

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: P522147

Luminaire Tested: **CTN-CA10-630-727-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522147  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-727-U-T5R-HSS-HM-EX120  
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: 60193 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

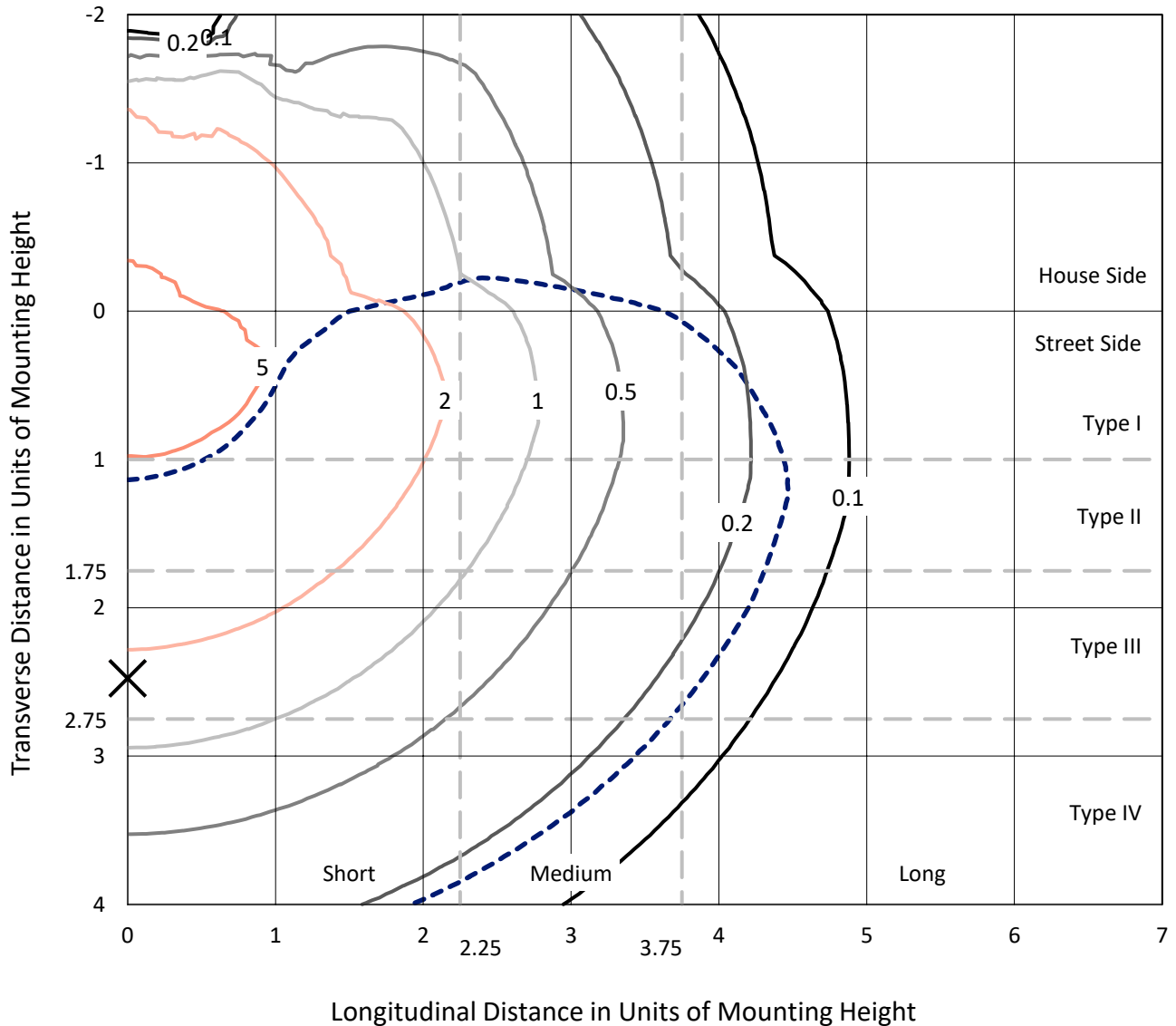
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

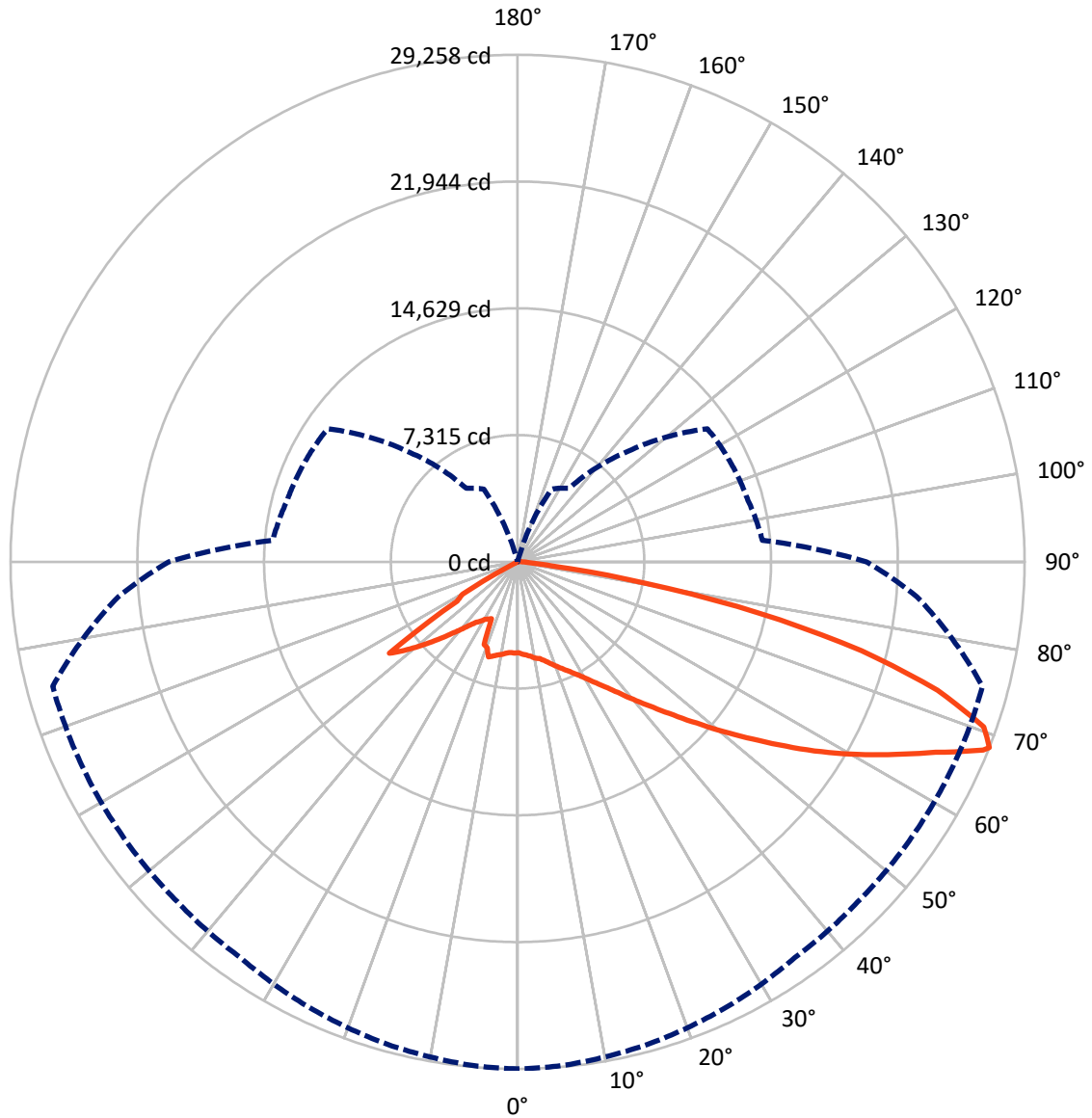
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6 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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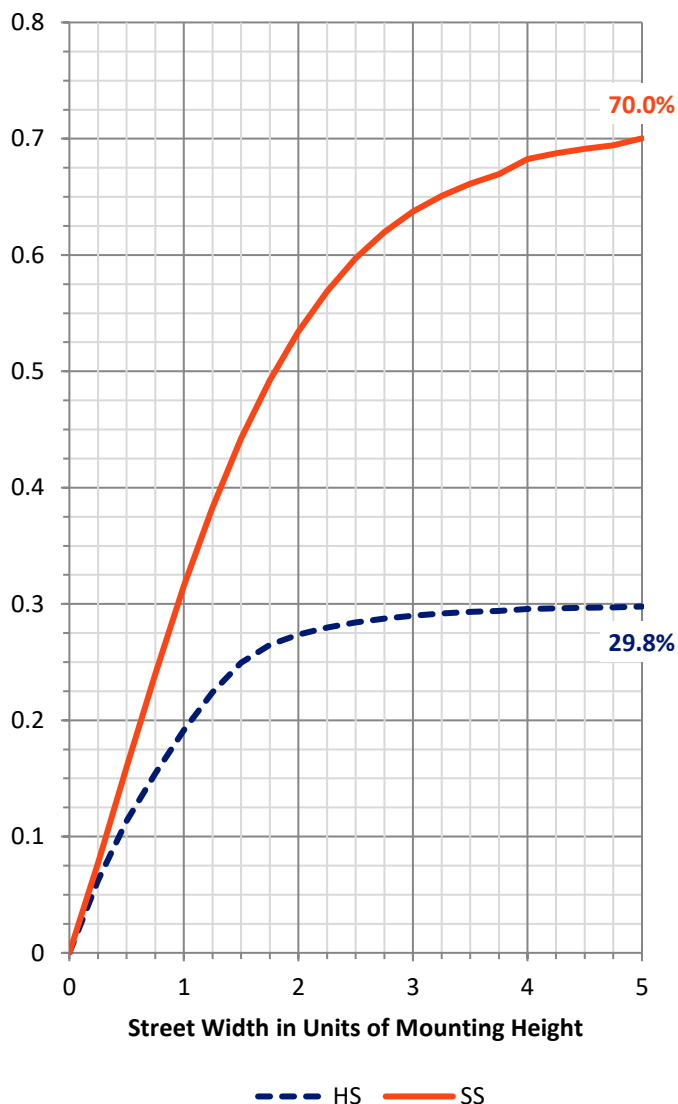
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	17942.9	2.8	17945.7
	% Fixture	29.8	0.0	29.8
<b>Street Side</b>	Lumens	42222.7	24.6	42247.4
	% Fixture	70.1	0.0	70.2
<b>Total</b>	Lumens	60165.6	27.4	60193.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	509.3	0.8
10°-20°	1621.0	2.7
20°-30°	2776.6	4.6
30°-40°	4504.3	7.5
40°-50°	7596.3	12.6
50°-60°	12382.2	20.6
60°-70°	16606.5	27.6
70°-80°	12899.0	21.4
80°-90°	1270.4	2.1
90°-100°	24.1	0.0
100°-110°	1.4	0.0
110°-120°	0.3	0.0
120°-130°	0.3	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	60165.6	100.0
0°-180°	60193.0	100.0

**Coefficient of Utilization**

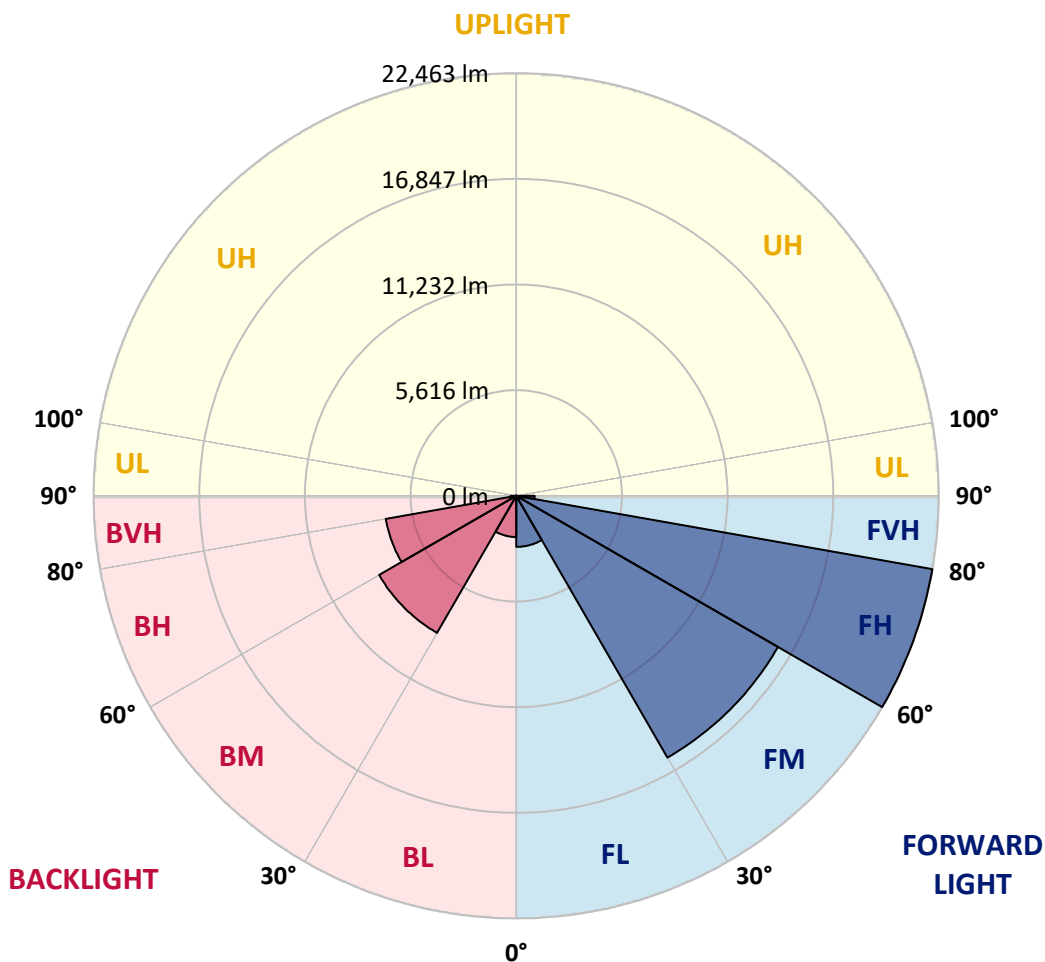


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2715.0	4.5			
FM (30°-60°)	16067.6	26.7			
