

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: P522122

Luminaire Tested: **CST-CA10-210-750-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522122
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-210-750-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30094.9 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

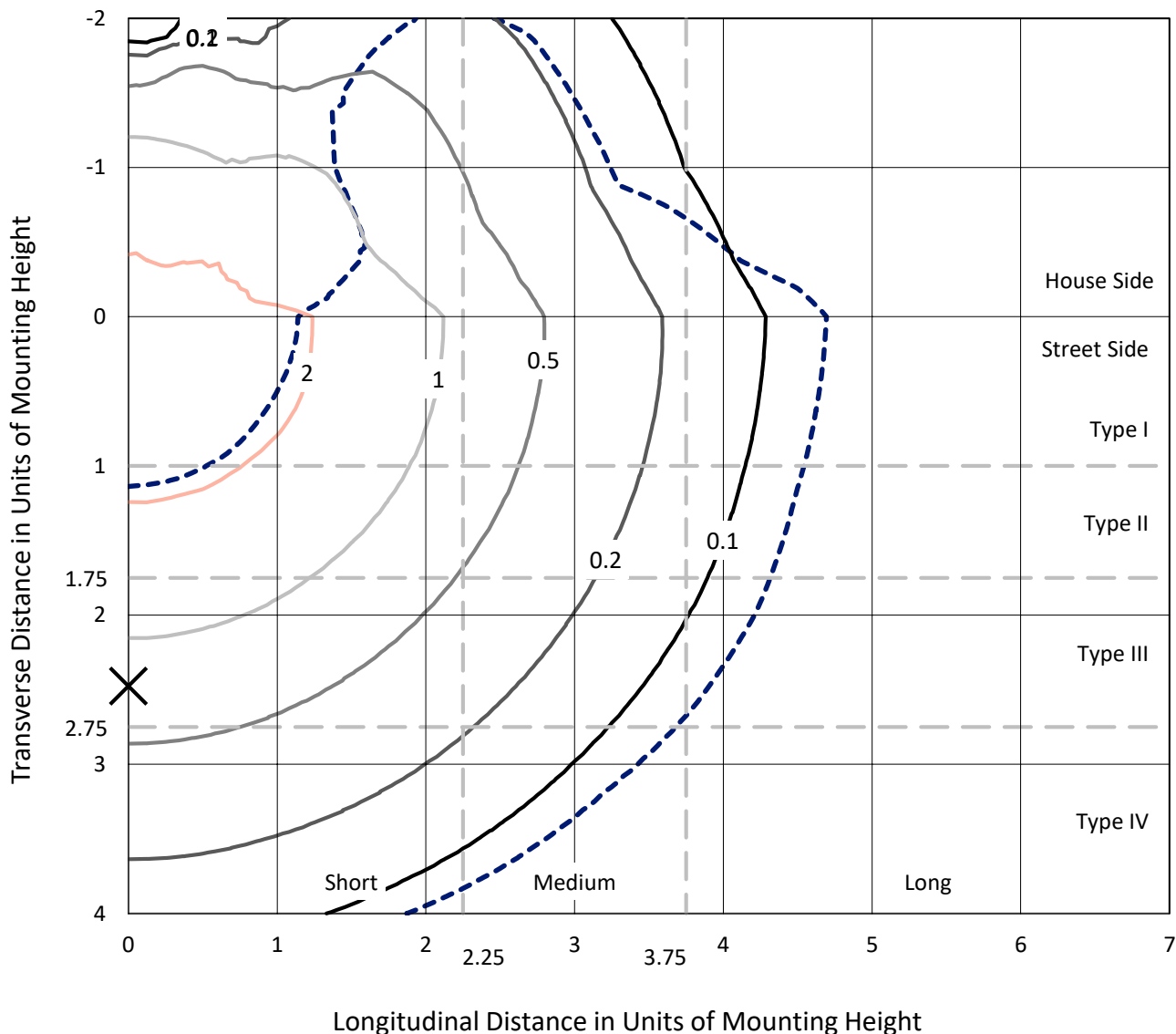
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

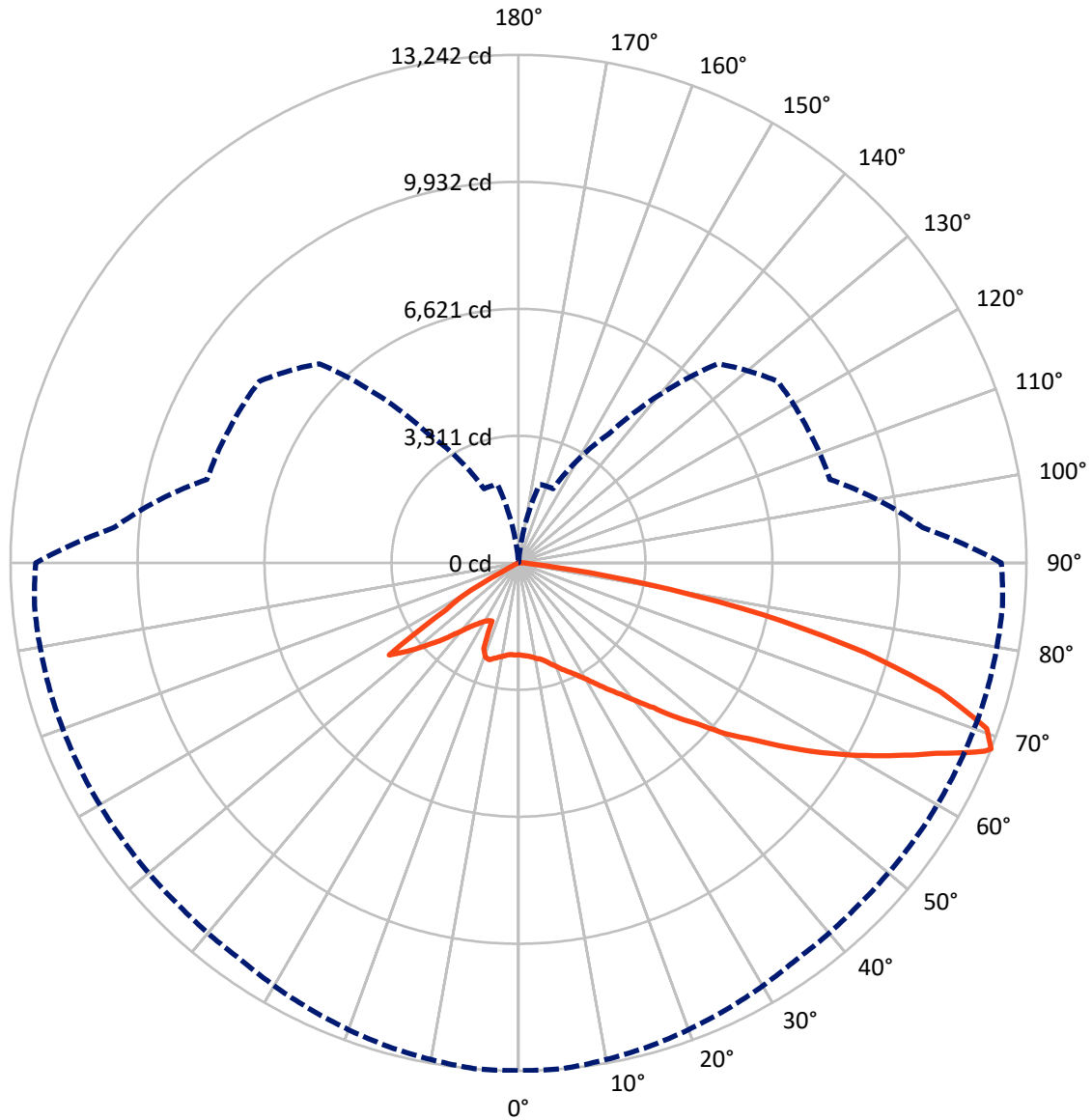
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.7 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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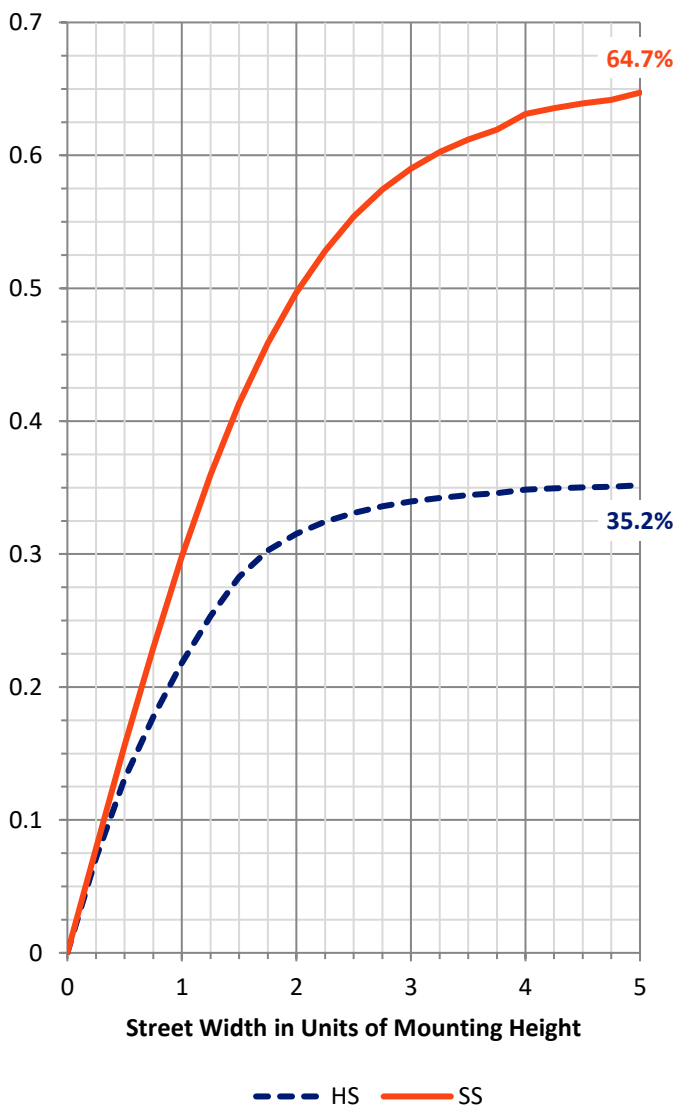
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10591.4	1.8	10593.2
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	19493.9	7.9	19501.8
	% Fixture	64.8	0.0	64.8
Total	Lumens	30085.2	9.7	30094.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.7	0.8
10°-20°	742.4	2.5
20°-30°	1325.2	4.4
30°-40°	2155.9	7.2
40°-50°	3681.6	12.2
50°-60°	6143.0	20.4
60°-70°	8546.1	28.4
70°-80°	6624.6	22.0
80°-90°	634.8	2.1
90°-100°	7.7	0.0
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-90°	30085.2	100.0
0°-180°	30094.9	100.0

Coefficient of Utilization



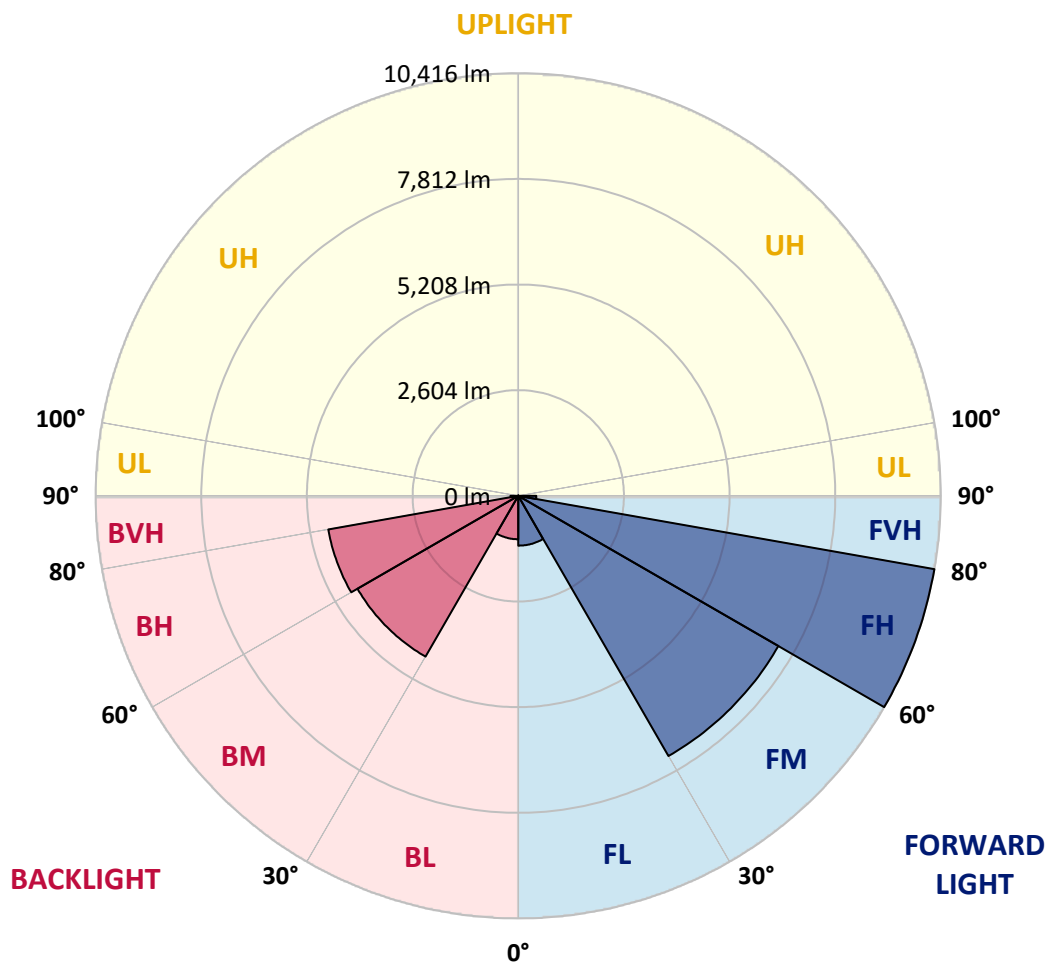
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1228.3	4.1			
FM (30°-60°)	7405.5	24.6			
FH (60°-80°)	10416.0	34.6			G4/12000
