

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: P256732

Luminaire Tested: **CST-10-4-D-U-T5R-7050-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256732
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-10-4-D-U-T5R-7050-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED
120 DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33690 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U2 - G5

Input Watts (W): 308
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

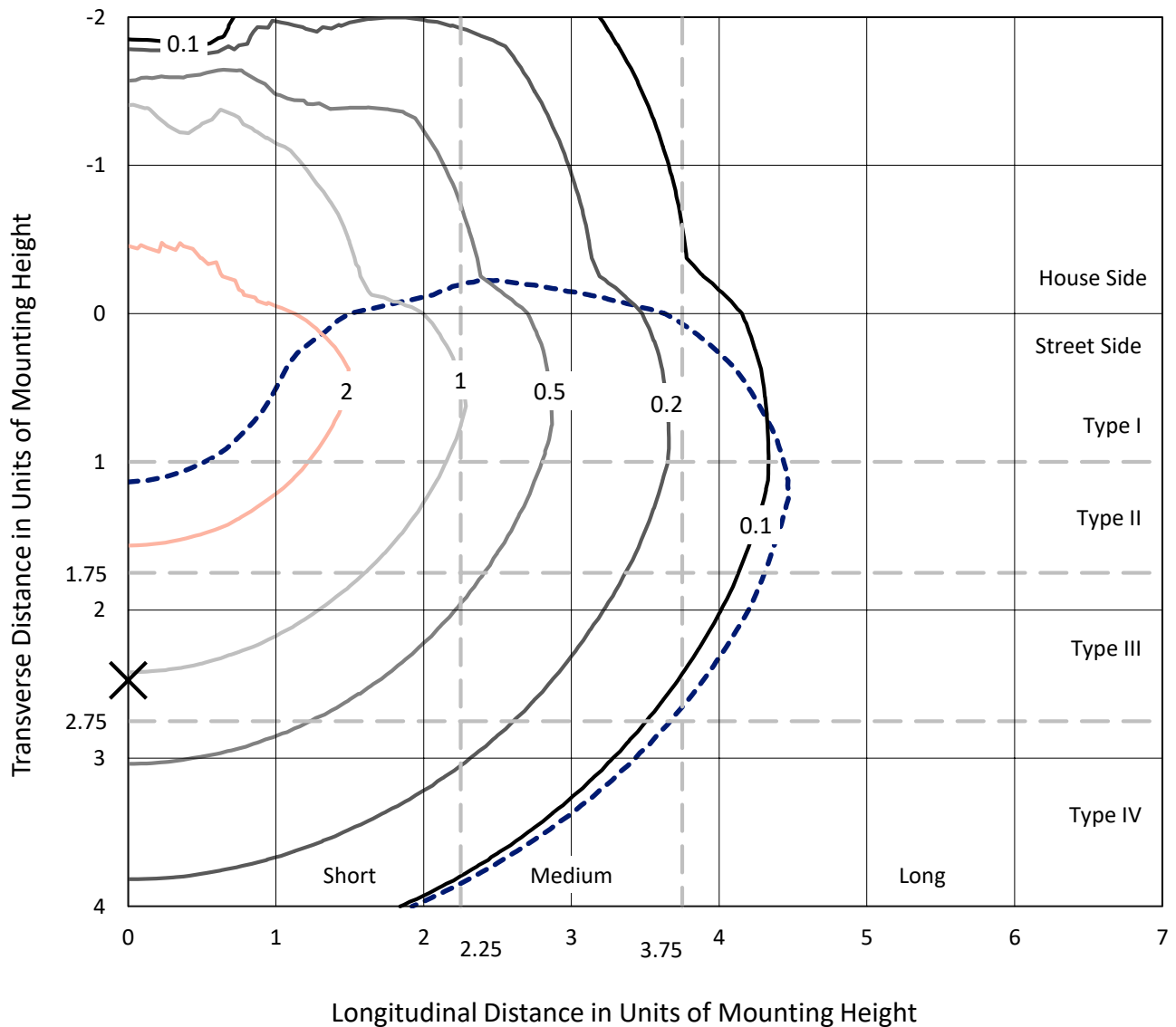


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

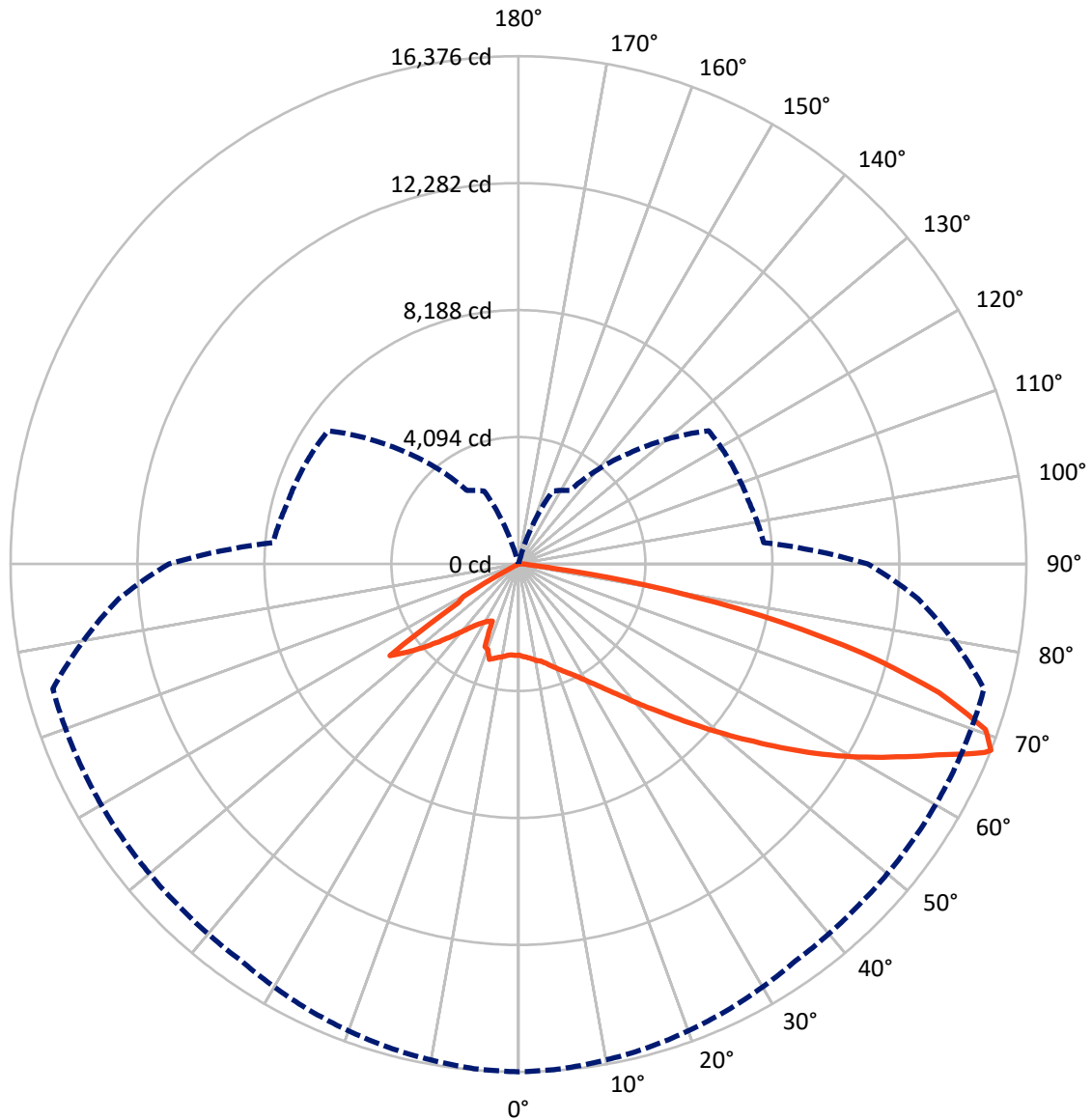


Based on 30 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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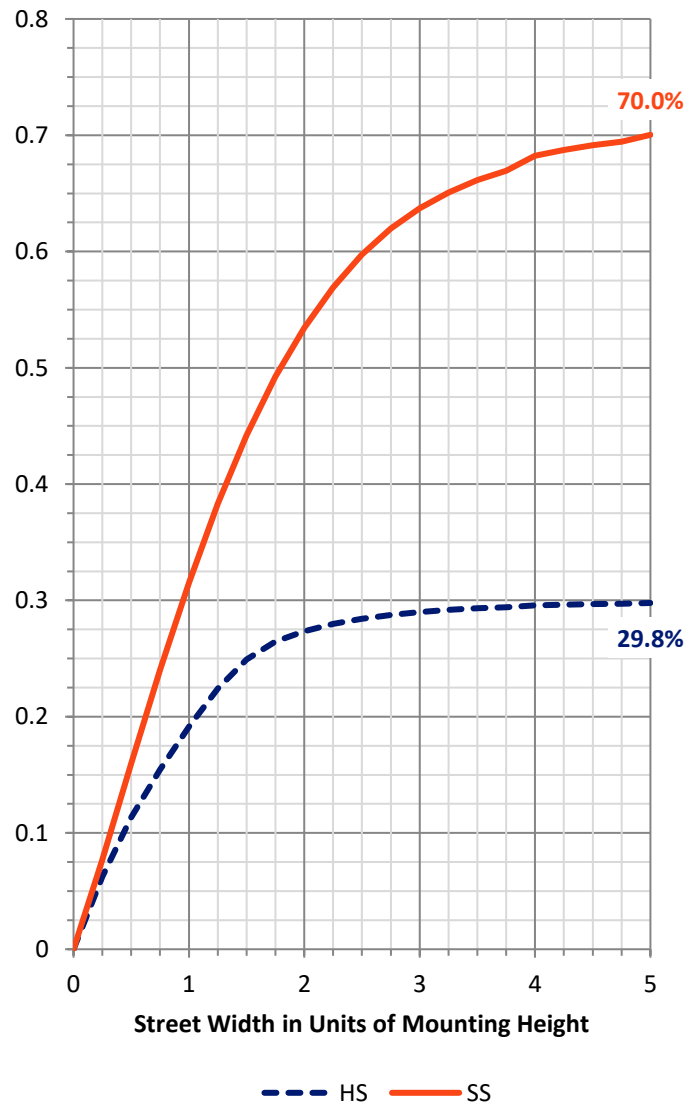
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10042.6	1.6	10044.2
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	23632.0	13.8	23645.8
	% Fixture	70.1	0.0	70.2
Total	Lumens	33674.7	15.4	33690.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.1	0.8
10°-20°	907.3	2.7
20°-30°	1554.1	4.6
30°-40°	2521.1	7.5
40°-50°	4251.7	12.6
50°-60°	6930.3	20.6
60°-70°	9294.7	27.6
70°-80°	7219.5	21.4
80°-90°	711.0	2.1
90°-100°	13.5	0.0
100°-110°	0.8	0.0
110°-120°	0.2	0.0
120°-130°	0.1	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	33674.7	100.0
0°-180°	33690.0	100.0



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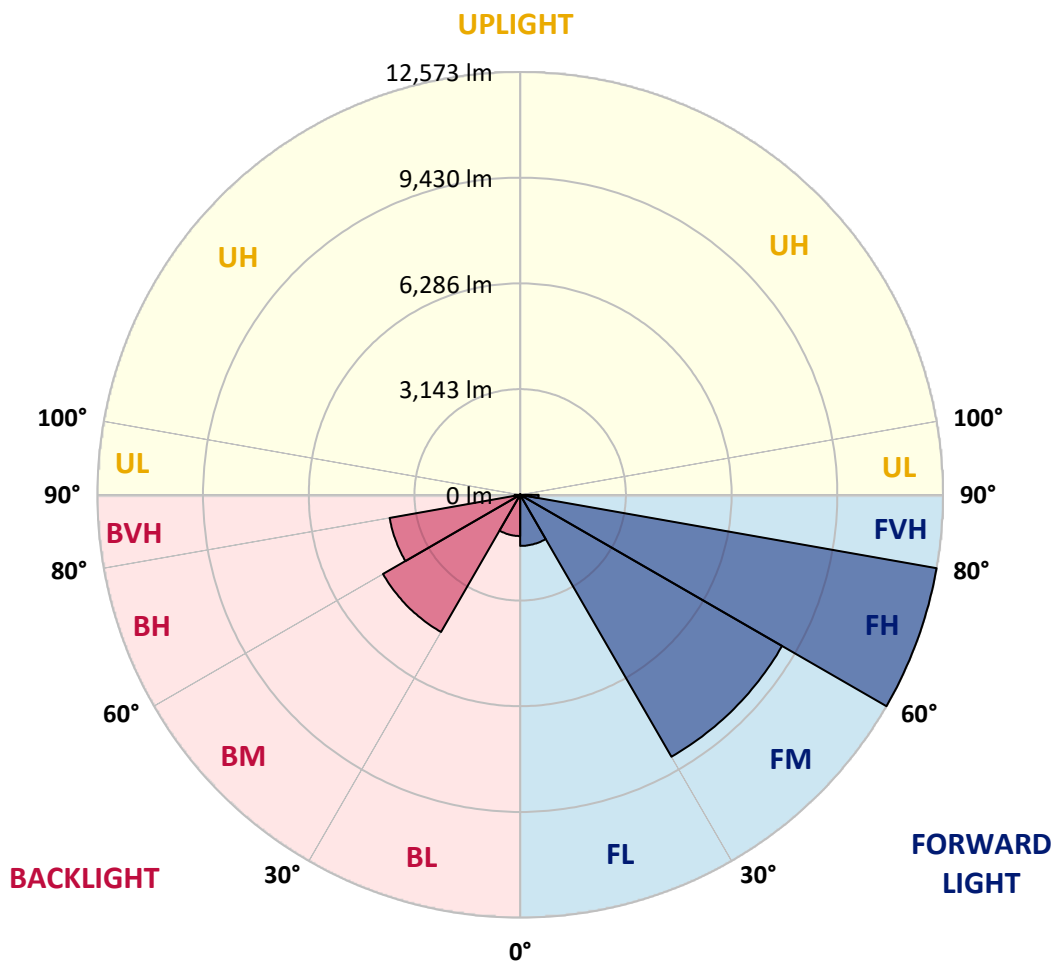
