

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: P522225

Luminaire Tested: **CST-CA8-330-740-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522225  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-330-740-U-T5R-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37709.1 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G5

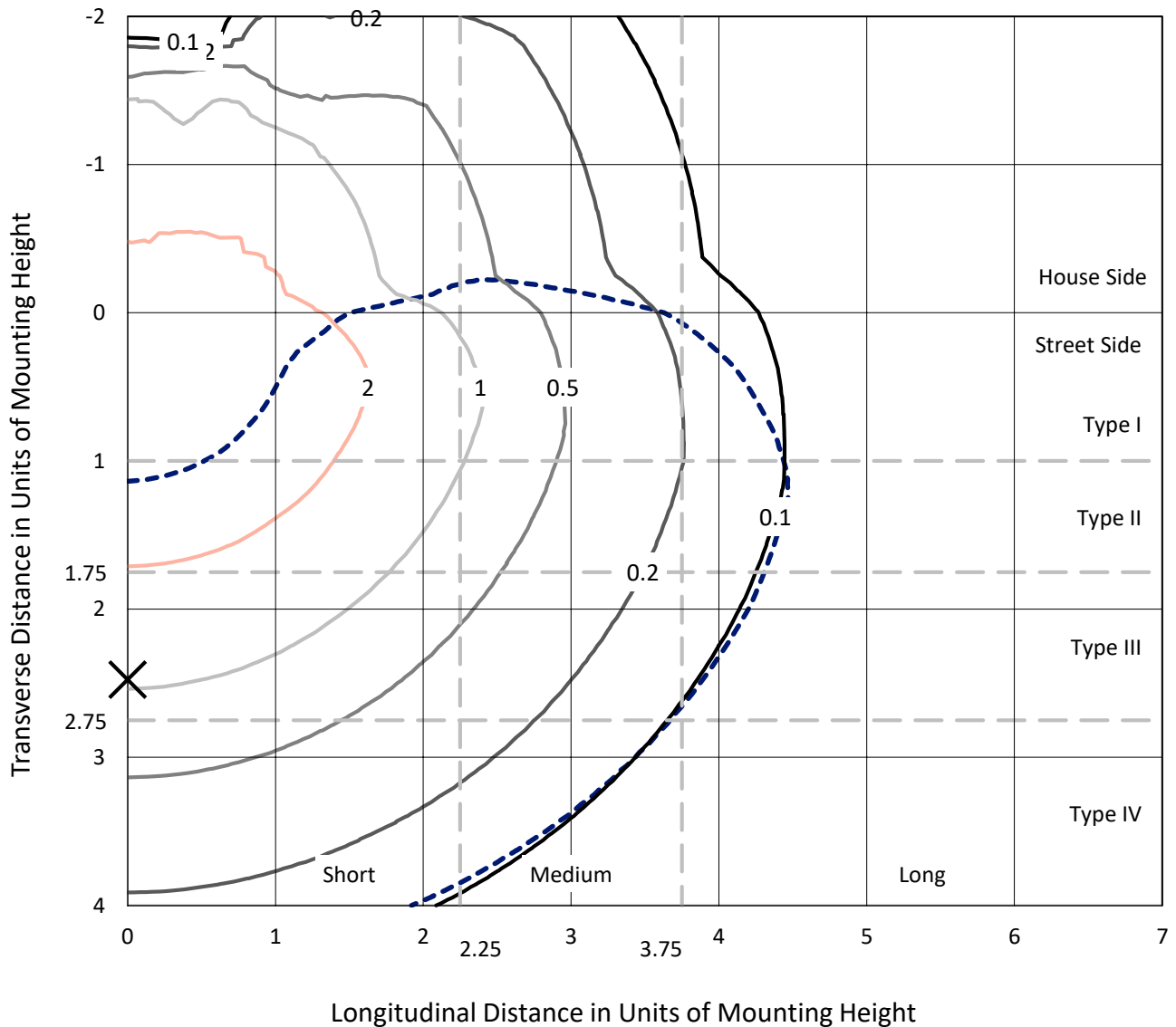
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

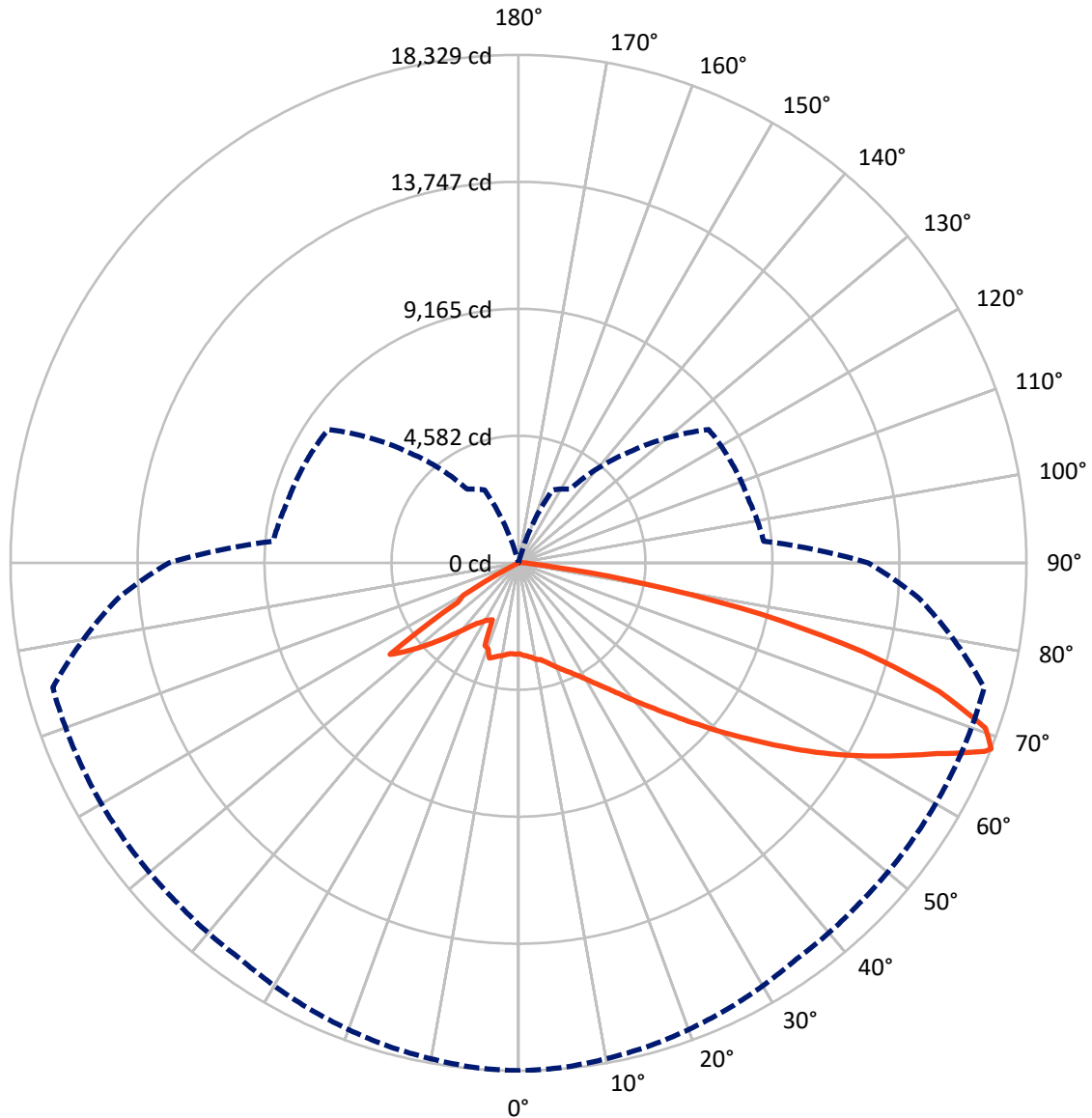
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.7 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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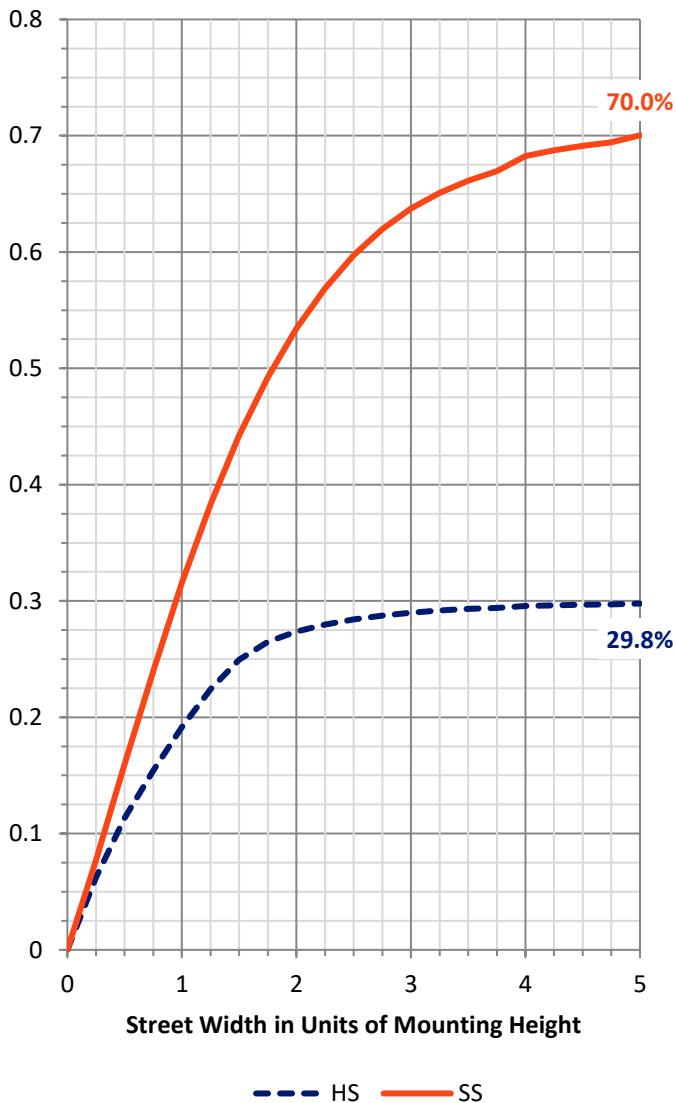
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11240.6	1.8	11242.4
	% Fixture	29.8	0.0	29.8
<b>Street Side</b>	Lumens	26451.2	15.5	26466.7
	% Fixture	70.1	0.0	70.2
<b>Total</b>	Lumens	37691.8	17.2	37709.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	319.1	0.8
10°-20°	1015.5	2.7
20°-30°	1739.5	4.6
30°-40°	2821.8	7.5
40°-50°	4758.8	12.6
50°-60°	7757.0	20.6
60°-70°	10403.5	27.6
70°-80°	8080.8	21.4
80°-90°	795.8	2.1
90°-100°	15.1	0.0
100°-110°	0.9	0.0
110°-120°	0.2	0.0
120°-130°	0.2	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°	37691.8	100.0
0°-180°	37709.1	100.0

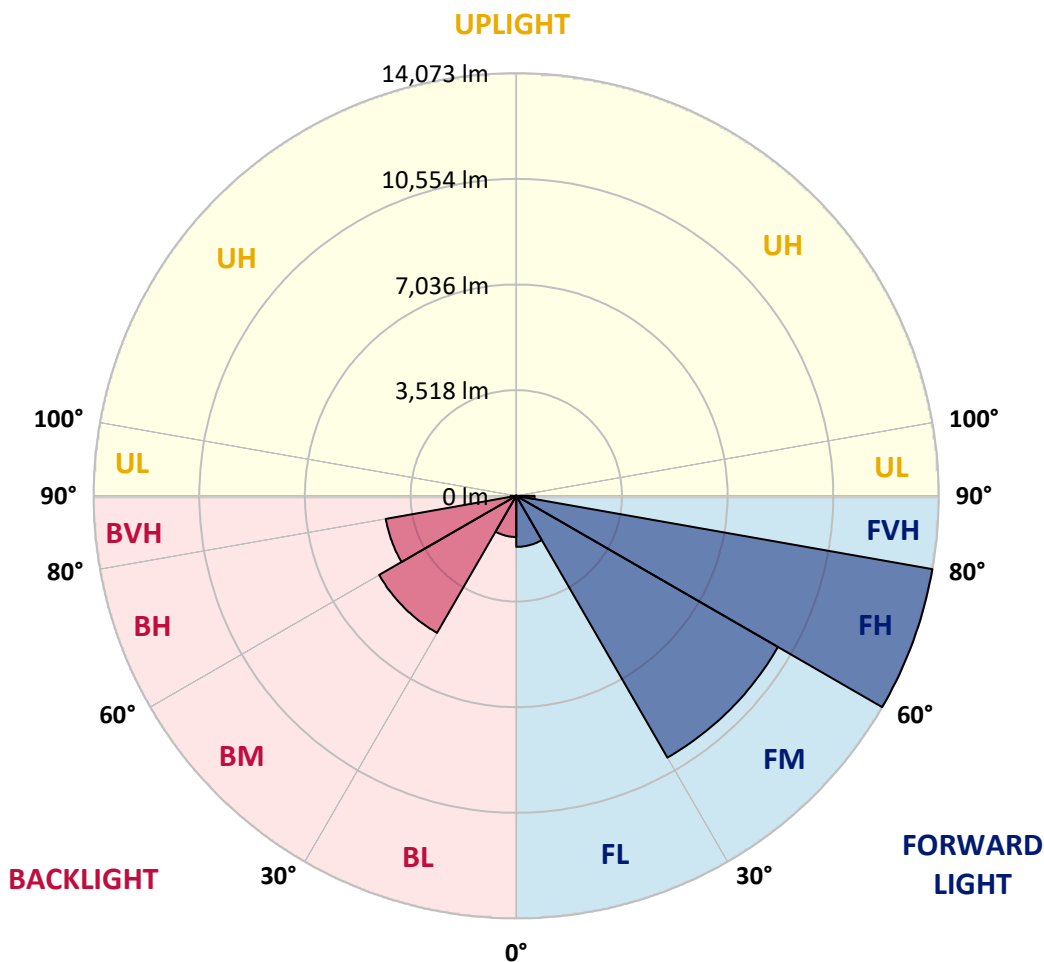


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1700.9	4.5			
FM (30°-60°)	10065.9	26.7			
