

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: McGRAW-EDISON

Report Number: P579479

Luminaire Tested: **CTN-CA10-310-740-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579479  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-740-U-T5-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29880 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U2 - G4

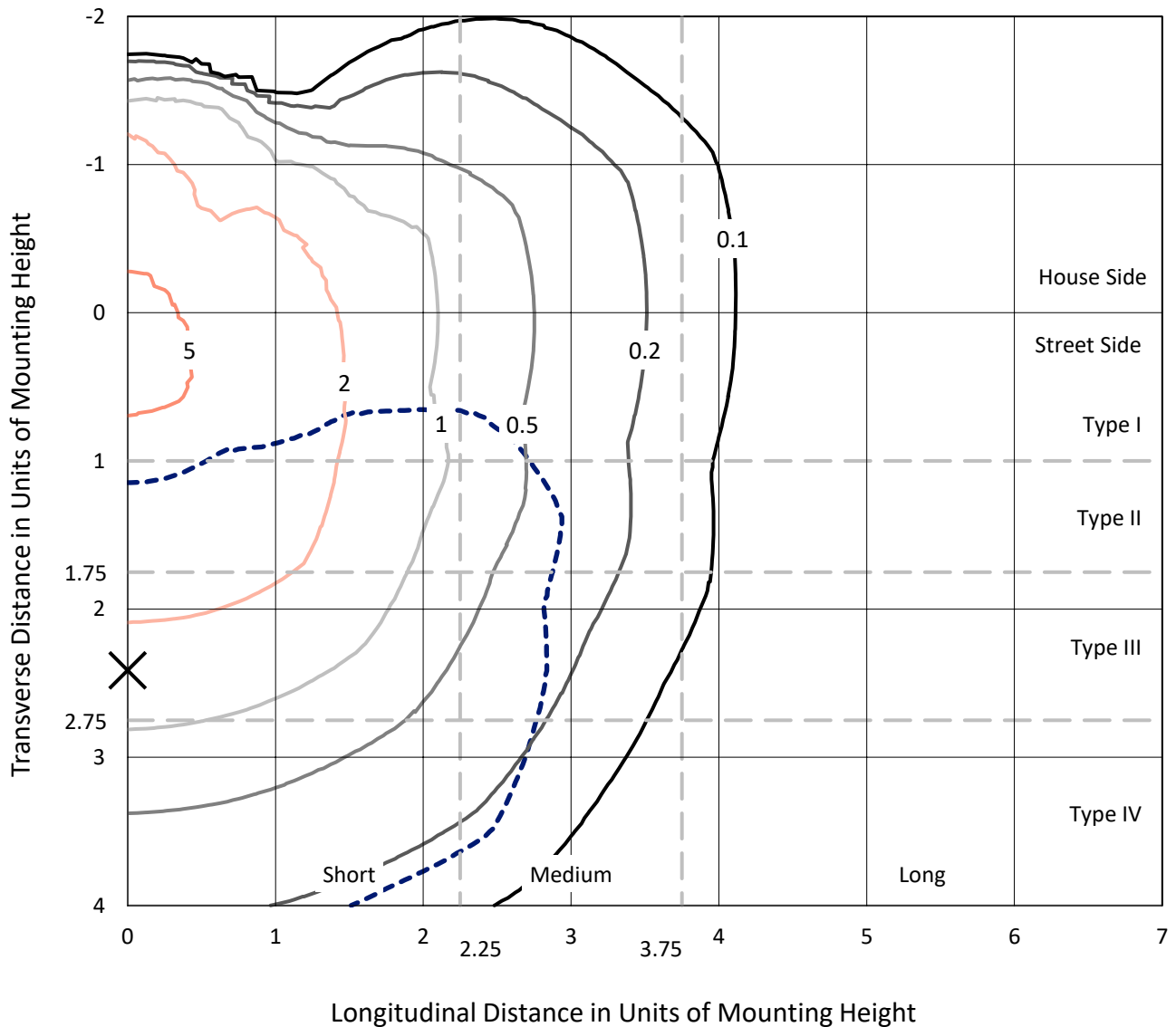
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

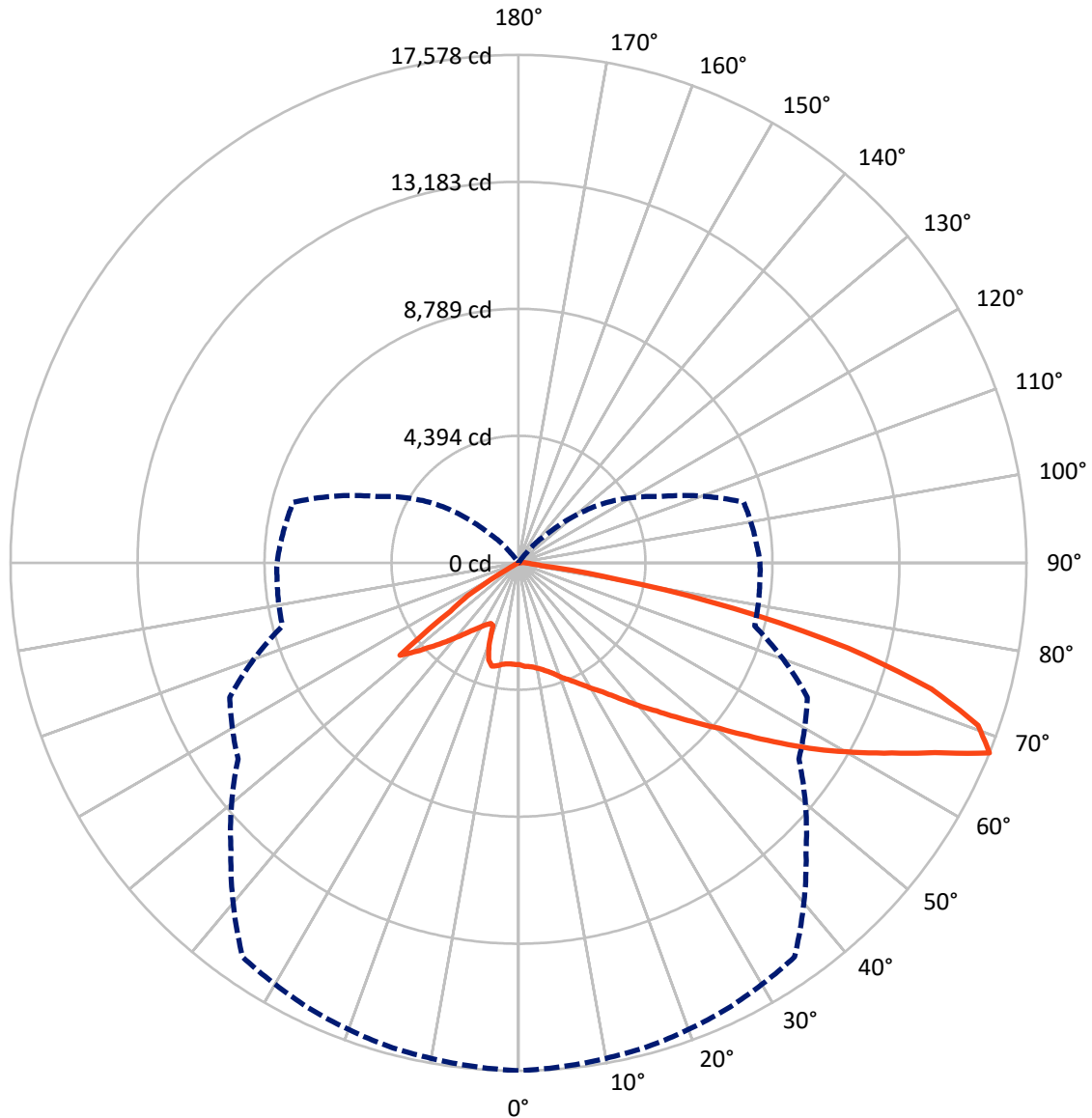
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical



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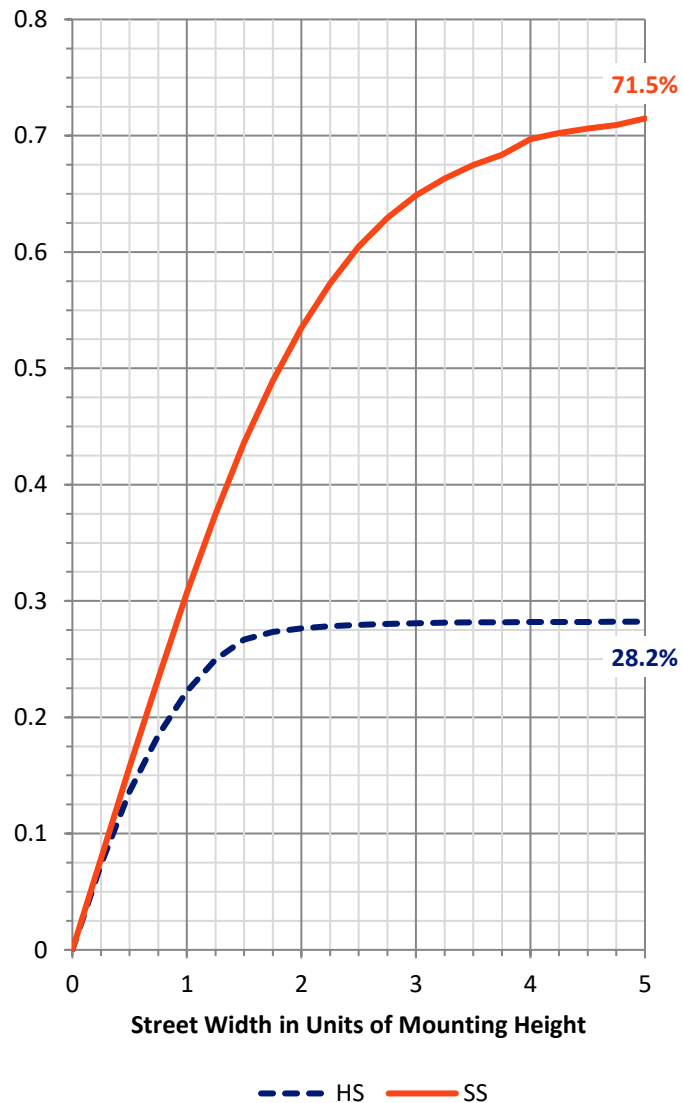
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8468.5	0.1	8468.7
	% Fixture	28.3	0.0	28.3
<b>Street Side</b>	Lumens	21373.3	38.1	21411.3
	% Fixture	71.5	0.1	71.7
<b>Total</b>	Lumens	29841.8	38.2	29880.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	339.4	1.1
10°-20°	1044.8	3.5
20°-30°	1729.9	5.8
30°-40°	2723.2	9.1
40°-50°	4261.8	14.3
50°-60°	6153.4	20.6
60°-70°	7623.0	25.5
70°-80°	5551.6	18.6
80°-90°	414.7	1.4
90°-100°	32.6	0.1
100°-110°	5.4	0.0
110°-120°	0.2	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°	29841.8	99.9
0°-180°	29880.0	100.0

**Coefficient of Utilization**



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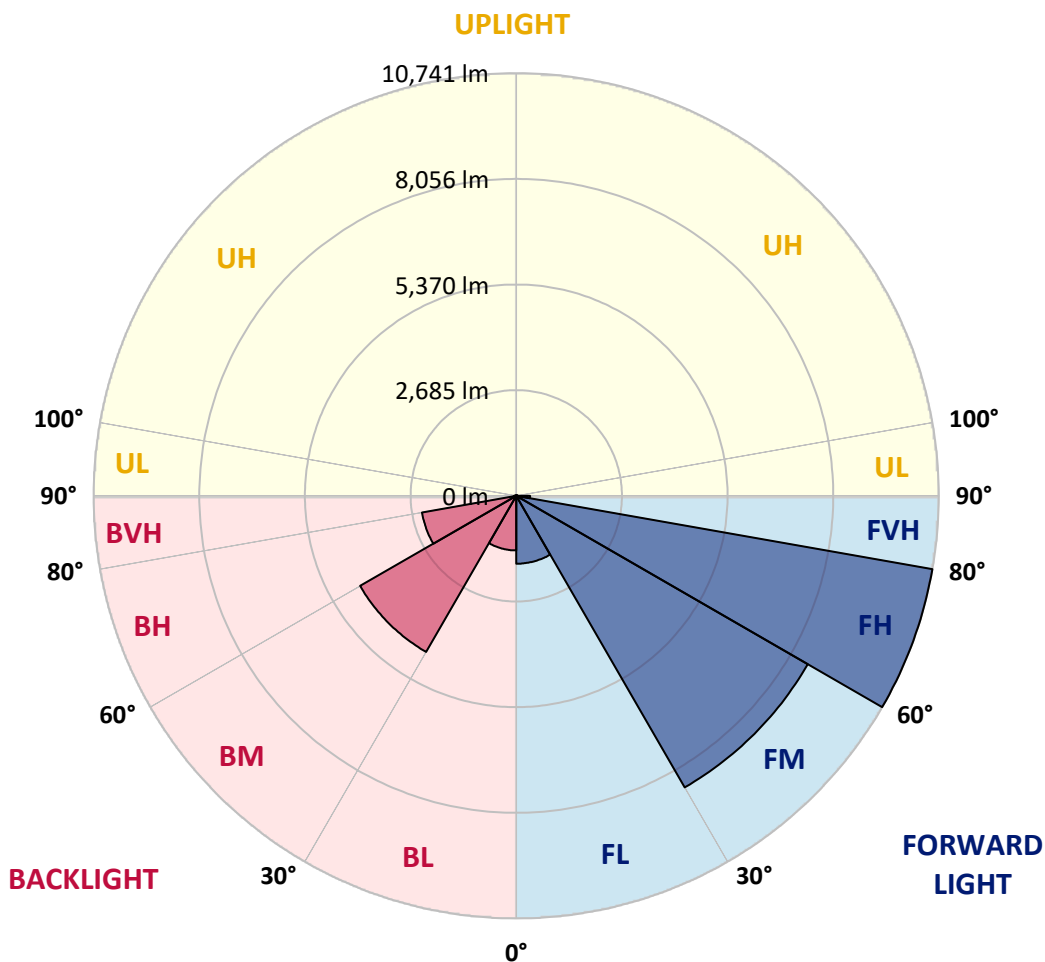
