

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: P579638

Luminaire Tested: **CTN-CA10-760-727-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579638  
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-CA10-760-727-U-T5N-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 61104 lumens  
Efficiency: N/A  
Efficacy: 80.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B5 - U2 - G5

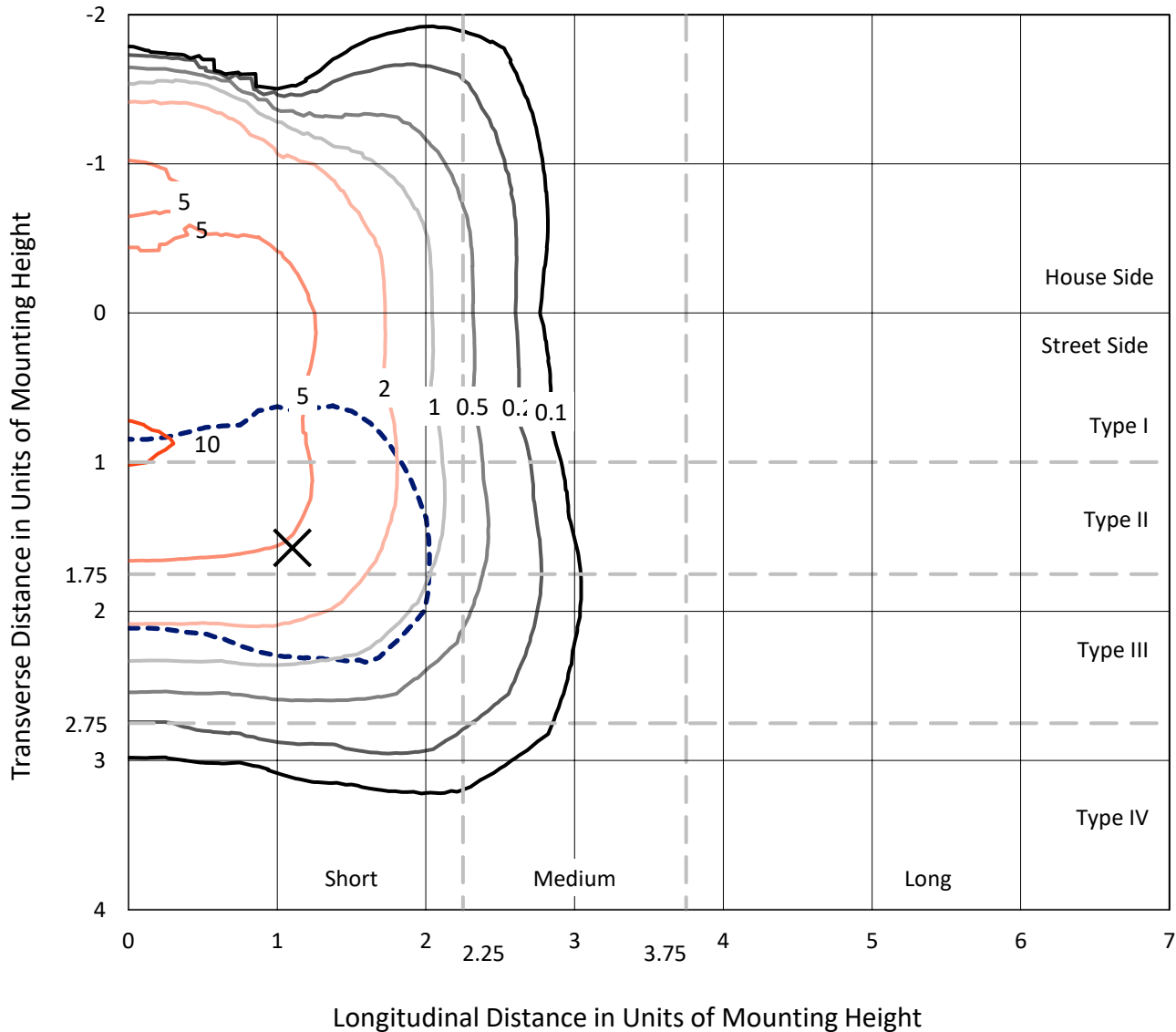
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

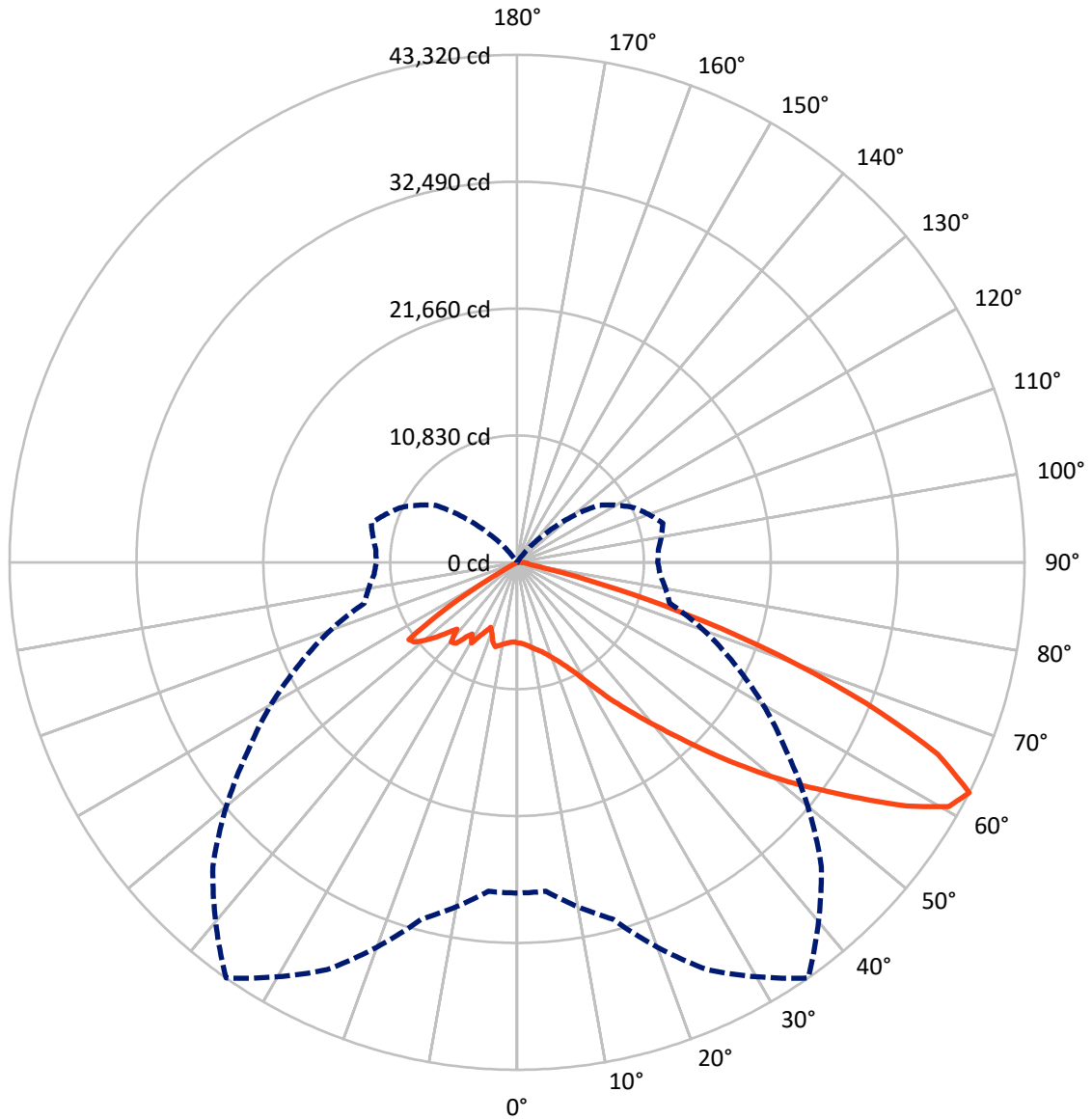
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.5 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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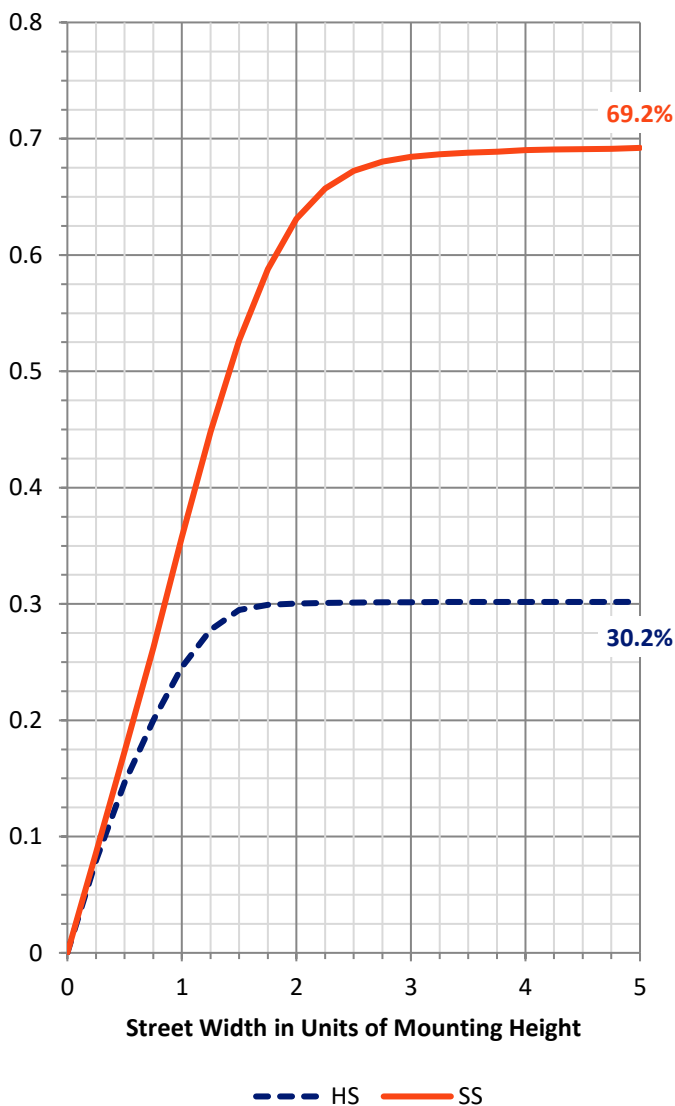
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18545.2	0.0	18545.3
	% Fixture	30.4	0.0	30.4
<b>Street Side</b>	Lumens	42505.7	53.0	42558.7
	% Fixture	69.6	0.1	69.6
<b>Total</b>	Lumens	61050.9	53.1	61104.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	678.9	1.1
10°-20°	2179.0	3.6
20°-30°	3982.6	6.5
30°-40°	7589.5	12.4
40°-50°	13026.8	21.3
50°-60°	17475.8	28.6
60°-70°	13285.1	21.7
70°-80°	2515.5	4.1
80°-90°	317.7	0.5
90°-100°	46.7	0.1
100°-110°	6.3	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°	61050.9	99.9
0°-180°	61104.0	100.0

