

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: McGRAW-EDISON

Report Number: P579506

Luminaire Tested: **CTN-CA8-230-740-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579506
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-740-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24280 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

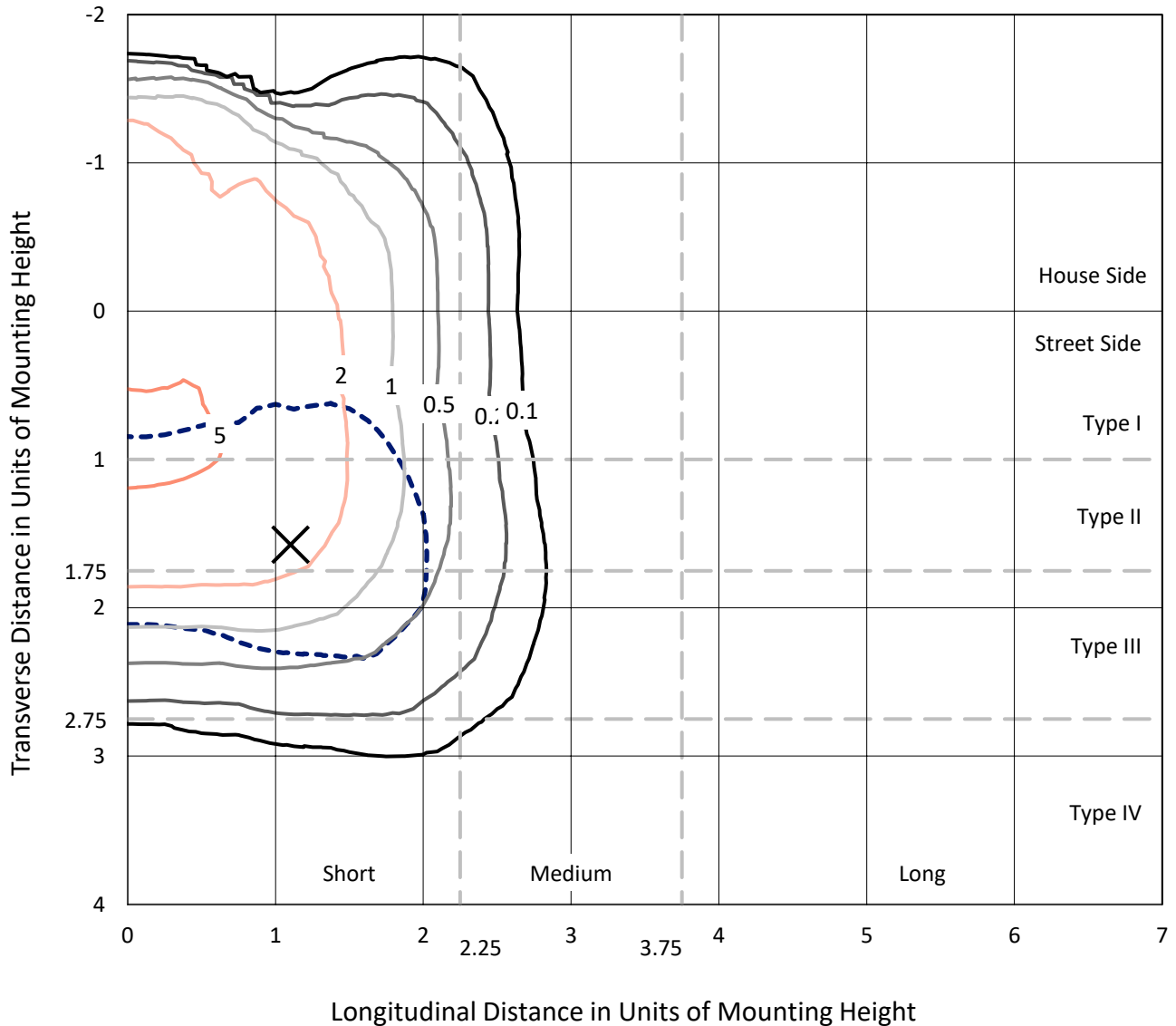
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

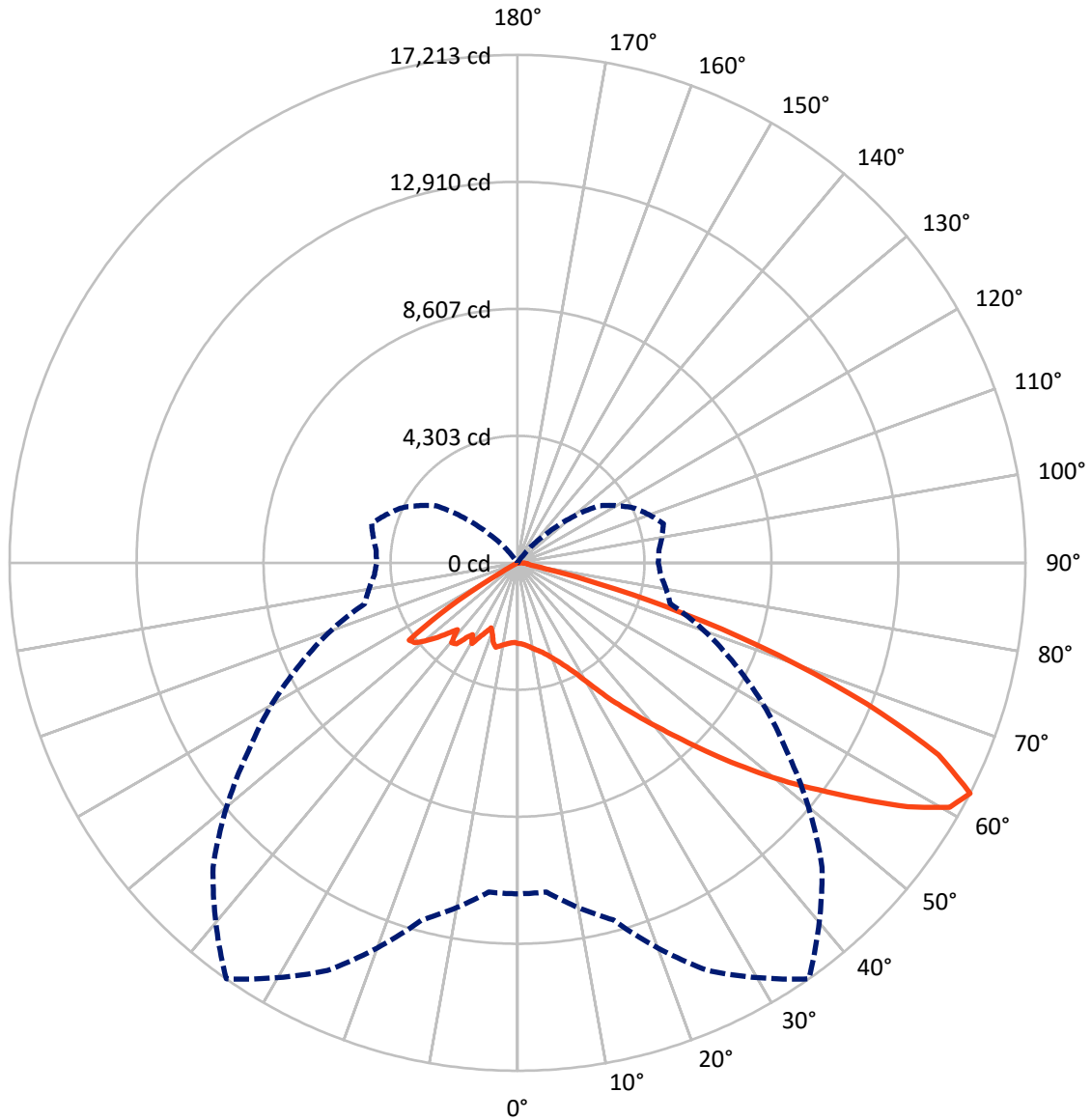
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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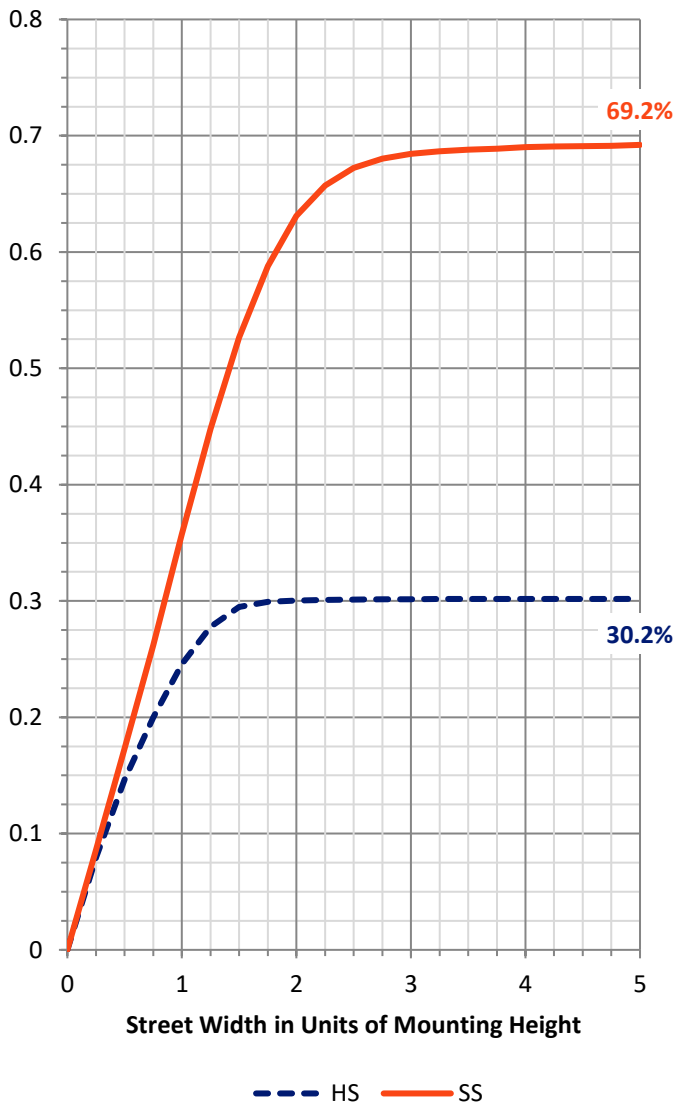
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7369.1	0.0	7369.1
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	16889.9	21.1	16910.9
	% Fixture	69.6	0.1	69.6
Total	Lumens	24258.9	21.1	24280.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.8	1.1
10°-20°	865.8	3.6
20°-30°	1582.5	6.5
30°-40°	3015.7	12.4
40°-50°	5176.3	21.3
50°-60°	6944.1	28.6
60°-70°	5278.9	21.7
70°-80°	999.6	4.1
80°-90°	126.2	0.5
90°-100°	18.6	0.1
100°-110°	2.5	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°	24258.9	99.9
0°-180°	24280.0	100.0

Coefficient of Utilization

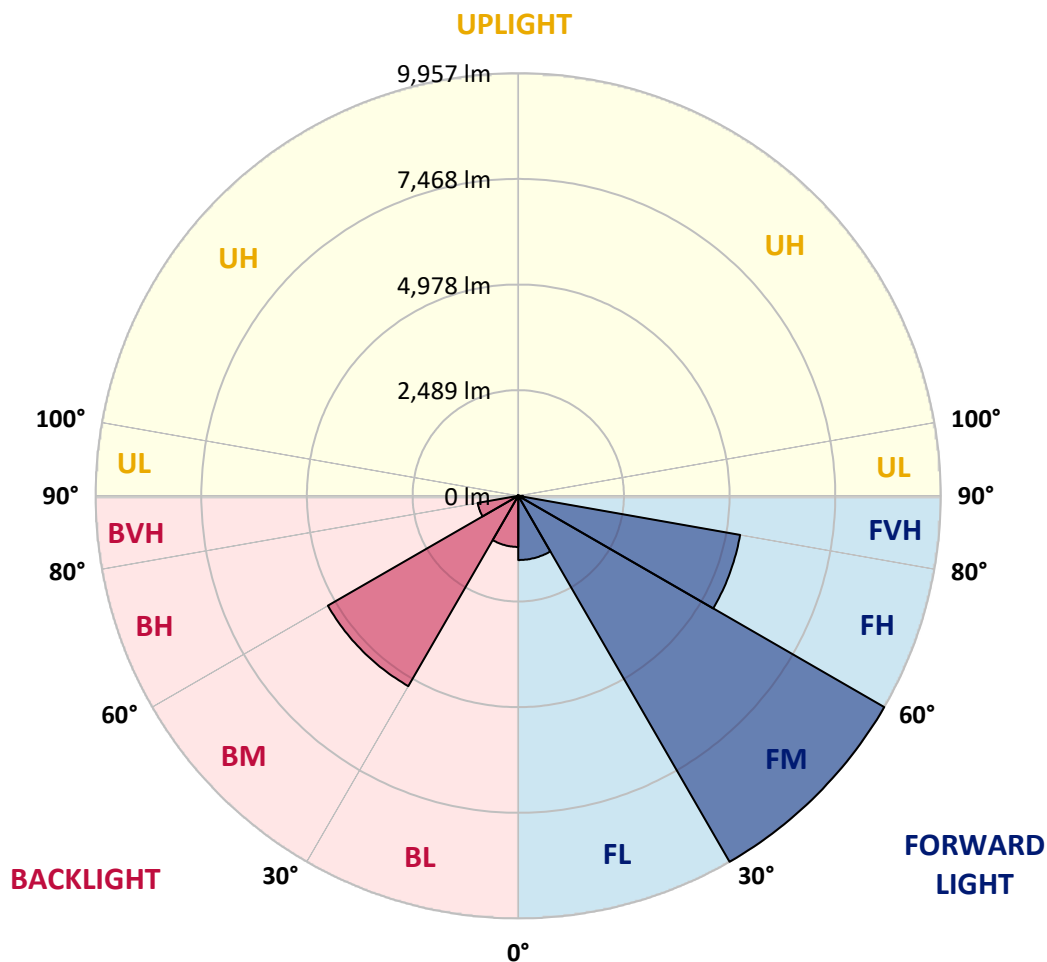


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1513.6	6.2			
