

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: P579483

Luminaire Tested: **CTN-CA10-310-740-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579483  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)  
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-T5N-HSS-HM-EX90  
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: 39949 lumens  
Efficiency: N/A  
Efficacy: 127.9 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B5 - U2 - G4

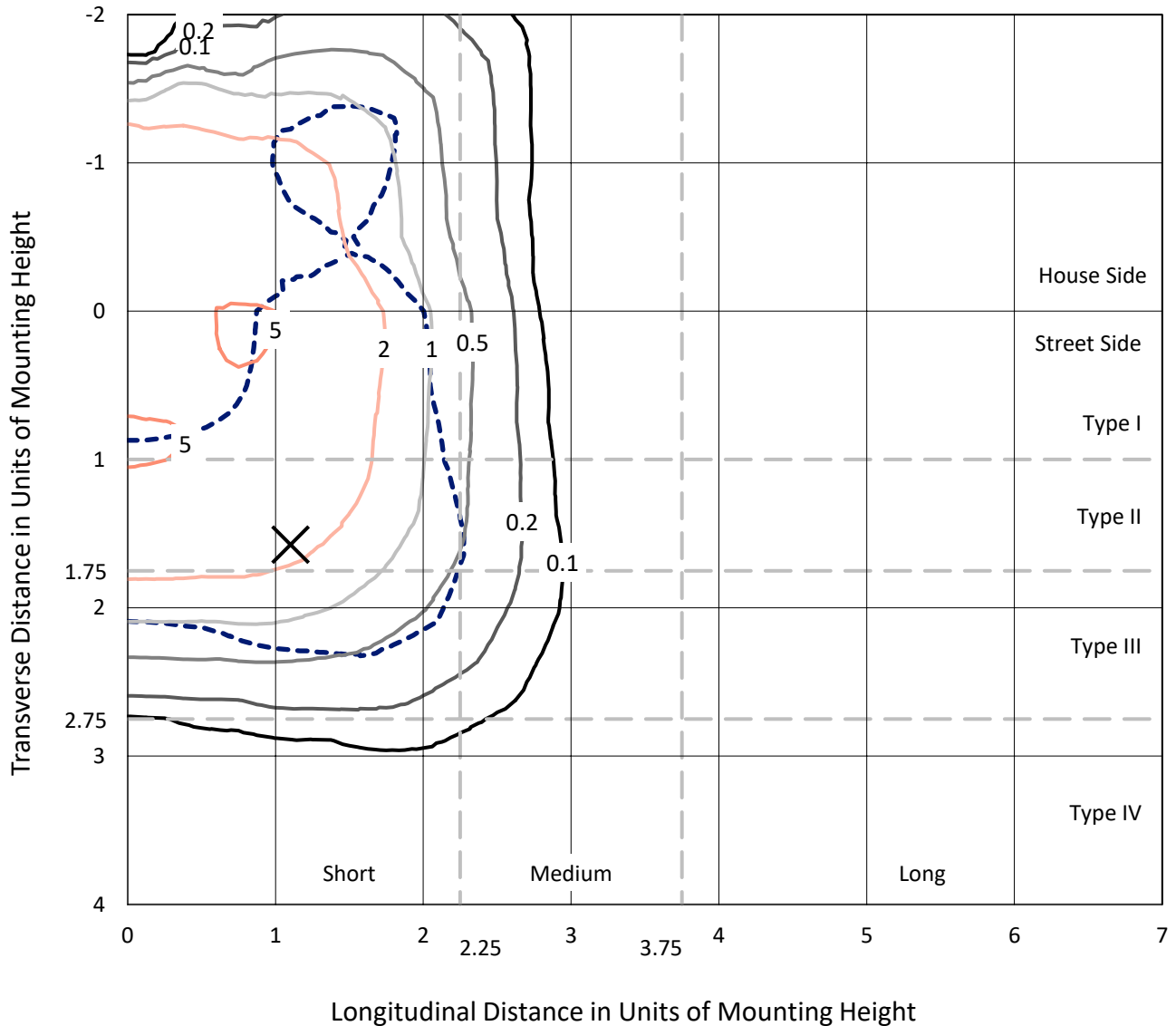
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

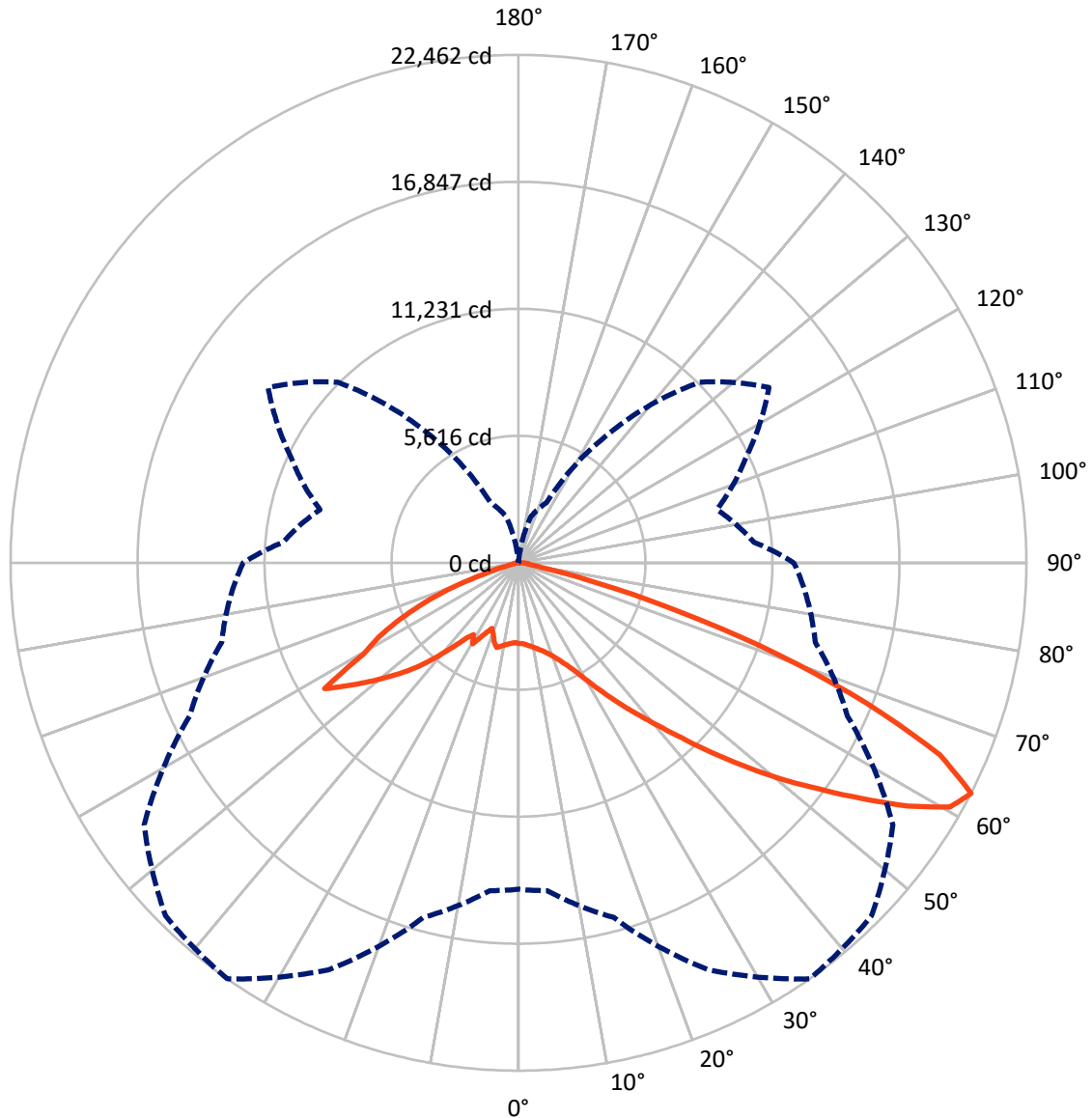
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.4 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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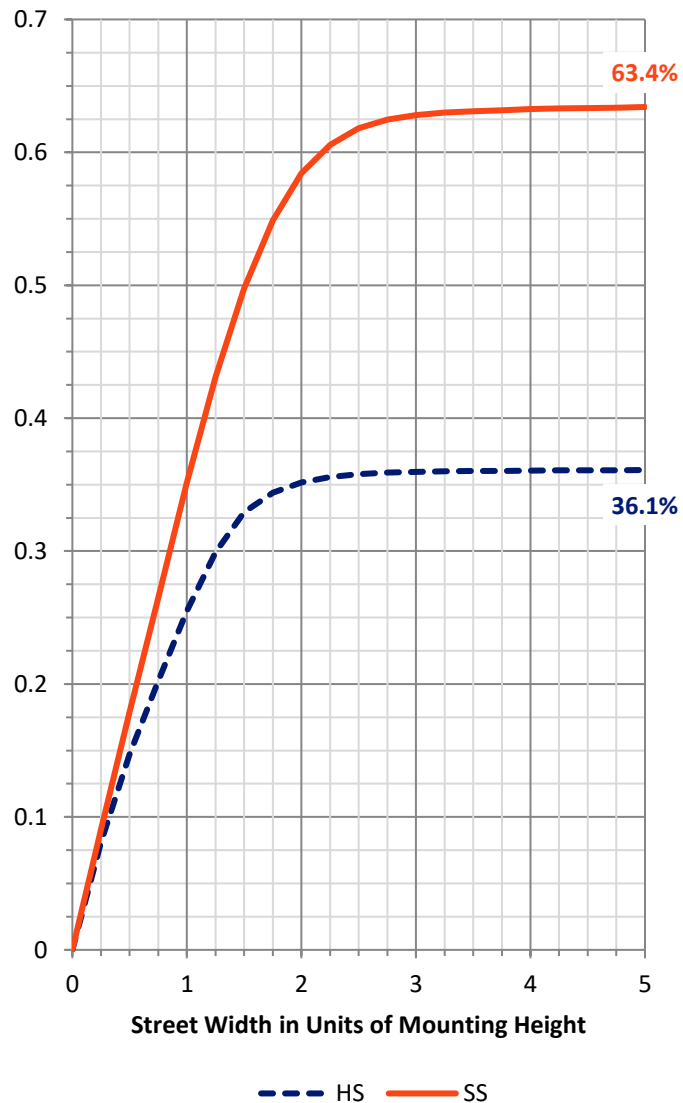
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14500.5	0.0	14500.6
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	25429.5	18.9	25448.4
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	39930.0	19.0	39949.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	351.4	0.9
10°-20°	1135.8	2.8
20°-30°	2185.1	5.5
30°-40°	4359.0	10.9
40°-50°	7959.2	19.9
50°-60°	11893.9	29.8
60°-70°	9966.0	24.9
70°-80°	1865.0	4.7
80°-90°	214.7	0.5
90°-100°	17.1	0.0
100°-110°	1.8	0.0
110°-120°	0.0	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°	39930.0	100.0
