

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: P579421

Luminaire Tested: **CTN-CA8-480-722-U-T5N-HSS-HM-EX120**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579421  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-5)  
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-T5N-HSS-HM-EX120  
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: 45497 lumens  
Efficiency: N/A  
Efficacy: 94.6 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

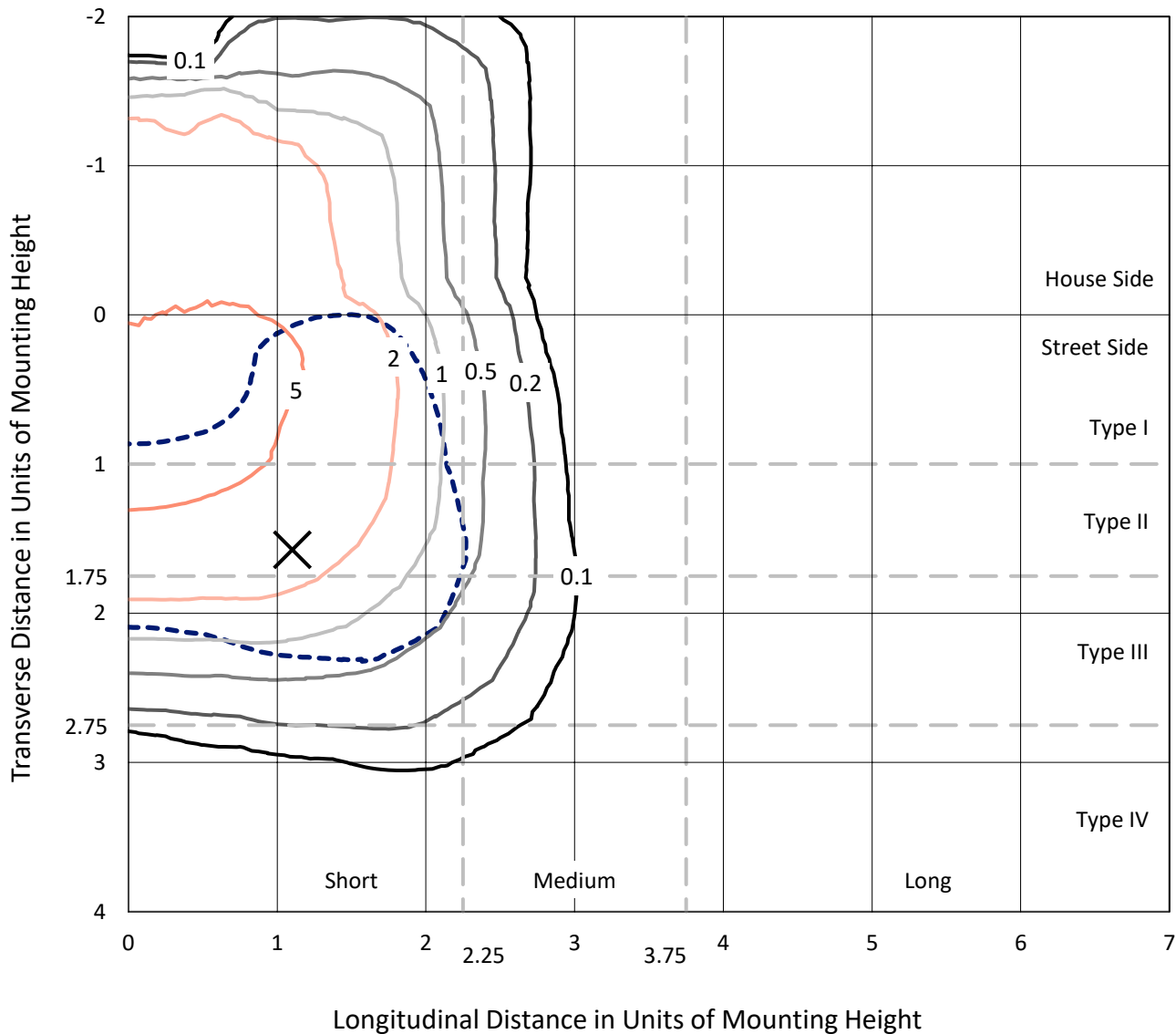




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### Iso-Footcandle Lines of Horizontal Illumination

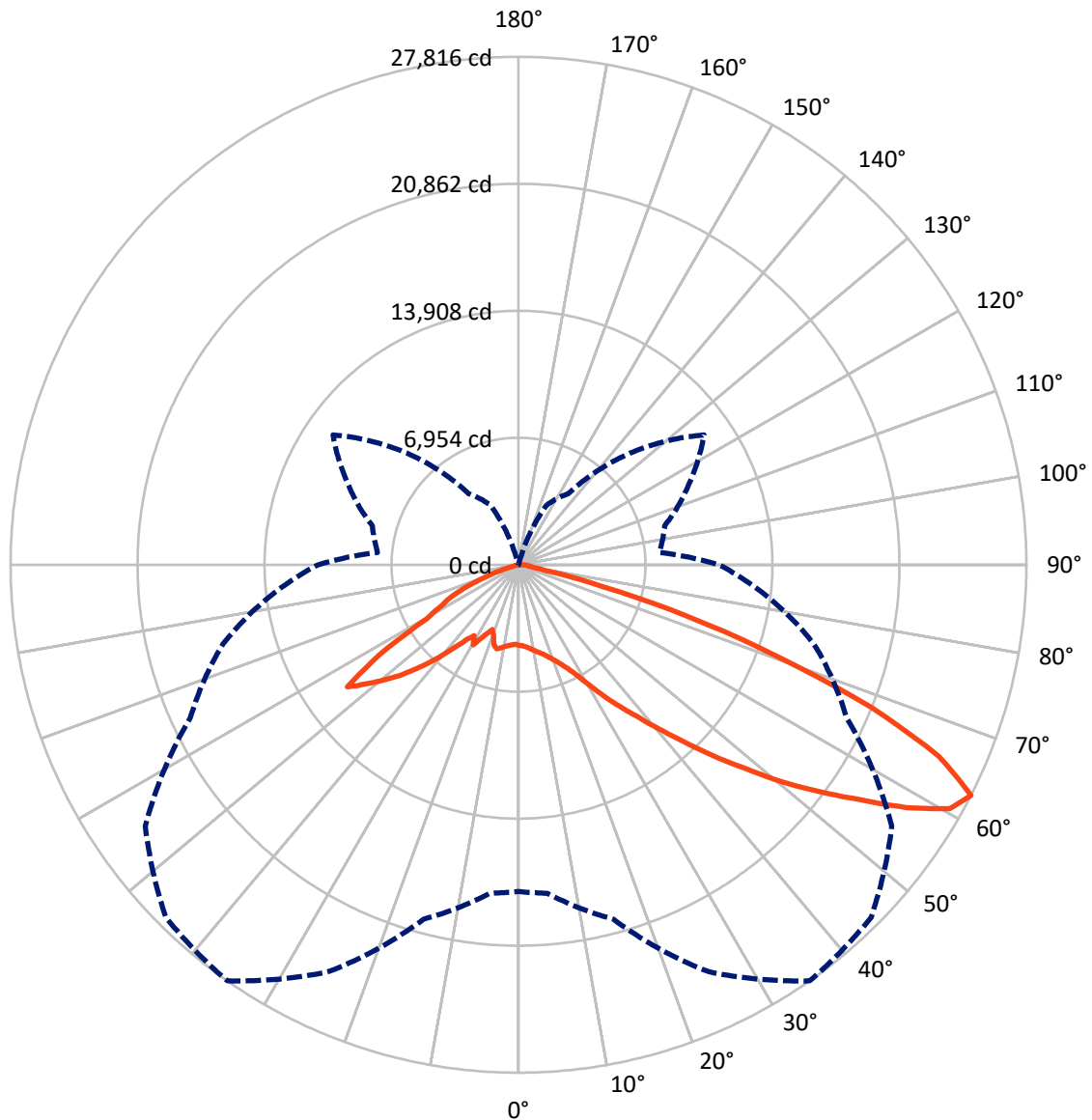
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.6 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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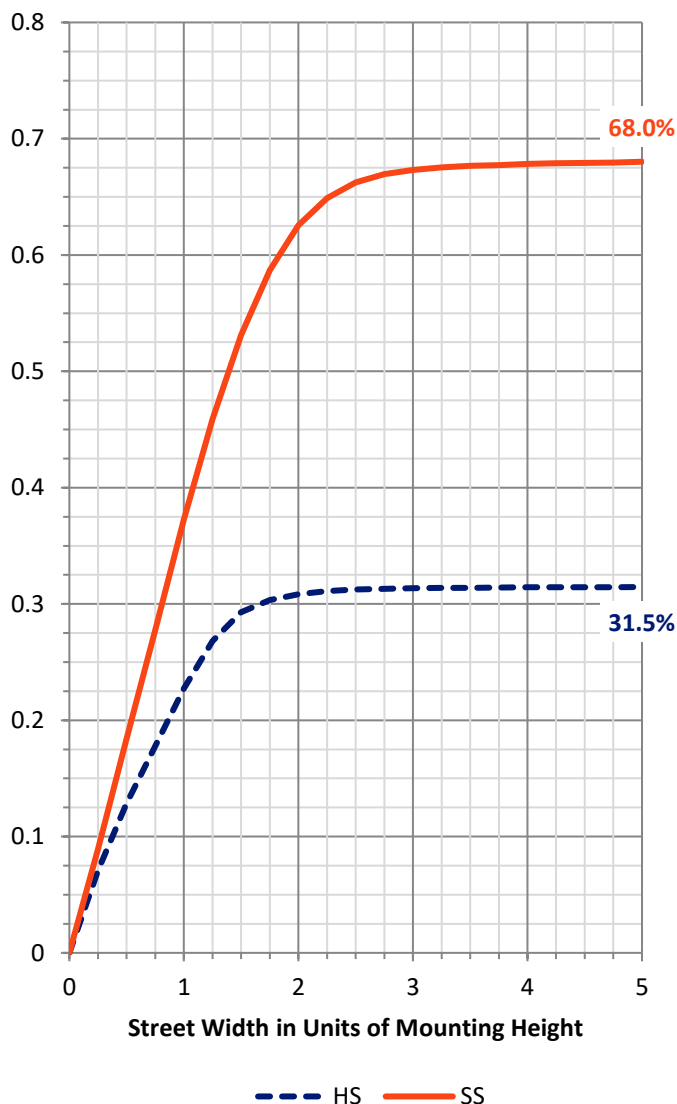
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14393.3	0.0	14393.3
	% Fixture	31.6	0.0	31.6
<b>Street Side</b>	Lumens	31077.7	25.9	31103.7
	% Fixture	68.3	0.1	68.4
<b>Total</b>	Lumens	45471.0	26.0	45497.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	435.5	1.0
10°-20°	1400.2	3.1
20°-30°	2599.9	5.7
30°-40°	5125.9	11.3
40°-50°	9201.7	20.2
50°-60°	13375.6	29.4
60°-70°	10992.6	24.2
70°-80°	2089.5	4.6
80°-90°	250.1	0.5
90°-100°	23.7	0.1
