

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: P579662

Luminaire Tested: **CTN-CA8-480-727-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579662
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-727-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40763 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B5 - U2 - G4

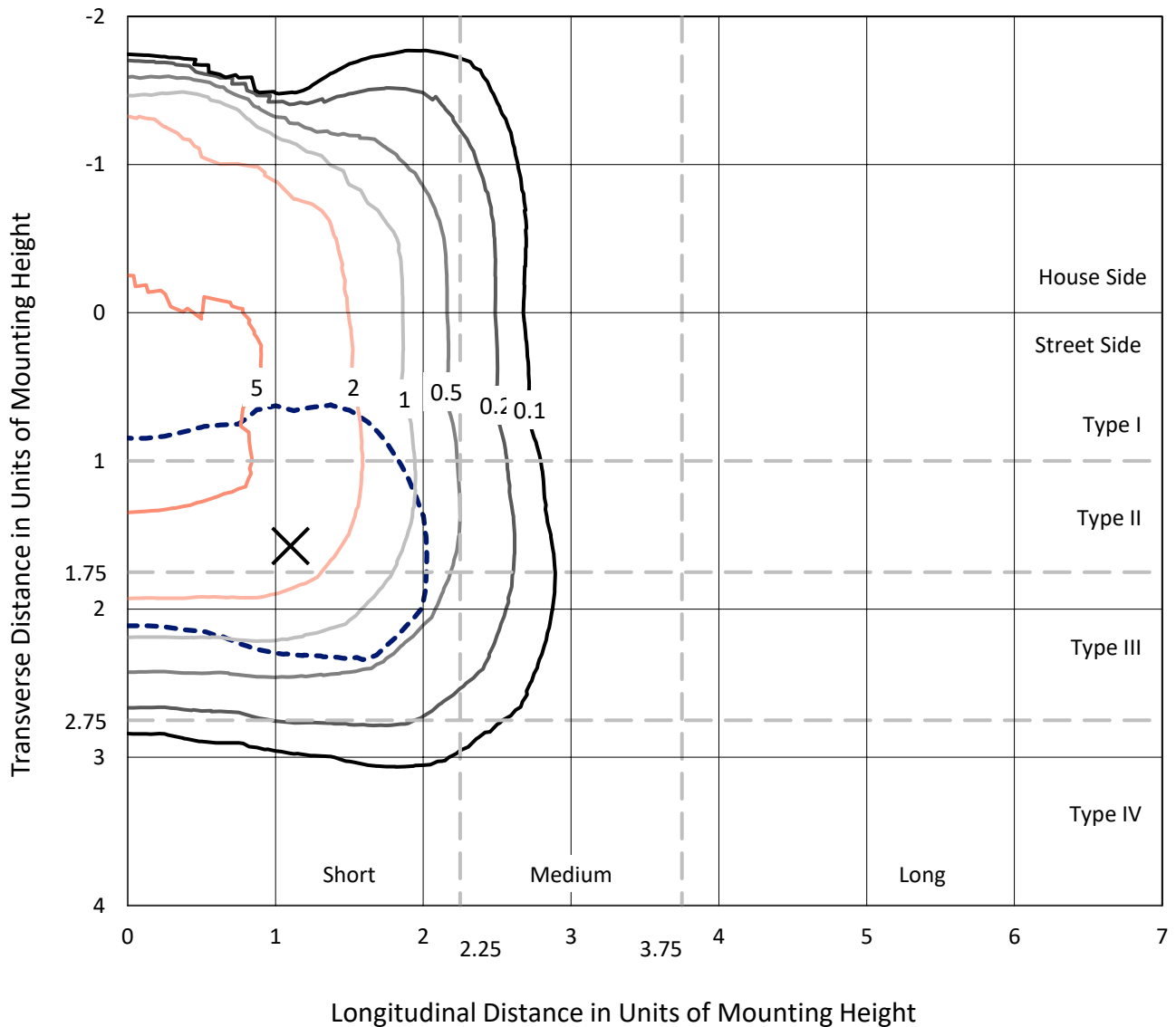
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

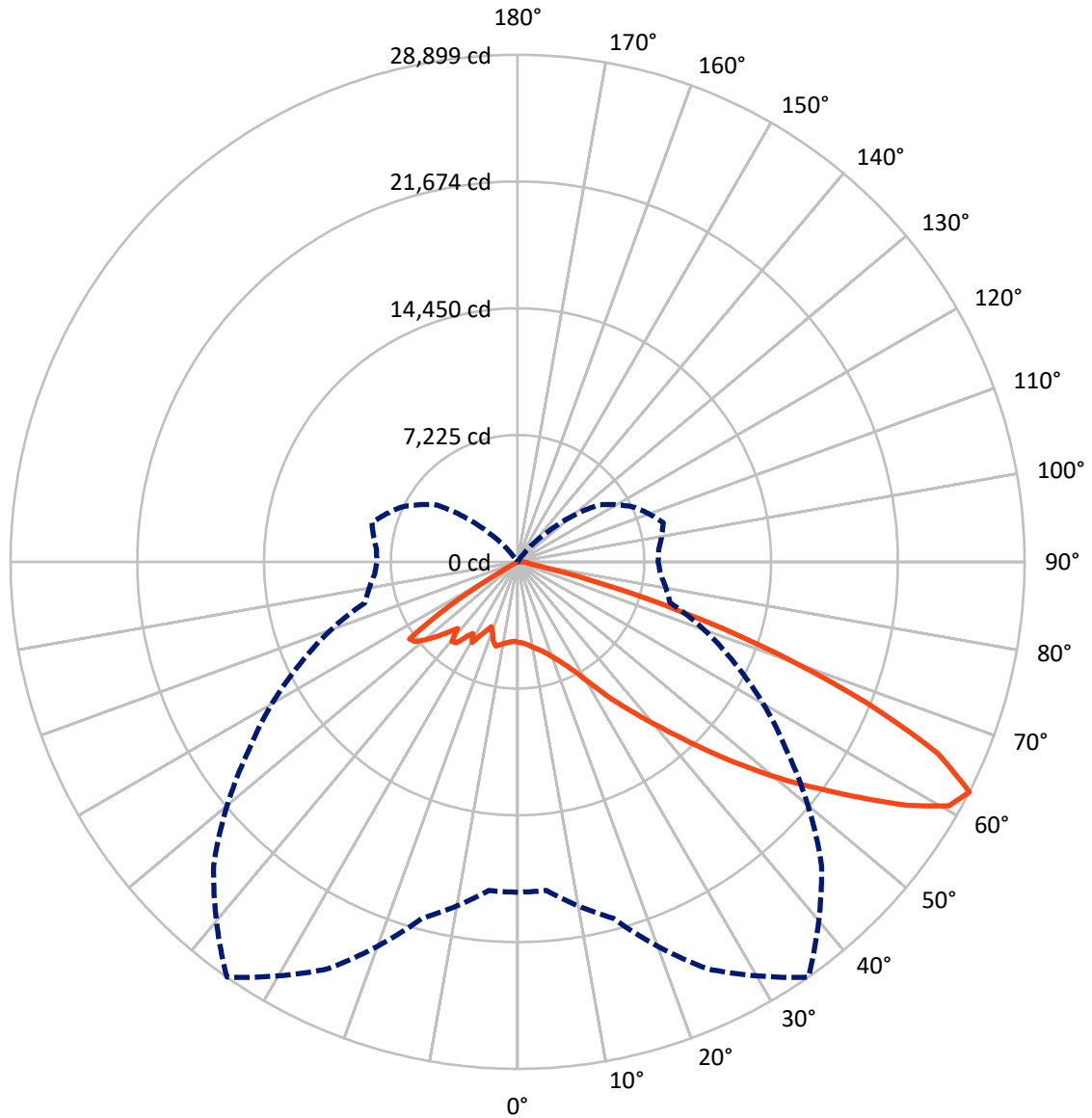
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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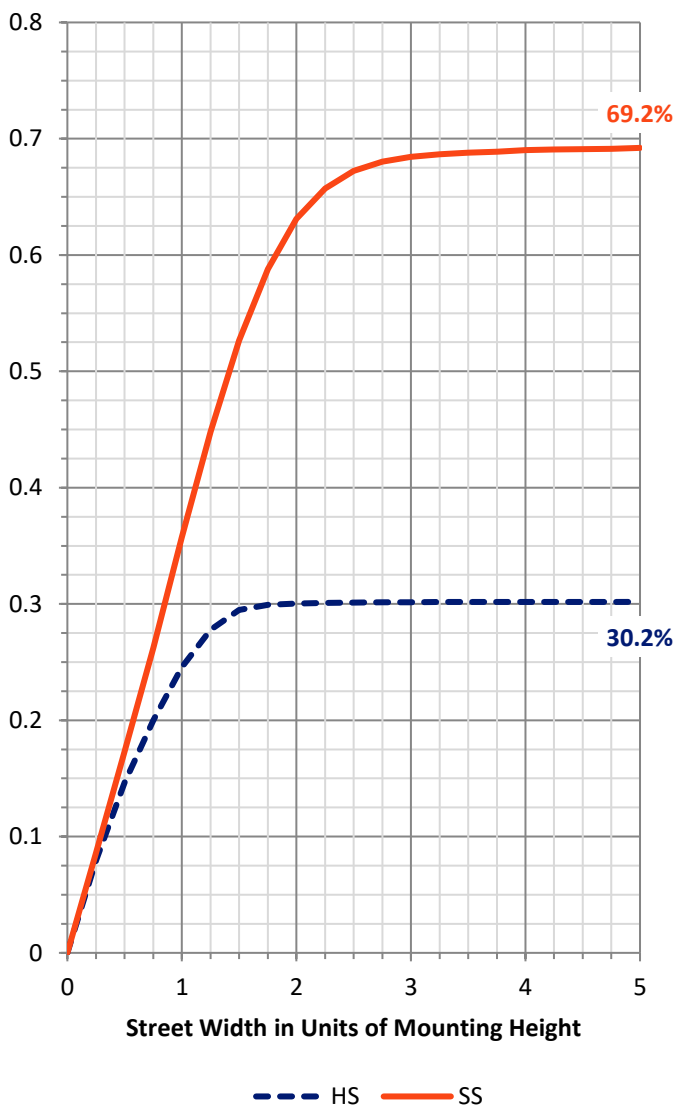
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12371.7	0.0	12371.7
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	28355.9	35.4	28391.3
	% Fixture	69.6	0.1	69.6
Total	Lumens	40727.6	35.4	40763.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	452.9	1.1
10°-20°	1453.6	3.6
20°-30°	2656.8	6.5
30°-40°	5063.0	12.4
40°-50°	8690.3	21.3
50°-60°	11658.2	28.6
60°-70°	8862.6	21.7
70°-80°	1678.1	4.1
80°-90°	211.9	0.5
90°-100°	31.1	0.1
100°-110°	4.2	0.0
110°-120°	0.1	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°	40727.6	99.9
0°-180°	40763.0	100.0

Coefficient of Utilization



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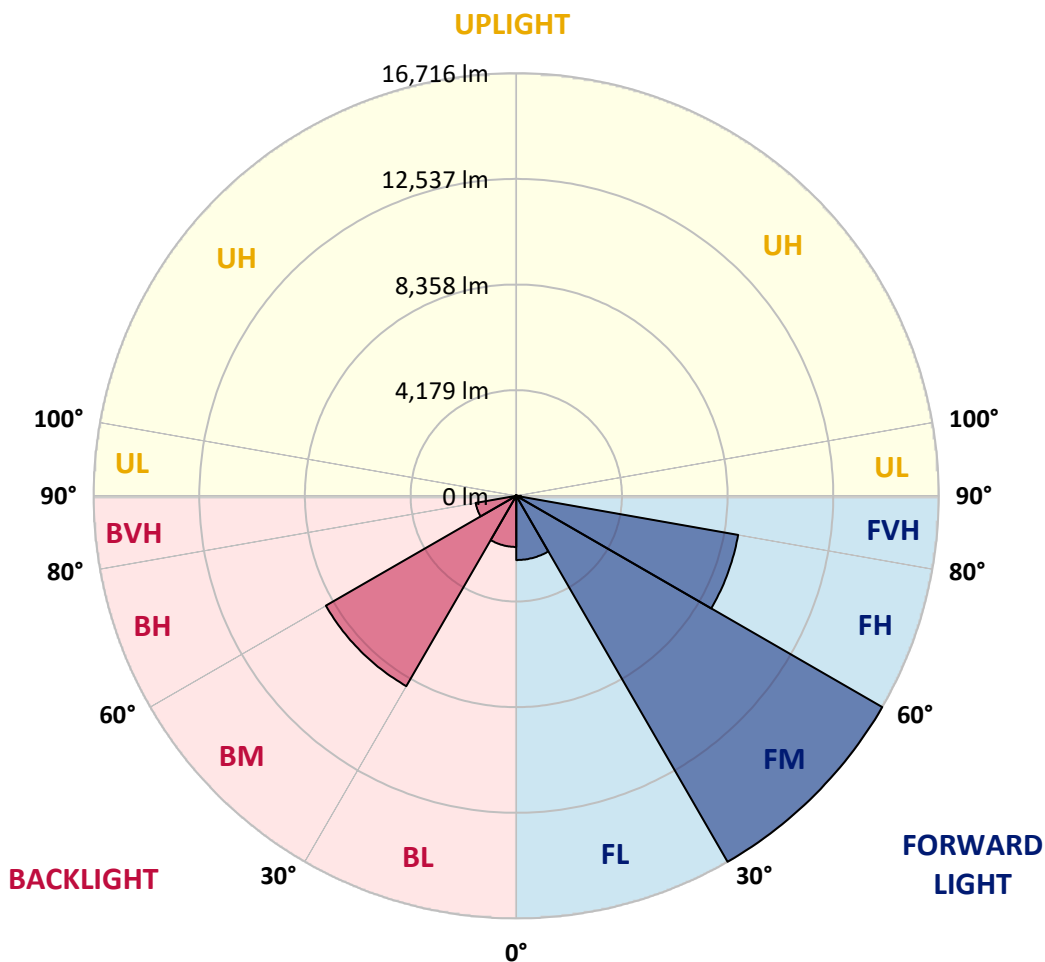
