

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: P522148

Luminaire Tested: **CTN-CA10-630-727-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522148
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-CA10-630-727-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51676 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G5

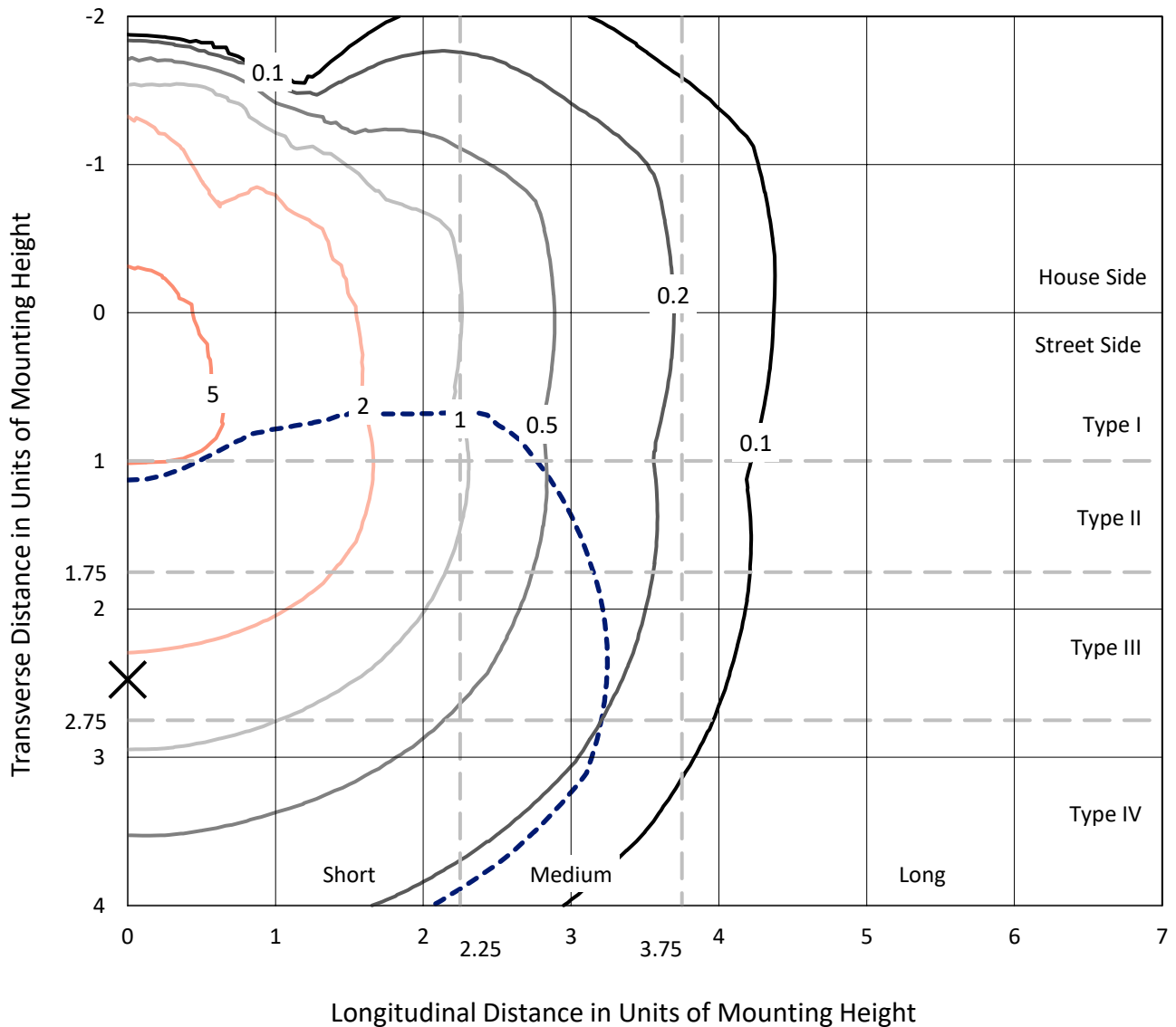
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

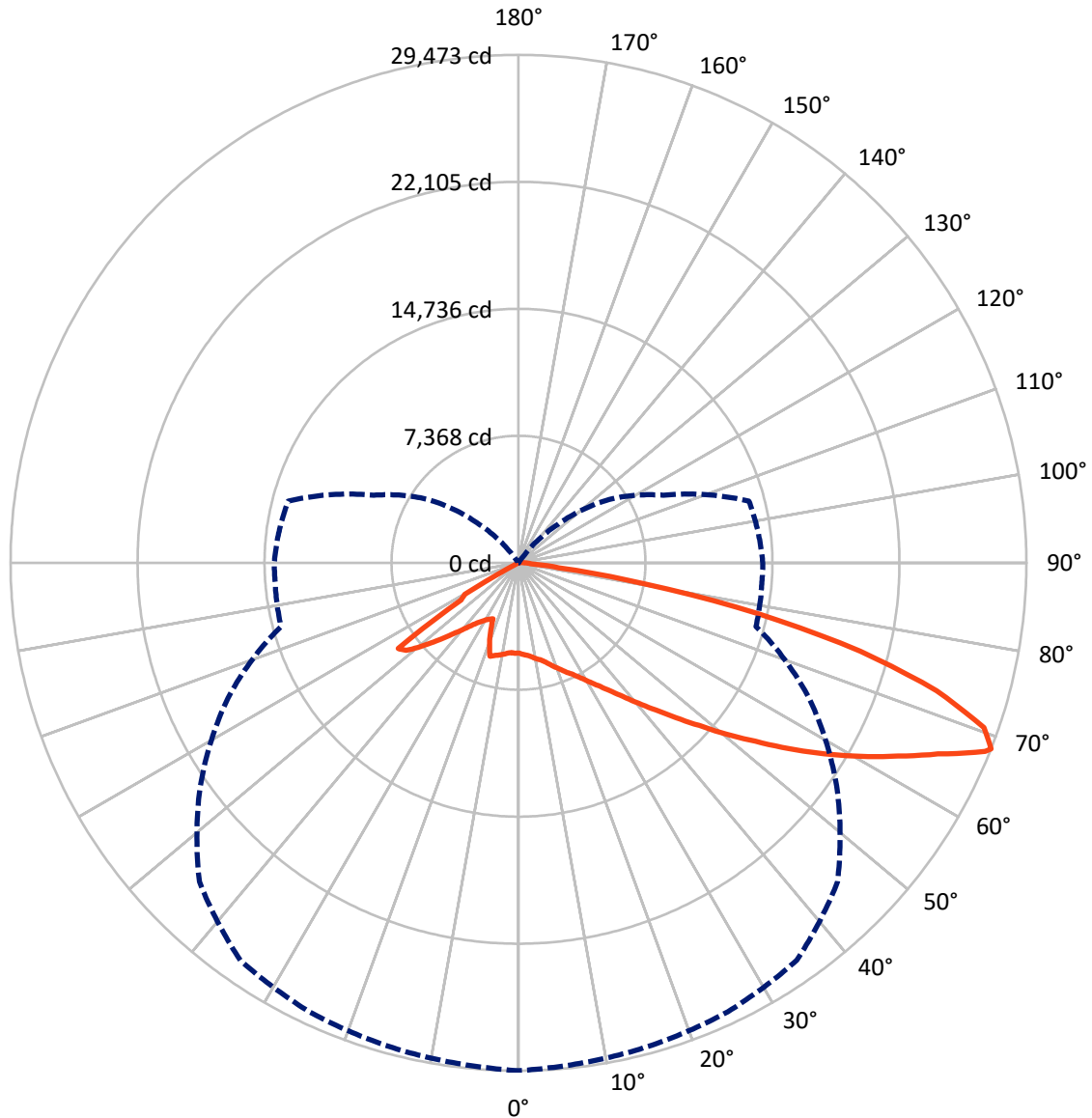
✕ Max cd
 - - - 1/2 Max cd



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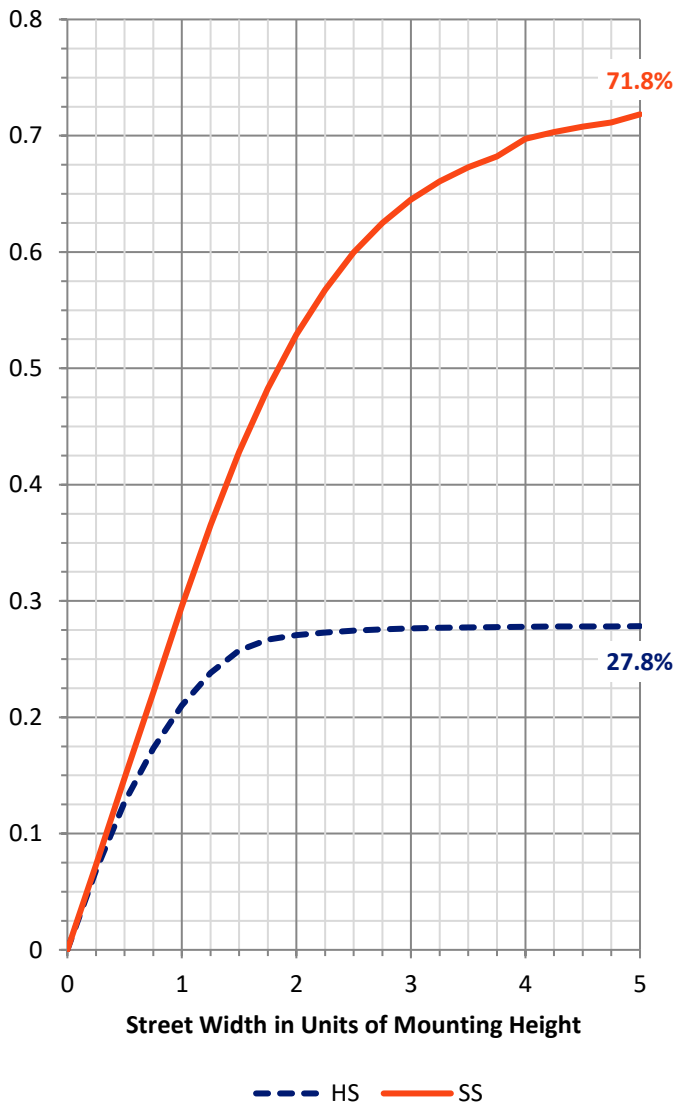
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14433.2	0.3	14433.5
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	37212.9	29.6	37242.5
	% Fixture	72.0	0.1	72.1
Total	Lumens	51646.1	29.9	51676.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	508.1	1.0
10°-20°	1610.1	3.1
20°-30°	2725.9	5.3
30°-40°	4318.4	8.4
40°-50°	7060.3	13.7
50°-60°	10814.6	20.9
60°-70°	13297.3	25.7
70°-80°	10274.7	19.9
80°-90°	1036.7	2.0
90°-100°	29.4	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°	51646.1	99.9
0°-180°	51676.0	100.0

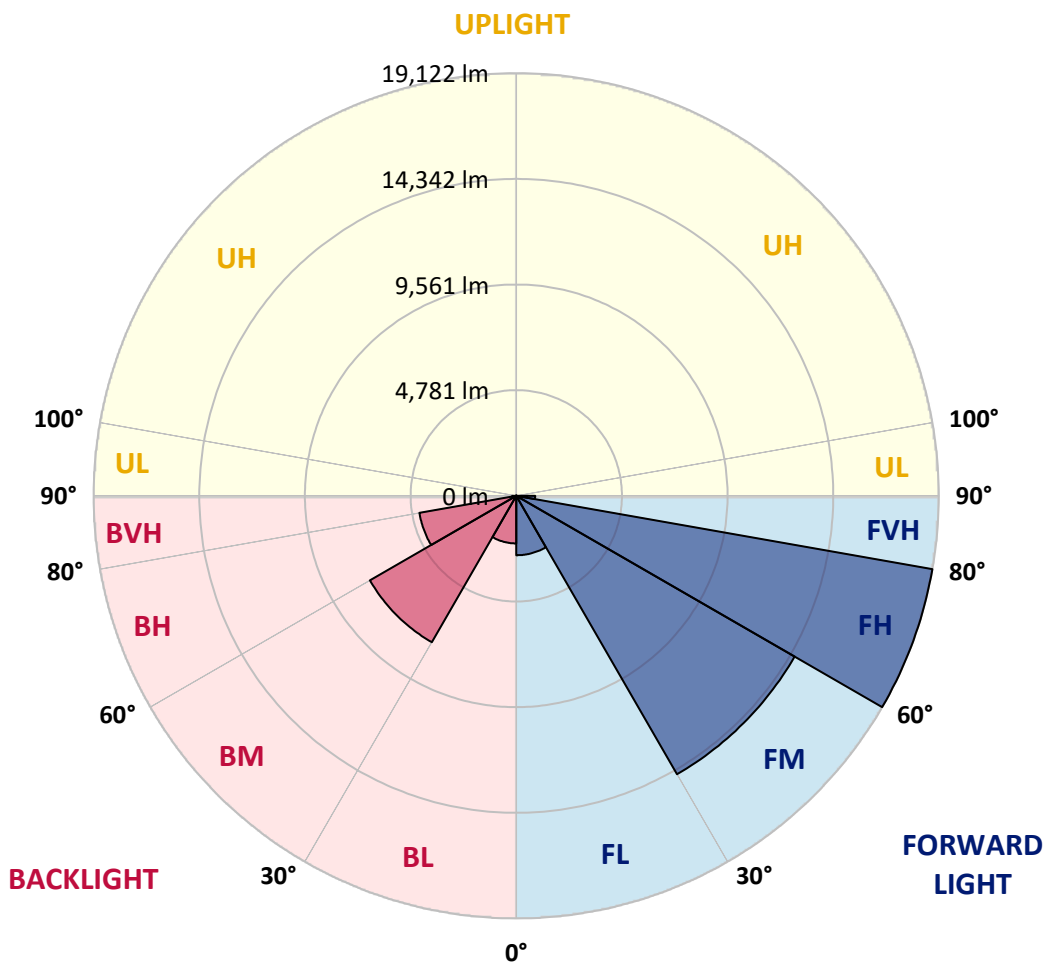


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2689.8	5.2			
FM (30°-60°)	14545.9	28.1			
FH (60°-80°)	19122.3	37.0			G5