**Coefficient of Utilization**



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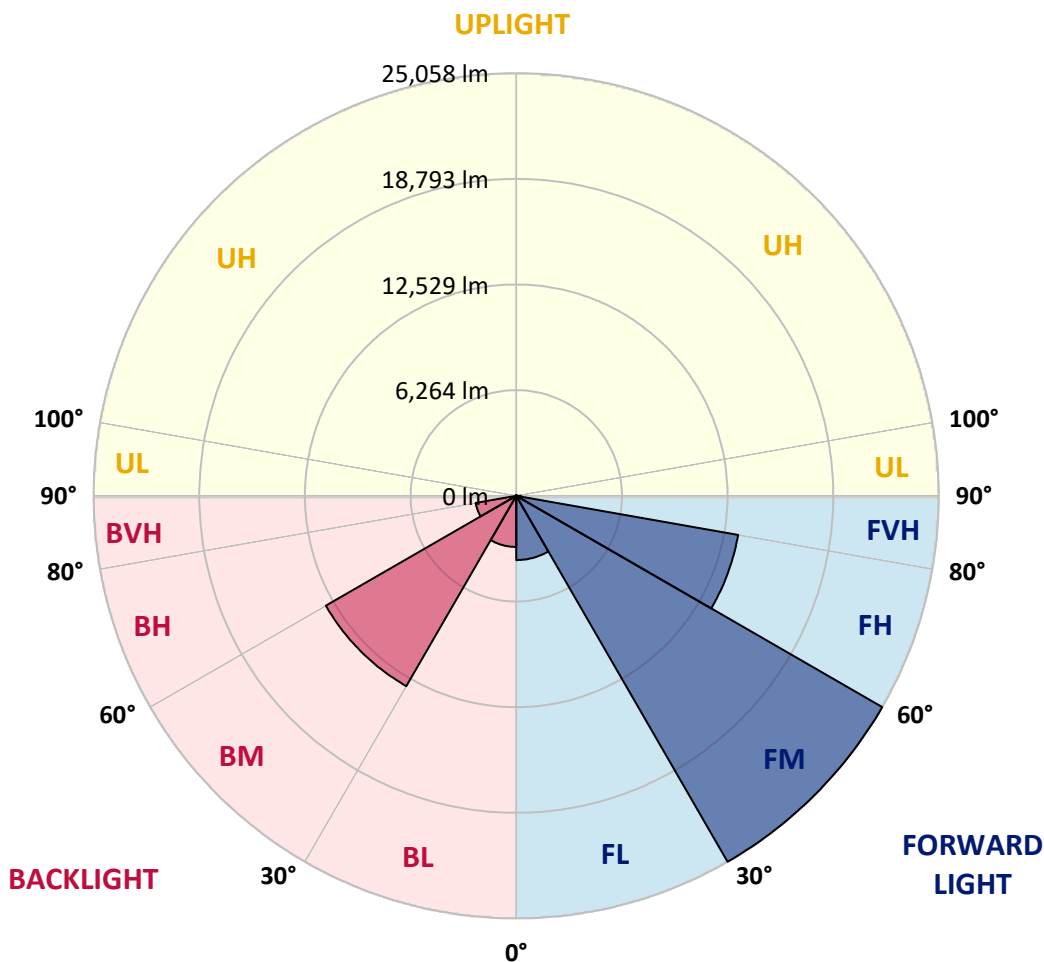
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3809.1	6.2			
FM (30°-60°)	25057.7	41.0			
FH (60°-80°)	13358.4	21.9			G5
FVH (80°-90°)	280.4	0.5			G3/500
BL (0°-30°)	3031.5	5.0	B4/5000		
BM (30°-60°)	13034.4	21.3	B5		
BH (60°-80°)	2442.1	4.0	B3/2500		G3/2500
BVH (80°-90°)	37.2	0.1			G1/100
UL (90°-100°)	46.7	0.1		U2/50	
UH (100°-180°)	6.4	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°	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1
2.5°	7051.0	6999.2	7002.0	7048.1	6915.6	6964.6	6907.0	6964.6	6932.9	6955.9	6967.5
5°	7174.9	7123.0	7117.2	7166.2	7053.9	7088.4	7030.8	7071.2	7028.0	7056.8	7056.8
7.5°	7362.1	7310.2	7292.9	7330.4	7226.7	7252.6	7192.1	7215.2	7166.2	7203.7	7183.5
10°	7583.9	7526.2	7506.1	7526.2	7437.0	7451.4	7379.4	7405.3	7333.3	7376.5	7347.7
12.5°	7820.0	7745.2	7745.2	7762.4	7667.4	7670.3	7604.0	7618.4	7546.4	7592.5	7557.9
15°	8076.4	7992.9	8004.4	8021.7	7920.9	7938.1	7869.0	7892.0	7817.2	7863.2	7828.7
17.5°	8416.3	8327.0	8315.5	8367.3	8272.2	8303.9	8226.2	8255.0	8188.7	8203.1	8185.8
20°	8885.8	8773.4	8747.5	8816.6	8710.1	8733.1	8675.5	8733.1	8664.0	8560.3	8269.4
22.5°	9447.4	9349.5	9306.3	9352.4	9225.6	9266.0	9263.1	9355.2	9165.1	8511.3	8220.4
25°	10187.7	10121.4	10037.9	10043.6	9891.0	9951.5	10060.9	10132.9	9323.6	8750.4	8756.1
