

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: P522211

Luminaire Tested: **CST-CA8-230-750-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522211
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-230-750-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24142 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

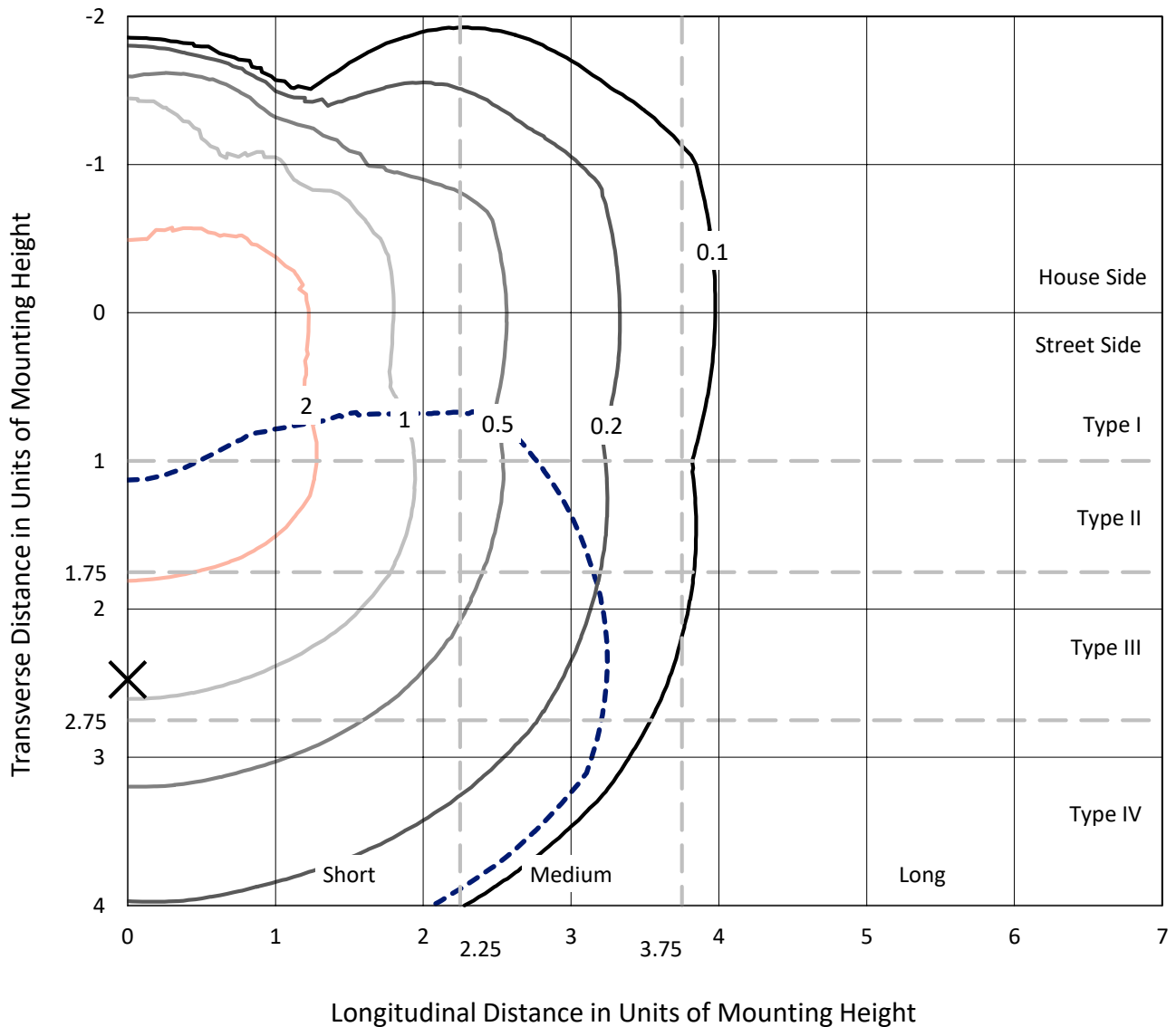
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

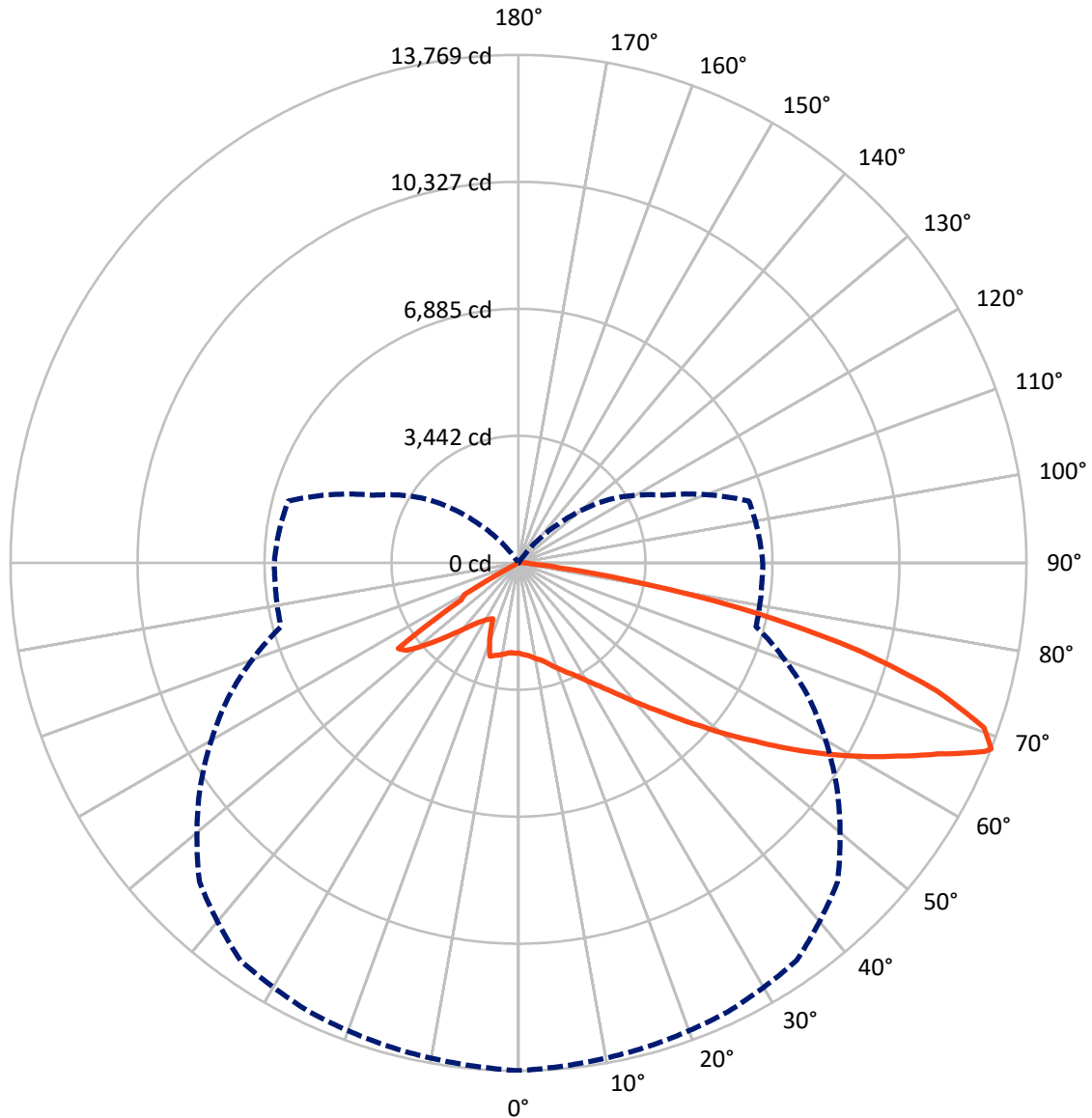
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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

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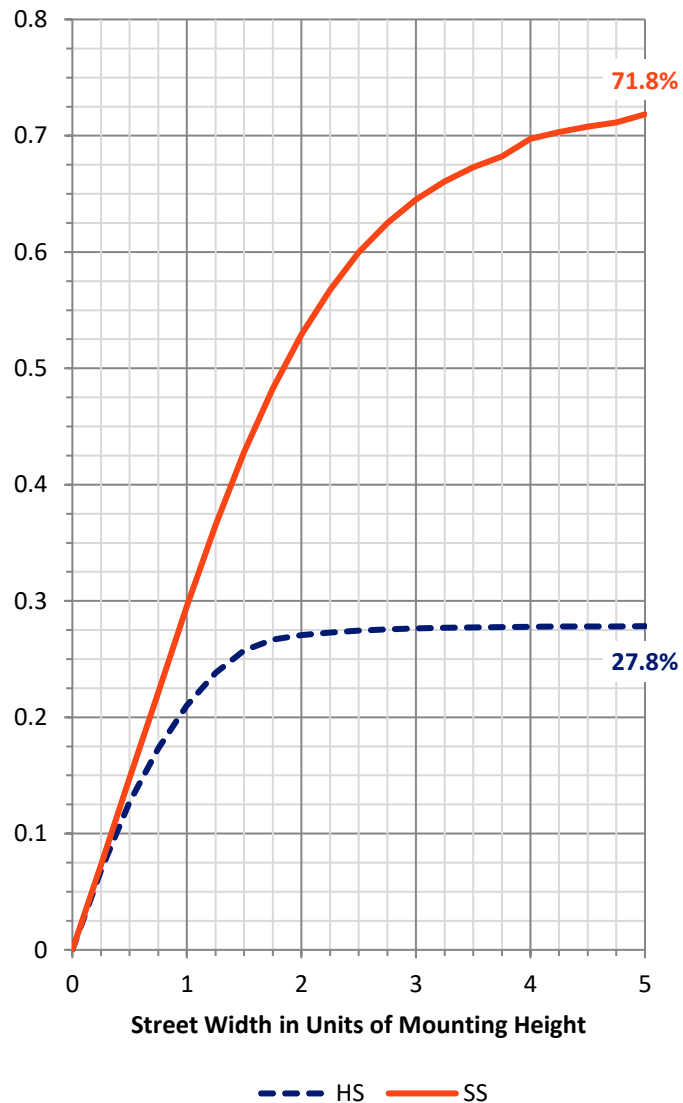
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6742.9	0.2	6743.0
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	17385.1	13.8	17399.0
	% Fixture	72.0	0.1	72.1
Total	Lumens	24128.0	14.0	24142.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.4	1.0
10°-20°	752.2	3.1
20°-30°	1273.5	5.3
30°-40°	2017.5	8.4
40°-50°	3298.4	13.7
50°-60°	5052.4	20.9
60°-70°	6212.2	25.7
70°-80°	4800.2	19.9
80°-90°	484.3	2.0
90°-100°	13.8	0.1
100°-110°	0.2	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°	24128.0	99.9
0°-180°	24142.0	100.0

Coefficient of Utilization



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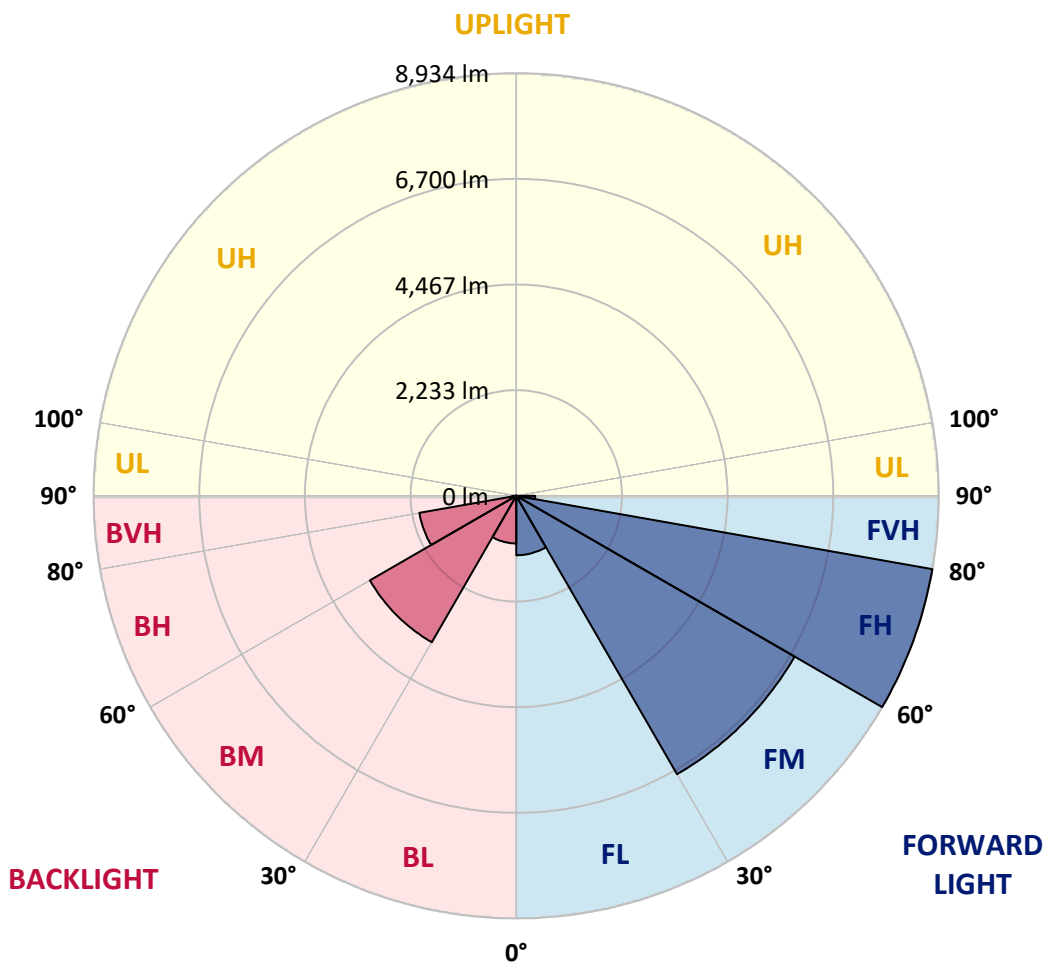
