

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: P579622

Luminaire Tested: **CTN-CA10-310-727-U-T5-HSS-HM-EX120**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579622  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-727-U-T5-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30163 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

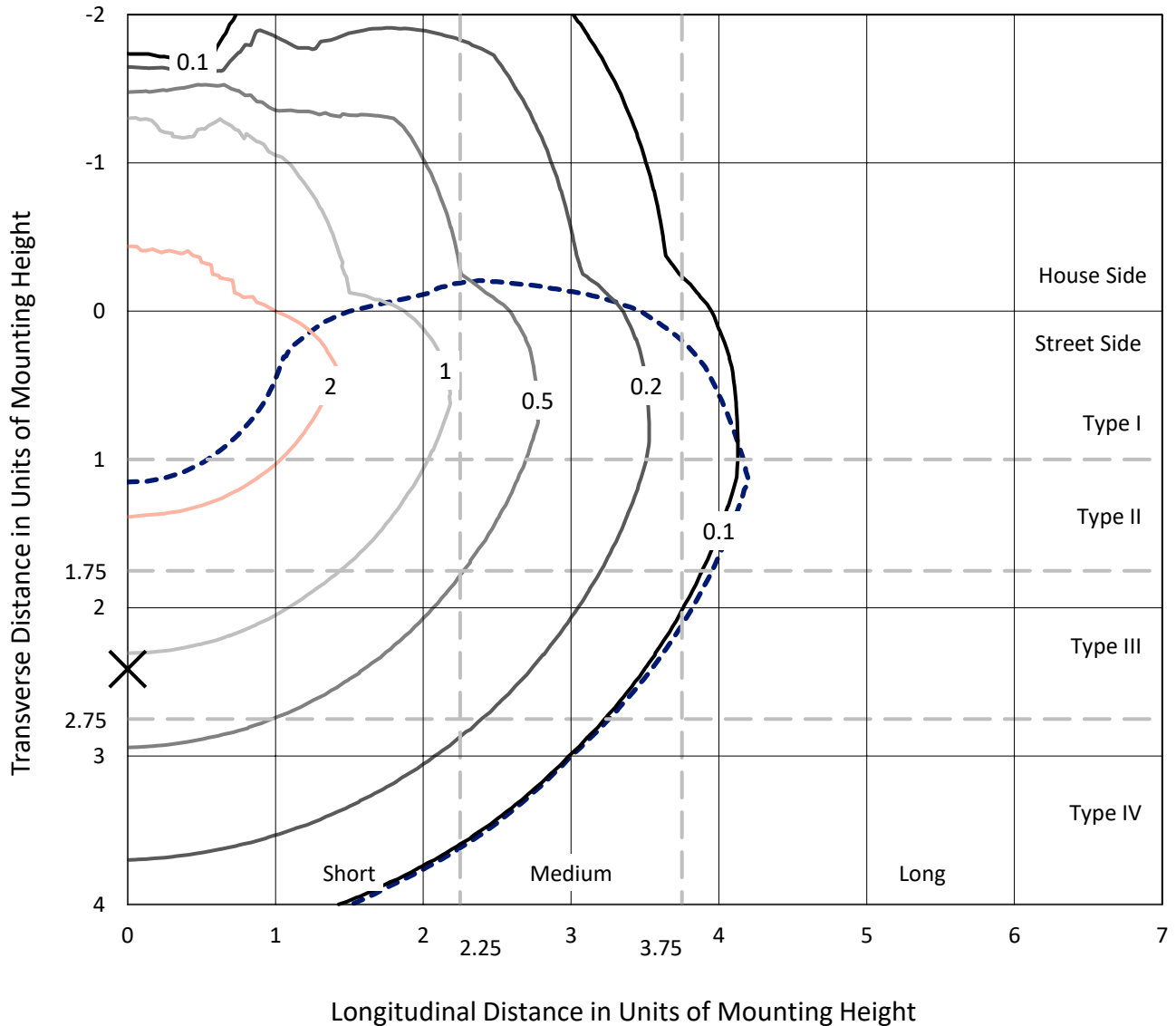
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

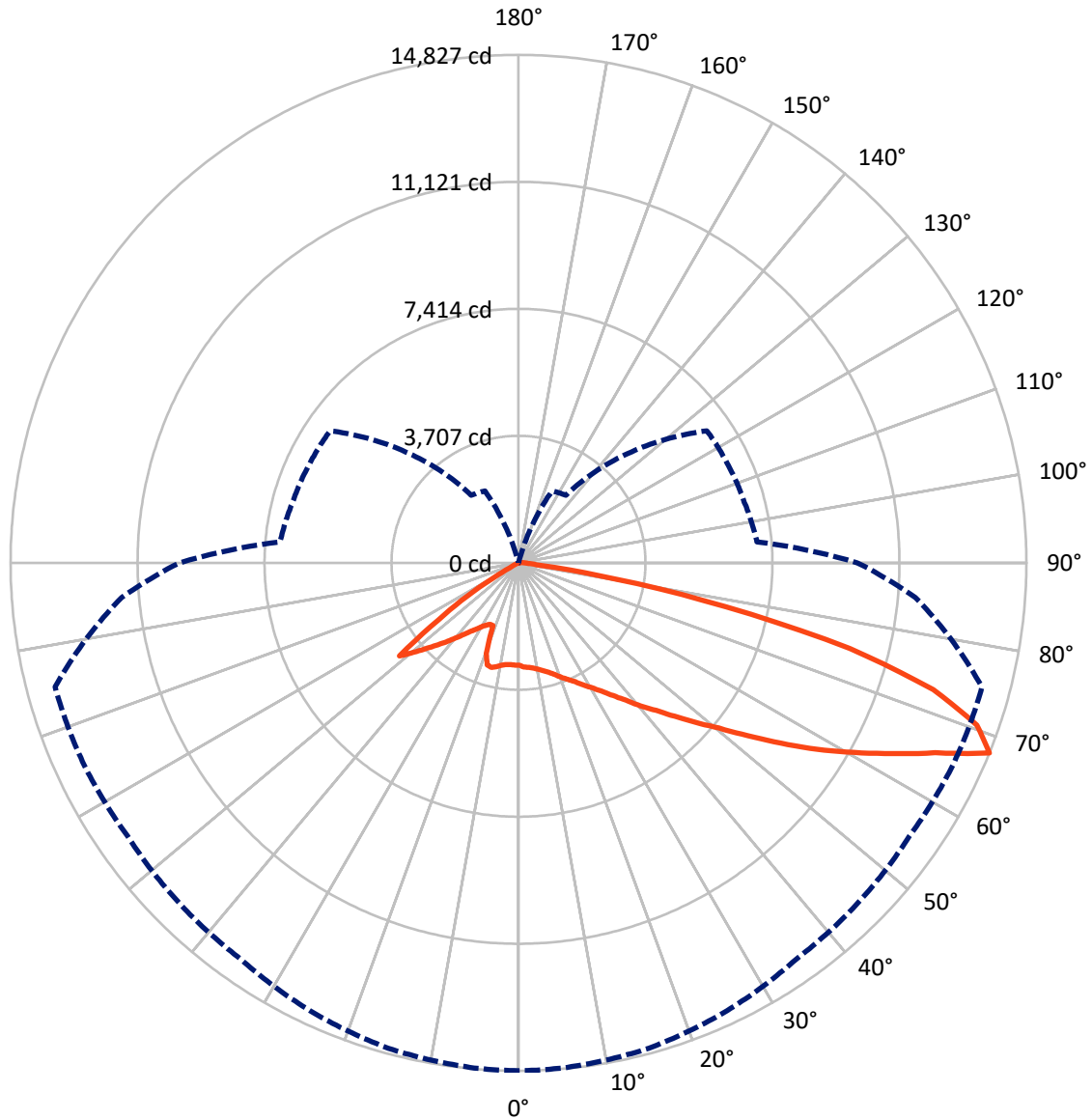
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.4 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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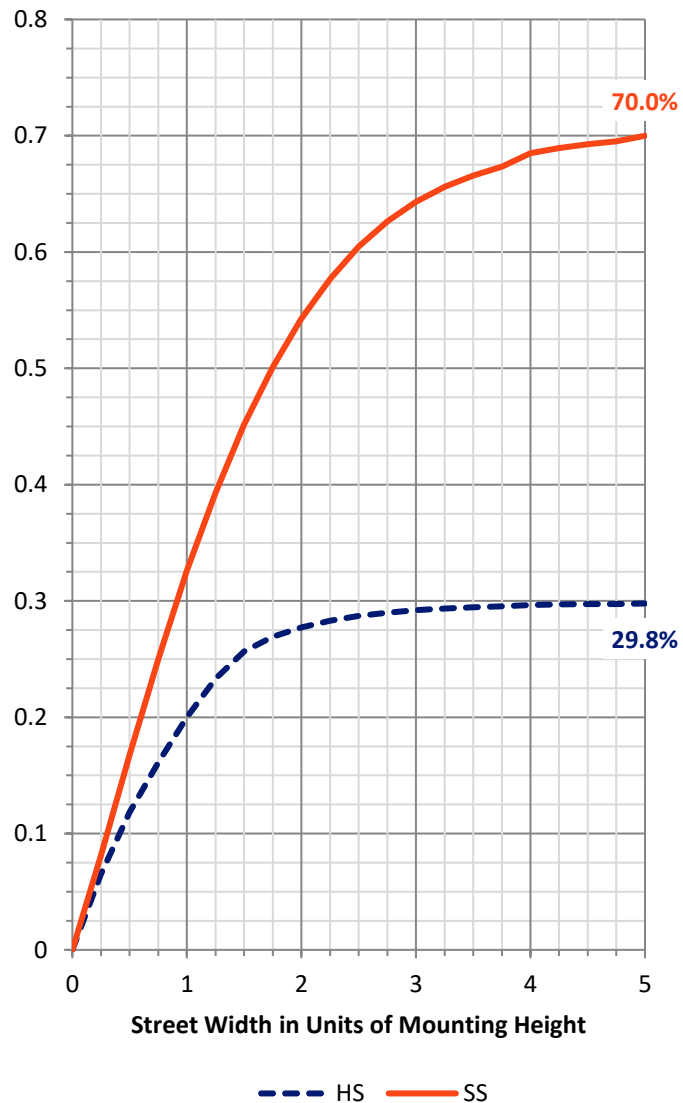
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9003.8	3.0	9006.8
	% Fixture	29.9	0.0	29.9
<b>Street Side</b>	Lumens	21122.2	33.9	21156.1
	% Fixture	70.0	0.1	70.1
<b>Total</b>	Lumens	30126.0	37.0	30163.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.1	1.0
10°-20°	892.0	3.0
20°-30°	1497.0	5.0
30°-40°	2427.5	8.0
40°-50°	3966.8	13.2
50°-60°	6216.7	20.6
60°-70°	8326.0	27.6
70°-80°	6068.6	20.1
80°-90°	443.2	1.5
90°-100°	28.3	0.1
100°-110°	8.1	0.0