CATALOG NUMBER: CTN-CA10-310-740-U-T5-HSS-HM-EX180

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1725.8	5.8			
FM (30°-60°)	8556.8	28.6			
FH (60°-80°)	10740.9	35.9			G4/12000
FVH (80°-90°)	349.8	1.2			G3/500
BL (0°-30°)	1388.2	4.6	B3/2500		
BM (30°-60°)	4581.6	15.3	B3/5000		
BH (60°-80°)	2433.8	8.1	B3/2500		G3/2500
BVH (80°-90°)	64.9	0.2			G1/100
UL (90°-100°)	32.6	0.1		U2/50	
UH (100°-180°)	5.6	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°	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1
2.5°	3583.5	3564.0	3564.0	3585.0	3526.6	3544.6	3520.6	3541.6	3529.6	3535.6	3543.1
5°	3604.5	3582.0	3583.5	3608.9	3556.5	3571.5	3543.1	3553.5	3543.1	3547.5	3547.5
7.5°	3643.4	3623.9	3623.9	3638.9	3586.5	3591.0	3565.5	3565.5	3552.0	3562.5	3553.5
10°	3716.8	3695.8	3685.3	3692.8	3646.4	3640.4	3605.9	3605.9	3585.0	3601.5	3588.0
12.5°	3805.1	3775.2	3772.2	3773.7	3721.3	3710.8	3671.8	3673.3	3634.4	3656.9	3640.4
15°	3911.4	3874.0	3871.0	3877.0	3821.6	3802.1	3758.7	3758.7	3715.3	3727.2	3704.8
17.5°	4047.7	4004.3	3996.8	4007.3	3951.9	3933.9	3883.0	3874.0	3826.1	3817.1	3797.6
20°	4227.4	4178.0	4163.0	4185.5	4115.1	4098.6	4037.2	4017.8	3953.4	3847.0	3707.8
22.5°	4389.1	4350.2	4341.2	4356.2	4291.8	4275.3	4215.4	4175.0	4019.3	3805.1	3676.3
25°	4573.3	4558.4	4553.9	4544.9	4486.5	4458.0	4401.1	4344.2	3990.8	3697.3	3694.3