27.5°	11175.6	11109.4	10994.1	10950.9	10729.2	10876.0	11046.0	10343.2	9706.6	9853.5	9772.9
30°	12437.2	12425.7	12192.4	12117.5	11875.5	12059.9	11913.0	10709.0	10927.9	11132.4	11008.5
32.5°	14116.4	14035.7	13698.8	13563.4	13309.9	13416.5	12120.3	11947.5	12273.0	12549.5	12419.9
35°	16147.0	15902.2	15559.4	15291.6	14850.9	14257.5	12909.5	13246.5	13733.3	14113.5	13485.6
37.5°	18506.0	18241.0	17705.3	17224.3	16530.1	14680.9	14099.1	14773.1	15383.7	14971.8	13523.1
40°	20934.1	20697.9	20193.9	19574.6	18402.3	15994.4	15542.2	16348.6	17042.8	14683.8	13963.7
42.5°	23344.9	23143.3	22737.2	22126.5	20617.3	17558.4	17123.4	17990.4	17336.6	15245.5	15222.4
45°	25775.9	25675.1	25214.2	24692.9	23241.2	19560.2	18894.8	19571.7	16682.8	16590.6	16535.9
47.5°	27746.0	27763.3	27602.0	27331.3	26040.9	21757.9	20890.9	18883.3	17477.7	17578.5	17604.5
50°	29776.6	29647.0	29638.4	29655.7	29117.1	24589.2	22250.4	18572.2	18517.5	18508.9	18485.8
52.5°	31404.0	31239.8	31579.7	31850.5	32170.2	27748.9	22045.9	19626.4	19312.5	19203.0	18531.9
55°	32729.0	32665.6	33218.6	34134.6	35557.4	31095.8	23854.7	20654.7	20026.8	17469.1	15758.2
57.5°	33532.6	33624.7	34765.3	36565.5	39229.8	33869.6	25960.2	21697.4	17146.5	15386.6	15277.2
60°	31994.5	32481.3	34422.6	38374.4	42334.8	36479.1	27527.1	21907.6	15429.8	14488.0	14269.1
