

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: P256707

Luminaire Tested: **CST-8-4-D-U-T5R-7050-HSS-HM-EX90**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256707  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)  
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-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 5000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 90  
DEGREE SHIELD - BLACK  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37177 lumens  
Efficiency: N/A  
Efficacy: 114.4 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B5 - U1 - G5

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



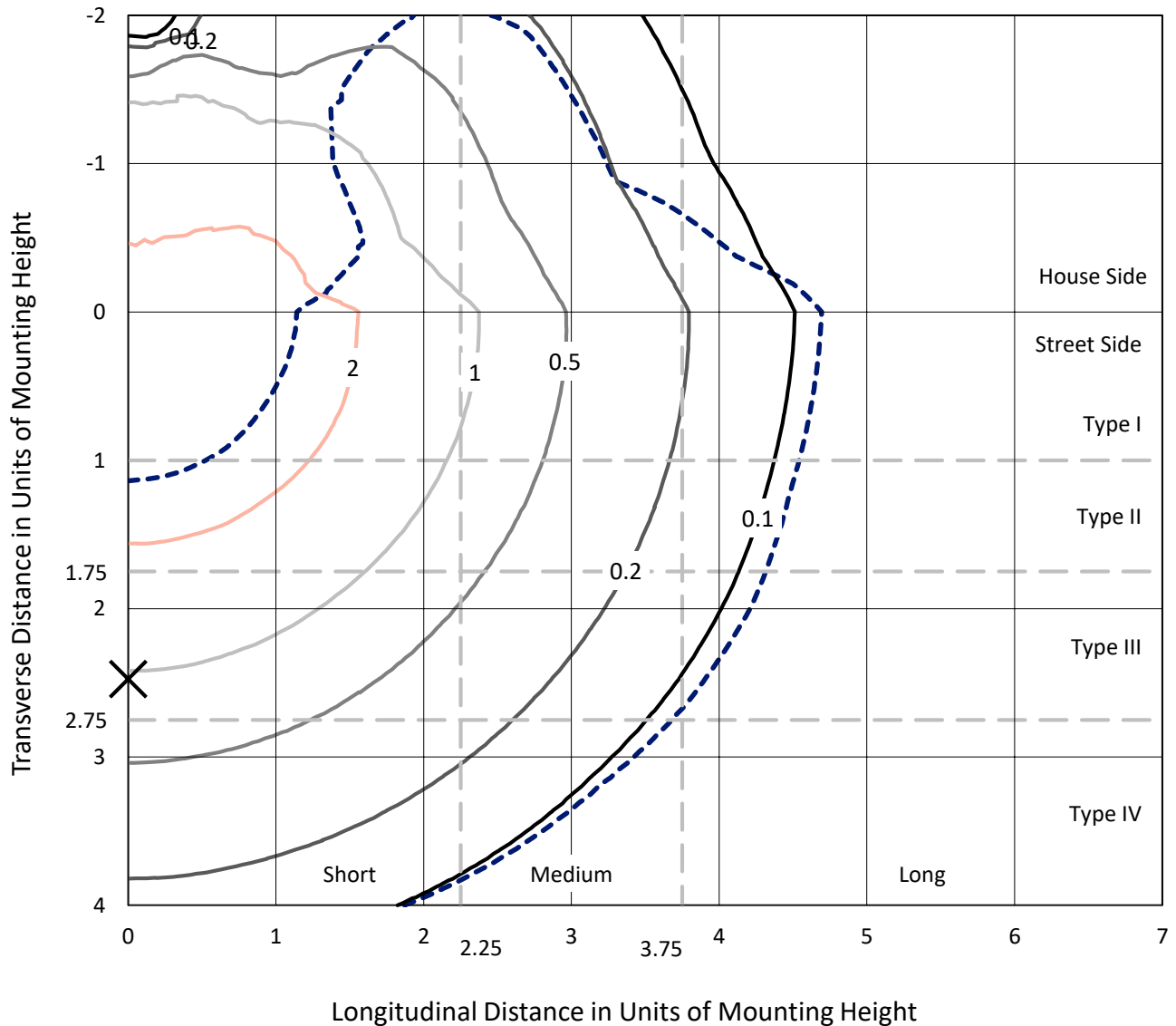


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

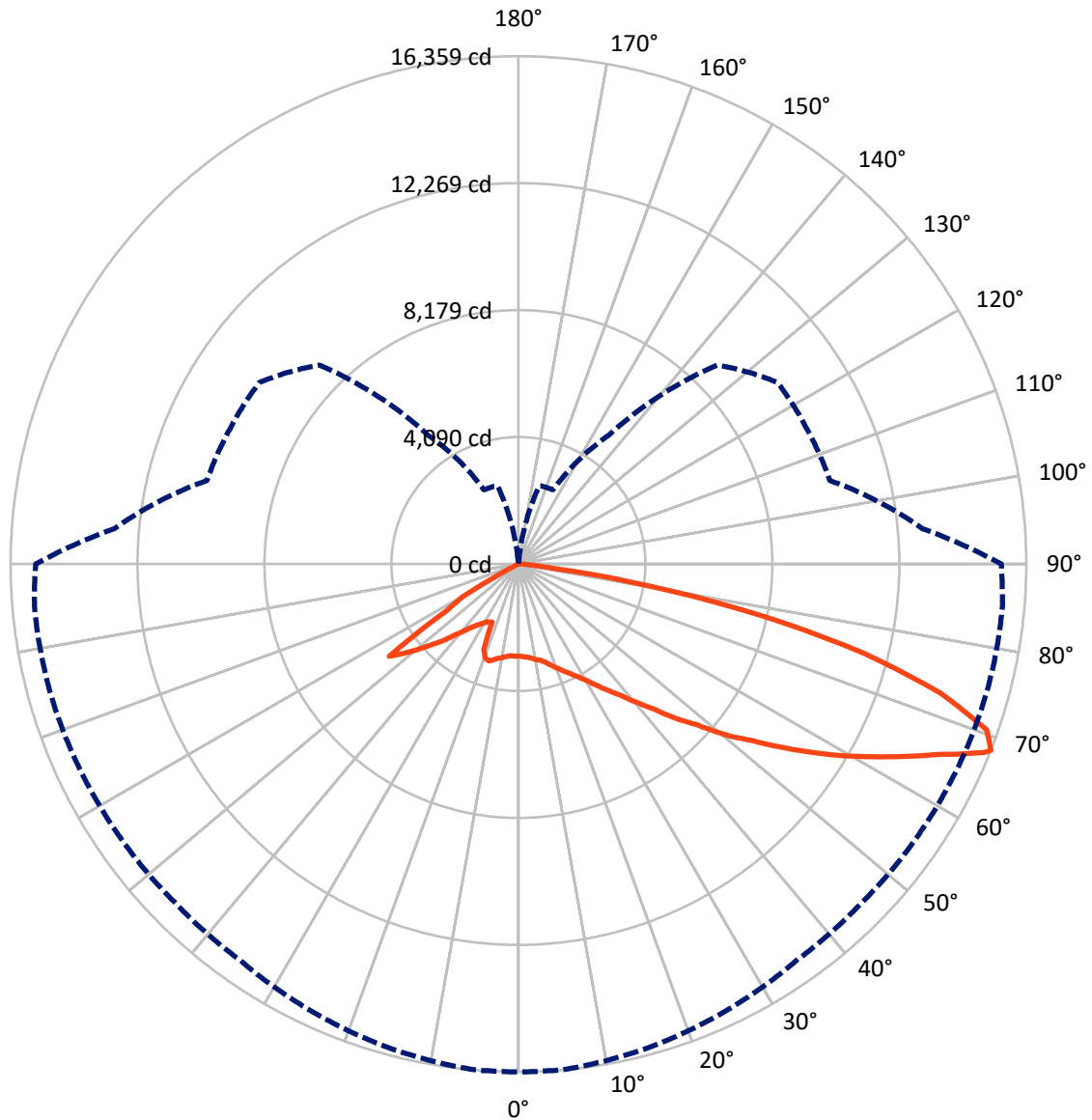


Based on 30 foot mounting height. Maximum calculated value = 3.3 fc  
Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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



