

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: P522234

Luminaire Tested: **CST-CA8-480-722-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522234
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-480-722-U-T5R-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44620.9 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

Input Watts (W): 480.8
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

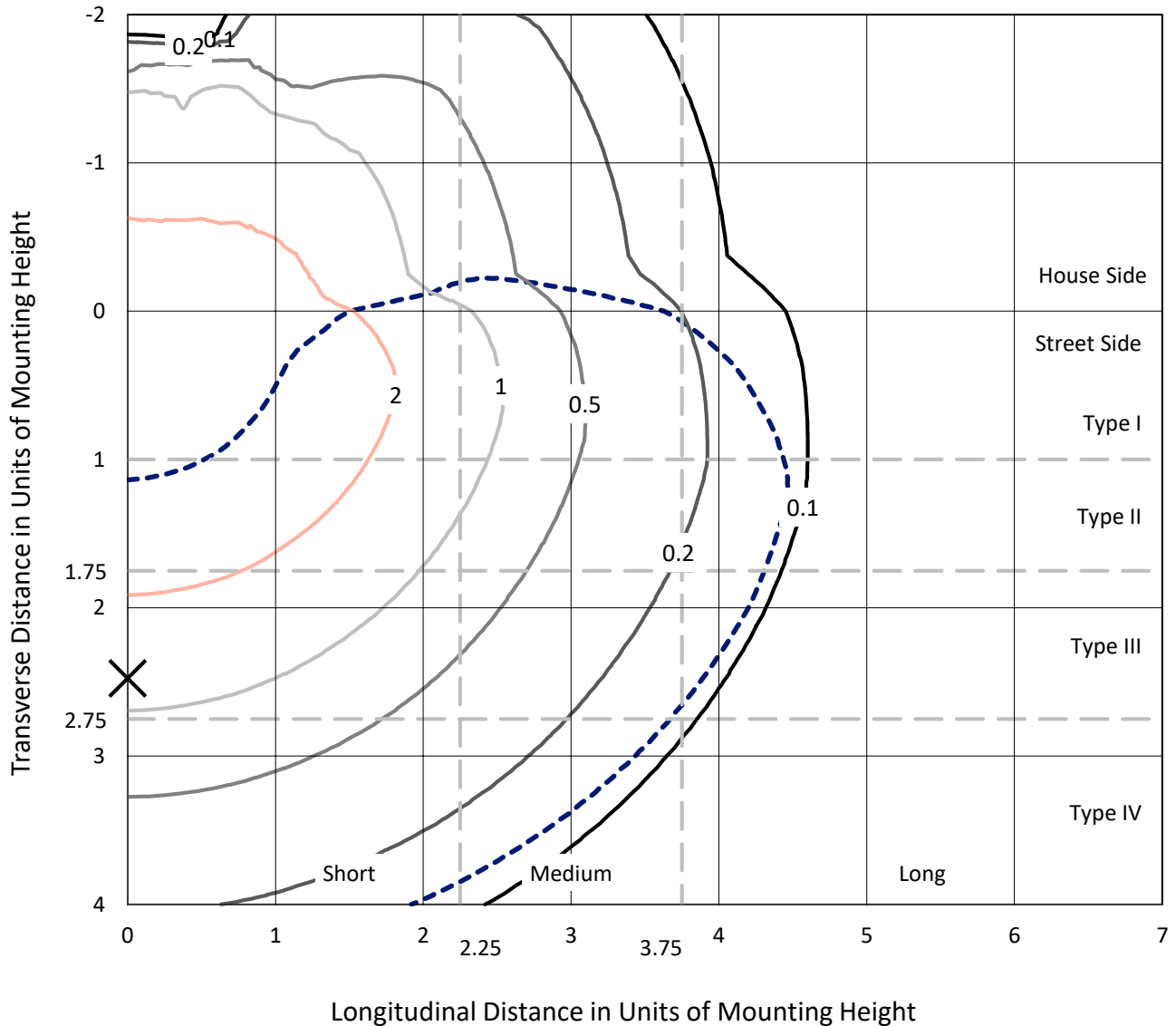




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Iso-Footcandle Lines of Horizontal Illumination

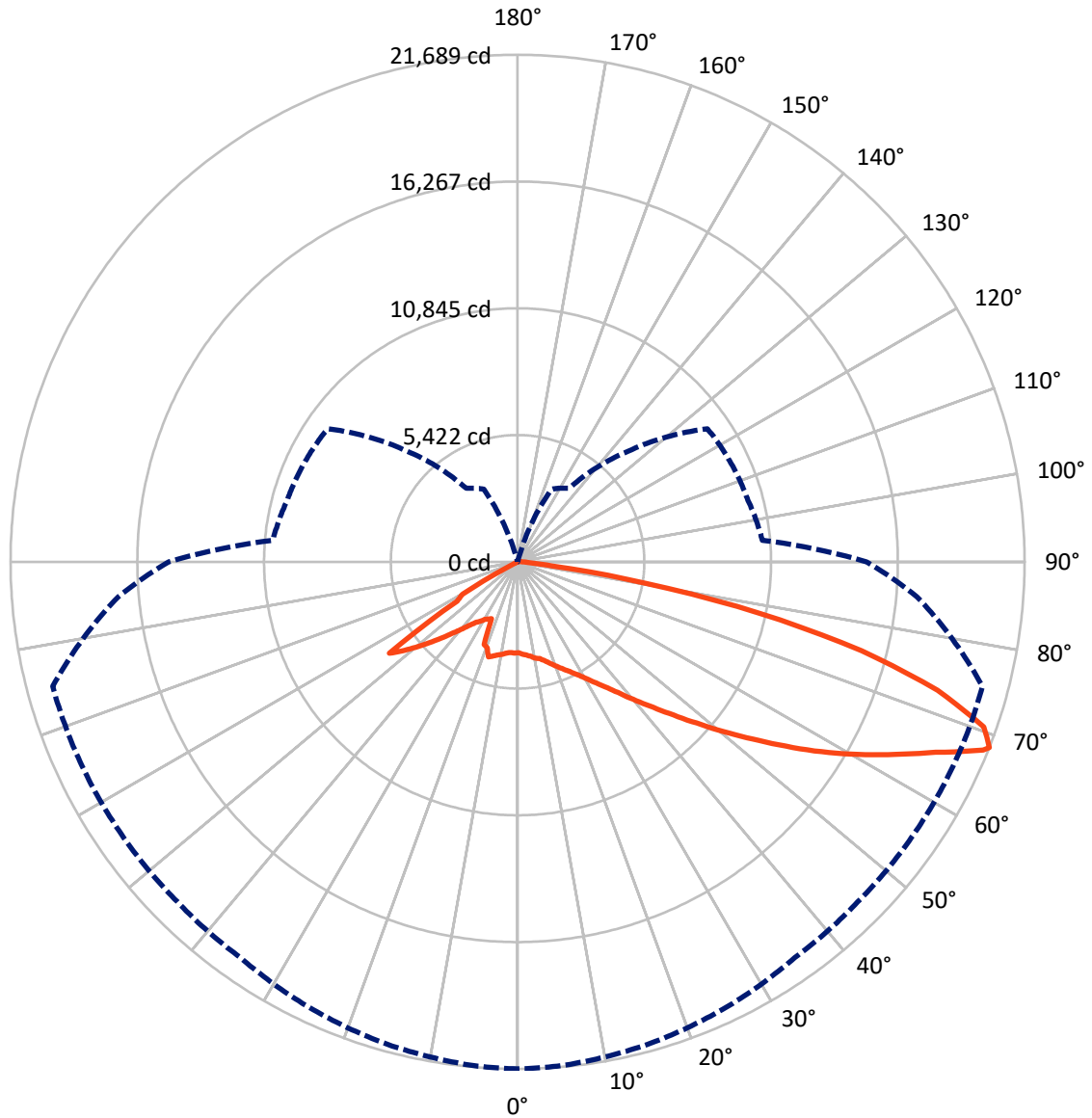
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 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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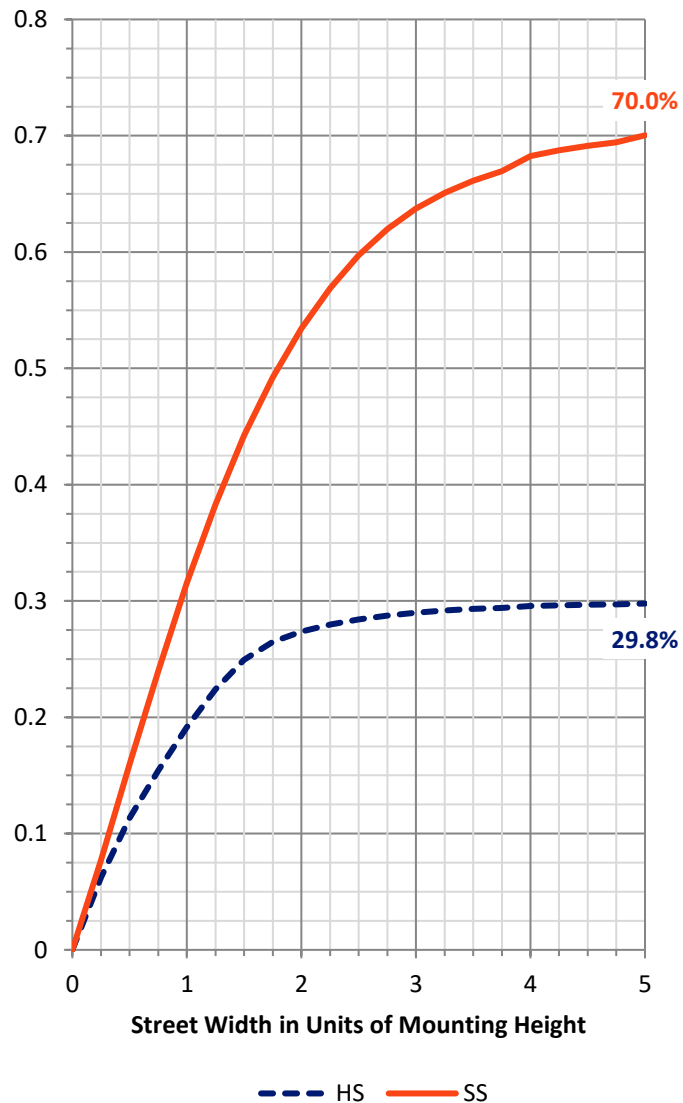
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13301.0	2.0	13303.0
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	31299.6	18.2	31317.9
	% Fixture	70.1	0.0	70.2
Total	Lumens	44600.7	20.3	44620.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.6	0.8
10°-20°	1201.7	2.7
20°-30°	2058.3	4.6
30°-40°	3339.0	7.5
40°-50°	5631.1	12.6
50°-60°	9178.9	20.6
60°-70°	12310.4	27.6
70°-80°	9562.0	21.4
80°-90°	941.7	2.1
90°-100°	17.9	0.0
100°-110°	1.0	0.0
110°-120°	0.2	0.0
120°-130°	0.2	0.0
130°-140°	0.3	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	44600.7	100.0
