

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: P522166

Luminaire Tested: **CTN-CA10-760-727-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522166  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-760-727-U-T5R-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 59662 lumens  
Efficiency: N/A  
Efficacy: 78.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

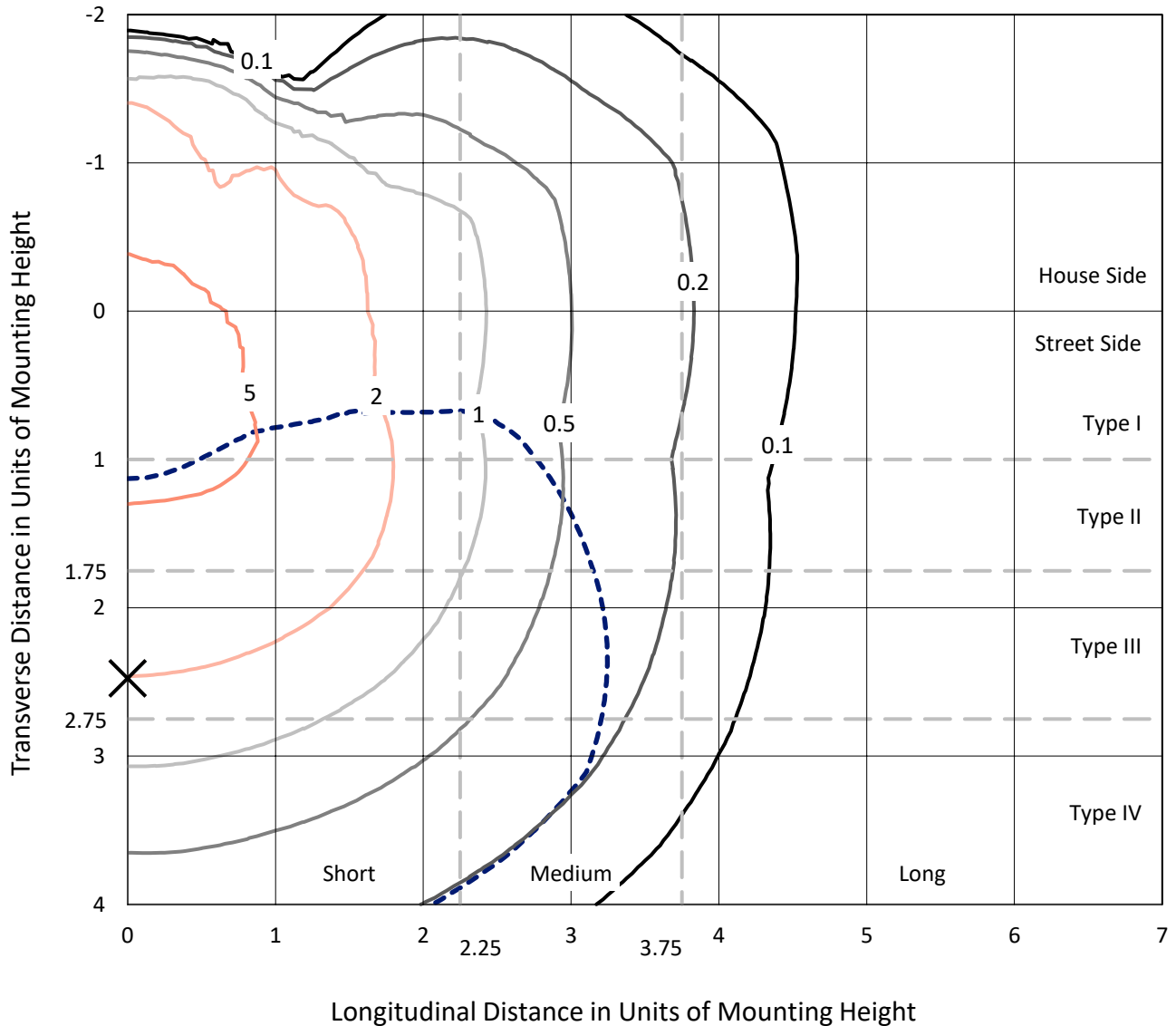
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

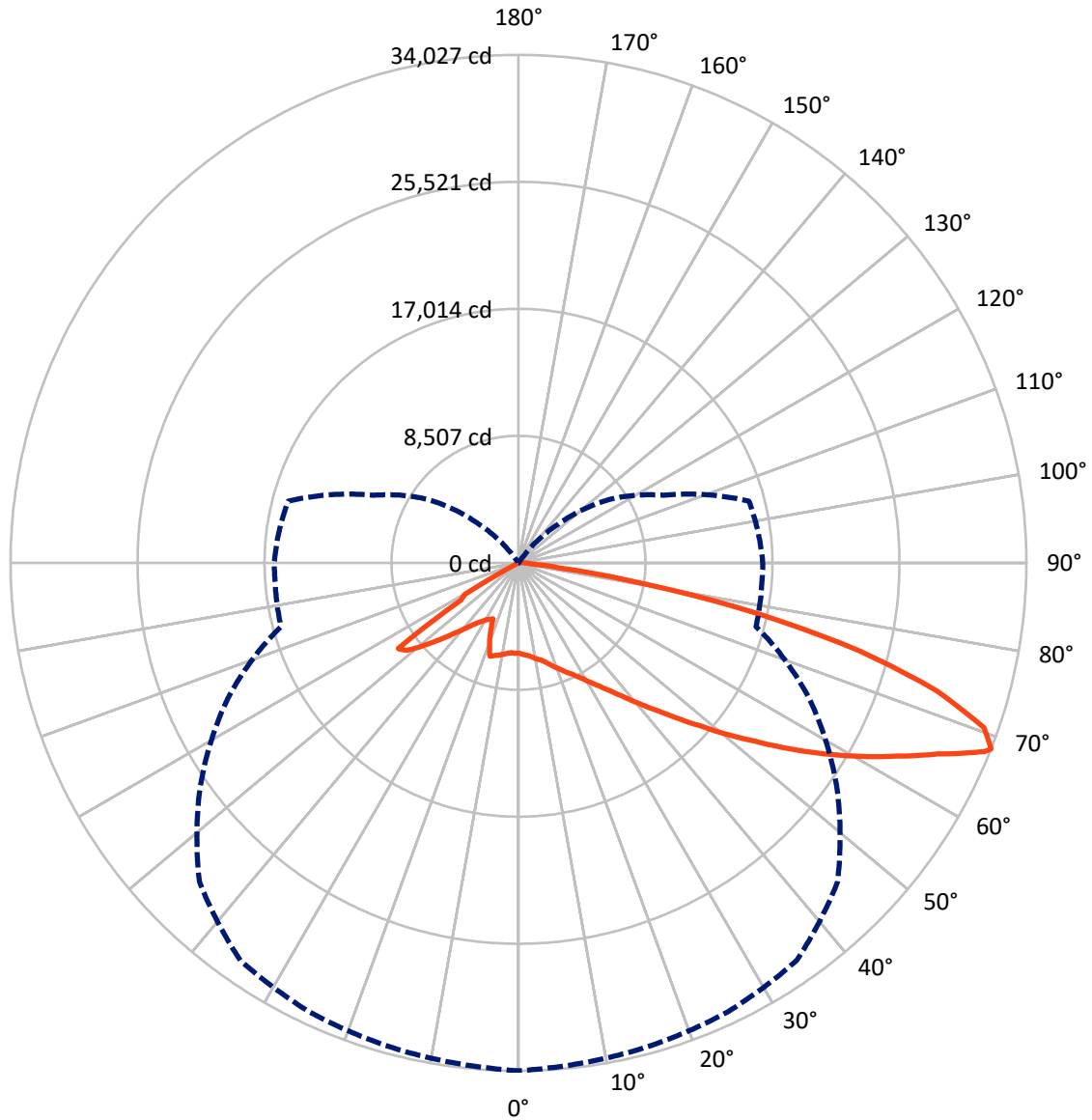
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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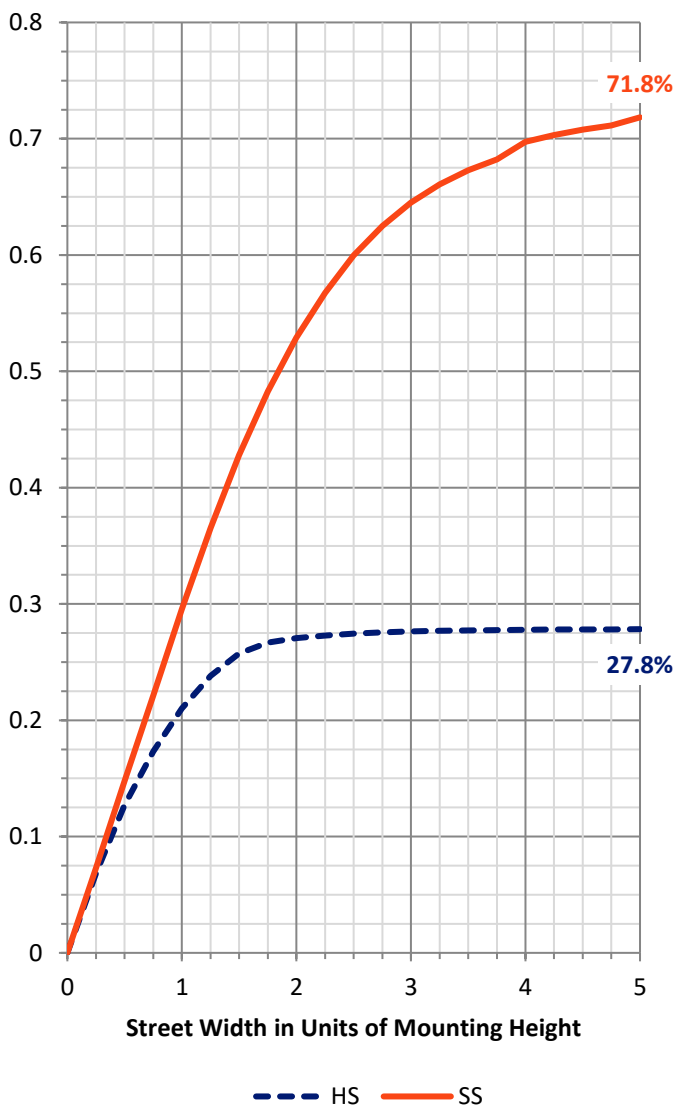
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16663.7	0.4	16664.0
	% Fixture	27.9	0.0	27.9
<b>Street Side</b>	Lumens	42963.8	34.2	42998.0
	% Fixture	72.0	0.1	72.1
<b>Total</b>	Lumens	59627.5	34.5	59662.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	586.7	1.0
10°-20°	1858.9	3.1
20°-30°	3147.1	5.3
30°-40°	4985.7	8.4
40°-50°	8151.4	13.7
50°-60°	12485.9	20.9
60°-70°	15352.3	25.7
70°-80°	11862.6	19.9
80°-90°	1196.9	2.0
90°-100°	34.0	0.1
100°-110°	0.5	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°	59627.5	99.9
0°-180°	59662.0	100.0

**Coefficient of Utilization**



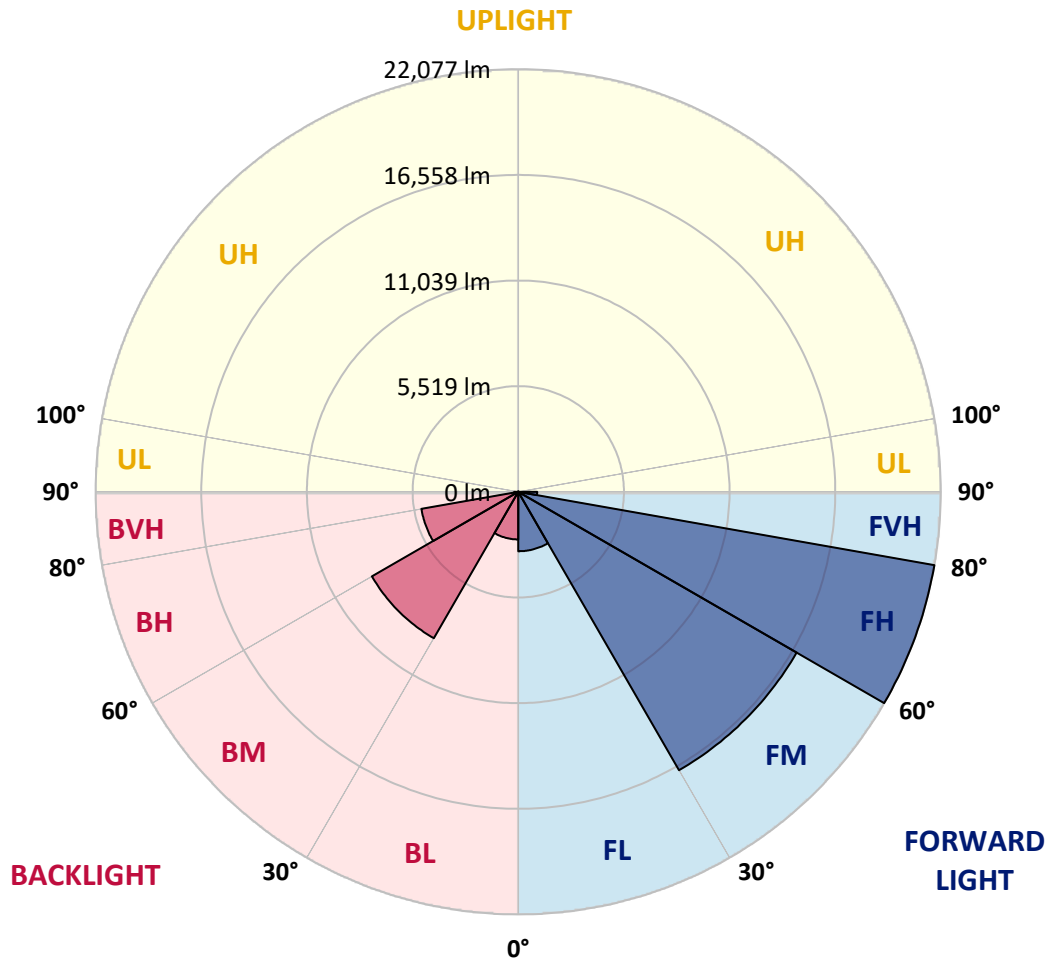