FM	(30°-60°)	9956.8	41.0			
FH	(60°-80°)	5308.1	21.9			G3/7500
FVH	(80°-90°)	111.4	0.5			G2/225
BL	(0°-30°)	1204.6	5.0	B3/2500		
BM	(30°-60°)	5179.3	21.3	B4/8500		
BH	(60°-80°)	970.4	4.0	B2/1000		G2/1000
BVH	(80°-90°)	14.8	0.1			G1/100
UL	(90°-100°)	18.6	0.1		U2/50	
UH	(100°-180°)	2.5	0.0		U1/10	

BUG Rating: B4-U2-G3
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2
2.5°	2801.8	2781.2	2782.3	2800.6	2748.0	2767.4	2744.5	2767.4	2754.8	2764.0	2768.6
5°	2851.0	2830.4	2828.1	2847.5	2802.9	2816.6	2793.7	2809.8	2792.6	2804.0	2804.0
7.5°	2925.4	2904.8	2897.9	2912.8	2871.6	2881.9	2857.8	2867.0	2847.5	2862.4	2854.4
10°	3013.5	2990.6	2982.6	2990.6	2955.1	2960.8	2932.2	2942.5	2913.9	2931.1	2919.6
12.5°	3107.3	3077.6	3077.6	3084.4	3046.7	3047.8	3021.5	3027.2	2998.6	3016.9	3003.2
15°	3209.2	3176.0	3180.6	3187.5	3147.4	3154.3	3126.8	3135.9	3106.2	3124.5	3110.8
17.5°	3344.2	3308.8	3304.2	3324.8	3287.0	3299.6	3268.7	3280.2	3253.8	3259.6	3252.7
20°	3530.8	3486.2	3475.9	3503.3	3461.0	3470.1	3447.3	3470.1	3442.7	3401.5	3285.9
22.5°	3754.0	3715.1	3697.9	3716.2	3665.9	3681.9	3680.7	3717.4	3641.8	3382.0	3266.4
25°	4048.1	4021.8	3988.6	3990.9	3930.2	3954.3	3997.8	4026.4	3704.8	3477.0	3479.3
27.5°	4440.7	4414.4	4368.6	4351.4	4263.3	4321.7	4389.2	4109.9	3857.0	3915.4	3883.3
