

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: P579488

Luminaire Tested: **CTN-CA10-630-740-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579488  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-740-U-T5N-HSS-HM-EX180  
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: 62499 lumens  
Efficiency: N/A  
Efficacy: 99.0 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B5 - U2 - G5

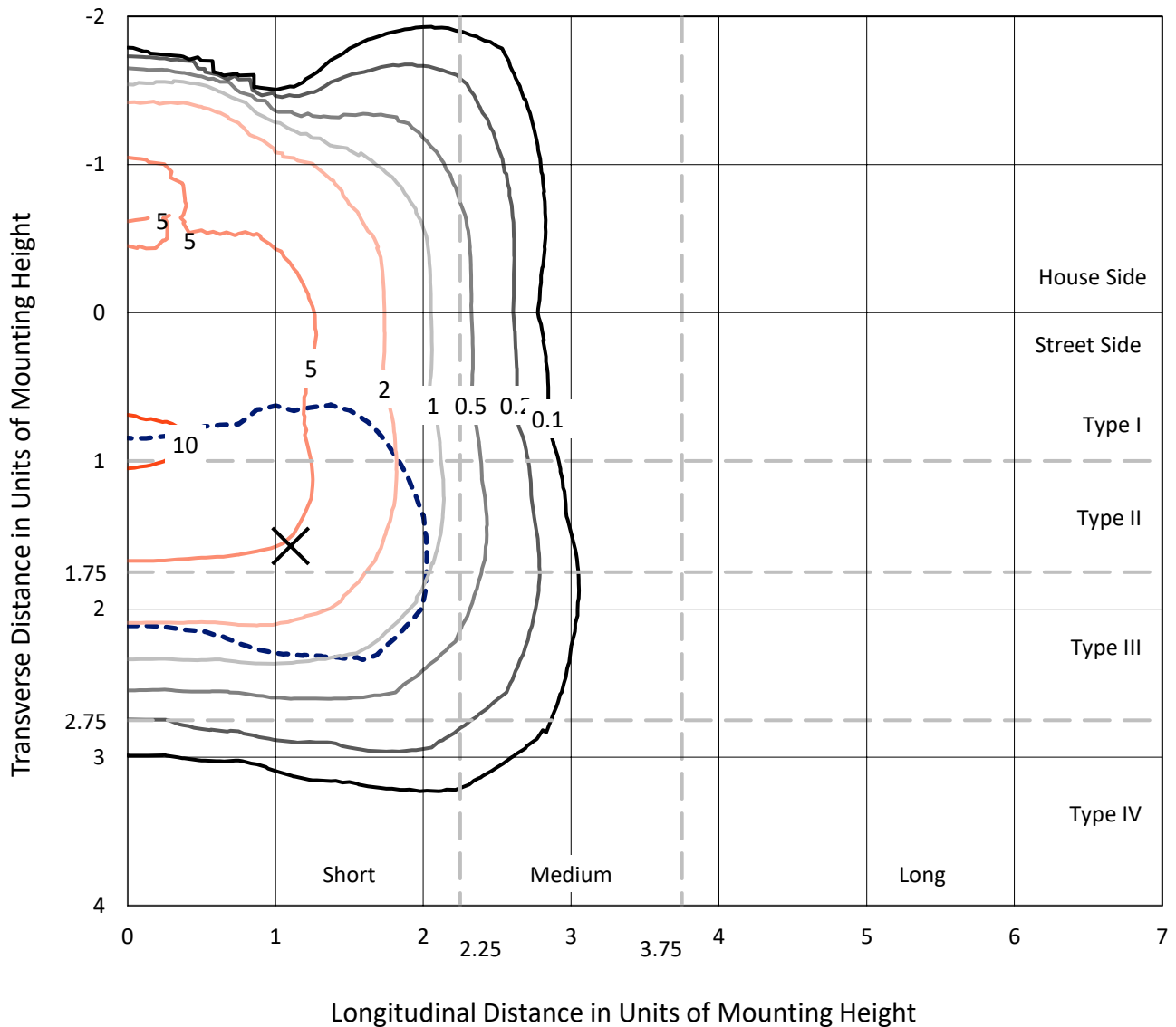
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

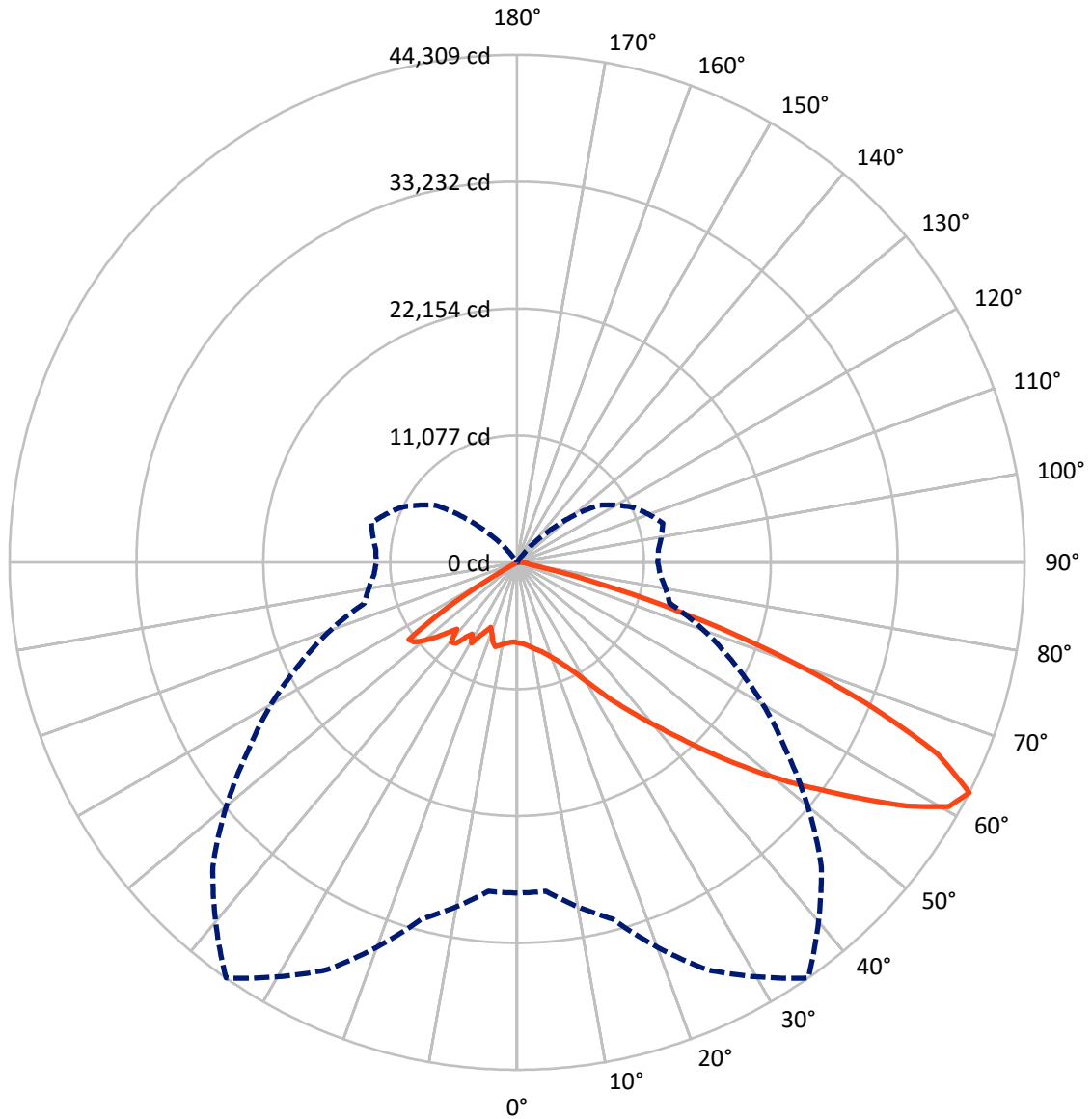
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.7 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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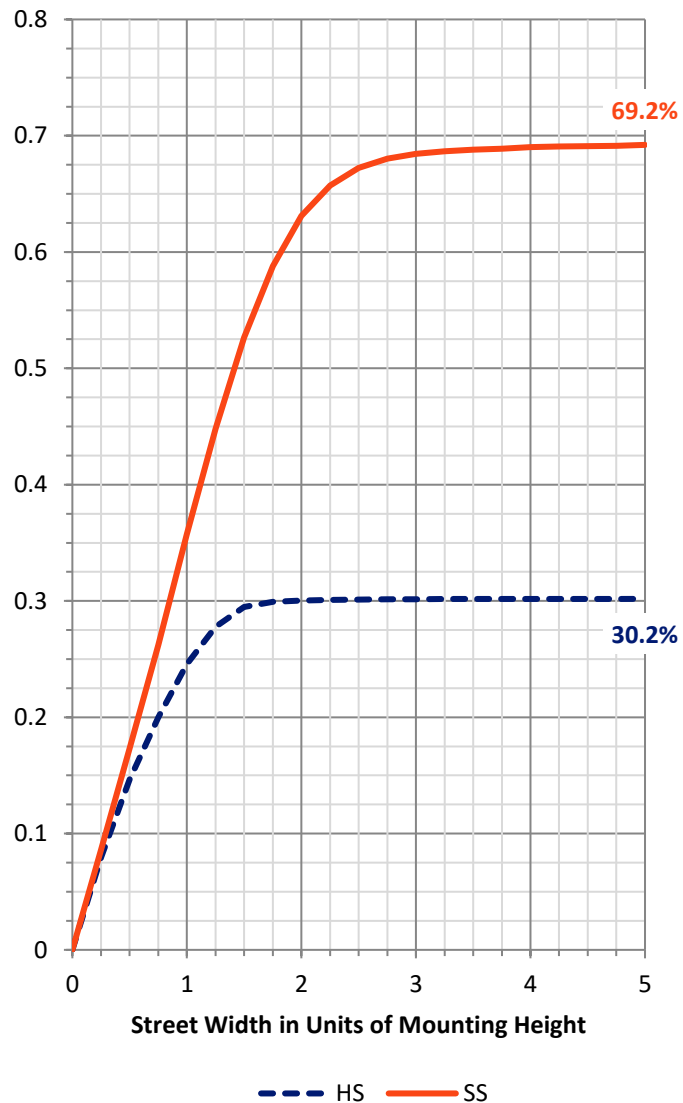
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18968.6	0.0	18968.7
	% Fixture	30.4	0.0	30.4
<b>Street Side</b>	Lumens	43476.1	54.2	43530.3
	% Fixture	69.6	0.1	69.6
<b>Total</b>	Lumens	62444.7	54.3	62499.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	694.4	1.1
10°-20°	2228.7	3.6
20°-30°	4073.5	6.5
30°-40°	7762.8	12.4
40°-50°	13324.2	21.3
50°-60°	17874.8	28.6
60°-70°	13588.4	21.7
70°-80°	2573.0	4.1
80°-90°	324.9	0.5
90°-100°	47.8	0.1
100°-110°	6.5	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°	62444.7	99.9
0°-180°	62499.0	100.0

**Coefficient of Utilization**

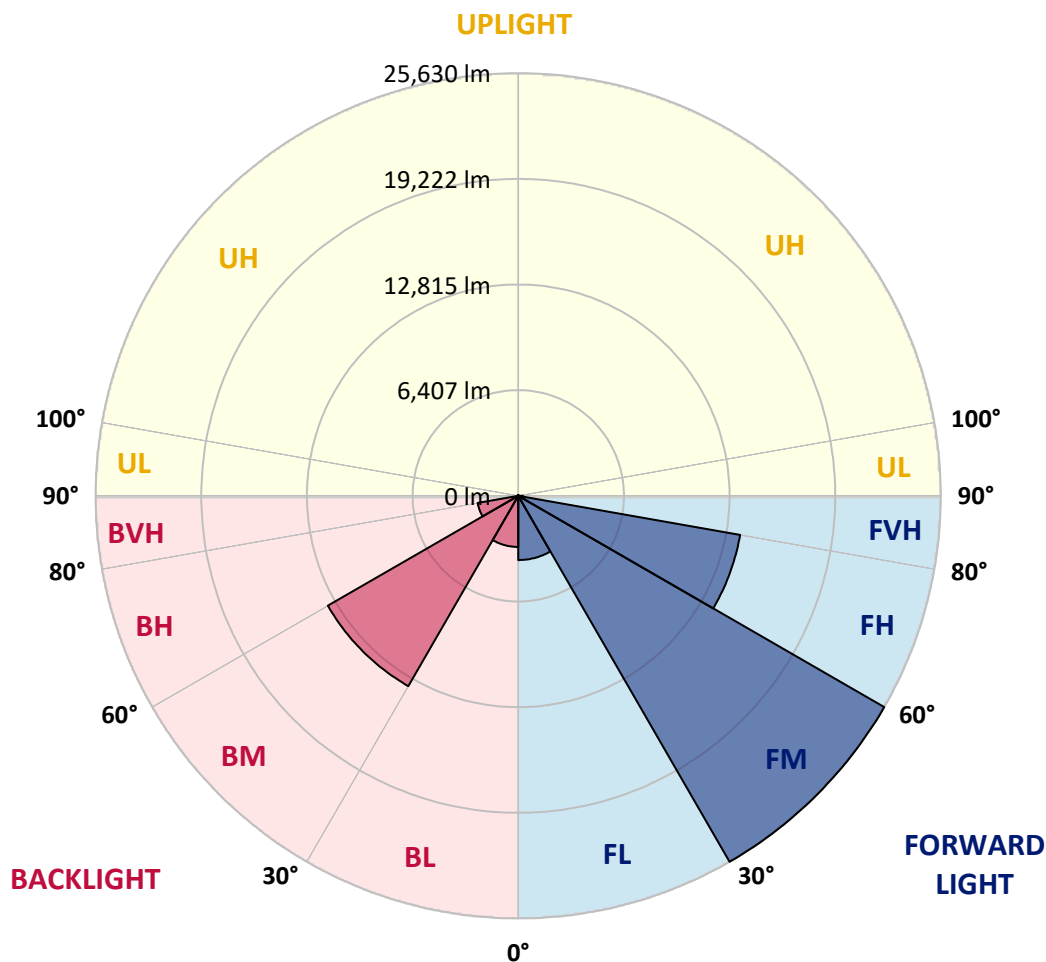