CATALOG NUMBER: CTN-CA8-480-727-U-T5N-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2541.1	6.2			
FM (30°-60°)	16716.2	41.0			
FH (60°-80°)	8911.5	21.9			G4/12000
FVH (80°-90°)	187.1	0.5			G2/225
BL (0°-30°)	2022.3	5.0	B3/2500		
BM (30°-60°)	8695.4	21.3	B5		
BH (60°-80°)	1629.2	4.0	B3/2500		G3/2500
BVH (80°-90°)	24.8	0.1			G1/100
UL (90°-100°)	31.1	0.1		U2/50	
UH (100°-180°)	4.3	0.0		U1/10	

BUG Rating: B5-U2-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4
2.5°	4703.8	4669.2	4671.1	4701.9	4613.5	4646.1	4607.7	4646.1	4625.0	4640.4	4648.1
5°	4786.4	4751.8	4748.0	4780.6	4705.7	4728.8	4690.3	4717.2	4688.4	4707.6	4707.6
7.5°	4911.3	4876.7	4865.2	4890.2	4821.0	4838.3	4797.9	4813.3	4780.6	4805.6	4792.2
10°	5059.3	5020.8	5007.4	5020.8	4961.3	4970.9	4922.8	4940.1	4892.1	4920.9	4901.7
12.5°	5216.8	5166.9	5166.9	5178.4	5115.0	5116.9	5072.7	5082.3	5034.3	5065.0	5042.0
15°	5387.8	5332.1	5339.8	5351.3	5284.1	5295.6	5249.5	5264.9	5214.9	5245.6	5222.6
17.5°	5614.6	5555.0	5547.3	5581.9	5518.5	5539.6	5487.7	5507.0	5462.8	5472.4	5460.8
20°	5927.8	5852.8	5835.5	5881.6	5810.6	5825.9	5787.5	5825.9	5779.8	5710.6	5516.6
22.5°	6302.5	6237.1	6208.3	6239.0	6154.5	6181.4	6179.5	6241.0	6114.1	5678.0	5483.9
25°	6796.3	6752.1	6696.4	6700.2	6598.4	6638.7	6711.7	6759.8	6219.8	5837.5	5841.3
27.5°	7455.3	7411.1	7334.3	7305.5	7157.5	7255.5	7368.9	6900.0	6475.4	6573.4	6519.6
