

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: P579383

Luminaire Tested: **CTN-CA10-310-722-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579383
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-722-U-T5-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24352 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

Input Watts (W): 312.4
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

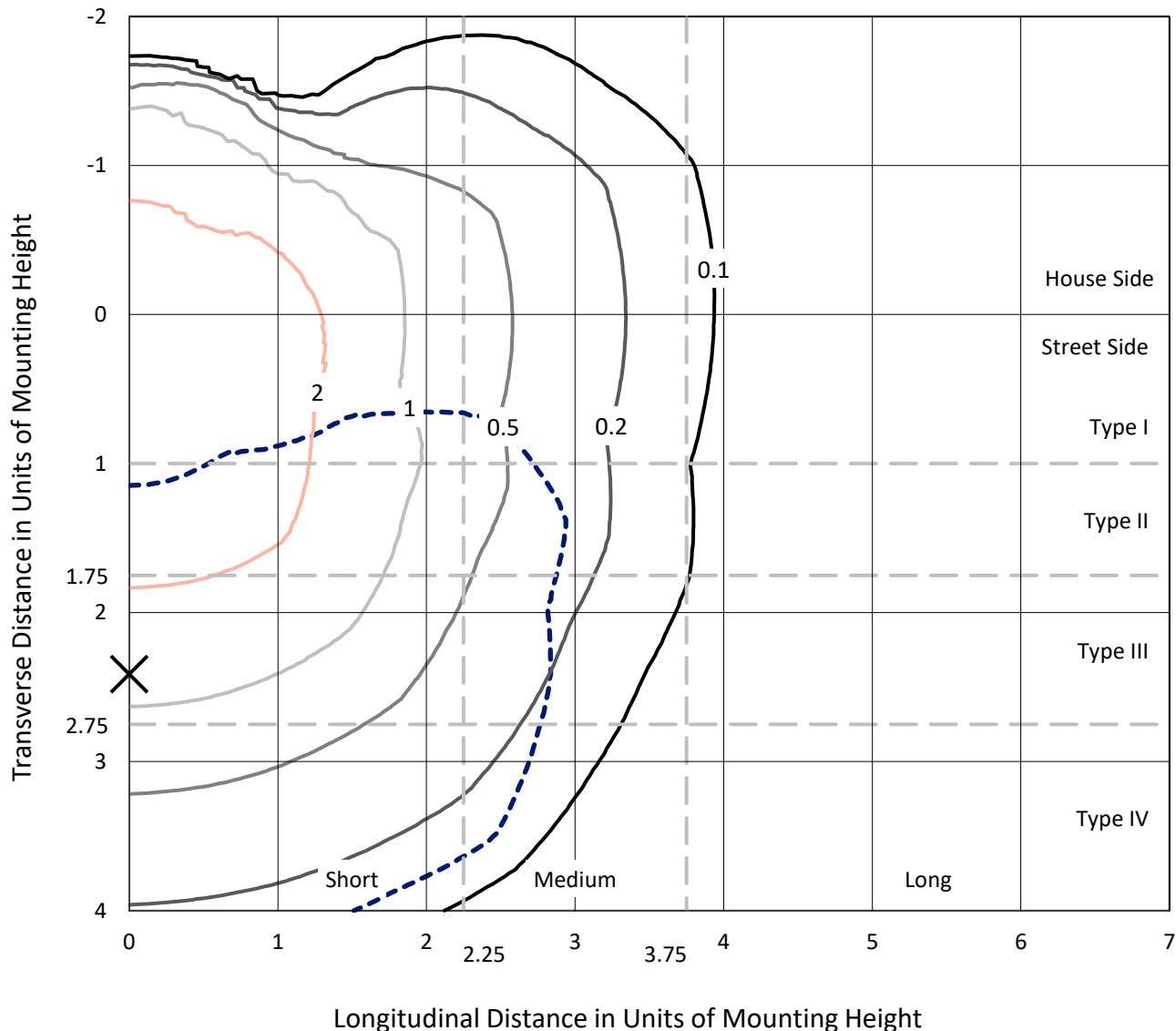




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Iso-Footcandle Lines of Horizontal Illumination

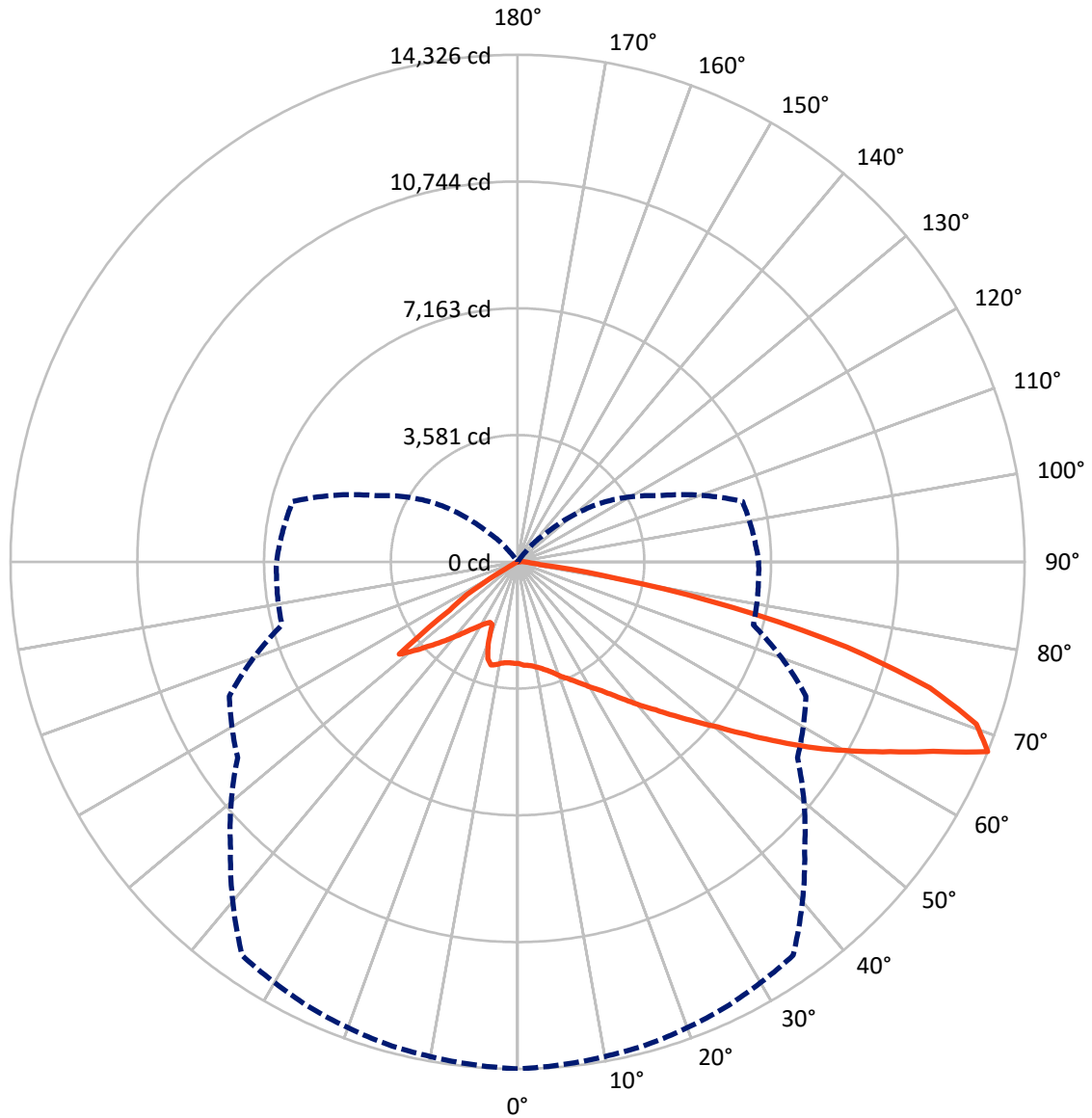
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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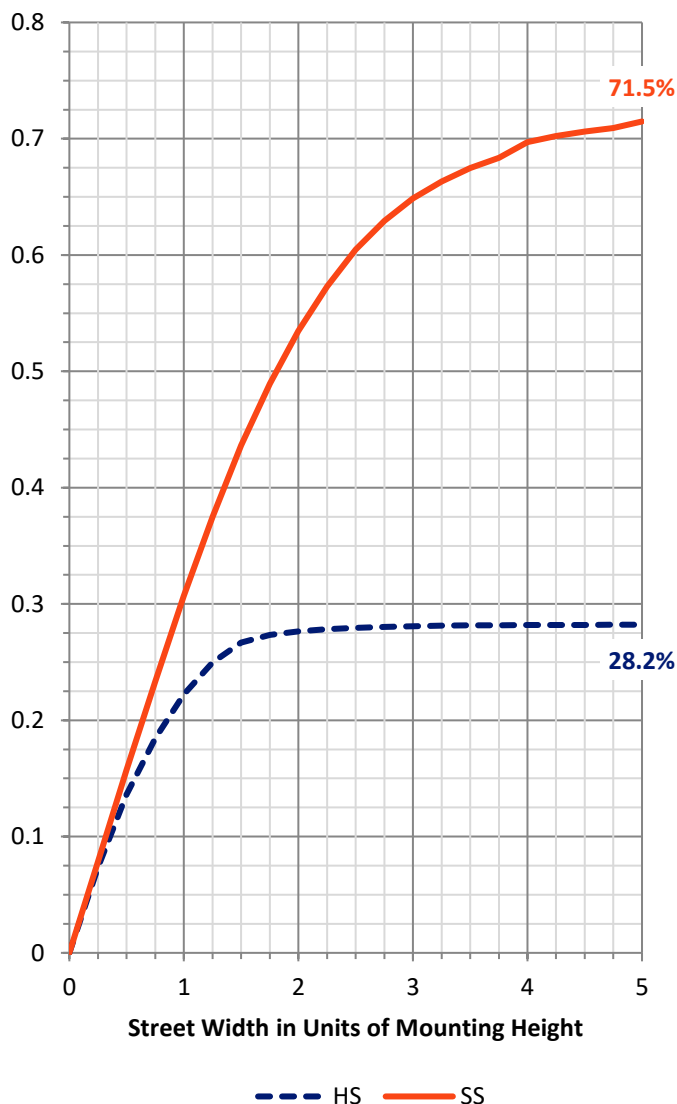
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6901.8	0.1	6901.9
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	17419.1	31.0	17450.1
	% Fixture	71.5	0.1	71.7
Total	Lumens	24320.9	31.1	24352.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.6	1.1
10°-20°	851.5	3.5
20°-30°	1409.9	5.8
30°-40°	2219.4	9.1
40°-50°	3473.4	14.3
50°-60°	5015.0	20.6
60°-70°	6212.7	25.5
70°-80°	4524.5	18.6
80°-90°	338.0	1.4
90°-100°	26.5	0.1
100°-110°	4.4	0.0
110°-120°	0.1	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°	24320.9	99.9
0°-180°	24352.0	100.0