62.5°	28229.9	28183.8	31519.2	38374.4	43319.9	36738.4	28022.5	20418.5	13479.8	12252.8	12008.0
65°	19980.7	20101.7	23664.6	34581.0	39463.1	34172.0	25847.9	17359.6	10752.2	9626.0	9294.8
67.5°	12365.2	12356.5	15844.6	25467.7	32124.1	28610.1	21760.7	13307.0	7462.9	6400.0	6040.0
70°	4271.5	4392.5	7125.9	14902.7	23647.3	22414.6	16285.3	8401.9	3934.5	2805.4	2367.6
72.5°	1699.4	1739.7	2557.7	6644.9	14773.1	14974.7	9896.7	4081.4	1178.0	748.9	702.8
75°	1111.8	1117.6	1227.0	2399.3	7169.1	8056.2	4597.0	1172.3	547.3	501.2	489.7
77.5°	959.1	962.0	1019.6	1215.5	2335.9	3133.8	1307.7	694.2	458.0	411.9	400.4
80°	890.0	892.9	921.7	1045.6	1126.2	1068.6	697.0	558.8	386.0	365.8	362.9
82.5°	841.1	852.6	867.0	941.9	910.2	803.6	578.9	452.2	296.7	316.8	325.5
85°	774.8	786.3	795.0	838.2	760.4	587.6	449.3	339.9	190.1	207.4	204.5
87.5°	581.8	587.6	576.1	570.3	530.0	411.9	296.7	216.0	74.9	69.1	63.4
90°	279.4	276.5	265.0	244.8	213.1	167.1	123.9	69.1	31.7	14.4	5.8
92.5°	221.8	218.9	213.1	193.0	167.1	123.9	89.3	49.0	28.8	11.5	2.9
95°	149.8	144.0	138.3	123.9	103.7	74.9	51.8	34.6	23.0	8.6	2.9
97.5°	97.9	95.1	86.4	74.9	57.6	40.3	31.7	25.9	20.2	8.6	2.9
100°	60.5	60.5	54.7	43.2	28.8	23.0	20.2	20.2	14.4	5.8	0.0
102.5°	37.4	34.6	31.7	20.2	14.4	14.4	14.4	14.4	11.5	5.8	0.0
105°	20.2	20.2	14.4	11.5	8.6	5.8	8.6	11.5	8.6	2.9	0.0