110°-120°	0.6	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°	30126.0	99.9
0°-180°	30163.0	100.0

**Coefficient of Utilization**

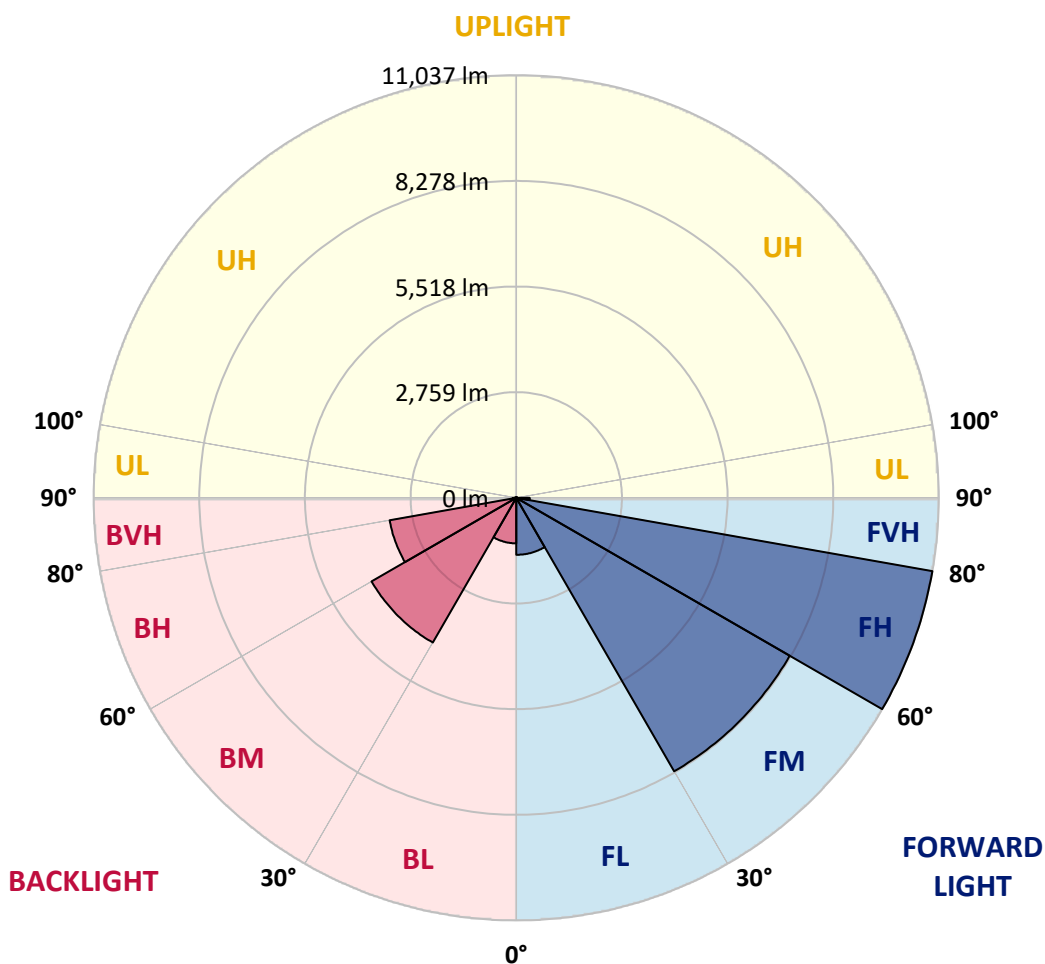


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1487.8	4.9			
FM (30°-60°)	8247.1	27.3			
FH (60°-80°)	11036.8	36.6			G4/12000
FVH (80°-90°)	350.5	1.2			G3/500
BL (0°-30°)	1189.4	3.9	B3/2500		
BM (30°-60°)	4363.9	14.5	B3/5000		
BH (60°-80°)	3357.8	11.1	B4/5000		G4/5000
BVH (80°-90°)	92.7	0.3			G1/100
UL (90°-100°)	28.3	0.1		U2/50	
UH (100°-180°)	8.6	0.0		U1/10	

**BUG Rating: B4-U2-G4**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8
2.5°	3045.9	3028.1	3029.4	3045.9	2996.4	3012.9	2991.3	3007.8	2996.4	3000.2	3007.8
5°	3064.9	3045.9	3047.1	3067.4	3023.0	3037.0	3007.8	3016.7	3006.6	3011.6	3011.6
7.5°	3102.9	3081.4	3080.1	3092.8	3047.1	3052.2	3025.6	3026.9	3011.6	3021.8	3016.7
10°	3160.0	3142.2	3129.6	3137.2	3096.6	3094.1	3059.8	3061.1	3042.1	3053.5	3044.6
12.5°	3229.7	3205.6	3203.1	3205.6	3161.3	3151.1	3115.6	3118.2	3083.9	3101.7	3091.5
15°	3318.5	3280.5	3280.5	3294.4	3237.3	3229.7	3186.6	3189.2	3153.7	3167.6	3157.5
17.5°	3427.6	3390.8	3384.4	3394.6	3345.1	3335.0	3290.6	3288.1	3248.8	3252.6	3243.7
