

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: P522145

Luminaire Tested: **CTN-CA10-630-722-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522145
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-CA10-630-722-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49735 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G5

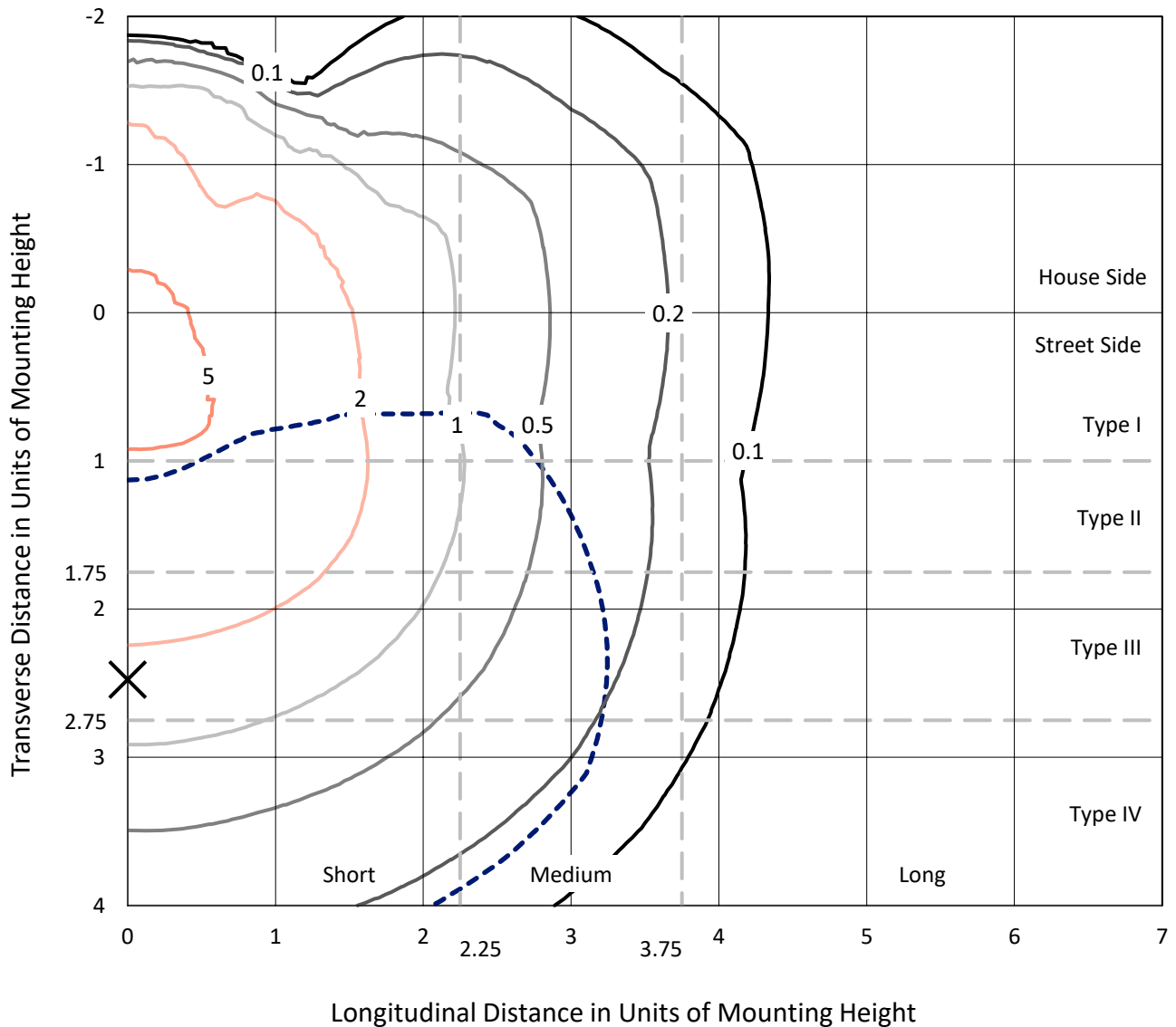
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

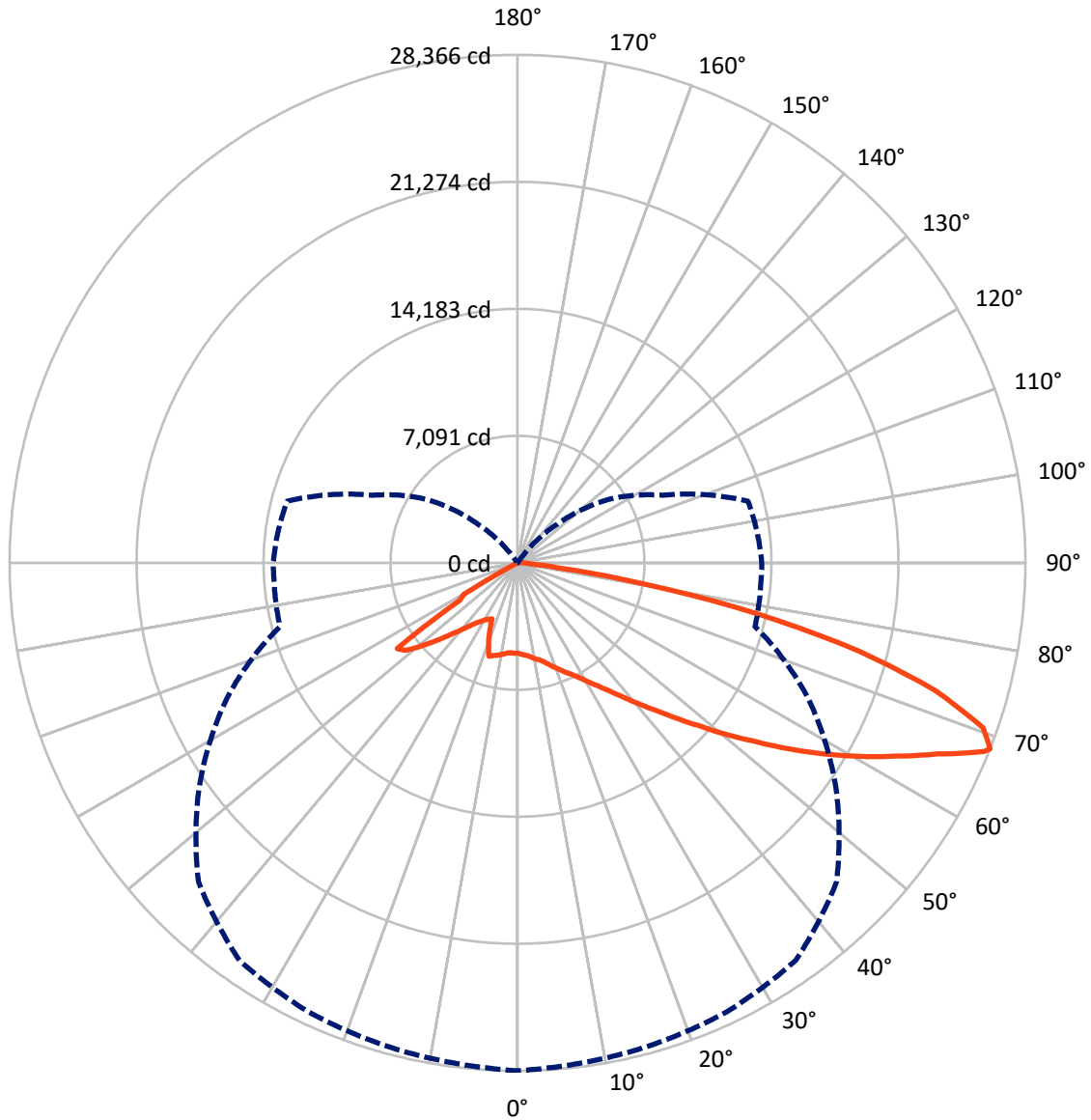
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 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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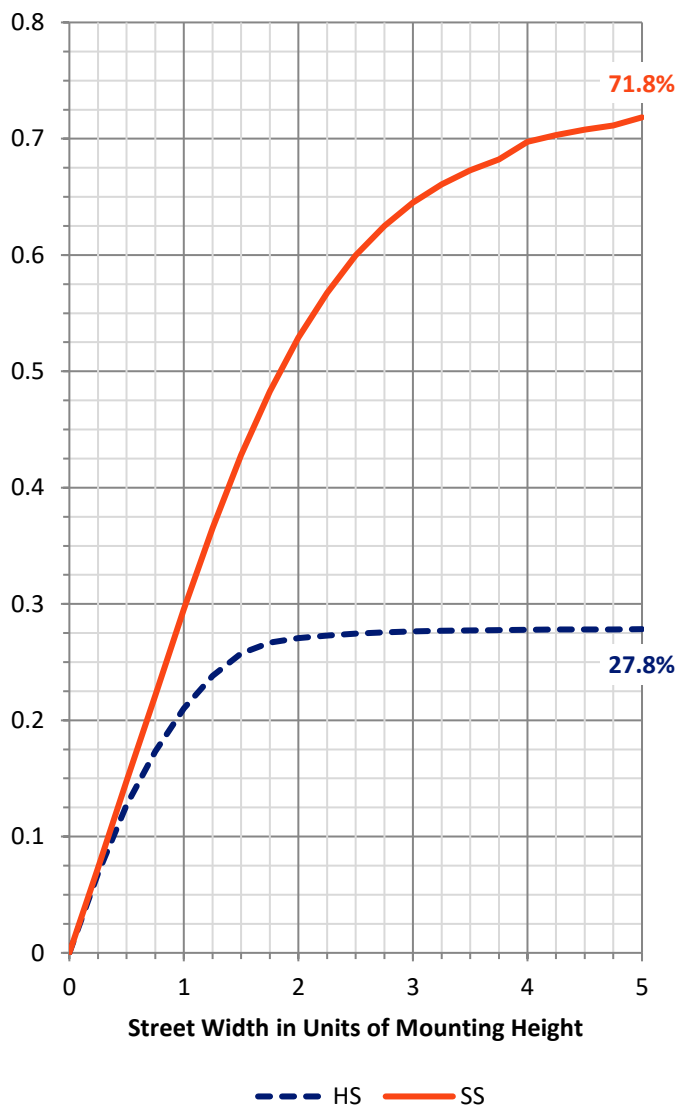
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13891.1	0.3	13891.4
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	35815.2	28.5	35843.6
	% Fixture	72.0	0.1	72.1
Total	Lumens	49706.2	28.8	49735.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	489.0	1.0
10°-20°	1549.6	3.1
20°-30°	2623.5	5.3
30°-40°	4156.2	8.4
40°-50°	6795.1	13.7
50°-60°	10408.4	20.9
60°-70°	12797.9	25.7
70°-80°	9888.8	19.9
80°-90°	997.8	2.0
90°-100°	28.3	0.1
100°-110°	0.5	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°	49706.2	99.9
0°-180°	49735.0	100.0

Coefficient of Utilization

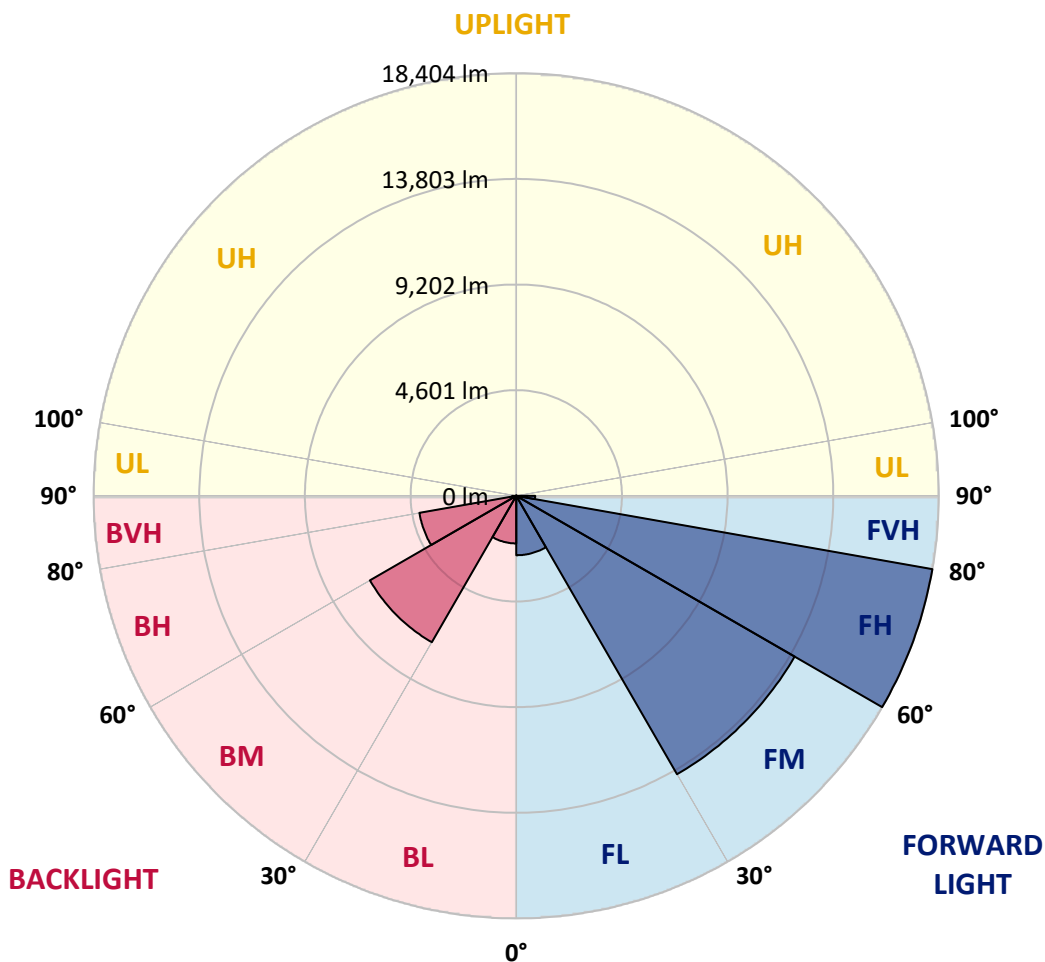