0°-180°	44620.9	100.0

Coefficient of Utilization



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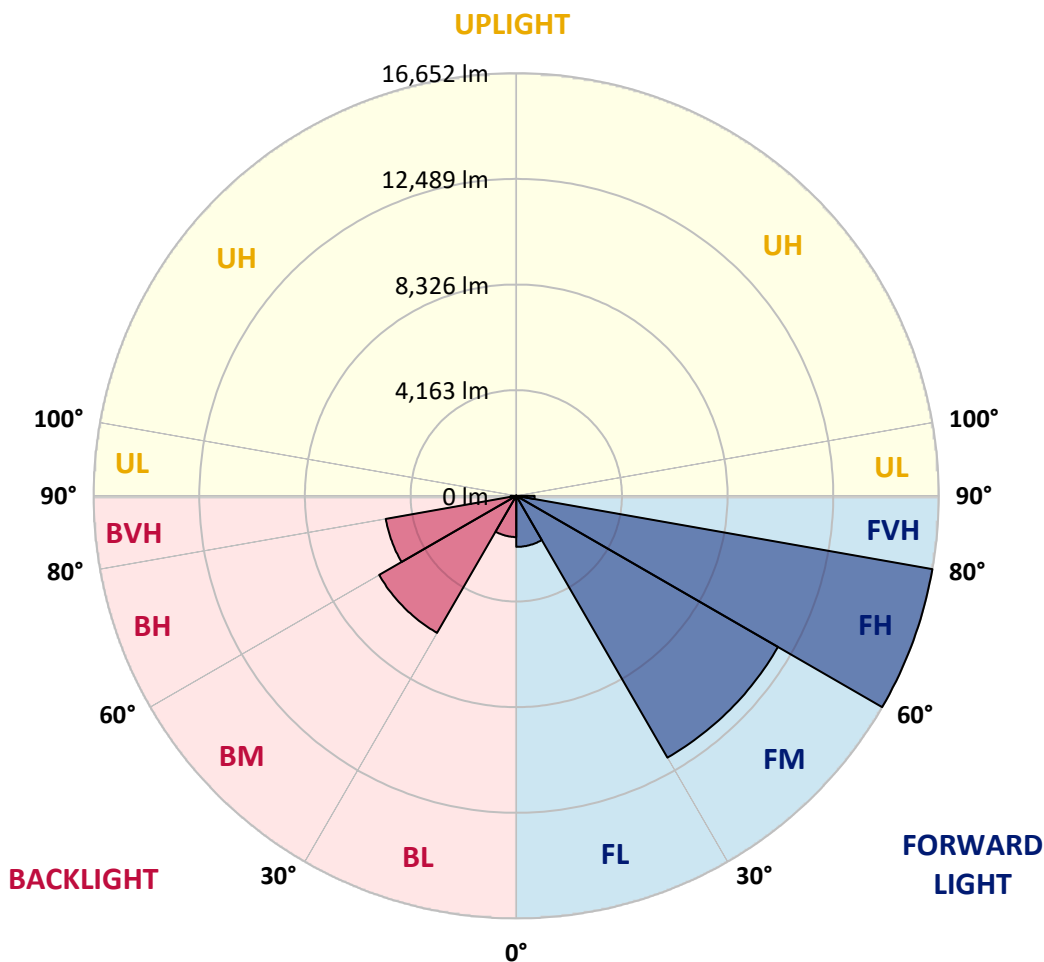
CATALOG NUMBER: CST-CA8-480-722-U-T5R-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2012.7	4.5			
FM (30°-60°)	11910.9	26.7			
FH (60°-80°)	16652.0	37.3			G5
FVH (80°-90°)	724.0	1.6			G4/750
BL (0°-30°)	1624.9	3.6	B3/2500		
BM (30°-60°)	6238.1	14.0	B4/8500		
BH (60°-80°)	5220.3	11.7	B5		G5
BVH (80°-90°)	217.7	0.5			G2/225
UL (90°-100°)	17.9	0.0		U2/50	
UH (100°-180°)	2.4	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°	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1
2.5°	3954.7	3943.6	3941.8	3963.9	3893.8	3928.9	3897.5	3923.3	3906.7	3919.7	3921.5
5°	4008.2	3987.9	3975.0	4000.9	3956.6	3973.2	3938.1	3949.2	3903.0	3928.9	3932.6
7.5°	4085.7	4052.5	4048.8	4056.2	4017.5	4030.4	3973.2	3986.1	3952.9	3938.1	3951.0
10°	4190.9	4159.6	4135.6	4152.2	4100.5	4107.9	4047.0	4048.8	4024.8	3997.2	4019.3
12.5°	4250.0	4253.7	4242.6	4255.5	4213.1	4189.1	4146.6	4131.9	4107.9	4074.7	4063.6
15°	4397.6	4390.2	4368.1	4388.4	4382.9	4360.7	4309.0	4275.8	4224.1	4205.7	4187.2
17.5°	4578.5	4554.5	4536.0	4561.9	4589.5	4543.4	4493.6	4447.4	4379.2	4342.3	4320.1
20°	4768.5	4751.9	4733.5	4774.1	4783.3	4748.2	4711.3	4643.1	4563.7	4515.7	4469.6
22.5°	4980.8	4947.5	4953.1	5006.6	4990.0	4973.4	4925.4	4870.0	4774.1	4713.2	4580.3