20°	3568.3	3531.5	3516.3	3541.7	3479.5	3471.9	3418.7	3413.6	3371.8	3360.3	3355.3
22.5°	3698.9	3669.8	3662.1	3690.0	3625.4	3619.0	3568.3	3562.0	3522.7	3506.2	3406.0
25°	3846.0	3839.7	3837.1	3846.0	3785.1	3772.5	3733.2	3724.3	3691.3	3671.0	3549.3
27.5°	4036.2	4033.7	4026.1	4027.3	3971.6	3960.1	3923.4	3917.0	3882.8	3860.0	3704.0
30°	4235.3	4235.3	4218.8	4227.7	4199.8	4182.1	4152.9	4130.1	4108.5	4084.4	3887.9
32.5°	4464.8	4463.6	4448.3	4475.0	4454.7	4454.7	4436.9	4412.8	4374.8	4363.4	4125.0
35°	4760.3	4741.3	4734.9	4778.0	4771.7	4783.1	4776.8	4751.4	4719.7	4693.1	4404.0
37.5°	5087.4	5082.4	5101.4	5128.0	5142.0	5172.4	5153.4	5152.1	5147.0	5079.8	4329.1
40°	5490.7	5469.1	5495.8	5509.7	5499.6	5549.0	5532.5	5546.5	5584.5	5044.3	4324.1
42.5°	5892.7	5873.6	5892.7	5961.1	5945.9	6005.5	5997.9	6052.4	6074.0	5119.1	4675.3
45°	6387.2	6365.6	6380.9	6462.0	6469.6	6541.9	6581.2	6633.2	6643.3	5603.5	5098.9
47.5°	6955.3	6919.8	6948.9	6987.0	7102.4	7170.9	7208.9	7272.3	7337.0	6186.8	5580.7
50°	7581.7	7579.2	7610.9	7676.8	7808.7	7877.2	7943.1	8009.0	8115.6	6837.4	6120.9
52.5°	8378.0	8361.6	8416.1	8478.2	8594.9	8700.1	8778.8	8847.2	8961.4	7495.5	6705.5
55°	9288.5	9231.5	9335.4	9440.7	9490.1	9614.4	9668.9	9726.0	9835.0	8187.8	7046.6