CATALOG NUMBER: CST-10-4-D-U-T5R-7050-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1519.6	4.5			
FM	(30°-60°)	8993.0	26.7			
FH	(60°-80°)	12572.7	37.3			G5
FVH	(80°-90°)	546.7	1.6			G4/750
BL	(0°-30°)	1226.8	3.6	B3/2500		
BM	(30°-60°)	4710.0	14.0	B3/5000		
BH	(60°-80°)	3941.5	11.7	B4/5000		G4/5000
BVH	(80°-90°)	164.3	0.5			G2/225
UL	(90°-100°)	13.5	0.0		U2/50	
UH	(100°-180°)	1.6	0.0		U1/10	

BUG Rating: B4-U2-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1
2.5°	2985.9	2977.6	2976.2	2992.9	2939.9	2966.4	2942.7	2962.2	2949.7	2959.4	2960.8
5°	3026.3	3011.0	3001.2	3020.7	2987.3	2999.8	2973.4	2981.7	2946.9	2966.4	2969.2
7.5°	3084.8	3059.8	3057.0	3062.5	3033.3	3043.0	2999.8	3009.6	2984.5	2973.4	2983.1
10°	3164.3	3140.6	3122.5	3135.0	3096.0	3101.6	3055.6	3057.0	3038.9	3018.0	3034.7
12.5°	3208.8	3211.6	3203.3	3213.0	3181.0	3162.9	3130.8	3119.7	3101.6	3076.5	3068.1
15°	3320.3	3314.7	3298.0	3313.3	3309.2	3292.4	3253.4	3228.4	3189.3	3175.4	3161.5
17.5°	3456.9	3438.7	3424.8	3444.3	3465.2	3430.4	3392.8	3357.9	3306.4	3278.5	3261.8
20°	3600.4	3587.8	3573.9	3604.6	3611.5	3585.0	3557.2	3505.6	3445.7	3409.5	3374.7
22.5°	3760.6	3735.5	3739.7	3780.1	3767.6	3755.0	3718.8	3677.0	3604.6	3558.6	3458.3
25°	3926.4	3912.5	3932.0	3950.1	3940.3	3913.9	3895.8	3865.1	3784.3	3728.6	3582.3
27.5°	4132.6	4110.3	4135.4	4142.4	4134.0	4127.1	4102.0	4078.3	3990.5	3927.8	3745.3
