

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: P256747

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256747
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-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 4000K 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: 28746 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U2 - G4

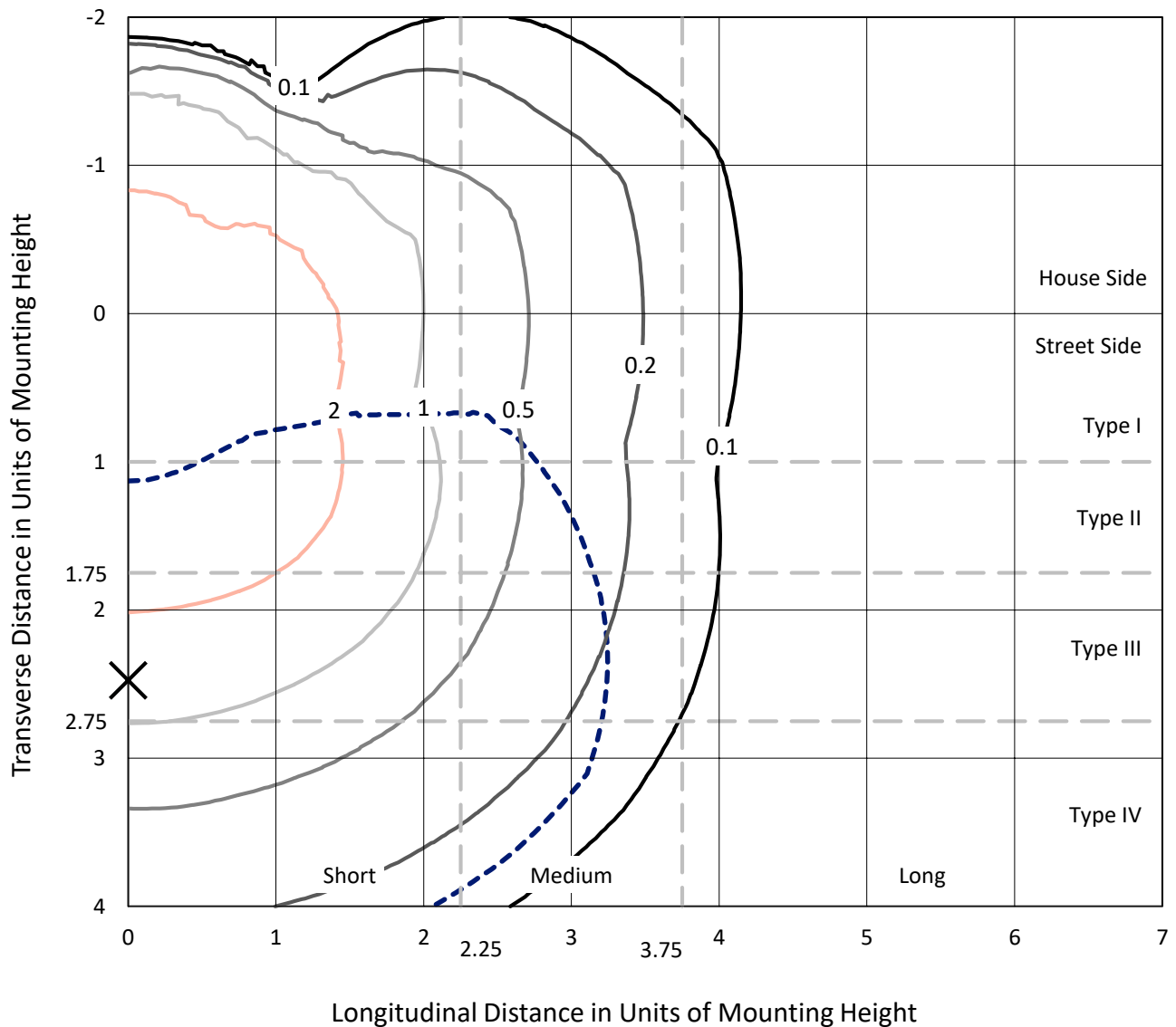
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

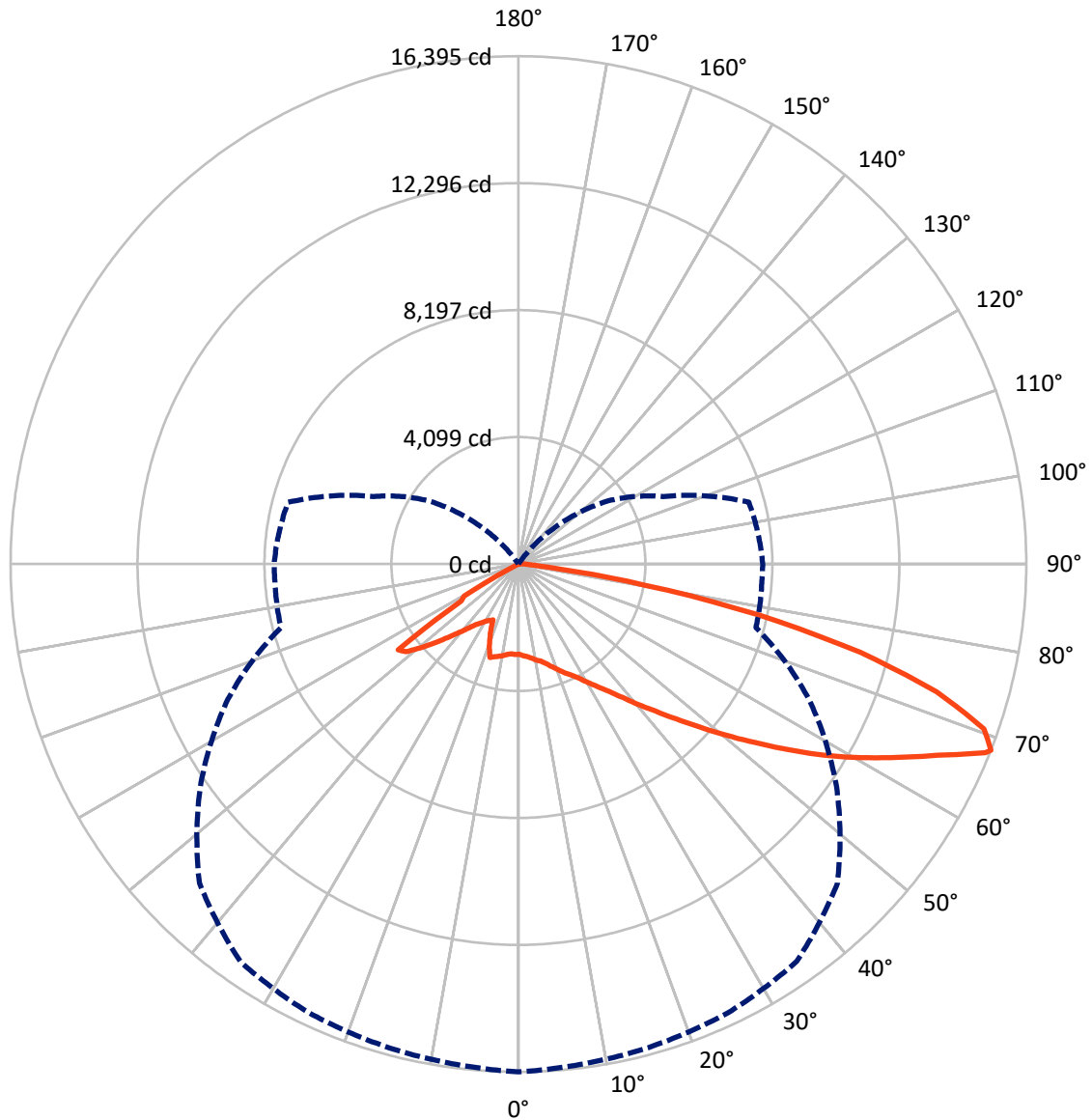


Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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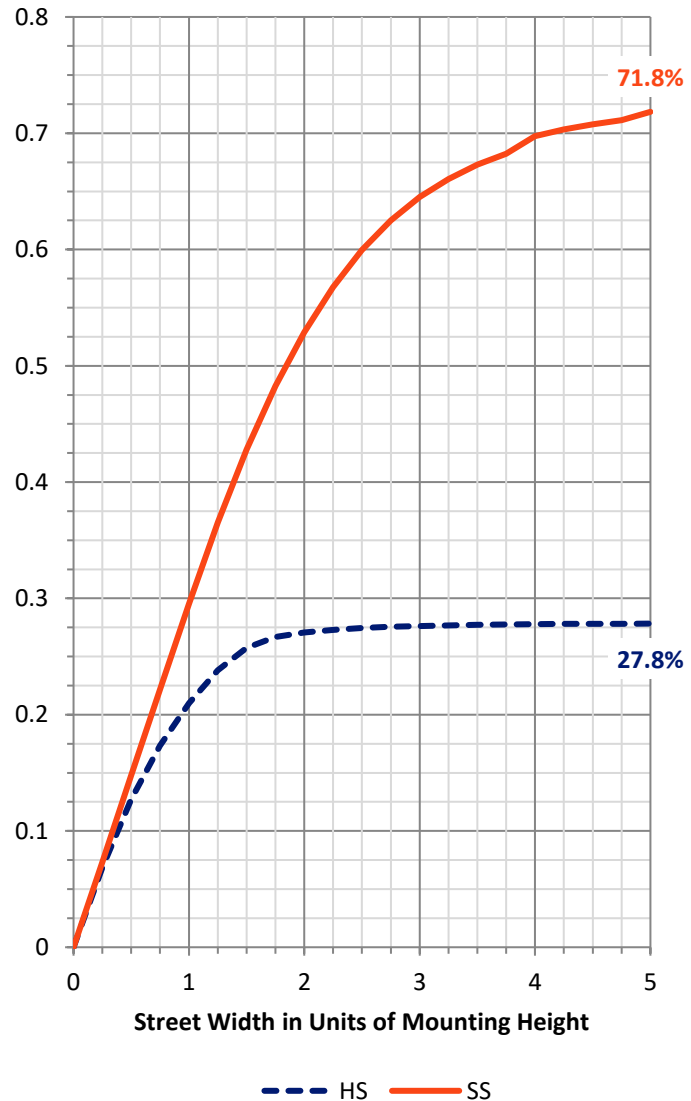
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8028.8	0.2	8029.0
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	20700.6	16.5	20717.0
	% Fixture	72.0	0.1	72.1
Total	Lumens	28729.4	16.6	28746.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.7	1.0
10°-20°	895.6	3.1
20°-30°	1516.3	5.3
30°-40°	2402.2	8.4
40°-50°	3927.5	13.7
50°-60°	6015.9	20.9
60°-70°	7397.0	25.7
70°-80°	5715.6	19.9
80°-90°	576.7	2.0
90°-100°	16.4	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°	28729.4	99.9
0°-180°	28746.0	100.0



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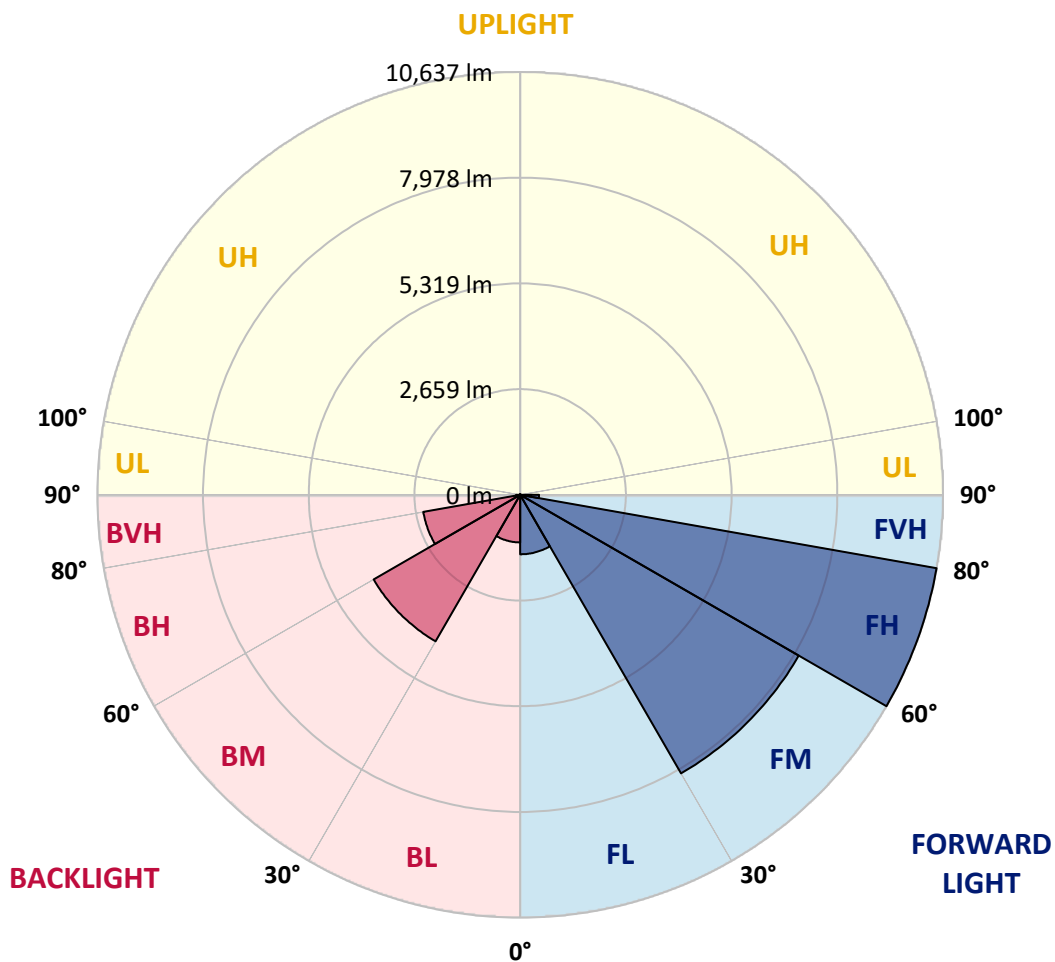
CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1496.2	5.2			
FM	(30°-60°)	8091.5	28.1			
FH	(60°-80°)	10637.2	37.0			G4/12000
FVH	(80°-90°)	475.6	1.7			G3/500
BL	(0°-30°)	1198.4	4.2	B3/2500		
BM	(30°-60°)	4254.0	14.8	B3/5000		
BH	(60°-80°)	2475.3	8.6	B3/2500		G3/2500
BVH	(80°-90°)	101.1	0.4			G2/225
UL	(90°-100°)	16.4	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°	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3
2.5°	2964.9	2959.4	2953.8	2966.3	2917.8	2938.6	2922.0	2937.2	2926.1	2938.6	2934.4
5°	3003.7	2998.1	2981.5	2995.4	2963.5	2971.8	2951.1	2956.6	2919.2	2941.4	2940.0
7.5°	3067.4	3052.1	3041.1	3041.1	3013.4	3012.0	2978.7	2980.1	2951.1	2948.3	2953.8
10°	3153.2	3142.2	3111.7	3114.5	3075.7	3070.1	3028.6	3027.2	3003.7	2989.8	3002.3
12.5°	3216.9	3228.0	3200.3	3200.3	3161.5	3133.8	3104.8	3085.4	3067.4	3046.6	3036.9
15°	3333.3	3344.3	3306.9	3305.6	3290.3	3257.1	3225.2	3183.7	3151.9	3142.2	3126.9
17.5°	3484.2	3477.3	3445.4	3446.8	3449.6	3395.6	3363.7	3309.7	3264.0	3230.8	3222.5
20°	3637.9	3637.9	3603.3	3614.4	3600.5	3550.7	3529.9	3455.1	3391.4	3355.4	3326.3
22.5°	3809.6	3802.7	3779.2	3802.7	3775.0	3725.2	3690.5	3615.8	3534.1	3330.5	3247.4
25°	3973.0	3968.9	3978.6	3985.5	3950.9	3888.6	3865.0	3786.1	3559.0	3291.7	3124.2