FVH (80°-90°)	855.0	1.7			G5
BL (0°-30°)	2154.3	4.2	B3/2500		
BM (30°-60°)	7647.3	14.8	B4/8500		
BH (60°-80°)	4449.8	8.6	B4/5000		G4/5000
BVH (80°-90°)	181.7	0.4			G2/225
UL (90°-100°)	29.4	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°	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3
2.5°	5329.9	5320.0	5310.0	5332.4	5245.3	5282.6	5252.8	5280.1	5260.2	5282.6	5275.2
5°	5399.6	5389.7	5359.8	5384.7	5327.4	5342.4	5305.0	5315.0	5247.8	5287.6	5285.1
7.5°	5514.1	5486.8	5466.8	5466.8	5417.1	5414.6	5354.8	5357.3	5305.0	5300.1	5310.0
10°	5668.5	5648.6	5593.8	5598.8	5529.1	5519.1	5444.4	5442.0	5399.6	5374.7	5397.1
12.5°	5783.0	5802.9	5753.1	5753.1	5683.4	5633.6	5581.4	5546.5	5514.1	5476.8	5459.4
15°	5992.1	6012.0	5944.8	5942.3	5915.0	5855.2	5797.9	5723.3	5666.0	5648.6	5621.2
17.5°	6263.5	6251.0	6193.8	6196.3	6201.2	6104.2	6046.9	5949.8	5867.7	5807.9	5793.0
20°	6539.8	6539.8	6477.6	6497.5	6472.6	6383.0	6345.6	6211.2	6096.7	6032.0	5979.7
22.5°	6848.5	6836.1	6793.7	6836.1	6786.3	6696.6	6634.4	6500.0	6353.1	5987.1	5837.8
25°	7142.3	7134.8	7152.2	7164.7	7102.4	6990.4	6948.1	6806.2	6397.9	5917.4	5616.2
27.5°	7513.2	7488.3	7528.1	7553.0	7490.8	7393.7	7304.1	7144.7	6280.9	5902.5	5870.1
30°	7988.7	7933.9	7991.2	8003.6	7938.9	7879.1	7744.7	6948.1	6320.7	6211.2	6201.2