27.5°	4800.9	4793.5	4772.5	4765.0	4700.6	4682.6	4607.8	4240.9	3889.0	3868.0	3856.0
30°	5049.5	5034.6	5013.6	5015.1	4971.7	4938.7	4760.5	4149.5	4085.1	4085.1	4053.7
32.5°	5325.1	5308.6	5287.6	5292.1	5274.1	5245.7	4709.6	4390.6	4341.2	4354.7	4315.8
35°	5666.5	5639.5	5632.0	5650.0	5651.5	5467.3	4799.4	4718.6	4679.6	4670.7	4523.9
37.5°	6064.8	6042.4	6069.3	6111.2	6063.3	5524.2	5157.3	5131.9	5093.0	4875.8	4528.4
40°	6542.5	6502.1	6535.0	6562.0	6530.5	5862.7	5533.2	5542.2	5507.8	4863.8	4479.0
42.5°	7015.7	6976.8	7005.2	7072.6	7060.7	6282.0	5991.4	6010.9	5663.5	4892.3	4862.3
45°	7601.2	7587.8	7578.8	7634.2	7680.6	6783.6	6535.0	6533.5	5552.7	5344.5	5317.6
47.5°	8264.6	8246.7	8251.2	8321.5	8391.9	7382.6	7177.5	6575.5	5838.7	5859.7	5835.7
50°	9004.4	8984.9	9043.3	9145.2	9181.1	8055.0	7803.4	6461.7	6434.7	6457.2	6416.7
52.5°	9943.3	9899.9	9989.7	10099.1	10145.5	8850.1	7837.8	7134.0	7089.1	7093.6	6964.8
55°	11011.0	10976.6	11057.4	11180.2	11249.1	9738.2	8553.6	7788.4	7761.5	6997.8	6301.4
57.5°	12171.6	12132.6	12240.5	12276.4	12294.4	10656.1	9273.9	8498.2	7250.8	6389.8	6350.8
60°	13309.7	13267.7	13404.0	13410.0	13462.4	11572.6	9958.3	9182.6	6985.8	6872.0	6839.0
62.5°	14504.7	14452.2	14572.0	14567.6	14464.2	12411.2	10636.7	9840.0	7459.0	7369.1	7318.2
65°	15831.4	15792.5	15876.4	15741.6	15536.4	13278.2	11340.5	10555.8	8010.1	7993.6	7981.6
