

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: P256710

Luminaire Tested: **CST-10-8-D-U-T5R-7050-HSS-HM-EX90**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
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-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 90
DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 69411 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B5 - U2 - G5

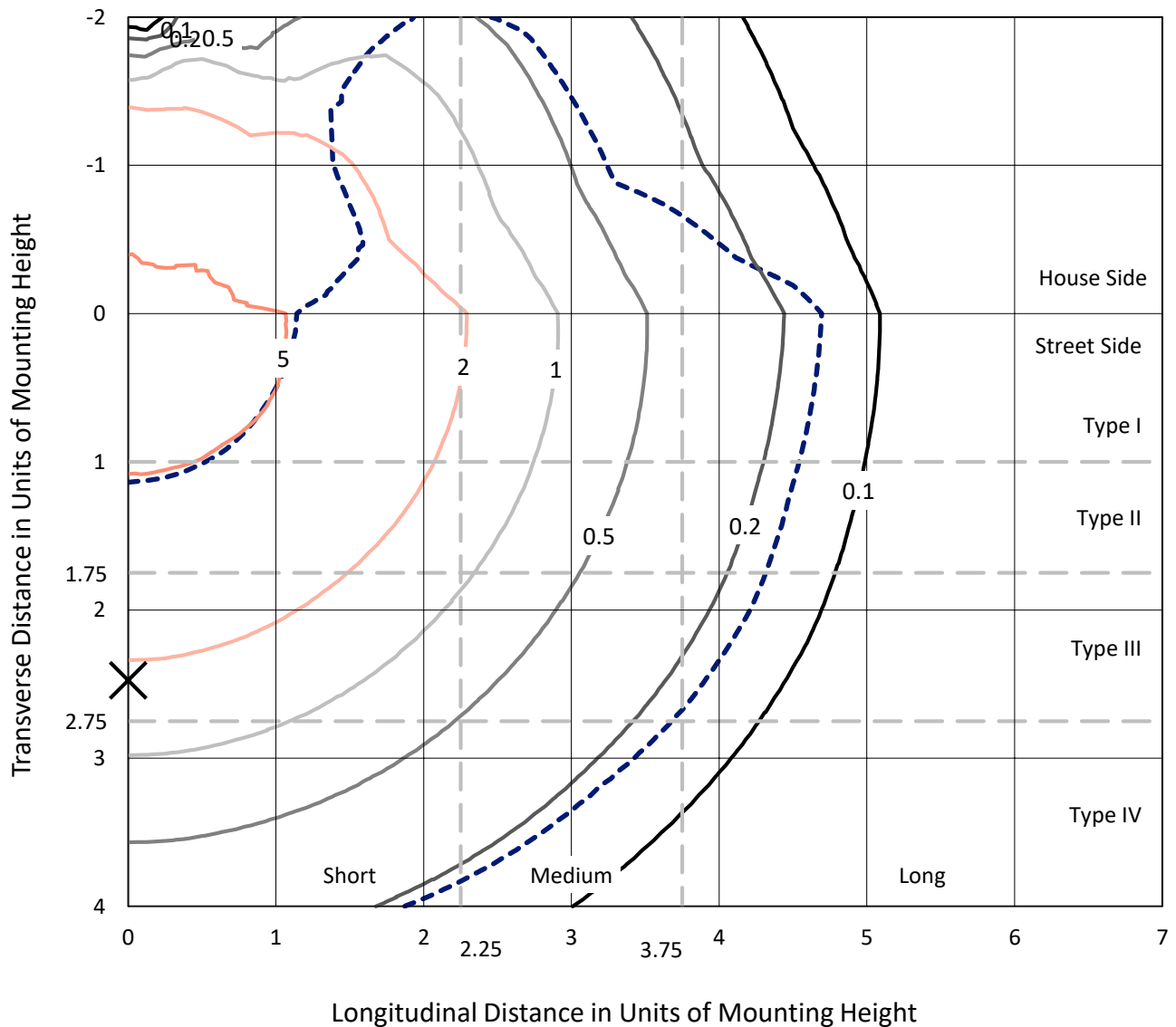
Input Watts (W): 631
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

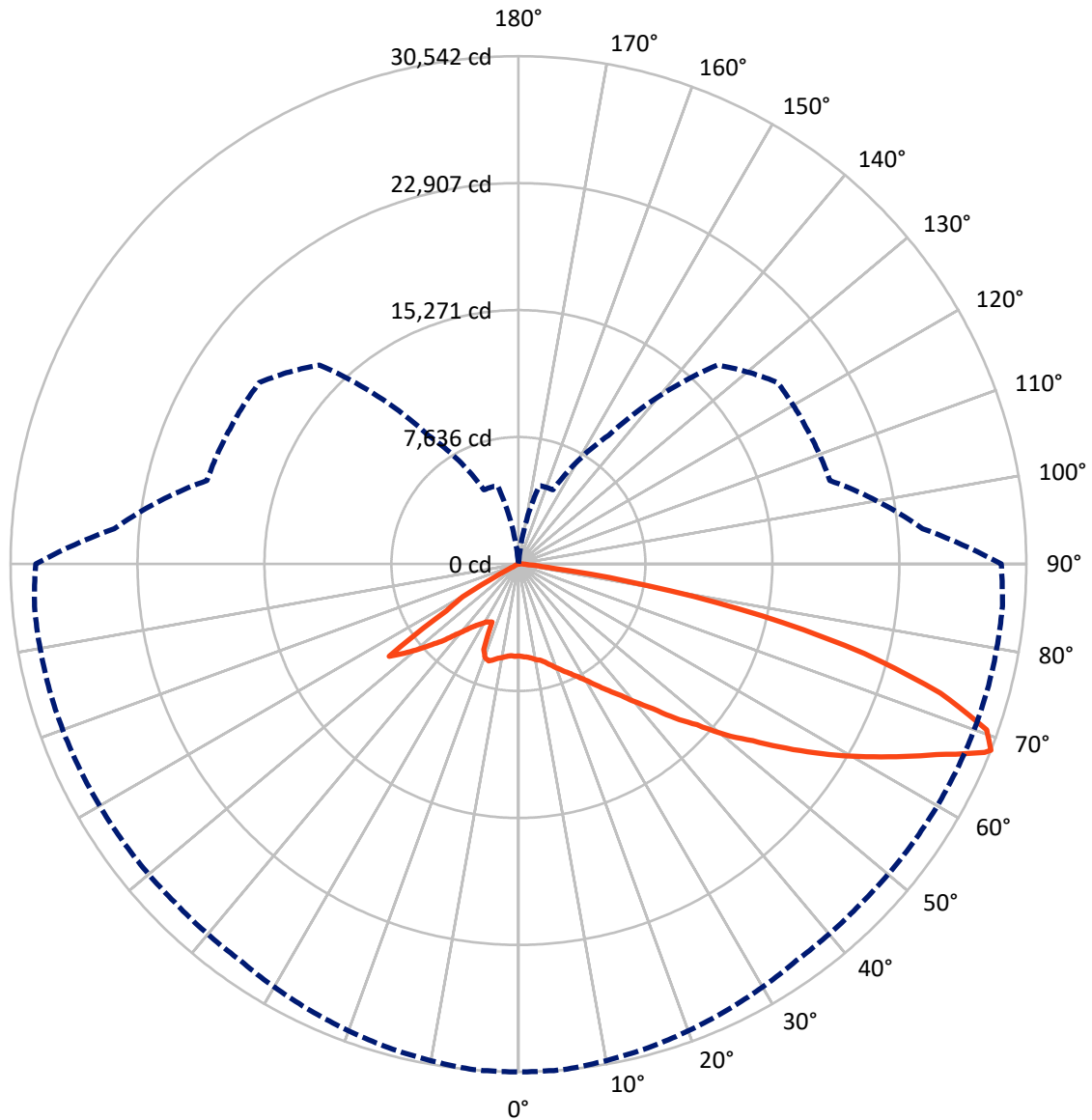


Based on 30 foot mounting height. Maximum calculated value = 6.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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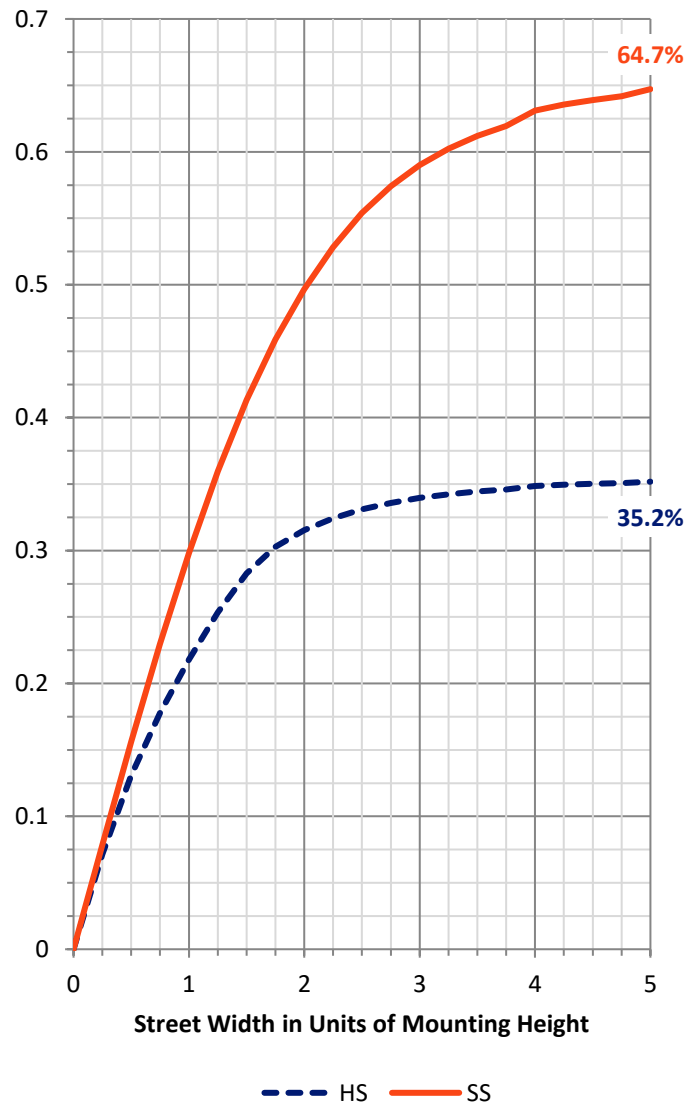
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	24427.9	4.2	24432.1
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	44960.6	18.3	44978.8
	% Fixture	64.8	0.0	64.8
Total	Lumens	69388.5	22.5	69411.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	534.4	0.8
10°-20°	1712.2	2.5
20°-30°	3056.5	4.4
30°-40°	4972.3	7.2
40°-50°	8491.3	12.2
50°-60°	14168.1	20.4
60°-70°	19710.7	28.4
70°-80°	15278.9	22.0
80°-90°	1464.1	2.1
90°-100°	17.7	0.0
100°-110°	1.5	0.0
110°-120°	0.8	0.0
120°-130°	0.5	0.0
130°-140°	0.5	0.0
140°-150°	0.6	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	69388.5	100.0
0°-180°	69411.0	100.0

Coefficient of Utilization



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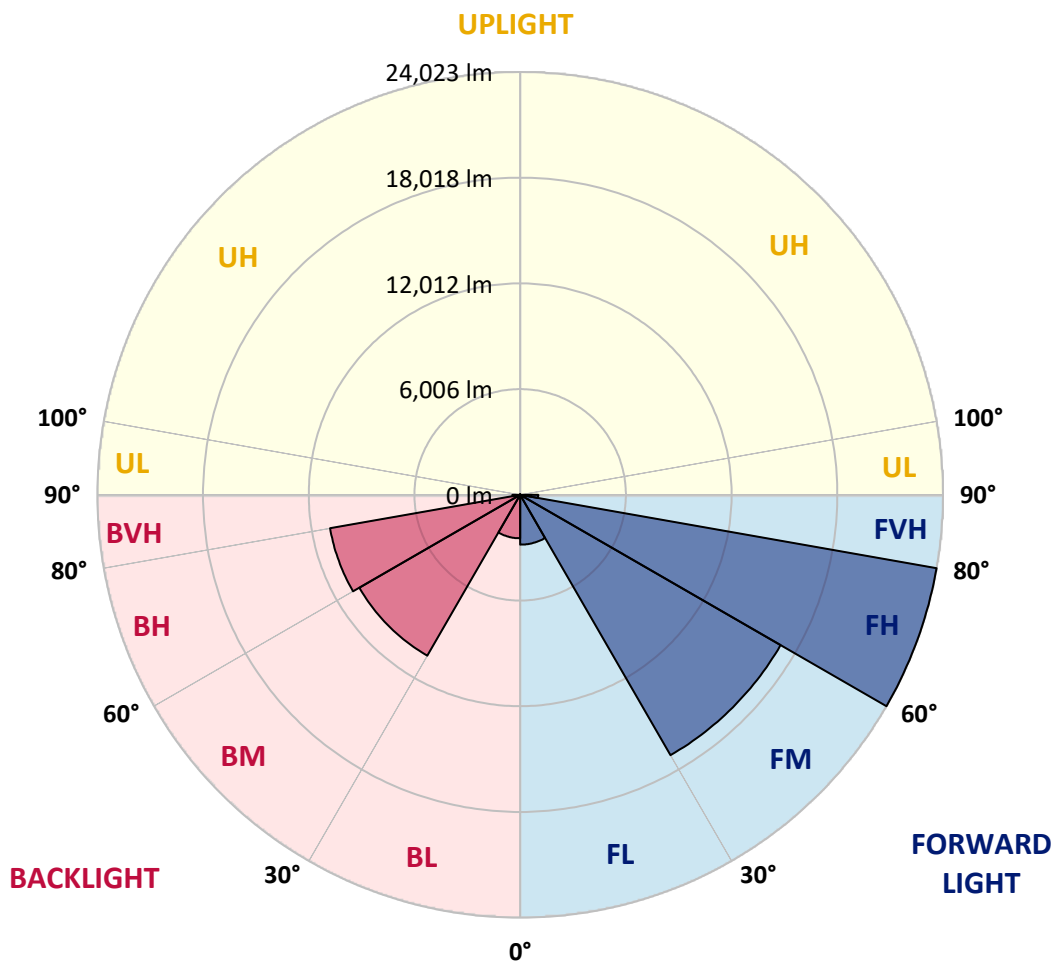
