

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: P522167

Luminaire Tested: **CTN-CA10-760-727-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522167  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)  
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-EX90  
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: 76385 lumens  
Efficiency: N/A  
Efficacy: 100.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

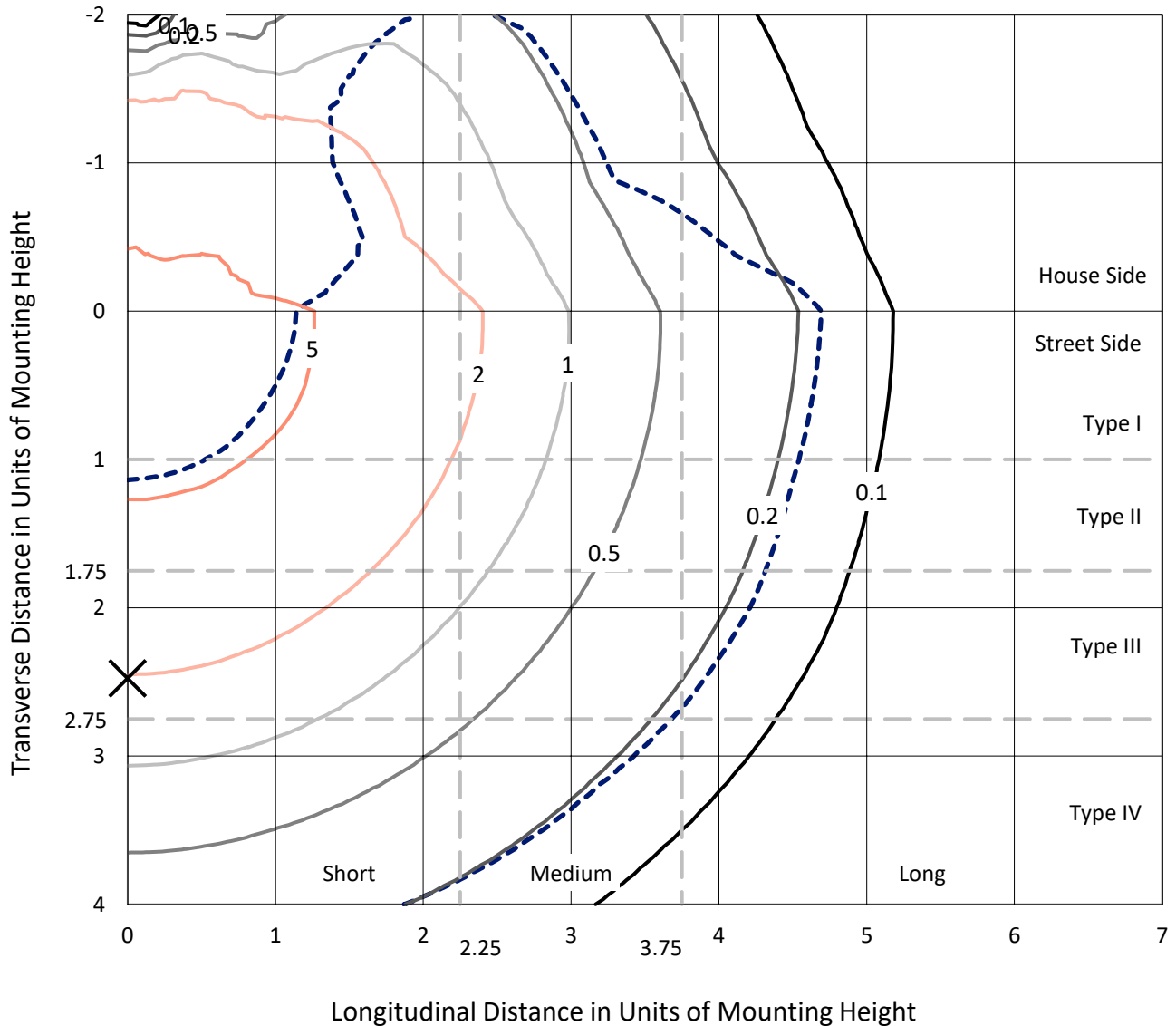
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

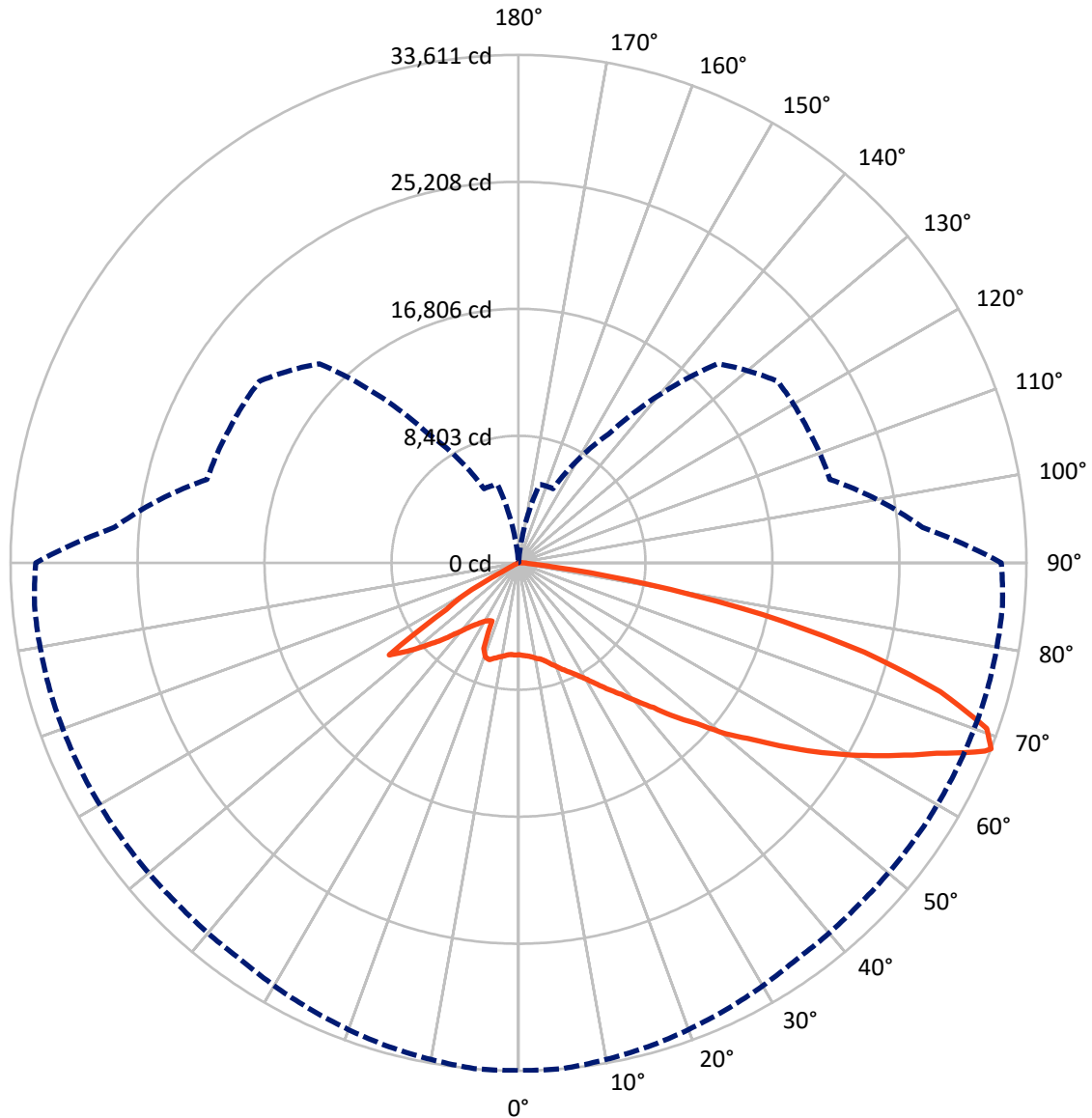
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.8 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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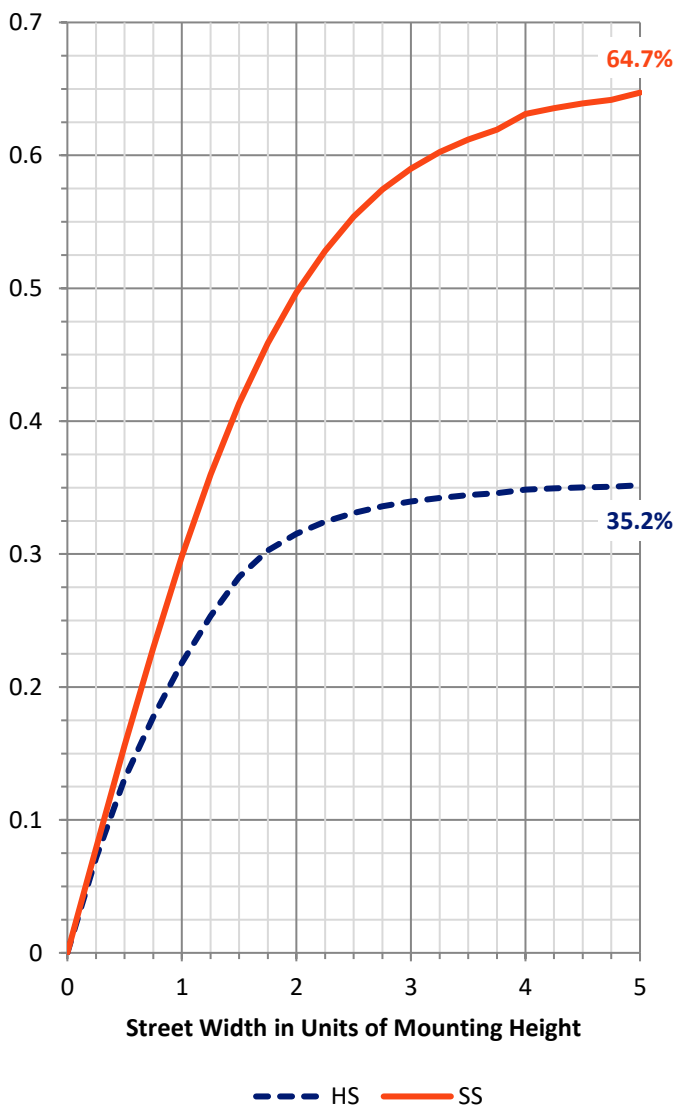
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	26882.3	4.6	26887.0
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	49477.9	20.1	49498.1
	% Fixture	64.8	0.0	64.8
<b>Total</b>	Lumens	76360.2	24.8	76385.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	588.1	0.8
10°-20°	1884.2	2.5
20°-30°	3363.6	4.4
30°-40°	5471.9	7.2
40°-50°	9344.4	12.2
50°-60°	15591.7	20.4
60°-70°	21691.1	28.4
70°-80°	16814.0	22.0
80°-90°	1611.2	2.1
90°-100°	19.5	0.0
100°-110°	1.7	0.0
110°-120°	0.8	0.0
120°-130°	0.6	0.0
130°-140°	0.6	0.0
140°-150°	0.7	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	76360.2	100.0
0°-180°	76385.0	100.0

**Coefficient of Utilization**

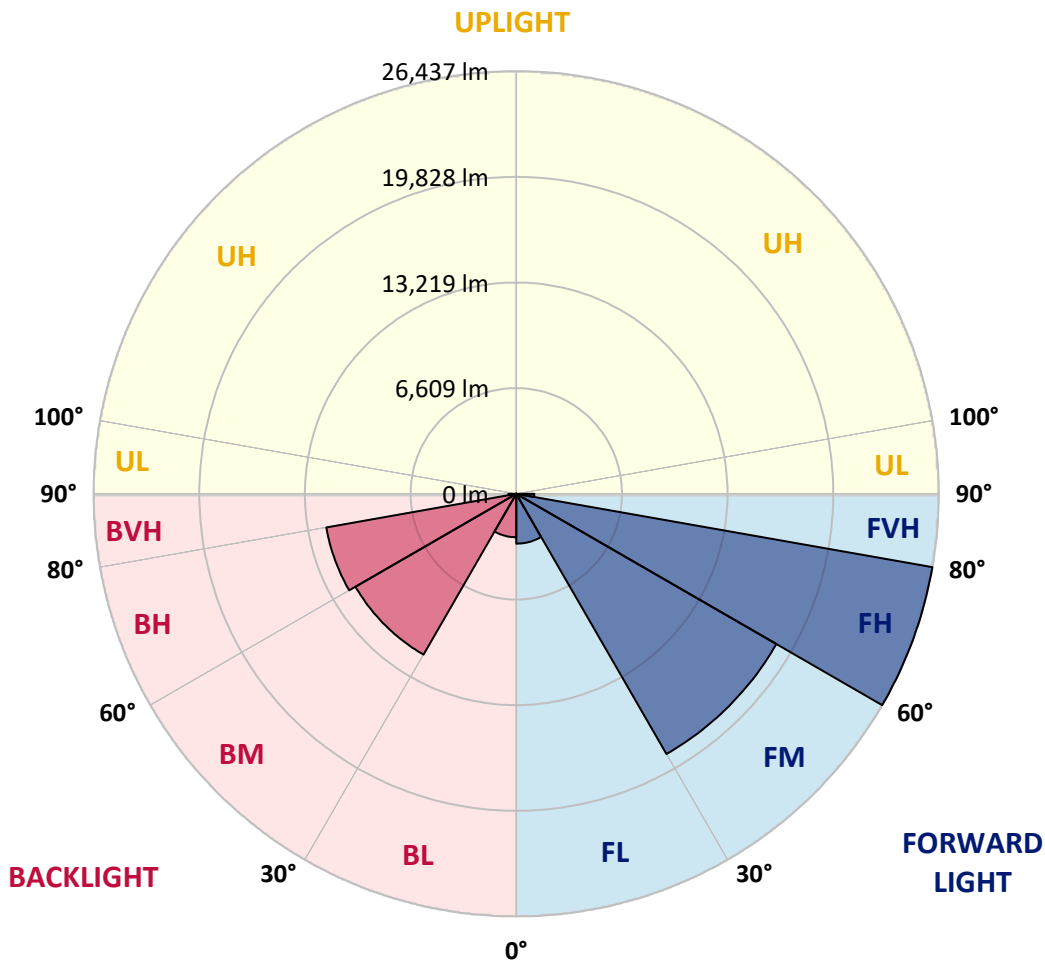


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3117.6	4.1			