25°	5200.4	5181.9	5207.8	5231.7	5218.8	5183.8	5159.8	5119.2	5012.1	4938.3	4744.6
27.5°	5473.5	5444.0	5477.2	5486.4	5475.3	5466.1	5432.9	5401.5	5285.3	5202.2	4960.5
30°	5794.6	5759.5	5813.0	5800.1	5789.1	5796.4	5776.1	5707.9	5604.5	5491.9	5250.2
32.5°	6176.6	6130.5	6191.4	6163.7	6137.8	6189.5	6141.5	6076.9	5955.1	5824.1	5587.9
35°	6619.5	6621.3	6652.7	6606.6	6597.3	6652.7	6621.3	6542.0	6429.4	6292.9	5957.0
37.5°	7156.5	7141.7	7221.1	7198.9	7165.7	7239.5	7248.8	7149.1	6946.1	6811.4	6414.6
40°	7809.8	7806.1	7831.9	7835.6	7826.4	7861.5	7878.1	7745.2	7614.2	7411.2	6052.9
42.5°	8507.3	8522.1	8568.2	8535.0	8579.3	8625.5	8631.0	8520.3	8332.0	7110.4	6429.4
45°	9345.2	9391.3	9422.7	9415.3	9435.6	9502.0	9507.6	9448.5	9264.0	7702.7	7112.2
47.5°	10306.6	10350.9	10360.1	10419.2	10400.7	10494.9	10481.9	10483.8	10286.3	8527.6	7855.9
50°	11412.0	11432.3	11508.0	11541.2	11495.1	11622.4	11589.2	11629.8	11386.2	9472.5	8655.0
52.5°	12585.7	12620.8	12652.1	12777.6	12718.6	12829.3	12785.0	12879.1	12596.8	10434.0	9542.6
55°	13919.9	13925.5	13979.0	14106.3	14028.8	14161.7	14097.1	14132.2	13907.0	11496.9	10467.2
57.5°	15333.5	15315.1	15335.4	15436.9	15366.7	15466.4	15440.6	15473.8	15263.4	12615.2	11142.6
60°	16732.3	16704.7	16734.2	16802.5	16706.5	16878.1	16785.9	16817.2	16590.2	13757.5	12105.9