67.5°	17577.5	17501.1	17331.9	17044.4	16652.1	14073.4	11843.6	11027.5	8457.8	8381.4	8357.5
70°	16875.2	16785.3	16656.5	16340.6	15940.8	13326.1	11035.0	10314.7	7908.2	7911.2	7854.3
72.5°	14941.9	14786.2	14664.9	14221.6	14001.5	11638.5	9615.4	8952.0	6840.5	6967.8	6940.9
75°	11786.7	11628.0	11428.8	11255.1	11231.2	9440.2	7752.5	7274.8	5453.8	5546.7	5614.1
77.5°	7640.2	7581.8	7833.4	7668.6	7816.9	6500.6	5537.7	5127.4	3758.7	3993.8	3962.4
80°	3496.6	3429.2	3833.6	3719.8	3775.2	3192.6	2706.0	2599.6	1701.1	1713.1	1749.1
82.5°	790.7	763.7	792.2	727.8	709.8	600.5	528.6	479.2	301.0	319.0	335.4
85°	432.8	432.8	426.8	396.8	339.9	280.0	221.6	170.7	92.8	101.8	100.3
87.5°	304.0	296.5	295.0	263.6	226.1	191.7	152.7	109.3	52.4	35.9	32.9
90°	208.2	205.2	194.7	175.2	151.2	124.3	92.8	53.9	22.5	10.5	7.5
92.5°	151.2	148.3	140.8	124.3	103.3	83.9	61.4	35.9	18.0	7.5	1.5
95°	100.3	98.8	94.3	80.9	67.4	53.9	38.9	22.5	15.0	6.0	1.5
97.5°	68.9	67.4	62.9	53.9	43.4	34.4	24.0	16.5	12.0	4.5	1.5
100°	46.4	44.9	41.9	34.4	27.0	21.0	15.0	12.0	9.0	4.5	1.5
102.5°	29.9	28.5	25.5	21.0	15.0	12.0	10.5	9.0	6.0	3.0	1.5
105°	18.0	16.5	13.5	10.5	9.0	7.5	7.5	6.0	4.5	1.5	1.5
107.5°	9.0	7.5	6.0	6.0	6.0	4.5	4.5	4.5	3.0	1.5	0.0
110°	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.5	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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°	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1	3519.1
