

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: STREETWORKS

Report Number: P256758

Luminaire Tested: **CST-10-8-D-U-T5R-7050-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256758
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-10-8-D-U-T5R-7050-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED
180 DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54216 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U2 - G5

Input Watts (W): 631
Input Voltage (V): NR
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

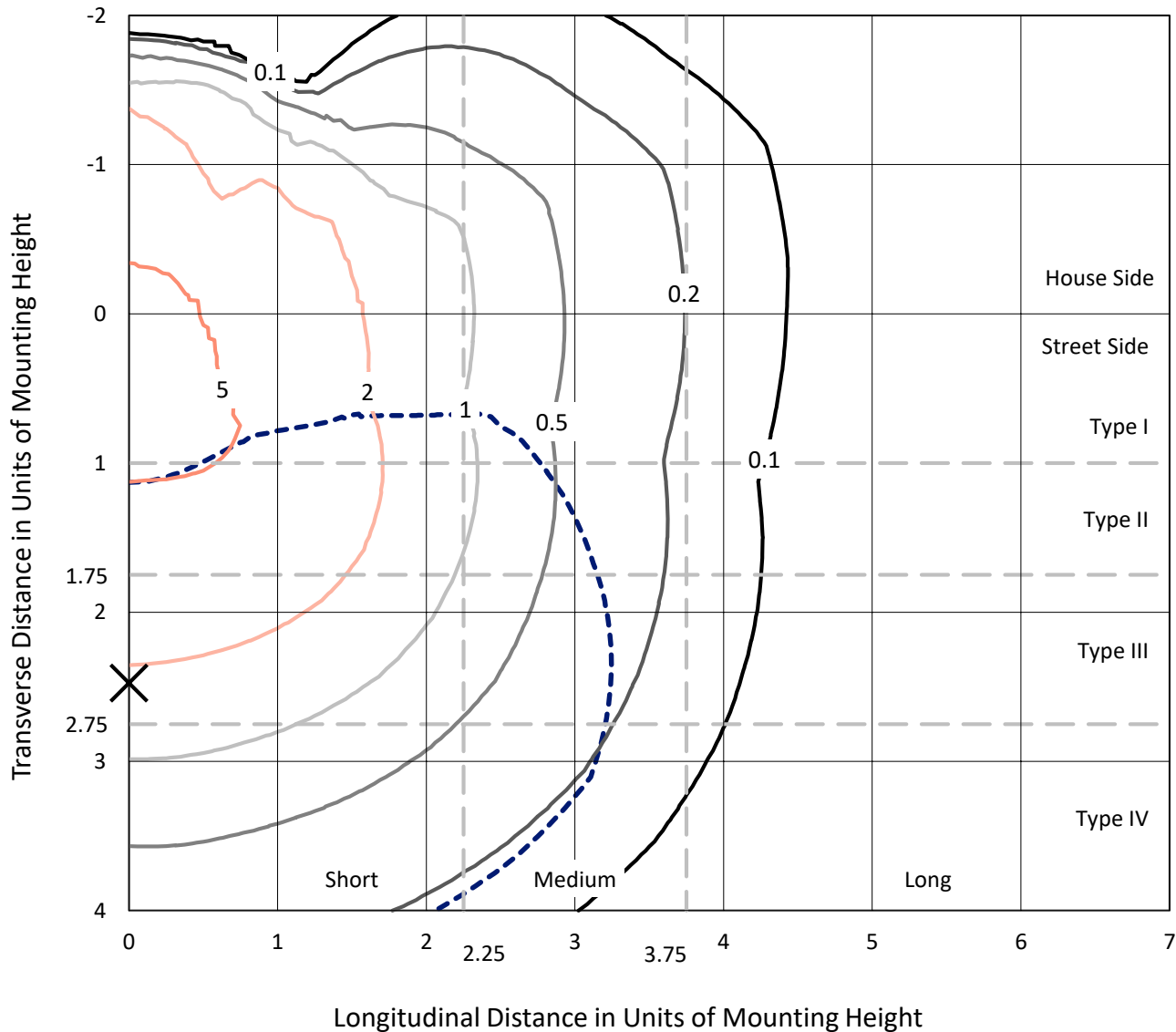


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

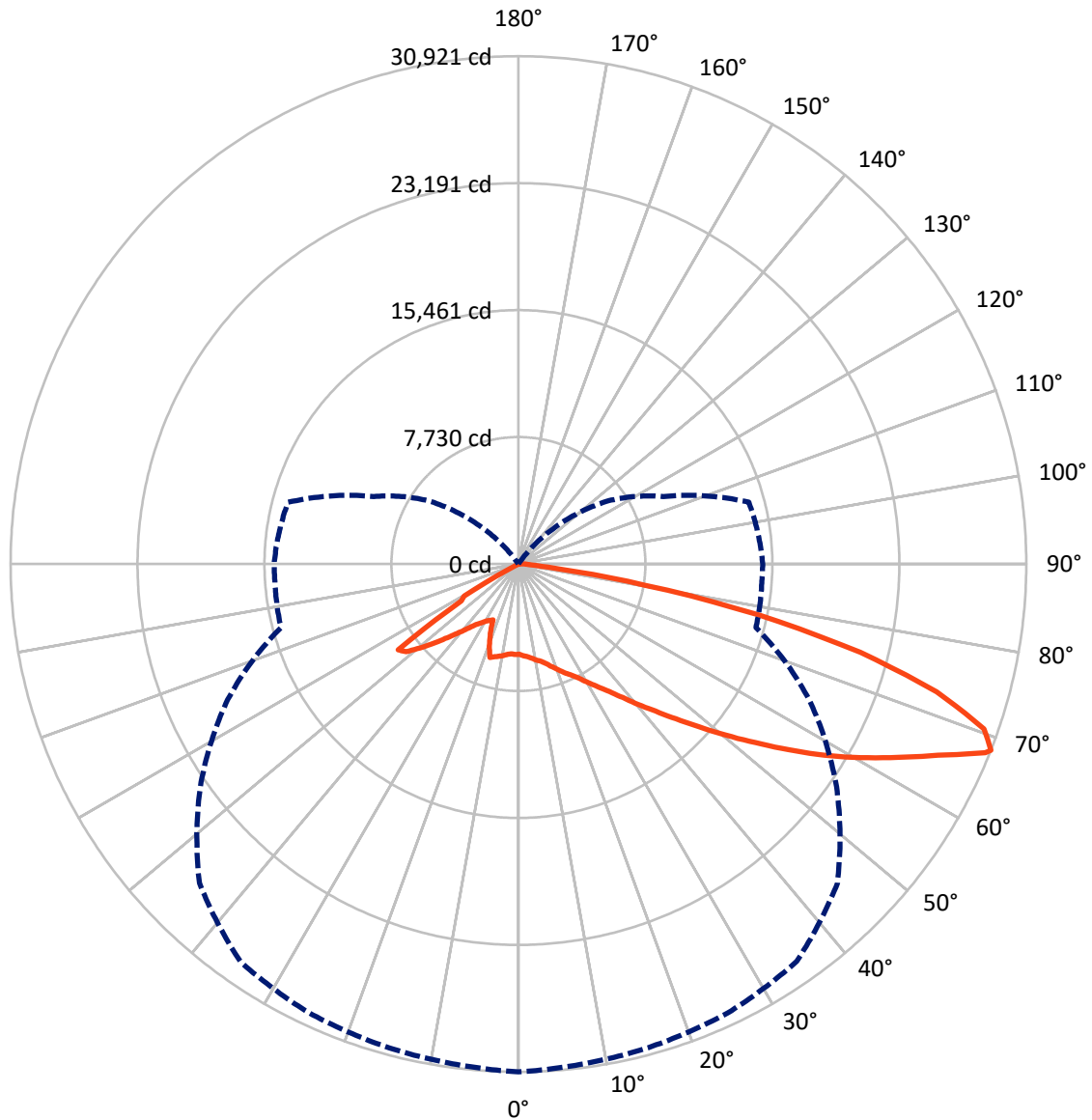


Based on 30 foot mounting height. Maximum calculated value = 6.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical



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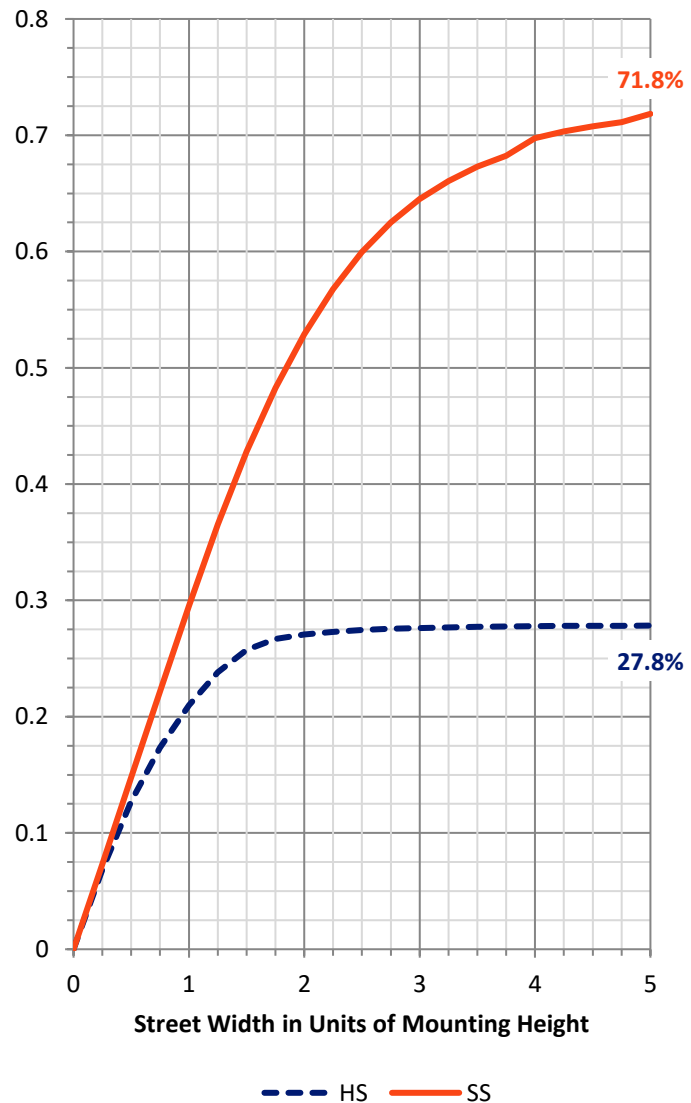
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15142.6	0.3	15142.9
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	39042.0	31.0	39073.0
	% Fixture	72.0	0.1	72.1
Total	Lumens	54184.6	31.4	54216.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	533.1	1.0
10°-20°	1689.2	3.1
20°-30°	2859.8	5.3
30°-40°	4530.6	8.4
40°-50°	7407.3	13.7
50°-60°	11346.1	20.9
60°-70°	13950.9	25.7
70°-80°	10779.8	19.9
80°-90°	1087.7	2.0
