

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: P256755

Luminaire Tested: **CST-8-4-D-U-T5R-7050-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256755
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-8-4-D-U-T5R-7050-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K 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: 29039 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U2 - G4

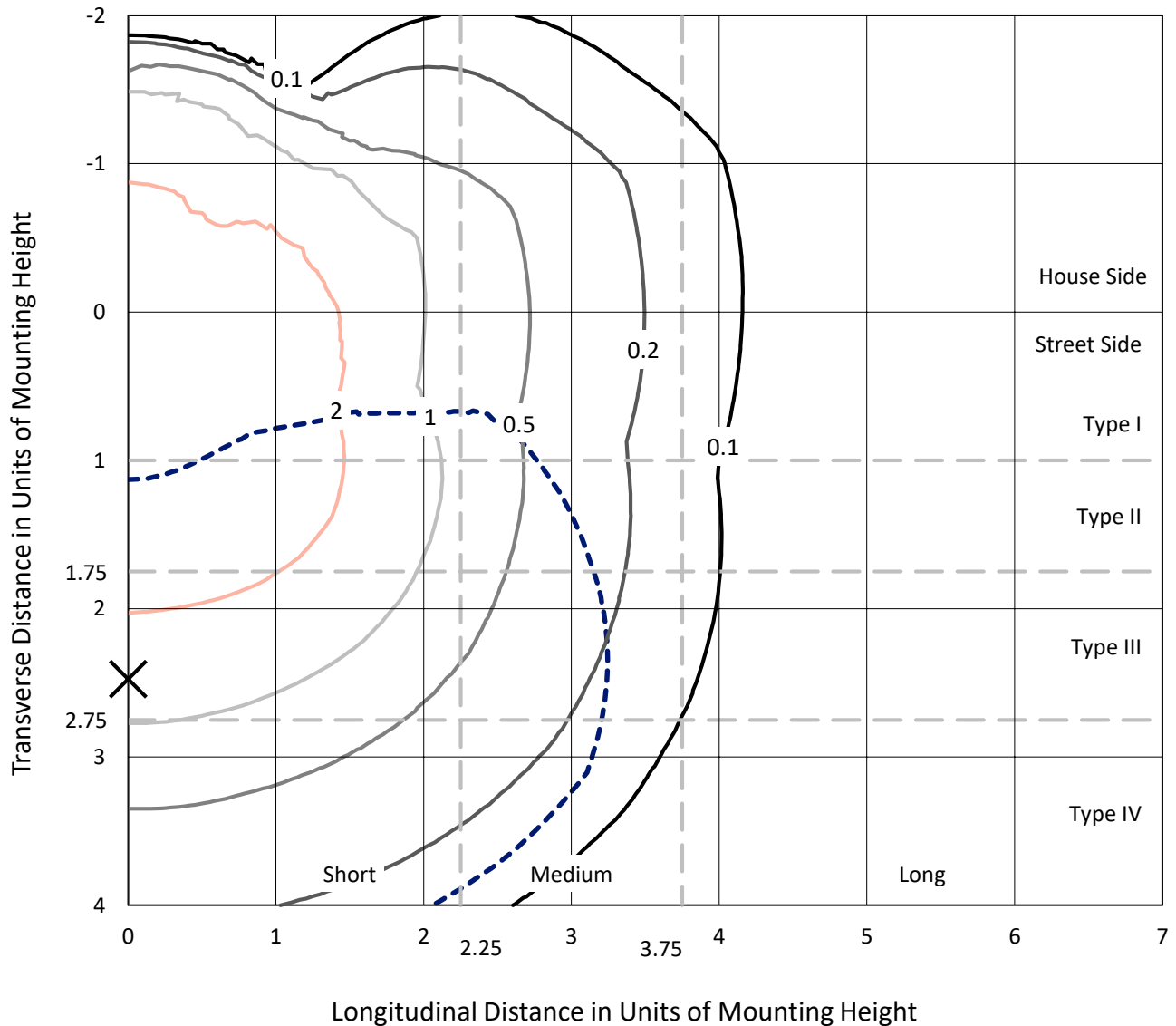
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

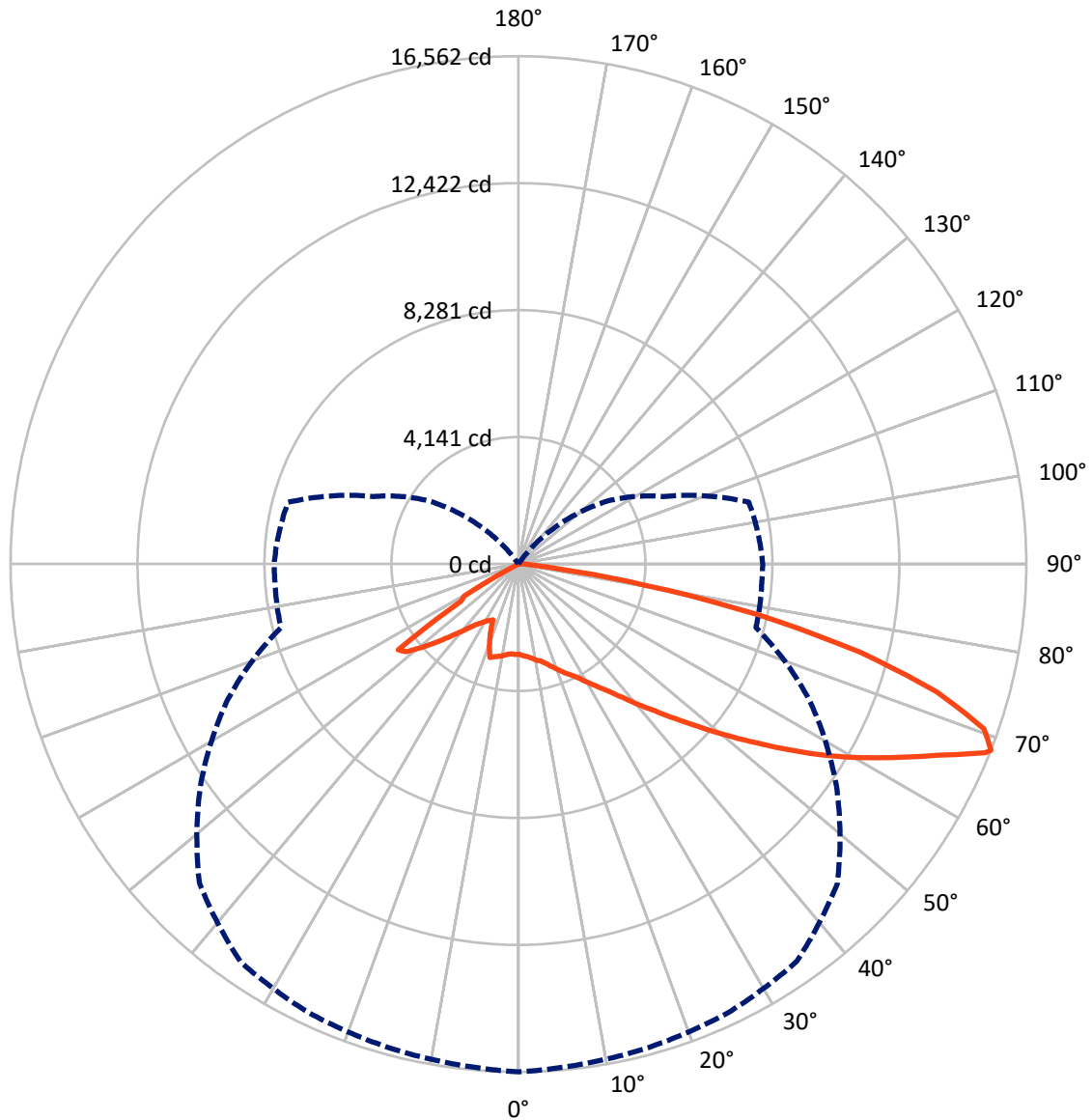


Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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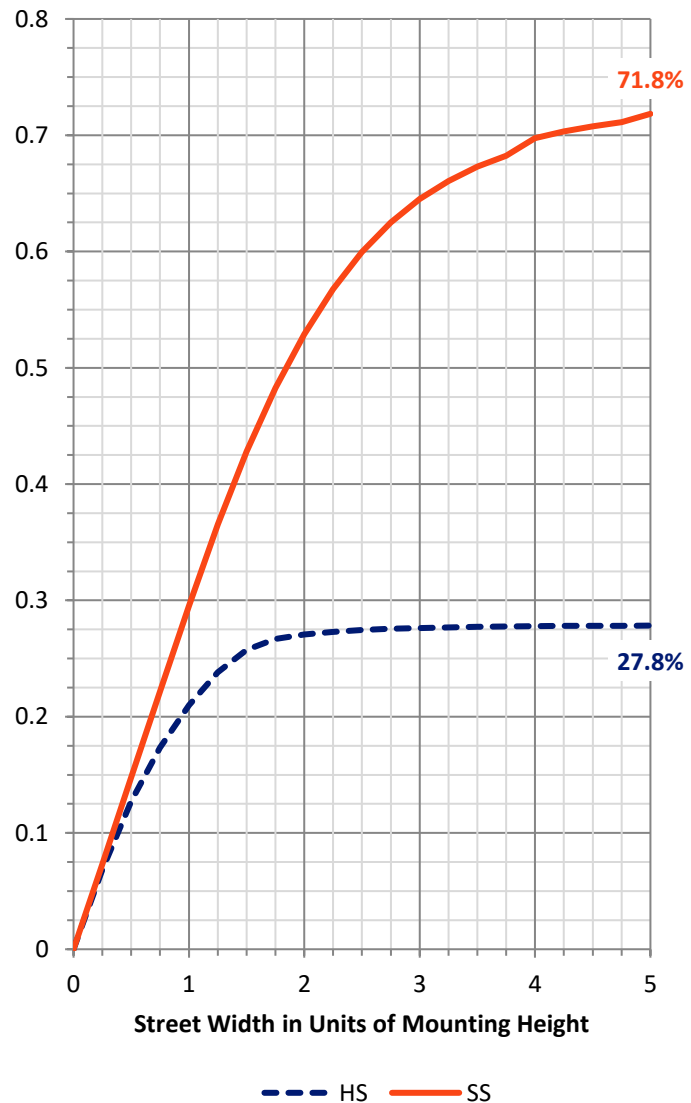
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8110.6	0.2	8110.8
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	20911.6	16.6	20928.2
	% Fixture	72.0	0.1	72.1
Total	Lumens	29022.2	16.8	29039.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.5	1.0
10°-20°	904.8	3.1
20°-30°	1531.8	5.3
30°-40°	2426.7	8.4
40°-50°	3967.5	13.7
50°-60°	6077.2	20.9
60°-70°	7472.3	25.7
70°-80°	5773.8	19.9
80°-90°	582.6	2.0
90°-100°	16.5	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°	29022.2	99.9
0°-180°	29039.0	100.0



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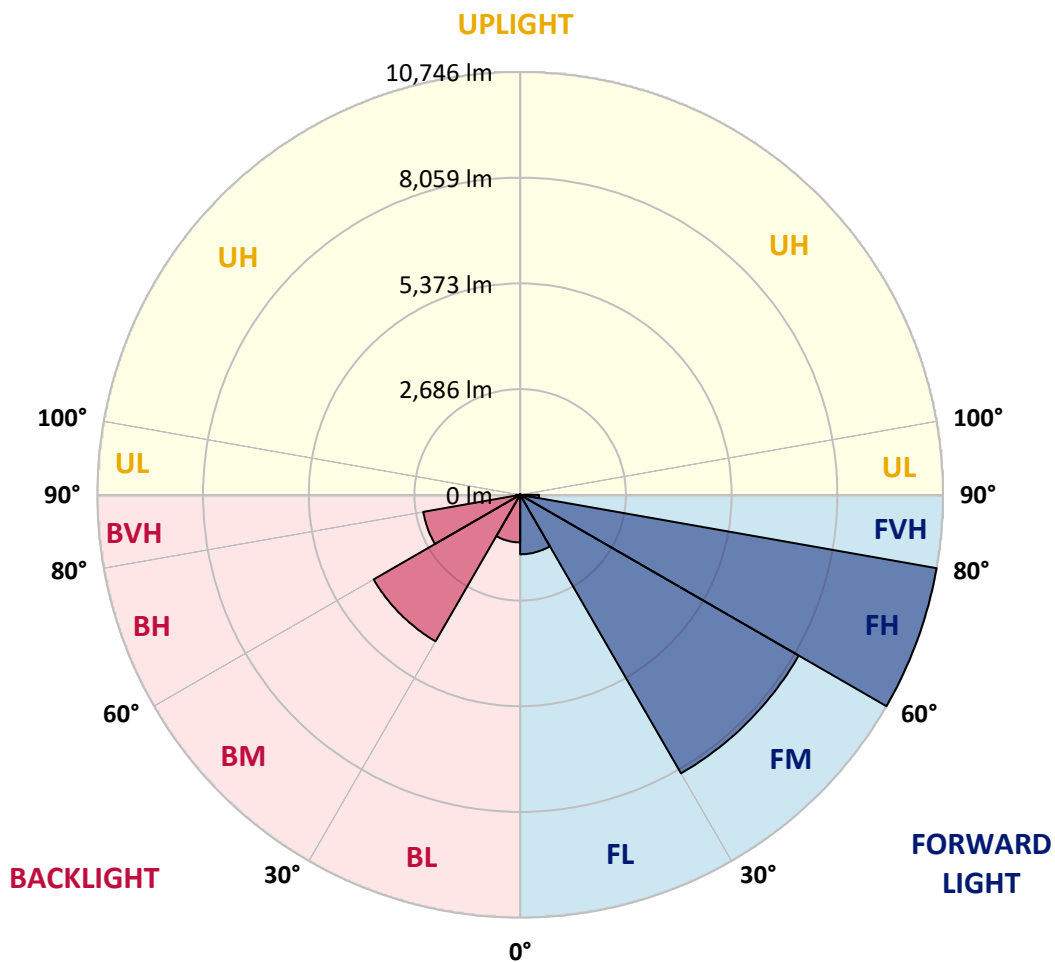