FH (60°-80°)	22463.3	37.3			G5
FVH (80°-90°)	976.7	1.6			G5
BL (0°-30°)	2191.9	3.6	B3/2500		
BM (30°-60°)	8415.2	14.0	B4/8500		
BH (60°-80°)	7042.2	11.7	B5		G5
BVH (80°-90°)	293.6	0.5			G3/500
UL (90°-100°)	24.1	0.0		U2/50	
UH (100°-180°)	3.3	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°	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7
2.5°	5334.8	5319.9	5317.4	5347.3	5252.7	5300.0	5257.7	5292.5	5270.1	5287.5	5290.0
5°	5407.0	5379.7	5362.2	5397.1	5337.3	5359.7	5312.4	5327.4	5265.1	5300.0	5305.0
7.5°	5511.6	5466.8	5461.8	5471.8	5419.5	5436.9	5359.7	5377.2	5332.4	5312.4	5329.9
10°	5653.5	5611.2	5578.8	5601.2	5531.5	5541.5	5459.3	5461.8	5429.4	5392.1	5422.0
12.5°	5733.2	5738.1	5723.2	5740.6	5683.4	5651.0	5593.7	5573.8	5541.5	5496.7	5481.7
15°	5932.3	5922.4	5892.5	5919.9	5912.4	5882.5	5812.8	5768.0	5698.3	5673.4	5648.5
17.5°	6176.3	6143.9	6119.0	6153.9	6191.2	6129.0	6061.8	5999.5	5907.4	5857.6	5827.8
20°	6432.7	6410.3	6385.4	6440.2	6452.6	6405.3	6355.5	6263.4	6156.4	6091.6	6029.4
22.5°	6719.0	6674.2	6681.6	6753.8	6731.4	6709.0	6644.3	6569.6	6440.2	6358.0	6178.8
25°	7015.2	6990.3	7025.2	7057.5	7040.1	6992.8	6960.4	6905.7	6761.3	6661.7	6400.3
27.5°	7383.6	7343.8	7388.6	7401.1	7386.1	7373.7	7328.9	7286.6	7129.7	7017.7	6691.6
30°	7816.8	7769.5	7841.7	7824.3	7809.3	7819.3	7791.9	7699.8	7560.4	7408.5	7082.4
32.5°	8332.1	8269.9	8352.0	8314.7	8279.8	8349.5	8284.8	8197.7	8033.4	7856.6	7538.0
35°	8929.6	8932.1	8974.4	8912.2	8899.7	8974.4	8932.1	8825.0	8673.2	8489.0	8035.9