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3105.5	5.2			
FM	(30°-60°)	16793.8	28.1			
FH	(60°-80°)	22077.4	37.0			G5
FVH	(80°-90°)	987.1	1.7			G5
BL	(0°-30°)	2487.2	4.2	B3/2500		
BM	(30°-60°)	8829.2	14.8	B5		
BH	(60°-80°)	5137.5	8.6	B5		G5
BVH	(80°-90°)	209.8	0.4			G2/225
UL	(90°-100°)	34.0	0.1		U2/50	
UH	(100°-180°)	0.5	0.0		U1/10	

**BUG Rating: B5-U2-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4
2.5°	6153.6	6142.1	6130.6	6156.5	6055.9	6099.0	6064.5	6096.1	6073.1	6099.0	6090.4
5°	6234.1	6222.6	6188.1	6216.8	6150.7	6168.0	6124.9	6136.4	6058.8	6104.8	6101.9
7.5°	6366.3	6334.7	6311.7	6311.7	6254.2	6251.3	6182.4	6185.2	6124.9	6119.1	6130.6
10°	6544.5	6521.5	6458.3	6464.0	6383.5	6372.1	6285.8	6283.0	6234.1	6205.4	6231.2
12.5°	6676.7	6699.7	6642.2	6642.2	6561.7	6504.3	6443.9	6403.7	6366.3	6323.2	6303.1
15°	6918.1	6941.1	6863.5	6860.7	6829.0	6760.1	6694.0	6607.7	6541.6	6521.5	6489.9
17.5°	7231.4	7217.1	7151.0	7153.8	7159.6	7047.5	6981.4	6869.3	6774.4	6705.5	6688.2
20°	7550.5	7550.5	7478.6	7501.6	7472.9	7369.4	7326.3	7171.1	7038.9	6964.1	6903.8
22.5°	7906.9	7892.5	7843.6	7892.5	7835.0	7731.5	7659.7	7504.5	7334.9	6912.4	6739.9
25°	8246.0	8237.4	8257.5	8271.9	8200.0	8070.7	8021.8	7858.0	7386.6	6831.9	6484.1
27.5°	8674.3	8645.5	8691.5	8720.3	8648.4	8536.3	8432.8	8248.9	7251.6	6814.7	6777.3