CATALOG NUMBER: CST-8-4-D-U-T5R-7050-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1511.5	5.2			
FM	(30°-60°)	8174.0	28.1			
FH	(60°-80°)	10745.6	37.0			G4/12000
FVH	(80°-90°)	480.4	1.7			G3/500
BL	(0°-30°)	1210.6	4.2	B3/2500		
BM	(30°-60°)	4297.4	14.8	B3/5000		
BH	(60°-80°)	2500.5	8.6	B4/5000		G4/5000
BVH	(80°-90°)	102.1	0.4			G2/225
UL	(90°-100°)	16.5	0.1		U2/50	
UH	(100°-180°)	0.2	0.0		U1/10	

BUG Rating: B4-U2-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0
2.5°	2995.1	2989.5	2983.9	2996.5	2947.6	2968.5	2951.8	2967.1	2955.9	2968.5	2964.3
5°	3034.3	3028.7	3011.9	3025.9	2993.7	3002.1	2981.1	2986.7	2949.0	2971.3	2969.9
7.5°	3098.6	3083.3	3072.1	3072.1	3044.1	3042.7	3009.1	3010.5	2981.1	2978.3	2983.9
10°	3185.4	3174.2	3143.4	3146.2	3107.0	3101.4	3059.5	3058.1	3034.3	3020.3	3032.9
12.5°	3249.7	3260.9	3232.9	3232.9	3193.8	3165.8	3136.4	3116.8	3098.6	3077.7	3067.9
15°	3367.2	3378.4	3340.7	3339.3	3323.9	3290.3	3258.1	3216.2	3184.0	3174.2	3158.8
17.5°	3519.7	3512.7	3480.6	3481.9	3484.7	3430.2	3398.0	3343.5	3297.3	3263.7	3255.3
20°	3675.0	3675.0	3640.0	3651.2	3637.2	3586.9	3565.9	3490.3	3426.0	3389.6	3360.2
22.5°	3848.5	3841.5	3817.7	3841.5	3813.5	3763.1	3728.2	3652.6	3570.1	3364.4	3280.5
25°	4013.5	4009.3	4019.1	4026.1	3991.2	3928.2	3904.4	3824.7	3595.3	3325.3	3156.0