57.5°	10271.3	10257.3	10329.6	10367.6	10474.1	10551.5	10580.7	10642.8	10641.5	8908.1	7627.4
60°	11238.8	11223.6	11308.5	11331.4	11416.3	11486.1	11475.9	11531.7	11552.0	9584.0	8196.7
62.5°	12257.0	12231.7	12310.3	12315.4	12264.6	12377.5	12366.1	12413.0	12395.3	10244.6	8757.2
65°	13370.4	13389.4	13414.8	13310.8	13189.1	13286.7	13284.2	13372.9	13436.3	11167.8	9507.9
67.5°	14827.4	14803.3	14672.7	14421.6	14126.1	14027.2	13922.0	13986.7	14004.4	11626.8	9892.1
70°	14198.4	14145.2	14086.8	13830.7	13474.4	13223.3	13059.7	13128.2	13200.5	10987.7	9291.0
72.5°	12665.3	12533.5	12262.1	12036.4	11831.0	11586.2	11387.1	11506.3	11664.9	9746.3	8227.1
75°	9992.3	9869.3	9671.5	9518.0	9407.7	9405.2	9396.3	9488.9	9466.0	7913.9	6689.0
77.5°	6188.1	6445.5	6628.1	6497.5	6543.2	6449.3	6656.0	6777.8	6888.1	5673.3	4765.4
80°	2856.9	2922.9	3246.2	3162.5	3095.3	3076.3	3089.0	3300.8	3362.9	2546.3	2132.9
82.5°	651.8	625.2	648.0	601.1	598.5	570.6	574.4	574.4	554.1	469.2	393.1
85°	329.7	337.3	339.8	325.9	287.8	258.7	239.7	202.9	175.0	149.6	126.8
87.5°	220.6	227.0	230.8	211.8	190.2	166.1	150.9	123.0	97.6	60.9	46.9
90°	150.9	149.6	145.8	135.7	121.7	104.0	83.7	58.3	34.2	12.7	8.9
