

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: P579659

Luminaire Tested: **CTN-CA8-480-727-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579659  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)  
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-T5-HSS-HM-EX180  
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: 37112 lumens  
Efficiency: N/A  
Efficacy: 77.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G5

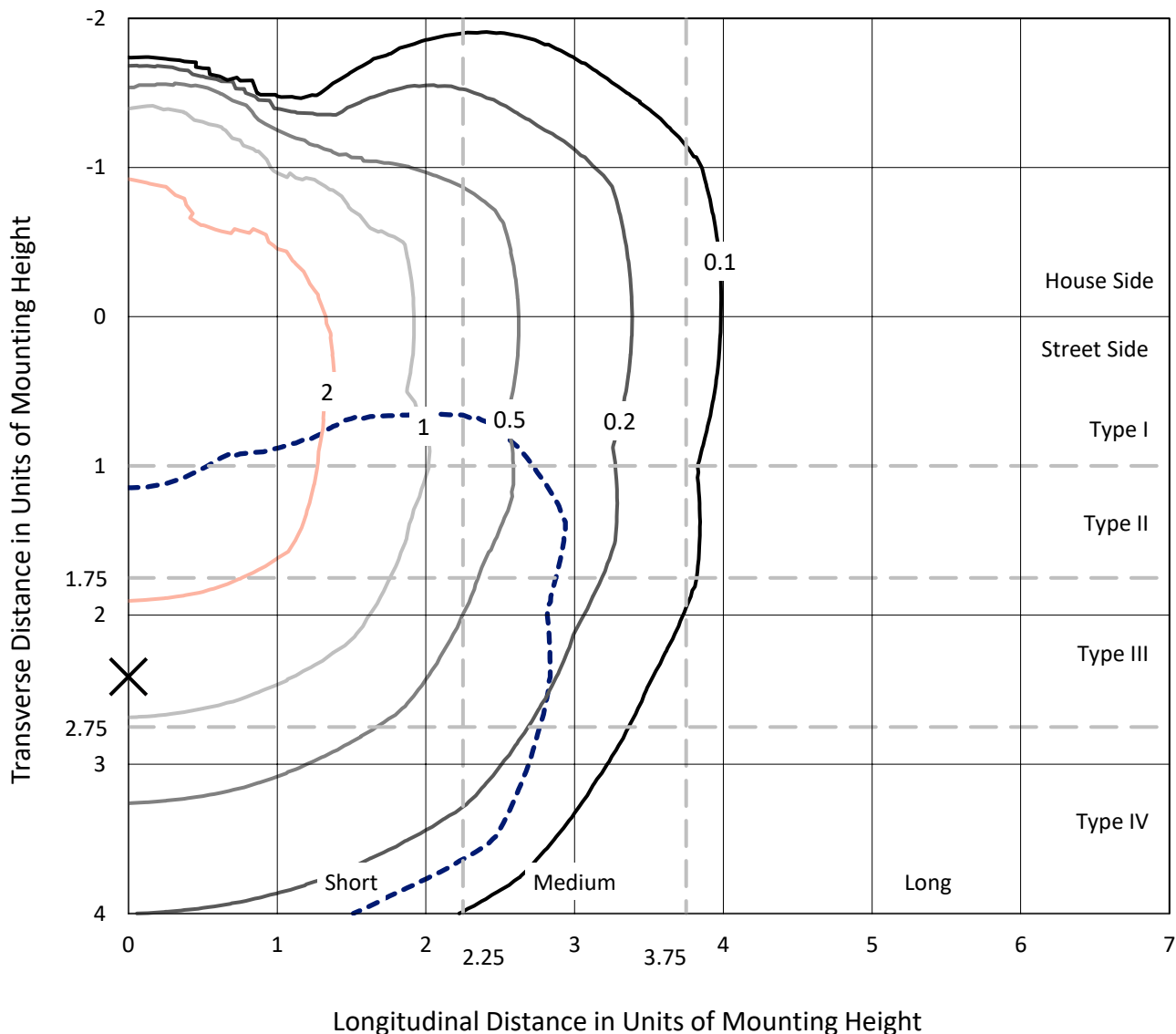
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

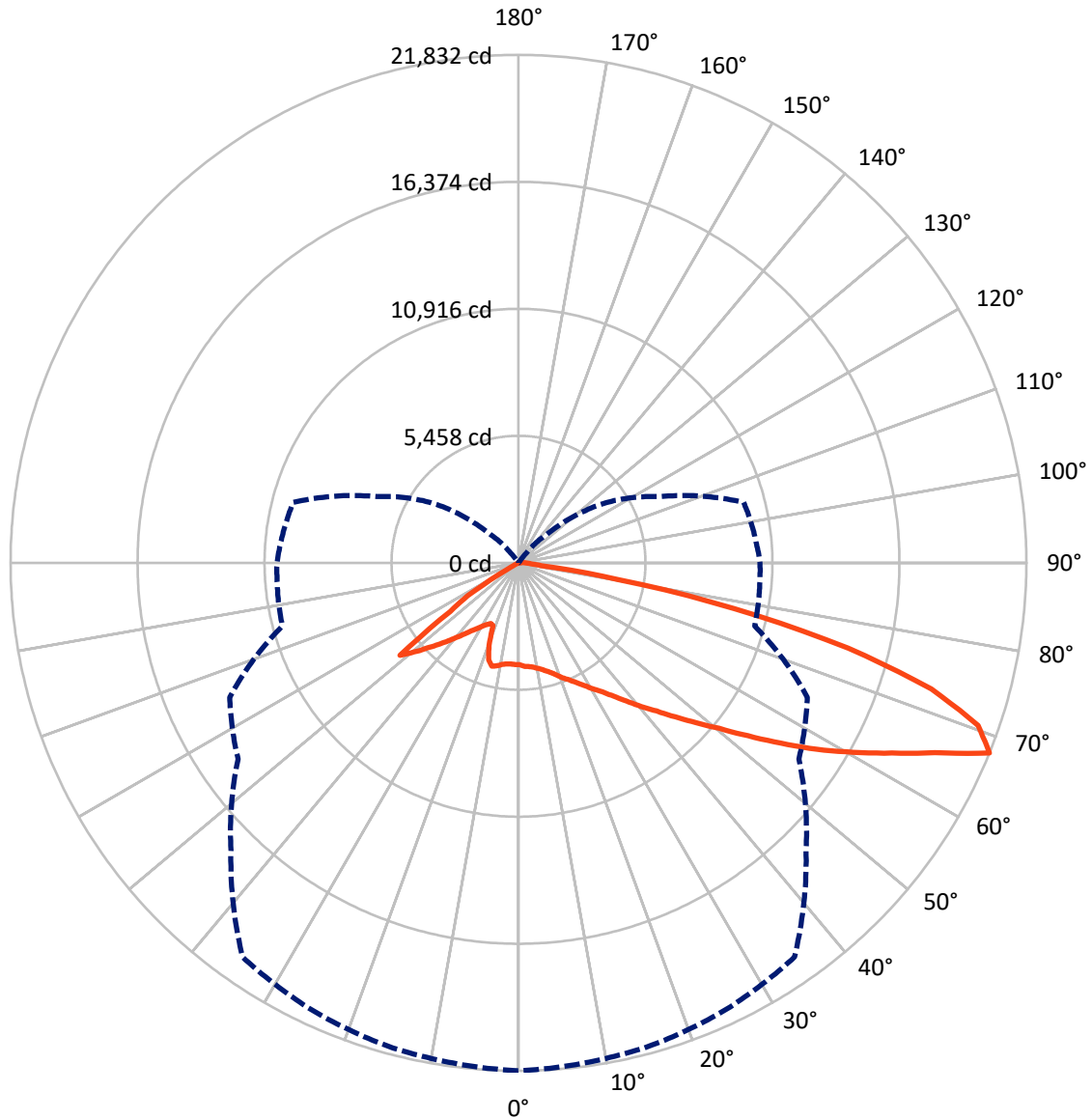
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.9 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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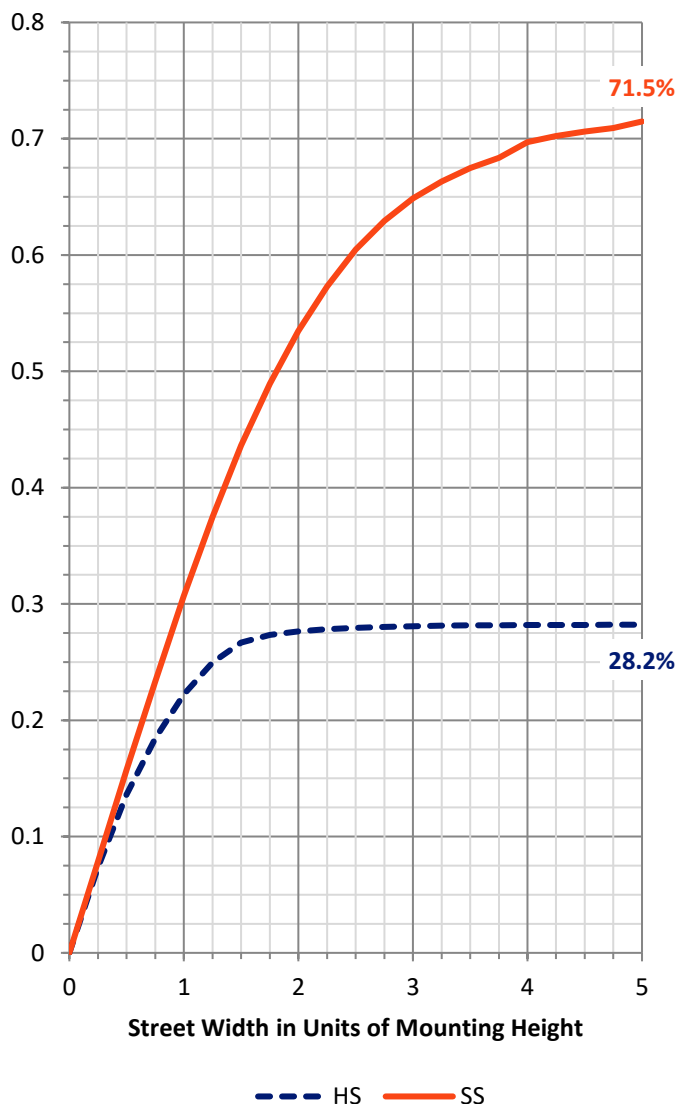
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10518.2	0.2	10518.4
	% Fixture	28.3	0.0	28.3
<b>Street Side</b>	Lumens	26546.3	47.3	26593.6
	% Fixture	71.5	0.1	71.7
<b>Total</b>	Lumens	37064.6	47.4	37112.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	421.5	1.1
10°-20°	1297.6	3.5
20°-30°	2148.6	5.8
30°-40°	3382.3	9.1
40°-50°	5293.3	14.3
50°-60°	7642.7	20.6
60°-70°	9468.0	25.5
70°-80°	6895.3	18.6
80°-90°	515.1	1.4
90°-100°	40.5	0.1
100°-110°	6.8	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°	37064.6	99.9
