

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: P579420

Luminaire Tested: **CTN-CA8-480-722-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579420  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-480-722-U-T5-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 2200K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 46759 lumens  
Efficiency: N/A  
Efficacy: 97.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

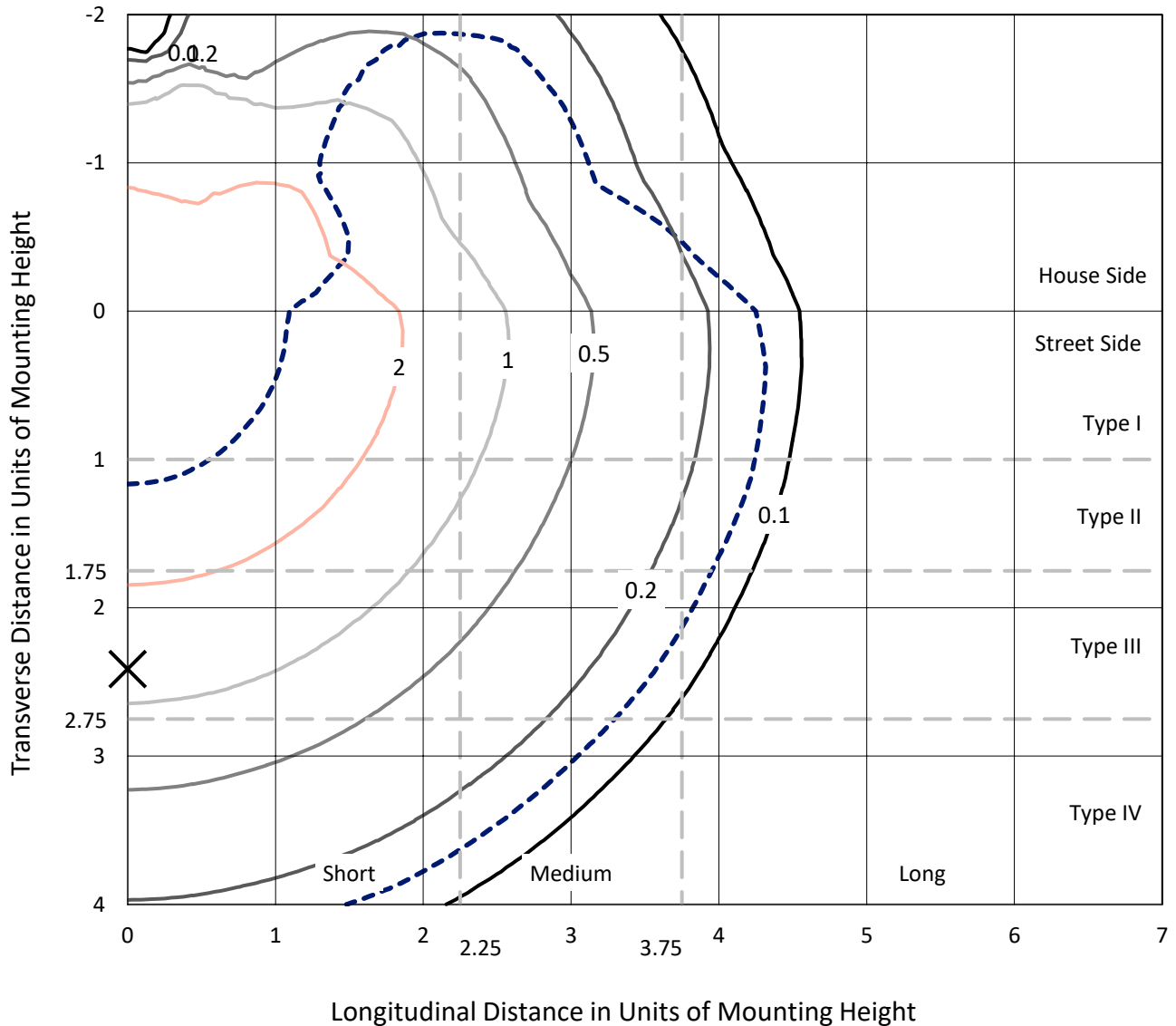
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

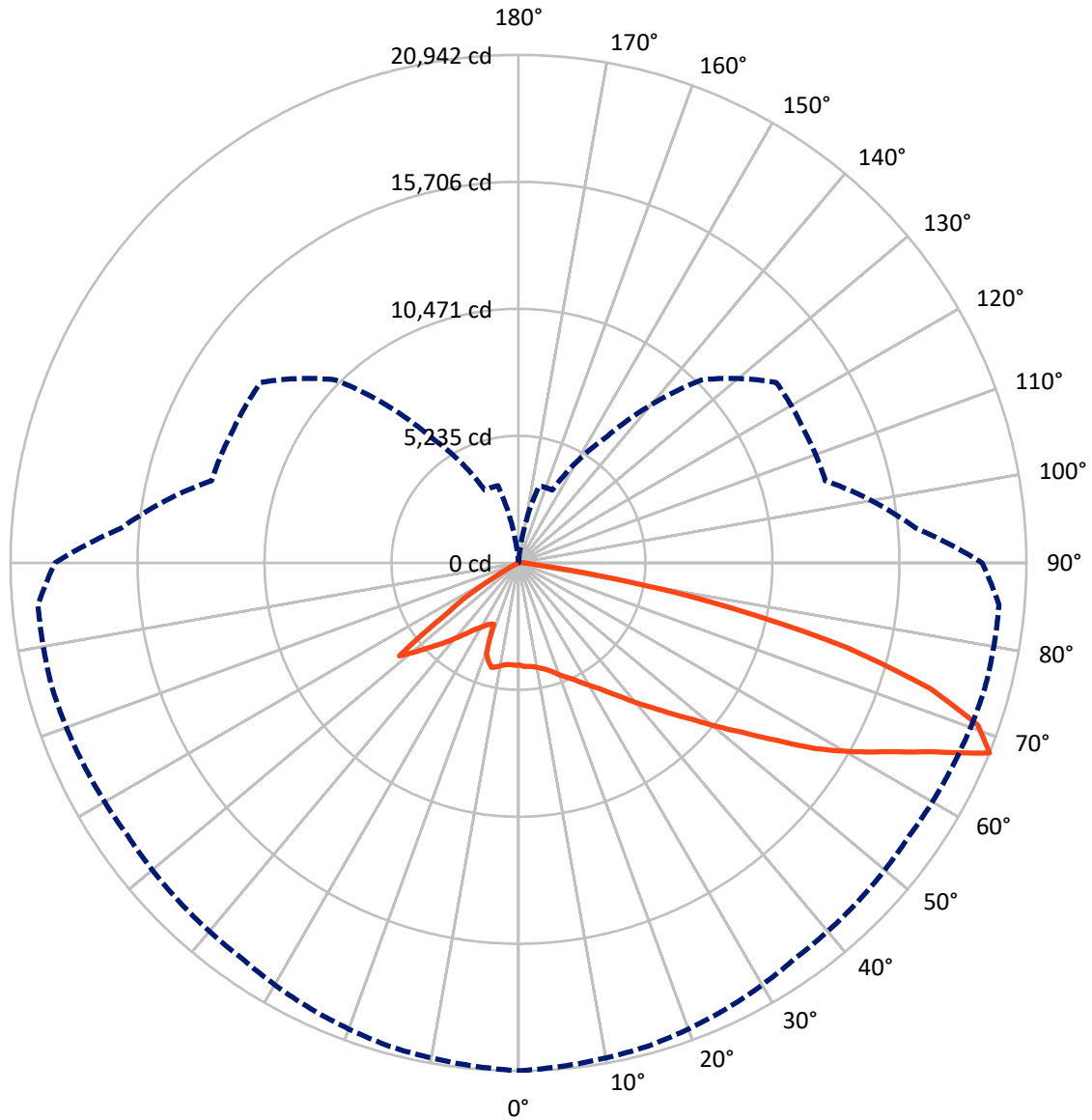
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.7 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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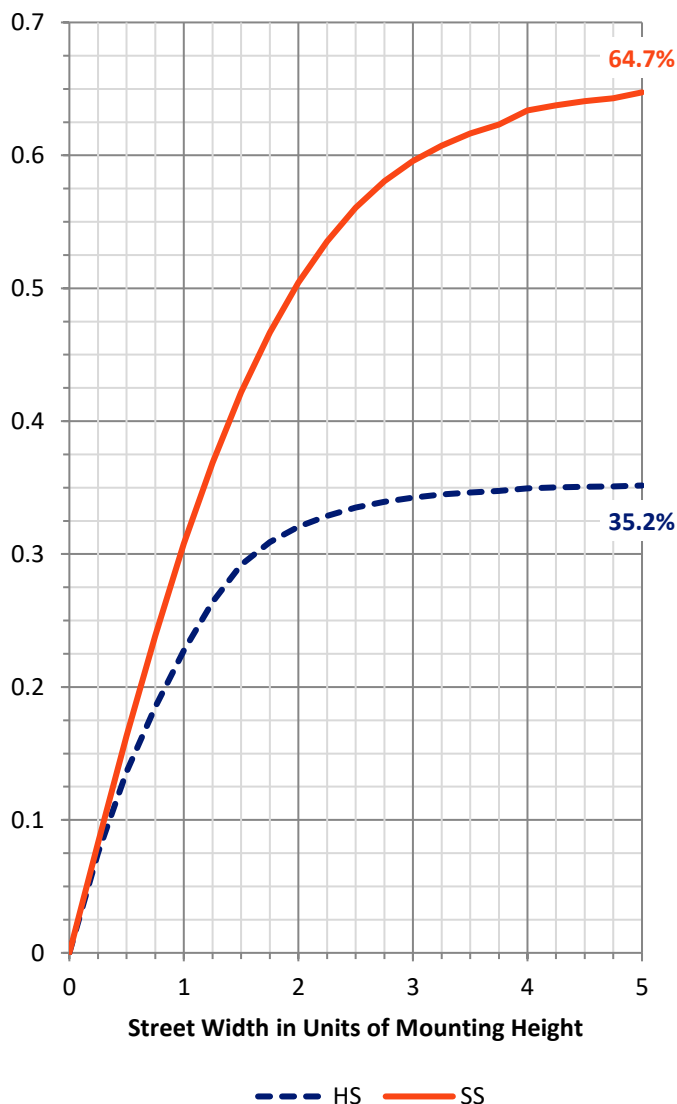
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16459.1	1.0	16460.1
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	30265.9	33.0	30298.9
	% Fixture	64.7	0.1	64.8
<b>Total</b>	Lumens	46725.0	34.0	46759.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	405.4	0.9
10°-20°	1259.3	2.7
20°-30°	2183.4	4.7
30°-40°	3582.6	7.7
40°-50°	5975.8	12.8
50°-60°	9671.1	20.7
60°-70°	13349.2	28.5
70°-80°	9630.9	20.6
80°-90°	667.5	1.4
90°-100°	28.9	0.1
100°-110°	4.9	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°	46725.0	99.9
0°-180°	46759.0	100.0

