

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: P256740

Luminaire Tested: **CST-10-4-D-U-T5R-7030-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256740
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-10-4-D-U-T5R-7030-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED
180 DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27862 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U2 - G4

Input Watts (W): 308
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

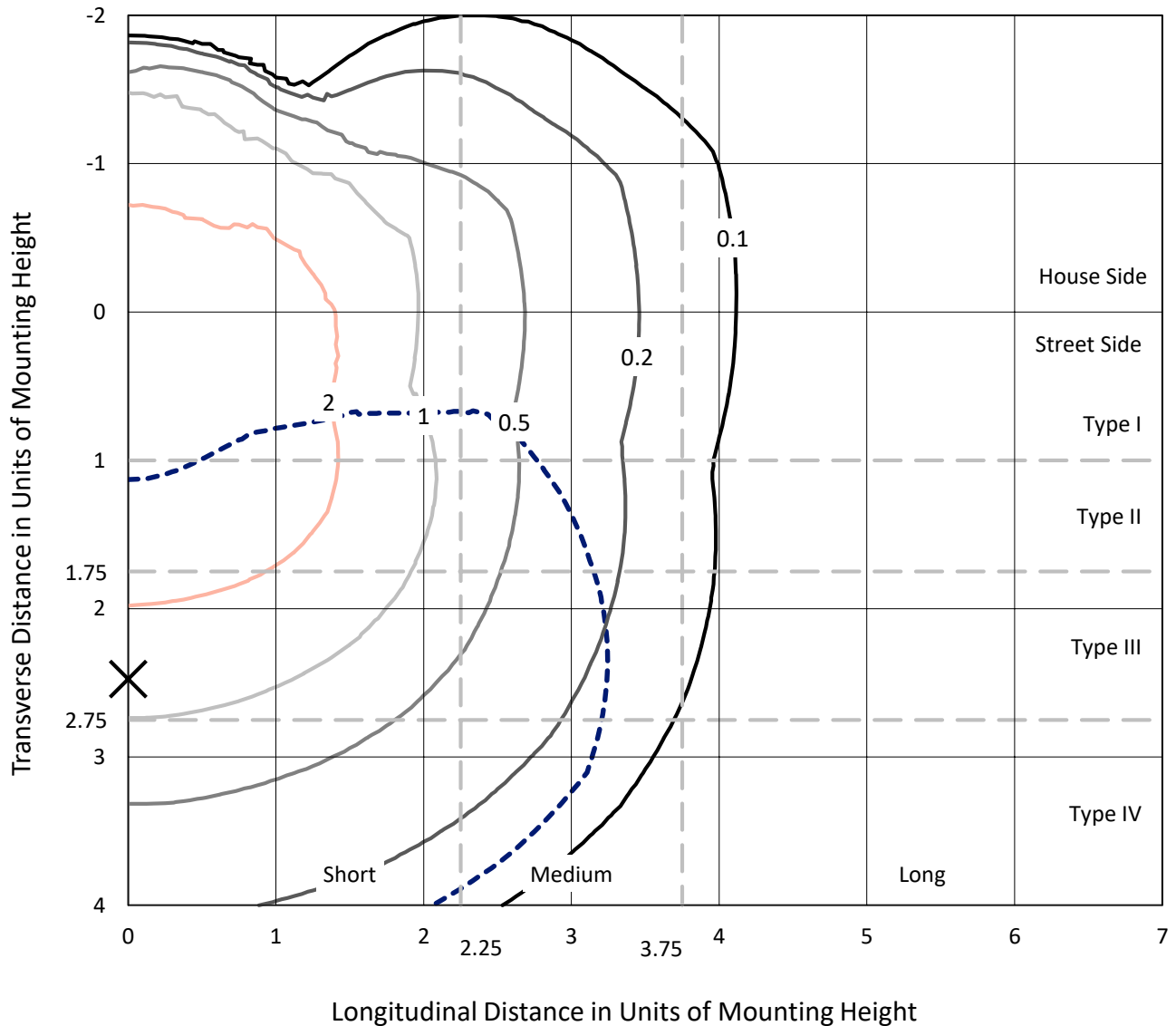


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

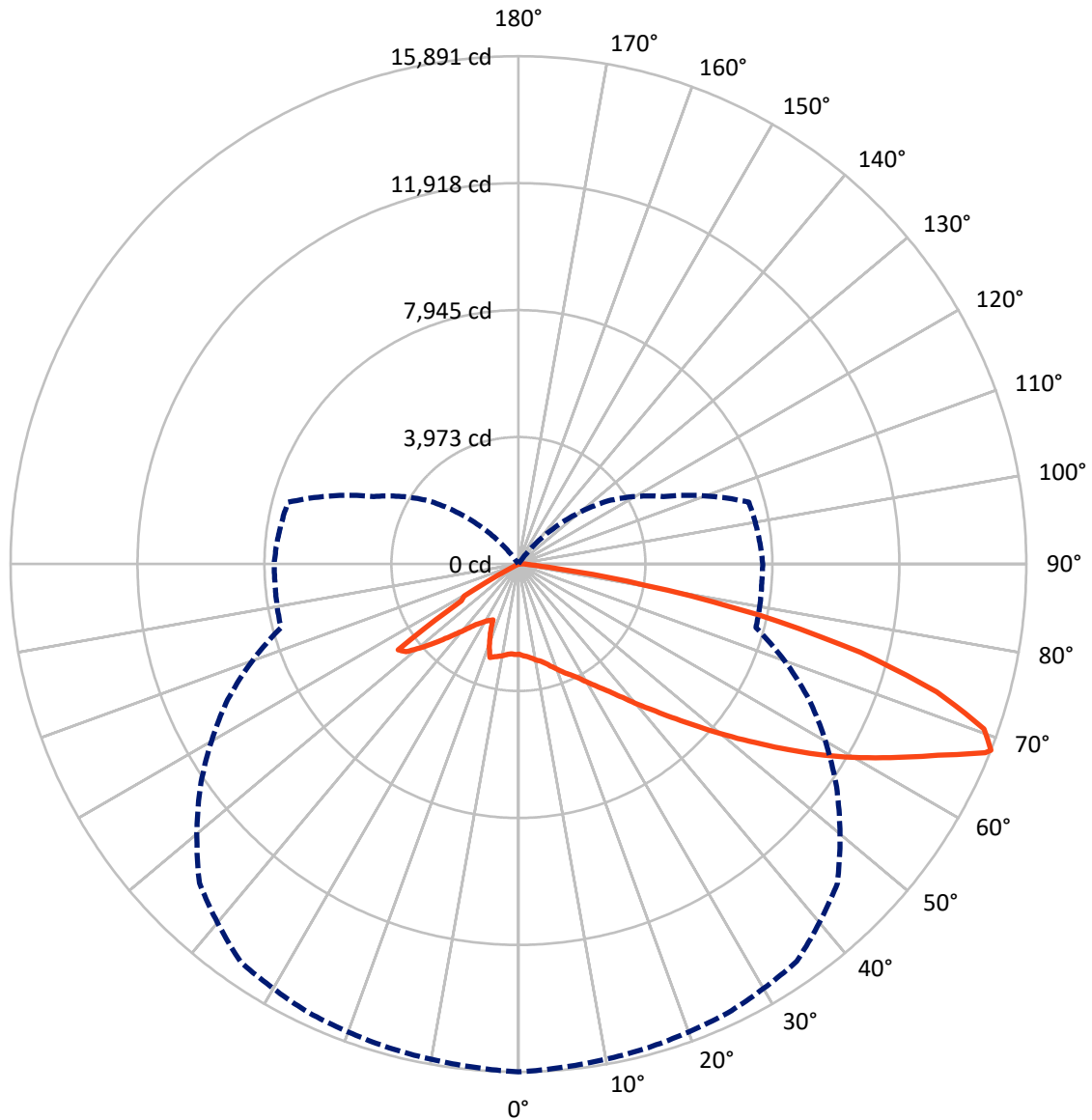


Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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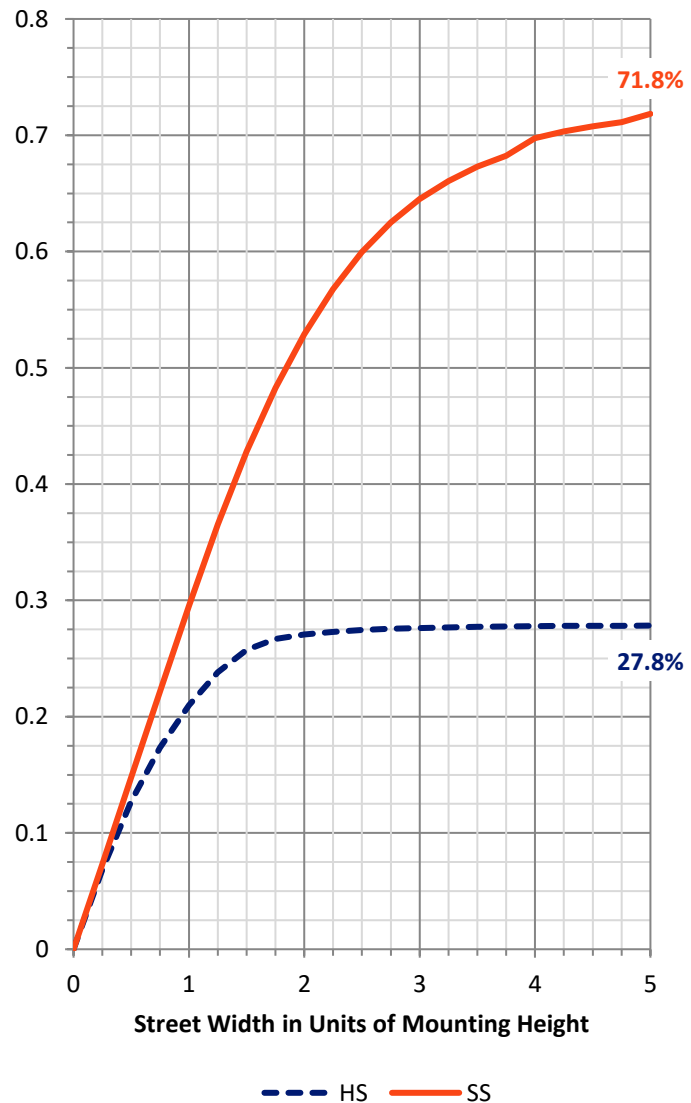
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7781.9	0.2	7782.1
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	20064.0	16.0	20079.9
	% Fixture	72.0	0.1	72.1
Total	Lumens	27845.9	16.1	27862.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.0	1.0
10°-20°	868.1	3.1
20°-30°	1469.7	5.3
30°-40°	2328.3	8.4
40°-50°	3806.7	13.7
50°-60°	5830.9	20.9
60°-70°	7169.5	25.7
70°-80°	5539.8	19.9
80°-90°	559.0	2.0
90°-100°	15.9	0.1
100°-110°	0.3	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°	27845.9	99.9