CATALOG NUMBER: CST-10-8-D-U-T5R-7050-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2832.9	4.1			
FM	(30°-60°)	17080.0	24.6			
FH	(60°-80°)	24023.4	34.6			G5
FVH	(80°-90°)	1024.3	1.5			G5
BL	(0°-30°)	2470.2	3.6	B3/2500		
BM	(30°-60°)	10551.8	15.2	B5		
BH	(60°-80°)	10966.2	15.8	B5		G5
BVH	(80°-90°)	439.8	0.6			G3/500
UL	(90°-100°)	17.7	0.0		U2/50	
UH	(100°-180°)	4.2	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°	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9
2.5°	5586.6	5578.8	5573.6	5607.5	5510.9	5550.1	5523.9	5557.9	5550.1	5565.7	5568.3
5°	5625.8	5612.7	5594.5	5631.0	5573.6	5599.7	5571.0	5586.6	5537.0	5578.8	5584.0
7.5°	5714.6	5678.0	5675.4	5685.9	5646.7	5665.0	5615.4	5633.6	5607.5	5591.9	5607.5
10°	5847.8	5816.5	5782.5	5803.4	5738.1	5761.6	5709.4	5725.1	5712.0	5678.0	5709.4
12.5°	5939.2	5949.7	5926.2	5941.8	5884.4	5863.5	5845.2	5842.6	5834.8	5785.1	5777.3
15°	6142.9	6148.2	6106.4	6116.8	6103.8	6093.3	6067.2	6046.3	6004.5	5973.2	5952.3
17.5°	6409.3	6380.6	6341.4	6351.9	6388.5	6341.4	6325.8	6286.6	6226.5	6174.3	6163.8
20°	6688.8	6670.5	6634.0	6654.9	6652.2	6620.9	6628.7	6563.4	6477.3	6432.9	6398.9
22.5°	6999.6	6973.5	6947.4	6986.6	6955.2	6934.3	6926.5	6882.1	6775.0	6725.4	6717.5
25°	7310.4	7297.4	7315.6	7302.6	7258.2	7242.5	7253.0	7237.3	7111.9	7051.8	7015.3
27.5°	7699.6	7668.2	7697.0	7681.3	7634.3	7636.9	7639.5	7642.1	7501.1	7422.7	7370.5
30°	8143.6	8133.1	8169.7	8120.1	8075.7	8104.4	8127.9	8075.7	7952.9	7838.0	7819.7
32.5°	8720.8	8655.5	8697.3	8634.6	8566.7	8634.6	8676.4	8571.9	8472.7	8326.4	8352.5