100°-110°	2.3	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°	45471.0	99.9
0°-180°	45497.0	100.0

**Coefficient of Utilization**

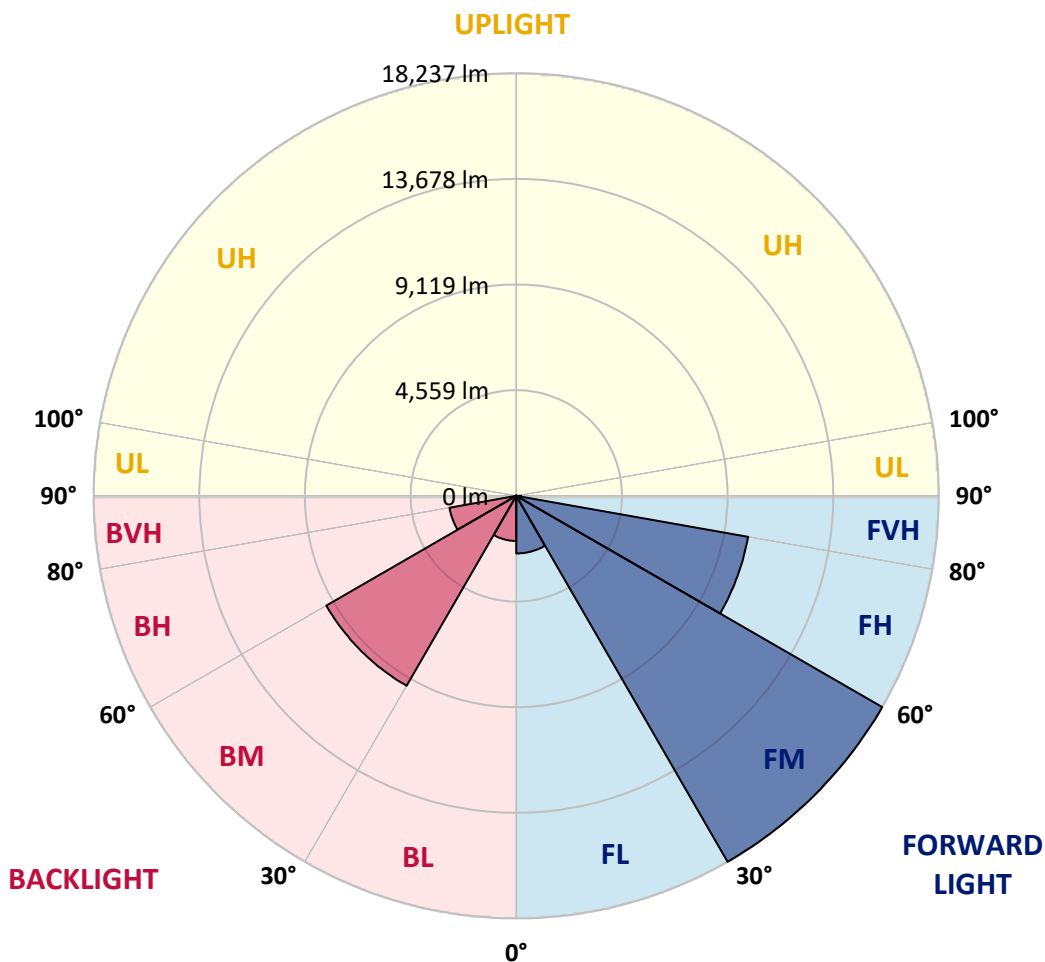


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2486.7	5.5			
FM (30°-60°)	18237.3	40.1			
FH (60°-80°)	10156.0	22.3			G4/12000
FVH (80°-90°)	197.8	0.4			G2/225
BL (0°-30°)	1948.9	4.3	B3/2500		
BM (30°-60°)	9465.9	20.8	B5		
BH (60°-80°)	2926.1	6.4	B4/5000		G4/5000
BVH (80°-90°)	52.4	0.1			G1/100
UL (90°-100°)	23.7	0.1		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°	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2
2.5°	4529.0	4492.0	4495.7	4523.4	4440.2	4468.0	4429.1	4462.4	4447.6	4462.4	4471.7
5°	4619.6	4573.4	4571.5	4599.3	4532.7	4549.3	4505.0	4527.1	4506.8	4525.3	4525.3
7.5°	4730.6	4691.7	4682.5	4704.7	4645.5	4652.9	4608.5	4617.8	4593.7	4617.8	4599.3
10°	4869.3	4834.1	4819.3	4830.4	4776.8	4780.5	4732.4	4736.1	4701.0	4721.3	4706.5
12.5°	5015.4	4967.3	4959.9	4978.4	4922.9	4915.5	4874.8	4878.5	4839.7	4858.2	4847.1
15°	5167.0	5117.1	5118.9	5137.4	5081.9	5085.6	5043.1	5050.5	5011.7	5030.2	5015.4
17.5°	5368.6	5318.7	5315.0	5348.2	5302.0	5316.8	5272.4	5281.7	5253.9	5257.6	5241.0
20°	5657.1	5592.4	5579.4	5627.5	5566.5	5585.0	5560.9	5592.4	5581.3	5572.0	5559.1
22.5°	6001.1	5951.1	5925.2	5962.2	5890.1	5925.2	5938.2	6002.9	6019.6	6008.5	5805.0