0°-180°	27862.0	100.0



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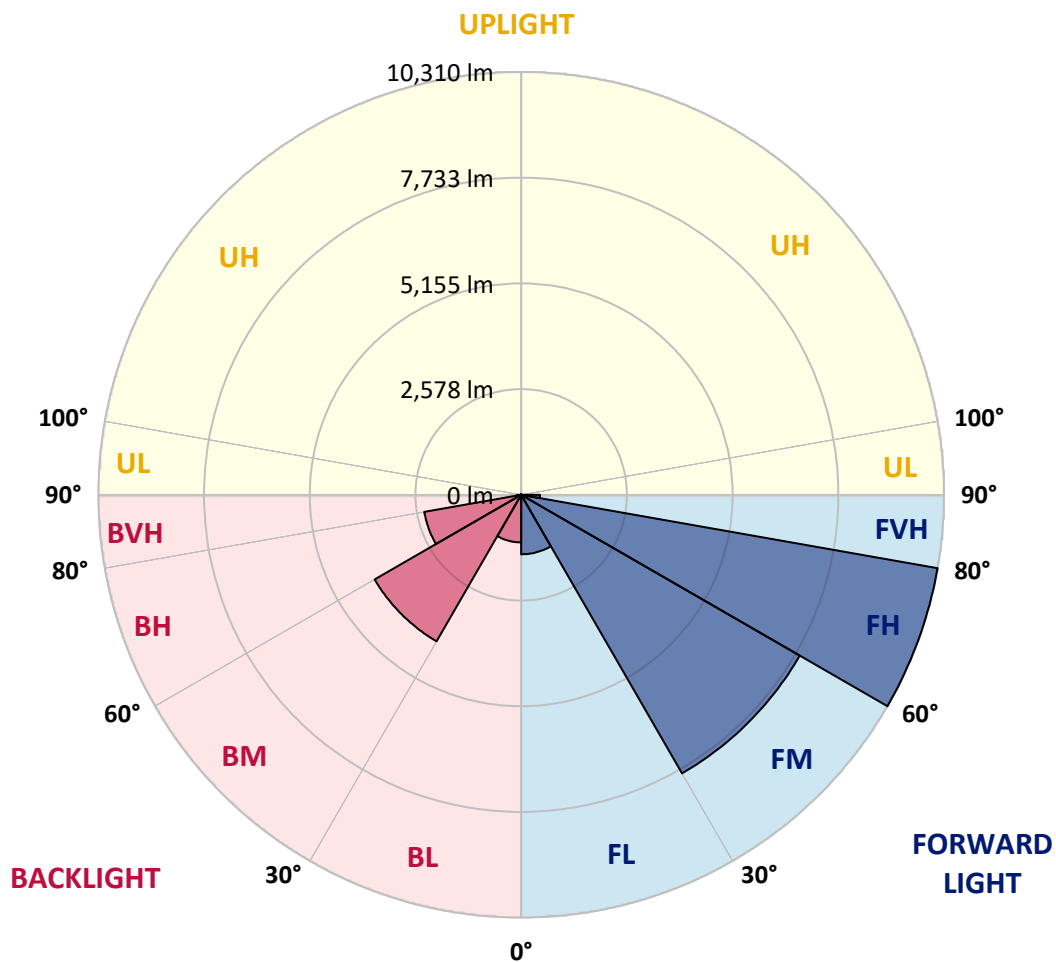
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1450.2	5.2			
FM	(30°-60°)	7842.7	28.1			
FH	(60°-80°)	10310.1	37.0			G4/12000
FVH	(80°-90°)	461.0	1.7			G3/500
BL	(0°-30°)	1161.5	4.2	B3/2500		
BM	(30°-60°)	4123.2	14.8	B3/5000		
BH	(60°-80°)	2399.2	8.6	B3/2500		G3/2500
BVH	(80°-90°)	98.0	0.4			G1/100
UL	(90°-100°)	15.9	0.1		U2/50	
UH	(100°-180°)	0.2	0.0		U1/10	

BUG Rating: B3-U2-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7
2.5°	2873.7	2868.4	2863.0	2875.1	2828.1	2848.2	2832.1	2846.9	2836.1	2848.2	2844.2
5°	2911.3	2905.9	2889.8	2903.3	2872.4	2880.4	2860.3	2865.7	2829.4	2850.9	2849.6
7.5°	2973.0	2958.3	2947.5	2947.5	2920.7	2919.4	2887.1	2888.5	2860.3	2857.6	2863.0
10°	3056.3	3045.5	3016.0	3018.7	2981.1	2975.7	2935.5	2934.1	2911.3	2897.9	2910.0
12.5°	3118.0	3128.7	3101.9	3101.9	3064.3	3037.5	3009.3	2990.5	2973.0	2952.9	2943.5
15°	3230.8	3241.5	3205.3	3203.9	3189.1	3156.9	3126.1	3085.8	3054.9	3045.5	3030.8
17.5°	3377.1	3370.3	3339.5	3340.8	3343.5	3291.2	3260.3	3207.9	3163.6	3131.4	3123.4
20°	3526.0	3526.0	3492.5	3503.2	3489.8	3441.5	3421.4	3348.9	3287.1	3252.2	3224.0
22.5°	3692.5	3685.8	3663.0	3685.8	3658.9	3610.6	3577.1	3504.6	3425.4	3228.1	3147.5