**Coefficient of Utilization**

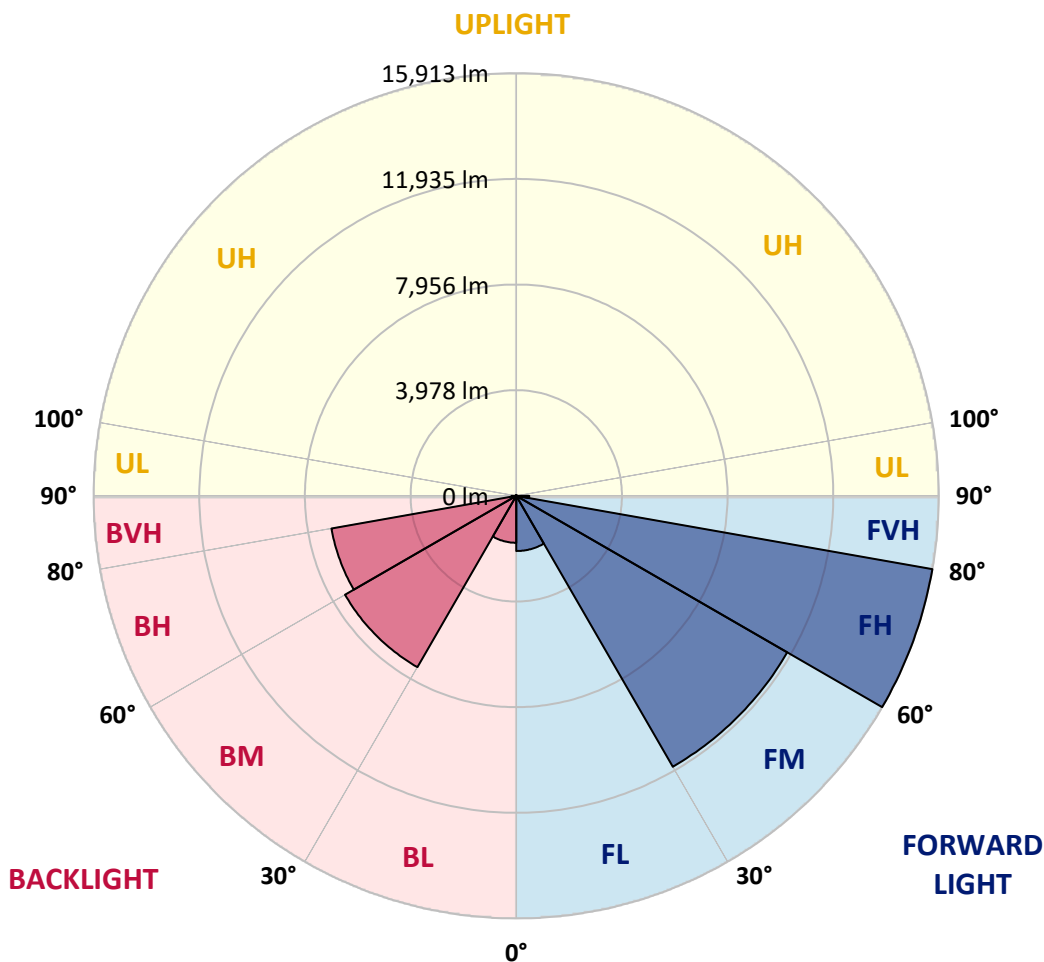


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2079.3	4.4			
FM (30°-60°)	11782.1	25.2			
FH (60°-80°)	15912.7	34.0			G5
FVH (80°-90°)	491.9	1.1			G3/500
BL (0°-30°)	1768.8	3.8	B3/2500		
BM (30°-60°)	7447.3	15.9	B4/8500		
BH (60°-80°)	7067.3	15.1	B5		G5
BVH (80°-90°)	175.7	0.4			G2/225
UL (90°-100°)	28.9	0.1		U2/50	
UH (100°-180°)	5.0	0.0		U1/10	

**BUG Rating: B5-U2-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8
2.5°	4278.2	4253.2	4255.0	4280.0	4212.0	4237.1	4208.4	4233.5	4221.0	4229.9	4240.7
5°	4290.8	4260.3	4263.9	4294.4	4240.7	4260.3	4226.3	4240.7	4229.9	4240.7	4242.4
7.5°	4323.0	4292.6	4294.4	4317.6	4262.1	4276.5	4244.2	4251.4	4233.5	4253.2	4247.8
10°	4391.0	4362.4	4351.6	4371.3	4323.0	4324.8	4287.2	4294.4	4267.5	4294.4	4283.6
12.5°	4482.3	4442.9	4446.5	4457.3	4398.2	4401.8	4357.0	4367.7	4323.0	4360.6	4348.1
15°	4593.3	4545.0	4550.3	4568.2	4511.0	4505.6	4464.4	4464.4	4425.0	4453.7	4441.1
17.5°	4747.2	4693.5	4690.0	4702.5	4655.9	4655.9	4609.4	4604.0	4564.7	4587.9	4584.3
20°	4947.7	4886.9	4876.1	4899.4	4840.3	4847.5	4788.4	4783.0	4740.1	4754.4	4756.2
22.5°	5128.5	5080.2	5078.4	5114.2	5044.4	5053.3	4999.6	4985.3	4949.5	4969.2	4974.6
25°	5336.2	5329.0	5323.6	5336.2	5266.4	5266.4	5228.8	5216.2	5193.0	5207.3	5221.6
27.5°	5597.5	5593.9	5579.6	5581.4	5522.3	5531.3	5490.1	5483.0	5472.2	5470.4	5463.3