30°	4942.0	4937.4	4844.7	4814.9	4718.8	4792.0	4733.7	4255.3	4342.3	4423.5	4374.3
32.5°	5609.2	5577.2	5443.3	5389.5	5288.8	5331.1	4816.1	4747.4	4876.7	4986.6	4935.1
35°	6416.1	6318.8	6182.6	6076.2	5901.1	5665.3	5129.7	5263.6	5457.0	5608.1	5358.6
37.5°	7353.5	7248.2	7035.3	6844.1	6568.3	5833.5	5602.4	5870.2	6112.8	5949.1	5373.5
40°	8318.3	8224.4	8024.1	7778.1	7312.3	6355.4	6175.8	6496.2	6772.0	5834.7	5548.6
42.5°	9276.2	9196.1	9034.7	8792.1	8192.4	6976.9	6804.1	7148.6	6888.8	6057.9	6048.7
45°	10242.2	10202.1	10019.0	9811.9	9235.0	7772.3	7508.0	7776.9	6629.0	6592.4	6570.6
47.5°	11025.0	11031.9	10967.8	10860.2	10347.5	8645.6	8301.1	7503.4	6944.9	6984.9	6995.2
50°	11831.9	11780.4	11777.0	11783.8	11569.8	9770.7	8841.3	7379.8	7358.0	7354.6	7345.4
52.5°	12478.6	12413.3	12548.4	12656.0	12783.0	11026.2	8760.1	7798.7	7673.9	7630.4	7363.8
55°	13005.0	12979.8	13199.6	13563.5	14128.9	12356.1	9478.8	8207.3	7957.8	6941.4	6261.6
57.5°	13324.3	13361.0	13814.2	14529.5	15588.2	13458.3	10315.4	8621.6	6813.2	6114.0	6070.5
60°	12713.2	12906.6	13678.0	15248.3	16822.0	14495.2	10938.0	8705.1	6131.1	5756.9	5669.9
62.5°	11217.3	11199.0	12524.3	15248.3	17213.4	14598.2	11134.9	8113.4	5356.3	4868.7	4771.4
65°	7939.4	7987.5	9403.3	13740.9	15680.9	13578.4	10270.8	6897.9	4272.4	3824.9	3693.3