27.5°	4179.4	4165.5	4187.7	4201.5	4166.9	4112.9	4063.1	3974.4	3493.9	3283.4	3265.4
30°	4443.9	4413.4	4445.3	4452.2	4416.2	4383.0	4308.2	3865.0	3516.1	3455.1	3449.6
32.5°	4726.4	4690.4	4731.9	4737.5	4690.4	4662.7	4474.4	3808.3	3733.5	3662.8	3669.8
35°	5061.5	5061.5	5082.3	5085.1	5050.4	5003.4	4286.0	4085.2	4018.7	3953.7	3952.3
37.5°	5470.0	5457.6	5513.0	5546.2	5508.8	5374.5	4560.2	4466.0	4363.6	4280.5	4108.8
40°	5963.0	5985.2	6000.4	6033.7	5997.7	5695.8	4960.4	4853.8	4773.5	4495.1	4061.7
42.5°	6494.8	6500.3	6533.6	6575.1	6575.1	6256.6	5428.5	5337.1	5233.2	4395.4	4200.2
45°	7130.4	7118.0	7181.7	7248.1	7230.1	6900.6	5972.7	5904.9	5418.8	4684.8	4686.2
47.5°	7851.9	7836.7	7928.1	8015.3	7925.3	7615.1	6571.0	6518.3	5230.5	5175.1	5164.0
50°	8685.6	8648.2	8753.4	8869.8	8796.4	8412.8	7298.0	6287.1	5755.3	5711.0	5704.1
52.5°	9576.0	9546.9	9610.7	9808.7	9711.7	9247.8	7986.3	6486.5	6363.2	6313.4	6300.9
55°	10581.4	10524.6	10661.7	10812.7	10700.5	10171.5	8664.8	7148.4	7021.0	6935.2	6810.5
57.5°	11638.0	11556.3	11626.9	11816.7	11708.7	11117.3	9540.0	7829.8	7678.8	6354.9	5849.5
60°	12690.5	12653.1	12680.8	12848.4	12715.4	12036.9	10359.8	8512.5	6499.0	6285.7	6310.6
62.5°	13748.5	13666.8	13691.7	13863.4	13693.1	12912.1	11136.7	9132.9	6839.6	6764.8	6791.2
