

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: P522238

Luminaire Tested: **CTN-CA8-480-727-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522238
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-CA8-480-727-U-T5R-HSS-HM-EX180
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: 39801 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - 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

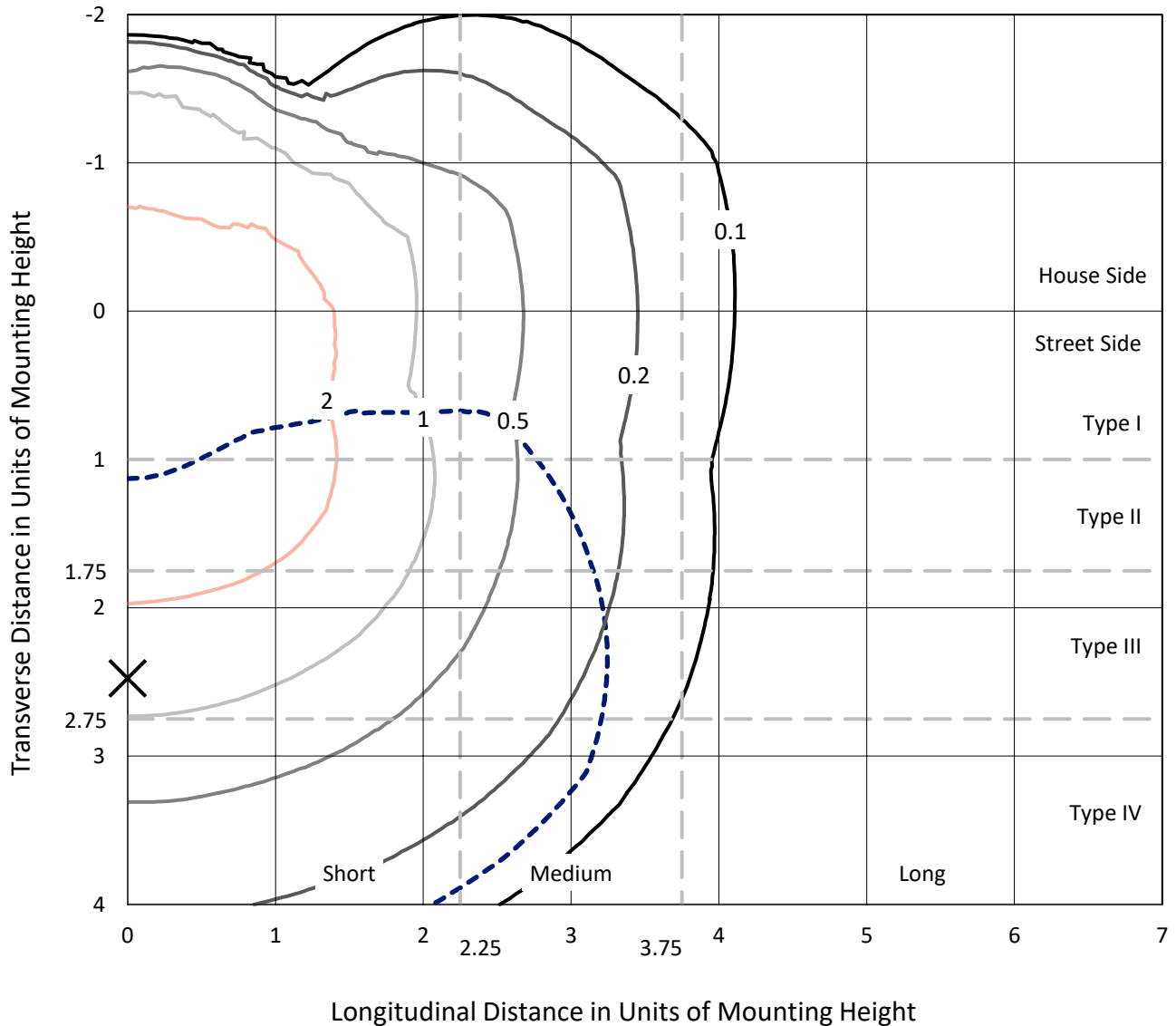




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Iso-Footcandle Lines of Horizontal Illumination

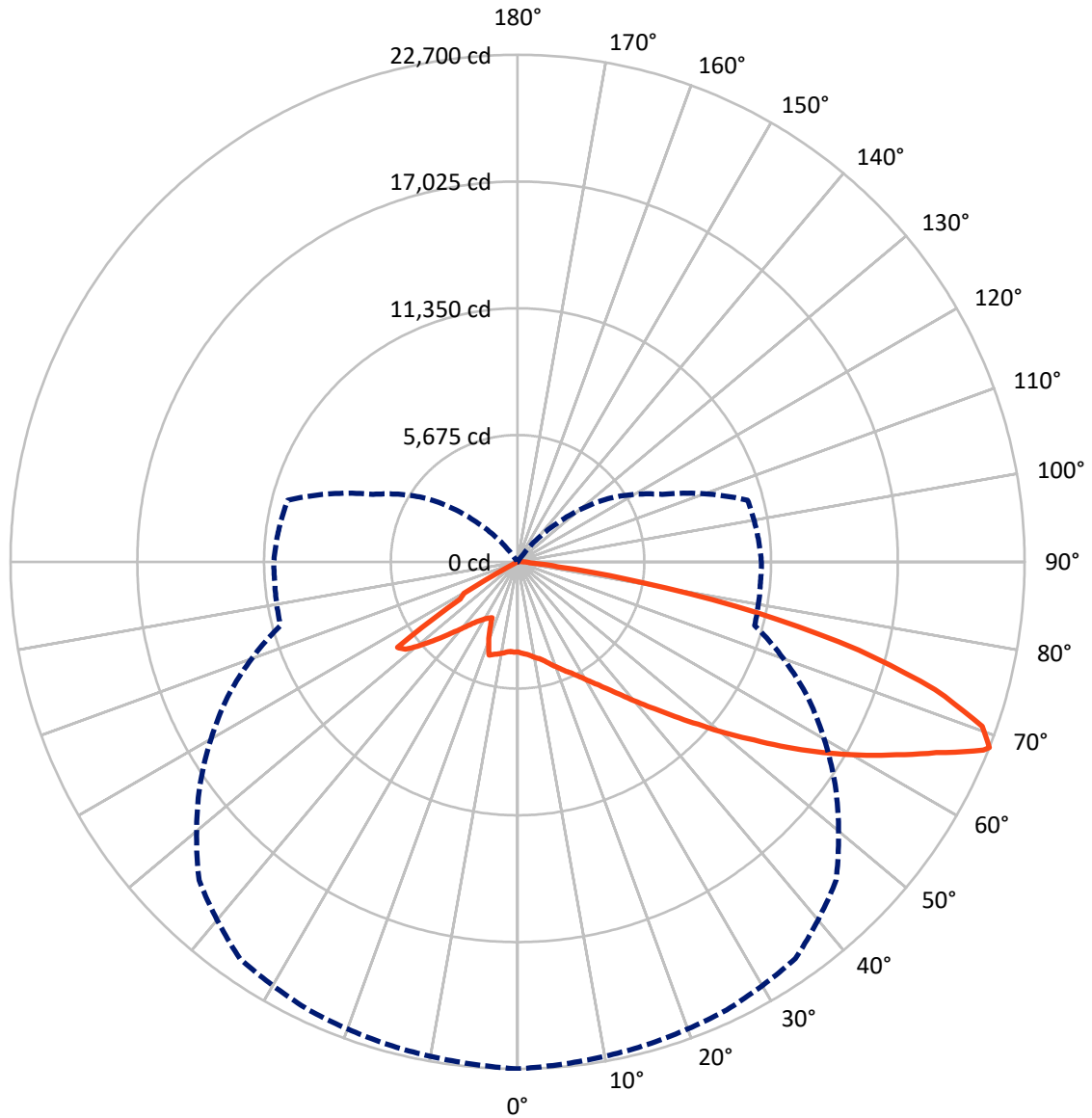
× Max cd
 - - - 1/2 Max cd



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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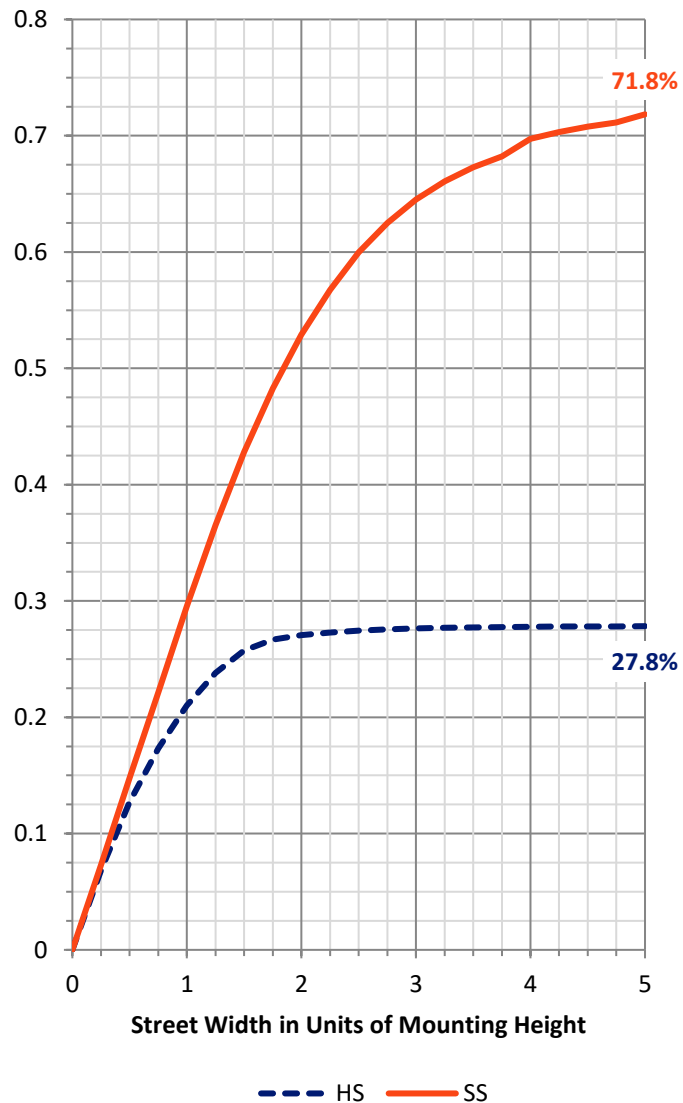
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11116.5	0.2	11116.7
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	28661.5	22.8	28684.3
	% Fixture	72.0	0.1	72.1
Total	Lumens	39777.9	23.0	39801.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.4	1.0
10°-20°	1240.1	3.1
20°-30°	2099.5	5.3
30°-40°	3326.0	8.4
40°-50°	5437.9	13.7
50°-60°	8329.4	20.9
60°-70°	10241.6	25.7
70°-80°	7913.6	19.9
80°-90°	798.5	2.0
90°-100°	22.7	0.1
100°-110°	0.4	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°	39777.9	99.9
0°-180°	39801.0	100.0

