

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: P510715

Luminaire Tested: **CTN-CA8-230-730-U-T1**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510715
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-730-U-T1
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36573 lumens
Efficiency: N/A
Efficacy: 160.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

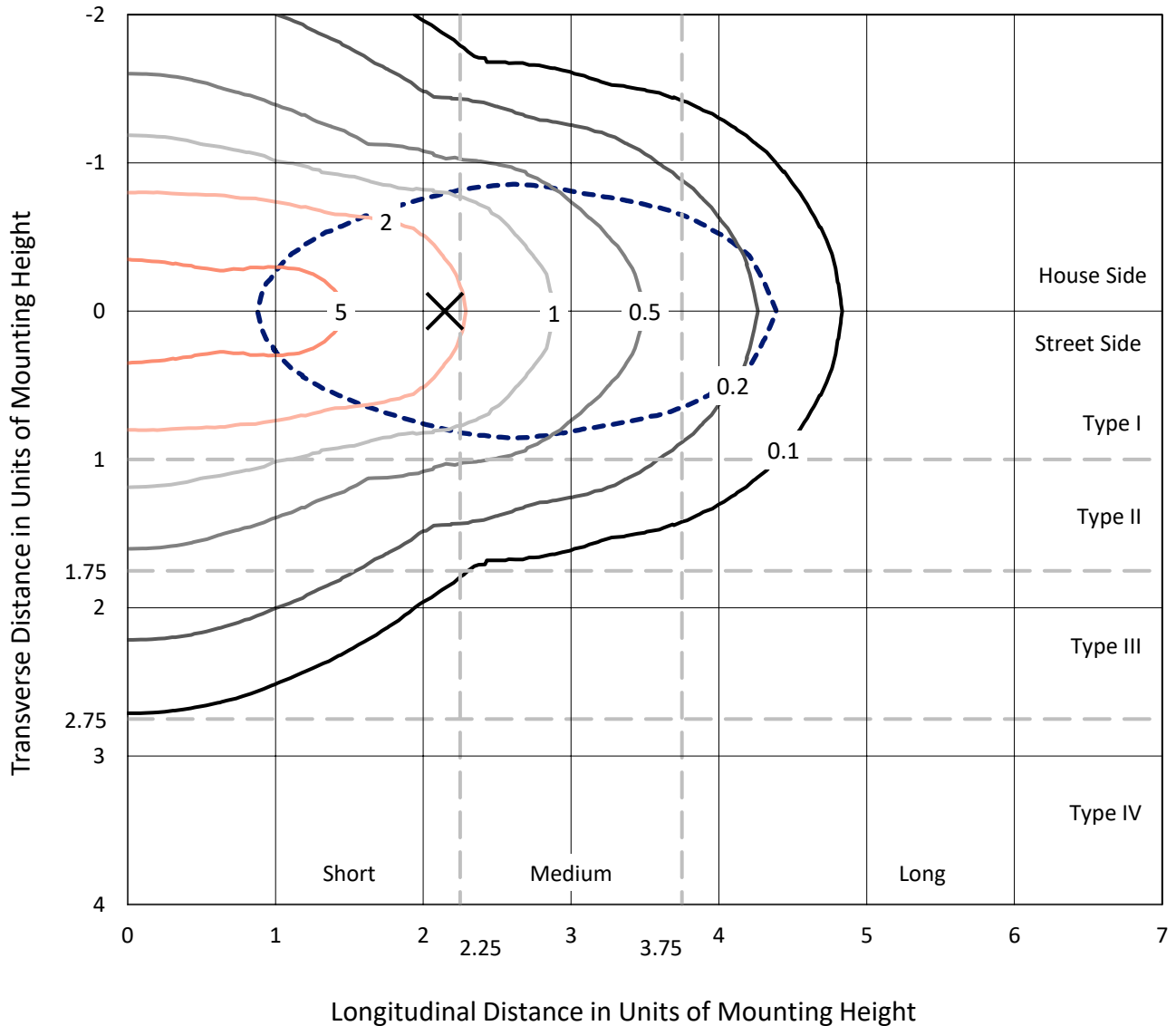
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

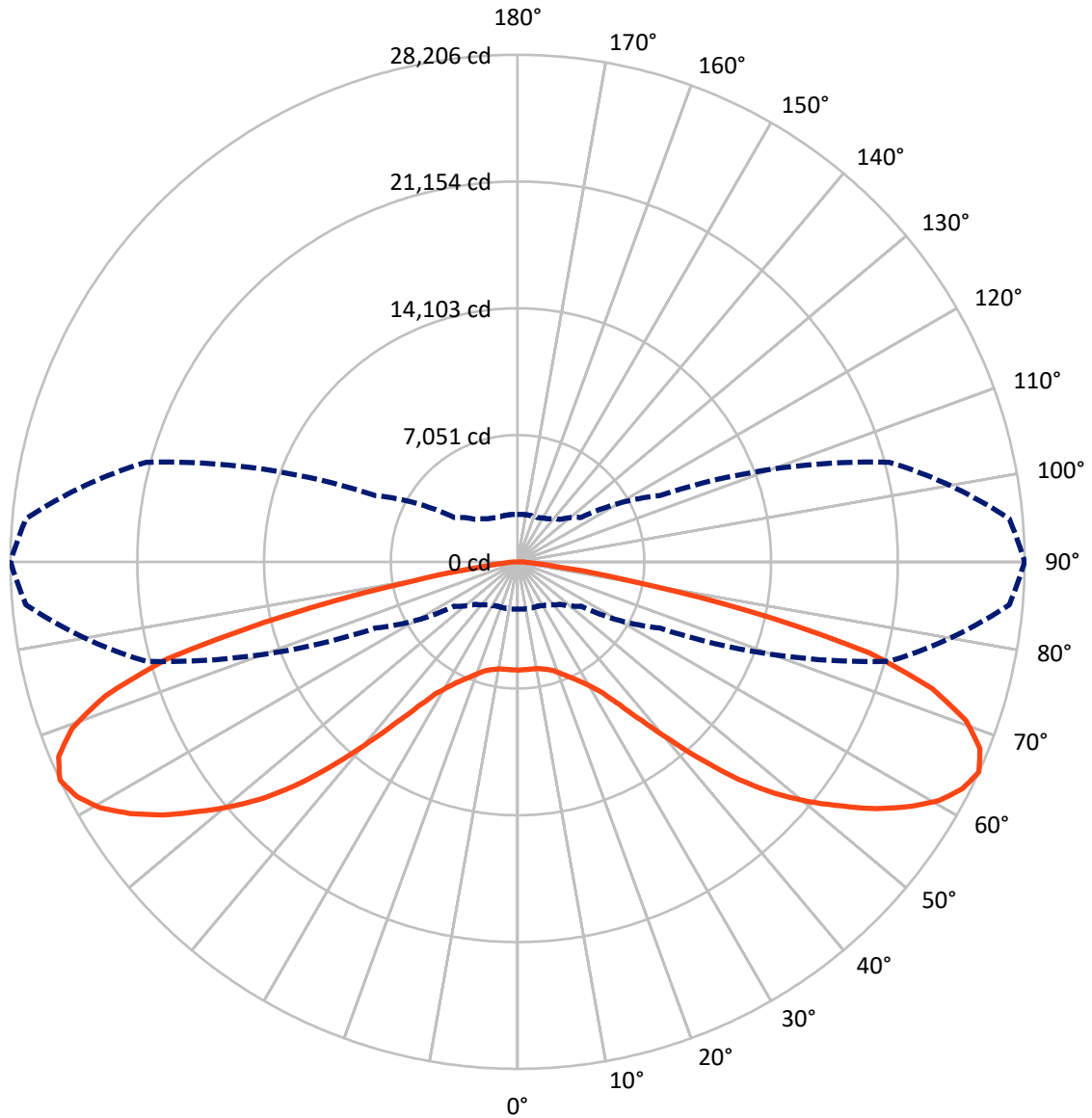
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.8 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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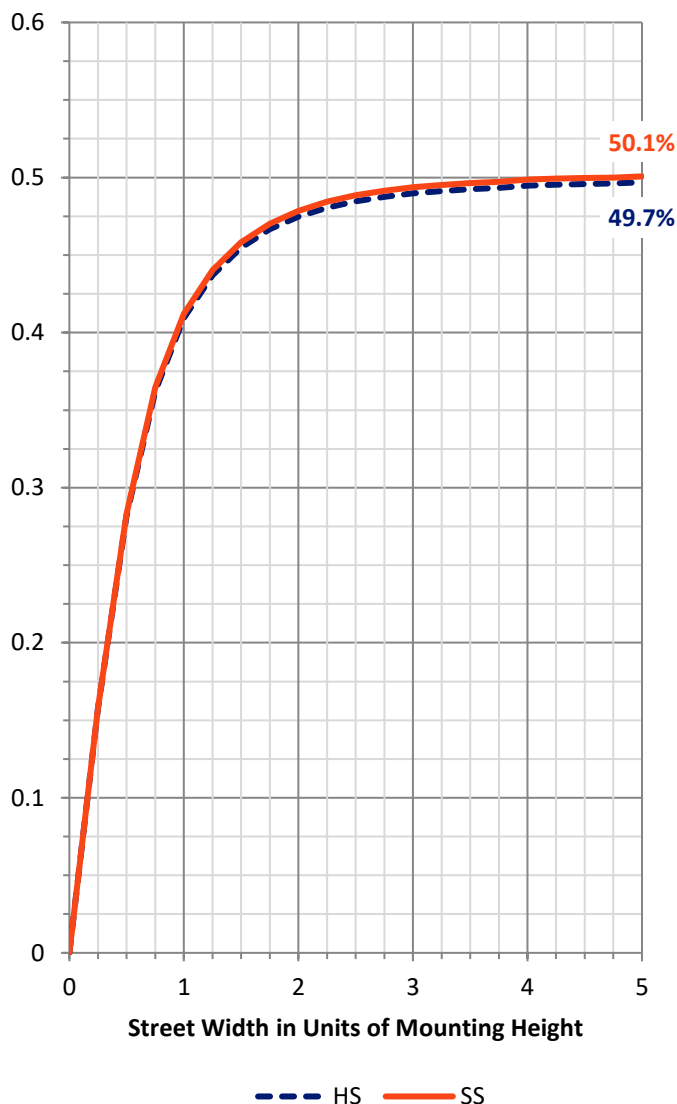
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18286.5	0.0	18286.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	18286.5	0.0	18286.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	36573.0	0.0	36573.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	571.8	1.6
10°-20°	1687.3	4.6
20°-30°	2779.4	7.6
30°-40°	4072.2	11.1
40°-50°	6021.2	16.5
50°-60°	7898.3	21.6
60°-70°	8240.2	22.5
70°-80°	4737.7	13.0
80°-90°	564.8	1.5
90°-100°	0.0	0.0
100°-110°	0.0	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°	36573.0	100.0
0°-180°	36573.0	100.0

Coefficient of Utilization



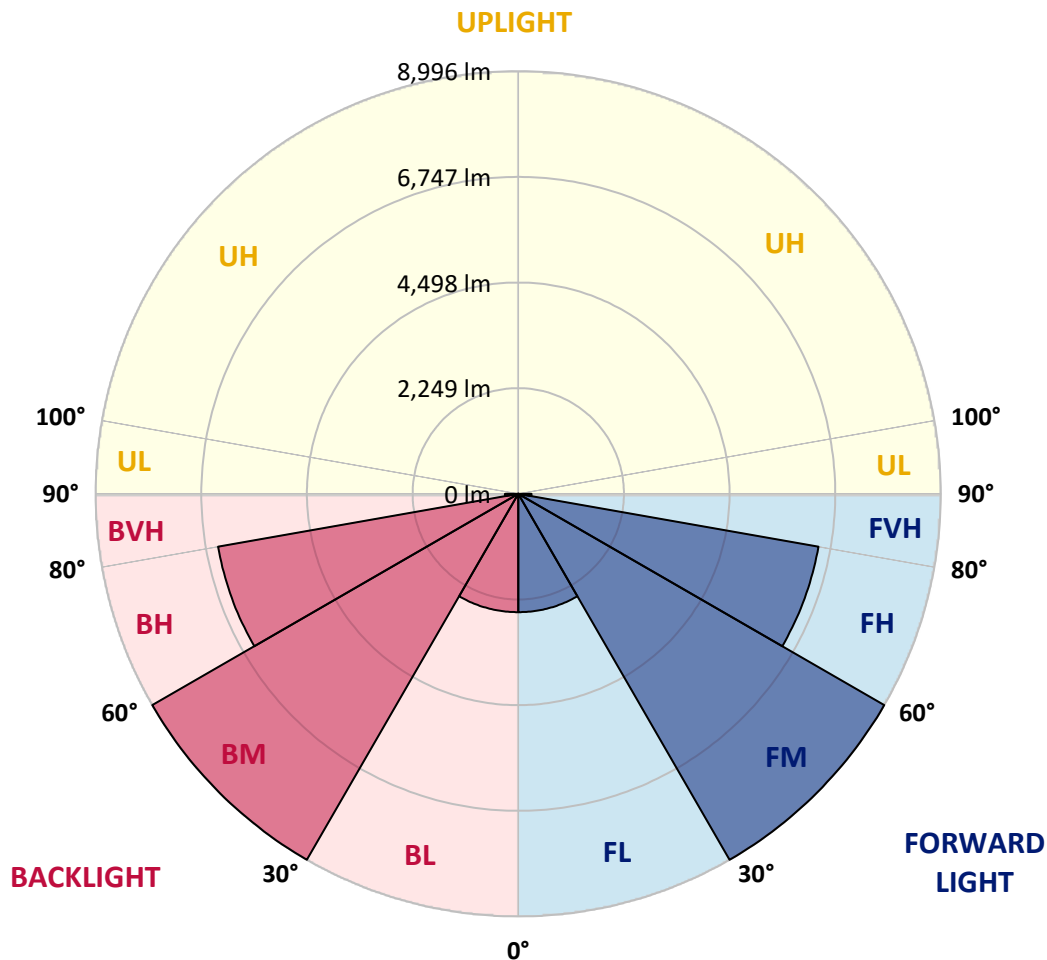