30°	9223.2	9160.0	9226.1	9240.5	9165.8	9096.8	8941.6	8021.8	7297.5	7171.1	7159.6
32.5°	9809.6	9734.8	9821.1	9832.6	9734.8	9677.4	9286.5	7904.0	7748.8	7602.2	7616.6
35°	10505.1	10505.1	10548.2	10554.0	10482.1	10384.4	8895.6	8478.8	8340.9	8205.8	8202.9
37.5°	11353.0	11327.1	11442.1	11511.1	11433.5	11154.7	9464.7	9269.2	9056.5	8884.1	8527.7
40°	12376.2	12422.2	12453.8	12522.8	12448.1	11821.5	10295.3	10074.0	9907.3	9329.6	8430.0
42.5°	13479.9	13491.4	13560.4	13646.6	13646.6	12985.5	11266.8	11077.1	10861.5	9122.6	8717.4
45°	14799.1	14773.3	14905.5	15043.4	15006.1	14322.0	12396.3	12255.5	11246.7	9723.3	9726.2
47.5°	16296.6	16265.0	16454.7	16635.7	16448.9	15805.1	13638.0	13528.8	10855.8	10740.8	10717.8
50°	18026.8	17949.2	18167.7	18409.1	18256.8	17460.6	15146.9	13048.8	11945.1	11853.1	11838.7
52.5°	19874.9	19814.6	19946.8	20357.8	20156.6	19193.8	16575.4	13462.7	13206.8	13103.4	13077.5
55°	21961.6	21843.8	22128.3	22441.6	22208.8	21110.8	17983.7	14836.5	14572.1	14393.9	14135.2
57.5°	24154.6	23985.0	24131.6	24525.4	24301.2	23073.9	19800.2	16250.6	15937.3	13189.6	12140.5
60°	26339.0	26261.4	26318.8	26666.6	26390.7	24982.4	21501.7	17667.6	13488.5	13045.9	13097.6
62.5°	28534.8	28365.3	28417.0	28773.4	28419.9	26798.8	23114.1	18955.2	14195.6	14040.4	14095.0
