

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: P522154

Luminaire Tested: **CTN-CA10-630-740-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522154
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-CA10-630-740-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 61025 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

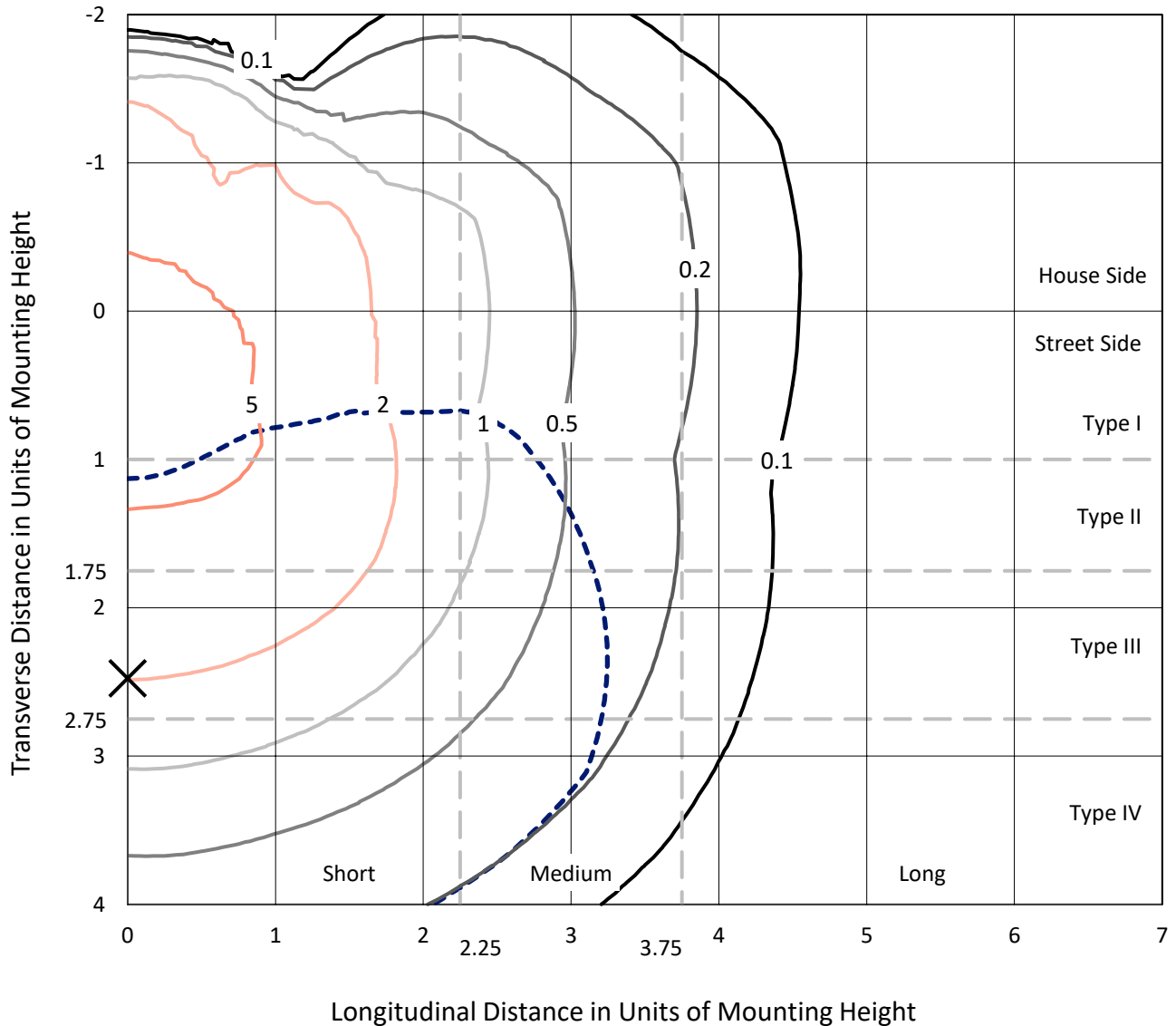
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

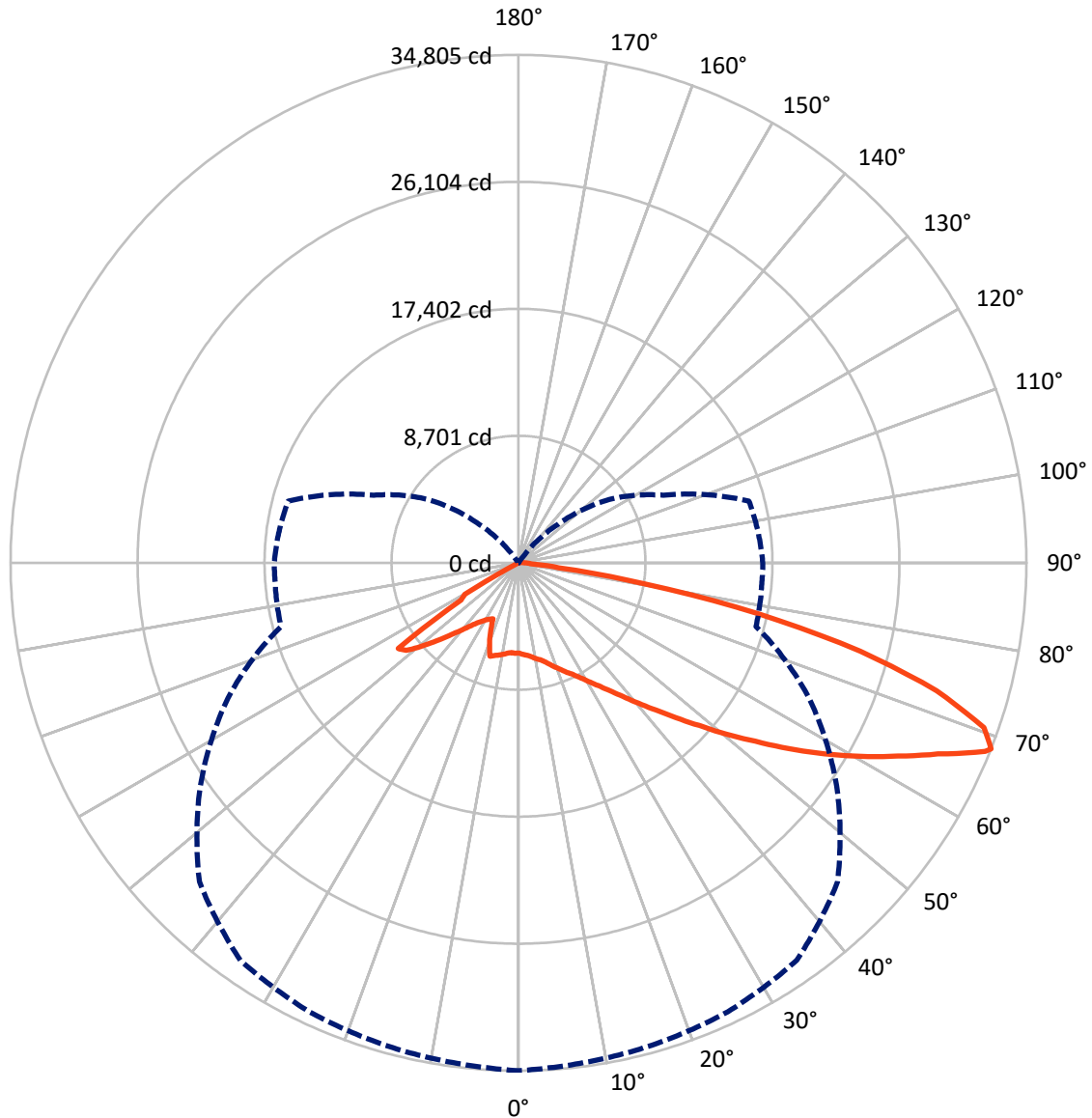
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.1 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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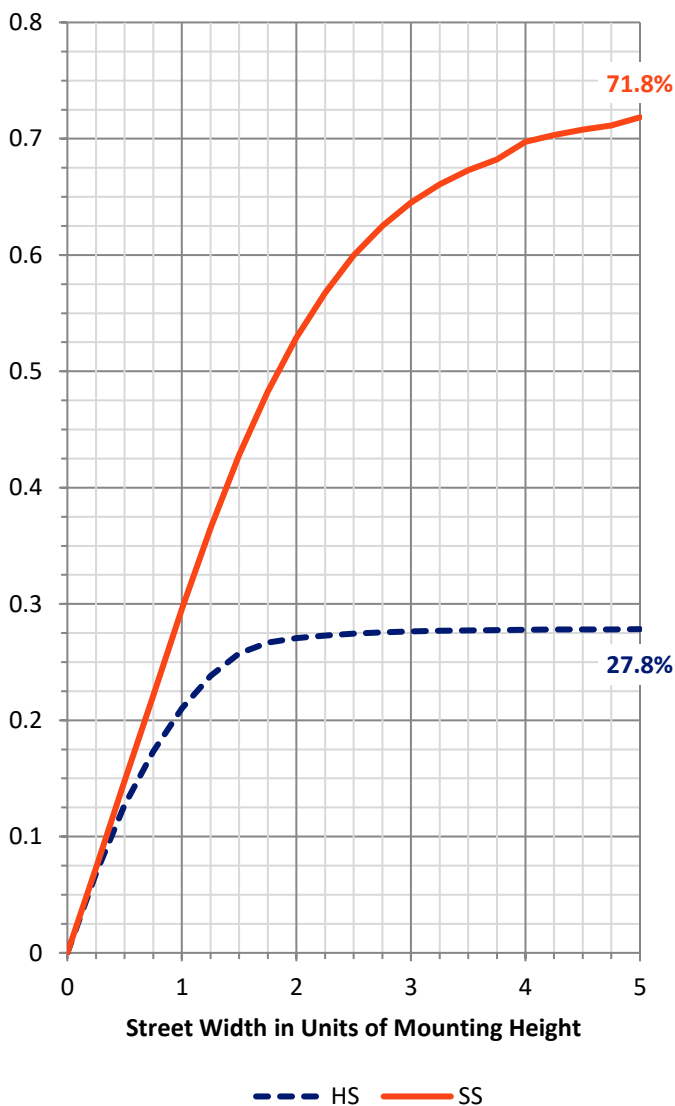
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17044.4	0.4	17044.7
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	43945.3	34.9	43980.3
	% Fixture	72.0	0.1	72.1
Total	Lumens	60989.7	35.3	61025.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	600.1	1.0
10°-20°	1901.4	3.1
20°-30°	3219.0	5.3
30°-40°	5099.6	8.4
40°-50°	8337.6	13.7
50°-60°	12771.1	20.9
60°-70°	15703.0	25.7
70°-80°	12133.6	19.9
80°-90°	1224.3	2.0
90°-100°	34.8	0.1
100°-110°	0.6	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°	60989.7	99.9
0°-180°	61025.0	100.0

Coefficient of Utilization

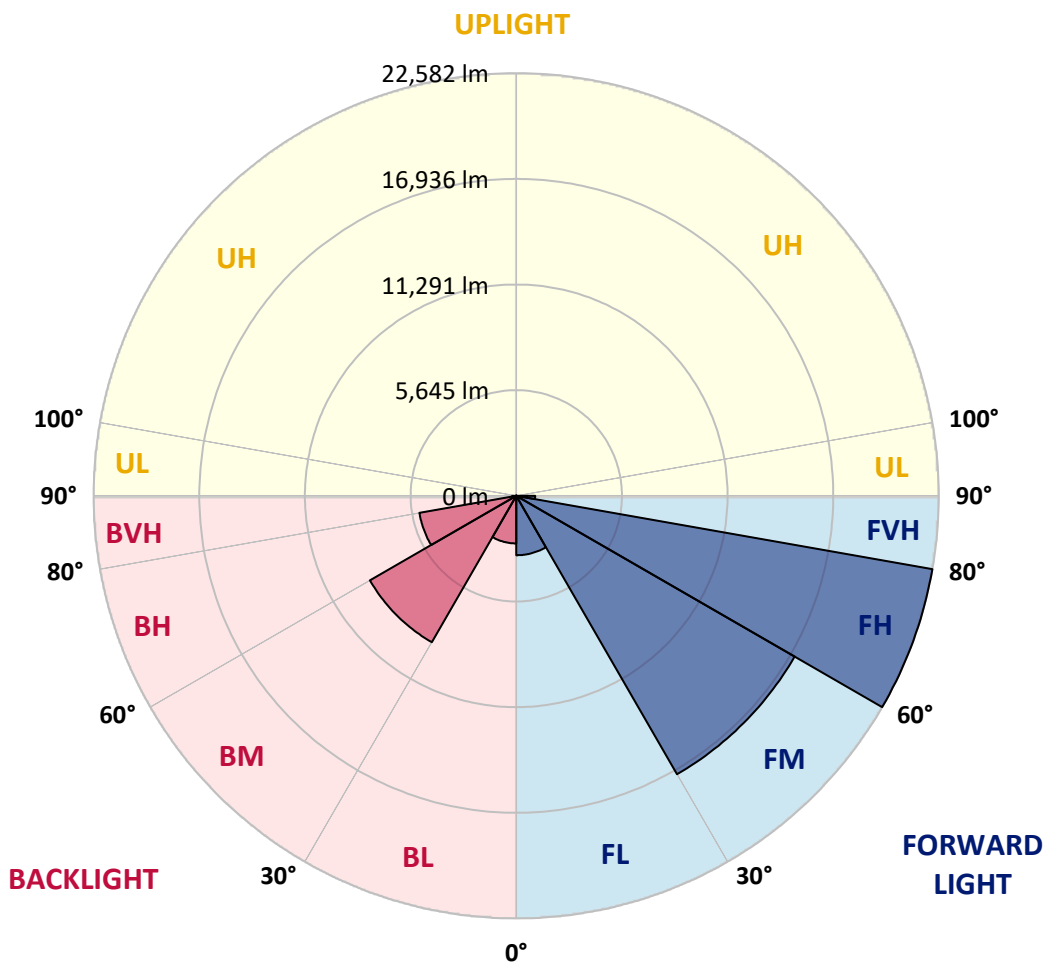