FH (60°-80°)	14072.6	37.3			G5
FVH (80°-90°)	611.9	1.6			G4/750
BL (0°-30°)	1373.2	3.6	B3/2500		
BM (30°-60°)	5271.8	14.0	B4/8500		
BH (60°-80°)	4411.7	11.7	B4/5000		G4/5000
BVH (80°-90°)	183.9	0.5			G2/225
UL (90°-100°)	15.1	0.0		U2/50	
UH (100°-180°)	2.1	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°	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5
2.5°	3342.1	3332.8	3331.2	3349.9	3290.6	3320.3	3293.8	3315.6	3301.6	3312.5	3314.0
5°	3387.3	3370.2	3359.3	3381.1	3343.7	3357.7	3328.1	3337.4	3298.4	3320.3	3323.4
7.5°	3452.8	3424.8	3421.6	3427.9	3395.1	3406.1	3357.7	3368.6	3340.6	3328.1	3339.0
10°	3541.7	3515.2	3494.9	3509.0	3465.3	3471.6	3420.1	3421.6	3401.4	3378.0	3396.7
12.5°	3591.6	3594.8	3585.4	3596.3	3560.4	3540.2	3504.3	3491.8	3471.6	3443.5	3434.1
15°	3716.4	3710.2	3691.5	3708.6	3703.9	3685.2	3641.5	3613.5	3569.8	3554.2	3538.6
17.5°	3869.2	3849.0	3833.4	3855.2	3878.6	3839.6	3797.5	3758.5	3700.8	3669.6	3650.9
20°	4029.9	4015.8	4000.2	4034.6	4042.3	4012.7	3981.5	3923.8	3856.8	3816.2	3777.2
22.5°	4209.2	4181.1	4185.8	4231.1	4217.0	4203.0	4162.4	4115.6	4034.6	3983.1	3870.8
25°	4394.8	4379.2	4401.0	4421.3	4410.4	4380.8	4360.5	4326.2	4235.7	4173.4	4009.6
27.5°	4625.6	4600.7	4628.7	4636.5	4627.2	4619.4	4591.3	4564.8	4466.5	4396.4	4192.1
30°	4897.0	4867.4	4912.6	4901.7	4892.3	4898.5	4881.4	4823.7	4736.3	4641.2	4436.9
32.5°	5219.8	5180.8	5232.3	5208.9	5187.1	5230.7	5190.2	5135.6	5032.7	4921.9	4722.3