Coefficient of Utilization

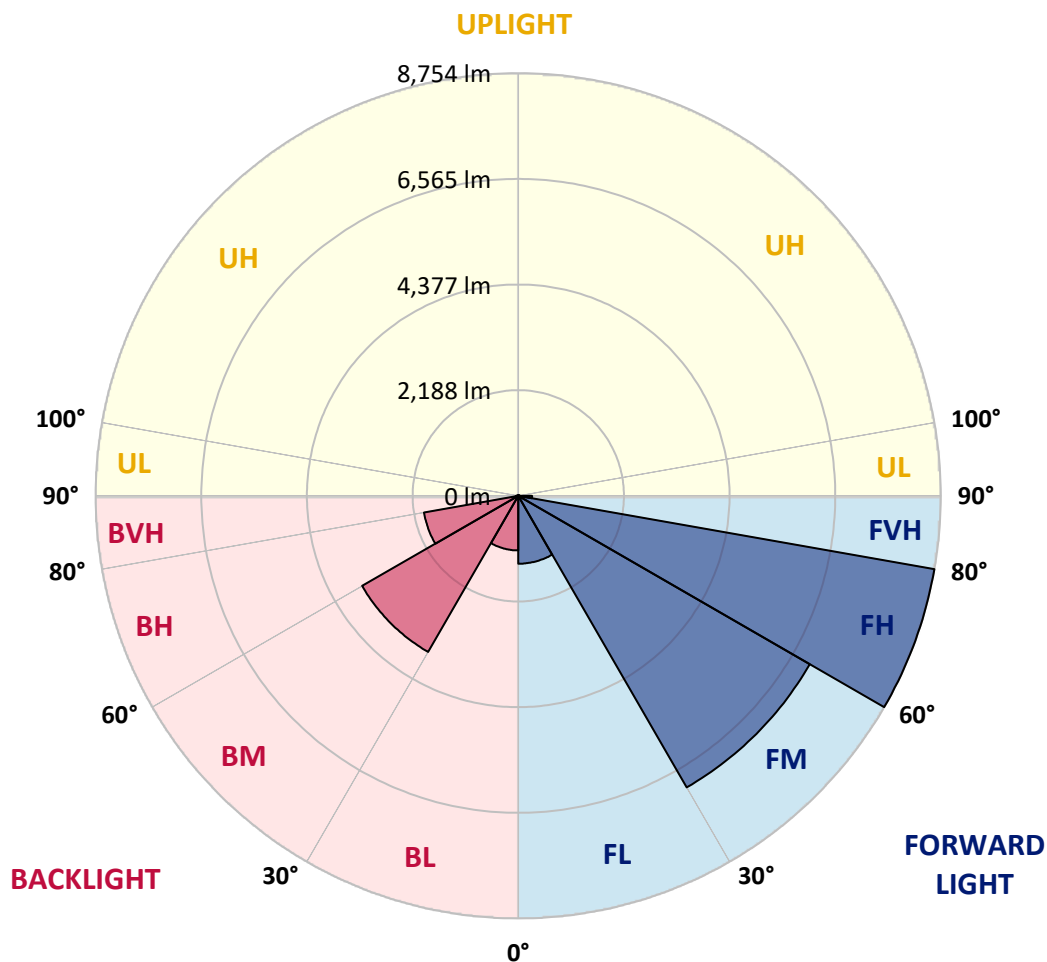


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1406.5	5.8			
FM	(30°-60°)	6973.7	28.6			
FH	(60°-80°)	8753.7	35.9			G4/12000
FVH	(80°-90°)	285.1	1.2			G3/500
BL	(0°-30°)	1131.4	4.6	B3/2500		
BM	(30°-60°)	3734.0	15.3	B3/5000		
BH	(60°-80°)	1983.5	8.1	B3/2500		G3/2500
BVH	(80°-90°)	52.9	0.2			G1/100
UL	(90°-100°)	26.5	0.1		U2/50	
UH	(100°-180°)	4.6	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°	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0
2.5°	2920.5	2904.7	2904.7	2921.7	2874.1	2888.8	2869.3	2886.3	2876.6	2881.5	2887.6
5°	2937.6	2919.3	2920.5	2941.3	2898.5	2910.8	2887.6	2896.1	2887.6	2891.2	2891.2
7.5°	2969.3	2953.5	2953.5	2965.7	2923.0	2926.6	2905.9	2905.9	2894.9	2903.4	2896.1
10°	3029.1	3012.1	3003.5	3009.6	2971.8	2966.9	2938.8	2938.8	2921.7	2935.2	2924.2
12.5°	3101.1	3076.7	3074.3	3075.5	3032.8	3024.3	2992.5	2993.7	2962.0	2980.3	2966.9
15°	3187.8	3157.3	3154.8	3159.7	3114.6	3098.7	3063.3	3063.3	3027.9	3037.7	3019.4
17.5°	3298.9	3263.5	3257.4	3265.9	3220.7	3206.1	3164.6	3157.3	3118.2	3110.9	3095.0
20°	3445.3	3405.0	3392.8	3411.1	3353.8	3340.3	3290.3	3274.4	3222.0	3135.3	3021.8
22.5°	3577.1	3545.4	3538.1	3550.3	3497.8	3484.4	3435.5	3402.6	3275.7	3101.1	2996.2
