

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: P579663

Luminaire Tested: **CTN-CA8-480-727-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579663  
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-CA8-480-727-U-T5N-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 49618 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B5 - U2 - G4

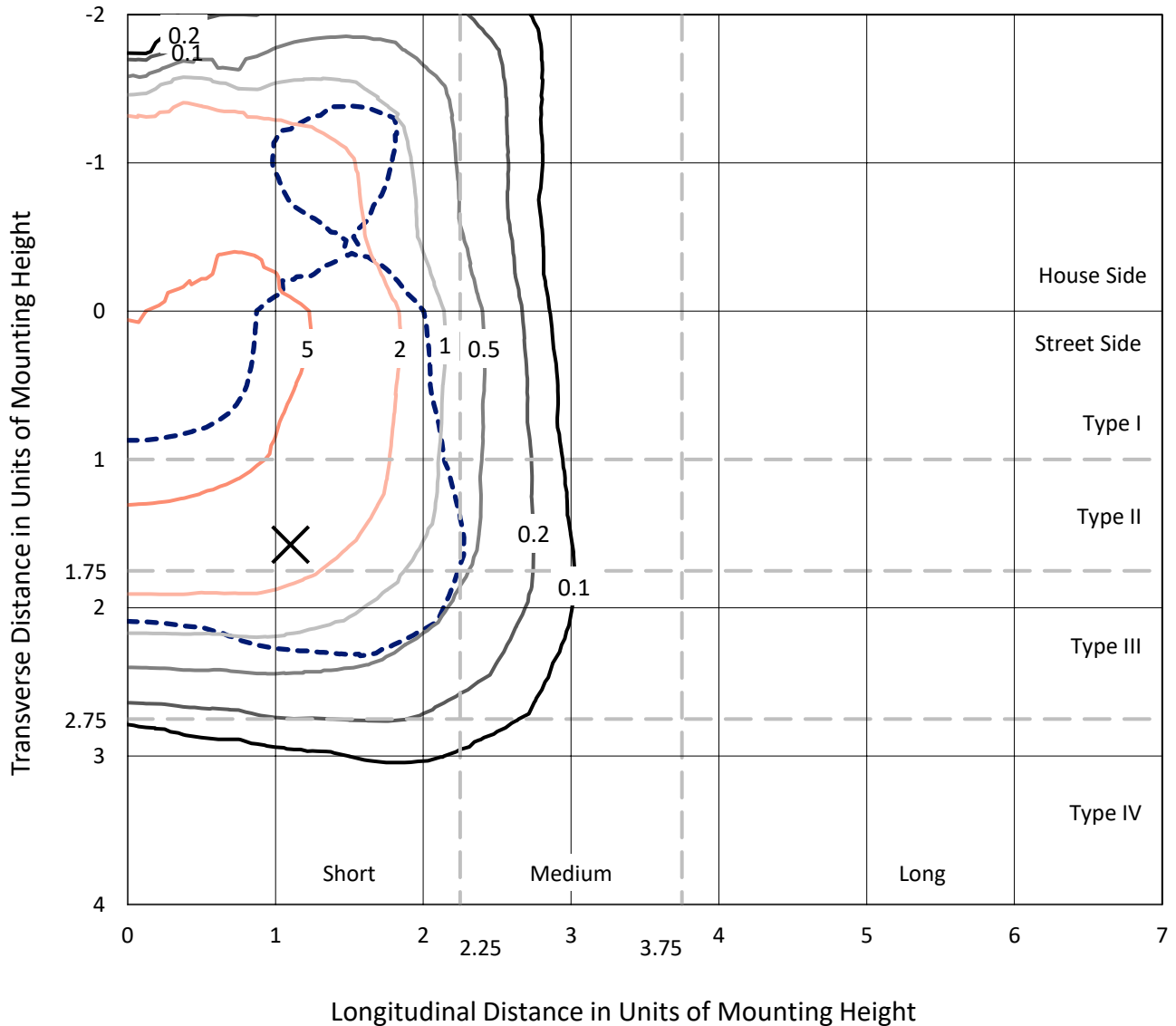
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

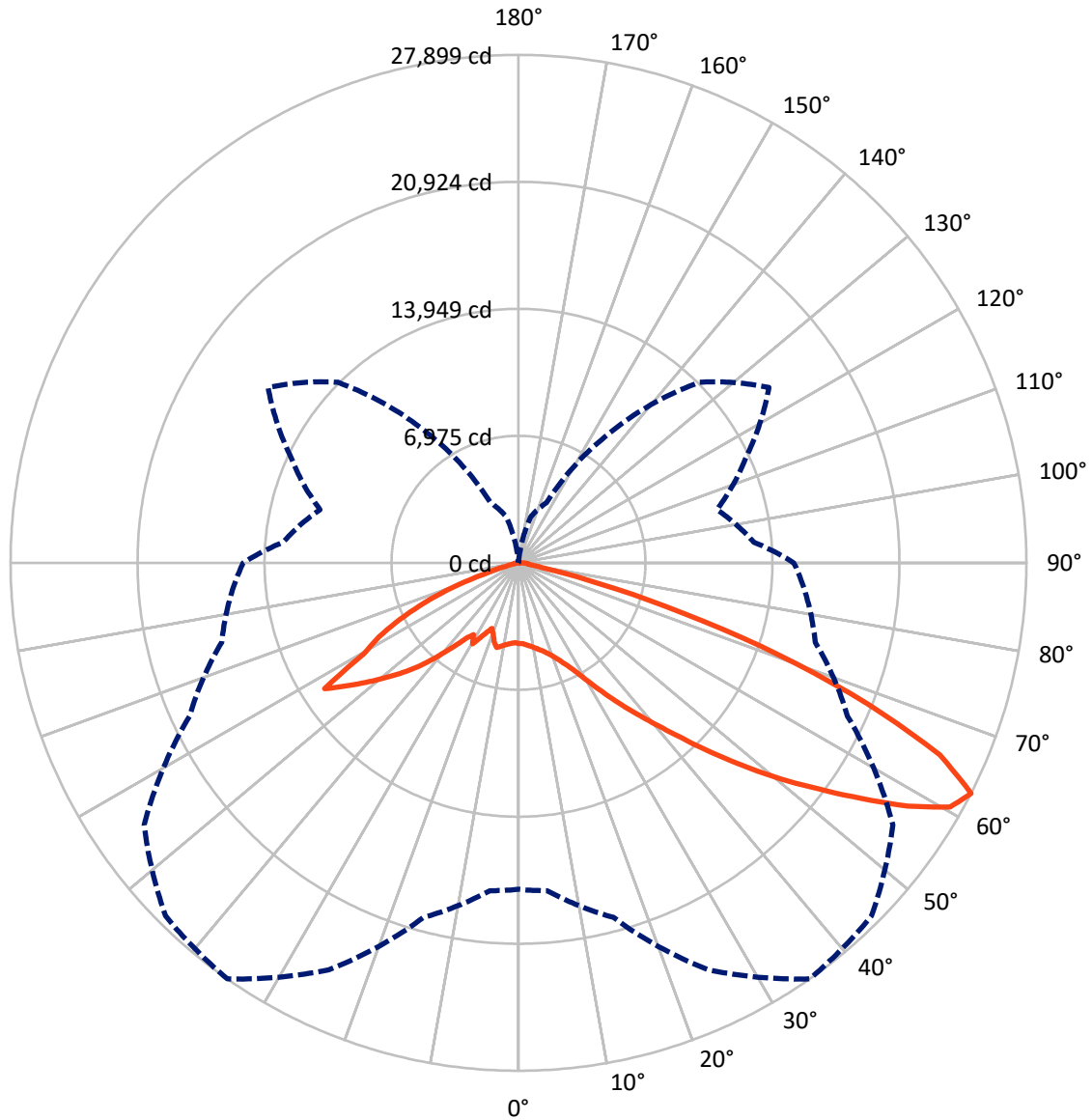
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.7 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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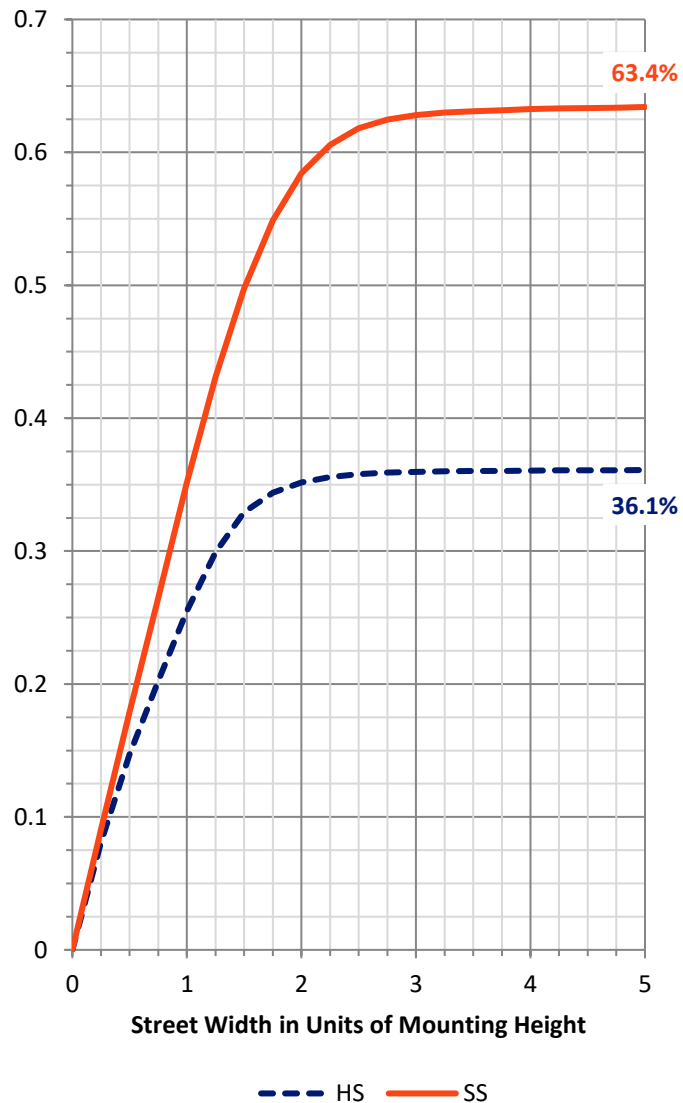
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18010.2	0.0	18010.2
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	31584.3	23.5	31607.8
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	49594.5	23.5	49618.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	436.5	0.9
10°-20°	1410.7	2.8
20°-30°	2713.9	5.5
30°-40°	5414.0	10.9
40°-50°	9885.6	19.9
50°-60°	14772.6	29.8
60°-70°	12378.1	24.9
70°-80°	2316.4	4.7
80°-90°	266.6	0.5
90°-100°	21.2	0.0
100°-110°	2.3	0.0
110°-120°	0.1	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°	49594.5	100.0
0°-180°	49618.0	100.0

**Coefficient of Utilization**

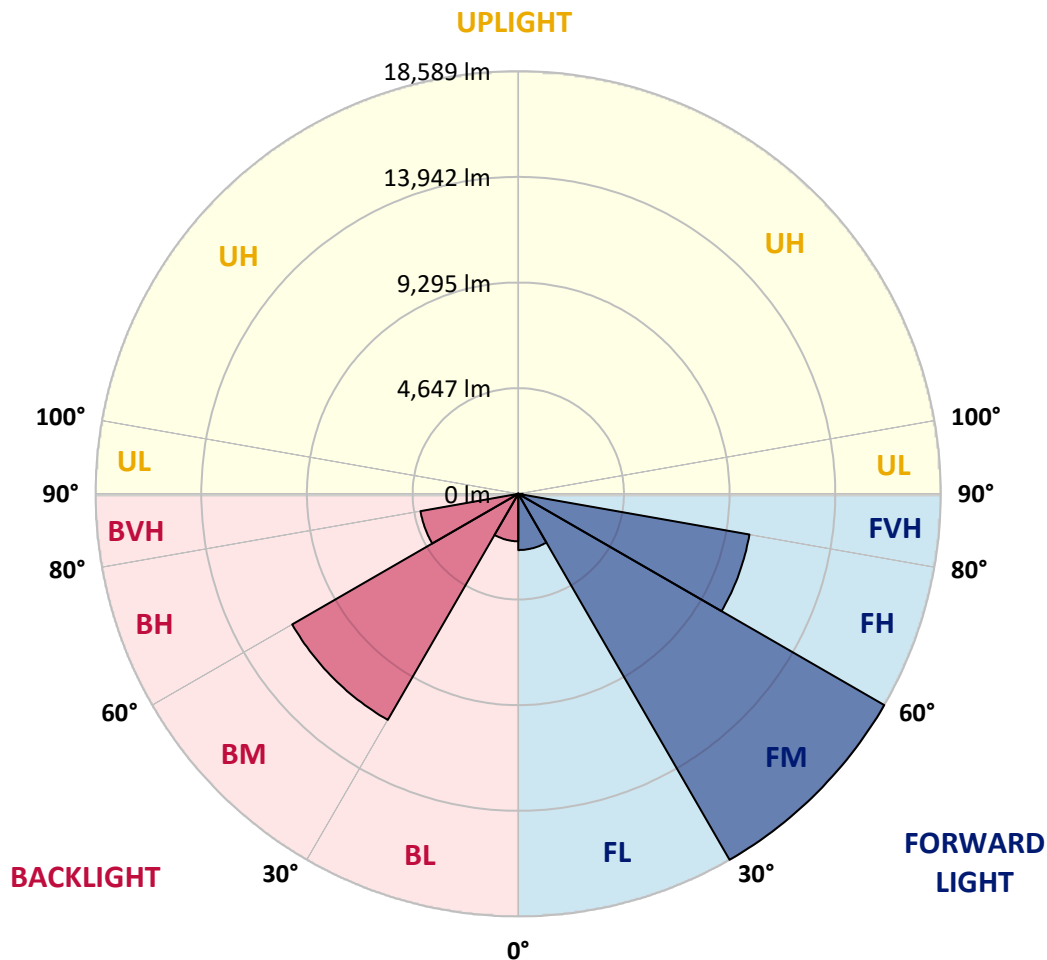