30°	5885.7	5869.6	5849.9	5862.4	5835.6	5844.5	5808.7	5785.5	5781.9	5783.7	5772.9
32.5°	6206.1	6184.7	6172.1	6193.6	6204.4	6229.4	6227.6	6163.2	6163.2	6190.0	6141.7
35°	6603.5	6569.5	6580.3	6608.9	6630.4	6694.8	6684.1	6639.3	6653.7	6666.2	6608.9
37.5°	7070.7	7047.5	7095.8	7149.5	7151.3	7242.6	7221.1	7231.8	7230.1	7213.9	7176.4
40°	7631.0	7593.4	7643.6	7684.7	7659.7	7768.9	7765.3	7813.6	7845.8	7901.3	7879.8
42.5°	8187.7	8159.1	8207.4	8296.9	8282.6	8407.9	8425.8	8501.0	8545.8	8631.7	8581.6
45°	8873.3	8857.2	8902.0	8971.8	9020.1	9186.6	9252.8	9285.0	9397.8	9501.6	9385.3
47.5°	9641.3	9662.7	9655.6	9782.7	9890.1	10092.4	10119.2	10223.0	10321.5	10436.1	10323.3
50°	10597.2	10561.4	10593.6	10715.3	10890.7	11037.5	11175.4	11323.9	11420.6	11538.7	11331.1
52.5°	11626.4	11656.9	11728.5	11916.4	12045.3	12219.0	12344.3	12521.5	12616.4	12718.4	12448.1
55°	12924.2	12949.3	13028.1	13221.4	13312.7	13509.6	13595.5	13772.7	13864.0	13908.8	13563.3
57.5°	14445.8	14361.7	14426.1	14526.3	14667.8	14880.8	14904.0	15070.5	15070.5	15127.8	14687.5
60°	15804.4	15747.2	15815.2	15958.4	16013.9	16207.2	16187.5	16323.6	16359.4	16316.4	15790.1
62.5°	17143.4	17154.2	17241.9	17288.4	17266.9	17381.5	17428.0	17571.2	17512.2	17526.5	16919.7
65°	18768.8	18793.9	18784.9	18699.0	18505.7	18731.2	18718.7	18946.0	18960.3	19089.2	18383.9
67.5°	20941.9	20830.9	20628.7	20283.2	19900.1	19767.6	19651.3	19764.1	19909.1	19885.8	19112.5