90°-100°	30.9	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°	54184.6	99.9
0°-180°	54216.0	100.0



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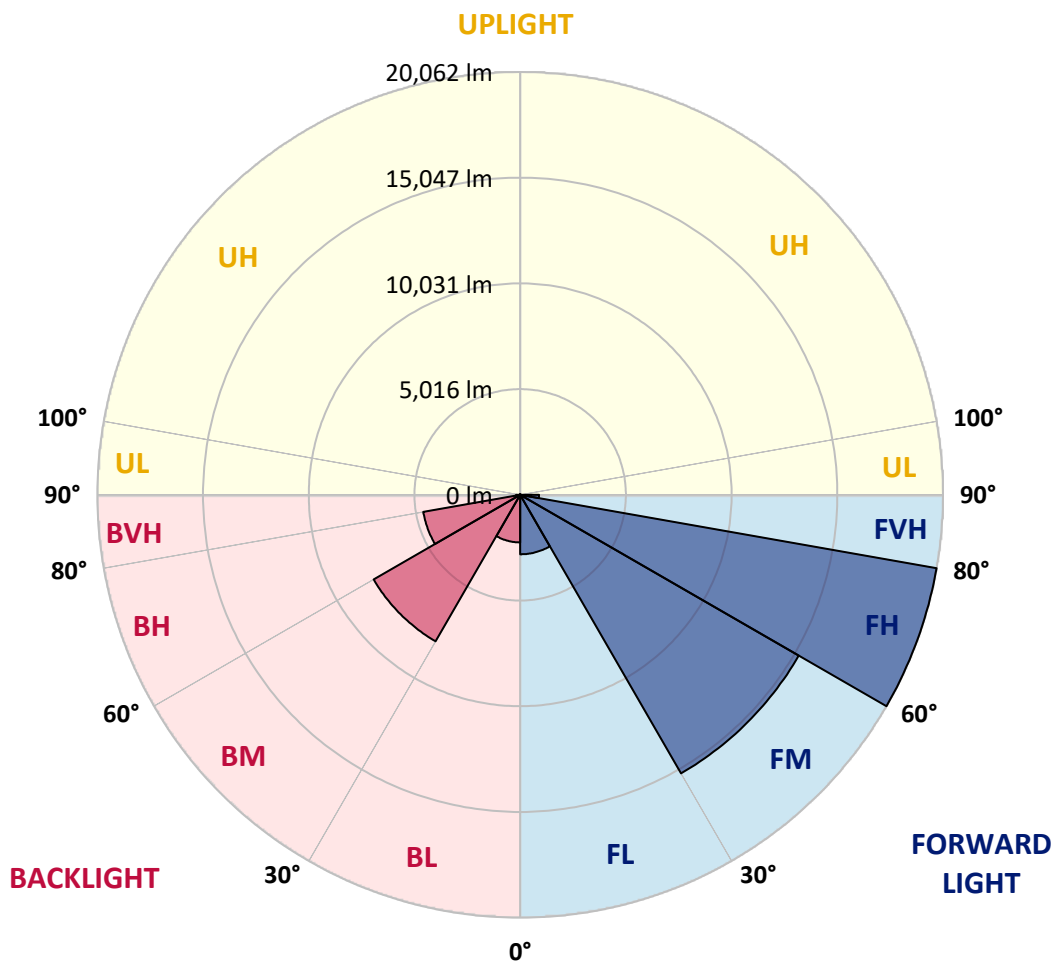
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2822.0	5.2			
FM	(30°-60°)	15260.9	28.1			
FH	(60°-80°)	20062.2	37.0			G5
FVH	(80°-90°)	897.0	1.7			G5
BL	(0°-30°)	2260.2	4.2	B3/2500		
BM	(30°-60°)	8023.2	14.8	B4/8500		
BH	(60°-80°)	4668.5	8.6	B4/5000		G4/5000
BVH	(80°-90°)	190.7	0.4			G2/225
UL	(90°-100°)	30.9	0.1		U2/50	
UH	(100°-180°)	0.3	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°	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7
2.5°	5591.9	5581.5	5571.0	5594.5	5503.1	5542.3	5510.9	5539.7	5518.8	5542.3	5534.4
5°	5665.0	5654.6	5623.2	5649.4	5589.3	5605.0	5565.8	5576.2	5505.7	5547.5	5544.9
7.5°	5785.2	5756.5	5735.6	5735.6	5683.3	5680.7	5618.0	5620.6	5565.8	5560.6	5571.0
10°	5947.1	5926.2	5868.8	5874.0	5800.9	5790.4	5712.1	5709.4	5665.0	5638.9	5662.4
12.5°	6067.3	6088.2	6035.9	6035.9	5962.8	5910.6	5855.7	5819.1	5785.2	5746.0	5727.7
15°	6286.7	6307.5	6237.0	6234.4	6205.7	6143.0	6082.9	6004.6	5944.5	5926.2	5897.5
17.5°	6571.3	6558.3	6498.2	6500.8	6506.0	6404.2	6344.1	6242.3	6156.1	6093.4	6077.7
20°	6861.3	6861.3	6796.0	6816.9	6790.7	6696.7	6657.5	6516.5	6396.3	6328.4	6273.6
22.5°	7185.1	7172.1	7127.7	7172.1	7119.8	7025.8	6960.5	6819.5	6665.4	6281.4	6124.7