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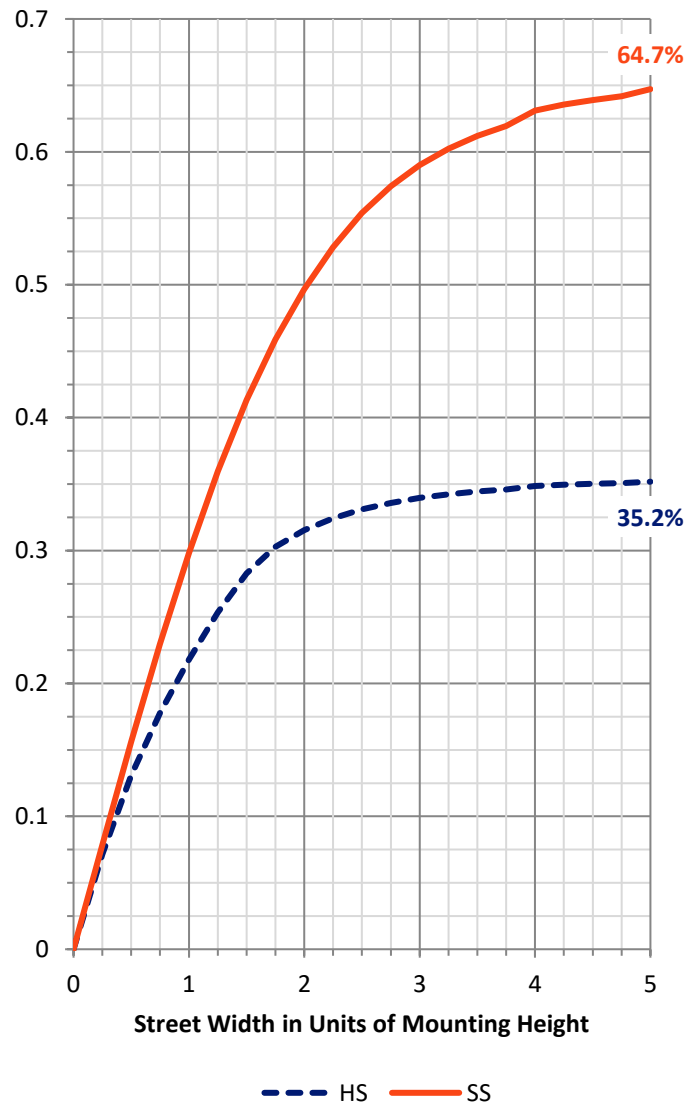
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13083.8	2.3	13086.0
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	24081.2	9.8	24091.0
	% Fixture	64.8	0.0	64.8
<b>Total</b>	Lumens	37165.0	12.1	37177.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	286.2	0.8
10°-20°	917.0	2.5
20°-30°	1637.1	4.4
30°-40°	2663.2	7.2
40°-50°	4548.0	12.2
50°-60°	7588.5	20.4
60°-70°	10557.2	28.4
70°-80°	8183.5	22.0
80°-90°	784.2	2.1
90°-100°	9.5	0.0
100°-110°	0.8	0.0
110°-120°	0.4	0.0
120°-130°	0.3	0.0
130°-140°	0.3	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	37165.0	100.0
0°-180°	37177.0	100.0

**Coefficient of Utilization**



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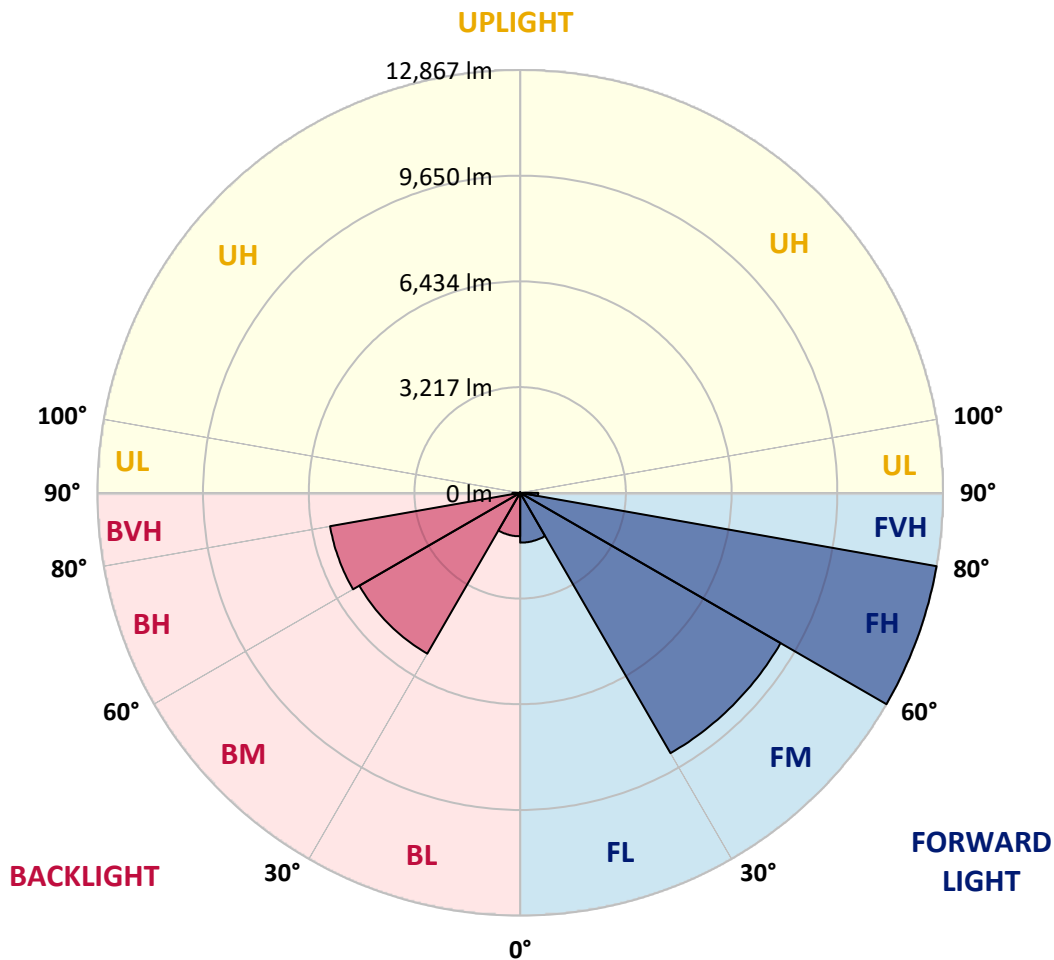
CATALOG NUMBER: CST-8-4-D-U-T5R-7050-HSS-HM-EX90