0°-180°	37112.0	100.0

**Coefficient of Utilization**

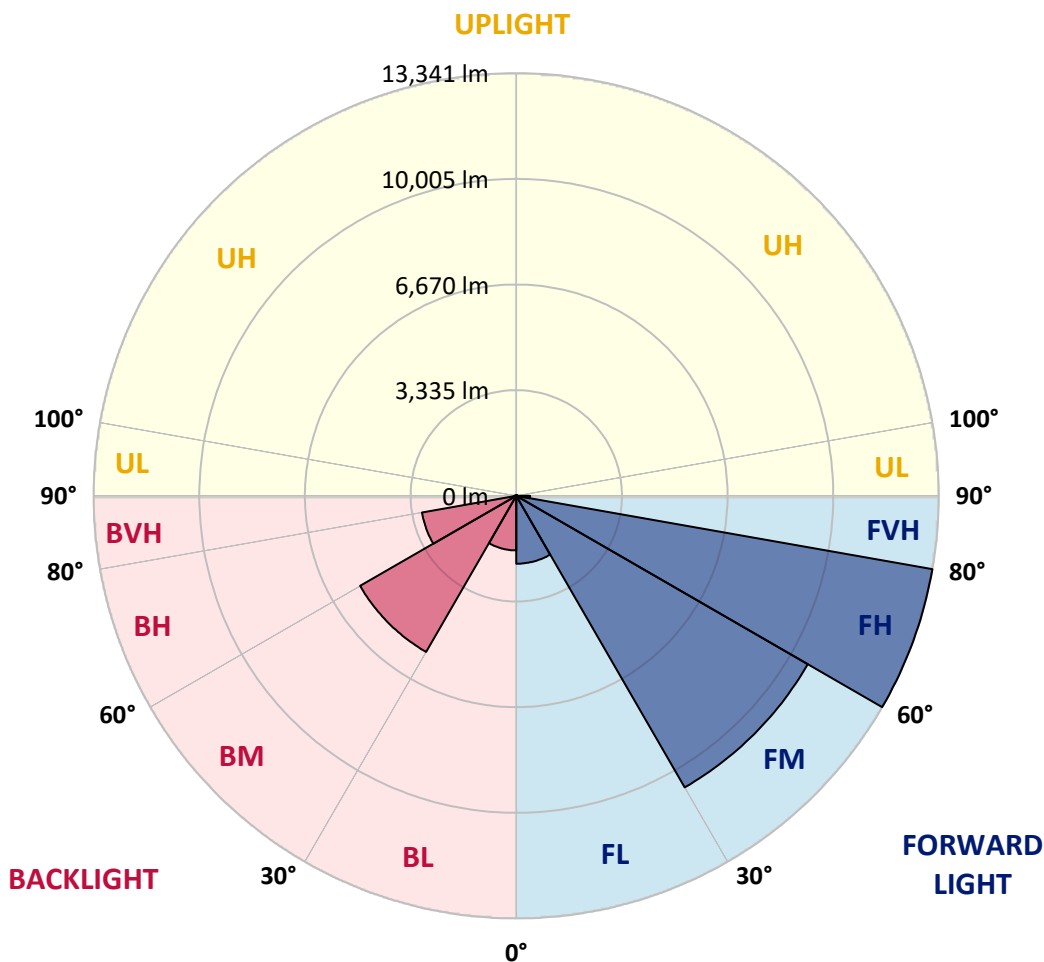


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2143.5	5.8			
FM (30°-60°)	10627.8	28.6			
FH (60°-80°)	13340.5	35.9			G5
FVH (80°-90°)	434.5	1.2			G3/500
BL (0°-30°)	1724.3	4.6	B3/2500		
BM (30°-60°)	5690.6	15.3	B4/8500		
BH (60°-80°)	3022.8	8.1	B4/5000		G4/5000
BVH (80°-90°)	80.6	0.2			G1/100
UL (90°-100°)	40.5	0.1		U2/50	
UH (100°-180°)	7.0	0.0		U1/10	

**BUG Rating: B4-U2-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8
2.5°	4450.8	4426.6	4426.6	4452.7	4380.1	4402.5	4372.7	4398.7	4383.9	4391.3	4400.6
5°	4476.9	4449.0	4450.8	4482.4	4417.3	4435.9	4400.6	4413.6	4400.6	4406.2	4406.2
7.5°	4525.2	4501.0	4501.0	4519.6	4454.5	4460.1	4428.5	4428.5	4411.8	4424.8	4413.6
10°	4616.3	4590.3	4577.3	4586.6	4528.9	4521.5	4478.7	4478.7	4452.7	4473.1	4456.4
12.5°	4726.1	4688.9	4685.2	4687.0	4621.9	4608.9	4560.6	4562.4	4514.1	4542.0	4521.5
15°	4858.1	4811.6	4807.9	4815.4	4746.5	4722.4	4668.4	4668.4	4614.5	4629.4	4601.5
17.5°	5027.4	4973.5	4964.2	4977.2	4908.4	4886.0	4822.8	4811.6	4752.1	4741.0	4716.8
20°	5250.6	5189.2	5170.6	5198.5	5111.1	5090.6	5014.4	4990.2	4910.2	4778.2	4605.2
22.5°	5451.5	5403.1	5391.9	5410.5	5330.6	5310.1	5235.7	5185.5	4992.1	4726.1	4566.1
25°	5680.2	5661.6	5656.1	5644.9	5572.4	5537.0	5466.3	5395.7	4956.7	4592.2	4588.5