FM (30°-60°)	18796.1	24.6			
FH (60°-80°)	26437.1	34.6			G5
FVH (80°-90°)	1127.2	1.5			G5
BL (0°-30°)	2718.3	3.6	B4/5000		
BM (30°-60°)	11612.0	15.2	B5		
BH (60°-80°)	12068.0	15.8	B5		G5
BVH (80°-90°)	484.0	0.6			G3/500
UL (90°-100°)	19.5	0.0		U2/50	
UH (100°-180°)	5.3	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°	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0
2.5°	6147.9	6139.3	6133.6	6170.9	6064.6	6107.7	6079.0	6116.3	6107.7	6124.9	6127.8
5°	6191.1	6176.7	6156.6	6196.8	6133.6	6162.3	6130.7	6147.9	6093.3	6139.3	6145.1
7.5°	6288.8	6248.5	6245.7	6257.2	6214.0	6234.2	6179.6	6199.7	6170.9	6153.7	6170.9
10°	6435.4	6400.9	6363.5	6386.5	6314.6	6340.5	6283.0	6300.3	6285.9	6248.5	6283.0
12.5°	6536.0	6547.5	6521.6	6538.8	6475.6	6452.6	6432.5	6429.6	6421.0	6366.4	6357.8
15°	6760.1	6765.9	6719.9	6731.4	6717.0	6705.5	6676.8	6653.8	6607.8	6573.3	6550.3
17.5°	7053.3	7021.7	6978.6	6990.1	7030.3	6978.6	6961.3	6918.2	6852.1	6794.6	6783.1
20°	7360.9	7340.7	7300.5	7323.5	7320.6	7286.1	7294.8	7222.9	7128.0	7079.2	7041.8
22.5°	7702.9	7674.1	7645.4	7688.5	7654.0	7631.0	7622.4	7573.6	7455.7	7401.1	7392.5
25°	8044.9	8030.5	8050.7	8036.3	7987.4	7970.2	7981.7	7964.4	7826.5	7760.4	7720.1
27.5°	8473.2	8438.7	8470.3	8453.1	8401.3	8404.2	8407.1	8409.9	8254.7	8168.5	8111.0
30°	8961.8	8950.3	8990.5	8935.9	8887.1	8918.7	8944.5	8887.1	8752.0	8625.5	8605.4
32.5°	9597.0	9525.1	9571.1	9502.1	9427.4	9502.1	9548.1	9433.2	9323.9	9163.0	9191.7
35°	10301.2	10278.2	10278.2	10189.1	10148.8	10266.7	10312.7	10200.6	10031.0	9890.2	9855.7