25°	7493.3	7485.5	7503.8	7516.8	7451.5	7334.0	7289.6	7140.7	6712.4	6208.3	5892.3
27.5°	7882.5	7856.4	7898.1	7924.3	7859.0	7757.1	7663.1	7495.9	6589.6	6192.6	6158.7
30°	8381.3	8323.9	8383.9	8397.0	8329.1	8266.4	8125.4	7289.6	6631.4	6516.5	6506.0
32.5°	8914.1	8846.2	8924.6	8935.0	8846.2	8794.0	8438.8	7182.5	7041.5	6908.3	6921.3
35°	9546.2	9546.2	9585.4	9590.6	9525.3	9436.5	8083.6	7704.9	7579.5	7456.7	7454.1
37.5°	10316.7	10293.2	10397.7	10460.3	10389.8	10136.5	8600.7	8423.1	8229.8	8073.1	7749.3
40°	11246.5	11288.3	11317.0	11379.7	11311.8	10742.4	9355.5	9154.4	9002.9	8478.0	7660.5
42.5°	12249.4	12259.9	12322.6	12400.9	12400.9	11800.2	10238.3	10066.0	9870.1	8289.9	7921.7
45°	13448.3	13424.8	13544.9	13670.3	13636.3	13014.7	11264.8	11136.8	10220.1	8835.8	8838.4
47.5°	14809.0	14780.3	14952.7	15117.2	14947.4	14362.4	12393.1	12293.8	9864.8	9760.4	9739.5
50°	16381.3	16310.8	16509.3	16728.7	16590.3	15866.8	13764.3	11857.7	10854.7	10771.1	10758.1
52.5°	18060.7	18005.9	18126.0	18499.5	18316.7	17441.7	15062.4	12233.8	12001.3	11907.3	11883.8
55°	19956.9	19849.8	20108.4	20393.1	20181.5	19183.8	16342.2	13482.2	13241.9	13080.0	12844.9
57.5°	21949.7	21795.6	21928.8	22286.7	22082.9	20967.7	17992.8	14767.2	14482.5	11985.6	11032.3
60°	23934.7	23864.2	23916.4	24232.5	23981.7	22701.9	19539.0	16054.9	12257.3	11855.1	11902.1