65°	14882.7	14785.7	14807.9	14857.7	14647.2	13697.3	11823.6	9718.7	7352.0	7273.1	7302.2
67.5°	16249.5	16160.8	16040.4	15892.2	15601.4	14530.9	12506.3	10334.9	7928.1	7883.8	7893.5
68°	16394.9	16309.0	16163.6	15987.7	15660.9	14565.5	12535.4	10352.9	7936.4	7881.0	7883.8
70°	15942.0	15993.3	15828.5	15533.5	15260.7	14058.7	12060.4	9954.1	7583.3	7501.6	7480.8
72.5°	14118.2	14230.4	14003.3	13953.4	13618.3	12524.3	10553.7	8637.1	6595.9	6622.2	6547.4
75°	11398.5	11563.2	11287.7	11302.9	11111.8	10447.1	8844.8	7191.4	5416.0	5536.5	5558.7
77.5°	7926.7	8163.5	8043.0	8163.5	8069.3	7829.8	6845.2	5537.9	4132.3	4270.8	4324.8
80°	4133.7	4414.8	4574.1	4623.9	4654.4	4644.7	4168.3	3323.6	2388.8	2440.1	2437.3
82.5°	1307.3	1239.4	1279.6	1268.5	1233.9	1247.7	1124.5	879.4	609.3	671.6	642.6
85°	394.7	397.4	386.4	383.6	354.5	311.6	254.8	146.8	72.0	84.5	78.9
87.5°	290.8	293.6	271.4	257.6	241.0	209.1	162.0	91.4	34.6	33.2	26.3
90°	160.6	155.1	144.0	132.9	126.0	108.0	81.7	34.6	12.5	9.7	8.3
92.5°	87.2	83.1	77.5	73.4	63.7	51.2	33.2	11.1	5.5	1.4	0.0
95°	40.2	37.4	36.0	31.9	27.7	19.4	11.1	6.9	4.2	1.4	0.0
97.5°	18.0	16.6	15.2	12.5	9.7	5.5	5.5	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°	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3	2912.3