37.5°	9654.0	9634.1	9741.1	9711.3	9666.5	9766.0	9778.5	9644.0	9370.2	9188.5	8653.3
40°	10535.3	10530.3	10565.1	10570.1	10557.7	10605.0	10627.4	10448.1	10271.4	9997.5	8165.3
42.5°	11476.3	11496.2	11558.4	11513.6	11573.4	11635.6	11643.1	11493.7	11239.8	9591.8	8673.2
45°	12606.5	12668.7	12711.0	12701.1	12728.5	12818.1	12825.5	12745.9	12496.9	10390.9	9594.3
47.5°	13903.5	13963.2	13975.7	14055.3	14030.4	14157.4	14140.0	14142.4	13876.1	11503.7	10597.5
50°	15394.6	15422.0	15524.1	15568.9	15506.7	15678.4	15633.6	15688.4	15359.8	12778.2	11675.4
52.5°	16977.9	17025.2	17067.5	17236.8	17157.1	17306.5	17246.8	17373.7	16992.8	14075.2	12872.8
55°	18777.8	18785.2	18857.4	19029.2	18924.6	19103.9	19016.8	19064.1	18760.3	15509.1	14120.0
57.5°	20684.7	20659.8	20687.2	20824.1	20729.5	20863.9	20829.1	20873.9	20590.1	17017.7	15031.2
60°	22571.7	22534.3	22574.1	22666.3	22536.8	22768.3	22643.8	22686.2	22380.0	18558.7	16330.7
62.5°	24468.6	24441.2	24396.4	24488.5	24299.3	24418.8	24471.1	24401.4	24132.5	19952.8	17460.9
65°	26505.0	26477.6	26313.3	26370.5	26032.0	25974.7	25994.6	26017.0	25837.8	21334.4	18700.6
67.5°	28979.4	28939.6	28630.9	28242.6	27754.6	27647.6	27657.6	27717.3	27742.2	23111.9	20151.9
68°	29258.3	29186.1	28842.5	28391.9	27881.6	27757.1	27744.7	27757.1	27769.6	23126.8	20137.0
70°	28546.3	28518.9	28257.5	27712.3	27189.5	26890.8	26631.9	26622.0	26502.5	21944.3	19024.2
72.5°	25332.4	25297.6	24986.4	24600.5	24276.9	23808.9	23472.8	23492.7	23296.1	19395.1	16651.8