35°	9360.7	9339.8	9339.8	9258.8	9222.2	9329.3	9371.1	9269.3	9115.2	8987.2	8955.8
37.5°	10039.7	10060.6	10125.9	10092.0	10058.0	10123.3	10217.3	10081.5	9883.0	9747.2	9710.7
40°	10940.8	10993.0	11037.4	10993.0	10953.9	10995.7	11102.7	10925.1	10786.7	10713.6	10635.2
42.5°	11909.8	11998.6	11969.9	11975.1	12009.0	12069.1	12176.2	12014.3	11854.9	11852.3	11737.4
45°	13220.9	13220.9	13160.8	13218.3	13213.1	13361.9	13409.0	13320.2	13187.0	13147.8	13048.5
47.5°	14445.8	14573.8	14550.3	14633.9	14568.6	14694.0	14853.3	14777.5	14623.4	14485.0	14464.1
50°	16154.0	16122.6	16091.3	16216.6	16206.2	16292.4	16438.6	16391.6	16177.5	16020.8	15992.0
52.5°	17655.7	17820.3	17781.1	17969.2	17864.7	17987.4	18162.4	18154.6	17893.4	17739.3	17694.9
55°	19551.9	19661.6	19653.8	19847.0	19703.4	19865.3	20011.6	20027.2	19742.6	19523.2	19591.1
57.5°	21526.4	21617.8	21565.6	21724.9	21583.9	21805.9	21894.7	21837.2	21670.1	21393.2	21495.1
60°	23503.5	23581.9	23642.0	23655.0	23574.1	23704.7	23788.2	23837.9	23574.1	23258.0	23380.8
62.5°	25512.0	25600.8	25548.6	25569.5	25344.9	25522.5	25626.9	25640.0	25337.0	25057.6	25143.8
65°	27627.6	27750.3	27562.3	27436.9	27160.1	27157.4	27295.9	27319.4	27105.2	26906.7	26872.8
67.5°	30247.2	30302.0	29899.8	29479.3	29011.8	28910.0	29006.6	29061.4	29184.2	29179.0	29024.9
68°	30542.3	30531.9	30124.4	29623.0	29121.5	29004.0	29051.0	29121.5	29202.5	29218.2	29032.7
70°	29871.1	29743.1	29510.7	28878.6	28382.4	28074.2	27909.6	28040.2	27820.8	27823.5	27476.1
72.5°	26533.2	26517.6	26089.2	25775.8	25334.4	24822.5	24587.4	24584.8	24605.7	24454.2	24096.4