25°	3850.9	3846.8	3856.2	3862.9	3829.4	3769.0	3746.2	3669.7	3449.5	3190.5	3028.1
27.5°	4050.9	4037.4	4058.9	4072.3	4038.8	3986.4	3938.1	3852.2	3386.5	3182.4	3165.0
30°	4307.2	4277.7	4308.6	4315.3	4280.4	4248.2	4175.7	3746.2	3407.9	3348.9	3343.5
32.5°	4581.0	4546.1	4586.4	4591.8	4546.1	4519.3	4336.8	3691.1	3618.7	3550.2	3556.9
35°	4905.9	4905.9	4926.0	4928.7	4895.1	4849.5	4154.2	3959.6	3895.2	3832.1	3830.7
37.5°	5301.8	5289.7	5343.4	5375.6	5339.4	5209.2	4420.0	4328.7	4229.4	4148.8	3982.4
40°	5779.7	5801.1	5815.9	5848.1	5813.2	5520.6	4807.9	4704.5	4626.7	4356.9	3936.8
42.5°	6295.1	6300.4	6332.7	6372.9	6372.9	6064.2	5261.6	5173.0	5072.3	4260.2	4071.0
45°	6911.2	6899.1	6960.8	7025.3	7007.8	6688.4	5789.1	5723.3	5252.2	4540.8	4542.1
47.5°	7610.5	7595.7	7684.3	7768.8	7681.6	7380.9	6368.9	6317.9	5069.6	5015.9	5005.2
50°	8418.5	8382.2	8484.3	8597.0	8525.9	8154.1	7073.6	6093.7	5578.3	5535.4	5528.7
52.5°	9281.5	9253.4	9315.1	9507.0	9413.1	8963.4	7740.7	6287.0	6167.6	6119.2	6107.2
55°	10256.0	10201.0	10333.9	10480.2	10371.4	9858.7	8398.4	6928.6	6805.1	6721.9	6601.1
57.5°	11280.1	11200.9	11269.4	11453.3	11348.6	10775.5	9246.6	7589.0	7442.7	6159.5	5669.6
60°	12300.2	12264.0	12290.8	12453.2	12324.4	11666.7	10041.3	8250.7	6299.1	6092.4	6116.6