27.5°	4222.0	4208.0	4230.4	4244.4	4209.4	4154.8	4104.5	4014.9	3529.5	3316.9	3298.7
30°	4489.2	4458.4	4490.6	4497.6	4461.2	4427.6	4352.1	3904.4	3551.9	3490.3	3484.7
32.5°	4774.6	4738.2	4780.2	4785.8	4738.2	4710.2	4520.0	3847.1	3771.5	3700.2	3707.2
35°	5113.1	5113.1	5134.1	5136.9	5101.9	5054.4	4329.7	4126.9	4059.7	3994.0	3992.6
37.5°	5525.8	5513.2	5569.2	5602.7	5565.0	5429.3	4606.7	4511.6	4408.0	4324.1	4150.6
40°	6023.8	6046.2	6061.6	6095.2	6058.8	5753.8	5011.0	4903.3	4822.1	4540.9	4103.1
42.5°	6561.0	6566.6	6600.2	6642.1	6642.1	6320.4	5483.8	5391.5	5286.6	4440.2	4243.0
45°	7203.1	7190.5	7254.9	7322.0	7303.8	6970.9	6033.6	5965.1	5474.0	4732.6	4734.0
47.5°	7932.0	7916.6	8008.9	8097.0	8006.1	7692.7	6637.9	6584.8	5283.8	5227.8	5216.6
50°	8774.1	8736.3	8842.7	8960.2	8886.0	8498.5	7372.4	6351.2	5814.0	5769.2	5762.2
52.5°	9673.6	9644.3	9708.6	9908.7	9810.7	9342.1	8067.7	6552.6	6428.1	6377.7	6365.2
55°	10689.3	10631.9	10770.4	10922.9	10809.6	10275.2	8753.1	7221.3	7092.6	7005.9	6880.0
57.5°	11756.6	11674.1	11745.5	11937.1	11828.0	11230.6	9637.3	7909.6	7757.1	6419.7	5909.1
60°	12819.8	12782.1	12810.0	12979.3	12845.0	12159.5	10465.4	8599.3	6565.2	6349.8	6374.9
62.5°	13888.6	13806.1	13831.3	14004.7	13832.7	13043.7	11250.2	9226.0	6909.3	6833.8	6860.4