75°	21492.5	21513.4	21014.5	20797.7	20661.9	20565.3	20614.9	20769.0	20784.7	20782.1	20656.7
77.5°	14989.1	15075.3	14942.1	14589.5	14968.2	15292.1	15916.3	16234.9	16133.1	16438.6	16631.9
80°	7856.3	8028.7	8033.9	8282.0	8587.6	8882.7	9420.7	9903.9	9548.7	9392.0	9230.1
82.5°	2065.9	2128.6	2222.6	2079.0	2123.4	2167.8	2585.7	2546.5	2350.6	2455.1	2611.8
85°	590.3	608.5	582.4	527.6	483.2	444.0	454.5	383.9	334.3	331.7	321.3
87.5°	415.3	446.6	394.4	339.5	305.6	284.7	274.2	232.4	188.0	164.5	130.6
90°	193.3	190.7	164.5	128.0	112.3	107.1	107.1	83.6	47.0	28.7	26.1
92.5°	81.0	83.6	67.9	54.8	47.0	36.6	28.7	18.3	10.4	5.2	2.6
95°	28.7	31.3	26.1	20.9	18.3	15.7	13.1	10.4	5.2	2.6	2.6
97.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	5.2	5.2	2.6	2.6
100°	0.0	0.0	0.0	2.6	5.2	5.2	5.2	5.2	2.6	2.6	2.6
102.5°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
105°	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6



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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	2.6	2.6	2.6	2.6
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
165°	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6
167.5°	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6
170°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
172.5°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
175°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
177.5°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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°	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9	5523.9