0°-180°	39949.0	100.0

**Coefficient of Utilization**

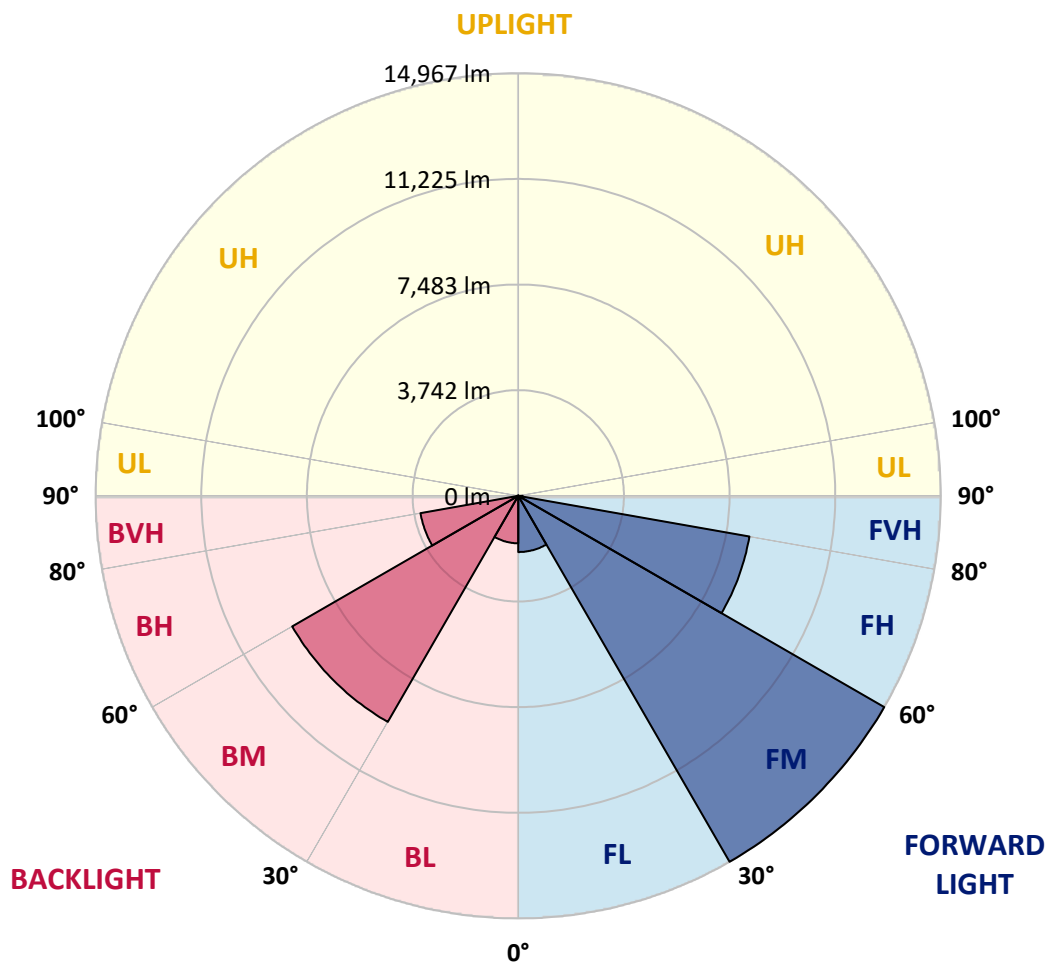


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1991.9	5.0			
FM (30°-60°)	14966.7	37.5			
FH (60°-80°)	8314.5	20.8			G4/12000
FVH (80°-90°)	156.3	0.4			G2/225
BL (0°-30°)	1680.3	4.2	B3/2500		
BM (30°-60°)	9245.4	23.1	B5		
BH (60°-80°)	3516.5	8.8	B4/5000		G4/5000
BVH (80°-90°)	58.3	0.1			G1/100
UL (90°-100°)	17.1	0.0		U2/50	
UH (100°-180°)	1.9	0.0		U1/10	

**BUG Rating: B5-U2-G4**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5
2.5°	3650.9	3620.9	3625.4	3646.4	3580.5	3607.4	3579.0	3605.9	3597.0	3608.9	3617.9
5°	3703.3	3665.8	3668.8	3692.8	3641.9	3664.3	3635.9	3653.9	3638.9	3655.4	3656.9
7.5°	3775.2	3743.7	3739.2	3763.2	3719.8	3739.2	3710.8	3719.8	3704.8	3724.2	3718.3
10°	3871.0	3842.5	3835.1	3851.5	3817.1	3827.6	3797.6	3809.6	3787.1	3809.6	3799.1
12.5°	3977.3	3939.9	3941.4	3959.4	3924.9	3932.4	3908.4	3921.9	3895.0	3918.9	3911.4
15°	4103.1	4049.2	4059.7	4079.1	4046.2	4068.7	4040.2	4059.7	4034.2	4059.7	4050.7
17.5°	4266.3	4204.9	4212.4	4243.9	4216.9	4252.9	4219.9	4243.9	4231.9	4248.4	4245.4
20°	4473.0	4432.6	4425.1	4464.0	4425.1	4470.0	4452.0	4494.0	4496.9	4513.4	4520.9
22.5°	4748.5	4721.6	4703.6	4730.6	4696.1	4727.6	4753.0	4824.9	4851.9	4895.3	4898.3
25°	5115.4	5113.9	5073.5	5075.0	5031.6	5073.5	5145.4	5257.7	5329.6	5385.0	5364.0