25°	3727.2	3715.0	3711.4	3704.0	3656.4	3633.3	3586.9	3540.5	3252.5	3013.3	3010.8
27.5°	3912.7	3906.6	3889.5	3883.4	3831.0	3816.3	3755.3	3456.3	3169.5	3152.4	3142.6
30°	4115.3	4103.1	4086.0	4087.3	4051.9	4025.0	3879.8	3381.8	3329.4	3329.4	3303.7
32.5°	4339.9	4326.5	4309.4	4313.0	4298.4	4275.2	3838.3	3578.3	3538.1	3549.0	3517.3
35°	4618.2	4596.2	4590.1	4604.7	4605.9	4455.8	3911.5	3845.6	3813.9	3806.6	3687.0
37.5°	4942.8	4924.5	4946.5	4980.6	4941.6	4502.2	4203.2	4182.5	4150.7	3973.8	3690.6
40°	5332.1	5299.2	5326.0	5348.0	5322.3	4778.0	4509.5	4516.9	4488.8	3964.0	3650.3
42.5°	5717.8	5686.0	5709.2	5764.1	5754.4	5119.8	4883.0	4898.9	4615.7	3987.2	3962.8
45°	6195.0	6184.0	6176.7	6221.8	6259.6	5528.6	5326.0	5324.8	4525.4	4355.8	4333.8
47.5°	6735.6	6721.0	6724.6	6782.0	6839.4	6016.8	5849.6	5359.0	4758.5	4775.6	4756.1
50°	7338.5	7322.7	7370.2	7453.2	7482.5	6564.8	6359.7	5266.2	5244.2	5262.5	5229.6
52.5°	8103.7	8068.3	8141.6	8230.7	8268.5	7212.8	6387.8	5814.2	5777.6	5781.2	5676.3
55°	8973.9	8945.8	9011.7	9111.8	9168.0	7936.5	6971.2	6347.5	6325.6	5703.1	5135.6
57.5°	9919.8	9888.0	9975.9	10005.2	10019.8	8684.7	7558.2	6926.0	5909.4	5207.6	5175.9
60°	10847.3	10813.1	10924.2	10929.1	10971.8	9431.6	8115.9	7483.8	5693.4	5600.6	5573.8
62.5°	11821.2	11778.5	11876.1	11872.5	11788.2	10115.0	8668.8	8019.5	6079.0	6005.8	5964.3