62.5°	25930.2	25776.1	25823.1	26146.9	25825.7	24352.6	21004.3	17225.0	12899.8	12758.7	12808.4
65°	28069.2	27886.4	27928.2	28022.2	27625.2	25833.5	22299.7	18329.8	13866.2	13717.3	13772.1
67.5°	30647.1	30479.9	30252.7	29973.3	29424.8	27405.8	23587.4	19492.0	14952.7	14869.1	14887.4
68°	30921.3	30759.4	30485.2	30153.5	29537.1	27471.1	23642.2	19526.0	14968.3	14863.9	14869.1
70°	30067.3	30163.9	29853.1	29296.8	28782.3	26515.2	22746.3	18773.8	14302.3	14148.2	14109.1
72.5°	26627.5	26839.1	26410.7	26316.7	25684.6	23621.3	19904.7	16289.9	12440.1	12489.7	12348.7
75°	21497.9	21808.7	21288.9	21317.7	20957.2	19703.6	16681.7	13563.2	10214.8	10442.1	10483.8
77.5°	14950.1	15396.7	15169.5	15396.7	15219.1	14767.2	12910.2	10444.7	7793.7	8054.9	8156.7
80°	7796.3	8326.5	8626.8	8720.9	8778.3	8760.0	7861.6	6268.4	4505.4	4602.0	4596.8
82.5°	2465.6	2337.6	2413.3	2392.4	2327.1	2353.3	2120.8	1658.5	1149.2	1266.7	1211.9
85°	744.4	749.6	728.7	723.5	668.6	587.7	480.6	276.9	135.8	159.3	148.9
87.5°	548.5	553.7	511.9	485.8	454.5	394.4	305.6	172.4	65.3	62.7	49.6
90°	303.0	292.5	271.6	250.7	237.7	203.7	154.1	65.3	23.5	18.3	15.7
92.5°	164.5	156.7	146.3	138.4	120.1	96.6	62.7	20.9	10.4	2.6	0.0
95°	75.7	70.5	67.9	60.1	52.2	36.6	20.9	13.1	7.8	2.6	0.0
97.5°	34.0	31.3	28.7	23.5	18.3	10.4	10.4	7.8	5.2	2.6	0.0