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1517.3	4.1			
FM	(30°-60°)	9148.1	24.6			
FH	(60°-80°)	12867.1	34.6			G5
FVH	(80°-90°)	548.6	1.5			G4/750
BL	(0°-30°)	1323.0	3.6	B3/2500		
BM	(30°-60°)	5651.6	15.2	B4/8500		
BH	(60°-80°)	5873.6	15.8	B5		G5
BVH	(80°-90°)	235.6	0.6			G3/500
UL	(90°-100°)	9.5	0.0		U1/10	
UH	(100°-180°)	2.3	0.0		U1/10	

**BUG Rating: B5-U1-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7
2.5°	2992.2	2988.0	2985.2	3003.4	2951.7	2972.7	2958.7	2976.8	2972.7	2981.0	2982.4
5°	3013.2	3006.2	2996.4	3016.0	2985.2	2999.2	2983.8	2992.2	2965.7	2988.0	2990.8
7.5°	3060.8	3041.2	3039.8	3045.4	3024.4	3034.2	3007.6	3017.4	3003.4	2995.0	3003.4
10°	3132.1	3115.3	3097.2	3108.3	3073.4	3086.0	3058.0	3066.4	3059.4	3041.2	3058.0
12.5°	3181.1	3186.7	3174.1	3182.5	3151.7	3140.5	3130.7	3129.3	3125.1	3098.6	3094.4
15°	3290.2	3293.0	3270.6	3276.2	3269.2	3263.6	3249.6	3238.4	3216.1	3199.3	3188.1
17.5°	3432.9	3417.5	3396.5	3402.1	3421.7	3396.5	3388.1	3367.1	3335.0	3307.0	3301.4
20°	3582.6	3572.8	3553.2	3564.4	3563.0	3546.2	3550.4	3515.4	3469.3	3445.5	3427.3
22.5°	3749.0	3735.0	3721.1	3742.0	3725.3	3714.1	3709.9	3686.1	3628.7	3602.2	3598.0
25°	3915.5	3908.5	3918.3	3911.3	3887.5	3879.1	3884.7	3876.3	3809.2	3777.0	3757.4
27.5°	4123.9	4107.2	4122.5	4114.2	4089.0	4090.4	4091.8	4093.2	4017.6	3975.7	3947.7
30°	4361.8	4356.2	4375.7	4349.2	4325.4	4340.8	4353.4	4325.4	4259.6	4198.1	4188.3
32.5°	4670.9	4635.9	4658.3	4624.7	4588.4	4624.7	4647.1	4591.2	4538.0	4459.7	4473.7
35°	5013.6	5002.4	5002.4	4959.1	4939.5	4996.9	5019.2	4964.7	4882.1	4813.6	4796.8
37.5°	5377.4	5388.5	5423.5	5405.3	5387.1	5422.1	5472.5	5399.7	5293.4	5220.7	5201.1
40°	5860.0	5887.9	5911.7	5887.9	5867.0	5889.3	5946.7	5851.6	5777.4	5738.3	5696.3
42.5°	6379.0	6426.5	6411.1	6413.9	6432.1	6464.3	6521.6	6434.9	6349.6	6348.2	6286.6
45°	7081.2	7081.2	7049.0	7079.8	7077.0	7156.7	7181.9	7134.4	7063.0	7042.0	6988.9
47.5°	7737.3	7805.8	7793.2	7838.0	7803.0	7870.2	7955.5	7914.9	7832.4	7758.3	7747.1
50°	8652.2	8635.4	8618.6	8685.7	8680.1	8726.3	8804.6	8779.5	8664.8	8580.8	8565.4
52.5°	9456.5	9544.7	9523.7	9624.4	9568.4	9634.2	9727.9	9723.7	9583.8	9501.3	9477.5
55°	10472.1	10530.9	10526.7	10630.2	10553.3	10640.0	10718.3	10726.7	10574.2	10456.7	10493.1
57.5°	11529.7	11578.7	11550.7	11636.0	11560.5	11679.4	11726.9	11696.2	11606.6	11458.3	11512.9
60°	12588.7	12630.6	12662.8	12669.8	12626.4	12696.4	12741.1	12767.7	12626.4	12457.2	12522.9
62.5°	13664.4	13712.0	13684.0	13695.2	13574.9	13670.0	13726.0	13733.0	13570.7	13421.0	13467.2