107.5°	5.8	5.8	5.8	2.9	2.9	0.0	2.9	5.8	5.8	2.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8	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°	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1	6881.1
2.5°	6953.1	6898.3	6912.7	6858.0	6849.4	6791.8	6889.7	6895.5	6869.5	6898.3
5°	7042.4	6976.1	7002.0	6935.8	6924.3	6849.4	6927.1	6918.5	6898.3	6921.4
7.5°	7169.1	7102.8	7117.2	7039.5	7025.1	6941.5	7016.4	6987.6	6961.7	6993.4
10°	7344.8	7269.9	7281.4	7189.3	7177.7	7079.8	7166.2	7123.0	7085.6	7128.8
12.5°	7560.8	7462.9	7451.4	7353.4	7344.8	7252.6	7341.9	7298.7	7261.3	7330.4
15°	7808.5	7678.9	7661.6	7537.8	7523.4	7428.3	7514.7	7451.4	7422.6	7511.8
17.5°	8139.8	7681.8	7425.4	7244.0	7140.3	7088.4	7244.0	7454.2	7390.9	7393.8
20°	8004.4	7511.8	7169.1	7013.6	6901.2	6400.0	5708.8	5907.5	6310.8	6509.5
22.5°	7964.1	7791.2	7650.1	7388.0	6273.3	5991.0	6031.4	5985.3	5224.9	4934.0
25°	8736.0	8537.2	8231.9	6858.0	6535.4	6472.1	6495.1	5700.1	5127.0	5210.5
27.5°	9723.9	9519.4	8013.0	7244.0	7180.6	7097.1	6642.0	5648.3	5726.1	5806.7
30°	10968.2	9893.9	8355.8	8119.6	8001.5	7915.1	6227.2	6307.9	6437.5	6538.3
32.5°	12180.8	9862.2	9338.0	9044.2	8897.3	7220.9	7036.6	7223.8	7356.3	7434.1
35°	12195.2	10991.3	10438.2	10060.9	9127.7	7762.4	7932.4	8246.3	8571.8	8632.3
37.5°	12526.5	12270.1	11636.5	11161.2	6788.9	8664.0	9038.4	9398.5	9723.9	9744.1
40°	13845.6	13569.1	12975.8	11930.2	7497.4	8836.8	10256.8	10662.9	10936.5	10922.1