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2474.0	5.0			
FM (30°-60°)	18589.2	37.5			
FH (60°-80°)	10326.9	20.8			G4/12000
FVH (80°-90°)	194.2	0.4			G2/225
BL (0°-30°)	2087.0	4.2	B3/2500		
BM (30°-60°)	11483.1	23.1	B5		
BH (60°-80°)	4367.6	8.8	B4/5000		G4/5000
BVH (80°-90°)	72.5	0.1			G1/100
UL (90°-100°)	21.2	0.0		U2/50	
UH (100°-180°)	2.3	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°	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6
2.5°	4534.5	4497.3	4502.9	4528.9	4447.1	4480.6	4445.2	4478.7	4467.5	4482.4	4493.6
5°	4599.6	4553.1	4556.8	4586.6	4523.3	4551.2	4515.9	4538.2	4519.6	4540.1	4541.9
7.5°	4688.9	4649.8	4644.2	4674.0	4620.1	4644.2	4608.9	4620.1	4601.5	4625.6	4618.2
10°	4807.9	4772.6	4763.3	4783.7	4741.0	4754.0	4716.8	4731.7	4703.8	4731.7	4718.6
12.5°	4940.0	4893.5	4895.3	4917.6	4874.9	4884.2	4854.4	4871.1	4837.7	4867.4	4858.1
15°	5096.2	5029.2	5042.3	5066.4	5025.5	5053.4	5018.1	5042.3	5010.6	5042.3	5031.1
17.5°	5298.9	5222.7	5232.0	5271.0	5237.6	5282.2	5241.3	5271.0	5256.2	5276.6	5272.9
20°	5555.6	5505.4	5496.1	5544.4	5496.1	5551.9	5529.6	5581.6	5585.4	5605.8	5615.1
22.5°	5897.8	5864.4	5842.0	5875.5	5832.7	5871.8	5903.4	5992.7	6026.2	6080.1	6083.8
25°	6353.5	6351.7	6301.4	6303.3	6249.4	6301.4	6390.7	6530.2	6619.5	6688.3	6662.3
27.5°	6969.1	6980.3	6904.0	6874.3	6811.1	6889.2	7073.3	7246.3	7408.1	7504.8	7504.8