65°	12902.5	12870.8	12939.1	12829.3	12662.1	10821.7	9242.4	8602.9	6528.1	6514.7	6505.0
67.5°	14325.5	14263.3	14125.4	13891.1	13571.3	11469.7	9652.5	8987.3	6893.1	6830.8	6811.3
70°	13753.2	13679.9	13575.0	13317.5	12991.6	10860.7	8993.4	8406.4	6445.2	6447.6	6401.2
72.5°	12177.6	12050.6	11951.8	11590.5	11411.1	9485.3	7836.5	7295.8	5575.0	5678.7	5656.7
75°	9606.1	9476.7	9314.4	9172.8	9153.3	7693.7	6318.2	5928.9	4444.8	4520.5	4575.4
77.5°	6226.7	6179.1	6384.1	6249.9	6370.7	5297.9	4513.2	4178.8	3063.3	3254.9	3229.3
80°	2849.7	2794.8	3124.3	3031.6	3076.7	2602.0	2205.3	2118.7	1386.4	1396.2	1425.5
82.5°	644.4	622.4	645.6	593.1	578.5	489.4	430.8	390.5	245.3	260.0	273.4
85°	352.7	352.7	347.8	323.4	277.0	228.2	180.6	139.1	75.7	83.0	81.8
87.5°	247.7	241.6	240.4	214.8	184.3	156.2	124.5	89.1	42.7	29.3	26.8
90°	169.6	167.2	158.7	142.8	123.3	101.3	75.7	43.9	18.3	8.5	6.1
92.5°	123.3	120.8	114.7	101.3	84.2	68.3	50.0	29.3	14.6	6.1	1.2
95°	81.8	80.5	76.9	65.9	54.9	43.9	31.7	18.3	12.2	4.9	1.2
97.5°	56.1	54.9	51.3	43.9	35.4	28.1	19.5	13.4	9.8	3.7	1.2
100°	37.8	36.6	34.2	28.1	22.0	17.1	12.2	9.8	7.3	3.7	1.2
102.5°	24.4	23.2	20.7	17.1	12.2	9.8	8.5	7.3	4.9	2.4	1.2
105°	14.6	13.4	11.0	8.5	7.3	6.1	6.1	4.9	3.7	1.2	1.2
107.5°	7.3	6.1	4.9	4.9	4.9	3.7	3.7	3.7	2.4	1.2	0.0
