

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: P579629

Luminaire Tested: **CTN-CA10-630-727-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579629
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-727-U-T5-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48184 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U3 - G5

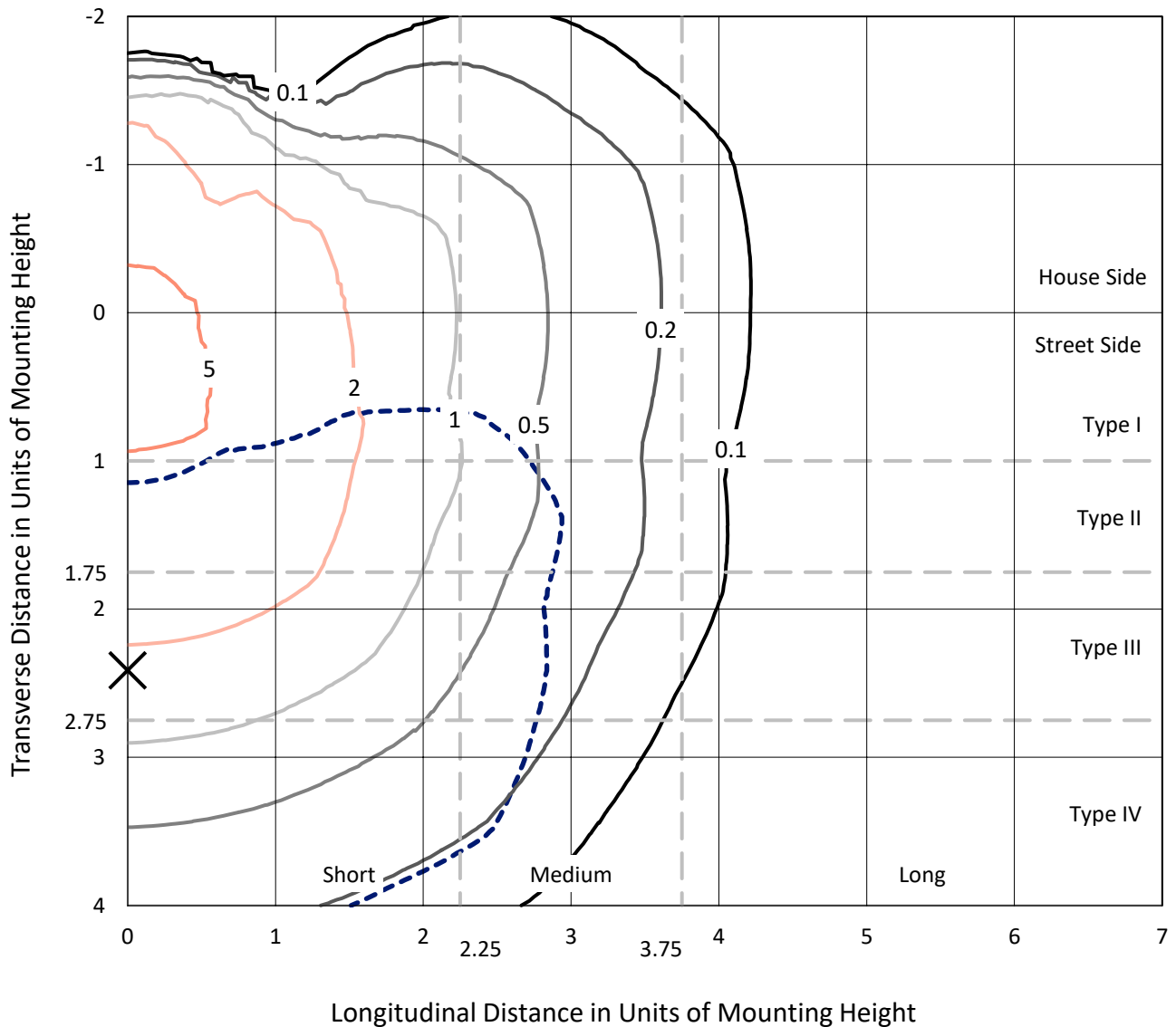
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

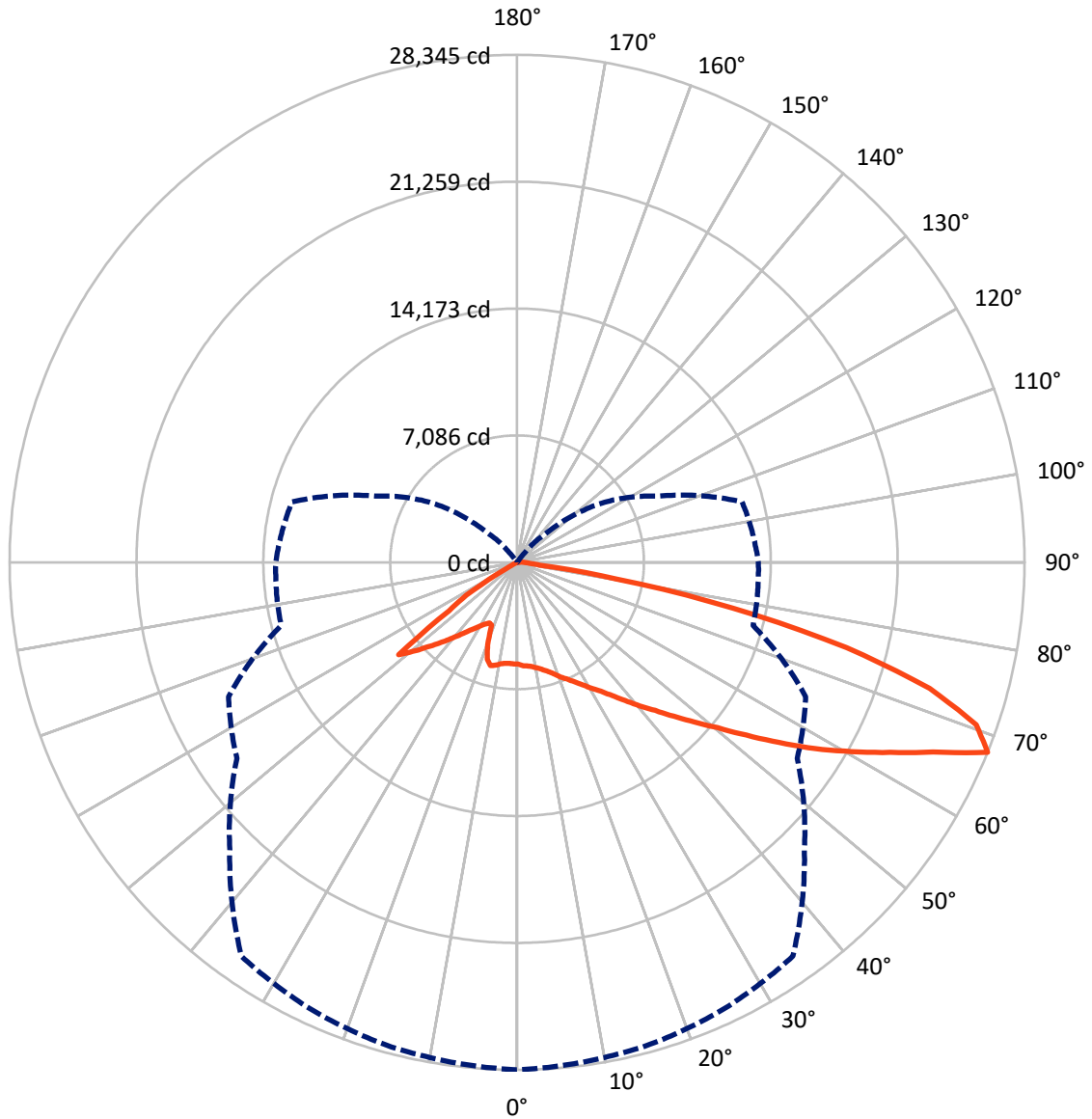
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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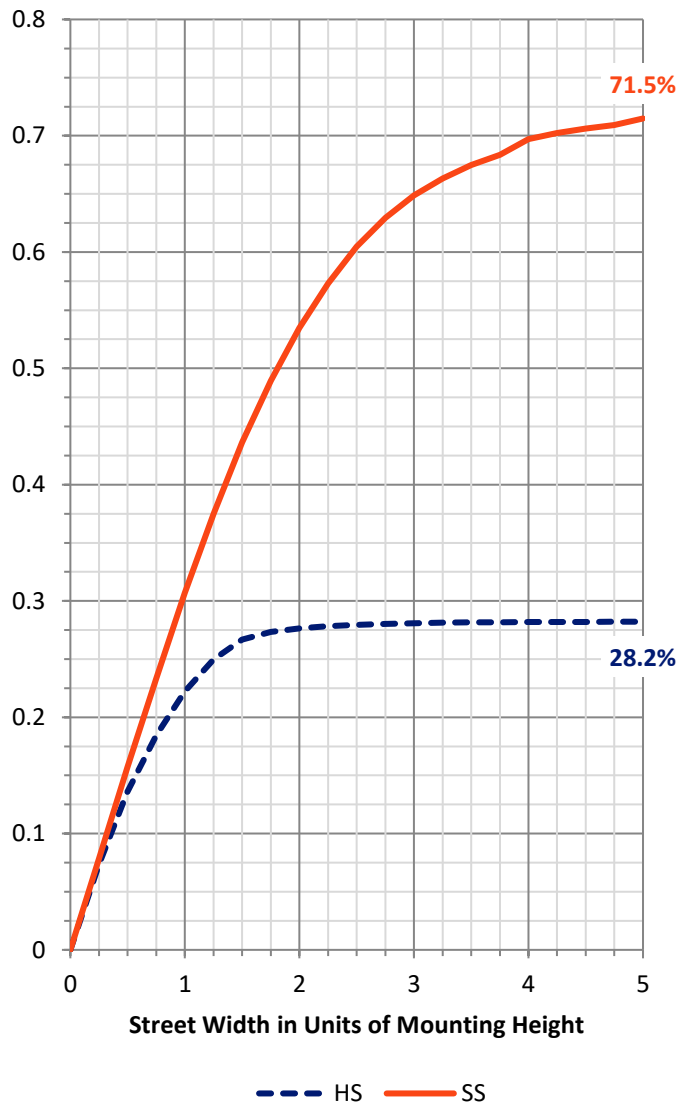
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13656.2	0.2	13656.5
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	34466.2	61.3	34527.5
	% Fixture	71.5	0.1	71.7
Total	Lumens	48122.4	61.6	48184.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	547.3	1.1
10°-20°	1684.7	3.5
20°-30°	2789.7	5.8
30°-40°	4391.4	9.1
40°-50°	6872.6	14.3
50°-60°	9922.9	20.6
60°-70°	12292.7	25.5
70°-80°	8952.5	18.6
80°-90°	668.8	1.4
90°-100°	52.5	0.1
100°-110°	8.8	0.0
110°-120°	0.3	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°	48122.4	99.9
0°-180°	48184.0	100.0

Coefficient of Utilization

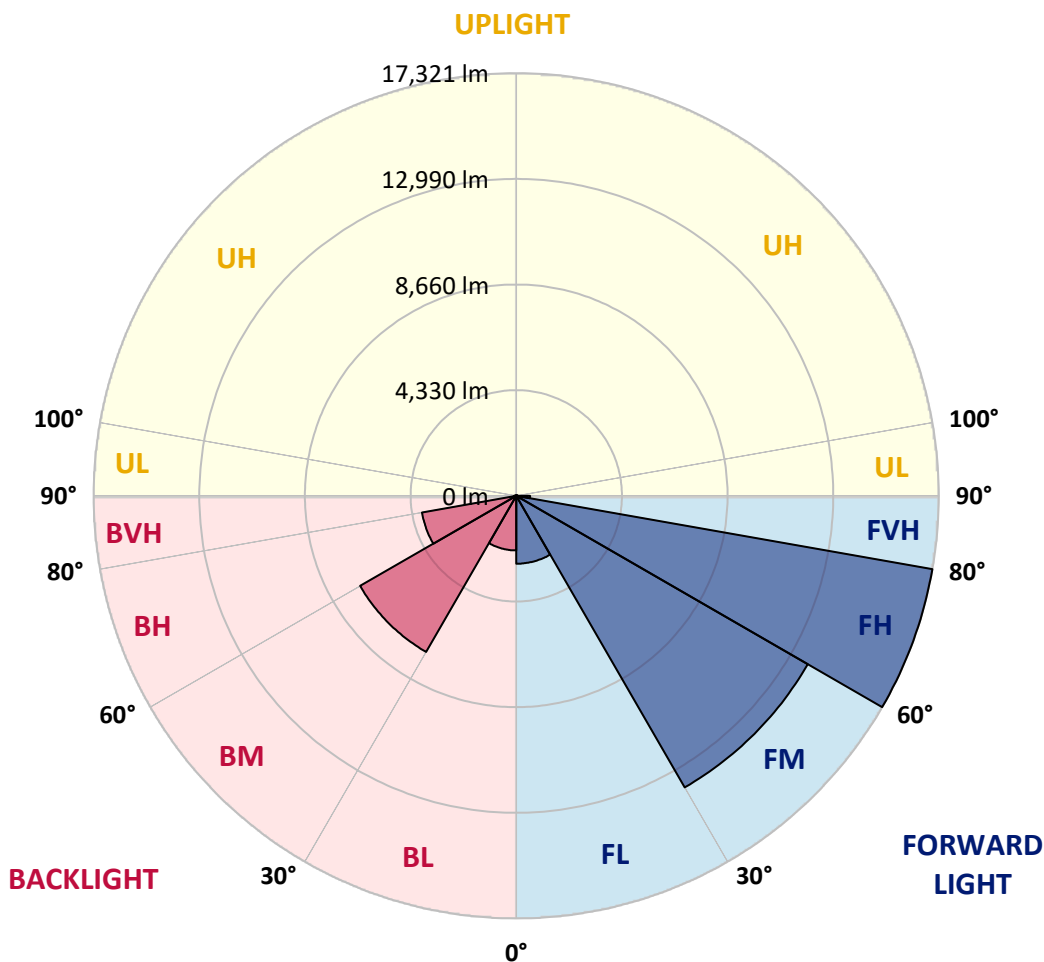


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2783.0	5.8			