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2519.3	6.9			
FM (30°-60°)	8995.9	24.6			
FH (60°-80°)	6488.9	17.7			G3/7500
FVH (80°-90°)	282.4	0.8			G3/500
BL (0°-30°)	2519.3	6.9	B4/5000		
BM (30°-60°)	8995.9	24.6	B5		
BH (60°-80°)	6488.9	17.7	B5		G5
BVH (80°-90°)	282.4	0.8			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3
2.5°	6023.9	6019.6	6018.1	6016.0	6019.6	6022.4	6029.6	6036.0	6034.6	6033.2	6034.6
5°	5990.3	5992.4	5993.1	5993.8	5996.7	5998.8	6008.9	6018.9	6017.4	6016.0	6023.1
7.5°	5943.1	5943.1	5941.7	5940.2	5945.9	5951.0	5961.0	5971.0	5978.8	5986.0	5997.4
10°	5874.5	5871.6	5870.9	5870.2	5876.6	5882.3	5900.9	5919.5	5935.2	5950.2	5969.5
12.5°	5790.8	5790.1	5791.5	5793.0	5806.6	5820.1	5851.6	5883.0	5914.5	5945.9	5973.8
15°	5691.5	5682.9	5690.0	5696.5	5718.6	5740.1	5800.8	5861.6	5909.5	5956.7	6011.0
17.5°	5539.9	5531.3	5542.1	5552.1	5596.4	5640.7	5726.5	5811.6	5901.6	5991.7	6069.6
20°	5310.5	5310.5	5337.6	5364.8	5439.8	5514.9	5632.9	5750.1	5871.6	5993.1	6106.1
22.5°	5066.0	5058.8	5116.7	5174.6	5264.7	5354.1	5502.8	5651.4	5812.3	5972.4	6127.5
25°	4790.1	4802.2	4875.1	4947.3	5073.9	5199.7	5382.7	5564.9	5767.2	5969.5	6184.7
27.5°	4557.0	4559.2	4647.1	4735.0	4893.7	5051.7	5274.0	5496.3	5742.9	5989.6	6260.5
30°	4316.1	4355.5	4448.4	4540.6	4717.9	4895.1	5163.9	5432.0	5724.4	6016.7	6347.0
32.5°	4131.0	4140.3	4245.4	4349.7	4534.9	4720.0	5032.4	5344.8	5695.8	6046.7	6448.5