2.5°	2930.3	2922.0	2917.8	2891.5	2899.8	2876.3	2922.0	2910.9	2904.0	2923.4
5°	2933.0	2904.0	2922.0	2906.7	2912.3	2879.0	2915.0	2899.8	2898.4	2906.7
7.5°	2940.0	2920.6	2938.6	2908.1	2922.0	2908.1	2934.4	2919.2	2931.7	2940.0
10°	2977.4	2966.3	2958.0	2951.1	2960.7	2933.0	2966.3	2967.7	2971.8	2996.8
12.5°	3030.0	3018.9	3005.1	2987.1	2996.8	2985.7	3010.6	3017.5	3032.8	3045.2
15°	3103.4	3082.6	3077.1	3060.5	3070.1	3064.6	3070.1	3066.0	3095.1	3090.9
17.5°	3204.5	3180.9	3102.0	3021.7	2970.4	2985.7	3049.4	3132.5	3153.2	3156.0
20°	3241.9	3075.7	3067.4	2976.0	2934.4	2931.7	2800.1	2603.5	2663.0	2802.9
22.5°	3197.5	2970.4	2946.9	2928.9	2751.6	2460.8	2433.1	2404.0	2397.1	2417.9
25°	3097.8	3071.5	3050.8	2815.3	2535.6	2537.0	2496.8	2305.7	2008.0	1983.1
27.5°	3250.2	3214.2	3013.4	2650.5	2645.0	2642.2	2582.7	2092.5	2028.8	2044.0
30°	3423.3	3363.7	2838.9	2791.8	2790.4	2765.5	2315.4	2110.5	2110.5	2113.2
32.5°	3622.7	3252.9	2938.6	2960.7	2959.4	2841.7	2236.5	2222.6	2217.1	2230.9
35°	3775.0	3164.3	3153.2	3193.4	3165.7	2411.0	2376.4	2363.9	2358.3	2351.4
37.5°	3727.9	3419.1	3419.1	3444.0	3221.1	2567.5	2550.8	2550.8	2539.8	2534.2
40°	3799.9	3736.2	3704.4	3714.1	2340.3	2757.2	2769.6	2766.9	2765.5	2775.2
42.5°	4179.4	4122.6	4093.5	3750.1	2620.1	2740.6	3045.2	3043.8	3048.0	3043.8