67.5°	4913.4	4909.9	6295.9	10119.7	12764.7	11368.4	8646.7	5287.6	2965.4	2543.1	2400.0
70°	1697.3	1745.4	2831.5	5921.7	9396.4	8906.5	6471.0	3338.5	1563.4	1114.7	940.8
72.5°	675.3	691.3	1016.3	2640.4	5870.2	5950.3	3932.5	1621.8	468.1	297.6	279.3
75°	441.8	444.1	487.6	953.4	2848.7	3201.2	1826.6	465.8	217.5	199.1	194.6
77.5°	381.1	382.3	405.2	483.0	928.2	1245.2	519.6	275.8	182.0	163.7	159.1
80°	353.7	354.8	366.2	415.5	447.5	424.6	277.0	222.0	153.4	145.4	144.2
82.5°	334.2	338.8	344.5	374.3	361.7	319.3	230.0	179.7	117.9	125.9	129.3
85°	307.9	312.5	315.9	333.1	302.1	233.5	178.5	135.1	75.5	82.4	81.3
87.5°	231.2	233.5	228.9	226.6	210.6	163.7	117.9	85.8	29.8	27.5	25.2
90°	111.0	109.9	105.3	97.3	84.7	66.4	49.2	27.5	12.6	5.7	2.3
92.5°	88.1	87.0	84.7	76.7	66.4	49.2	35.5	19.5	11.4	4.6	1.1
95°	59.5	57.2	54.9	49.2	41.2	29.8	20.6	13.7	9.2	3.4	1.1
97.5°	38.9	37.8	34.3	29.8	22.9	16.0	12.6	10.3	8.0	3.4	1.1
100°	24.0	24.0	21.7	17.2	11.4	9.2	8.0	8.0	5.7	2.3	0.0
102.5°	14.9	13.7	12.6	8.0	5.7	5.7	5.7	5.7	4.6	2.3	0.0
105°	8.0	8.0	5.7	4.6	3.4	2.3	3.4	4.6	3.4	1.1	0.0
107.5°	2.3	2.3	2.3	1.1	1.1	0.0	1.1	2.3	2.3	1.1	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3	1.1	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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°	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2	2734.2