75°	20500.5	20498.0	20124.5	19800.9	19805.9	19771.0	19659.0	19855.7	19651.6	16450.1	14202.2
77.5°	14286.8	14336.6	14311.7	14122.5	14388.9	14757.3	15158.1	15536.5	15419.5	12994.8	11324.4
80°	7463.3	7602.7	8095.6	8118.0	8304.7	8663.2	8937.1	9191.0	9208.4	7373.7	6542.2
82.5°	1984.1	2026.4	2193.2	2145.9	2131.0	2203.1	2262.9	2270.4	2275.3	1921.8	1794.9
85°	617.4	634.8	614.9	587.5	545.2	497.9	485.4	395.8	313.7	258.9	226.5
87.5°	438.1	468.0	423.2	398.3	353.5	336.1	301.2	236.5	184.2	129.5	87.1
90°	226.5	231.5	206.6	176.7	164.3	154.3	131.9	94.6	47.3	24.9	22.4
92.5°	114.5	117.0	102.1	87.1	74.7	64.7	49.8	27.4	14.9	7.5	2.5
95°	44.8	47.3	42.3	37.3	29.9	22.4	19.9	14.9	10.0	5.0	2.5
97.5°	14.9	14.9	14.9	12.4	12.4	12.4	12.4	10.0	7.5	5.0	2.5
100°	0.0	0.0	0.0	2.5	5.0	7.5	7.5	7.5	5.0	2.5	2.5
102.5°	0.0	0.0	0.0	0.0	0.0	2.5	5.0	5.0	5.0	2.5	2.5
105°	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5



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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	2.5	2.5	2.5
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
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	2.5
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
165°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
170°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
175°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
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°	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7	5247.7