FVH (80°-90°)	444.1	1.5			G3/500
BL (0°-30°)	1071.0	3.6	B3/2500		
BM (30°-60°)	4575.0	15.2	B3/5000		
BH (60°-80°)	4754.7	15.8	B4/5000		G4/5000
BVH (80°-90°)	190.7	0.6			G2/225
UL (90°-100°)	7.7	0.0		U1/10	
UH (100°-180°)	2.0	0.0		U1/10	

BUG Rating: B4-U1-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1
2.5°	2422.2	2418.8	2416.6	2431.3	2389.4	2406.4	2395.1	2409.8	2406.4	2413.2	2414.3
5°	2439.2	2433.6	2425.6	2441.5	2416.6	2427.9	2415.4	2422.2	2400.7	2418.8	2421.1
7.5°	2477.7	2461.9	2460.7	2465.3	2448.3	2456.2	2434.7	2442.6	2431.3	2424.5	2431.3
10°	2535.5	2521.9	2507.2	2516.2	2487.9	2498.1	2475.5	2482.3	2476.6	2461.9	2475.5
12.5°	2575.1	2579.6	2569.4	2576.2	2551.3	2542.3	2534.3	2533.2	2529.8	2508.3	2504.9
15°	2663.4	2665.7	2647.6	2652.1	2646.5	2641.9	2630.6	2621.5	2603.4	2589.8	2580.8
17.5°	2778.9	2766.5	2749.5	2754.0	2769.9	2749.5	2742.7	2725.7	2699.7	2677.0	2672.5
20°	2900.1	2892.2	2876.3	2885.4	2884.3	2870.7	2874.1	2845.8	2808.4	2789.1	2774.4
22.5°	3034.9	3023.5	3012.2	3029.2	3015.6	3006.6	3003.2	2983.9	2937.5	2916.0	2912.6
25°	3169.6	3164.0	3171.9	3166.2	3147.0	3140.2	3144.7	3137.9	3083.6	3057.5	3041.7
27.5°	3338.4	3324.8	3337.2	3330.4	3310.0	3311.2	3312.3	3313.4	3252.3	3218.3	3195.7
30°	3530.9	3526.3	3542.2	3520.7	3501.4	3513.9	3524.1	3501.4	3448.2	3398.4	3390.4
32.5°	3781.1	3752.8	3770.9	3743.8	3714.3	3743.8	3761.9	3716.6	3673.6	3610.1	3621.5
35°	4058.6	4049.5	4049.5	4014.4	3998.6	4045.0	4063.1	4018.9	3952.1	3896.6	3883.0