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3896.0	6.2			
FM (30°-60°)	25629.8	41.0			
FH (60°-80°)	13663.4	21.9			G5
FVH (80°-90°)	286.8	0.5			G3/500
BL (0°-30°)	3100.7	5.0	B4/5000		
BM (30°-60°)	13332.0	21.3	B5		
BH (60°-80°)	2497.9	4.0	B3/2500		G3/2500
BVH (80°-90°)	38.1	0.1			G1/100
UL (90°-100°)	47.8	0.1		U2/50	
UH (100°-180°)	6.5	0.0		U1/10	

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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2
2.5°	7212.0	7158.9	7161.9	7209.0	7073.5	7123.6	7064.7	7123.6	7091.2	7114.8	7126.5
5°	7338.7	7285.6	7279.7	7329.8	7214.9	7250.3	7191.3	7232.6	7188.4	7217.9	7217.9
7.5°	7530.1	7477.1	7459.4	7497.7	7391.7	7418.2	7356.3	7379.9	7329.8	7368.1	7347.5
10°	7757.0	7698.1	7677.5	7698.1	7606.7	7621.5	7547.8	7574.3	7500.7	7544.9	7515.4
12.5°	7998.6	7922.0	7922.0	7939.7	7842.4	7845.4	7777.6	7792.3	7718.7	7765.8	7730.5
15°	8260.8	8175.3	8187.1	8204.8	8101.7	8119.4	8048.7	8072.2	7995.6	8042.8	8007.4
17.5°	8608.4	8517.1	8505.3	8558.3	8461.1	8493.5	8414.0	8443.4	8375.7	8390.4	8372.7
20°	9088.6	8973.7	8947.2	9017.9	8908.9	8932.5	8873.6	8932.5	8861.8	8755.7	8458.2
22.5°	9663.1	9562.9	9518.7	9565.9	9436.3	9477.5	9474.6	9568.8	9374.4	8705.6	8408.1
25°	10420.2	10352.5	10267.0	10272.9	10116.8	10178.7	10290.6	10364.3	9536.4	8950.2	8956.0