2.5°	5277.6	5262.7	5270.1	5207.9	5222.8	5183.0	5267.6	5245.2	5235.3	5270.1
5°	5290.0	5235.3	5280.1	5237.8	5245.2	5188.0	5257.7	5230.3	5227.8	5247.7
7.5°	5295.0	5267.6	5310.0	5240.2	5262.7	5240.2	5292.5	5265.1	5290.0	5307.5
10°	5364.7	5349.8	5344.8	5319.9	5337.3	5287.5	5352.3	5352.3	5364.7	5412.0
12.5°	5466.8	5446.9	5434.4	5389.6	5407.0	5392.1	5444.4	5454.3	5476.7	5496.7
15°	5606.2	5571.3	5558.9	5519.1	5531.5	5529.0	5566.4	5568.9	5618.6	5616.2
17.5°	5785.4	5735.6	5750.6	5720.7	5723.2	5703.3	5683.4	5683.4	5728.2	5738.1
20°	5999.5	5715.7	5342.3	5133.2	5095.9	5123.2	5230.3	5407.0	5185.5	5247.7
22.5°	5613.7	5357.3	5339.8	5292.5	5262.7	4595.5	4423.7	4368.9	4655.2	5148.1
25°	5663.5	5553.9	5521.6	5461.8	4580.6	4573.1	4523.3	4441.1	3629.6	3612.2
27.5°	5927.3	5820.3	5768.0	4784.7	4764.8	4762.3	4687.6	3863.6	3676.9	3701.8
30°	6236.0	6111.5	5175.5	5026.2	5008.7	4968.9	4540.7	3816.3	3813.8	3816.3
32.5°	6592.0	6178.8	5324.9	5317.4	5327.4	5205.4	4022.9	4008.0	4005.5	4030.4
35°	7079.9	5733.2	5698.3	5735.6	5683.4	4500.9	4264.4	4256.9	4259.4	4247.0
37.5°	6756.3	6181.3	6173.8	6173.8	6051.8	4605.4	4558.1	4593.0	4588.0	4570.6
40°	6893.2	6723.9	6679.1	6664.2	5115.8	4968.9	4941.5	4986.3	4993.8	5006.2
42.5°	7557.9	7403.6	7381.2	7204.4	5566.4	5519.1	5434.4	5481.7	5476.7	5491.7
45°	8374.4	8269.9	8172.8	6246.0	6173.8	6114.0	6026.9	6081.7	6096.6	6086.7
47.5°	9325.4	9210.9	8508.9	6868.3	6865.8	6818.5	6721.5	6766.3	6758.8	6758.8