Coefficient of Utilization



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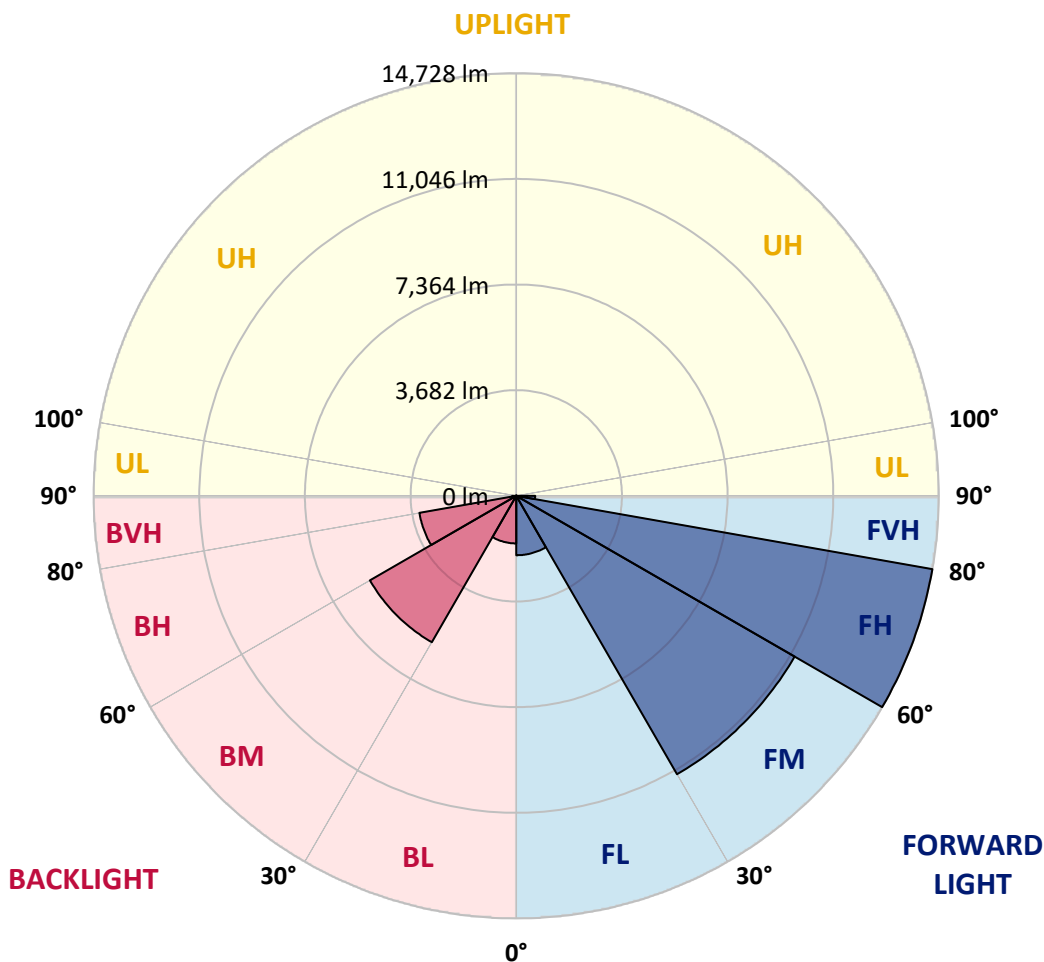
CATALOG NUMBER: CTN-CA8-480-727-U-T5R-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2071.7	5.2			
FM (30°-60°)	11203.3	28.1			
FH (60°-80°)	14728.0	37.0			G5
FVH (80°-90°)	658.5	1.7			G4/750
BL (0°-30°)	1659.2	4.2	B3/2500		
BM (30°-60°)	5890.0	14.8	B4/8500		
BH (60°-80°)	3427.2	8.6	B4/5000		G4/5000
BVH (80°-90°)	140.0	0.4			G2/225
UL (90°-100°)	22.7	0.1		U2/50	
UH (100°-180°)	0.4	0.0		U1/10	

BUG Rating: B4-U2-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3
2.5°	4105.1	4097.5	4089.8	4107.0	4039.9	4068.7	4045.7	4066.8	4051.4	4068.7	4062.9
5°	4158.8	4151.1	4128.1	4147.3	4103.2	4114.7	4086.0	4093.6	4041.9	4072.5	4070.6
7.5°	4247.0	4225.9	4210.6	4210.6	4172.2	4170.3	4124.3	4126.2	4086.0	4082.1	4089.8
10°	4365.9	4350.6	4308.4	4312.2	4258.5	4250.8	4193.3	4191.4	4158.8	4139.6	4156.9
12.5°	4454.1	4469.4	4431.1	4431.1	4377.4	4339.0	4298.8	4271.9	4247.0	4218.3	4204.8
15°	4615.2	4630.5	4578.7	4576.8	4555.7	4509.7	4465.6	4408.1	4364.0	4350.6	4329.5
17.5°	4824.1	4814.6	4770.5	4772.4	4776.2	4701.4	4657.3	4582.6	4519.3	4473.3	4461.8
20°	5037.0	5037.0	4989.0	5004.4	4985.2	4916.2	4887.4	4783.9	4695.7	4645.8	4605.6
22.5°	5274.7	5265.1	5232.6	5265.1	5226.8	5157.8	5109.8	5006.3	4893.2	4611.3	4496.3