27.5°	11430.7	11363.0	11245.1	11200.9	10974.1	11124.3	11298.2	10579.3	9928.2	10078.5	9996.0
30°	12721.1	12709.3	12470.7	12394.1	12146.6	12335.2	12184.9	10953.5	11177.4	11386.5	11259.9
32.5°	14438.7	14356.2	14011.5	13873.0	13613.8	13722.8	12397.0	12220.3	12553.2	12836.0	12703.4
35°	16515.7	16265.2	15914.7	15640.7	15189.9	14583.0	13204.3	13549.0	14046.8	14435.7	13793.5
37.5°	18928.5	18657.4	18109.5	17617.5	16907.5	15016.1	14421.0	15110.4	15734.9	15313.7	13831.8
40°	21412.0	21170.4	20654.9	20021.5	18822.4	16359.5	15897.0	16721.9	17431.9	15019.0	14282.5
42.5°	23877.9	23671.6	23256.3	22631.7	21087.9	17959.2	17514.4	18401.1	17732.4	15593.5	15570.0
45°	26364.4	26261.2	25789.9	25256.6	23771.8	20006.7	19326.2	20018.5	17063.6	16969.3	16913.4
47.5°	28379.5	28397.1	28232.2	27955.2	26635.4	22254.6	21367.8	19314.4	17876.7	17979.8	18006.4
50°	30456.4	30323.9	30315.0	30332.7	29781.8	25150.6	22758.4	18996.2	18940.3	18931.4	18907.9
52.5°	32121.0	31953.0	32300.7	32577.6	32904.6	28382.4	22549.2	20074.5	19753.4	19641.4	18955.0
55°	33476.2	33411.3	33977.0	34913.8	36369.2	31805.7	24399.3	21126.2	20484.0	17867.9	16117.9
57.5°	34298.1	34392.4	35559.0	37400.3	40125.4	34642.8	26552.9	22192.7	17537.9	15737.9	15625.9
60°	32724.9	33222.8	35208.4	39250.5	43301.3	37311.9	28155.6	22407.8	15782.1	14818.7	14594.8
62.5°	28874.4	28827.3	32238.8	39250.5	44308.8	37577.1	28662.3	20884.7	13787.6	12532.6	12282.2