65°	15034.4	14936.4	14958.8	15009.2	14796.5	13836.9	11944.1	9817.7	7426.9	7347.2	7376.6
67.5°	16415.1	16325.6	16203.9	16054.2	15760.4	14679.0	12633.8	10440.3	8008.9	7964.1	7973.9
68°	16562.0	16475.3	16328.4	16150.7	15820.6	14714.0	12663.2	10458.4	8017.3	7961.3	7964.1
70°	16104.5	16156.3	15989.8	15691.9	15416.3	14202.0	12183.3	10055.5	7660.6	7578.0	7557.0
72.5°	14262.1	14375.5	14146.0	14095.7	13757.1	12652.0	10661.3	8725.2	6663.1	6689.7	6614.2
75°	11514.6	11681.1	11402.7	11418.1	11225.1	10553.6	8935.0	7264.7	5471.2	5592.9	5615.3
77.5°	8007.5	8246.7	8125.0	8246.7	8151.6	7909.6	6914.9	5594.3	4174.4	4314.3	4368.9
80°	4175.8	4459.8	4620.7	4671.0	4701.8	4692.0	4210.8	3357.4	2413.2	2464.9	2462.1
82.5°	1320.6	1252.0	1292.6	1281.4	1246.5	1260.4	1135.9	888.3	615.5	678.5	649.1
85°	398.7	401.5	390.3	387.5	358.1	314.8	257.4	148.3	72.7	85.3	79.7
87.5°	293.8	296.6	274.2	260.2	243.4	211.2	163.7	92.3	35.0	33.6	26.6
90°	162.3	156.7	145.5	134.3	127.3	109.1	82.5	35.0	12.6	9.8	8.4
92.5°	88.1	83.9	78.3	74.1	64.4	51.8	33.6	11.2	5.6	1.4	0.0
95°	40.6	37.8	36.4	32.2	28.0	19.6	11.2	7.0	4.2	1.4	0.0
97.5°	18.2	16.8	15.4	12.6	9.8	5.6	5.6	4.2	2.8	1.4	0.0
100°	4.2	4.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.4	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	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°	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0	2942.0