100°	7.8	7.8	5.2	5.2	5.2	5.2	5.2	5.2	5.2	2.6	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	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°	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7	5492.7
2.5°	5526.6	5510.9	5503.1	5453.5	5469.2	5424.8	5510.9	5490.0	5477.0	5513.6
5°	5531.8	5477.0	5510.9	5482.2	5492.7	5430.0	5497.9	5469.2	5466.5	5482.2
7.5°	5544.9	5508.3	5542.3	5484.8	5510.9	5484.8	5534.4	5505.7	5529.2	5544.9
10°	5615.4	5594.5	5578.8	5565.8	5584.1	5531.8	5594.5	5597.1	5605.0	5652.0
12.5°	5714.7	5693.8	5667.7	5633.7	5652.0	5631.1	5678.1	5691.2	5719.9	5743.4
15°	5853.1	5813.9	5803.5	5772.1	5790.4	5780.0	5790.4	5782.6	5837.4	5829.6
17.5°	6043.8	5999.4	5850.5	5699.0	5602.4	5631.1	5751.2	5907.9	5947.1	5952.3
20°	6114.3	5800.9	5785.2	5612.8	5534.4	5529.2	5281.1	4910.2	5022.5	5286.3
22.5°	6030.7	5602.4	5558.0	5524.0	5189.7	4641.2	4589.0	4534.1	4521.1	4560.2
25°	5842.6	5793.0	5753.8	5309.8	4782.2	4784.9	4709.1	4348.7	3787.1	3740.1
27.5°	6129.9	6062.0	5683.3	4999.0	4988.6	4983.4	4871.0	3946.5	3826.3	3855.0
30°	6456.4	6344.1	5354.2	5265.4	5262.8	5215.8	4367.0	3980.4	3980.4	3985.6
32.5°	6832.5	6135.2	5542.3	5584.1	5581.5	5359.5	4218.1	4192.0	4181.5	4207.6
35°	7119.8	5968.0	5947.1	6022.9	5970.6	4547.2	4481.9	4458.4	4447.9	4434.9
37.5°	7031.0	6448.6	6448.6	6495.6	6075.1	4842.3	4811.0	4811.0	4790.1	4779.6
40°	7166.8	7046.7	6986.6	7004.9	4414.0	5200.1	5223.6	5218.4	5215.8	5234.1
42.5°	7882.5	7775.4	7720.5	7072.8	4941.6	5168.8	5743.4	5740.8	5748.6	5740.8