2.5°	5563.1	5550.1	5544.8	5479.5	5497.8	5458.7	5550.1	5523.9	5518.7	5555.3
5°	5576.2	5516.1	5552.7	5510.9	5521.3	5463.9	5537.0	5505.7	5508.3	5526.6
7.5°	5584.0	5550.1	5586.6	5513.5	5542.2	5521.3	5573.6	5542.2	5573.6	5589.2
10°	5662.4	5646.7	5620.6	5599.7	5620.6	5571.0	5636.3	5631.0	5649.3	5696.3
12.5°	5769.5	5751.2	5725.1	5688.5	5704.2	5685.9	5735.5	5740.7	5774.7	5798.2
15°	5928.8	5905.3	5892.2	5855.6	5860.9	5847.8	5876.5	5881.8	5949.7	5941.8
17.5°	6153.4	6127.3	6137.7	6103.8	6090.7	6059.4	6007.1	5988.8	6069.8	6093.3
20°	6398.9	6370.2	6383.2	6354.5	6111.6	5618.0	5949.7	6176.9	6004.5	5991.5
22.5°	6678.4	6647.0	6657.5	6613.1	6312.7	5388.1	4688.2	4630.7	5288.9	5555.3
25°	6986.6	6944.8	6939.5	6882.1	5894.8	4878.8	4800.5	4698.6	4218.0	3836.7
27.5°	7367.9	7305.2	7273.8	6406.7	5853.0	5069.5	4952.0	4588.9	3891.6	3915.1
30°	7780.5	7689.1	7101.5	6529.5	6158.6	5294.1	5137.4	4022.2	4027.4	4016.9
32.5°	8250.7	8046.9	6957.8	6905.6	6524.3	5534.4	4265.1	4218.0	4223.3	4238.9
35°	8867.0	7469.7	7441.0	7443.6	6970.9	5354.2	4518.4	4474.0	4479.2	4489.7
37.5°	8997.6	8052.2	8057.4	7997.3	7446.2	4891.9	4826.6	4824.0	4813.5	4803.1
40°	9102.1	8786.1	8710.3	8613.7	6903.0	5268.0	5247.1	5231.4	5239.3	5260.2
42.5°	9919.6	9681.9	9608.8	9493.9	7080.6	5837.4	5769.5	5751.2	5772.1	5761.6
45°	11006.1	10807.6	10664.0	8778.2	7822.3	6456.4	6401.5	6378.0	6385.8	6451.1
47.5°	12155.3	12037.8	11599.0	9483.4	8686.8	7187.7	7132.8	7096.2	7109.3	7093.6