35°	5594.1	5595.7	5622.2	5583.2	5575.4	5622.2	5595.7	5528.6	5433.5	5318.1	5034.2
37.5°	6047.9	6035.5	6102.5	6083.8	6055.7	6118.1	6125.9	6041.7	5870.1	5756.3	5421.0
40°	6600.0	6596.9	6618.7	6621.8	6614.0	6643.7	6657.7	6545.4	6434.7	6263.1	5115.3
42.5°	7189.5	7202.0	7241.0	7212.9	7250.3	7289.3	7294.0	7200.4	7041.4	6008.9	5433.5
45°	7897.6	7936.5	7963.1	7956.8	7974.0	8030.1	8034.8	7984.9	7828.9	6509.6	6010.5
47.5°	8710.1	8747.5	8755.3	8805.2	8789.6	8869.2	8858.2	8859.8	8692.9	7206.7	6639.0
50°	9644.2	9661.4	9725.3	9753.4	9714.4	9822.0	9794.0	9828.3	9622.4	8005.2	7314.3
52.5°	10636.1	10665.8	10692.3	10798.3	10748.4	10842.0	10804.6	10884.1	10645.5	8817.7	8064.4
55°	11763.7	11768.4	11813.6	11921.2	11855.7	11968.0	11913.4	11943.0	11752.8	9716.0	8845.8
57.5°	12958.3	12942.7	12959.8	13045.6	12986.4	13070.6	13048.7	13076.8	12899.0	10661.1	9416.6
60°	14140.4	14117.0	14142.0	14199.7	14118.6	14263.6	14185.7	14212.2	14020.3	11626.4	10230.6
62.5°	15328.8	15311.6	15283.6	15341.3	15222.8	15297.6	15330.4	15286.7	15118.3	12499.8	10938.7
65°	16604.5	16587.4	16484.4	16520.3	16308.2	16272.3	16284.8	16298.8	16186.6	13365.3	11715.3
67.5°	18154.7	18129.7	17936.4	17693.1	17387.4	17320.3	17326.6	17364.0	17379.6	14478.8	12624.5
68°	18329.4	18284.1	18068.9	17786.6	17466.9	17389.0	17381.2	17389.0	17396.8	14488.2	12615.2
70°	17883.3	17866.2	17702.4	17360.9	17033.4	16846.2	16684.0	16677.8	16603.0	13747.4	11918.1