25°	5501.0	5495.2	5508.7	5518.2	5470.3	5384.0	5351.4	5242.1	4927.7	4557.6	4325.6
27.5°	5786.7	5767.5	5798.2	5817.4	5769.4	5694.6	5625.6	5502.9	4837.6	4546.1	4521.2
30°	6152.9	6110.7	6154.8	6164.4	6114.5	6068.5	5965.0	5351.4	4868.2	4783.9	4776.2
32.5°	6544.0	6494.2	6551.7	6559.4	6494.2	6455.8	6195.1	5272.8	5169.3	5071.5	5081.1
35°	7008.1	7008.1	7036.8	7040.6	6992.7	6927.5	5934.3	5656.3	5564.3	5474.1	5472.2
37.5°	7573.7	7556.4	7633.1	7679.1	7627.4	7441.4	6314.0	6183.6	6041.7	5926.6	5688.9
40°	8256.3	8286.9	8308.0	8354.1	8304.2	7886.2	6868.1	6720.4	6609.2	6223.8	5623.7
42.5°	8992.5	9000.2	9046.2	9103.8	9103.8	8662.8	7516.2	7389.6	7245.8	6085.8	5815.4
45°	9872.6	9855.4	9943.6	10035.6	10010.7	9554.3	8269.7	8175.7	7502.7	6486.5	6488.4
47.5°	10871.6	10850.5	10977.0	11097.8	10973.2	10543.7	9098.0	9025.1	7242.0	7165.3	7149.9
50°	12025.9	11974.1	12119.8	12280.9	12179.2	11648.1	10104.6	8704.9	7968.7	7907.3	7897.7
52.5°	13258.7	13218.5	13306.7	13580.9	13446.6	12804.3	11057.6	8981.0	8810.4	8741.4	8724.1
55°	14650.8	14572.1	14762.0	14971.0	14815.7	14083.2	11997.1	9897.6	9721.2	9602.3	9429.7
57.5°	16113.7	16000.6	16098.4	16361.1	16211.5	15392.8	13208.9	10840.9	10631.9	8798.9	8099.0
60°	17570.9	17519.2	17557.5	17789.5	17605.5	16665.9	14344.0	11786.2	8998.3	8703.0	8737.5
62.5°	19035.8	18922.7	18957.2	19195.0	18959.1	17877.7	15419.6	12645.2	9470.0	9366.4	9402.9