27.5°	5962.9	5953.6	5927.6	5918.3	5838.3	5816.0	5723.0	5267.3	4830.2	4804.2	4789.3
30°	6271.7	6253.1	6227.0	6228.9	6175.0	6134.1	5912.7	5153.9	5073.9	5073.9	5034.8
32.5°	6613.9	6593.5	6567.4	6573.0	6550.7	6515.3	5849.5	5453.3	5391.9	5408.7	5360.3
35°	7038.0	7004.5	6995.2	7017.5	7019.4	6790.6	5961.1	5860.6	5812.3	5801.1	5618.9
37.5°	7532.7	7504.8	7538.3	7590.4	7530.9	6861.3	6405.6	6374.0	6325.6	6055.9	5624.4
40°	8126.0	8075.8	8116.7	8150.2	8111.2	7281.6	6872.4	6883.6	6840.8	6041.1	5563.1
42.5°	8713.8	8665.4	8700.8	8784.5	8769.6	7802.4	7441.6	7465.8	7034.3	6076.4	6039.2
45°	9441.0	9424.3	9413.1	9481.9	9539.6	8425.5	8116.7	8114.9	6896.6	6638.1	6604.6
47.5°	10265.0	10242.6	10248.2	10335.6	10423.1	9169.5	8914.7	8167.0	7251.9	7277.9	7248.2
50°	11183.8	11159.6	11232.1	11358.6	11403.2	10004.6	9692.1	8025.6	7992.1	8020.0	7969.8
52.5°	12349.9	12296.0	12407.6	12543.4	12601.0	10992.2	9734.9	8860.7	8804.9	8810.5	8650.5
55°	13676.1	13633.3	13733.7	13886.2	13971.8	12095.1	10623.9	9673.5	9640.0	8691.5	7826.6
57.5°	15117.5	15069.2	15203.1	15247.7	15270.0	13235.3	11518.6	10555.1	9005.8	7936.3	7888.0
60°	16531.1	16479.0	16648.2	16655.7	16720.8	14373.5	12368.5	11405.1	8676.6	8535.2	8494.3
62.5°	18015.3	17950.2	18099.0	18093.4	17965.1	15415.1	13211.1	12221.6	9264.3	9152.7	9089.5