45°	4662.7	4610.1	4533.9	3509.1	2974.6	2402.7	3356.8	3372.0	3373.4	3372.0
47.5°	5169.5	5136.3	4356.6	3884.4	3359.6	2578.5	3208.6	3747.3	3740.4	3748.7
50°	5705.5	5555.9	4334.5	4328.9	3769.5	2869.3	2870.7	4075.5	4146.2	4168.3
52.5°	6302.3	5036.6	4803.9	4383.0	4184.9	3168.5	3138.0	3611.6	4575.4	4597.6
55°	5853.6	5320.5	5316.3	3901.0	4353.9	3456.5	3460.7	3427.4	4196.0	4769.3
57.5°	5824.6	5837.0	5827.3	4352.5	3176.8	3240.5	3770.9	3741.8	2717.0	2201.9
60°	6327.2	6345.2	5661.1	4700.1	3434.4	1992.8	2322.3	1973.4	1999.7	2020.5
62.5°	6807.8	6813.3	4604.5	3081.2	1701.9	80.3	38.8	31.9	30.5	30.5
65°	7339.5	7339.5	4935.5	3361.0	1643.8	30.5	5.5	4.2	15.2	15.2
67.5°	7853.3	7739.8	5177.8	3568.7	1672.9	4.2	0.0	0.0	0.0	0.0
68°	7824.2	7699.6	5155.7	3563.1	1668.7	2.8	0.0	0.0	0.0	0.0
70°	7389.4	7268.9	4891.2	3401.1	1606.4	2.8	0.0	0.0	0.0	0.0
72.5°	6522.5	6411.7	4331.7	2998.1	1448.5	1.4	0.0	0.0	0.0	0.0
75°	5521.3	5506.0	3741.8	2530.1	1242.2	1.4	0.0	0.0	0.0	0.0
77.5°	4442.5	4373.3	2924.7	1983.1	1001.2	0.0	0.0	0.0	0.0	0.0
80°	2474.7	2577.1	1711.6	1166.0	630.1	0.0	0.0	0.0	0.0	0.0
82.5°	668.9	625.9	373.9	253.4	120.5	0.0	0.0	0.0	0.0	0.0
85°	85.9	94.2	42.9	34.6	8.3	0.0	0.0	0.0	0.0	0.0
87.5°	44.3	52.6	13.8	11.1	2.8	0.0	0.0	0.0	0.0	0.0
90°	8.3	9.7	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)