

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: P522237

Luminaire Tested: **CTN-CA8-480-727-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522237  
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-CA8-480-727-U-T5R-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 46361 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

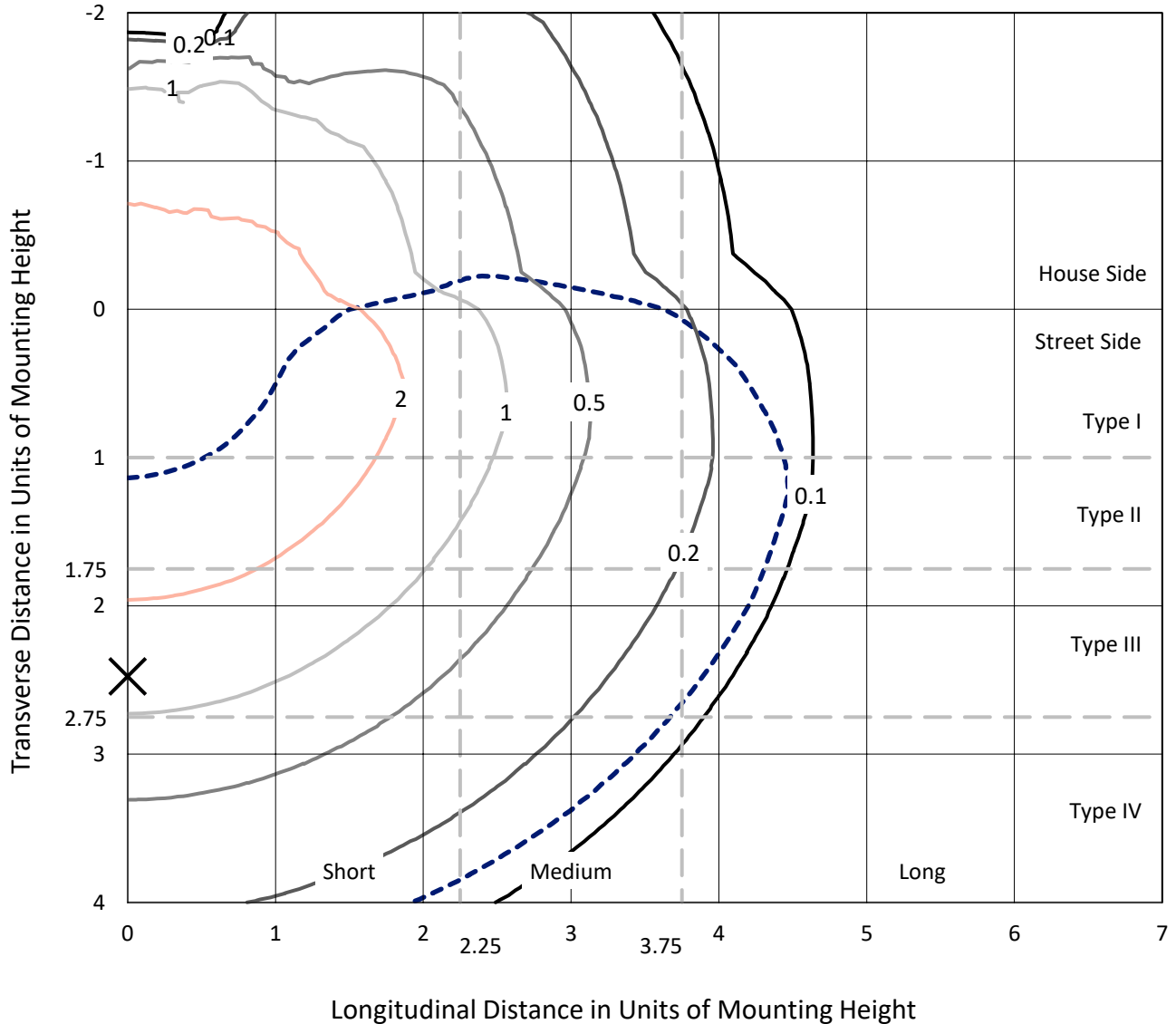
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

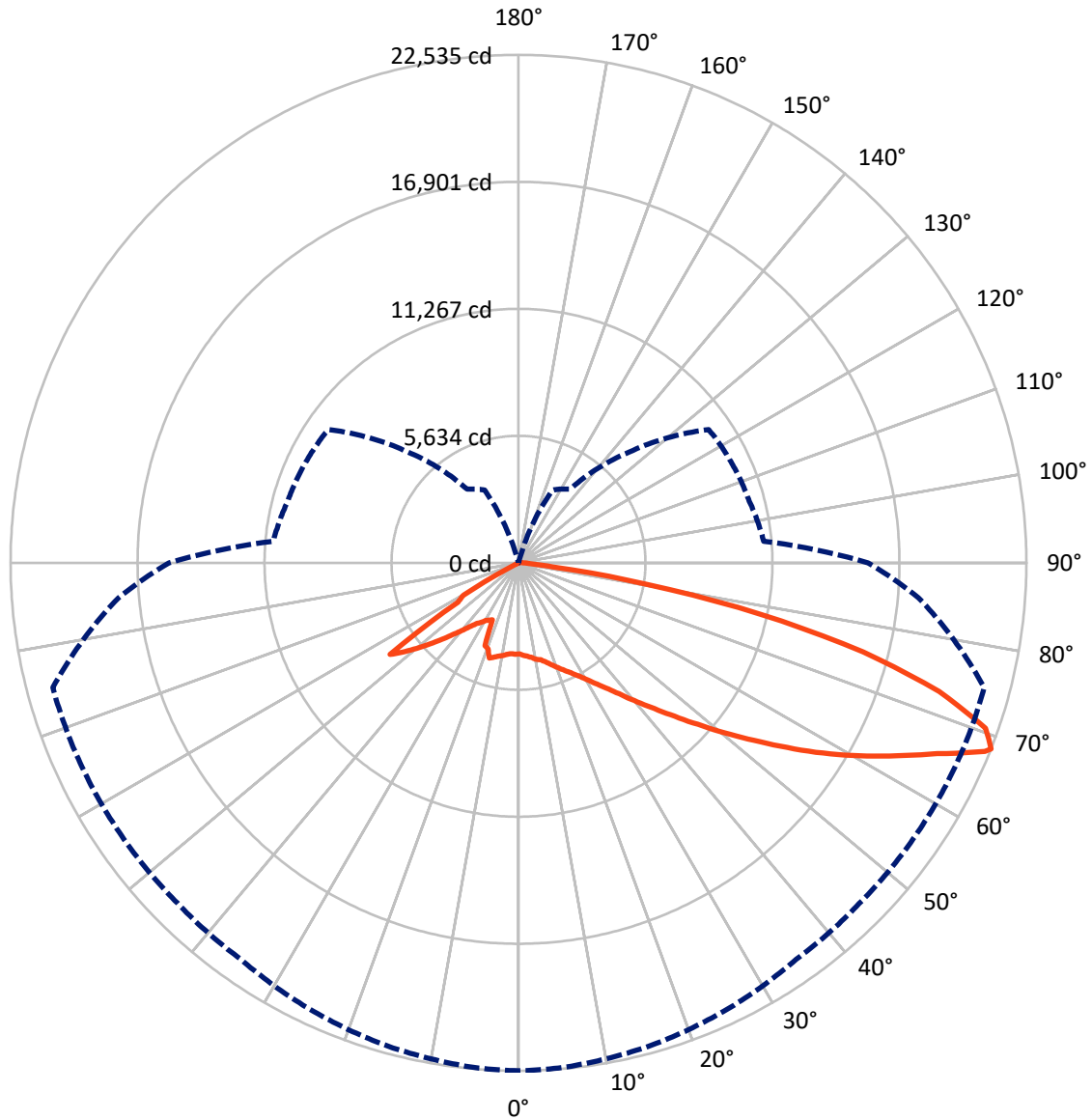
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.6 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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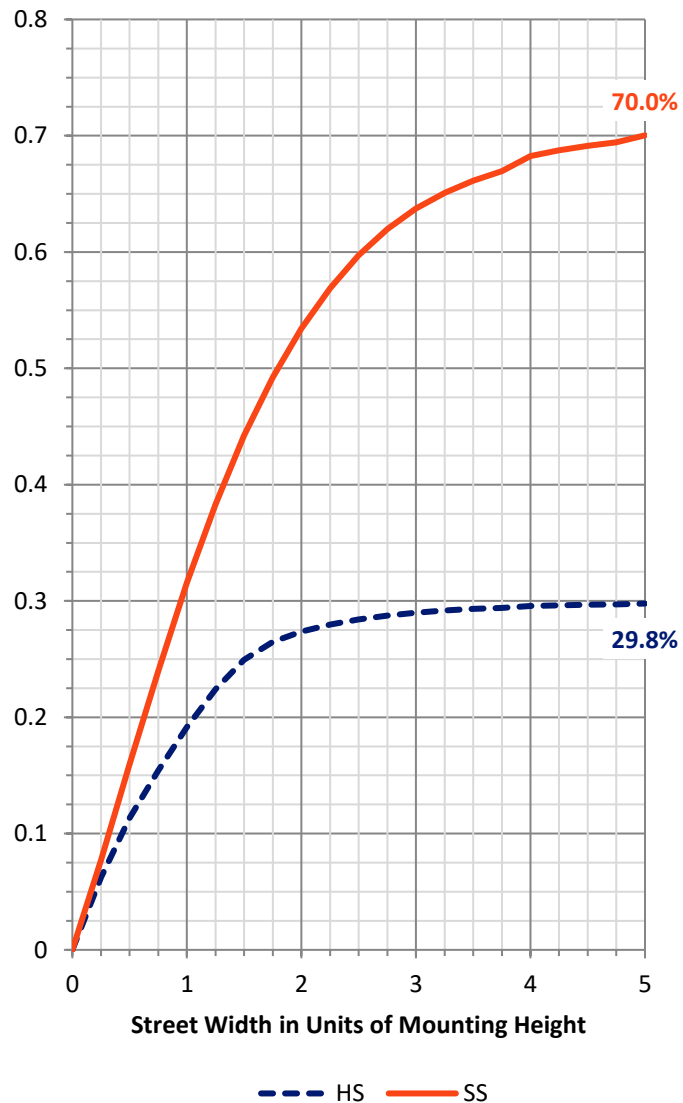
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13819.7	2.1	13821.8
	% Fixture	29.8	0.0	29.8
<b>Street Side</b>	Lumens	32520.2	19.0	32539.2
	% Fixture	70.1	0.0	70.2
<b>Total</b>	Lumens	46339.9	21.1	46361.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	392.3	0.8
10°-20°	1248.5	2.7
20°-30°	2138.6	4.6
30°-40°	3469.2	7.5
40°-50°	5850.7	12.6
50°-60°	9536.8	20.6
60°-70°	12790.4	27.6
70°-80°	9934.9	21.4
80°-90°	978.4	2.1
90°-100°	18.6	0.0
100°-110°	1.1	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.3	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	46339.9	100.0
0°-180°	46361.0	100.0

**Coefficient of Utilization**

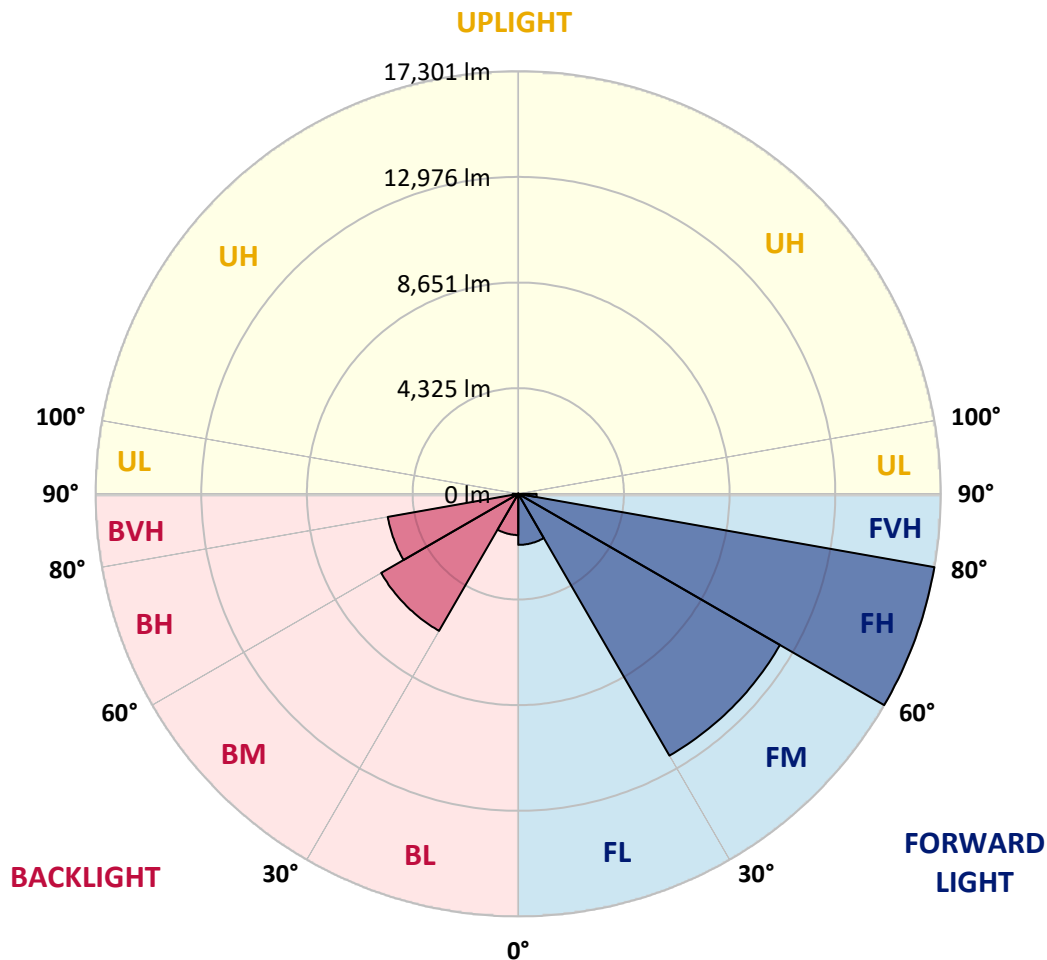


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2091.1	4.5			