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3176.4	5.2			
FM	(30°-60°)	17177.5	28.1			
FH	(60°-80°)	22581.8	37.0			G5
FVH	(80°-90°)	1009.6	1.7			G5
BL	(0°-30°)	2544.1	4.2	B4/5000		
BM	(30°-60°)	9030.9	14.8	B5		
BH	(60°-80°)	5254.8	8.6	B5		G5
BVH	(80°-90°)	214.6	0.4			G2/225
UL	(90°-100°)	34.8	0.1		U2/50	
UH	(100°-180°)	0.6	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°	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5
2.5°	6294.2	6282.4	6270.7	6297.1	6194.2	6238.3	6203.1	6235.4	6211.9	6238.3	6229.5
5°	6376.5	6364.8	6329.5	6358.9	6291.3	6308.9	6264.8	6276.6	6197.2	6244.2	6241.3
7.5°	6511.7	6479.4	6455.9	6455.9	6397.1	6394.2	6323.6	6326.5	6264.8	6258.9	6270.7
10°	6694.0	6670.5	6605.8	6611.7	6529.4	6517.6	6429.4	6426.5	6376.5	6347.1	6373.6
12.5°	6829.2	6852.8	6794.0	6794.0	6711.7	6652.9	6591.1	6550.0	6511.7	6467.6	6447.1
15°	7076.2	7099.7	7020.3	7017.4	6985.1	6914.5	6846.9	6758.7	6691.1	6670.5	6638.2
17.5°	7396.6	7381.9	7314.3	7317.3	7323.1	7208.5	7140.9	7026.2	6929.2	6858.6	6841.0
20°	7723.0	7723.0	7649.5	7673.0	7643.6	7537.7	7493.7	7334.9	7199.7	7123.2	7061.5
22.5°	8087.5	8072.8	8022.8	8072.8	8014.0	7908.2	7834.7	7675.9	7502.5	7070.3	6893.9
25°	8434.4	8425.6	8446.2	8460.9	8387.4	8255.1	8205.1	8037.5	7555.4	6988.0	6632.3
27.5°	8872.4	8843.0	8890.1	8919.5	8846.0	8731.3	8625.5	8437.3	7417.2	6970.4	6932.1