110°	1.2	1.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.2	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°	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0	2868.0
2.5°	2881.5	2861.9	2872.9	2855.8	2852.2	2833.9	2863.2	2866.8	2864.4	2869.3
5°	2885.1	2864.4	2876.6	2855.8	2855.8	2836.3	2864.4	2864.4	2857.1	2859.5
7.5°	2894.9	2874.1	2882.7	2859.5	2860.7	2837.5	2871.7	2868.0	2861.9	2870.5
10°	2923.0	2899.8	2898.5	2876.6	2881.5	2857.1	2899.8	2899.8	2893.7	2909.5
12.5°	2968.1	2933.9	2927.8	2901.0	2910.8	2890.0	2942.5	2944.9	2946.1	2971.8
15°	3015.7	2974.2	2980.3	2948.6	2944.9	2933.9	2981.5	2979.1	2977.9	3013.3
17.5°	3082.8	2887.6	2855.8	2833.9	2829.0	2802.1	2846.1	2930.3	2886.3	2861.9
20°	2976.7	2874.1	2748.4	2705.7	2697.2	2464.1	2279.8	2362.8	2475.1	2484.8
22.5°	2880.2	2843.6	2833.9	2766.7	2394.5	2316.4	2323.7	2293.2	2027.2	1911.2
25°	2999.8	2968.1	2926.6	2516.6	2428.7	2400.6	2392.1	2079.6	1869.7	1883.1
27.5°	3132.9	3097.5	2736.2	2522.7	2542.2	2503.1	2310.3	1940.5	1928.3	1951.5
30°	3298.9	3015.7	2670.3	2658.1	2676.4	2626.4	2052.8	2025.9	2022.3	2046.7
32.5°	3488.0	2908.3	2846.1	2846.1	2837.5	2296.9	2162.6	2144.3	2154.1	2179.7
35°	3417.2	3076.7	3069.4	3099.9	2894.9	2356.7	2338.4	2306.6	2314.0	2322.5
37.5°	3339.1	3353.8	3357.4	3341.6	2111.4	2527.5	2512.9	2506.8	2499.5	2501.9
40°	3629.6	3639.4	3635.7	3490.5	2278.6	2560.5	2710.6	2699.6	2698.4	2713.0