25°	6461.5	6435.6	6409.8	6393.1	6306.2	6361.7	6428.3	6535.5	6605.8	6633.5	6350.6
27.5°	7082.9	7095.9	6983.0	6964.6	6866.5	6953.5	7073.7	7247.5	7389.9	7441.7	7060.7
30°	7881.8	7898.5	7745.0	7700.6	7641.4	7715.4	7939.1	8129.6	8340.5	8427.4	7918.8
32.5°	8943.3	8928.5	8702.9	8617.9	8564.2	8593.8	8828.7	9089.4	9326.1	9522.2	8897.1
35°	10239.7	10193.5	9953.1	9718.2	9505.5	9596.1	9768.1	10084.4	10443.1	10731.6	9862.4
37.5°	11745.1	11700.7	11334.5	10951.7	10531.9	10570.7	10724.2	11240.2	11702.5	11778.3	9697.9
40°	13300.3	13281.8	12936.0	12449.7	11796.8	11613.8	11817.2	12446.0	12934.2	11611.9	10080.7
42.5°	14853.8	14765.0	14570.8	14084.5	13215.3	12812.1	13085.8	13714.6	14239.8	12174.1	10968.3
45°	16420.2	16329.5	16164.9	15808.0	14903.7	14317.5	14397.0	15094.2	15569.5	13228.2	11893.0
47.5°	17810.8	17744.3	17625.9	17426.2	16619.9	16089.1	15935.6	16423.9	16747.5	14084.5	12603.1
50°	19009.2	18951.9	18998.1	18931.5	18694.8	18138.2	17631.5	17600.0	17755.4	14846.4	13256.0
52.5°	20063.3	19985.6	20183.5	20418.4	20636.6	20512.7	19286.6	18715.2	18574.6	15417.8	13694.2
55°	20934.4	20906.6	21246.9	21881.2	22711.6	23037.0	21056.4	19745.2	19306.9	15902.3	13734.9
57.5°	21455.9	21522.4	22241.8	23469.8	25093.5	25247.0	23127.7	20840.0	19952.4	16196.4	13929.1
60°	20564.5	20790.1	22084.6	24660.7	27120.3	27186.9	24616.4	21058.3	19107.2	15138.6	12891.6