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2588.7	5.2			
FM (30°-60°)	13999.5	28.1			
FH (60°-80°)	18404.0	37.0			G5
FVH (80°-90°)	822.8	1.7			G5
BL (0°-30°)	2073.4	4.2	B3/2500		
BM (30°-60°)	7360.1	14.8	B4/8500		
BH (60°-80°)	4282.7	8.6	B4/5000		G4/5000
BVH (80°-90°)	174.9	0.4			G2/225
UL (90°-100°)	28.3	0.1		U2/50	
UH (100°-180°)	0.5	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°	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7
2.5°	5129.7	5120.1	5110.6	5132.1	5048.3	5084.2	5055.5	5081.8	5062.6	5084.2	5077.0
5°	5196.8	5187.2	5158.5	5182.4	5127.3	5141.7	5105.8	5115.4	5050.7	5089.0	5086.6
7.5°	5307.0	5280.7	5261.5	5261.5	5213.6	5211.2	5153.7	5156.1	5105.8	5101.0	5110.6
10°	5455.6	5436.4	5383.7	5388.5	5321.4	5311.8	5239.9	5237.5	5196.8	5172.9	5194.4
12.5°	5565.8	5585.0	5537.0	5537.0	5470.0	5422.0	5371.7	5338.2	5307.0	5271.1	5254.3
15°	5767.1	5786.2	5721.5	5719.1	5692.8	5635.3	5580.2	5508.3	5453.2	5436.4	5410.1
17.5°	6028.2	6016.2	5961.1	5963.5	5968.3	5874.9	5819.8	5726.3	5647.3	5589.8	5575.4
20°	6294.2	6294.2	6234.3	6253.4	6229.5	6143.2	6107.3	5977.9	5867.7	5805.4	5755.1
22.5°	6591.3	6579.3	6538.6	6579.3	6531.4	6445.1	6385.2	6255.8	6114.5	5762.3	5618.5
25°	6874.0	6866.8	6883.6	6895.5	6835.6	6727.8	6687.1	6550.5	6157.6	5695.2	5405.3
27.5°	7231.0	7207.0	7245.4	7269.3	7209.4	7116.0	7029.7	6876.4	6045.0	5680.8	5649.7