32.5°	8496.5	8431.8	8506.5	8516.4	8431.8	8382.0	8043.4	6846.0	6711.6	6584.6	6597.1
35°	9099.0	9099.0	9136.3	9141.3	9079.1	8994.4	7704.9	7343.9	7224.4	7107.4	7104.9
37.5°	9833.4	9811.0	9910.5	9970.3	9903.1	9661.6	8197.8	8028.5	7844.3	7694.9	7386.2
40°	10719.6	10759.4	10786.8	10846.6	10781.8	10239.1	8917.2	8725.5	8581.2	8080.8	7301.6
42.5°	11675.6	11685.5	11745.3	11819.9	11819.9	11247.4	9758.7	9594.4	9407.7	7901.5	7550.5
45°	12818.2	12795.8	12910.3	13029.8	12997.5	12405.0	10737.0	10615.0	9741.2	8421.8	8424.3
47.5°	14115.2	14087.8	14252.1	14409.0	14247.2	13689.5	11812.5	11717.9	9402.7	9303.1	9283.2
50°	15613.9	15546.7	15735.9	15945.0	15813.0	15123.5	13119.4	11302.1	10346.2	10266.5	10254.1
52.5°	17214.6	17162.3	17276.8	17632.8	17458.6	16624.6	14356.7	11660.6	11439.1	11349.4	11327.0
55°	19021.9	18919.9	19166.3	19437.7	19236.0	18285.1	15576.5	12850.6	12621.6	12467.2	12243.2
57.5°	20921.4	20774.5	20901.5	21242.5	21048.4	19985.4	17149.9	14075.4	13804.0	11424.1	10515.5
60°	22813.4	22746.2	22796.0	23097.2	22858.2	21638.4	18623.6	15302.7	11683.0	11299.6	11344.5
62.5°	24715.3	24568.5	24613.3	24922.0	24615.8	23211.7	20020.2	16418.0	12295.4	12161.0	12208.3
65°	26754.2	26579.9	26619.8	26709.4	26331.0	24623.2	21255.0	17471.0	13216.5	13074.6	13126.9