30°	7772.6	7783.8	7672.2	7612.7	7555.0	7690.8	7910.3	8135.3	8366.0	8505.4	8473.8
32.5°	8836.5	8801.2	8641.2	8533.3	8434.8	8591.0	8844.0	9098.8	9413.1	9614.0	9589.8
35°	10127.3	9999.0	9839.0	9638.1	9426.1	9548.9	9786.9	10106.8	10543.9	10845.2	10769.0
37.5°	11626.4	11499.9	11226.5	10880.6	10510.4	10525.3	10713.2	11267.4	11814.3	12059.8	12007.7
40°	13183.2	13084.6	12833.5	12389.0	11719.4	11565.0	11873.8	12541.5	13064.1	13372.9	13285.5
42.5°	14769.7	14669.2	14479.5	14033.1	13146.0	12774.0	13095.7	13823.0	14381.0	14684.1	14583.7
45°	16352.5	16237.2	16086.5	15692.2	14845.9	14301.0	14481.4	15149.1	15658.7	16002.8	15796.4
47.5°	17743.7	17667.4	17565.2	17405.2	16664.9	16062.3	16049.3	16490.1	16841.6	17068.6	16815.6
50°	18954.5	18900.6	18958.2	18924.8	18655.1	18106.4	17769.7	17740.0	17853.4	18019.0	17658.1
52.5°	20040.7	19945.9	20159.7	20425.7	20624.7	20513.1	19423.2	18811.3	18686.7	18742.5	18333.3
55°	20929.8	20885.1	21244.1	21911.8	22832.5	23078.0	21121.3	19852.9	19393.5	19363.7	18898.7
57.5°	21472.9	21536.1	22254.0	23526.2	25215.0	25293.1	23206.3	20967.0	20081.6	19761.7	19226.1
60°	20608.0	20851.6	22077.3	24701.7	27236.8	27285.1	24737.0	21171.5	19222.3	18506.3	17842.3
62.5°	17933.4	18078.5	20163.5	24662.6	27898.9	27426.5	25101.6	19936.6	16877.0	15735.0	15121.2