FM (30°-60°)	13798.5	28.6			
FH (60°-80°)	17320.6	35.9			G5
FVH (80°-90°)	564.1	1.2			G4/750
BL (0°-30°)	2238.7	4.6	B3/2500		
BM (30°-60°)	7388.3	15.3	B4/8500		
BH (60°-80°)	3924.6	8.1	B4/5000		G4/5000
BVH (80°-90°)	104.7	0.2			G2/225
UL (90°-100°)	52.5	0.1		U3/500	
UH (100°-180°)	9.0	0.0		U1/10	

BUG Rating: B4-U3-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8
2.5°	5778.7	5747.3	5747.3	5781.1	5686.9	5715.9	5677.2	5711.1	5691.7	5701.4	5713.5
5°	5812.5	5776.3	5778.7	5819.7	5735.2	5759.4	5713.5	5730.4	5713.5	5720.7	5720.7
7.5°	5875.3	5843.9	5843.9	5868.0	5783.5	5790.7	5749.7	5749.7	5728.0	5744.9	5730.4
10°	5993.6	5959.8	5942.9	5955.0	5880.1	5870.4	5814.9	5814.9	5781.1	5807.7	5785.9
12.5°	6136.1	6087.8	6082.9	6085.4	6000.8	5983.9	5921.1	5923.6	5860.8	5897.0	5870.4
15°	6307.5	6247.1	6242.3	6252.0	6162.6	6131.2	6061.2	6061.2	5991.2	6010.5	5974.3
17.5°	6527.3	6457.2	6445.2	6462.1	6372.7	6343.7	6261.6	6247.1	6169.9	6155.4	6124.0
20°	6817.0	6737.4	6713.2	6749.4	6635.9	6609.4	6510.4	6479.0	6375.1	6203.7	5979.1
22.5°	7077.8	7015.1	7000.6	7024.7	6920.9	6894.3	6797.7	6732.5	6481.4	6136.1	5928.4
25°	7374.9	7350.7	7343.5	7329.0	7234.8	7188.9	7097.2	7005.4	6435.5	5962.2	5957.4
27.5°	7741.9	7729.8	7696.0	7684.0	7580.1	7551.2	7430.4	6838.8	6271.3	6237.5	6218.2