27.5°	5611.1	5620.1	5558.7	5534.7	5483.8	5546.7	5694.9	5834.2	5964.5	6042.4	6042.4
30°	6258.0	6267.0	6177.1	6129.2	6082.8	6192.1	6368.8	6550.0	6735.7	6848.0	6822.5
32.5°	7114.6	7086.1	6957.3	6870.5	6791.1	6916.9	7120.5	7325.7	7578.8	7740.5	7721.0
35°	8153.8	8050.5	7921.7	7760.0	7589.3	7688.1	7879.8	8137.3	8489.2	8731.8	8670.4
37.5°	9360.8	9259.0	9038.8	8760.3	8462.3	8474.3	8625.5	9071.8	9512.0	9709.7	9667.8
40°	10614.2	10534.8	10332.6	9974.7	9435.7	9311.4	9559.9	10097.5	10518.3	10766.9	10696.5
42.5°	11891.5	11810.7	11657.9	11298.5	10584.2	10284.7	10543.8	11129.3	11578.6	11822.6	11741.8
45°	13165.9	13073.0	12951.8	12634.3	11952.9	11514.2	11659.4	12197.0	12607.3	12884.4	12718.1
47.5°	14286.0	14224.6	14142.3	14013.5	13417.5	12932.3	12921.8	13276.7	13559.7	13742.4	13538.8
50°	15260.9	15217.4	15263.9	15236.9	15019.8	14578.0	14307.0	14283.0	14374.4	14507.6	14217.1
52.5°	16135.4	16059.0	16231.2	16445.4	16605.6	16515.8	15638.2	15145.6	15045.2	15090.2	14760.7
55°	16851.2	16815.3	17104.3	17641.9	18383.1	18580.8	17005.4	15984.2	15614.3	15590.3	15215.9
57.5°	17288.5	17339.4	17917.4	18941.7	20301.4	20364.3	18684.1	16881.2	16168.3	15910.8	15479.5
60°	16592.1	16788.3	17775.2	19888.1	21929.2	21968.1	19916.6	17045.9	15476.5	14900.0	14365.4
62.5°	14438.8	14555.6	16234.2	19856.7	22462.3	22081.9	20210.1	16051.5	13588.2	12668.7	12174.6