FM (30°-60°)	12375.4	26.7			
FH (60°-80°)	17301.4	37.3			G5
FVH (80°-90°)	752.3	1.6			G5
BL (0°-30°)	1688.2	3.6	B3/2500		
BM (30°-60°)	6481.4	14.0	B4/8500		
BH (60°-80°)	5423.9	11.7	B5		G5
BVH (80°-90°)	226.2	0.5			G3/500
UL (90°-100°)	18.6	0.0		U2/50	
UH (100°-180°)	2.5	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°	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8
2.5°	4108.9	4097.4	4095.5	4118.5	4045.7	4082.1	4049.5	4076.3	4059.1	4072.5	4074.4
5°	4164.5	4143.4	4130.0	4156.9	4110.8	4128.1	4091.7	4103.2	4055.2	4082.1	4085.9
7.5°	4245.1	4210.6	4206.7	4214.4	4174.1	4187.5	4128.1	4141.5	4107.0	4091.7	4105.1
10°	4354.4	4321.8	4296.8	4314.1	4260.4	4268.1	4204.8	4206.7	4181.8	4153.0	4176.0
12.5°	4415.7	4419.5	4408.0	4421.5	4377.4	4352.4	4308.3	4293.0	4268.1	4233.6	4222.1
15°	4569.1	4561.4	4538.4	4559.5	4553.8	4530.8	4477.1	4442.6	4388.9	4369.7	4350.5
17.5°	4757.0	4732.1	4712.9	4739.7	4768.5	4720.6	4668.8	4620.9	4549.9	4511.6	4488.6
20°	4954.5	4937.2	4918.1	4960.2	4969.8	4933.4	4895.1	4824.1	4741.7	4691.8	4643.9
22.5°	5175.0	5140.5	5146.2	5201.8	5184.6	5167.3	5117.5	5059.9	4960.2	4897.0	4758.9
25°	5403.2	5384.0	5410.8	5435.8	5422.3	5385.9	5361.0	5318.8	5207.6	5130.9	4929.6
27.5°	5686.9	5656.3	5690.8	5700.4	5688.8	5679.3	5644.7	5612.2	5491.4	5405.1	5153.9
30°	6020.6	5984.1	6039.7	6026.3	6014.8	6022.5	6001.4	5930.4	5823.1	5706.1	5454.9
32.5°	6417.4	6369.5	6432.8	6404.0	6377.2	6430.9	6381.0	6313.9	6187.4	6051.2	5805.8