65°	30888.8	30687.6	30733.6	30837.1	30400.2	28428.5	24539.7	20171.0	15259.0	15095.2	15155.5
67.5°	33725.6	33541.7	33291.6	32984.1	32380.5	30158.8	25956.7	21450.0	16454.7	16362.7	16382.8
68°	34027.4	33849.2	33547.4	33182.4	32504.1	30230.6	26017.1	21487.4	16471.9	16356.9	16362.7
70°	33087.5	33193.9	32851.9	32239.7	31673.4	29178.7	25031.2	20659.6	15739.0	15569.4	15526.3
72.5°	29302.2	29535.1	29063.7	28960.2	28264.7	25994.1	21904.1	17926.2	13689.7	13744.3	13589.1
75°	23657.4	23999.4	23427.4	23459.0	23062.4	21682.8	18357.4	14925.6	11240.9	11491.0	11537.0
77.5°	16451.8	16943.3	16693.2	16943.3	16747.8	16250.6	14207.1	11493.8	8576.5	8864.0	8976.1
80°	8579.4	9162.9	9493.4	9596.9	9660.1	9640.0	8651.3	6898.0	4958.0	5064.3	5058.6
82.5°	2713.2	2572.4	2655.7	2632.7	2560.9	2589.6	2333.8	1825.1	1264.6	1394.0	1333.6
85°	819.1	824.9	801.9	796.1	735.8	646.7	528.8	304.7	149.5	175.3	163.8
87.5°	603.6	609.3	563.3	534.6	500.1	434.0	336.3	189.7	71.9	69.0	54.6
90°	333.4	321.9	298.9	275.9	261.6	224.2	169.6	71.9	25.9	20.1	17.2
92.5°	181.1	172.5	161.0	152.3	132.2	106.3	69.0	23.0	11.5	2.9	0.0
95°	83.4	77.6	74.7	66.1	57.5	40.2	23.0	14.4	8.6	2.9	0.0
97.5°	37.4	34.5	31.6	25.9	20.1	11.5	11.5	8.6	5.7	2.9	0.0
100°	8.6	8.6	5.7	5.7	5.7	5.7	5.7	5.7	5.7	2.9	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4	6044.4
2.5°	6081.8	6064.5	6055.9	6001.3	6018.5	5969.7	6064.5	6041.5	6027.2	6067.4