30°	8142.8	8118.6	8084.8	8087.2	8017.2	7964.1	7676.7	6691.5	6587.6	6587.6	6536.9
32.5°	8587.1	8560.5	8526.7	8534.0	8505.0	8459.1	7594.6	7080.3	7000.6	7022.3	6959.5
35°	9137.7	9094.2	9082.2	9111.1	9113.5	8816.5	7739.5	7609.1	7546.3	7531.8	7295.2
37.5°	9780.0	9743.8	9787.3	9854.9	9777.6	8908.3	8316.7	8275.6	8212.8	7862.7	7302.4
40°	10550.4	10485.2	10538.3	10581.8	10531.0	9454.0	8922.8	8937.3	8881.7	7843.3	7222.7
42.5°	11313.4	11250.7	11296.5	11405.2	11385.9	10130.2	9661.7	9693.1	9132.9	7889.2	7840.9
45°	12257.6	12235.9	12221.4	12310.8	12385.6	10939.1	10538.3	10535.9	8954.2	8618.5	8575.0
47.5°	13327.4	13298.4	13305.7	13419.2	13532.7	11905.1	11574.2	10603.5	9415.4	9449.2	9410.6
50°	14520.3	14488.9	14583.1	14747.3	14805.3	12989.3	12583.6	10420.0	10376.5	10412.7	10347.5
52.5°	16034.4	15964.4	16109.3	16285.6	16360.4	14271.6	12639.2	11504.2	11431.8	11439.0	11231.3
55°	17756.2	17700.7	17831.1	18029.1	18140.2	15703.6	13793.5	12559.5	12516.0	11284.5	10161.6
57.5°	19627.7	19564.9	19738.8	19796.7	19825.7	17183.9	14955.0	13704.1	11692.6	10304.1	10241.3
60°	21462.9	21395.3	21615.1	21624.7	21709.3	18661.8	16058.6	14807.7	11265.2	11081.6	11028.5
62.5°	23390.0	23305.5	23498.6	23491.4	23324.8	20014.1	17152.5	15867.8	12028.2	11883.3	11801.2
65°	25529.5	25466.7	25602.0	25384.6	25053.8	21412.2	18287.5	17022.1	12916.9	12890.3	12871.0