35°	6877.6	6879.5	6912.1	6864.2	6854.6	6912.1	6879.5	6797.1	6680.1	6538.2	6189.3
37.5°	7435.6	7420.2	7502.7	7479.7	7445.2	7521.9	7531.4	7427.9	7217.0	7077.0	6664.8
40°	8114.3	8110.5	8137.3	8141.2	8131.6	8168.0	8185.3	8047.2	7911.1	7700.2	6289.0
42.5°	8839.1	8854.4	8902.4	8867.9	8913.9	8961.8	8967.6	8852.5	8656.9	7387.6	6680.1
45°	9709.6	9757.5	9790.1	9782.4	9803.5	9872.6	9878.3	9816.9	9625.2	8003.1	7389.6
47.5°	10708.5	10754.5	10764.1	10825.5	10806.3	10904.1	10890.7	10892.6	10687.4	8860.2	8162.3
50°	11857.0	11878.1	11956.7	11991.3	11943.3	12075.6	12041.1	12083.3	11830.2	9841.9	8992.5
52.5°	13076.5	13112.9	13145.5	13275.9	13214.5	13329.6	13283.6	13381.3	13088.0	10840.8	9914.7
55°	14462.7	14468.5	14524.1	14656.4	14575.9	14713.9	14646.8	14683.2	14449.3	11945.2	10875.3
57.5°	15931.5	15912.3	15933.4	16038.8	15966.0	16069.5	16042.7	16077.2	15858.6	13107.2	11577.1
60°	17384.8	17356.1	17386.7	17457.7	17358.0	17536.3	17440.4	17473.0	17237.2	14294.0	12578.0
62.5°	18845.9	18824.8	18790.3	18861.2	18715.5	18807.5	18847.8	18794.1	18587.0	15367.7	13448.5
65°	20414.3	20393.2	20266.6	20310.7	20050.0	20005.9	20021.2	20038.5	19900.4	16431.9	14403.3
67.5°	22320.1	22289.5	22051.7	21752.6	21376.8	21294.3	21302.0	21348.0	21367.2	17800.9	15521.1
68°	22534.9	22479.3	22214.7	21867.6	21474.6	21378.7	21369.1	21378.7	21388.3	17812.4	15509.6
70°	21986.5	21965.4	21764.1	21344.2	20941.5	20711.5	20512.1	20504.4	20412.4	16901.6	14652.6