92.5°	107.8	105.2	104.0	95.1	85.0	71.0	54.5	36.8	19.0	8.9	5.1
95°	71.0	69.7	69.7	64.7	57.1	46.9	36.8	24.1	13.9	7.6	5.1
97.5°	49.5	48.2	48.2	45.7	40.6	34.2	25.4	16.5	11.4	7.6	5.1
100°	34.2	34.2	34.2	31.7	29.2	24.1	19.0	12.7	10.1	7.6	5.1
102.5°	22.8	22.8	24.1	22.8	20.3	16.5	12.7	10.1	8.9	6.3	5.1
105°	15.2	15.2	15.2	15.2	13.9	11.4	10.1	8.9	7.6	6.3	5.1
107.5°	10.1	10.1	10.1	10.1	8.9	7.6	7.6	7.6	6.3	6.3	5.1
110°	6.3	6.3	6.3	7.6	6.3	6.3	6.3	6.3	6.3	5.1	5.1



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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°	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8	2988.8
2.5°	3001.5	2983.7	2992.6	2974.9	2967.3	2950.8	2982.5	2985.0	2982.5	2987.5
5°	3005.3	2985.0	2995.1	2974.9	2971.1	2952.0	2983.7	2983.7	2976.1	2979.9
7.5°	3014.2	2992.6	3000.2	2976.1	2976.1	2953.3	2991.3	2988.8	2982.5	2991.3
10°	3044.6	3019.2	3019.2	2996.4	2999.0	2974.9	3021.8	3021.8	3016.7	3031.9
12.5°	3091.5	3059.8	3061.1	3029.4	3034.5	3015.4	3072.5	3075.0	3075.0	3100.4
15°	3152.4	3104.2	3109.3	3075.0	3085.2	3062.4	3113.1	3110.5	3116.9	3153.7
17.5°	3227.2	3173.9	3129.6	3018.0	2952.0	2954.6	3105.5	3175.2	3094.1	3118.2
20°	3258.9	3000.2	2859.5	2818.9	2810.0	2669.3	2381.4	2425.8	2697.2	2815.1