65°	20436.9	20560.6	24204.9	35370.5	40364.1	34952.1	26438.0	17755.9	10997.7	9845.8	9507.0
67.5°	12647.5	12638.6	16206.3	26049.1	32857.5	29263.3	22257.5	13610.8	7633.3	6546.2	6177.9
70°	4369.0	4492.8	7288.6	15243.0	24187.2	22926.3	16657.1	8593.7	4024.3	2869.5	2421.7
72.5°	1738.2	1779.4	2616.1	6796.6	15110.4	15316.6	10122.7	4174.6	1204.9	766.0	718.8
75°	1137.2	1143.1	1255.0	2454.1	7332.8	8240.1	4701.9	1199.0	559.8	512.6	500.8
77.5°	981.0	984.0	1042.9	1243.2	2389.3	3205.3	1337.5	710.0	468.4	421.3	409.5
80°	910.3	913.3	942.7	1069.4	1151.9	1093.0	712.9	571.5	394.8	374.2	371.2
82.5°	860.3	872.0	886.8	963.4	931.0	822.0	592.2	462.5	303.4	324.1	332.9
85°	792.5	804.3	813.1	857.3	777.8	601.0	459.6	347.6	194.4	212.1	209.2
87.5°	595.1	601.0	589.2	583.3	542.1	421.3	303.4	221.0	76.6	70.7	64.8
90°	285.8	282.8	271.0	250.4	218.0	170.9	126.7	70.7	32.4	14.7	5.9
92.5°	226.8	223.9	218.0	197.4	170.9	126.7	91.3	50.1	29.5	11.8	2.9
95°	153.2	147.3	141.4	126.7	106.1	76.6	53.0	35.4	23.6	8.8	2.9
97.5°	100.2	97.2	88.4	76.6	58.9	41.2	32.4	26.5	20.6	8.8	2.9
100°	61.9	61.9	56.0	44.2	29.5	23.6	20.6	20.6	14.7	5.9	0.0
102.5°	38.3	35.4	32.4	20.6	14.7	14.7	14.7	14.7	11.8	5.9	0.0
105°	20.6	20.6	14.7	11.8	8.8	5.9	8.8	11.8	8.8	2.9	0.0