72.5°	15870.0	15848.1	15653.2	15411.5	15208.7	14915.5	14705.0	14717.5	14594.3	12150.4	10431.8
75°	12842.9	12841.3	12607.4	12404.6	12407.8	12385.9	12315.8	12439.0	12311.1	10305.5	8897.2
77.5°	8950.2	8981.4	8965.8	8847.3	9014.2	9245.0	9496.1	9733.1	9659.8	8140.8	7094.4
80°	4675.5	4762.9	5071.7	5085.7	5202.7	5427.2	5598.8	5757.9	5768.8	4619.4	4098.5
82.5°	1243.0	1269.5	1374.0	1344.3	1335.0	1380.2	1417.6	1422.3	1425.4	1204.0	1124.4
85°	386.8	397.7	385.2	368.1	341.5	311.9	304.1	248.0	196.5	162.2	141.9
87.5°	274.5	293.2	265.1	249.5	221.5	210.5	188.7	148.2	115.4	81.1	54.6
90°	141.9	145.0	129.4	110.7	102.9	96.7	82.7	59.3	29.6	15.6	14.0
92.5°	71.7	73.3	63.9	54.6	46.8	40.5	31.2	17.2	9.4	4.7	1.6
95°	28.1	29.6	26.5	23.4	18.7	14.0	12.5	9.4	6.2	3.1	1.6
97.5°	9.4	9.4	9.4	7.8	7.8	7.8	7.8	6.2	4.7	3.1	1.6
100°	0.0	0.0	0.0	1.6	3.1	4.7	4.7	4.7	3.1	1.6	1.6
102.5°	0.0	0.0	0.0	0.0	0.0	1.6	3.1	3.1	3.1	1.6	1.6
105°	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	1.6
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6



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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	1.6	1.6	1.6
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
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	1.6
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6
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°	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5	3287.5