35°	3956.6	3971.6	4069.5	4167.5	4360.5	4552.7	4895.1	5236.8	5656.4	6075.3	6558.6
37.5°	3801.5	3820.0	3913.0	4005.9	4191.8	4377.6	4740.7	5103.9	5595.7	6087.5	6679.4
40°	3687.8	3703.5	3782.2	3860.8	4028.8	4196.0	4576.3	4955.9	5510.6	6065.3	6774.4
42.5°	3605.6	3612.7	3676.4	3740.0	3890.1	4040.2	4416.9	4792.9	5399.8	6006.7	6848.1
45°	3494.1	3509.8	3572.7	3634.9	3770.0	3904.4	4248.9	4593.5	5235.4	5876.6	6848.8
47.5°	3411.2	3421.2	3480.5	3539.1	3664.9	3790.7	4100.3	4409.8	5049.6	5688.6	6771.6
50°	3350.4	3345.4	3400.4	3454.8	3561.3	3667.1	3943.0	4218.2	4819.4	5420.5	6578.6
52.5°	3263.9	3269.6	3313.9	3358.3	3450.5	3542.0	3789.3	4035.9	4564.2	5091.7	6265.5
55°	3148.1	3174.6	3211.7	3248.2	3329.0	3409.7	3632.0	3854.4	4309.0	4762.9	5862.3
57.5°	3034.4	3053.7	3085.2	3116.7	3180.3	3243.2	3452.6	3662.1	4040.2	4418.4	5353.4
60°	2941.5	2946.5	2966.5	2985.8	3034.4	3083.1	3256.0	3429.0	3759.3	4088.8	4845.8
62.5°	2821.4	2822.9	2836.4	2850.0	2880.0	2909.4	3045.2	3180.3	3461.9	3743.6	4341.2
65°	2633.4	2644.9	2657.7	2669.9	2689.9	2709.2	2812.9	2916.5	3127.4	3338.3	3820.0
67.5°	2443.3	2433.3	2448.3	2463.3	2466.2	2469.0	2547.7	2626.3	2799.3	2972.3	3359.7
70°	2133.8	2141.6	2140.2	2138.1	2125.9	2113.0	2168.1	2223.1	2314.6	2405.4	2685.6
72.5°	1636.2	1625.5	1598.4	1570.5	1557.6	1544.7	1609.1	1672.7	1739.9	1807.1	2009.4
75°	1000.0	1030.8	1087.3	1143.0	1164.5	1185.9	1182.3	1178.0	1172.3	1166.6	1418.9