65°	14797.5	14863.3	14762.5	14695.4	14547.1	14545.7	14619.9	14632.4	14517.7	14411.4	14393.2
67.5°	16200.6	16230.0	16014.6	15789.3	15538.9	15484.4	15536.1	15565.5	15631.3	15628.5	15545.9
68°	16358.7	16353.1	16134.9	15866.3	15597.7	15534.7	15559.9	15597.7	15641.0	15649.4	15550.1
70°	15999.2	15930.6	15806.1	15467.6	15201.8	15036.7	14948.6	15018.5	14901.0	14902.4	14716.4
72.5°	14211.4	14203.0	13973.6	13805.7	13569.3	13295.1	13169.2	13167.8	13179.0	13097.9	12906.2
75°	11511.5	11522.7	11255.5	11139.4	11066.7	11014.9	11041.5	11124.0	11132.4	11131.0	11063.9
77.5°	8028.3	8074.4	8003.1	7814.2	8017.1	8190.5	8524.9	8695.5	8641.0	8804.6	8908.2
80°	4207.9	4300.2	4303.0	4435.9	4599.6	4757.6	5045.8	5304.6	5114.4	5030.4	4943.7
82.5°	1106.5	1140.1	1190.5	1113.5	1137.3	1161.1	1384.9	1363.9	1259.0	1315.0	1398.9
85°	316.2	325.9	312.0	282.6	258.8	237.8	243.4	205.6	179.1	177.7	172.1
87.5°	222.4	239.2	211.2	181.9	163.7	152.5	146.9	124.5	100.7	88.1	69.9
90°	103.5	102.1	88.1	68.5	60.2	57.4	57.4	44.8	25.2	15.4	14.0
92.5°	43.4	44.8	36.4	29.4	25.2	19.6	15.4	9.8	5.6	2.8	1.4
95°	15.4	16.8	14.0	11.2	9.8	8.4	7.0	5.6	2.8	1.4	1.4
97.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	2.8	2.8	1.4	1.4
100°	0.0	0.0	0.0	1.4	2.8	2.8	2.8	2.8	1.4	1.4	1.4
102.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	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	1.4	1.4	1.4	1.4
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	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	0.0	1.4	1.4
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	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	1.4	1.4	1.4	1.4	1.4
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
165°	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
167.5°	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
170°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
172.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
175°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
177.5°	0.0	0.0	0.0	0.0	1.4	1.4	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°	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7
2.5°	2979.6	2972.7	2969.9	2934.9	2944.7	2923.7	2972.7	2958.7	2955.9	2975.4
5°	2986.6	2954.5	2974.1	2951.7	2957.3	2926.5	2965.7	2948.9	2950.3	2960.1
7.5°	2990.8	2972.7	2992.2	2953.1	2968.5	2957.3	2985.2	2968.5	2985.2	2993.6
10°	3032.8	3024.4	3010.4	2999.2	3010.4	2983.8	3018.8	3016.0	3025.8	3051.0
12.5°	3090.2	3080.4	3066.4	3046.8	3055.2	3045.4	3072.0	3074.8	3093.0	3105.5
15°	3175.5	3162.9	3155.9	3136.3	3139.1	3132.1	3147.5	3150.3	3186.7	3182.5