30°	7688.6	7635.9	7691.0	7703.0	7640.7	7583.2	7453.8	6687.1	6083.3	5977.9	5968.3
32.5°	8177.4	8115.1	8187.0	8196.5	8115.1	8067.2	7741.3	6588.9	6459.5	6337.3	6349.3
35°	8757.2	8757.2	8793.1	8797.9	8738.0	8656.6	7415.5	7068.1	6953.1	6840.4	6838.0
37.5°	9464.0	9442.4	9538.3	9595.8	9531.1	9298.7	7889.9	7726.9	7549.6	7405.9	7108.8
40°	10317.0	10355.3	10381.7	10439.2	10376.9	9854.5	8582.3	8397.8	8258.8	7777.3	7027.3
42.5°	11237.0	11246.6	11304.1	11376.0	11376.0	10824.9	9392.1	9234.0	9054.3	7604.7	7266.9
45°	12336.8	12315.2	12425.4	12540.4	12509.3	11939.0	10333.7	10216.3	9375.4	8105.5	8107.9
47.5°	13585.0	13558.7	13716.8	13867.8	13712.0	13175.3	11368.8	11277.7	9049.5	8953.7	8934.5
50°	15027.4	14962.7	15144.8	15346.1	15219.1	14555.4	12626.7	10877.6	9957.6	9880.9	9868.9
52.5°	16568.0	16517.7	16627.9	16970.5	16802.8	16000.2	13817.5	11222.6	11009.4	10923.1	10901.6
55°	18307.5	18209.2	18446.4	18707.6	18513.5	17598.3	14991.5	12367.9	12147.5	11998.9	11783.3
57.5°	20135.6	19994.2	20116.4	20444.7	20257.8	19234.7	16505.7	13546.7	13285.6	10995.0	10120.5
60°	21956.5	21891.8	21939.7	22229.6	21999.6	20825.6	17924.1	14727.9	11244.2	10875.2	10918.4
62.5°	23787.0	23645.6	23688.8	23985.9	23691.2	22339.9	19268.2	15801.3	11833.6	11704.2	11749.7
65°	25749.3	25581.6	25619.9	25706.2	25342.0	23698.4	20456.6	16814.8	12720.1	12583.5	12633.9