77.5°	677.7	694.1	707.0	719.1	750.6	781.3	817.0	852.8	852.1	851.4	1010.1
80°	431.0	418.2	423.9	429.6	447.5	465.4	519.7	573.3	588.3	602.6	712.0
82.5°	270.2	272.3	279.5	285.9	265.9	245.9	288.1	329.5	365.3	400.3	451.1
85°	175.1	198.7	195.1	191.6	168.0	144.4	181.6	218.7	235.9	252.3	271.6
87.5°	56.5	65.8	67.9	69.3	69.3	68.6	76.5	84.3	87.2	89.4	96.5
90°	0.0	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	0.0
95°	0.0	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	0.0
100°	0.0	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	0.0
105°	0.0	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	0.0
110°	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):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3
2.5°	6035.3	6028.2	6021.0	6018.9	6016.7	6015.3	6013.9	6012.4
5°	6029.6	6028.2	6026.7	6021.0	6015.3	6014.6	6013.9	6016.0
7.5°	6008.9	6008.9	6008.9	6015.3	6021.7	6018.9	6015.3	6019.6
10°	5988.1	6005.3	6022.4	6027.4	6032.4	6036.0	6039.6	6043.2
12.5°	6001.7	6031.0	6059.6	6076.0	6092.5	6101.1	6108.9	6111.1
15°	6065.3	6102.5	6139.7	6161.8	6183.3	6197.6	6211.9	6215.4
17.5°	6147.5	6204.7	6261.2	6293.4	6325.5	6342.0	6357.7	6352.7
20°	6218.3	6296.9	6375.6	6444.2	6512.8	6550.7	6587.9	6592.2
22.5°	6281.9	6414.2	6546.4	6635.0	6723.0	6790.2	6857.4	6864.5
25°	6399.1	6572.1	6745.1	6886.7	7028.2	7089.7	7150.4	7186.2