62.5°	18138.5	18118.2	18085.0	18153.3	18013.1	18101.6	18140.4	18088.7	17889.4	14791.0	12943.7
65°	19648.1	19627.8	19506.0	19548.4	19297.5	19255.0	19269.8	19286.4	19153.5	15815.2	13862.7
67.5°	21482.4	21452.9	21224.1	20936.2	20574.5	20495.1	20502.5	20546.8	20565.3	17132.8	14938.6
68°	21689.1	21635.6	21380.9	21046.9	20668.6	20576.3	20567.1	20576.3	20585.6	17143.9	14927.5
70°	21161.3	21141.0	20947.3	20543.1	20155.6	19934.1	19742.2	19734.8	19646.2	16267.3	14102.6
72.5°	18778.9	18753.1	18522.4	18236.4	17996.4	17649.5	17400.4	17415.1	17269.4	14377.6	12344.0
75°	15197.0	15195.1	14918.3	14678.4	14682.1	14656.3	14573.2	14719.0	14567.7	12194.5	10528.1
77.5°	10590.8	10627.7	10609.3	10469.0	10666.5	10939.6	11236.7	11517.2	11430.5	9633.0	8394.8
80°	5532.5	5635.9	6001.3	6017.9	6156.3	6422.0	6625.0	6813.3	6826.2	5466.1	4849.7
82.5°	1470.8	1502.2	1625.8	1590.7	1579.7	1633.2	1677.5	1683.0	1686.7	1424.7	1330.5
85°	457.7	470.6	455.8	435.5	404.1	369.1	359.9	293.4	232.5	191.9	167.9
87.5°	324.8	346.9	313.7	295.3	262.0	249.1	223.3	175.3	136.6	96.0	64.6
90°	167.9	171.6	153.2	131.0	121.8	114.4	97.8	70.1	35.1	18.5	16.6
92.5°	84.9	86.7	75.7	64.6	55.4	48.0	36.9	20.3	11.1	5.5	1.8
95°	33.2	35.1	31.4	27.7	22.1	16.6	14.8	11.1	7.4	3.7	1.8
97.5°	11.1	11.1	11.1	9.2	9.2	9.2	9.2	7.4	5.5	3.7	1.8
100°	0.0	0.0	0.0	1.8	3.7	5.5	5.5	5.5	3.7	1.8	1.8
102.5°	0.0	0.0	0.0	0.0	0.0	1.8	3.7	3.7	3.7	1.8	1.8