2.5°	3306.2	3296.9	3301.6	3262.6	3271.9	3247.0	3300.0	3286.0	3279.7	3301.6
5°	3314.0	3279.7	3307.8	3281.3	3286.0	3250.1	3293.8	3276.6	3275.1	3287.5
7.5°	3317.2	3300.0	3326.5	3282.8	3296.9	3282.8	3315.6	3298.4	3314.0	3325.0
10°	3360.8	3351.5	3348.4	3332.8	3343.7	3312.5	3353.0	3353.0	3360.8	3390.5
12.5°	3424.8	3412.3	3404.5	3376.4	3387.3	3378.0	3410.7	3417.0	3431.0	3443.5
15°	3512.1	3490.3	3482.5	3457.5	3465.3	3463.8	3487.2	3488.7	3519.9	3518.3
17.5°	3624.4	3593.2	3602.6	3583.8	3585.4	3572.9	3560.4	3560.4	3588.5	3594.8
20°	3758.5	3580.7	3346.8	3215.8	3192.4	3209.6	3276.6	3387.3	3248.5	3287.5
22.5°	3516.8	3356.1	3345.2	3315.6	3296.9	2878.9	2771.3	2737.0	2916.4	3225.1
25°	3548.0	3479.4	3459.1	3421.6	2869.6	2864.9	2833.7	2782.2	2273.8	2262.9
27.5°	3713.3	3646.2	3613.5	2997.5	2985.0	2983.4	2936.6	2420.4	2303.5	2319.0
30°	3906.7	3828.7	3242.3	3148.7	3137.8	3112.9	2844.6	2390.8	2389.2	2390.8
32.5°	4129.7	3870.8	3335.9	3331.2	3337.4	3261.0	2520.2	2510.9	2509.3	2524.9
35°	4435.4	3591.6	3569.8	3593.2	3560.4	2819.7	2671.5	2666.8	2668.4	2660.6
37.5°	4232.6	3872.4	3867.7	3867.7	3791.3	2885.2	2855.5	2877.4	2874.2	2863.3
40°	4318.4	4212.3	4184.3	4174.9	3204.9	3112.9	3095.7	3123.8	3128.5	3136.3
42.5°	4734.8	4638.1	4624.1	4513.3	3487.2	3457.5	3404.5	3434.1	3431.0	3440.4
45°	5246.3	5180.8	5120.0	3912.9	3867.7	3830.3	3775.7	3810.0	3819.3	3813.1
47.5°	5842.1	5770.3	5330.5	4302.8	4301.2	4271.6	4210.8	4238.9	4234.2	4234.2