67.5°	29211.3	29052.0	28835.4	28569.0	28046.2	26121.9	22482.3	18578.8	14252.1	14172.5	14189.9
68°	29472.7	29318.3	29057.0	28740.8	28153.3	26184.1	22534.6	18611.2	14267.1	14167.5	14172.5
70°	28658.6	28750.7	28454.5	27924.2	27433.8	25273.0	21680.7	17894.2	13632.3	13485.4	13448.1
72.5°	25380.0	25581.7	25173.4	25083.8	24481.3	22514.7	18972.2	15526.7	11857.3	11904.6	11770.2
75°	20490.7	20787.0	20291.6	20319.0	19975.4	18780.5	15900.2	12927.8	9736.3	9952.9	9992.7
77.5°	14249.7	14675.4	14458.8	14675.4	14506.1	14075.4	12305.4	9955.3	7428.5	7677.5	7774.6
80°	7431.0	7936.4	8222.7	8312.3	8367.1	8349.6	7493.3	5974.7	4294.3	4386.4	4381.4
82.5°	2350.0	2228.1	2300.3	2280.3	2218.1	2243.0	2021.4	1580.8	1095.4	1207.4	1155.1
85°	709.5	714.5	694.6	689.6	637.3	560.1	458.1	263.9	129.5	151.9	141.9
87.5°	522.8	527.8	487.9	463.0	433.2	375.9	291.3	164.3	62.2	59.7	47.3
90°	288.8	278.8	258.9	239.0	226.5	194.2	146.9	62.2	22.4	17.4	14.9
92.5°	156.8	149.4	139.4	131.9	114.5	92.1	59.7	19.9	10.0	2.5	0.0
95°	72.2	67.2	64.7	57.3	49.8	34.9	19.9	12.4	7.5	2.5	0.0
97.5°	32.4	29.9	27.4	22.4	17.4	10.0	10.0	7.5	5.0	2.5	0.0
100°	7.5	7.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.5	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	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°	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3	5235.3