45°	8794.0	8694.8	8551.1	6618.4	5610.2	4531.5	6331.1	6359.8	6362.4	6359.8
47.5°	9749.9	9687.2	8216.8	7326.2	6336.3	4863.2	6051.6	7067.6	7054.5	7070.2
50°	10760.7	10478.6	8175.0	8164.6	7109.4	5411.7	5414.3	7686.6	7819.8	7861.6
52.5°	11886.4	9499.2	9060.4	8266.4	7892.9	5975.8	5918.4	6811.6	8629.5	8671.2
55°	11040.2	10034.6	10026.8	7357.5	8211.6	6519.1	6526.9	6464.3	7913.8	8995.1
57.5°	10985.3	11008.8	10990.5	8209.0	5991.5	6111.7	7112.0	7057.1	5124.4	4152.8
60°	11933.4	11967.4	10677.1	8864.5	6477.3	3758.4	4380.0	3721.8	3771.5	3810.6
62.5°	12839.7	12850.2	8684.3	5811.3	3209.9	151.5	73.1	60.1	57.5	57.5
65°	13842.6	13842.6	9308.5	6338.9	3100.2	57.5	10.4	7.8	28.7	28.7
67.5°	14811.6	14597.5	9765.6	6730.7	3155.1	7.8	0.0	0.0	0.0	0.0
68°	14756.8	14521.7	9723.8	6720.2	3147.2	5.2	0.0	0.0	0.0	0.0
70°	13936.7	13709.4	9225.0	6414.6	3029.7	5.2	0.0	0.0	0.0	0.0
72.5°	12301.7	12092.7	8169.8	5654.6	2732.0	2.6	0.0	0.0	0.0	0.0
75°	10413.3	10384.6	7057.1	4771.8	2342.8	2.6	0.0	0.0	0.0	0.0
77.5°	8378.7	8248.1	5516.2	3740.1	1888.3	0.0	0.0	0.0	0.0	0.0
80°	4667.3	4860.6	3228.2	2199.2	1188.4	0.0	0.0	0.0	0.0	0.0
82.5°	1261.5	1180.5	705.2	478.0	227.2	0.0	0.0	0.0	0.0	0.0
85°	161.9	177.6	81.0	65.3	15.7	0.0	0.0	0.0	0.0	0.0
87.5°	83.6	99.2	26.1	20.9	5.2	0.0	0.0	0.0	0.0	0.0
90°	15.7	18.3	7.8	2.6	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)