2.5°	2960.1	2951.8	2947.6	2921.0	2929.4	2905.6	2951.8	2940.6	2933.6	2953.2
5°	2962.9	2933.6	2951.8	2936.4	2942.0	2908.4	2944.8	2929.4	2928.0	2936.4
7.5°	2969.9	2950.4	2968.5	2937.8	2951.8	2937.8	2964.3	2949.0	2961.5	2969.9
10°	3007.7	2996.5	2988.1	2981.1	2990.9	2962.9	2996.5	2997.9	3002.1	3027.3
12.5°	3060.9	3049.7	3035.7	3017.5	3027.3	3016.1	3041.3	3048.3	3063.7	3076.3
15°	3135.0	3114.0	3108.4	3091.6	3101.4	3095.8	3101.4	3097.2	3126.6	3122.4
17.5°	3237.1	3213.4	3133.6	3052.5	3000.7	3016.1	3080.5	3164.4	3185.4	3188.2
20°	3274.9	3107.0	3098.6	3006.3	2964.3	2961.5	2828.6	2630.0	2690.2	2831.4
22.5°	3230.1	3000.7	2976.9	2958.7	2779.7	2485.9	2457.9	2428.6	2421.6	2442.5
25°	3129.4	3102.8	3081.9	2844.0	2561.4	2562.8	2522.3	2329.2	2028.5	2003.3
27.5°	3283.3	3246.9	3044.1	2677.6	2672.0	2669.2	2609.0	2113.8	2049.4	2064.8
30°	3458.2	3398.0	2867.8	2820.3	2818.9	2793.7	2339.0	2132.0	2132.0	2134.8
32.5°	3659.6	3286.1	2968.5	2990.9	2989.5	2870.6	2259.3	2245.3	2239.7	2253.7
35°	3813.5	3196.6	3185.4	3225.9	3198.0	2435.5	2400.6	2388.0	2382.4	2375.4
37.5°	3765.9	3454.0	3454.0	3479.2	3253.9	2593.6	2576.8	2576.8	2565.6	2560.1
40°	3838.7	3774.3	3742.2	3751.9	2364.2	2785.3	2797.9	2795.1	2793.7	2803.5
42.5°	4222.0	4164.6	4135.3	3788.3	2646.8	2768.5	3076.3	3074.9	3079.1	3074.9