22.5°	3045.9	2963.4	2949.5	2897.5	2513.3	2406.8	2424.5	2399.2	2132.9	1982.0
25°	3149.9	3095.3	3063.6	2605.9	2519.6	2500.6	2487.9	2247.0	1957.9	1971.8
27.5°	3296.9	3225.9	2845.5	2617.3	2633.8	2604.6	2531.0	2021.3	2012.4	2035.2
30°	3470.7	3291.9	2773.2	2751.7	2770.7	2732.7	2127.8	2107.5	2107.5	2130.3
32.5°	3683.7	2986.3	2943.2	2945.7	2933.0	2501.9	2239.4	2234.3	2249.5	2268.6
35°	3624.1	3185.4	3189.2	3210.7	3181.6	2447.3	2414.4	2395.4	2408.0	2415.6
37.5°	3507.4	3484.6	3484.6	3460.5	2716.2	2638.8	2603.3	2600.8	2599.5	2599.5
40°	3801.6	3780.1	3753.4	3711.6	2841.7	2862.0	2808.7	2802.4	2806.2	2820.2
42.5°	4136.4	4127.5	4125.0	3185.4	3102.9	3118.2	3061.1	3044.6	3044.6	3076.3
45°	4530.8	4519.4	4239.1	3404.7	3390.8	3408.5	3345.1	3305.8	3327.4	3350.2
47.5°	4983.5	4983.5	3753.4	3733.2	3733.2	3743.3	3679.9	3626.6	3648.2	3655.8
50°	5479.3	4704.5	4130.1	4111.0	4128.8	4123.7	4057.8	3563.2	4021.0	4024.8
52.5°	5617.5	4575.1	4543.4	4521.9	4543.4	4539.6	4471.2	2972.3	4349.4	4411.6
55°	4979.7	4983.5	4977.1	4945.4	4968.2	4959.4	4892.2	3245.0	3206.9	2858.2
57.5°	5384.2	5389.2	5386.7	5381.6	5401.9	3924.6	5067.2	2931.7	1790.5	1791.8