2.5°	5267.7	5252.8	5245.3	5198.0	5212.9	5170.6	5252.8	5232.8	5220.4	5255.2
5°	5272.7	5220.4	5252.8	5225.4	5235.3	5175.6	5240.3	5212.9	5210.4	5225.4
7.5°	5285.1	5250.3	5282.6	5227.9	5252.8	5227.9	5275.2	5247.8	5270.2	5285.1
10°	5352.3	5332.4	5317.5	5305.0	5322.5	5272.7	5332.4	5334.9	5342.4	5387.2
12.5°	5446.9	5427.0	5402.1	5369.8	5387.2	5367.3	5412.1	5424.5	5451.9	5474.3
15°	5578.9	5541.5	5531.6	5501.7	5519.1	5509.2	5519.1	5511.7	5563.9	5556.5
17.5°	5760.6	5718.3	5576.4	5432.0	5339.9	5367.3	5481.8	5631.2	5668.5	5673.5
20°	5827.8	5529.1	5514.1	5349.8	5275.2	5270.2	5033.7	4680.2	4787.2	5038.7
22.5°	5748.2	5339.9	5297.6	5265.2	4946.6	4423.8	4374.0	4321.7	4309.3	4346.6
25°	5568.9	5521.6	5484.3	5061.1	4558.2	4560.7	4488.5	4144.9	3609.7	3564.9
27.5°	5842.8	5778.0	5417.1	4764.8	4754.9	4749.9	4642.8	3761.6	3647.1	3674.4
30°	6153.9	6046.9	5103.4	5018.7	5016.3	4971.4	4162.4	3793.9	3793.9	3798.9
32.5°	6512.4	5847.7	5282.6	5322.5	5320.0	5108.4	4020.5	3995.6	3985.6	4010.5
35°	6786.3	5688.4	5668.5	5740.7	5690.9	4334.1	4271.9	4249.5	4239.5	4227.1
37.5°	6701.6	6146.5	6146.5	6191.3	5790.5	4615.5	4585.6	4585.6	4565.7	4555.7
40°	6831.1	6716.6	6659.3	6676.7	4207.2	4956.5	4978.9	4973.9	4971.4	4988.9
42.5°	7513.2	7411.1	7358.8	6741.5	4710.1	4926.6	5474.3	5471.8	5479.3	5471.8