65°	10170.9	10389.6	12188.0	17865.0	20469.1	20517.0	18540.4	13878.7	10850.8	9834.0	9515.0
67.5°	6142.7	6352.3	8267.6	12896.3	16640.1	17177.7	15466.0	10507.9	7780.9	6496.1	6174.1
70°	1994.7	2222.3	3767.7	7601.2	12240.4	13529.8	11638.5	6839.0	4074.7	2854.2	2508.3
72.5°	757.7	826.6	1226.4	3319.9	7623.7	9032.8	7198.4	3430.7	1262.4	751.7	660.4
75°	492.7	503.2	573.5	1163.5	3676.3	4973.1	3469.7	1004.8	506.2	449.2	416.3
77.5°	423.8	431.3	461.2	579.5	1171.0	1901.8	995.8	513.6	422.3	374.4	351.9
80°	399.8	402.8	422.3	491.2	548.1	634.9	479.2	429.8	368.4	351.9	335.4
82.5°	378.9	389.3	399.8	446.3	444.8	456.7	384.9	336.9	313.0	329.4	323.5
85°	353.4	359.4	366.9	398.3	362.4	307.0	296.5	232.1	226.1	241.1	226.1
87.5°	248.6	263.6	254.6	268.0	251.6	196.2	166.2	131.8	104.8	86.9	83.9
90°	101.8	103.3	97.3	89.8	79.4	65.9	52.4	32.9	15.0	7.5	3.0
92.5°	79.4	79.4	76.4	68.9	59.9	49.4	37.4	21.0	10.5	4.5	1.5
95°	49.4	50.9	47.9	43.4	37.4	29.9	22.5	12.0	7.5	3.0	1.5
97.5°	31.4	31.4	28.5	25.5	21.0	15.0	10.5	9.0	6.0	3.0	0.0
100°	18.0	18.0	16.5	13.5	10.5	7.5	7.5	6.0	4.5	1.5	0.0
102.5°	10.5	10.5	7.5	6.0	4.5	4.5	4.5	4.5	3.0	1.5	0.0
105°	4.5	4.5	3.0	3.0	1.5	1.5	3.0	3.0	3.0	1.5	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0	3.0	1.5	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0	1.5	1.5