62.5°	17894.1	18056.8	20092.9	24584.9	27815.7	27309.0	24949.2	19826.6	16745.6	12841.7	10964.6
65°	12643.8	12832.5	15286.5	22169.7	25306.2	25324.6	22854.0	17145.1	13385.4	9942.0	8466.2
67.5°	7626.6	7931.8	10256.4	16094.7	20836.3	21215.5	19066.5	12980.4	9579.5	6491.1	5479.5
70°	2502.1	2781.4	4682.5	9525.9	15020.2	16643.9	14319.3	8434.8	5002.4	2744.4	2209.9
72.5°	991.2	1118.8	1649.6	4212.8	9679.4	11112.6	8823.1	4075.9	1679.2	728.6	634.3
75°	662.1	675.0	761.9	1435.1	4736.1	6076.9	4253.4	1185.4	623.2	454.9	399.5
77.5°	577.0	578.8	617.7	756.4	1542.3	2330.1	1224.3	636.2	516.0	373.6	331.0
80°	528.9	536.3	560.3	645.4	706.4	791.5	604.7	530.8	447.5	344.0	312.5
82.5°	506.7	512.3	527.1	584.4	571.4	593.6	488.2	421.6	377.3	316.2	299.6
85°	462.3	471.6	480.8	516.0	469.7	406.9	377.3	282.9	270.0	238.6	220.1
87.5°	349.5	347.7	338.4	344.0	314.4	257.1	212.7	159.0	129.5	107.3	88.8
90°	146.1	147.9	142.4	135.0	118.4	98.0	74.0	44.4	22.2	7.4	3.7
92.5°	111.0	112.8	109.1	98.0	85.1	68.4	49.9	25.9	14.8	5.5	1.8
95°	68.4	70.3	66.6	59.2	51.8	38.8	25.9	16.6	9.2	3.7	0.0
97.5°	40.7	42.5	38.8	35.1	27.7	18.5	14.8	11.1	7.4	3.7	0.0
100°	24.0	24.0	22.2	18.5	12.9	11.1	9.2	7.4	5.5	1.8	0.0
102.5°	11.1	11.1	11.1	7.4	5.5	5.5	5.5	5.5	5.5	1.8	0.0
105°	3.7	3.7	1.8	1.8	1.8	3.7	3.7	3.7	3.7	1.8	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.7	3.7	1.8	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	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°	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2	4416.2