65°	12632.6	12904.2	15137.9	22188.9	25423.3	25482.9	23027.8	17237.8	13477.0	12214.1	11818.0
67.5°	7629.4	7889.8	10268.7	16017.7	20667.5	21335.2	19209.3	13051.1	9664.2	8068.4	7668.5
70°	2477.4	2760.1	4679.6	9441.0	15203.0	16804.4	14455.4	8494.3	5060.9	3545.0	3115.4
72.5°	941.1	1026.7	1523.3	4123.5	9468.9	11219.1	8940.7	4261.1	1567.9	933.7	820.2
75°	611.9	624.9	712.4	1445.2	4566.1	6176.8	4309.5	1248.0	628.7	558.0	517.1
77.5°	526.4	535.7	572.9	719.8	1454.5	2362.1	1236.9	638.0	524.5	465.0	437.1
80°	496.6	500.3	524.5	610.1	680.7	788.6	595.2	533.8	457.5	437.1	416.6
82.5°	470.6	483.6	496.6	554.3	552.4	567.3	478.0	418.5	388.7	409.2	401.7
85°	438.9	446.4	455.7	494.7	450.1	381.3	368.3	288.3	280.8	299.4	280.8
87.5°	308.7	327.3	316.2	332.9	312.5	243.7	206.5	163.7	130.2	107.9	104.2
90°	126.5	128.3	120.9	111.6	98.6	81.8	65.1	40.9	18.6	9.3	3.7
92.5°	98.6	98.6	94.9	85.6	74.4	61.4	46.5	26.0	13.0	5.6	1.9
95°	61.4	63.2	59.5	53.9	46.5	37.2	27.9	14.9	9.3	3.7	1.9
97.5°	39.1	39.1	35.3	31.6	26.0	18.6	13.0	11.2	7.4	3.7	0.0
100°	22.3	22.3	20.5	16.7	13.0	9.3	9.3	7.4	5.6	1.9	0.0
102.5°	13.0	13.0	9.3	7.4	5.6	5.6	5.6	5.6	3.7	1.9	0.0
105°	5.6	5.6	3.7	3.7	1.9	1.9	3.7	3.7	3.7	1.9	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.7	3.7	1.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.7	1.9	1.9



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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°	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6	4439.6