30°	4375.1	4348.6	4389.0	4379.2	4370.9	4376.5	4361.1	4309.6	4231.6	4146.6	3964.0
32.5°	4663.5	4628.7	4674.6	4653.7	4634.2	4673.2	4637.0	4588.2	4496.3	4397.4	4219.0
35°	4997.9	4999.3	5023.0	4988.1	4981.2	5023.0	4999.3	4939.4	4854.4	4751.3	4497.7
37.5°	5403.3	5392.2	5452.1	5435.4	5410.3	5466.0	5473.0	5397.8	5244.5	5142.8	4843.2
40°	5896.6	5893.8	5913.3	5916.1	5909.1	5935.6	5948.1	5847.8	5748.9	5595.6	4570.1
42.5°	6423.3	6434.4	6469.2	6444.2	6477.6	6512.4	6516.6	6433.0	6290.9	5368.5	4854.4
45°	7055.8	7090.7	7114.4	7108.8	7124.1	7174.3	7178.5	7133.9	6994.5	5815.8	5369.9
47.5°	7781.8	7815.2	7822.2	7866.8	7852.8	7923.9	7914.1	7915.5	7766.4	6438.6	5931.4
50°	8616.4	8631.7	8688.8	8713.9	8679.1	8775.2	8750.1	8780.8	8596.9	7152.0	6534.7
52.5°	9502.5	9529.0	9552.7	9647.4	9602.8	9686.4	9653.0	9724.1	9510.9	7877.9	7204.9
55°	10509.9	10514.1	10554.5	10650.6	10592.1	10692.4	10643.7	10670.1	10500.2	8680.5	7903.0
57.5°	11577.2	11563.3	11578.6	11655.2	11602.3	11677.5	11658.0	11683.1	11524.3	9524.8	8412.9
60°	12633.3	12612.4	12634.7	12686.3	12613.8	12743.4	12673.8	12697.4	12526.1	10387.3	9140.3
62.5°	13695.1	13679.7	13654.7	13706.2	13600.3	13667.2	13696.5	13657.4	13507.0	11167.6	9772.8
65°	14834.8	14819.5	14727.5	14759.6	14570.1	14538.0	14549.2	14561.7	14461.4	11940.9	10466.7
67.5°	16219.8	16197.5	16024.7	15807.4	15534.3	15474.4	15479.9	15513.4	15527.3	12935.7	11279.0
68°	16375.8	16335.4	16143.2	15891.0	15605.3	15535.7	15528.7	15535.7	15542.6	12944.1	11270.7