CATALOG NUMBER: CST-CA8-230-750-U-T5R-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1256.6	5.2			
FM (30°-60°)	6795.6	28.1			
FH (60°-80°)	8933.5	37.0			G4/12000
FVH (80°-90°)	399.4	1.7			G3/500
BL (0°-30°)	1006.4	4.2	B3/2500		
BM (30°-60°)	3572.7	14.8	B3/5000		
BH (60°-80°)	2078.9	8.6	B3/2500		G3/2500
BVH (80°-90°)	84.9	0.4			G1/100
UL (90°-100°)	13.8	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°	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8
2.5°	2490.0	2485.4	2480.7	2491.2	2450.5	2467.9	2454.0	2466.8	2457.5	2467.9	2464.5
5°	2522.6	2517.9	2504.0	2515.6	2488.9	2495.9	2478.4	2483.1	2451.7	2470.3	2469.1
7.5°	2576.1	2563.3	2554.0	2554.0	2530.7	2529.6	2501.7	2502.8	2478.4	2476.1	2480.7
10°	2648.2	2638.9	2613.3	2615.6	2583.1	2578.4	2543.5	2542.4	2522.6	2511.0	2521.4
12.5°	2701.7	2711.0	2687.8	2687.8	2655.2	2631.9	2607.5	2591.2	2576.1	2558.7	2550.5
15°	2799.4	2808.7	2777.3	2776.1	2763.3	2735.4	2708.7	2673.8	2647.0	2638.9	2626.1
17.5°	2926.2	2920.4	2893.6	2894.8	2897.1	2851.7	2825.0	2779.6	2741.3	2713.3	2706.4
20°	3055.3	3055.3	3026.2	3035.5	3023.9	2982.0	2964.6	2901.7	2848.2	2818.0	2793.6
22.5°	3199.5	3193.7	3173.9	3193.7	3170.4	3128.5	3099.5	3036.7	2968.0	2797.1	2727.3
25°	3336.7	3333.2	3341.4	3347.2	3318.1	3265.8	3246.0	3179.7	2989.0	2764.5	2623.8