67.5°	28345.2	28222.0	27949.2	27485.5	26852.8	22694.5	19098.8	17782.8	13638.9	13515.8	13477.1
70°	27212.6	27067.8	26860.1	26350.6	25705.8	21489.5	17794.8	16633.3	12752.7	12757.5	12665.7
72.5°	24095.1	23844.0	23648.4	22933.6	22578.6	18768.0	15505.6	14435.8	11030.9	11236.2	11192.7
75°	19007.1	18751.1	18429.9	18149.8	18111.2	15223.0	12501.5	11731.2	8794.8	8944.5	9053.2
77.5°	12320.4	12226.3	12631.9	12366.3	12605.4	10482.7	8930.0	8268.4	6061.2	6440.3	6389.6
80°	5638.6	5529.9	6181.9	5998.4	6087.8	5148.4	4363.6	4192.1	2743.2	2762.6	2820.5
82.5°	1275.0	1231.6	1277.4	1173.6	1144.6	968.3	852.4	772.7	485.4	514.4	540.9
85°	697.9	697.9	688.2	639.9	548.2	451.6	357.4	275.3	149.7	164.2	161.8
87.5°	490.2	478.1	475.7	425.0	364.6	309.1	246.3	176.3	84.5	58.0	53.1
90°	335.7	330.8	313.9	282.5	243.9	200.4	149.7	86.9	36.2	16.9	12.1
92.5°	243.9	239.1	227.0	200.4	166.6	135.2	99.0	58.0	29.0	12.1	2.4
95°	161.8	159.4	152.1	130.4	108.7	86.9	62.8	36.2	24.1	9.7	2.4
97.5°	111.1	108.7	101.4	86.9	70.0	55.5	38.6	26.6	19.3	7.2	2.4
100°	74.9	72.4	67.6	55.5	43.5	33.8	24.1	19.3	14.5	7.2	2.4
102.5°	48.3	45.9	41.1	33.8	24.1	19.3	16.9	14.5	9.7	4.8	2.4
105°	29.0	26.6	21.7	16.9	14.5	12.1	12.1	9.7	7.2	2.4	2.4
107.5°	14.5	12.1	9.7	9.7	9.7	7.2	7.2	7.2	4.8	2.4	0.0