30°	8296.9	8289.3	8133.6	8083.7	7922.3	8045.2	7947.2	7144.1	7290.1	7426.5	7343.9
32.5°	9417.2	9363.4	9138.6	9048.2	8879.2	8950.3	8085.6	7970.3	8187.4	8371.9	8285.4
35°	10771.8	10608.5	10379.8	10201.1	9907.1	9511.3	8612.1	8836.9	9161.6	9415.2	8996.4
37.5°	12345.5	12168.7	11811.3	11490.4	11027.4	9793.8	9405.6	9855.3	10262.6	9987.8	9021.3
40°	13965.3	13807.7	13471.5	13058.4	12276.3	10670.0	10368.3	10906.3	11369.4	9795.7	9315.3
42.5°	15573.6	15439.1	15168.2	14760.8	13753.9	11713.3	11423.2	12001.6	11565.4	10170.4	10155.0
45°	17195.3	17128.1	16820.6	16472.8	15504.4	13048.8	12604.9	13056.5	11129.2	11067.7	11031.2
47.5°	18509.6	18521.1	18413.5	18232.9	17372.1	14514.9	13936.5	12597.2	11659.5	11726.8	11744.1
50°	19864.3	19777.8	19772.0	19783.5	19424.2	16403.7	14843.4	12389.7	12353.2	12347.4	12332.1
52.5°	20949.9	20840.4	21067.1	21247.7	21461.0	18511.5	14707.0	13093.0	12883.5	12810.5	12362.8
55°	21833.8	21791.5	22160.4	22771.5	23720.7	20744.3	15913.7	13778.9	13360.0	11653.8	10512.4
57.5°	22369.9	22431.3	23192.3	24393.2	26170.5	22594.7	17318.3	14474.5	11438.6	10264.5	10191.5
60°	21343.8	21668.5	22963.6	25599.9	28241.9	24335.5	18363.6	14614.8	10293.4	9665.0	9519.0
62.5°	18832.4	18801.7	21026.7	25599.9	28899.0	24508.5	18694.1	13621.4	8992.5	8174.0	8010.6
65°	13329.3	13410.0	15786.9	23069.3	26326.2	22796.4	17243.4	11580.8	7172.9	6421.6	6200.6