30°	9433.9	9369.3	9436.9	9451.6	9375.1	9304.6	9145.8	8205.1	7464.3	7334.9	7323.1
32.5°	10033.7	9957.2	10045.4	10057.2	9957.2	9898.4	9498.6	8084.6	7925.8	7775.9	7790.6
35°	10745.1	10745.1	10789.2	10795.1	10721.6	10621.6	9098.8	8672.5	8531.4	8393.2	8390.3
37.5°	11612.4	11585.9	11703.5	11774.1	11694.7	11409.5	9680.9	9481.0	9263.4	9087.0	8722.5
40°	12658.9	12706.0	12738.3	12808.9	12732.4	12091.6	10530.5	10304.1	10133.6	9542.7	8622.5
42.5°	13787.8	13799.6	13870.2	13958.4	13958.4	13282.2	11524.2	11330.1	11109.7	9331.1	8916.5
45°	15137.2	15110.8	15246.0	15387.1	15348.9	14649.2	12679.5	12535.5	11503.6	9945.5	9948.4
47.5°	16668.9	16636.6	16830.6	17015.8	16824.7	16166.2	13949.5	13837.8	11103.8	10986.2	10962.7
50°	18438.7	18359.3	18582.7	18829.7	18673.9	17859.5	15493.0	13346.9	12218.0	12123.9	12109.2
52.5°	20329.0	20267.3	20402.5	20822.9	20617.1	19632.2	16954.1	13770.2	13508.6	13402.7	13376.3
55°	22463.3	22342.8	22633.8	22954.3	22716.1	21593.1	18394.6	15175.5	14905.0	14722.7	14458.1
57.5°	24706.4	24533.0	24682.9	25085.7	24856.3	23601.0	20252.6	16621.9	16301.4	13490.9	12417.9
60°	26940.7	26861.3	26920.1	27275.8	26993.6	25553.1	21992.9	18071.2	13796.7	13343.9	13396.8
62.5°	29186.7	29013.3	29066.2	29430.7	29069.1	27411.1	23642.2	19388.2	14519.9	14361.1	14417.0
65°	31594.5	31388.7	31435.7	31541.5	31094.7	29078.0	25100.4	20631.8	15607.6	15440.0	15501.8