110°	2.4	2.4	4.8	4.8	4.8	4.8	4.8	4.8	4.8	2.4	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°	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8	5674.8
2.5°	5701.4	5662.8	5684.5	5650.7	5643.4	5607.2	5665.2	5672.4	5667.6	5677.2
5°	5708.6	5667.6	5691.7	5650.7	5650.7	5612.0	5667.6	5667.6	5653.1	5657.9
7.5°	5728.0	5686.9	5703.8	5657.9	5660.3	5614.5	5682.1	5674.8	5662.8	5679.7
10°	5783.5	5737.6	5735.2	5691.7	5701.4	5653.1	5737.6	5737.6	5725.5	5756.9
12.5°	5872.9	5805.2	5793.2	5740.0	5759.4	5718.3	5822.1	5827.0	5829.4	5880.1
15°	5967.0	5884.9	5897.0	5834.2	5827.0	5805.2	5899.4	5894.6	5892.2	5962.2
17.5°	6099.8	5713.5	5650.7	5607.2	5597.6	5544.4	5631.4	5798.0	5711.1	5662.8
20°	5889.8	5686.9	5438.2	5353.7	5336.8	4875.5	4510.9	4675.1	4897.3	4916.6
22.5°	5699.0	5626.5	5607.2	5474.4	4737.9	4583.3	4597.8	4537.5	4011.0	3781.6
25°	5935.6	5872.9	5790.7	4979.4	4805.5	4750.0	4733.1	4114.9	3699.5	3726.1
27.5°	6198.9	6128.8	5414.0	4991.4	5030.1	4952.8	4571.3	3839.6	3815.4	3861.3
30°	6527.3	5967.0	5283.6	5259.5	5295.7	5196.7	4061.7	4008.6	4001.4	4049.7
32.5°	6901.6	5754.5	5631.4	5631.4	5614.5	4544.7	4279.1	4242.8	4262.2	4312.9
35°	6761.5	6087.8	6073.3	6133.7	5728.0	4663.0	4626.8	4564.0	4578.5	4595.4
37.5°	6607.0	6635.9	6643.2	6611.8	4177.6	5001.1	4972.1	4960.0	4945.6	4950.4
40°	7181.7	7201.0	7193.8	6906.4	4508.5	5066.3	5363.3	5341.6	5339.2	5368.2