45°	4710.2	4657.1	4580.1	3544.9	3004.9	2427.2	3391.0	3406.4	3407.8	3406.4
47.5°	5222.2	5188.6	4401.0	3924.0	3393.8	2604.8	3241.3	3785.5	3778.5	3786.9
50°	5763.6	5612.5	4378.7	4373.1	3807.9	2898.6	2900.0	4117.1	4188.4	4210.8
52.5°	6366.6	5087.9	4852.9	4427.6	4227.6	3200.8	3170.0	3648.4	4622.1	4644.5
55°	5913.3	5374.7	5370.5	3940.8	4398.3	3491.7	3495.9	3462.4	4238.8	4817.9
57.5°	5883.9	5896.5	5886.7	4396.9	3209.2	3273.5	3809.3	3779.9	2744.7	2224.3
60°	6391.7	6409.9	5718.8	4748.0	3469.4	2013.1	2346.0	1993.5	2020.1	2041.0
62.5°	6877.2	6882.8	4651.5	3112.6	1719.3	81.1	39.2	32.2	30.8	30.8
65°	7414.4	7414.4	4985.8	3395.2	1660.5	30.8	5.6	4.2	15.4	15.4
67.5°	7933.4	7818.6	5230.6	3605.1	1689.9	4.2	0.0	0.0	0.0	0.0
68°	7904.0	7778.1	5208.2	3599.5	1685.7	2.8	0.0	0.0	0.0	0.0
70°	7464.7	7343.0	4941.0	3435.8	1622.8	2.8	0.0	0.0	0.0	0.0
72.5°	6589.0	6477.1	4375.9	3028.7	1463.3	1.4	0.0	0.0	0.0	0.0
75°	5577.6	5562.2	3779.9	2555.9	1254.8	1.4	0.0	0.0	0.0	0.0
77.5°	4487.8	4417.8	2954.6	2003.3	1011.4	0.0	0.0	0.0	0.0	0.0
80°	2499.9	2603.4	1729.1	1177.9	636.5	0.0	0.0	0.0	0.0	0.0
82.5°	675.7	632.3	377.7	256.0	121.7	0.0	0.0	0.0	0.0	0.0
85°	86.7	95.1	43.4	35.0	8.4	0.0	0.0	0.0	0.0	0.0
87.5°	44.8	53.2	14.0	11.2	2.8	0.0	0.0	0.0	0.0	0.0
90°	8.4	9.8	4.2	1.4	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)