42.5°	3968.9	3995.7	3975.0	3079.2	2501.9	2152.9	2938.8	2932.7	2930.3	2960.8
45°	4350.9	4376.5	3940.8	3297.6	2739.9	2228.5	2954.7	3181.7	3200.0	3226.8
47.5°	4764.6	4759.7	3636.9	3633.3	3019.4	2438.4	2456.7	3479.5	3510.0	3519.8
50°	5240.6	4458.3	3982.3	3848.1	3335.5	2674.0	2604.4	3192.7	3866.4	3876.1
52.5°	5139.3	4410.7	4378.9	3375.7	3618.6	2933.9	2865.6	2847.3	4007.9	4243.5
55°	4790.2	4826.8	4781.7	3704.0	2653.2	3165.8	3123.1	3104.8	2981.5	2360.3
57.5°	5178.3	5189.3	5150.3	4005.5	2698.4	1973.5	3074.3	2637.4	1713.5	1705.0
60°	5581.1	5599.4	3835.8	2942.5	1729.4	660.3	157.4	166.0	473.5	416.2
62.5°	5965.5	5983.8	4060.4	2688.6	1092.3	48.8	31.7	22.0	24.4	24.4
65°	6467.1	6474.4	4346.0	2846.1	1135.0	12.2	3.7	0.0	0.0	0.0
67.5°	6727.1	6577.0	4418.0	2918.1	1165.5	7.3	2.4	0.0	0.0	0.0
70°	6334.1	6173.0	4112.9	2735.0	1086.2	6.1	1.2	0.0	0.0	0.0
72.5°	5581.1	5503.0	3691.8	2425.0	961.7	3.7	1.2	0.0	0.0	0.0
75°	4625.5	4521.7	3060.9	2021.1	795.7	2.4	0.0	0.0	0.0	0.0
77.5°	3290.3	3302.5	2133.3	1473.1	541.9	2.4	0.0	0.0	0.0	0.0
80°	1440.1	1473.1	934.9	676.1	191.6	1.2	0.0	0.0	0.0	0.0
82.5°	274.6	252.6	122.0	96.4	24.4	0.0	0.0	0.0	0.0	0.0
85°	90.3	98.9	45.2	36.6	11.0	0.0	0.0	0.0	0.0	0.0
87.5°	31.7	40.3	13.4	11.0	2.4	0.0	0.0	0.0	0.0	0.0
90°	4.9	4.9	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)