70°	20097.0	19916.2	19810.6	19509.9	18997.9	18733.0	18491.3	18511.0	18722.2	18741.9	17950.7
72.5°	17766.4	17675.1	17268.7	17005.6	16654.7	16450.7	16158.9	16225.1	16500.8	16547.3	15917.2
75°	14014.4	13930.3	13563.3	13477.4	13303.7	13404.0	13332.4	13359.2	13581.2	13377.1	12999.4
77.5°	9070.2	9089.9	9032.6	9227.8	9220.6	9226.0	9487.3	9514.2	9730.8	9605.5	9240.3
80°	4067.0	4126.1	4265.7	4548.5	4376.7	4469.8	4570.0	4539.6	4758.0	4263.9	4441.1
82.5°	823.4	852.1	803.7	839.5	784.0	812.7	853.9	791.2	784.0	726.8	674.9
85°	424.2	429.6	427.8	418.9	368.8	340.1	327.6	275.7	248.8	243.4	225.5
87.5°	275.7	279.2	270.3	268.5	236.3	216.6	193.3	162.9	136.0	94.9	78.8
90°	168.3	168.3	159.3	150.4	134.3	119.9	96.7	69.8	41.2	16.1	9.0
92.5°	112.8	112.8	109.2	103.8	93.1	80.6	62.7	41.2	19.7	7.2	3.6
95°	71.6	71.6	69.8	68.0	60.9	51.9	39.4	25.1	12.5	5.4	1.8
97.5°	46.5	46.5	46.5	44.8	41.2	35.8	26.9	16.1	9.0	3.6	1.8
100°	28.6	30.4	28.6	28.6	26.9	23.3	17.9	10.7	7.2	3.6	1.8
102.5°	16.1	16.1	17.9	17.9	16.1	14.3	10.7	9.0	5.4	3.6	1.8
105°	7.2	7.2	9.0	9.0	9.0	7.2	7.2	5.4	3.6	3.6	1.8
107.5°	1.8	1.8	1.8	3.6	5.4	5.4	5.4	5.4	3.6	1.8	1.8
110°	0.0	0.0	0.0	1.8	1.8	3.6	3.6	3.6	3.6	1.8	1.8



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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°	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8	4213.8