42.5°	15162.0	14971.8	14355.5	10602.4	8447.9	7655.9	11535.6	11803.5	11976.3	12097.3
45°	16486.9	16296.8	14214.3	11642.2	9579.9	8384.6	11224.6	12742.5	12932.6	12993.1
47.5°	17520.9	17051.4	13024.8	13021.9	10994.1	9317.8	9268.8	13589.3	13756.4	13713.2
50°	18477.2	15222.4	14079.0	13474.1	12457.3	10196.3	9856.4	11434.8	14502.4	14439.0
52.5°	16812.4	14773.1	14983.4	12255.7	13632.5	11069.0	10518.9	10253.9	13177.4	14873.9
55°	15035.2	15323.2	15908.0	13465.4	9891.0	11351.3	11080.6	10553.5	8891.5	7483.0
57.5°	15343.4	15772.6	15801.4	14585.9	10236.6	7091.3	9081.6	7949.7	5023.3	5034.8
60°	14315.1	14873.9	11550.0	9723.9	5504.3	1477.6	144.0	126.7	875.6	1065.7
62.5°	12103.1	12880.7	11025.8	8471.0	3531.3	54.7	14.4	2.9	0.0	0.0
65°	9372.5	10308.6	9317.8	7310.2	3133.8	17.3	0.0	0.0	0.0	0.0
67.5°	6181.1	7025.1	7079.8	6114.9	2612.4	8.6	0.0	0.0	0.0	0.0
70°	2589.4	3646.5	4406.9	4545.1	2053.7	2.9	0.0	0.0	0.0	0.0
72.5°	748.9	1157.9	2119.9	2730.5	1304.8	0.0	0.0	0.0	0.0	0.0
75°	498.3	532.9	613.5	1229.9	650.9	0.0	0.0	0.0	0.0	0.0
77.5°	411.9	420.5	351.4	337.0	187.2	0.0	0.0	0.0	0.0	0.0
80°	374.4	368.7	282.3	198.7	69.1	0.0	0.0	0.0	0.0	0.0
82.5°	345.6	328.4	204.5	103.7	46.1	0.0	0.0	0.0	0.0	0.0
85°	233.3	230.4	92.2	63.4	8.6	0.0	0.0	0.0	0.0	0.0
87.5°	63.4	80.6	20.2	8.6	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)