70°	15977.3	15962.0	15815.7	15510.6	15218.0	15050.8	14905.9	14900.3	14833.4	12282.2	10647.8
72.5°	14178.6	14159.0	13984.9	13768.9	13587.8	13325.8	13137.7	13148.9	13038.8	10855.5	9320.0
75°	11474.1	11472.7	11263.7	11082.6	11085.4	11065.8	11003.1	11113.2	10999.0	9207.1	7949.0
77.5°	7996.3	8024.2	8010.3	7904.4	8053.5	8259.7	8484.0	8695.8	8630.3	7273.2	6338.3
80°	4177.2	4255.2	4531.1	4543.7	4648.2	4848.8	5002.1	5144.2	5153.9	4127.1	3661.7
82.5°	1110.5	1134.2	1227.5	1201.1	1192.7	1233.1	1266.5	1270.7	1273.5	1075.7	1004.6
85°	345.5	355.3	344.2	328.8	305.1	278.7	271.7	221.5	175.6	144.9	126.8
87.5°	245.2	261.9	236.9	222.9	197.9	188.1	168.6	132.4	103.1	72.5	48.8
90°	126.8	129.6	115.6	98.9	92.0	86.4	73.8	52.9	26.5	13.9	12.5
92.5°	64.1	65.5	57.1	48.8	41.8	36.2	27.9	15.3	8.4	4.2	1.4
95°	25.1	26.5	23.7	20.9	16.7	12.5	11.1	8.4	5.6	2.8	1.4
97.5°	8.4	8.4	8.4	7.0	7.0	7.0	7.0	5.6	4.2	2.8	1.4
100°	0.0	0.0	0.0	1.4	2.8	4.2	4.2	4.2	2.8	1.4	1.4
102.5°	0.0	0.0	0.0	0.0	0.0	1.4	2.8	2.8	2.8	1.4	1.4
105°	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4



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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	1.4	1.4	1.4
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
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	1.4
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
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°	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1	2937.1