62.5°	13325.7	13246.5	13270.7	13437.1	13272.0	12515.0	10794.2	8852.0	6629.3	6556.8	6582.3
65°	14425.0	14331.0	14352.5	14400.8	14196.8	13276.0	11460.0	9419.8	7125.9	7049.4	7077.6
67.5°	15749.8	15663.9	15547.1	15403.5	15121.6	14084.1	12121.7	10017.1	7684.3	7641.3	7650.7
68°	15890.7	15807.5	15666.6	15496.1	15179.3	14117.6	12149.9	10034.5	7692.3	7638.7	7641.3
70°	15451.8	15501.5	15341.7	15055.8	14791.4	13626.4	11689.5	9648.0	7350.1	7270.9	7250.7
72.5°	13684.1	13792.8	13572.7	13524.3	13199.5	12139.2	10229.2	8371.5	6393.1	6418.6	6346.1
75°	11047.9	11207.7	10940.5	10955.3	10770.1	10125.8	8572.8	6970.2	5249.5	5366.3	5387.7
77.5°	7682.9	7912.5	7795.7	7912.5	7821.2	7589.0	6634.7	5367.6	4005.2	4139.4	4191.8
80°	4006.6	4279.0	4433.4	4481.7	4511.2	4501.9	4040.1	3221.4	2315.4	2365.0	2362.3
82.5°	1267.1	1201.3	1240.2	1229.5	1195.9	1209.4	1089.9	852.3	590.6	651.0	622.8
85°	382.5	385.2	374.5	371.8	343.6	302.0	247.0	142.3	69.8	81.9	76.5
87.5°	281.9	284.6	263.1	249.7	233.5	202.7	157.0	88.6	33.6	32.2	25.5
90°	155.7	150.3	139.6	128.9	122.1	104.7	79.2	33.6	12.1	9.4	8.1
92.5°	84.6	80.5	75.2	71.1	61.7	49.7	32.2	10.7	5.4	1.3	0.0
95°	38.9	36.2	34.9	30.9	26.8	18.8	10.7	6.7	4.0	1.3	0.0
97.5°	17.4	16.1	14.8	12.1	9.4	5.4	5.4	4.0	2.7	1.3	0.0
100°	4.0	4.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.3	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7	2822.7