5°	6087.5	6027.2	6064.5	6032.9	6044.4	5975.4	6050.1	6018.5	6015.7	6032.9
7.5°	6101.9	6061.6	6099.0	6035.8	6064.5	6035.8	6090.4	6058.8	6084.6	6101.9
10°	6179.5	6156.5	6139.2	6124.9	6145.0	6087.5	6156.5	6159.4	6168.0	6219.7
12.5°	6288.7	6265.7	6237.0	6199.6	6219.7	6196.7	6248.5	6262.8	6294.5	6320.3
15°	6441.0	6397.9	6386.4	6351.9	6372.1	6360.6	6372.1	6363.4	6423.8	6415.2
17.5°	6650.8	6602.0	6438.2	6271.5	6165.1	6196.7	6328.9	6501.4	6544.5	6550.3
20°	6728.5	6383.5	6366.3	6176.6	6090.4	6084.6	5811.6	5403.5	5527.0	5817.3
22.5°	6636.5	6165.1	6116.3	6078.9	5711.0	5107.4	5049.9	4989.6	4975.2	5018.3
25°	6429.5	6374.9	6331.8	5843.2	5262.6	5265.5	5182.1	4785.5	4167.6	4115.8
27.5°	6745.7	6671.0	6254.2	5501.2	5489.7	5483.9	5360.3	4342.9	4210.7	4242.3
30°	7105.0	6981.4	5892.1	5794.3	5791.5	5739.7	4805.6	4380.2	4380.2	4386.0
32.5°	7518.8	6751.4	6099.0	6145.0	6142.1	5897.8	4641.8	4613.1	4601.6	4630.3
35°	7835.0	6567.5	6544.5	6627.9	6570.4	5003.9	4932.1	4906.2	4894.7	4880.4
37.5°	7737.3	7096.3	7096.3	7148.1	6685.3	5328.7	5294.2	5294.2	5271.2	5259.7
40°	7886.7	7754.5	7688.4	7708.5	4857.4	5722.5	5748.4	5742.6	5739.7	5759.9
42.5°	8674.3	8556.4	8496.1	7783.3	5437.9	5688.0	6320.3	6317.4	6326.1	6317.4
45°	9677.4	9568.1	9410.1	7283.2	6173.7	4986.7	6967.0	6998.6	7001.5	6998.6