65°	20606.2	20471.9	20502.6	20571.6	20280.2	18964.9	16370.7	13456.2	10179.4	10070.1	10110.4
67.5°	22498.6	22375.9	22209.1	22003.9	21601.3	20119.1	17315.9	14309.5	10977.0	10915.7	10929.1
68°	22699.9	22581.1	22379.7	22136.2	21683.7	20167.1	17356.2	14334.4	10988.5	10911.9	10915.7
70°	22073.0	22143.9	21915.7	21507.3	21129.6	19465.3	16698.5	13782.2	10499.6	10386.5	10357.7
72.5°	19547.8	19703.1	19388.6	19319.6	18855.6	17340.9	14612.4	11958.7	9132.5	9168.9	9065.4
75°	15782.0	16010.2	15628.6	15649.7	15385.1	14464.8	12246.4	9957.0	7498.9	7665.7	7696.4
77.5°	10975.1	11303.0	11136.2	11303.0	11172.6	10840.9	9477.6	7667.6	5721.5	5913.2	5988.0
80°	5723.4	6112.6	6333.1	6402.2	6444.3	6430.9	5771.3	4601.7	3307.5	3378.4	3374.6
82.5°	1810.0	1716.1	1771.7	1756.3	1708.4	1727.6	1556.9	1217.5	843.7	929.9	889.7
85°	546.5	550.3	535.0	531.1	490.9	431.4	352.8	203.2	99.7	117.0	109.3
87.5°	402.7	406.5	375.8	356.6	333.6	289.5	224.3	126.5	47.9	46.0	36.4
90°	222.4	214.7	199.4	184.1	174.5	149.6	113.1	47.9	17.3	13.4	11.5
92.5°	120.8	115.0	107.4	101.6	88.2	70.9	46.0	15.3	7.7	1.9	0.0
95°	55.6	51.8	49.9	44.1	38.3	26.8	15.3	9.6	5.8	1.9	0.0
97.5°	24.9	23.0	21.1	17.3	13.4	7.7	7.7	5.8	3.8	1.9	0.0
100°	5.8	5.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	1.9	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	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°	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3	4032.3