2.5°	4229.9	4208.4	4224.5	4197.7	4190.5	4167.3	4212.0	4219.2	4215.6	4222.8
5°	4233.5	4206.6	4226.3	4199.5	4197.7	4172.6	4219.2	4221.0	4208.4	4213.8
7.5°	4244.2	4219.2	4233.5	4203.1	4206.6	4176.2	4229.9	4228.1	4221.0	4233.5
10°	4283.6	4255.0	4260.3	4228.1	4237.1	4204.9	4271.1	4274.7	4267.5	4290.8
12.5°	4351.6	4312.3	4324.8	4287.2	4294.4	4262.1	4342.7	4348.1	4348.1	4385.6
15°	4444.7	4403.6	4430.4	4382.1	4383.9	4335.5	4396.4	4396.4	4403.6	4455.5
17.5°	4580.8	4530.6	4566.4	4521.7	4242.4	4136.8	4344.5	4471.6	4260.3	4242.4
20°	4749.0	4725.8	4745.5	4672.1	4219.2	3735.9	3359.9	3340.3	3757.3	3965.0
22.5°	4954.9	4931.6	4940.6	4847.5	3766.3	3426.2	3420.8	3385.0	2864.1	2720.9
25°	5196.5	5184.0	5164.3	4383.9	3893.4	3567.6	3524.6	3057.4	2758.5	2785.3
27.5°	5456.1	5418.5	4754.4	4553.9	4088.5	3709.0	3465.6	2855.1	2844.4	2869.5
30°	5746.1	5547.4	4867.2	4799.2	4315.8	3884.4	3016.3	2980.5	2980.5	3019.8
32.5°	6114.8	5180.4	5180.4	5144.6	4596.9	3410.1	3175.6	3154.1	3179.1	3195.3
35°	6059.4	5572.5	5629.7	5613.6	4978.2	3472.7	3431.5	3395.7	3401.1	3401.1
37.5°	6077.3	6096.9	6165.0	6095.2	4342.7	3744.8	3678.6	3671.4	3676.8	3689.3
40°	6639.3	6650.1	6675.1	6521.2	4666.7	4061.6	3970.4	3952.5	3970.4	3997.2
42.5°	7244.4	7274.8	7303.4	5930.5	5119.6	4421.5	4330.2	4296.1	4328.4	4357.0
45°	7960.4	8006.9	7568.4	6455.0	5631.5	4831.4	4734.7	4693.5	4713.2	4738.3