27.5°	3510.0	3498.4	3517.0	3528.6	3499.5	3454.2	3412.3	3337.9	2934.3	2757.5	2742.4
30°	3732.1	3706.6	3733.3	3739.1	3708.9	3681.0	3618.2	3246.0	2952.9	2901.7	2897.1
32.5°	3969.4	3939.2	3974.1	3978.7	3939.2	3915.9	3757.7	3198.3	3135.5	3076.2	3082.0
35°	4250.9	4250.9	4268.3	4270.6	4241.6	4202.0	3599.6	3430.9	3375.1	3320.4	3319.3
37.5°	4593.9	4583.5	4630.0	4657.9	4626.5	4513.7	3829.8	3750.8	3664.7	3594.9	3450.7
40°	5008.0	5026.6	5039.4	5067.3	5037.1	4783.5	4166.0	4076.4	4008.9	3775.2	3411.2
42.5°	5454.6	5459.2	5487.2	5522.0	5522.0	5254.5	4559.1	4482.3	4395.1	3691.4	3527.5
45°	5988.4	5977.9	6031.4	6087.3	6072.2	5795.4	5016.1	4959.1	4550.9	3934.5	3935.7
47.5°	6594.4	6581.6	6658.3	6731.6	6656.0	6395.5	5518.6	5474.4	4392.7	4346.2	4336.9
50°	7294.5	7263.1	7351.5	7449.2	7387.5	7065.4	6129.1	5280.1	4833.5	4796.3	4790.5
52.5°	8042.3	8017.9	8071.4	8237.7	8156.3	7766.7	6707.2	5447.6	5344.1	5302.2	5291.8
55°	8886.7	8839.0	8954.1	9080.9	8986.7	8542.4	7277.0	6003.5	5896.5	5824.4	5719.8
57.5°	9774.1	9705.4	9764.8	9924.1	9833.4	9336.8	8012.1	6575.7	6449.0	5337.1	4912.6
60°	10658.0	10626.6	10649.8	10790.5	10678.9	10109.0	8700.6	7149.1	5458.1	5279.0	5299.9
62.5°	11546.5	11477.9	11498.8	11643.0	11500.0	10844.0	9353.0	7670.2	5744.2	5681.4	5703.5