65°	19663.2	19614.8	19719.0	19551.6	19296.8	16492.0	14085.3	13110.7	9948.8	9928.3	9913.4
67.5°	21831.9	21737.0	21526.8	21169.7	20682.4	17479.6	14710.2	13696.5	10504.9	10410.0	10380.3
70°	20959.6	20848.0	20688.0	20295.6	19799.0	16551.5	13705.8	12811.2	9822.3	9826.0	9755.3
72.5°	18558.4	18365.0	18214.3	17663.8	17390.4	14455.4	11942.6	11118.7	8496.2	8654.3	8620.8
75°	14639.5	14442.4	14195.0	13979.2	13949.5	11725.0	9628.9	9035.5	6773.9	6889.2	6972.9
77.5°	9489.4	9416.8	9729.3	9524.7	9708.8	8074.0	6878.0	6368.4	4668.4	4960.4	4921.4
80°	4342.9	4259.2	4761.4	4620.1	4688.9	3965.4	3360.9	3228.8	2112.9	2127.8	2172.4
82.5°	982.0	948.6	983.9	903.9	881.6	745.8	656.6	595.2	373.8	396.2	416.6
85°	537.5	537.5	530.1	492.9	422.2	347.8	275.3	212.0	115.3	126.5	124.6
87.5°	377.6	368.3	366.4	327.3	280.8	238.1	189.7	135.8	65.1	44.6	40.9
90°	258.5	254.8	241.8	217.6	187.9	154.4	115.3	67.0	27.9	13.0	9.3
92.5°	187.9	184.1	174.8	154.4	128.3	104.2	76.3	44.6	22.3	9.3	1.9
95°	124.6	122.8	117.2	100.4	83.7	67.0	48.4	27.9	18.6	7.4	1.9
97.5°	85.6	83.7	78.1	67.0	53.9	42.8	29.8	20.5	14.9	5.6	1.9
100°	57.7	55.8	52.1	42.8	33.5	26.0	18.6	14.9	11.2	5.6	1.9
102.5°	37.2	35.3	31.6	26.0	18.6	14.9	13.0	11.2	7.4	3.7	1.9
105°	22.3	20.5	16.7	13.0	11.2	9.3	9.3	7.4	5.6	1.9	1.9
107.5°	11.2	9.3	7.4	7.4	7.4	5.6	5.6	5.6	3.7	1.9	0.0