37.5°	4353.0	4362.1	4390.4	4375.6	4360.9	4389.2	4430.0	4371.1	4285.1	4226.2	4210.3
40°	4743.7	4766.3	4785.6	4766.3	4749.3	4767.5	4813.9	4736.9	4676.9	4645.2	4611.2
42.5°	5163.8	5202.3	5189.9	5192.1	5206.8	5232.9	5279.3	5209.1	5140.0	5138.9	5089.1
45°	5732.3	5732.3	5706.2	5731.1	5728.9	5793.4	5813.8	5775.3	5717.6	5700.6	5657.5
47.5°	6263.4	6318.9	6308.7	6344.9	6316.6	6371.0	6440.0	6407.2	6340.4	6280.4	6271.3
50°	7004.0	6990.4	6976.8	7031.2	7026.6	7064.0	7127.4	7107.0	7014.2	6946.2	6933.8
52.5°	7655.1	7726.5	7709.5	7791.0	7745.7	7798.9	7874.8	7871.4	7758.2	7691.4	7672.1
55°	8477.2	8524.8	8521.4	8605.2	8542.9	8613.1	8676.6	8683.3	8559.9	8464.8	8494.2
57.5°	9333.4	9373.0	9350.3	9419.4	9358.3	9454.5	9493.0	9468.1	9395.6	9275.6	9319.8
60°	10190.6	10224.6	10250.6	10256.3	10221.2	10277.8	10314.0	10335.5	10221.2	10084.1	10137.4
62.5°	11061.4	11099.9	11077.3	11086.3	10988.9	11065.9	11111.2	11116.9	10985.5	10864.4	10901.7
65°	11978.7	12031.9	11950.4	11896.0	11776.0	11774.8	11834.9	11845.0	11752.2	11666.1	11651.4
67.5°	13114.5	13138.3	12963.9	12781.6	12578.9	12534.7	12576.6	12600.4	12653.6	12651.3	12584.5
68°	13242.4	13237.9	13061.3	12843.8	12626.4	12575.5	12595.8	12626.4	12661.5	12668.3	12587.9
70°	12951.4	12895.9	12795.1	12521.1	12305.9	12172.3	12101.0	12157.6	12062.5	12063.6	11913.0
72.5°	11504.2	11497.4	11311.7	11175.8	10984.4	10762.5	10660.5	10659.4	10668.5	10602.8	10447.6