65°	12499.0	12417.6	12436.2	12478.1	12301.3	11503.5	9929.9	8162.1	6174.5	6108.2	6132.6
67.5°	13646.9	13572.5	13471.3	13346.9	13102.6	12203.6	10503.3	8679.7	6658.3	6621.1	6629.2
68°	13769.1	13696.9	13574.8	13427.1	13152.7	12232.7	10527.7	8694.8	6665.3	6618.8	6621.1
70°	13388.7	13431.8	13293.4	13045.7	12816.5	11807.0	10128.8	8359.8	6368.7	6300.1	6282.7
72.5°	11857.0	11951.2	11760.5	11718.6	11437.2	10518.4	8863.4	7253.8	5539.5	5561.6	5498.8
75°	9572.9	9711.3	9479.8	9492.6	9332.1	8773.9	7428.2	6039.6	4548.6	4649.8	4668.4
77.5°	6657.2	6856.0	6754.9	6856.0	6776.9	6575.7	5748.8	4650.9	3470.5	3586.8	3632.1
80°	3471.6	3707.7	3841.5	3883.3	3908.9	3900.8	3500.7	2791.3	2006.2	2049.3	2046.9
82.5°	1097.9	1040.9	1074.6	1065.3	1036.3	1047.9	944.4	738.5	511.7	564.1	539.6
85°	331.5	333.8	324.5	322.2	297.7	261.7	214.0	123.3	60.5	70.9	66.3
87.5°	244.2	246.6	228.0	216.3	202.4	175.6	136.1	76.8	29.1	27.9	22.1
90°	134.9	130.3	121.0	111.7	105.8	90.7	68.6	29.1	10.5	8.1	7.0
92.5°	73.3	69.8	65.1	61.6	53.5	43.0	27.9	9.3	4.7	1.2	0.0
95°	33.7	31.4	30.2	26.7	23.3	16.3	9.3	5.8	3.5	1.2	0.0
97.5°	15.1	14.0	12.8	10.5	8.1	4.7	4.7	3.5	2.3	1.2	0.0
100°	3.5	3.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.2	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	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°	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8	2445.8