2.5°	4486.1	4452.7	4458.2	4426.6	4421.0	4389.4	4452.7	4460.1	4441.5	4458.2
5°	4538.2	4497.3	4510.3	4475.0	4469.4	4426.6	4482.4	4478.7	4463.8	4480.6
7.5°	4616.3	4573.6	4581.0	4541.9	4534.5	4488.0	4540.1	4523.3	4508.5	4528.9
10°	4726.1	4677.7	4681.4	4631.2	4636.8	4575.4	4638.7	4608.9	4590.3	4618.2
12.5°	4858.1	4804.2	4806.1	4754.0	4752.1	4692.6	4748.4	4731.7	4703.8	4746.5
15°	5029.2	4967.9	4962.3	4893.5	4874.9	4807.9	4860.0	4828.4	4809.8	4871.1
17.5°	5269.2	5200.4	5179.9	5096.2	4748.4	4547.5	4826.5	4921.4	4806.1	4787.5
20°	5589.1	5531.4	5484.9	5358.4	4774.4	4147.6	3684.5	3688.2	4175.5	4400.6
22.5°	6022.4	5953.6	5866.2	5685.8	4380.1	3885.4	3887.2	3881.7	3331.1	3098.6
25°	6615.8	6532.1	6353.5	5334.3	4649.8	4192.3	4181.1	3636.2	3333.0	3349.7
27.5°	7417.4	7246.3	6201.0	5778.8	5129.7	4590.3	4322.5	3660.3	3697.5	3723.6
30°	8436.6	7748.5	6701.3	6450.2	5706.3	5118.5	3997.0	4088.1	4162.5	4179.3
32.5°	9481.9	7770.8	7501.1	7235.1	6416.7	4657.3	4504.7	4677.7	4755.8	4765.1
35°	9472.6	8723.1	8375.3	8075.8	7075.2	4982.7	5079.5	5345.4	5544.4	5535.1
37.5°	10025.0	9773.9	9359.2	8979.7	6368.4	5613.3	5786.2	6087.5	6329.3	6321.9
40°	11180.0	10889.9	10450.9	9654.9	7051.0	6334.9	6576.7	6900.3	7071.4	7080.7
42.5°	12271.8	12031.9	11583.6	9020.6	7904.7	7203.5	7423.0	7640.6	7746.6	7780.1