67.5°	34496.1	34307.9	34052.2	33737.6	33120.2	30847.7	26549.7	21940.0	16830.6	16736.5	16757.1
68°	34804.8	34622.5	34313.8	33940.4	33246.6	30921.2	26611.4	21978.2	16848.2	16730.6	16736.5
70°	33843.4	33952.2	33602.4	32976.2	32397.0	29845.3	25603.1	21131.6	16098.6	15925.1	15881.0
72.5°	29971.7	30209.8	29727.7	29621.8	28910.4	26587.9	22404.5	18335.8	14002.5	14058.3	13899.6
75°	24197.8	24547.7	23962.6	23995.0	23589.3	22178.2	18776.8	15266.6	11497.7	11753.5	11800.5
77.5°	16827.6	17330.4	17074.6	17330.4	17130.4	16621.9	14531.6	11756.4	8772.5	9066.5	9181.1
80°	8775.4	9372.2	9710.3	9816.1	9880.8	9860.2	8848.9	7055.6	5071.2	5180.0	5174.1
82.5°	2775.2	2631.2	2716.4	2692.9	2619.4	2648.8	2387.1	1866.8	1293.5	1425.8	1364.1
85°	837.9	843.7	820.2	814.3	752.6	661.5	540.9	311.6	152.9	179.3	167.6
87.5°	617.4	623.2	576.2	546.8	511.5	443.9	344.0	194.0	73.5	70.6	55.9
90°	341.0	329.3	305.7	282.2	267.5	229.3	173.5	73.5	26.5	20.6	17.6
92.5°	185.2	176.4	164.6	155.8	135.2	108.8	70.6	23.5	11.8	2.9	0.0
95°	85.3	79.4	76.4	67.6	58.8	41.2	23.5	14.7	8.8	2.9	0.0
97.5°	38.2	35.3	32.3	26.5	20.6	11.8	11.8	8.8	5.9	2.9	0.0
100°	8.8	8.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9	2.9	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	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°	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5	6182.5