50°	6440.9	6363.0	4842.4	4798.7	4783.1	4736.3	4686.4	4691.1	4692.7	4708.3
52.5°	7110.0	5683.0	5360.2	5272.8	5285.3	5254.1	5205.8	3941.0	5182.4	5196.4
55°	6645.2	5948.1	5929.4	5814.0	5843.6	5803.1	5771.9	3888.0	5154.3	5695.5
57.5°	6570.4	6520.5	6504.9	6386.4	6423.8	6038.6	6327.1	4254.4	3565.1	2604.4
60°	7142.7	7089.7	7080.3	6975.9	6972.7	4798.7	5751.6	2917.9	2280.1	2295.7
62.5°	7697.9	7612.2	7635.5	7512.3	5296.2	2924.2	2577.9	65.5	104.5	110.7
65°	8317.1	8173.6	8197.0	8083.1	5463.1	3083.2	2786.9	34.3	29.6	28.1
67.5°	8912.8	8661.7	8541.6	8421.6	5673.6	3247.0	2903.9	9.4	0.0	0.0
68°	8883.2	8618.1	8494.9	8381.0	5651.8	3242.3	2897.6	9.4	0.0	0.0
70°	8382.6	8144.0	8027.0	7939.7	5396.0	3131.6	2780.7	9.4	0.0	0.0
72.5°	7328.3	7195.8	7120.9	7044.5	4794.1	2800.9	2493.7	9.4	0.0	0.0
75°	6227.3	6189.8	6143.1	5974.6	3995.6	2292.5	2049.2	9.4	0.0	0.0
77.5°	4934.4	4932.9	4819.0	4620.9	3008.4	1682.8	1511.2	7.8	0.0	0.0
80°	2668.4	2908.6	2821.2	2719.9	1706.1	915.5	871.8	6.2	0.0	0.0
82.5°	750.1	709.6	681.5	637.9	358.7	199.6	194.9	6.2	0.0	0.0
85°	104.5	115.4	127.9	145.0	82.7	53.0	46.8	3.1	0.0	0.0
87.5°	59.3	67.1	82.7	85.8	31.2	25.0	7.8	0.0	0.0	0.0
90°	12.5	14.0	15.6	15.6	6.2	6.2	0.0	0.0	0.0	0.0
92.5°	0.0	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.6	1.6	1.6	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°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.6	1.6	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)