75°	9318.6	9327.7	9111.4	9017.4	8958.5	8916.6	8938.1	9005.0	9011.7	9010.6	8956.3
77.5°	6498.9	6536.3	6478.5	6325.7	6489.9	6630.3	6900.9	7039.1	6994.9	7127.4	7211.2
80°	3406.3	3481.0	3483.3	3590.9	3723.4	3851.3	4084.6	4294.1	4140.1	4072.2	4002.0
82.5°	895.7	922.9	963.7	901.4	920.7	939.9	1121.1	1104.1	1019.2	1064.5	1132.4
85°	255.9	263.9	252.5	228.7	209.5	192.5	197.0	166.5	144.9	143.8	139.3
87.5°	180.1	193.6	171.0	147.2	132.5	123.4	118.9	100.8	81.5	71.3	56.6
90°	83.8	82.7	71.3	55.5	48.7	46.4	46.4	36.2	20.4	12.5	11.3
92.5°	35.1	36.2	29.4	23.8	20.4	15.9	12.5	7.9	4.5	2.3	1.1
95°	12.5	13.6	11.3	9.1	7.9	6.8	5.7	4.5	2.3	1.1	1.1
97.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.3	2.3	1.1	1.1
100°	0.0	0.0	0.0	1.1	2.3	2.3	2.3	2.3	1.1	1.1	1.1
102.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
105°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1



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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	1.1	1.1	1.1	1.1
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
165°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
170°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
172.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
175°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
177.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1	2395.1
2.5°	2412.0	2406.4	2404.1	2375.8	2383.7	2366.7	2406.4	2395.1	2392.8	2408.6