2.5°	2461.0	2454.0	2450.5	2428.4	2435.4	2415.6	2454.0	2444.7	2438.9	2455.1
5°	2463.3	2438.9	2454.0	2441.2	2445.8	2417.9	2448.2	2435.4	2434.2	2441.2
7.5°	2469.1	2452.8	2467.9	2442.4	2454.0	2442.4	2464.5	2451.7	2462.1	2469.1
10°	2500.5	2491.2	2484.2	2478.4	2486.5	2463.3	2491.2	2492.4	2495.9	2516.8
12.5°	2544.7	2535.4	2523.8	2508.6	2516.8	2507.5	2528.4	2534.2	2547.0	2557.5
15°	2606.3	2588.9	2584.2	2570.3	2578.4	2573.8	2578.4	2574.9	2599.4	2595.9
17.5°	2691.2	2671.5	2605.2	2537.7	2494.7	2507.5	2561.0	2630.8	2648.2	2650.5
20°	2722.6	2583.1	2576.1	2499.3	2464.5	2462.1	2351.6	2186.5	2236.5	2354.0
22.5°	2685.4	2494.7	2474.9	2459.8	2310.9	2066.7	2043.4	2019.0	2013.2	2030.6
25°	2601.7	2579.6	2562.1	2364.4	2129.5	2130.7	2096.9	1936.4	1686.4	1665.5
27.5°	2729.6	2699.4	2530.7	2226.0	2221.4	2219.1	2169.0	1757.3	1703.8	1716.6
30°	2875.0	2825.0	2384.2	2344.7	2343.5	2322.6	1944.6	1772.5	1772.5	1774.8
32.5°	3042.5	2731.9	2467.9	2486.5	2485.4	2386.5	1878.3	1866.7	1862.0	1873.6
35°	3170.4	2657.5	2648.2	2681.9	2658.7	2024.8	1995.8	1985.3	1980.6	1974.8
37.5°	3130.9	2871.5	2871.5	2892.4	2705.2	2156.2	2142.3	2142.3	2133.0	2128.3
40°	3191.3	3137.8	3111.1	3119.2	1965.5	2315.6	2326.1	2323.7	2322.6	2330.7
42.5°	3510.0	3462.3	3437.9	3149.5	2200.4	2301.6	2557.5	2556.3	2559.8	2556.3