2.5°	3535.6	3511.6	3525.1	3504.1	3499.6	3477.2	3513.1	3517.6	3514.6	3520.6
5°	3540.1	3514.6	3529.6	3504.1	3504.1	3480.2	3514.6	3514.6	3505.6	3508.6
7.5°	3552.0	3526.6	3537.1	3508.6	3510.1	3481.7	3523.6	3519.1	3511.6	3522.1
10°	3586.5	3558.0	3556.5	3529.6	3535.6	3505.6	3558.0	3558.0	3550.5	3570.0
12.5°	3641.9	3600.0	3592.5	3559.5	3571.5	3546.0	3610.4	3613.4	3614.9	3646.4
15°	3700.3	3649.4	3656.9	3617.9	3613.4	3600.0	3658.4	3655.4	3653.9	3697.3
17.5°	3782.7	3543.1	3504.1	3477.2	3471.2	3438.2	3492.1	3595.5	3541.6	3511.6
20°	3652.4	3526.6	3372.3	3319.9	3309.4	3023.4	2797.3	2899.1	3036.9	3048.9
22.5°	3534.1	3489.1	3477.2	3394.8	2938.1	2842.2	2851.2	2813.8	2487.3	2345.1
25°	3680.8	3641.9	3591.0	3087.8	2980.0	2945.6	2935.1	2551.7	2294.2	2310.6
27.5°	3844.0	3800.6	3357.4	3095.3	3119.3	3071.3	2834.7	2381.0	2366.0	2394.5
30°	4047.7	3700.3	3276.5	3261.5	3284.0	3222.6	2518.8	2485.8	2481.3	2511.3
32.5°	4279.8	3568.5	3492.1	3492.1	3481.7	2818.3	2653.5	2631.1	2643.1	2674.5
35°	4193.0	3775.2	3766.2	3803.6	3552.0	2891.6	2869.2	2830.3	2839.2	2849.7
37.5°	4097.1	4115.1	4119.6	4100.1	2590.7	3101.3	3083.3	3075.8	3066.9	3069.8
40°	4453.5	4465.5	4461.0	4282.8	2795.8	3141.7	3325.9	3312.4	3310.9	3328.9
42.5°	4869.8	4902.8	4877.3	3778.2	3069.8	2641.6	3605.9	3598.5	3595.5	3632.9