45°	8382.0	8287.4	8150.5	6308.3	5347.4	4319.2	6034.4	6061.8	6064.3	6061.8
47.5°	9293.1	9233.4	7831.8	6982.9	6039.4	4635.4	5768.1	6736.5	6724.0	6739.0
50°	10256.6	9987.7	7792.0	7782.0	6776.3	5158.2	5160.6	7326.5	7453.4	7493.3
52.5°	11329.5	9054.2	8635.9	7879.1	7523.1	5695.9	5641.1	6492.5	8225.2	8265.0
55°	10522.9	9564.5	9557.0	7012.8	7826.9	6213.7	6221.2	6161.4	7543.1	8573.7
57.5°	10470.7	10493.1	10475.6	7824.4	5710.8	5825.3	6778.8	6726.5	4884.3	3958.2
60°	11374.3	11406.7	10176.9	8449.2	6173.9	3582.3	4174.8	3547.5	3594.8	3632.1
62.5°	12238.2	12248.1	8277.4	5539.0	3059.5	144.4	69.7	57.3	54.8	54.8
65°	13194.1	13194.1	8872.4	6041.9	2955.0	54.8	10.0	7.5	27.4	27.4
67.5°	14117.7	13913.6	9308.1	6415.3	3007.3	7.5	0.0	0.0	0.0	0.0
68°	14065.4	13841.4	9268.3	6405.4	2999.8	5.0	0.0	0.0	0.0	0.0
70°	13283.7	13067.2	8792.8	6114.1	2887.8	5.0	0.0	0.0	0.0	0.0
72.5°	11725.3	11526.2	7787.0	5389.7	2604.0	2.5	0.0	0.0	0.0	0.0
75°	9925.5	9898.1	6726.5	4548.2	2233.0	2.5	0.0	0.0	0.0	0.0
77.5°	7986.2	7861.7	5257.7	3564.9	1799.9	0.0	0.0	0.0	0.0	0.0
80°	4448.7	4632.9	3077.0	2096.1	1132.7	0.0	0.0	0.0	0.0	0.0
82.5°	1202.4	1125.2	672.2	455.6	216.6	0.0	0.0	0.0	0.0	0.0
85°	154.3	169.3	77.2	62.2	14.9	0.0	0.0	0.0	0.0	0.0
87.5°	79.7	94.6	24.9	19.9	5.0	0.0	0.0	0.0	0.0	0.0
90°	14.9	17.4	7.5	2.5	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)