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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°	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5	3574.5
2.5°	3611.9	3585.0	3589.5	3564.0	3559.5	3534.1	3585.0	3591.0	3576.0	3589.5
5°	3653.9	3620.9	3631.4	3602.9	3598.5	3564.0	3608.9	3605.9	3594.0	3607.4
7.5°	3716.8	3682.3	3688.3	3656.9	3650.9	3613.4	3655.4	3641.9	3629.9	3646.4
10°	3805.1	3766.2	3769.2	3728.7	3733.2	3683.8	3734.7	3710.8	3695.8	3718.3
12.5°	3911.4	3868.0	3869.5	3827.6	3826.1	3778.2	3823.1	3809.6	3787.1	3821.6
15°	4049.2	3999.8	3995.3	3939.9	3924.9	3871.0	3912.9	3887.5	3872.5	3921.9
17.5°	4242.4	4187.0	4170.5	4103.1	3823.1	3661.4	3886.0	3962.3	3869.5	3854.5
20°	4499.9	4453.5	4416.1	4314.3	3844.0	3339.4	2966.5	2969.5	3361.9	3543.1
22.5°	4848.9	4793.5	4723.1	4577.8	3526.6	3128.2	3129.7	3125.3	2682.0	2494.8
25°	5326.6	5259.2	5115.4	4294.8	3743.7	3375.3	3366.3	2927.6	2683.5	2697.0
27.5°	5972.0	5834.2	4992.6	4652.7	4130.1	3695.8	3480.2	2947.1	2977.0	2998.0
30°	6792.6	6238.5	5395.4	5193.3	4594.3	4121.1	3218.1	3291.5	3351.4	3364.8
32.5°	7634.2	6256.5	6039.4	5825.2	5166.3	3749.7	3626.9	3766.2	3829.1	3836.6
35°	7626.7	7023.2	6743.2	6502.1	5696.4	4011.8	4089.6	4303.8	4464.0	4456.5
37.5°	8071.4	7869.3	7535.3	7229.9	5127.4	4519.4	4658.7	4901.3	5095.9	5090.0
40°	9001.4	8767.8	8414.4	7773.4	5677.0	5100.4	5295.1	5555.7	5693.4	5700.9
42.5°	9880.4	9687.2	9326.3	7262.8	6364.3	5799.8	5976.5	6151.7	6237.0	6264.0