37.5°	11048.5	11071.5	11143.3	11106.0	11068.6	11140.4	11243.9	11094.5	10876.0	10726.6	10686.3
40°	12040.1	12097.6	12146.4	12097.6	12054.4	12100.4	12218.3	12022.8	11870.5	11790.0	11703.8
42.5°	13106.4	13204.1	13172.5	13178.3	13215.6	13281.7	13399.6	13221.4	13046.1	13043.2	12916.7
45°	14549.3	14549.3	14483.2	14546.4	14540.6	14704.5	14756.2	14658.5	14511.9	14468.8	14359.6
47.5°	15897.3	16038.1	16012.2	16104.2	16032.4	16170.3	16345.6	16262.3	16092.7	15940.4	15917.4
50°	17777.0	17742.5	17708.0	17846.0	17834.5	17929.3	18090.3	18038.6	17802.9	17630.4	17598.8
52.5°	19429.7	19610.8	19567.6	19774.6	19659.6	19794.7	19987.3	19978.7	19691.2	19521.7	19472.8
55°	21516.4	21637.1	21628.4	21841.1	21683.1	21861.3	22022.2	22039.5	21726.2	21484.7	21559.5
57.5°	23689.3	23789.9	23732.4	23907.7	23752.5	23996.8	24094.5	24031.3	23847.3	23542.7	23654.8
60°	25865.0	25951.3	26017.4	26031.7	25942.6	26086.4	26178.3	26232.9	25942.6	25594.9	25730.0
62.5°	28075.3	28173.0	28115.5	28138.5	27891.4	28086.8	28201.8	28216.1	27882.7	27575.2	27670.0
65°	30403.4	30538.5	30331.6	30193.6	29888.9	29886.1	30038.4	30064.3	29828.6	29610.1	29572.8
67.5°	33286.3	33346.6	32904.0	32441.2	31926.8	31814.7	31921.0	31981.4	32116.5	32110.7	31941.1
68°	33611.0	33599.5	33151.2	32599.3	32047.5	31918.1	31969.9	32047.5	32136.6	32153.8	31949.7
70°	32872.4	32731.5	32475.7	31780.2	31234.1	30894.9	30713.8	30857.5	30616.1	30619.0	30236.7
72.5°	29199.1	29181.9	28710.5	28365.6	27879.9	27316.5	27057.8	27055.0	27078.0	26911.3	26517.5