67.5°	8248.9	8243.1	10570.1	16989.7	21430.3	19086.1	14516.8	8877.2	4978.6	4269.5	4029.3
70°	2849.6	2930.3	4753.7	9941.7	15775.3	14953.0	10864.0	5605.0	2624.7	1871.5	1579.5
72.5°	1133.7	1160.6	1706.3	4432.9	9855.3	9989.8	6602.2	2722.7	785.9	499.6	468.8
75°	741.7	745.5	818.6	1600.6	4782.6	5374.4	3066.7	782.0	365.1	334.3	326.7
77.5°	639.9	641.8	680.2	810.9	1558.3	2090.6	872.4	463.1	305.5	274.8	267.1
80°	593.7	595.7	614.9	697.5	751.3	712.9	465.0	372.8	257.5	244.0	242.1
82.5°	561.1	568.8	578.4	628.3	607.2	536.1	386.2	301.7	197.9	211.4	217.1
85°	516.9	524.6	530.3	559.2	507.3	392.0	299.8	226.7	126.8	138.3	136.4
87.5°	388.1	392.0	384.3	380.5	353.6	274.8	197.9	144.1	50.0	46.1	42.3
90°	186.4	184.5	176.8	163.3	142.2	111.4	82.6	46.1	21.1	9.6	3.8
92.5°	148.0	146.0	142.2	128.7	111.4	82.6	59.6	32.7	19.2	7.7	1.9
95°	99.9	96.1	92.2	82.6	69.2	50.0	34.6	23.1	15.4	5.8	1.9
97.5°	65.3	63.4	57.6	50.0	38.4	26.9	21.1	17.3	13.5	5.8	1.9
100°	40.4	40.4	36.5	28.8	19.2	15.4	13.5	13.5	9.6	3.8	0.0
102.5°	25.0	23.1	21.1	13.5	9.6	9.6	9.6	9.6	7.7	3.8	0.0
105°	13.5	13.5	9.6	7.7	5.8	3.8	5.8	7.7	5.8	1.9	0.0
107.5°	3.8	3.8	3.8	1.9	1.9	0.0	1.9	3.8	3.8	1.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.8	1.9	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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°	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4	4590.4