107.5°	5.9	5.9	5.9	2.9	2.9	0.0	2.9	5.9	5.9	2.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.9	2.9	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°	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2	7038.2
2.5°	7111.8	7055.8	7070.6	7014.6	7005.7	6946.8	7047.0	7052.9	7026.4	7055.8
5°	7203.1	7135.4	7161.9	7094.1	7082.3	7005.7	7085.3	7076.5	7055.8	7079.4
7.5°	7332.8	7265.0	7279.7	7200.2	7185.5	7100.0	7176.6	7147.2	7120.6	7153.1
10°	7512.5	7435.9	7447.7	7353.4	7341.6	7241.4	7329.8	7285.6	7247.3	7291.5
12.5°	7733.4	7633.3	7621.5	7521.3	7512.5	7418.2	7509.5	7465.3	7427.0	7497.7
15°	7986.8	7854.2	7836.5	7709.9	7695.1	7597.9	7686.3	7621.5	7592.0	7683.3
17.5°	8325.6	7857.2	7595.0	7409.4	7303.3	7250.3	7409.4	7624.4	7559.6	7562.6
20°	8187.1	7683.3	7332.8	7173.7	7058.8	6546.2	5839.1	6042.4	6454.8	6658.1
22.5°	8145.9	7969.1	7824.8	7556.7	6416.5	6127.8	6169.1	6121.9	5344.2	5046.6
25°	8935.4	8732.1	8419.9	7014.6	6684.6	6619.8	6643.4	5830.3	5244.0	5329.4
27.5°	9945.9	9736.8	8196.0	7409.4	7344.5	7259.1	6793.6	5777.2	5856.8	5939.3
30°	11218.6	10119.7	8546.5	8305.0	8184.2	8095.8	6369.4	6451.9	6584.5	6687.6
32.5°	12458.9	10087.3	9551.1	9250.7	9100.4	7385.8	7197.2	7388.7	7524.3	7603.8
35°	12473.6	11242.2	10676.5	10290.6	9336.1	7939.7	8113.5	8434.6	8767.5	8829.4
37.5°	12812.4	12550.2	11902.1	11416.0	6943.9	8861.8	9244.8	9613.0	9945.9	9966.5
40°	14161.7	13878.9	13272.0	12202.6	7668.6	9038.5	10490.9	10906.3	11186.2	11171.5