50°	10281.3	10156.9	7729.7	7660.0	7635.1	7560.4	7480.7	7488.2	7490.7	7515.6
52.5°	11349.3	9071.5	8556.2	8416.8	8436.7	8386.9	8309.7	6290.8	8272.4	8294.8
55°	10607.5	9494.7	9464.8	9280.6	9327.9	9263.2	9213.4	6206.1	8227.6	9091.4
57.5°	10488.0	10408.3	10383.4	10194.2	10254.0	9639.1	10099.6	6791.2	5690.8	4157.3
60°	11401.6	11316.9	11302.0	11135.2	11130.2	7660.0	9181.0	4657.7	3639.5	3664.4
62.5°	12287.8	12150.9	12188.2	11991.6	8454.1	4667.7	4115.0	104.6	166.8	176.7
65°	13276.1	13047.1	13084.4	12902.7	8720.5	4921.6	4448.6	54.8	47.3	44.8
67.5°	14227.1	13826.3	13634.6	13442.9	9056.5	5183.0	4635.3	14.9	0.0	0.0
68°	14179.8	13756.6	13559.9	13378.2	9021.7	5175.5	4625.4	14.9	0.0	0.0
70°	13380.7	12999.8	12813.1	12673.7	8613.4	4998.8	4438.7	14.9	0.0	0.0
72.5°	11697.8	11486.2	11366.7	11244.8	7652.5	4471.0	3980.6	14.9	0.0	0.0
75°	9940.3	9880.5	9805.9	9537.0	6377.9	3659.5	3271.1	14.9	0.0	0.0
77.5°	7876.6	7874.1	7692.3	7376.2	4802.1	2686.1	2412.3	12.4	0.0	0.0
80°	4259.4	4642.8	4503.4	4341.6	2723.4	1461.3	1391.6	10.0	0.0	0.0
82.5°	1197.4	1132.7	1087.9	1018.2	572.6	318.6	311.2	10.0	0.0	0.0
85°	166.8	184.2	204.1	231.5	131.9	84.6	74.7	5.0	0.0	0.0
87.5°	94.6	107.0	131.9	136.9	49.8	39.8	12.4	0.0	0.0	0.0
90°	19.9	22.4	24.9	24.9	10.0	10.0	0.0	0.0	0.0	0.0
92.5°	0.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.5	2.5	2.5	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°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.5	2.5	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)