2.5°	4638.5	4601.9	4611.6	4575.0	4569.3	4530.8	4596.2	4600.0	4582.7	4601.9
5°	4698.0	4653.8	4671.1	4626.9	4619.2	4569.3	4621.2	4615.4	4601.9	4617.3
7.5°	4782.6	4738.4	4748.0	4696.1	4686.5	4630.8	4680.7	4661.5	4644.2	4665.4
10°	4899.8	4849.8	4857.5	4796.0	4788.3	4723.0	4780.6	4751.8	4726.8	4755.7
12.5°	5043.9	4978.6	4970.9	4905.5	4899.8	4838.3	4897.9	4869.0	4844.0	4890.2
15°	5209.1	5122.7	5111.1	5028.5	5018.9	4955.5	5013.1	4970.9	4951.7	5011.2
17.5°	5430.1	5124.6	4953.6	4832.5	4763.3	4728.8	4832.5	4972.8	4930.5	4932.4
20°	5339.8	5011.2	4782.6	4678.8	4603.9	4269.5	3808.4	3941.0	4210.0	4342.5
22.5°	5312.9	5197.6	5103.4	4928.6	4185.0	3996.7	4023.6	3992.8	3485.6	3291.5
25°	5827.8	5695.3	5491.6	4575.0	4359.8	4317.6	4332.9	3802.6	3420.2	3476.0
27.5°	6486.9	6350.5	5345.6	4832.5	4790.2	4734.5	4430.9	3768.0	3819.9	3873.7
30°	7317.0	6600.3	5574.2	5416.6	5337.9	5280.2	4154.2	4208.0	4294.5	4361.8
32.5°	8125.9	6579.1	6229.4	6033.4	5935.4	4817.1	4694.2	4819.1	4907.5	4959.3
35°	8135.5	7332.4	6963.4	6711.7	6089.2	5178.4	5291.8	5501.2	5718.3	5758.7
37.5°	8356.5	8185.5	7762.8	7445.7	4528.9	5779.8	6029.6	6269.8	6486.9	6500.4
40°	9236.6	9052.1	8656.3	7958.8	5001.6	5895.1	6842.4	7113.3	7295.9	7286.2
42.5°	10114.7	9987.8	9576.7	7073.0	5635.7	5107.3	7695.5	7874.2	7989.5	8070.2