67.5°	28114.1	27960.8	27752.3	27495.9	26992.8	25140.7	21637.8	17881.0	13716.8	13640.2	13656.9
68°	28365.7	28217.1	27965.5	27661.3	27095.8	25200.6	21688.2	17912.1	13731.2	13635.4	13640.2
70°	27582.2	27670.8	27385.7	26875.4	26403.4	24323.7	20866.3	17222.1	13120.2	12978.9	12942.9
72.5°	24426.7	24620.8	24227.9	24141.6	23561.8	21669.0	18259.5	14943.5	11411.9	11457.4	11328.1
75°	19721.1	20006.2	19529.4	19555.8	19225.1	18075.1	15302.9	12442.2	9370.6	9579.0	9617.3
77.5°	13714.4	14124.1	13915.7	14124.1	13961.2	13546.7	11843.2	9581.4	7149.5	7389.1	7482.6
80°	7151.9	7638.3	7913.8	8000.1	8052.8	8036.0	7211.8	5750.3	4133.0	4221.7	4216.9
82.5°	2261.8	2144.4	2213.9	2194.7	2134.8	2158.8	1945.5	1521.4	1054.2	1162.0	1111.7
85°	682.8	687.6	668.5	663.7	613.4	539.1	440.9	254.0	124.6	146.2	136.6
87.5°	503.1	507.9	469.6	445.6	416.9	361.8	280.3	158.1	59.9	57.5	45.5
90°	277.9	268.3	249.2	230.0	218.0	186.9	141.4	59.9	21.6	16.8	14.4
92.5°	150.9	143.8	134.2	127.0	110.2	88.7	57.5	19.2	9.6	2.4	0.0
95°	69.5	64.7	62.3	55.1	47.9	33.5	19.2	12.0	7.2	2.4	0.0
97.5°	31.1	28.8	26.4	21.6	16.8	9.6	9.6	7.2	4.8	2.4	0.0
100°	7.2	7.2	4.8	4.8	4.8	4.8	4.8	4.8	4.8	2.4	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	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°	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7	5038.7