27.5°	6530.7	6762.3	6993.9	7183.3	7372.7	7466.4	7559.3	7564.3
30°	6676.5	6970.3	7263.4	7517.9	7771.6	7886.0	7999.7	8059.7
32.5°	6849.5	7222.6	7595.1	7929.6	8264.1	8437.8	8611.5	8672.3
35°	7041.1	7525.0	8008.2	8469.3	8929.6	9262.0	9594.4	9754.6
37.5°	7271.2	7887.4	8503.6	9196.3	9888.9	10455.8	11021.9	11183.5
40°	7483.5	8276.3	9068.3	10030.5	10992.6	11891.9	12790.4	12965.6
42.5°	7689.4	8648.7	9608.0	10920.4	12232.9	13436.6	14640.4	15095.8
45°	7820.2	8980.4	10139.8	11870.4	13601.1	15253.7	16905.7	17288.1
47.5°	7853.8	9217.0	10580.2	12724.0	14867.7	16812.8	18757.1	19248.2
50°	7736.6	9340.0	10943.3	13772.6	16601.2	18582.0	20562.1	20965.2
52.5°	7439.2	9300.6	11162.1	14585.4	18008.7	20105.3	22201.9	22567.9
55°	6961.7	9061.9	11162.1	15254.4	19346.1	21520.6	23694.4	24250.6
57.5°	6288.4	8605.8	10923.3	15701.2	20479.1	22840.9	25202.7	25702.4
60°	5602.8	8063.3	10523.0	15947.8	21372.7	23874.6	26376.5	26959.8
62.5°	4938.0	7326.3	9713.8	15689.1	21664.3	24305.6	26946.2	27785.4
65°	4301.8	6507.8	8713.8	15057.9	21401.3	24427.8	27453.7	28205.7
67.5°	3747.1	5823.7	7900.3	13999.9	20099.6	23449.2	26798.2	27735.4
70°	2965.8	4876.6	6787.3	12124.2	17461.1	21384.1	25307.1	26463.7
72.5°	2211.7	3832.2	5452.0	9537.2	13622.5	18133.8	22644.4	24099.7
75°	1670.6	3060.9	4451.2	7538.6	10625.9	14445.3	18264.6	20212.5
77.5°	1168.7	2211.7	3253.9	5557.1	7860.3	9974.7	12089.2	13127.1
80°	820.6	1398.9	1976.5	3084.5	4191.8	5129.6	6066.8	5992.4
82.5°	501.1	744.1	986.5	1338.2	1689.9	1916.5	2143.1	2133.0
85°	290.9	353.8	416.0	515.4	614.8	727.0	839.2	746.3
87.5°	102.9	102.9	102.9	117.9	133.0	183.0	233.0	245.9
90°	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
95°	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
100°	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
105°	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
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	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
117.5°	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
122.5°	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
127.5°	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
132.5°	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
137.5°	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
142.5°	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
147.5°	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
152.5°	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
157.5°	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
162.5°	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
167.5°	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
172.5°	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
177.5°	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

(END OF REPORT)