2.5°	2953.9	2945.5	2949.7	2914.9	2923.2	2900.9	2948.3	2935.8	2930.2	2949.7
5°	2960.8	2930.2	2955.3	2931.6	2935.8	2903.7	2942.7	2927.4	2926.0	2937.1
7.5°	2963.6	2948.3	2972.0	2933.0	2945.5	2933.0	2962.2	2946.9	2960.8	2970.6
10°	3002.6	2994.3	2991.5	2977.6	2987.3	2959.4	2995.7	2995.7	3002.6	3029.1
12.5°	3059.8	3048.6	3041.6	3016.6	3026.3	3018.0	3047.2	3052.8	3065.3	3076.5
15°	3137.8	3118.3	3111.3	3089.0	3096.0	3094.6	3115.5	3116.9	3144.8	3143.4
17.5°	3238.1	3210.2	3218.6	3201.9	3203.3	3192.1	3181.0	3181.0	3206.1	3211.6
20°	3357.9	3199.1	2990.1	2873.1	2852.2	2867.5	2927.4	3026.3	2902.3	2937.1
22.5°	3142.0	2998.5	2988.7	2962.2	2945.5	2572.1	2476.0	2445.3	2605.5	2881.4
25°	3169.8	3108.5	3090.4	3057.0	2563.7	2559.6	2531.7	2485.7	2031.5	2021.7
27.5°	3317.5	3257.6	3228.4	2678.0	2666.8	2665.4	2623.6	2162.5	2058.0	2071.9
30°	3490.3	3420.6	2896.7	2813.1	2803.4	2781.1	2541.4	2136.0	2134.6	2136.0
32.5°	3689.5	3458.3	2980.3	2976.2	2981.7	2913.5	2251.6	2243.3	2241.9	2255.8
35°	3962.6	3208.8	3189.3	3210.2	3181.0	2519.1	2386.8	2382.6	2384.0	2377.0
37.5°	3781.5	3459.6	3455.5	3455.5	3387.2	2577.7	2551.2	2570.7	2567.9	2558.2
40°	3858.1	3763.4	3738.3	3730.0	2863.3	2781.1	2765.8	2790.8	2795.0	2802.0
42.5°	4230.2	4143.8	4131.2	4032.3	3115.5	3089.0	3041.6	3068.1	3065.3	3073.7
45°	4687.2	4628.7	4574.3	3495.9	3455.5	3422.0	3373.3	3403.9	3412.3	3406.7
47.5°	5219.4	5155.3	4762.4	3844.2	3842.8	3816.3	3762.0	3787.1	3782.9	3782.9