2.5°	4057.2	4045.7	4039.9	4003.5	4015.0	3982.4	4045.7	4030.3	4020.8	4047.6
5°	4061.0	4020.8	4045.7	4024.6	4032.3	3986.2	4036.1	4015.0	4013.1	4024.6
7.5°	4070.6	4043.8	4068.7	4026.5	4045.7	4026.5	4062.9	4041.9	4059.1	4070.6
10°	4122.4	4107.0	4095.5	4086.0	4099.4	4061.0	4107.0	4109.0	4114.7	4149.2
12.5°	4195.2	4179.9	4160.7	4135.8	4149.2	4133.9	4168.4	4178.0	4199.1	4216.3
15°	4296.9	4268.1	4260.4	4237.4	4250.8	4243.2	4250.8	4245.1	4285.4	4279.6
17.5°	4436.8	4404.2	4294.9	4183.7	4112.8	4133.9	4222.1	4337.1	4365.9	4369.7
20°	4488.6	4258.5	4247.0	4120.5	4062.9	4059.1	3877.0	3604.7	3687.1	3880.8
22.5°	4427.2	4112.8	4080.2	4055.3	3809.8	3407.2	3368.8	3328.6	3319.0	3347.8
25°	4289.2	4252.8	4224.0	3898.0	3510.7	3512.7	3457.0	3192.4	2780.2	2745.7
27.5°	4500.1	4450.3	4172.2	3669.9	3662.2	3658.4	3575.9	2897.2	2809.0	2830.1
30°	4739.8	4657.3	3930.6	3865.5	3863.5	3829.0	3205.9	2922.1	2922.1	2925.9
32.5°	5015.9	4503.9	4068.7	4099.4	4097.5	3934.5	3096.6	3077.4	3069.7	3088.9
35°	5226.8	4381.2	4365.9	4421.5	4383.1	3338.2	3290.2	3273.0	3265.3	3255.7
37.5°	5161.6	4734.0	4734.0	4768.5	4459.8	3554.8	3531.8	3531.8	3516.5	3508.8
40°	5261.3	5173.1	5129.0	5142.4	3240.4	3817.5	3834.8	3830.9	3829.0	3842.4
42.5°	5786.7	5708.1	5667.8	5192.3	3627.7	3794.5	4216.3	4214.4	4220.2	4214.4