5°	2417.7	2391.7	2407.5	2389.4	2393.9	2369.0	2400.7	2387.1	2388.3	2396.2
7.5°	2421.1	2406.4	2422.2	2390.5	2403.0	2393.9	2416.6	2403.0	2416.6	2423.4
10°	2455.1	2448.3	2437.0	2427.9	2437.0	2415.4	2443.7	2441.5	2449.4	2469.8
12.5°	2501.5	2493.6	2482.3	2466.4	2473.2	2465.3	2486.8	2489.0	2503.8	2514.0
15°	2570.6	2560.4	2554.7	2538.9	2541.1	2535.5	2547.9	2550.2	2579.6	2576.2
17.5°	2668.0	2656.6	2661.2	2646.5	2640.8	2627.2	2604.6	2596.6	2631.7	2641.9
20°	2774.4	2762.0	2767.6	2755.2	2649.8	2435.8	2579.6	2678.2	2603.4	2597.8
22.5°	2895.6	2882.0	2886.5	2867.3	2737.0	2336.2	2032.7	2007.8	2293.1	2408.6
25°	3029.2	3011.1	3008.8	2983.9	2555.9	2115.3	2081.4	2037.2	1828.8	1663.5
27.5°	3194.5	3167.4	3153.8	2777.8	2537.7	2198.0	2147.1	1989.7	1687.3	1697.5
30°	3373.5	3333.8	3079.0	2831.0	2670.2	2295.4	2227.5	1743.9	1746.2	1741.7
32.5°	3577.3	3489.0	3016.8	2994.1	2828.8	2399.6	1849.2	1828.8	1831.1	1837.9
35°	3844.5	3238.7	3226.2	3227.4	3022.4	2321.4	1959.1	1939.8	1942.1	1946.6
37.5°	3901.2	3491.2	3493.5	3467.5	3228.5	2121.0	2092.7	2091.6	2087.0	2082.5
40°	3946.5	3809.4	3776.6	3734.7	2993.0	2284.1	2275.0	2268.2	2271.6	2280.7
42.5°	4300.9	4197.9	4166.2	4116.3	3070.0	2530.9	2501.5	2493.6	2502.6	2498.1
45°	4772.0	4685.9	4623.6	3806.0	3391.6	2799.3	2775.5	2765.4	2768.8	2797.1
47.5°	5270.3	5219.3	5029.0	4111.8	3766.4	3116.4	3092.6	3076.8	3082.4	3075.6
50°	5812.7	5766.3	4655.4	4572.7	4180.9	3458.4	3423.3	3417.6	3419.9	3418.8