42.5°	7853.0	7906.1	7865.1	6092.6	4950.4	4259.7	5814.9	5802.8	5798.0	5858.4
45°	8608.8	8659.6	7797.5	6524.9	5421.3	4409.5	5846.3	6295.4	6331.7	6384.8
47.5°	9427.5	9417.8	7196.2	7188.9	5974.3	4824.8	4861.0	6884.7	6945.0	6964.4
50°	10369.3	8821.3	7879.6	7613.9	6599.7	5290.9	5153.2	6317.2	7650.2	7669.5
52.5°	10168.8	8727.2	8664.4	6679.4	7160.0	5805.2	5670.0	5633.8	7930.3	8396.3
55°	9478.2	9550.6	9461.3	7329.0	5249.8	6264.1	6179.5	6143.3	5899.4	4670.3
57.5°	10246.1	10267.8	10190.6	7925.5	5339.2	3904.8	6082.9	5218.4	3390.4	3373.5
60°	11043.0	11079.2	7589.8	5822.1	3421.8	1306.4	311.5	328.4	937.0	823.5
62.5°	11803.7	11839.9	8034.1	5319.9	2161.3	96.6	62.8	43.5	48.3	48.3
65°	12796.1	12810.6	8599.2	5631.4	2245.8	24.1	7.2	0.0	0.0	0.0
67.5°	13310.5	13013.5	8741.7	5773.8	2306.2	14.5	4.8	0.0	0.0	0.0
70°	12532.9	12214.2	8138.0	5411.6	2149.2	12.1	2.4	0.0	0.0	0.0
72.5°	11043.0	10888.4	7304.8	4798.3	1902.9	7.2	2.4	0.0	0.0	0.0
75°	9152.2	8946.9	6056.4	3998.9	1574.5	4.8	0.0	0.0	0.0	0.0
77.5°	6510.4	6534.5	4221.1	2914.7	1072.2	4.8	0.0	0.0	0.0	0.0
80°	2849.5	2914.7	1849.8	1337.8	379.1	2.4	0.0	0.0	0.0	0.0
82.5°	543.3	499.9	241.5	190.8	48.3	0.0	0.0	0.0	0.0	0.0
85°	178.7	195.6	89.3	72.4	21.7	0.0	0.0	0.0	0.0	0.0
87.5°	62.8	79.7	26.6	21.7	4.8	0.0	0.0	0.0	0.0	0.0
90°	9.7	9.7	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)