2.5°	2762.8	2741.1	2746.8	2725.1	2721.6	2698.7	2737.7	2739.9	2729.6	2741.1
5°	2798.3	2772.0	2782.3	2756.0	2751.4	2721.6	2752.5	2749.1	2741.1	2750.2
7.5°	2848.7	2822.4	2828.1	2797.2	2791.5	2758.3	2788.0	2776.6	2766.3	2778.9
10°	2918.5	2888.7	2893.3	2856.7	2852.1	2813.2	2847.5	2830.4	2815.5	2832.7
12.5°	3004.3	2965.4	2960.8	2921.9	2918.5	2881.9	2917.3	2900.2	2885.3	2912.8
15°	3102.8	3051.3	3044.4	2995.2	2989.5	2951.7	2986.0	2960.8	2949.4	2984.9
17.5°	3234.4	3052.4	2950.5	2878.4	2837.2	2816.6	2878.4	2962.0	2936.8	2937.9
20°	3180.6	2984.9	2848.7	2786.9	2742.2	2543.1	2268.4	2347.4	2507.6	2586.6
22.5°	3164.6	3095.9	3039.8	2935.7	2492.7	2380.6	2396.6	2378.3	2076.1	1960.5
25°	3471.3	3392.3	3271.0	2725.1	2596.9	2571.7	2580.9	2265.0	2037.2	2070.4
27.5°	3863.9	3782.6	3184.0	2878.4	2853.3	2820.1	2639.2	2244.4	2275.3	2307.3
30°	4358.3	3931.4	3320.2	3226.4	3179.4	3145.1	2474.4	2506.5	2558.0	2598.0
32.5°	4840.1	3918.8	3710.5	3593.8	3535.4	2869.3	2796.0	2870.4	2923.1	2954.0
35°	4845.8	4367.4	4147.7	3997.8	3626.9	3084.4	3152.0	3276.7	3406.1	3430.1
37.5°	4977.5	4875.6	4623.8	4435.0	2697.6	3442.7	3591.5	3734.5	3863.9	3871.9
40°	5501.6	5391.8	5156.0	4740.5	2979.2	3511.3	4075.6	4237.0	4345.7	4340.0
42.5°	6024.7	5949.1	5704.2	4212.9	3356.8	3042.1	4583.7	4690.2	4758.9	4806.9