45°	5338.5	5370.0	4835.4	4046.2	3361.9	2734.4	3625.4	3903.9	3926.4	3959.4
47.5°	5846.2	5840.2	4462.5	4458.0	3704.8	2992.0	3014.4	4269.3	4306.8	4318.8
50°	6430.2	5470.3	4886.3	4721.6	4092.6	3281.0	3195.6	3917.4	4744.0	4756.0
52.5°	6305.9	5411.9	5373.0	4142.0	4440.0	3600.0	3516.1	3493.6	4917.7	5206.8
55°	5877.6	5922.6	5867.2	4544.9	3255.5	3884.5	3832.1	3809.6	3658.4	2896.1
57.5°	6353.8	6367.3	6319.4	4914.8	3310.9	2421.4	3772.2	3236.1	2102.5	2092.0
60°	6848.0	6870.5	4706.6	3610.4	2121.9	810.1	193.2	203.7	581.0	510.6
62.5°	7319.7	7342.2	4982.1	3299.0	1340.3	59.9	38.9	27.0	29.9	29.9
65°	7935.2	7944.2	5332.6	3492.1	1392.7	15.0	4.5	0.0	0.0	0.0
67.5°	8254.1	8070.0	5420.9	3580.5	1430.1	9.0	3.0	0.0	0.0	0.0
70°	7772.0	7574.3	5046.5	3355.9	1332.8	7.5	1.5	0.0	0.0	0.0
72.5°	6848.0	6752.2	4529.9	2975.5	1180.0	4.5	1.5	0.0	0.0	0.0
75°	5675.5	5548.2	3755.7	2479.8	976.4	3.0	0.0	0.0	0.0	0.0
77.5°	4037.2	4052.2	2617.6	1807.5	664.9	3.0	0.0	0.0	0.0	0.0
80°	1767.0	1807.5	1147.1	829.6	235.1	1.5	0.0	0.0	0.0	0.0
82.5°	336.9	310.0	149.7	118.3	29.9	0.0	0.0	0.0	0.0	0.0
85°	110.8	121.3	55.4	44.9	13.5	0.0	0.0	0.0	0.0	0.0
87.5°	38.9	49.4	16.5	13.5	3.0	0.0	0.0	0.0	0.0	0.0
90°	6.0	6.0	0.0	0.0	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
110°	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°
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)