2.5°	4462.4	4427.3	4432.8	4401.4	4394.0	4360.7	4419.9	4425.4	4408.8	4425.4
5°	4517.9	4475.4	4486.5	4451.3	4442.1	4395.8	4443.9	4440.2	4427.3	4443.9
7.5°	4599.3	4551.2	4556.7	4516.1	4506.8	4455.0	4499.4	4486.5	4471.7	4492.0
10°	4702.8	4656.6	4658.4	4603.0	4597.4	4538.2	4595.6	4571.5	4549.3	4578.9
12.5°	4847.1	4782.4	4776.8	4715.8	4713.9	4652.9	4712.1	4691.7	4662.1	4708.4
15°	5013.5	4926.6	4904.4	4826.7	4824.9	4760.2	4819.3	4787.9	4773.1	4828.6
17.5°	5229.9	5120.8	4952.5	4688.0	4567.8	4588.2	4797.1	4873.0	4675.1	4704.7
20°	5361.2	4832.3	4586.3	4477.2	4419.9	4090.7	3645.0	3682.0	4120.3	4329.3
22.5°	5139.3	4982.1	4891.5	4738.0	3939.1	3826.3	3852.1	3844.7	3278.9	3110.6
25°	5601.6	5453.7	5289.1	4342.2	4177.6	4129.5	4142.5	3611.7	3302.9	3315.8
27.5°	6267.4	6076.9	5033.9	4623.3	4590.0	4519.7	4264.5	3626.5	3665.4	3691.3
30°	7108.8	6432.0	5361.2	5181.8	5115.2	5039.4	3957.6	4051.9	4124.0	4203.5
32.5°	7922.5	6256.3	5988.1	5801.3	5697.8	4575.2	4464.3	4638.1	4710.2	4778.7
35°	7848.5	7008.9	6661.3	6424.6	6230.4	4937.7	5035.7	5300.2	5490.6	5488.8
37.5°	8052.0	7828.2	7426.9	7127.3	5407.4	5531.3	5736.6	6038.0	6269.2	6267.4
40°	8900.8	8658.5	8281.3	7637.7	5991.8	6280.3	6561.4	6844.3	7010.8	7023.7