47.5°	8765.9	8839.3	7137.0	7122.7	6233.0	5316.5	5205.5	5126.7	5157.2	5155.4
50°	9675.3	8447.3	7885.2	7876.3	6904.3	5857.1	5742.5	5670.9	5694.2	5676.3
52.5°	10658.0	8678.2	8696.1	8694.3	7606.0	6438.8	6333.2	6243.7	6059.4	6229.4
55°	11664.0	9476.6	9544.6	9533.9	8341.7	7040.3	6927.5	6843.4	4471.6	3777.0
57.5°	12664.7	10310.8	10332.2	10357.3	9104.3	7620.3	7124.4	6544.5	2550.8	2538.3
60°	13652.8	11105.5	11148.5	11162.8	9516.0	6308.2	2912.4	2966.1	771.5	921.9
62.5°	14676.7	11889.6	11929.0	11916.4	9925.9	5866.0	3059.2	2998.4	71.6	66.2
65°	15983.5	12872.3	12816.8	12775.7	10572.1	6259.8	3286.6	3270.4	23.3	16.1
67.5°	16441.7	13096.1	12983.3	12969.0	10665.2	6344.0	3304.5	3291.9	23.3	16.1
70°	15403.5	12245.8	12052.5	12057.9	9924.1	5934.1	3082.5	3064.6	21.5	16.1
72.5°	13489.9	10815.5	10735.0	10309.0	8594.1	5219.8	2733.4	2665.4	21.5	14.3
75°	11075.1	8737.3	8558.3	8080.3	6839.8	4149.4	2146.3	2058.6	19.7	12.5
77.5°	7688.3	6127.4	5785.5	5298.6	4575.4	2751.3	1442.8	1330.0	17.9	12.5
80°	3485.2	2515.0	2527.6	1936.8	1552.0	932.6	458.3	415.3	16.1	10.7
82.5°	606.8	447.5	420.7	406.3	338.3	229.1	139.6	119.9	14.3	7.2
85°	211.2	170.1	188.0	222.0	196.9	137.8	85.9	82.3	9.0	3.6
87.5°	71.6	75.2	87.7	105.6	93.1	53.7	32.2	23.3	1.8	0.0
90°	7.2	9.0	9.0	9.0	5.4	0.0	0.0	0.0	0.0	0.0
92.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	1.8	1.8	1.8	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)