2.5°	5069.8	5055.5	5048.3	5002.7	5017.1	4976.4	5055.5	5036.3	5024.3	5057.9
5°	5074.6	5024.3	5055.5	5029.1	5038.7	4981.2	5043.5	5017.1	5014.7	5029.1
7.5°	5086.6	5053.1	5084.2	5031.5	5055.5	5031.5	5077.0	5050.7	5072.2	5086.6
10°	5151.3	5132.1	5117.8	5105.8	5122.5	5074.6	5132.1	5134.5	5141.7	5184.8
12.5°	5242.3	5223.2	5199.2	5168.1	5184.8	5165.7	5208.8	5220.8	5247.1	5268.7
15°	5369.3	5333.4	5323.8	5295.1	5311.8	5302.2	5311.8	5304.6	5355.0	5347.8
17.5°	5544.2	5503.5	5366.9	5228.0	5139.3	5165.7	5275.9	5419.6	5455.6	5460.4
20°	5608.9	5321.4	5307.0	5148.9	5077.0	5072.2	4844.6	4504.4	4607.4	4849.4
22.5°	5532.3	5139.3	5098.6	5067.4	4760.8	4257.6	4209.7	4159.4	4147.4	4183.3
25°	5359.7	5314.2	5278.3	4871.0	4387.0	4389.4	4319.9	3989.3	3474.1	3431.0
27.5°	5623.3	5561.0	5213.6	4585.9	4576.3	4571.5	4468.4	3620.3	3510.1	3536.4
30°	5922.8	5819.8	4911.7	4830.2	4827.8	4784.7	4006.0	3651.4	3651.4	3656.2
32.5°	6267.8	5628.1	5084.2	5122.5	5120.1	4916.5	3869.5	3845.5	3835.9	3859.9
35°	6531.4	5474.7	5455.6	5525.1	5477.1	4171.4	4111.5	4089.9	4080.3	4068.3
37.5°	6449.9	5915.6	5915.6	5958.7	5573.0	4442.1	4413.3	4413.3	4394.2	4384.6
40°	6574.5	6464.3	6409.2	6425.9	4049.2	4770.3	4791.9	4787.1	4784.7	4801.5
42.5°	7231.0	7132.7	7082.4	6488.2	4533.1	4741.6	5268.7	5266.3	5273.5	5266.3