42.5°	9744.1	9557.3	9217.0	6746.3	6707.5	7107.0	7401.0	7580.4	7682.1	7717.2
45°	10583.7	10408.0	9056.1	7462.0	7580.4	7976.1	8155.5	8190.7	8299.8	8296.1
47.5°	11251.3	11101.5	8331.2	8312.7	8606.8	8880.5	8823.1	8778.7	8806.5	8821.3
50°	11867.1	9664.6	8982.2	9252.2	9699.7	9733.0	9494.4	7521.2	9311.3	9279.9
52.5°	11023.8	9431.6	9588.7	10221.2	10983.1	10596.6	10130.6	6592.8	8732.5	9562.9
55°	9646.1	9805.1	10160.2	11221.7	11974.4	11515.7	10737.2	6788.9	5795.8	4717.6
57.5°	9838.4	10089.9	10764.9	12231.4	12887.9	9120.9	10021.5	4786.1	3240.0	3238.2
60°	9161.6	9542.5	10752.0	12684.5	10432.0	5843.9	4014.9	109.1	628.8	623.2
62.5°	7745.0	8286.8	10258.2	12397.9	8641.9	4749.1	3576.6	9.2	3.7	3.7
65°	5990.0	6628.0	8553.1	10735.3	7656.2	4090.7	2655.6	0.0	0.0	0.0
67.5°	3928.0	4519.7	6422.7	8917.4	6356.1	3092.1	1784.6	0.0	0.0	0.0
70°	1636.7	2367.1	3990.8	6444.9	4675.1	2025.0	847.0	0.0	0.0	0.0
72.5°	473.4	721.2	1797.5	3848.4	2901.6	1059.7	314.4	0.0	0.0	0.0
75°	312.5	329.2	543.7	1547.9	1411.0	388.4	127.6	0.0	0.0	0.0
77.5°	262.6	270.0	345.8	432.7	453.1	153.5	103.6	0.0	0.0	0.0
80°	242.3	244.1	310.7	321.8	242.3	127.6	101.7	0.0	0.0	0.0
82.5°	225.6	220.1	264.5	255.2	201.6	111.0	94.3	0.0	0.0	0.0
85°	155.3	159.0	179.4	227.5	122.1	55.5	66.6	0.0	0.0	0.0
87.5°	48.1	55.5	70.3	72.1	22.2	7.4	0.0	0.0	0.0	0.0
90°	1.8	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)