45°	6551.2	6475.6	5648.1	4626.1	3806.6	3331.7	4460.1	5063.3	5138.8	5162.9
47.5°	6962.0	6775.5	5175.5	5174.3	4368.6	3702.5	3683.0	5399.8	5466.2	5449.0
50°	7342.0	6048.7	5594.3	5354.0	4950.0	4051.6	3916.5	4543.7	5762.6	5737.4
52.5°	6680.5	5870.2	5953.7	4869.9	5416.9	4398.3	4179.7	4074.4	5236.1	5910.2
55°	5974.3	6088.8	6321.1	5350.6	3930.2	4510.5	4402.9	4193.5	3533.1	2973.4
57.5°	6096.8	6267.3	6278.8	5795.8	4067.6	2817.8	3608.6	3158.8	1996.0	2000.6
60°	5688.2	5910.2	4589.5	3863.9	2187.2	587.1	57.2	50.4	347.9	423.5
62.5°	4809.2	5118.2	4381.2	3366.0	1403.2	21.7	5.7	1.1	0.0	0.0
65°	3724.2	4096.2	3702.5	2904.8	1245.2	6.9	0.0	0.0	0.0	0.0
67.5°	2456.1	2791.5	2813.2	2429.8	1038.1	3.4	0.0	0.0	0.0	0.0
70°	1028.9	1448.9	1751.1	1806.0	816.0	1.1	0.0	0.0	0.0	0.0
72.5°	297.6	460.1	842.4	1085.0	518.5	0.0	0.0	0.0	0.0	0.0
75°	198.0	211.7	243.8	488.7	258.7	0.0	0.0	0.0	0.0	0.0
77.5°	163.7	167.1	139.6	133.9	74.4	0.0	0.0	0.0	0.0	0.0
80°	148.8	146.5	112.2	79.0	27.5	0.0	0.0	0.0	0.0	0.0
82.5°	137.3	130.5	81.3	41.2	18.3	0.0	0.0	0.0	0.0	0.0
85°	92.7	91.6	36.6	25.2	3.4	0.0	0.0	0.0	0.0	0.0
87.5°	25.2	32.0	8.0	3.4	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
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
110°	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°
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)