17.5°	3295.8	3281.8	3287.4	3269.2	3262.2	3245.4	3217.5	3207.7	3251.0	3263.6
20°	3427.3	3411.9	3418.9	3403.5	3273.4	3009.0	3186.7	3308.4	3216.1	3209.1
22.5°	3577.0	3560.2	3565.8	3542.0	3381.1	2885.9	2511.0	2480.2	2832.8	2975.4
25°	3742.0	3719.7	3716.9	3686.1	3157.3	2613.1	2571.2	2516.6	2259.2	2055.0
27.5°	3946.3	3912.7	3895.9	3431.5	3134.9	2715.3	2652.3	2457.9	2084.4	2096.9
30°	4167.3	4118.3	3803.6	3497.2	3298.6	2835.6	2751.6	2154.3	2157.1	2151.5
32.5°	4419.1	4310.0	3726.7	3698.7	3494.4	2964.3	2284.4	2259.2	2262.0	2270.4
35°	4749.2	4000.8	3985.5	3986.9	3733.7	2867.7	2420.1	2396.3	2399.1	2404.7
37.5°	4819.2	4312.8	4315.6	4283.4	3988.2	2620.1	2585.2	2583.8	2578.2	2572.6
40°	4875.1	4705.9	4665.3	4613.6	3697.3	2821.6	2810.4	2802.0	2806.2	2817.4
42.5°	5313.0	5185.7	5146.5	5085.0	3792.4	3126.5	3090.2	3080.4	3091.6	3086.0
45°	5894.9	5788.6	5711.7	4701.7	4189.7	3458.1	3428.7	3416.1	3420.3	3455.3
47.5°	6510.5	6447.5	6212.5	5079.4	4652.7	3849.8	3820.4	3800.8	3807.8	3799.4
50°	7180.5	7123.2	5750.9	5648.7	5164.7	4272.2	4228.9	4221.9	4224.7	4223.3
52.5°	7908.0	6709.1	6373.4	6267.0	5704.7	4714.3	4698.9	4661.1	4669.5	4661.1
55°	8761.3	7067.2	7058.8	6934.3	6311.8	5227.7	5209.5	5156.3	4822.0	5114.4
57.5°	9571.2	7751.3	7751.3	7631.0	6932.9	5738.3	5708.9	5669.7	3427.3	2764.2
60°	10458.1	8436.7	8417.2	8317.8	7531.7	6225.1	5059.8	5048.6	2070.4	2077.4
62.5°	11224.7	9048.1	9083.0	8990.7	8108.0	4661.1	2344.5	2297.0	204.2	314.8
65°	12083.7	9723.7	9765.7	9670.6	8731.9	4943.7	2544.6	2520.8	46.2	42.0
67.5°	13057.3	10398.0	10302.9	10197.9	9097.0	5090.6	2643.9	2622.9	12.6	8.4
68°	13065.7	10384.0	10260.9	10189.6	9062.0	5062.6	2635.5	2615.9	12.6	8.4
70°	12394.2	9860.8	9737.7	9755.9	8628.4	4841.6	2526.4	2490.0	12.6	8.4
72.5°	10873.6	8775.3	8636.8	8538.9	7652.0	4304.4	2264.8	2196.3	12.6	8.4
75°	9304.1	7436.5	7207.1	6991.7	6156.5	3522.4	1857.7	1780.8	12.6	8.4
77.5°	7333.0	5668.3	5342.4	5201.1	4626.1	2601.9	1380.7	1296.8	12.6	7.0
80°	4052.6	3252.4	2975.4	2888.7	2645.3	1529.0	791.8	741.4	11.2	7.0
82.5°	1047.8	786.2	685.5	661.7	621.1	362.3	193.0	183.3	9.8	5.6
85°	149.7	110.5	121.7	144.1	138.5	93.7	67.1	57.4	8.4	4.2
87.5°	78.3	65.7	76.9	86.7	88.1	54.6	28.0	15.4	4.2	0.0
90°	12.6	12.6	14.0	15.4	15.4	7.0	5.6	0.0	0.0	0.0
92.5°	1.4	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	1.4	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.4	2.8	1.4	1.4	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	1.4	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.4	1.4	1.4	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)