72.5°	19511.2	19484.3	19244.7	18947.5	18698.2	18337.8	18078.9	18094.2	17942.8	14938.3	12825.3
75°	15789.6	15787.6	15500.0	15250.8	15254.6	15227.8	15141.5	15293.0	15135.7	12670.0	10938.6
77.5°	11003.8	11042.2	11023.0	10877.3	11082.4	11366.2	11674.9	11966.3	11876.2	10008.7	8722.1
80°	5748.3	5855.7	6235.3	6252.6	6396.4	6672.5	6883.4	7078.9	7092.4	5679.3	5038.9
82.5°	1528.1	1560.7	1689.2	1652.8	1641.3	1696.9	1742.9	1748.6	1752.5	1480.2	1382.4
85°	475.5	488.9	473.6	452.5	419.9	383.5	373.9	304.9	241.6	199.4	174.5
87.5°	337.5	360.5	326.0	306.8	272.3	258.8	232.0	182.2	141.9	99.7	67.1
90°	174.5	178.3	159.1	136.1	126.5	118.9	101.6	72.9	36.4	19.2	17.3
92.5°	88.2	90.1	78.6	67.1	57.5	49.9	38.3	21.1	11.5	5.8	1.9
95°	34.5	36.4	32.6	28.8	23.0	17.3	15.3	11.5	7.7	3.8	1.9
97.5°	11.5	11.5	11.5	9.6	9.6	9.6	9.6	7.7	5.8	3.8	1.9
100°	0.0	0.0	0.0	1.9	3.8	5.8	5.8	5.8	3.8	1.9	1.9
102.5°	0.0	0.0	0.0	0.0	0.0	1.9	3.8	3.8	3.8	1.9	1.9
105°	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9



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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	0.0	1.9	1.9	1.9
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
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	1.9
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
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°	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8	4041.8