110°	1.9	1.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	1.9	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°	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8	4370.8
2.5°	4391.3	4361.5	4378.3	4352.2	4346.7	4318.8	4363.4	4369.0	4365.3	4372.7
5°	4396.9	4365.3	4383.9	4352.2	4352.2	4322.5	4365.3	4365.3	4354.1	4357.8
7.5°	4411.8	4380.1	4393.2	4357.8	4359.7	4324.3	4376.4	4370.8	4361.5	4374.6
10°	4454.5	4419.2	4417.3	4383.9	4391.3	4354.1	4419.2	4419.2	4409.9	4434.1
12.5°	4523.4	4471.3	4462.0	4421.1	4435.9	4404.3	4484.3	4488.0	4489.9	4528.9
15°	4595.9	4532.7	4542.0	4493.6	4488.0	4471.3	4543.8	4540.1	4538.2	4592.2
17.5°	4698.2	4400.6	4352.2	4318.8	4311.3	4270.4	4337.4	4465.7	4398.7	4361.5
20°	4536.4	4380.1	4188.6	4123.5	4110.4	3755.2	3474.4	3600.8	3771.9	3786.8
22.5°	4389.4	4333.6	4318.8	4216.5	3649.2	3530.1	3541.3	3494.8	3089.3	2912.7
25°	4571.7	4523.4	4460.1	3835.2	3701.3	3658.5	3645.5	3169.3	2849.4	2869.9
27.5°	4774.4	4720.5	4170.0	3844.5	3874.2	3814.7	3520.8	2957.3	2938.7	2974.0
30°	5027.4	4595.9	4069.5	4050.9	4078.8	4002.6	3128.4	3087.5	3081.9	3119.1
32.5°	5315.7	4432.2	4337.4	4337.4	4324.3	3500.4	3295.8	3267.9	3282.8	3321.8
35°	5207.8	4688.9	4677.7	4724.2	4411.8	3591.5	3563.6	3515.3	3526.4	3539.4
37.5°	5088.8	5111.1	5116.7	5092.5	3217.7	3851.9	3829.6	3820.3	3809.1	3812.9
40°	5531.4	5546.3	5540.7	5319.4	3472.5	3902.1	4130.9	4114.2	4112.3	4134.6