60°	5824.2	5798.8	5791.2	5779.8	4898.5	2782.1	2111.3	204.2	700.0	689.8
62.5°	6223.6	6214.7	6188.1	6181.8	4156.7	2191.2	2140.5	46.9	36.8	35.5
65°	6779.0	6700.4	6678.9	6611.6	4430.6	2333.2	2285.0	13.9	1.3	0.0
67.5°	6985.7	6825.9	6748.6	6713.1	4507.9	2406.8	2314.2	13.9	1.3	0.0
70°	6595.2	6397.3	6299.7	6260.4	4212.5	2249.5	2158.2	13.9	1.3	0.0
72.5°	5848.3	5702.4	5663.1	5537.6	3714.1	1974.4	1894.5	13.9	0.0	0.0
75°	4797.1	4743.8	4695.6	4562.5	3019.2	1568.6	1497.6	12.7	0.0	0.0
77.5°	3491.0	3412.3	3323.6	3179.0	2037.8	1024.6	987.8	11.4	0.0	0.0
80°	1573.7	1509.0	1487.4	1261.7	722.8	333.5	294.2	10.1	0.0	0.0
82.5°	305.6	275.2	261.2	251.1	162.3	90.0	78.6	7.6	0.0	0.0
85°	104.0	115.4	134.4	148.4	91.3	54.5	45.7	5.1	0.0	0.0
87.5°	40.6	54.5	65.9	68.5	34.2	22.8	12.7	2.5	0.0	0.0
90°	7.6	10.1	8.9	6.3	3.8	1.3	0.0	0.0	0.0	0.0
92.5°	3.8	5.1	3.8	3.8	2.5	1.3	0.0	0.0	0.0	0.0
95°	5.1	5.1	5.1	3.8	2.5	1.3	0.0	0.0	0.0	0.0
97.5°	5.1	5.1	5.1	3.8	2.5	1.3	0.0	0.0	0.0	0.0
100°	5.1	5.1	5.1	3.8	2.5	1.3	0.0	0.0	0.0	0.0
102.5°	5.1	5.1	5.1	3.8	2.5	1.3	0.0	0.0	0.0	0.0
105°	5.1	6.3	5.1	3.8	2.5	1.3	0.0	0.0	0.0	0.0
107.5°	5.1	6.3	5.1	3.8	2.5	1.3	0.0	0.0	0.0	0.0
110°	5.1	6.3	5.1	3.8	2.5	1.3	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)