45°	10754.9	10617.2	9416.2	8026.5	7195.4	6503.6	6620.4	6653.3	6743.2	6732.7
47.5°	11464.7	11312.0	9053.8	8984.9	8203.2	7171.5	7162.5	7119.0	7152.0	7159.5
50°	12113.2	10272.7	9781.6	10010.7	9260.4	7852.8	7682.1	7593.7	7548.8	7529.4
52.5°	12625.3	10275.7	10461.4	11070.9	10453.9	8592.6	8225.7	7977.1	6984.3	7761.5
55°	13061.1	10699.5	11105.4	12204.5	11482.7	9366.8	8716.9	8273.6	4661.7	3737.7
57.5°	13311.1	11021.5	11743.3	13266.2	12381.2	10227.8	8025.0	6939.3	2635.6	2632.6
60°	12345.3	10443.5	11725.3	13823.3	12122.1	7933.7	3267.5	2734.4	498.7	512.1
62.5°	10450.9	9085.2	11120.3	13517.8	11289.5	6979.8	2930.6	2105.5	16.5	13.5
65°	8096.9	7247.8	9363.8	11890.0	10271.3	5823.7	2184.8	1517.0	4.5	0.0
67.5°	5296.6	5107.9	6909.4	9859.4	8376.9	4511.9	1466.0	726.3	3.0	0.0
70°	2258.2	2616.1	4377.1	7149.0	6412.2	3104.3	706.8	262.1	1.5	0.0
72.5°	631.9	837.1	1948.2	4188.5	4032.7	1632.3	275.5	110.8	1.5	0.0
75°	374.4	322.0	558.6	1671.2	1963.2	573.5	127.3	85.4	1.5	0.0
77.5°	311.5	251.6	320.5	426.8	594.5	206.7	107.8	76.4	0.0	0.0
80°	292.0	223.1	277.0	298.0	293.5	172.2	106.3	76.4	0.0	0.0
82.5°	277.0	194.7	229.1	229.1	245.6	158.7	100.3	74.9	0.0	0.0
85°	208.2	136.3	152.7	197.7	176.7	112.3	73.4	59.9	0.0	0.0
87.5°	79.4	49.4	59.9	62.9	50.9	25.5	6.0	6.0	0.0	0.0
90°	1.5	0.0	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)