42.5°	6048.5	6089.4	6057.8	4692.6	3812.9	3280.9	4478.7	4469.4	4465.7	4512.2
45°	6630.7	6669.7	6005.7	5025.5	4175.5	3396.2	4502.9	4848.8	4876.7	4917.7
47.5°	7261.2	7253.7	5542.6	5537.0	4601.5	3716.1	3744.0	5302.7	5349.2	5364.0
50°	7986.5	6794.3	6069.0	5864.4	5083.2	4075.1	3969.1	4865.6	5892.3	5907.1
52.5°	7832.2	6721.8	6673.4	5144.6	5514.7	4471.3	4367.1	4339.2	6108.0	6467.0
55°	7300.2	7356.0	7287.2	5644.9	4043.5	4824.7	4759.6	4731.7	4543.8	3597.1
57.5°	7891.7	7908.4	7848.9	6104.3	4112.3	3007.5	4685.2	4019.3	2611.3	2598.3
60°	8505.5	8533.4	5845.8	4484.3	2635.5	1006.2	239.9	253.0	721.7	634.2
62.5°	9091.3	9119.2	6188.0	4097.4	1664.6	74.4	48.4	33.5	37.2	37.2
65°	9855.8	9866.9	6623.2	4337.4	1729.7	18.6	5.6	0.0	0.0	0.0
67.5°	10251.9	10023.2	6733.0	4447.1	1776.2	11.2	3.7	0.0	0.0	0.0
70°	9653.0	9407.5	6268.0	4168.1	1655.3	9.3	1.9	0.0	0.0	0.0
72.5°	8505.5	8386.4	5626.3	3695.7	1465.6	5.6	1.9	0.0	0.0	0.0
75°	7049.1	6891.0	4664.7	3080.0	1212.7	3.7	0.0	0.0	0.0	0.0
77.5°	5014.4	5033.0	3251.2	2244.9	825.8	3.7	0.0	0.0	0.0	0.0
80°	2194.7	2244.9	1424.7	1030.4	292.0	1.9	0.0	0.0	0.0	0.0
82.5°	418.5	385.0	186.0	146.9	37.2	0.0	0.0	0.0	0.0	0.0
85°	137.6	150.7	68.8	55.8	16.7	0.0	0.0	0.0	0.0	0.0
87.5°	48.4	61.4	20.5	16.7	3.7	0.0	0.0	0.0	0.0	0.0
90°	7.4	7.4	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)