50°	13406.3	13299.3	10737.1	10546.4	9642.7	7976.4	7895.5	7882.4	7887.6	7885.0
52.5°	14764.5	12526.2	11899.3	11700.8	10650.9	8801.7	8773.0	8702.5	8718.2	8702.5
55°	16357.7	13194.8	13179.1	12946.7	11784.4	9760.3	9726.3	9627.1	9002.9	9548.7
57.5°	17869.9	14472.0	14472.0	14247.3	12944.1	10713.6	10658.7	10585.6	6398.9	5160.9
60°	19525.8	15751.7	15715.2	15529.7	14061.9	11622.5	9446.9	9426.0	3865.5	3878.5
62.5°	20957.0	16893.1	16958.4	16786.0	15138.0	8702.5	4377.4	4288.6	381.3	587.7
65°	22560.7	18154.6	18232.9	18055.3	16302.8	9230.1	4750.9	4706.5	86.2	78.4
67.5°	24378.5	19413.5	19235.9	19040.0	16984.5	9504.3	4936.3	4897.1	23.5	15.7
68°	24394.2	19387.4	19157.5	19024.3	16919.2	9452.1	4920.6	4884.1	23.5	15.7
70°	23140.5	18410.5	18180.7	18214.7	16109.6	9039.4	4716.9	4649.0	23.5	15.7
72.5°	20301.5	16383.8	16125.2	15942.4	14286.5	8036.5	4228.5	4100.5	23.5	15.7
75°	17371.0	13884.3	13456.0	13053.8	11494.5	6576.5	3468.5	3324.8	23.5	15.7
77.5°	13691.0	10583.0	9974.4	9710.7	8637.2	4857.9	2577.8	2421.1	23.5	13.1
80°	7566.4	6072.4	5555.3	5393.4	4938.9	2854.7	1478.3	1384.3	20.9	13.1
82.5°	1956.2	1467.8	1279.8	1235.4	1159.6	676.5	360.4	342.1	18.3	10.4
85°	279.5	206.3	227.2	269.0	258.6	175.0	125.4	107.1	15.7	7.8
87.5°	146.3	122.8	143.6	161.9	164.5	101.9	52.2	28.7	7.8	0.0
90°	23.5	23.5	26.1	28.7	28.7	13.1	10.4	0.0	0.0	0.0
92.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.6	5.2	2.6	2.6	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°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.6	2.6	2.6	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)