47.5°	10729.3	10660.3	9042.2	8062.1	6972.8	5351.7	6659.5	7777.5	7763.2	7780.4
50°	11841.6	11531.2	8996.2	8984.7	7823.5	5955.3	5958.2	8458.7	8605.3	8651.3
52.5°	13080.4	10453.4	9970.5	9096.8	8685.8	6576.1	6512.9	7495.9	9496.3	9542.3
55°	12149.2	11042.6	11034.0	8096.6	9036.4	7173.9	7182.6	7113.6	8708.8	9898.7
57.5°	12088.8	12114.7	12094.5	9033.5	6593.4	6725.6	7826.4	7766.0	5639.1	4569.9
60°	13132.1	13169.5	11749.6	9755.0	7128.0	4135.9	4820.0	4095.7	4150.3	4193.4
62.5°	14129.5	14141.0	9556.6	6395.0	3532.4	166.7	80.5	66.1	63.2	63.2
65°	15233.1	15233.1	10243.6	6975.6	3411.6	63.2	11.5	8.6	31.6	31.6
67.5°	16299.5	16063.8	10746.6	7406.8	3472.0	8.6	0.0	0.0	0.0	0.0
68°	16239.1	15980.4	10700.6	7395.3	3463.4	5.7	0.0	0.0	0.0	0.0
70°	15336.6	15086.6	10151.6	7059.0	3334.0	5.7	0.0	0.0	0.0	0.0
72.5°	13537.4	13307.4	8990.4	6222.6	3006.4	2.9	0.0	0.0	0.0	0.0
75°	11459.3	11427.7	7766.0	5251.1	2578.1	2.9	0.0	0.0	0.0	0.0
77.5°	9220.4	9076.7	6070.3	4115.8	2078.0	0.0	0.0	0.0	0.0	0.0
80°	5136.2	5348.8	3552.5	2420.1	1307.8	0.0	0.0	0.0	0.0	0.0
82.5°	1388.2	1299.1	776.0	526.0	250.1	0.0	0.0	0.0	0.0	0.0
85°	178.2	195.4	89.1	71.9	17.2	0.0	0.0	0.0	0.0	0.0
87.5°	92.0	109.2	28.7	23.0	5.7	0.0	0.0	0.0	0.0	0.0
90°	17.2	20.1	8.6	2.9	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



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)