2.5°	2840.2	2832.1	2828.1	2802.6	2810.6	2787.8	2832.1	2821.4	2814.7	2833.5
5°	2842.9	2814.7	2832.1	2817.3	2822.7	2790.5	2825.4	2810.6	2809.3	2817.3
7.5°	2849.6	2830.8	2848.2	2818.7	2832.1	2818.7	2844.2	2829.4	2841.5	2849.6
10°	2885.8	2875.1	2867.0	2860.3	2869.7	2842.9	2875.1	2876.4	2880.4	2904.6
12.5°	2936.8	2926.1	2912.6	2895.2	2904.6	2893.9	2918.0	2924.7	2939.5	2951.6
15°	3007.9	2987.8	2982.4	2966.3	2975.7	2970.4	2975.7	2971.7	2999.9	2995.9
17.5°	3105.9	3083.1	3006.6	2928.8	2879.1	2893.9	2955.6	3036.1	3056.3	3059.0
20°	3142.2	2981.1	2973.0	2884.5	2844.2	2841.5	2714.0	2523.4	2581.1	2716.7
22.5°	3099.2	2879.1	2856.3	2838.8	2667.0	2385.1	2358.3	2330.1	2323.4	2343.5
25°	3002.6	2977.1	2956.9	2728.8	2457.6	2459.0	2420.0	2234.8	1946.2	1922.1
27.5°	3150.2	3115.3	2920.7	2569.0	2563.7	2561.0	2503.3	2028.1	1966.4	1981.1
30°	3318.0	3260.3	2751.6	2705.9	2704.6	2680.4	2244.2	2045.6	2045.6	2048.2
32.5°	3511.3	3152.9	2848.2	2869.7	2868.4	2754.3	2167.7	2154.3	2148.9	2162.3
35°	3658.9	3067.0	3056.3	3095.2	3068.3	2336.8	2303.3	2291.2	2285.8	2279.1
37.5°	3613.3	3314.0	3314.0	3338.1	3122.0	2488.5	2472.4	2472.4	2461.7	2456.3
40°	3683.1	3621.3	3590.5	3599.9	2268.4	2672.4	2684.5	2681.8	2680.4	2689.8
42.5°	4050.9	3995.8	3967.6	3634.8	2539.5	2656.3	2951.6	2950.2	2954.3	2950.2