75°	23651.9	23674.9	23125.9	22887.4	22737.9	22631.5	22686.2	22855.7	22873.0	22870.1	22732.1
77.5°	16495.1	16590.0	16443.4	16055.4	16472.1	16828.5	17515.5	17866.1	17754.0	18090.3	18303.0
80°	8645.6	8835.3	8841.1	9114.1	9450.4	9775.2	10367.3	10899.0	10508.1	10335.7	10157.5
82.5°	2273.5	2342.5	2446.0	2287.9	2336.7	2385.6	2845.5	2802.4	2586.8	2701.8	2874.2
85°	649.6	669.7	640.9	580.6	531.7	488.6	500.1	422.5	367.9	365.0	353.5
87.5°	457.0	491.5	434.0	373.6	336.3	313.3	301.8	255.8	206.9	181.1	143.7
90°	212.7	209.8	181.1	140.8	123.6	117.8	117.8	92.0	51.7	31.6	28.7
92.5°	89.1	92.0	74.7	60.4	51.7	40.2	31.6	20.1	11.5	5.7	2.9
95°	31.6	34.5	28.7	23.0	20.1	17.2	14.4	11.5	5.7	2.9	2.9
97.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	5.7	5.7	2.9	2.9
100°	0.0	0.0	0.0	2.9	5.7	5.7	5.7	5.7	2.9	2.9	2.9
102.5°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
105°	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9



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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	2.9	2.9	2.9	2.9
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
165°	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9
167.5°	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9
170°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
172.5°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
175°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
177.5°	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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°	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0	6079.0