52.5°	6401.5	5431.1	5159.3	5073.2	4618.0	3816.2	3803.8	3773.2	3780.0	3773.2
55°	7092.3	5721.0	5714.2	5613.4	5109.5	4231.8	4217.1	4174.1	3903.4	4140.1
57.5°	7748.0	6274.7	6274.7	6177.3	5612.2	4645.2	4621.4	4589.7	2774.4	2237.6
60°	8465.9	6829.6	6813.7	6733.3	6096.9	5039.2	4095.9	4086.9	1676.0	1681.6
62.5°	9086.5	7324.5	7352.8	7278.0	6563.5	3773.2	1897.9	1859.4	165.3	254.8
65°	9781.8	7871.4	7905.4	7828.4	7068.5	4002.0	2059.9	2040.6	37.4	34.0
67.5°	10570.0	8417.2	8340.2	8255.3	7364.1	4120.9	2140.3	2123.3	10.2	6.8
68°	10576.7	8405.9	8306.3	8248.5	7335.8	4098.2	2133.5	2117.6	10.2	6.8
70°	10033.2	7982.4	7882.7	7897.5	6984.7	3919.3	2045.1	2015.7	10.2	6.8
72.5°	8802.3	7103.6	6991.5	6912.3	6194.3	3484.4	1833.4	1777.9	10.2	6.8
75°	7531.7	6019.9	5834.2	5659.8	4983.8	2851.4	1503.8	1441.6	10.2	6.8
77.5°	5936.1	4588.5	4324.7	4210.3	3744.9	2106.3	1117.7	1049.7	10.2	5.7
80°	3280.6	2632.9	2408.6	2338.4	2141.4	1237.7	640.9	600.2	9.1	5.7
82.5°	848.2	636.4	554.9	535.6	502.8	293.3	156.3	148.3	7.9	4.5
85°	121.2	89.5	98.5	116.6	112.1	75.9	54.4	46.4	6.8	3.4
87.5°	63.4	53.2	62.3	70.2	71.3	44.2	22.6	12.5	3.4	0.0
90°	10.2	10.2	11.3	12.5	12.5	5.7	4.5	0.0	0.0	0.0
92.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	2.3	1.1	1.1	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°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.1	1.1	1.1	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)