45°	8067.2	7976.1	7844.3	6071.3	5146.5	4157.0	5807.8	5834.1	5836.5	5834.1
47.5°	8944.1	8886.6	7537.7	6720.6	5812.6	4461.3	5551.4	6483.4	6471.5	6485.8
50°	9871.3	9612.6	7499.3	7489.7	6521.8	4964.4	4966.8	7051.3	7173.5	7211.8
52.5°	10904.0	8714.1	8311.6	7583.2	7240.6	5481.9	5429.2	6248.6	7916.2	7954.6
55°	10127.7	9205.2	9198.1	6749.4	7532.9	5980.3	5987.5	5930.0	7259.7	8251.7
57.5°	10077.4	10098.9	10082.2	7530.5	5496.3	5606.5	6524.2	6473.9	4700.9	3809.6
60°	10947.1	10978.2	9794.6	8131.9	5942.0	3447.8	4018.0	3414.2	3459.8	3495.7
62.5°	11778.5	11788.1	7966.5	5331.0	2944.6	139.0	67.1	55.1	52.7	52.7
65°	12698.5	12698.5	8539.2	5815.0	2844.0	52.7	9.6	7.2	26.4	26.4
67.5°	13587.4	13391.0	8958.5	6174.4	2894.3	7.2	0.0	0.0	0.0	0.0
68°	13537.1	13321.5	8920.1	6164.8	2887.1	4.8	0.0	0.0	0.0	0.0
70°	12784.8	12576.3	8462.5	5884.5	2779.3	4.8	0.0	0.0	0.0	0.0
72.5°	11284.9	11093.3	7494.5	5187.2	2506.2	2.4	0.0	0.0	0.0	0.0
75°	9552.7	9526.3	6473.9	4377.4	2149.2	2.4	0.0	0.0	0.0	0.0
77.5°	7686.2	7566.4	5060.2	3431.0	1732.3	0.0	0.0	0.0	0.0	0.0
80°	4281.6	4458.9	2961.4	2017.4	1090.2	0.0	0.0	0.0	0.0	0.0
82.5°	1157.2	1083.0	646.9	438.5	208.4	0.0	0.0	0.0	0.0	0.0
85°	148.5	162.9	74.3	59.9	14.4	0.0	0.0	0.0	0.0	0.0
87.5°	76.7	91.0	24.0	19.2	4.8	0.0	0.0	0.0	0.0	0.0
90°	14.4	16.8	7.2	2.4	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)