45°	6455.8	6383.0	6277.5	4858.7	4118.5	3326.7	4647.7	4668.8	4670.8	4668.8
47.5°	7157.6	7111.6	6032.1	5378.3	4651.6	3570.2	4442.6	5188.5	5178.9	5190.4
50°	7899.6	7692.6	6001.4	5993.8	5219.1	3972.8	3974.7	5642.9	5740.7	5771.3
52.5°	8726.0	6973.5	6651.4	6068.5	5794.3	4387.0	4344.8	5000.5	6335.0	6365.7
55°	8104.8	7366.6	7360.8	5401.3	6028.3	4785.8	4791.6	4745.5	5809.7	6603.5
57.5°	8064.5	8081.8	8068.4	6026.3	4398.5	4486.7	5221.0	5180.8	3761.9	3048.6
60°	8760.5	8785.5	7838.3	6507.6	4755.1	2759.1	3215.5	2732.3	2768.7	2797.5
62.5°	9425.9	9433.5	6375.3	4266.2	2356.5	111.2	53.7	44.1	42.2	42.2
65°	10162.2	10162.2	6833.6	4653.5	2275.9	42.2	7.7	5.8	21.1	21.1
67.5°	10873.5	10716.3	7169.1	4941.1	2316.2	5.8	0.0	0.0	0.0	0.0
68°	10833.2	10660.7	7138.4	4933.4	2310.5	3.8	0.0	0.0	0.0	0.0
70°	10231.2	10064.4	6772.2	4709.1	2224.2	3.8	0.0	0.0	0.0	0.0
72.5°	9030.9	8877.5	5997.6	4151.1	2005.6	1.9	0.0	0.0	0.0	0.0
75°	7644.6	7623.5	5180.8	3503.1	1719.9	1.9	0.0	0.0	0.0	0.0
77.5°	6151.0	6055.1	4049.5	2745.7	1386.3	0.0	0.0	0.0	0.0	0.0
80°	3426.4	3568.3	2369.9	1614.4	872.4	0.0	0.0	0.0	0.0	0.0
82.5°	926.1	866.7	517.7	350.9	166.8	0.0	0.0	0.0	0.0	0.0
85°	118.9	130.4	59.4	47.9	11.5	0.0	0.0	0.0	0.0	0.0
87.5°	61.4	72.9	19.2	15.3	3.8	0.0	0.0	0.0	0.0	0.0
90°	11.5	13.4	5.8	1.9	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)