2.5°	4064.8	4053.3	4059.1	4011.1	4022.6	3992.0	4057.2	4039.9	4032.2	4059.1
5°	4074.4	4032.2	4066.7	4034.2	4039.9	3995.8	4049.5	4028.4	4026.5	4041.8
7.5°	4078.3	4057.2	4089.8	4036.1	4053.3	4036.1	4076.3	4055.2	4074.4	4087.8
10°	4131.9	4120.4	4116.6	4097.4	4110.8	4072.5	4122.4	4122.4	4131.9	4168.4
12.5°	4210.6	4195.2	4185.6	4151.1	4164.5	4153.0	4193.3	4201.0	4218.2	4233.6
15°	4317.9	4291.1	4281.5	4250.8	4260.4	4258.5	4287.2	4289.2	4327.5	4325.6
17.5°	4456.0	4417.6	4429.1	4406.1	4408.0	4392.7	4377.4	4377.4	4411.9	4419.5
20°	4620.9	4402.3	4114.7	3953.6	3924.9	3946.0	4028.4	4164.5	3993.9	4041.8
22.5°	4323.7	4126.2	4112.8	4076.3	4053.3	3539.5	3407.2	3365.0	3585.5	3965.1
25°	4362.0	4277.7	4252.7	4206.7	3528.0	3522.2	3483.9	3420.6	2795.5	2782.1
27.5°	4565.3	4482.8	4442.6	3685.2	3669.9	3667.9	3610.4	2975.8	2832.0	2851.1
30°	4803.0	4707.2	3986.2	3871.2	3857.8	3827.1	3497.3	2939.3	2937.4	2939.3
32.5°	5077.2	4758.9	4101.3	4095.5	4103.2	4009.2	3098.5	3087.0	3085.1	3104.2
35°	5453.0	4415.7	4388.9	4417.6	4377.4	3466.6	3284.5	3278.7	3280.6	3271.0
37.5°	5203.8	4760.8	4755.1	4755.1	4661.1	3547.1	3510.7	3537.6	3533.7	3520.3
40°	5309.2	5178.8	5144.3	5132.8	3940.2	3827.1	3806.0	3840.5	3846.3	3855.8
42.5°	5821.1	5702.3	5685.0	5548.9	4287.2	4250.8	4185.6	4222.1	4218.2	4229.7
45°	6450.0	6369.5	6294.7	4810.7	4755.1	4709.1	4642.0	4684.1	4695.6	4688.0
47.5°	7182.5	7094.3	6553.6	5290.0	5288.1	5251.7	5176.9	5211.4	5205.7	5205.7