105°	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8



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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	1.8	1.8	1.8
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
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	1.8
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8
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°	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1	3890.1
2.5°	3912.3	3901.2	3906.7	3860.6	3871.7	3842.1	3904.9	3888.3	3880.9	3906.7
5°	3921.5	3880.9	3914.1	3882.7	3888.3	3845.8	3897.5	3877.2	3875.4	3890.1
7.5°	3925.2	3904.9	3936.3	3884.6	3901.2	3884.6	3923.3	3903.0	3921.5	3934.4
10°	3976.9	3965.8	3962.1	3943.6	3956.6	3919.7	3967.6	3967.6	3976.9	4011.9
12.5°	4052.5	4037.8	4028.5	3995.3	4008.2	3997.2	4035.9	4043.3	4059.9	4074.7
15°	4155.9	4130.0	4120.8	4091.3	4100.5	4098.7	4126.3	4128.2	4165.1	4163.2
17.5°	4288.7	4251.8	4262.9	4240.8	4242.6	4227.8	4213.1	4213.1	4246.3	4253.7
20°	4447.4	4237.1	3960.3	3805.2	3777.6	3797.9	3877.2	4008.2	3844.0	3890.1
22.5°	4161.4	3971.3	3958.4	3923.3	3901.2	3406.6	3279.3	3238.7	3450.9	3816.3
25°	4198.3	4117.1	4093.1	4048.8	3395.6	3390.0	3353.1	3292.2	2690.6	2677.7
27.5°	4393.9	4314.6	4275.8	3546.9	3532.1	3530.3	3474.9	2864.1	2725.7	2744.1
30°	4622.8	4530.5	3836.6	3725.9	3713.0	3683.4	3366.0	2829.0	2827.2	2829.0