2.5°	6122.1	6107.7	6102.0	6030.1	6050.2	6007.1	6107.7	6079.0	6073.2	6113.5
5°	6136.4	6070.3	6110.6	6064.6	6076.1	6012.9	6093.3	6058.8	6061.7	6081.8
7.5°	6145.1	6107.7	6147.9	6067.5	6099.1	6076.1	6133.6	6099.1	6133.6	6150.8
10°	6231.3	6214.0	6185.3	6162.3	6185.3	6130.7	6202.6	6196.8	6216.9	6268.7
12.5°	6349.1	6329.0	6300.3	6260.0	6277.3	6257.2	6311.8	6317.5	6354.9	6380.8
15°	6524.5	6498.6	6484.2	6444.0	6449.7	6435.4	6467.0	6472.7	6547.5	6538.8
17.5°	6771.6	6742.9	6754.4	6717.0	6702.7	6668.2	6610.7	6590.6	6679.7	6705.5
20°	7041.8	7010.2	7024.6	6993.0	6725.7	6182.4	6547.5	6797.5	6607.8	6593.4
22.5°	7349.4	7314.9	7326.4	7277.5	6947.0	5929.5	5159.2	5096.0	5820.3	6113.5
25°	7688.5	7642.5	7636.8	7573.6	6487.1	5369.0	5282.8	5170.7	4641.9	4222.2
27.5°	8108.2	8039.2	8004.7	7050.4	6441.1	5578.8	5449.5	5050.0	4282.6	4308.4
30°	8562.3	8461.7	7815.0	7185.5	6777.4	5826.0	5653.6	4426.3	4432.0	4420.5
32.5°	9079.6	8855.4	7656.9	7599.4	7179.8	6090.5	4693.6	4641.9	4647.6	4664.8
35°	9758.0	8220.2	8188.6	8191.5	7671.3	5892.1	4972.4	4923.5	4929.3	4940.8
37.5°	9901.7	8861.2	8866.9	8800.8	8194.4	5383.4	5311.5	5308.7	5297.2	5285.7
40°	10016.6	9668.9	9585.5	9479.2	7596.5	5797.3	5774.3	5757.0	5765.7	5788.7
42.5°	10916.3	10654.7	10574.2	10447.8	7792.0	6423.9	6349.1	6329.0	6352.0	6340.5
45°	12111.9	11893.5	11735.4	9660.2	8608.3	7105.1	7044.7	7018.8	7027.4	7099.3
47.5°	13376.6	13247.2	12764.4	10436.3	9559.6	7909.8	7849.5	7809.2	7823.6	7806.4
50°	14753.3	14635.5	11815.9	11606.1	10611.6	8777.8	8688.7	8674.4	8680.1	8677.2