45°	4519.3	4468.3	4394.5	3401.2	2883.1	2328.8	3253.6	3268.3	3269.7	3268.3
47.5°	5010.6	4978.3	4222.7	3765.0	3256.3	2499.2	3110.0	3632.1	3625.4	3633.4
50°	5530.0	5385.0	4201.2	4195.8	3653.6	2781.1	2782.5	3950.2	4018.6	4040.1
52.5°	6108.5	4881.7	4656.2	4248.2	4056.2	3071.0	3041.5	3500.5	4434.7	4456.2
55°	5673.6	5156.9	5152.8	3781.1	4220.0	3350.2	3354.2	3322.0	4067.0	4622.7
57.5°	5645.4	5657.5	5648.1	4218.6	3079.1	3140.8	3654.9	3626.7	2633.5	2134.2
60°	6132.7	6150.1	5487.1	4555.5	3328.7	1931.5	2250.9	1912.7	1938.2	1958.3
62.5°	6598.4	6603.8	4462.9	2986.5	1649.6	77.8	37.6	30.9	29.5	29.5
65°	7113.8	7113.8	4783.7	3257.6	1593.2	29.5	5.4	4.0	14.8	14.8
67.5°	7611.8	7501.7	5018.6	3458.9	1621.4	4.0	0.0	0.0	0.0	0.0
68°	7583.6	7462.8	4997.1	3453.6	1617.4	2.7	0.0	0.0	0.0	0.0
70°	7162.2	7045.4	4740.8	3296.5	1557.0	2.7	0.0	0.0	0.0	0.0
72.5°	6321.9	6214.5	4198.5	2905.9	1404.0	1.3	0.0	0.0	0.0	0.0
75°	5351.5	5336.7	3626.7	2452.3	1204.0	1.3	0.0	0.0	0.0	0.0
77.5°	4305.9	4238.8	2834.8	1922.1	970.4	0.0	0.0	0.0	0.0	0.0
80°	2398.6	2497.9	1659.0	1130.2	610.7	0.0	0.0	0.0	0.0	0.0
82.5°	648.3	606.7	362.4	245.6	116.8	0.0	0.0	0.0	0.0	0.0
85°	83.2	91.3	41.6	33.6	8.1	0.0	0.0	0.0	0.0	0.0
87.5°	43.0	51.0	13.4	10.7	2.7	0.0	0.0	0.0	0.0	0.0
90°	8.1	9.4	4.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)