45°	13358.0	13186.9	11695.2	9969.2	8936.9	8077.7	8222.7	8263.7	8375.3	8362.2
47.5°	14239.6	14049.9	11245.1	11159.6	10188.7	8907.2	8896.0	8842.1	8883.0	8892.3
50°	15044.9	12759.1	12149.0	12433.6	11501.8	9753.5	9541.4	9431.7	9375.9	9351.7
52.5°	15681.0	12762.8	12993.5	13750.4	12984.2	10672.3	10216.6	9907.8	8674.7	9640.0
55°	16222.3	13289.2	13793.2	15158.4	14261.9	11633.8	10826.6	10276.1	5790.0	4642.4
57.5°	16532.9	13689.1	14585.5	16477.1	15377.9	12703.3	9967.3	8618.9	3273.5	3269.8
60°	15333.2	12971.1	14563.2	17169.0	15056.1	9853.9	4058.4	3396.2	619.4	636.1
62.5°	12980.4	11284.2	13811.8	16789.6	14022.0	8669.1	3639.9	2615.1	20.5	16.7
65°	10056.6	9002.0	11630.1	14767.8	12757.2	7233.3	2713.6	1884.1	5.6	0.0
67.5°	6578.6	6344.2	8581.7	12245.8	10404.4	5604.0	1820.9	902.1	3.7	0.0
70°	2804.8	3249.3	5436.6	8879.3	7964.2	3855.6	877.9	325.5	1.9	0.0
72.5°	784.9	1039.7	2419.8	5202.2	5008.8	2027.3	342.2	137.6	1.9	0.0
75°	465.0	399.9	693.8	2075.7	2438.4	712.4	158.1	106.0	1.9	0.0
77.5°	386.9	312.5	398.0	530.1	738.4	256.7	133.9	94.9	0.0	0.0
80°	362.7	277.1	344.1	370.1	364.5	213.9	132.1	94.9	0.0	0.0
82.5°	344.1	241.8	284.6	284.6	305.0	197.2	124.6	93.0	0.0	0.0
85°	258.5	169.3	189.7	245.5	219.5	139.5	91.1	74.4	0.0	0.0
87.5°	98.6	61.4	74.4	78.1	63.2	31.6	7.4	7.4	0.0	0.0
90°	1.9	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)