45°	10998.5	10871.7	9482.5	7766.6	6390.8	5593.4	7488.0	8500.6	8627.4	8667.8
47.5°	11688.4	11375.2	8688.9	8687.0	7334.3	6216.0	6183.3	9065.5	9177.0	9148.2
50°	12326.3	10155.0	9392.2	8988.7	8310.4	6802.0	6575.3	7628.3	9674.6	9632.4
52.5°	11215.7	9855.3	9995.5	8175.9	9094.4	7384.2	7017.2	6840.5	8790.8	9922.5
55°	10030.1	10222.3	10612.3	8982.9	6598.4	7572.5	7391.9	7040.3	5931.6	4992.0
57.5°	10235.7	10522.0	10541.2	9730.4	6828.9	4730.7	6058.4	5303.3	3351.1	3358.7
60°	9549.8	9922.5	7705.1	6486.9	3671.9	985.7	96.1	84.5	584.1	710.9
62.5°	8074.1	8592.9	7355.4	5651.1	2355.7	36.5	9.6	1.9	0.0	0.0
65°	6252.5	6877.0	6216.0	4876.7	2090.6	11.5	0.0	0.0	0.0	0.0
67.5°	4123.5	4686.5	4723.0	4079.3	1742.8	5.8	0.0	0.0	0.0	0.0
70°	1727.4	2432.6	2939.9	3032.1	1370.0	1.9	0.0	0.0	0.0	0.0
72.5°	499.6	772.4	1414.2	1821.6	870.4	0.0	0.0	0.0	0.0	0.0
75°	332.4	355.5	409.3	820.5	434.3	0.0	0.0	0.0	0.0	0.0
77.5°	274.8	280.5	234.4	224.8	124.9	0.0	0.0	0.0	0.0	0.0
80°	249.8	245.9	188.3	132.6	46.1	0.0	0.0	0.0	0.0	0.0
82.5°	230.6	219.0	136.4	69.2	30.7	0.0	0.0	0.0	0.0	0.0
85°	155.6	153.7	61.5	42.3	5.8	0.0	0.0	0.0	0.0	0.0
87.5°	42.3	53.8	13.5	5.8	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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
110°	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°
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)