50°	5754.5	5684.8	4326.3	4287.3	4273.4	4231.6	4187.0	4191.1	4192.5	4206.5
52.5°	6352.2	5077.3	4788.9	4710.9	4722.0	4694.1	4650.9	3521.0	4630.0	4642.6
55°	5937.0	5314.2	5297.5	5194.3	5220.8	5184.6	5156.7	3473.6	4605.0	5088.5
57.5°	5870.1	5825.5	5811.6	5705.7	5739.1	5395.0	5652.8	3801.0	3185.2	2326.9
60°	6381.5	6334.1	6325.7	6232.4	6229.6	4287.3	5138.6	2606.9	2037.1	2051.0
62.5°	6877.5	6800.9	6821.8	6711.7	4731.8	2612.5	2303.2	58.5	93.4	98.9
65°	7430.6	7302.5	7323.4	7221.6	4880.8	2754.6	2489.9	30.7	26.5	25.1
67.5°	7962.9	7738.6	7631.3	7524.0	5068.9	2900.9	2594.4	8.4	0.0	0.0
68°	7936.4	7699.6	7589.5	7487.8	5049.4	2896.7	2588.8	8.4	0.0	0.0
70°	7489.2	7276.0	7171.5	7093.5	4820.9	2797.8	2484.3	8.4	0.0	0.0
72.5°	6547.3	6428.8	6362.0	6293.7	4283.1	2502.4	2227.9	8.4	0.0	0.0
75°	5563.6	5530.1	5488.3	5337.9	3569.7	2048.2	1830.8	8.4	0.0	0.0
77.5°	4408.5	4407.1	4305.4	4128.4	2687.7	1503.4	1350.1	7.0	0.0	0.0
80°	2384.0	2598.6	2520.5	2430.0	1524.3	817.9	778.9	5.6	0.0	0.0
82.5°	670.2	634.0	608.9	569.9	320.5	178.3	174.2	5.6	0.0	0.0
85°	93.4	103.1	114.3	129.6	73.8	47.4	41.8	2.8	0.0	0.0
87.5°	52.9	59.9	73.8	76.6	27.9	22.3	7.0	0.0	0.0	0.0
90°	11.1	12.5	13.9	13.9	5.6	5.6	0.0	0.0	0.0	0.0
92.5°	0.0	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.4	1.4	1.4	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°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.4	1.4	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)