42.5°	15508.1	15313.7	14683.2	10844.5	8640.8	7830.6	11799.0	12073.0	12249.7	12373.5
45°	16863.3	16668.8	14538.8	11908.0	9798.6	8576.0	11480.8	13033.4	13227.8	13289.7
47.5°	17920.9	17440.7	13322.1	13319.2	11245.1	9530.5	9480.4	13899.5	14070.4	14026.2
50°	18899.0	15570.0	14400.4	13781.7	12741.7	10429.1	10081.4	11695.9	14833.4	14768.6
52.5°	17196.2	15110.4	15325.4	12535.5	13943.7	11321.7	10759.0	10488.0	13478.3	15213.5
55°	15378.5	15673.1	16271.1	13772.9	10116.8	11610.5	11333.5	10794.4	9094.5	7653.9
57.5°	15693.7	16132.7	16162.1	14918.9	10470.3	7253.2	9288.9	8131.1	5137.9	5149.7
60°	14642.0	15213.5	11813.7	9945.9	5629.9	1511.3	147.3	129.6	895.6	1090.0
62.5°	12379.4	13174.8	11277.5	8664.4	3611.9	56.0	14.7	2.9	0.0	0.0
65°	9586.5	10544.0	9530.5	7477.1	3205.3	17.7	0.0	0.0	0.0	0.0
67.5°	6322.3	7185.5	7241.4	6254.5	2672.1	8.8	0.0	0.0	0.0	0.0
70°	2648.5	3729.7	4507.5	4648.9	2100.5	2.9	0.0	0.0	0.0	0.0
72.5°	766.0	1184.3	2168.3	2792.9	1334.6	0.0	0.0	0.0	0.0	0.0
75°	509.7	545.0	627.5	1258.0	665.8	0.0	0.0	0.0	0.0	0.0
77.5°	421.3	430.1	359.4	344.7	191.5	0.0	0.0	0.0	0.0	0.0
80°	383.0	377.1	288.7	203.3	70.7	0.0	0.0	0.0	0.0	0.0
82.5°	353.5	335.9	209.2	106.1	47.1	0.0	0.0	0.0	0.0	0.0
85°	238.6	235.7	94.3	64.8	8.8	0.0	0.0	0.0	0.0	0.0
87.5°	64.8	82.5	20.6	8.8	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	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)