2.5°	6220.7	6203.1	6194.2	6138.4	6156.0	6106.0	6203.1	6179.5	6164.8	6206.0
5°	6226.6	6164.8	6203.1	6170.7	6182.5	6111.9	6188.4	6156.0	6153.1	6170.7
7.5°	6241.3	6200.1	6238.3	6173.7	6203.1	6173.7	6229.5	6197.2	6223.6	6241.3
10°	6320.7	6297.1	6279.5	6264.8	6285.4	6226.6	6297.1	6300.1	6308.9	6361.8
12.5°	6432.4	6408.9	6379.5	6341.2	6361.8	6338.3	6391.2	6405.9	6438.2	6464.7
15°	6588.2	6544.1	6532.3	6497.0	6517.6	6505.9	6517.6	6508.8	6570.5	6561.7
17.5°	6802.8	6752.8	6585.2	6414.7	6306.0	6338.3	6473.5	6649.9	6694.0	6699.9
20°	6882.2	6529.4	6511.7	6317.7	6229.5	6223.6	5944.4	5526.9	5653.3	5950.2
22.5°	6788.1	6306.0	6256.0	6217.8	5841.5	5224.1	5165.3	5103.6	5088.9	5133.0
25°	6576.4	6520.6	6476.5	5976.7	5382.8	5385.8	5300.5	4894.8	4262.8	4209.9
27.5°	6899.8	6823.4	6397.1	5626.9	5615.1	5609.2	5482.8	4442.1	4306.9	4339.2
30°	7267.3	7140.9	6026.7	5926.7	5923.8	5870.9	4915.4	4480.3	4480.3	4486.2
32.5°	7690.6	6905.7	6238.3	6285.4	6282.4	6032.6	4747.8	4718.4	4706.7	4736.1
35°	8014.0	6717.5	6694.0	6779.3	6720.5	5118.3	5044.8	5018.3	5006.5	4991.8
37.5°	7914.0	7258.5	7258.5	7311.4	6838.1	5450.5	5415.2	5415.2	5391.7	5379.9
40°	8066.9	7931.7	7864.1	7884.7	4968.3	5853.2	5879.7	5873.8	5870.9	5891.4
42.5°	8872.4	8751.9	8690.2	7961.1	5562.2	5817.9	6464.7	6461.8	6470.6	6461.8