45°	3915.9	3871.7	3807.7	2947.1	2498.2	2017.8	2819.2	2832.0	2833.1	2832.0
47.5°	4341.6	4313.7	3658.9	3262.3	2821.5	2165.6	2694.7	3147.1	3141.3	3148.3
50°	4791.7	4666.1	3640.3	3635.6	3165.8	2409.8	2411.0	3422.8	3482.1	3500.7
52.5°	5292.9	4229.9	4034.5	3681.0	3514.7	2661.0	2635.4	3033.2	3842.6	3861.2
55°	4916.1	4468.3	4464.9	3276.2	3656.6	2902.9	2906.4	2878.5	3524.0	4005.5
57.5°	4891.7	4902.2	4894.0	3655.4	2668.0	2721.5	3166.9	3142.5	2281.9	1849.2
60°	5313.9	5329.0	4754.4	3947.3	2884.3	1673.6	1950.4	1657.3	1679.4	1696.9
62.5°	5717.4	5722.1	3867.1	2587.7	1429.4	67.5	32.6	26.7	25.6	25.6
65°	6164.0	6164.0	4145.0	2822.7	1380.5	25.6	4.7	3.5	12.8	12.8
67.5°	6595.5	6500.1	4348.6	2997.1	1404.9	3.5	0.0	0.0	0.0	0.0
68°	6571.1	6466.4	4329.9	2992.5	1401.4	2.3	0.0	0.0	0.0	0.0
70°	6205.9	6104.7	4107.8	2856.4	1349.1	2.3	0.0	0.0	0.0	0.0
72.5°	5477.8	5384.8	3637.9	2517.9	1216.5	1.2	0.0	0.0	0.0	0.0
75°	4637.0	4624.2	3142.5	2124.8	1043.2	1.2	0.0	0.0	0.0	0.0
77.5°	3731.0	3672.8	2456.3	1665.5	840.9	0.0	0.0	0.0	0.0	0.0
80°	2078.3	2164.4	1437.5	979.3	529.2	0.0	0.0	0.0	0.0	0.0
82.5°	561.7	525.7	314.0	212.8	101.2	0.0	0.0	0.0	0.0	0.0
85°	72.1	79.1	36.1	29.1	7.0	0.0	0.0	0.0	0.0	0.0
87.5°	37.2	44.2	11.6	9.3	2.3	0.0	0.0	0.0	0.0	0.0
90°	7.0	8.1	3.5	1.2	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)