50°	7918.8	7822.9	5953.4	5899.8	5880.6	5823.1	5761.7	5767.5	5769.4	5788.5
52.5°	8741.3	6986.9	6590.0	6482.6	6498.0	6459.6	6400.2	4845.2	6371.4	6388.7
55°	8169.9	7312.9	7289.9	7148.0	7184.4	7134.5	7096.2	4780.0	6336.9	7002.2
57.5°	8077.9	8016.5	7997.4	7851.6	7897.7	7424.1	7778.8	5230.6	4383.1	3202.0
60°	8781.6	8716.4	8704.9	8576.4	8572.6	5899.8	7071.3	3587.4	2803.2	2822.4
62.5°	9464.2	9358.7	9387.5	9236.0	6511.4	3595.1	3169.4	80.5	128.5	136.1
65°	10225.4	10049.0	10077.7	9937.7	6716.6	3790.6	3426.3	42.2	36.4	34.5
67.5°	10957.8	10649.1	10501.5	10353.8	6975.4	3992.0	3570.1	11.5	0.0	0.0
68°	10921.4	10595.4	10443.9	10304.0	6948.6	3986.2	3562.5	11.5	0.0	0.0
70°	10305.9	10012.5	9868.7	9761.3	6634.1	3850.1	3418.7	11.5	0.0	0.0
72.5°	9009.7	8846.8	8754.7	8660.8	5894.0	3443.6	3065.9	11.5	0.0	0.0
75°	7656.1	7610.1	7552.5	7345.5	4912.3	2818.5	2519.4	11.5	0.0	0.0
77.5°	6066.6	6064.7	5924.7	5681.2	3698.6	2068.8	1857.9	9.6	0.0	0.0
80°	3280.6	3575.9	3468.5	3343.9	2097.6	1125.5	1071.8	7.7	0.0	0.0
82.5°	922.3	872.4	837.9	784.2	441.0	245.4	239.7	7.7	0.0	0.0
85°	128.5	141.9	157.2	178.3	101.6	65.2	57.5	3.8	0.0	0.0
87.5°	72.9	82.4	101.6	105.5	38.3	30.7	9.6	0.0	0.0	0.0
90°	15.3	17.3	19.2	19.2	7.7	7.7	0.0	0.0	0.0	0.0
92.5°	0.0	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.9	1.9	1.9	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°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.9	1.9	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)