45°	9898.4	9786.7	9625.0	7449.6	6314.8	5100.6	7126.2	7158.5	7161.4	7158.5
47.5°	10974.4	10903.9	9248.7	8246.3	7132.1	5474.0	6811.6	7955.2	7940.5	7958.1
50°	12112.1	11794.6	9201.7	9189.9	8002.2	6091.3	6094.3	8651.9	8801.9	8848.9
52.5°	13379.2	10692.2	10198.3	9304.6	8884.2	6726.4	6661.7	7667.1	9713.2	9760.3
55°	12426.7	11294.9	11286.0	8281.5	9242.9	7337.8	7346.7	7276.1	8907.7	10124.8
57.5°	12365.0	12391.4	12370.8	9239.9	6744.0	6879.2	8005.2	7943.4	5768.0	4674.3
60°	13432.1	13470.3	12018.1	9977.8	7290.8	4230.4	4930.1	4189.3	4245.1	4289.2
62.5°	14452.3	14464.0	9775.0	6541.1	3613.1	170.5	82.3	67.6	64.7	64.7
65°	15581.2	15581.2	10477.6	7135.0	3489.6	64.7	11.8	8.8	32.3	32.3
67.5°	16671.8	16430.8	10992.1	7576.0	3551.3	8.8	0.0	0.0	0.0	0.0
68°	16610.1	16345.5	10945.0	7564.2	3542.5	5.9	0.0	0.0	0.0	0.0
70°	15687.0	15431.2	10383.5	7220.2	3410.2	5.9	0.0	0.0	0.0	0.0
72.5°	13846.6	13611.5	9195.8	6364.8	3075.1	2.9	0.0	0.0	0.0	0.0
75°	11721.1	11688.8	7943.4	5371.1	2637.0	2.9	0.0	0.0	0.0	0.0
77.5°	9431.0	9284.0	6208.9	4209.9	2125.5	0.0	0.0	0.0	0.0	0.0
80°	5253.5	5471.0	3633.6	2475.3	1337.6	0.0	0.0	0.0	0.0	0.0
82.5°	1419.9	1328.8	793.8	538.0	255.8	0.0	0.0	0.0	0.0	0.0
85°	182.3	199.9	91.1	73.5	17.6	0.0	0.0	0.0	0.0	0.0
87.5°	94.1	111.7	29.4	23.5	5.9	0.0	0.0	0.0	0.0	0.0
90°	17.6	20.6	8.8	2.9	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)