52.5°	16247.9	13784.7	13094.9	12876.5	11721.0	9686.1	9654.5	9576.9	9594.1	9576.9
55°	18001.2	14520.5	14503.3	14247.5	12968.4	10740.9	10703.6	10594.3	9907.4	10508.1
57.5°	19665.4	15926.0	15926.0	15678.8	14244.6	11790.0	11729.7	11649.2	7041.8	5679.4
60°	21487.6	17334.4	17294.1	17090.1	15474.8	12790.2	10396.0	10373.0	4253.8	4268.2
62.5°	23062.7	18590.4	18662.3	18472.6	16658.9	9576.9	4817.2	4719.5	419.6	646.7
65°	24827.4	19978.7	20064.9	19869.4	17940.8	10157.5	5228.2	5179.3	94.8	86.2
67.5°	26827.9	21364.0	21168.6	20953.0	18691.0	10459.3	5432.3	5389.1	25.9	17.2
68°	26845.1	21335.3	21082.3	20935.8	18619.1	10401.8	5415.0	5374.8	25.9	17.2
70°	25465.5	20260.3	20007.4	20044.8	17728.1	9947.6	5190.8	5116.1	25.9	17.2
72.5°	22341.3	18029.9	17745.4	17544.2	15721.9	8844.0	4653.4	4512.5	25.9	17.2
75°	19116.4	15279.3	14807.9	14365.3	12649.4	7237.3	3817.0	3658.9	25.9	17.2
77.5°	15066.6	11646.3	10976.6	10686.3	9505.0	5346.0	2836.8	2664.4	25.9	14.4
80°	8326.6	6682.5	6113.5	5935.2	5435.1	3141.5	1626.8	1523.3	23.0	14.4
82.5°	2152.8	1615.3	1408.4	1359.5	1276.2	744.4	396.6	376.5	20.1	11.5
85°	307.5	227.1	250.1	296.0	284.5	192.6	138.0	117.8	17.2	8.6
87.5°	161.0	135.1	158.1	178.2	181.1	112.1	57.5	31.6	8.6	0.0
90°	25.9	25.9	28.7	31.6	31.6	14.4	11.5	0.0	0.0	0.0
92.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.9	5.7	2.9	2.9	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°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.9	2.9	2.9	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)