	65.0	53.1	60.2	63.8	65.0	55.5	13.0
87.5°	15.4	16.5	26.0	42.5	35.4	26.0	26.0	27.2	28.3	33.1	5.9
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°	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8	572.8
2.5°	570.4	570.4	571.6	570.4	570.4	570.4	571.6	571.6	571.6	573.9	575.1
5°	572.8	572.8	572.8	571.6	570.4	570.4	572.8	573.9	573.9	577.5	577.5
7.5°	578.7	578.7	576.3	573.9	571.6	568.0	569.2	570.4	569.2	570.4	570.4
10°	591.7	591.7	588.1	583.4	576.3	565.7	551.5	533.8	517.3	511.4	509.0
12.5°	612.9	611.7	604.6	596.4	581.0	544.4	491.3	428.7	376.7	362.6	357.8
15°	636.5	634.2	625.9	611.7	570.4	473.6	362.6	282.2	232.6	220.8	218.5
17.5°	661.3	657.8	646.0	617.6	522.0	351.9	233.8	177.1	150.0	147.6	148.8
20°	687.3	682.6	666.1	605.8	421.6	235.0	151.2	137.0	134.6	134.6	135.8
22.5°	716.8	710.9	688.5	563.3	307.0	155.9	129.9	128.7	127.5	126.4	126.4
25°	751.1	744.0	709.8	486.6	211.4	127.5	124.0	120.5	118.1	115.7	114.6
27.5°	792.4	783.0	726.3	392.1	145.3	119.3	116.9	111.0	106.3	101.6	101.6
30°	833.8	821.9	721.6	295.2	118.1	111.0	106.3	99.2	92.1	87.4	86.2
32.5°	877.4	865.6	690.9	198.4	107.5	101.6	95.7	85.0	76.8	70.9	69.7
35°	942.4	933.0	630.6	131.1	96.8	89.8	81.5	70.9	60.2	54.3	53.1
37.5°	1039.2	1027.4	556.2	100.4	85.0	74.4	67.3	55.5	44.9	39.0	37.8
40°	1169.1	1133.7	467.7	88.6	74.4	61.4	52.0	40.2	31.9	28.3	28.3
42.5°	1320.3	1236.5	372.0	80.3	66.1	50.8	37.8	27.2	22.4	21.3	21.3
45°	1480.9	1332.1	276.3	74.4	57.9	40.2	27.2	18.9	16.5	15.4	15.4
47.5°	1646.2	1410.1	192.5	67.3	48.4	30.7	18.9	14.2	11.8	10.6	10.6
50°	1800.9	1460.8	135.8	60.2	41.3	22.4	14.2	10.6	8.3	8.3	8.3
52.5°	1908.4	1456.1	98.0	52.0	31.9	15.4	9.4	7.1	7.1	7.1	7.1
55°	2002.9	1438.4	76.8	44.9	24.8	10.6	7.1	5.9	5.9	4.7	4.7
57.5°	2083.2	1410.1	65.0	36.6	17.7	8.3	4.7	4.7	3.5	3.5	3.5
60°	2151.7	1374.6	54.3	30.7	11.8	5.9	3.5	2.4	2.4	1.2	2.4
62.5°	2245.0	1352.2	47.2	23.6	8.3	3.5	2.4	1.2	1.2	0.0	0.0
65°	2313.5	1309.7	40.2	16.5	4.7	2.4	1.2	1.2	0.0	0.0	0.0
67.5°	2315.8	1232.9	29.5	9.4	3.5	2.4	1.2	0.0	0.0	0.0	0.0
70°	2129.3	1051.0	18.9	4.7	2.4	1.2	1.2	0.0	0.0	0.0	0.0
71°	1958.0	930.6	15.4	3.5	2.4	1.2	0.0	0.0	0.0	0.0	0.0
72.5°	1613.2	683.8	11.8	3.5	1.2	1.2	0.0	0.0	0.0	0.0	0.0
75°	889.3	248.0	5.9	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	284.6	75.6	3.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	48.4	11.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	16.5	4.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	1.2	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)