32.5°	4886.6	4580.3	3947.3	3941.8	3949.2	3858.8	2982.2	2971.1	2969.3	2987.7
35°	5248.3	4250.0	4224.1	4251.8	4213.1	3336.5	3161.2	3155.7	3157.5	3148.3
37.5°	5008.4	4582.2	4576.6	4576.6	4486.2	3414.0	3378.9	3404.8	3401.1	3388.2
40°	5109.9	4984.5	4951.2	4940.2	3792.3	3683.4	3663.1	3696.4	3701.9	3711.1
42.5°	5602.7	5488.3	5471.6	5340.6	4126.3	4091.3	4028.5	4063.6	4059.9	4071.0
45°	6208.0	6130.5	6058.5	4630.1	4576.6	4532.3	4467.7	4508.3	4519.4	4512.0
47.5°	6912.9	6828.0	6307.6	5091.5	5089.6	5054.6	4982.6	5015.8	5010.3	5010.3
50°	7621.5	7529.3	5730.0	5678.3	5659.9	5604.5	5545.5	5551.0	5552.8	5571.3
52.5°	8413.2	6724.7	6342.7	6239.3	6254.1	6217.2	6160.0	4663.4	6132.3	6148.9
55°	7863.3	7038.4	7016.3	6879.7	6914.8	6866.8	6829.9	4600.6	6099.1	6739.4
57.5°	7774.7	7715.7	7697.2	7557.0	7601.2	7145.4	7486.8	5034.3	4218.6	3081.8
60°	8452.0	8389.2	8378.2	8254.5	8250.8	5678.3	6805.9	3452.8	2698.0	2716.4
62.5°	9108.9	9007.5	9035.1	8889.3	6267.0	3460.1	3050.5	77.5	123.6	131.0
65°	9841.6	9671.8	9699.5	9564.8	6464.5	3648.4	3297.7	40.6	35.1	33.2
67.5°	10546.5	10249.4	10107.3	9965.2	6713.6	3842.1	3436.2	11.1	0.0	0.0
68°	10511.5	10197.7	10052.0	9917.2	6687.8	3836.6	3428.8	11.1	0.0	0.0
70°	9919.1	9636.7	9498.3	9395.0	6385.1	3705.6	3290.4	11.1	0.0	0.0
72.5°	8671.6	8514.7	8426.1	8335.7	5672.8	3314.4	2950.8	11.1	0.0	0.0
75°	7368.7	7324.4	7269.1	7069.8	4727.9	2712.8	2424.9	11.1	0.0	0.0
77.5°	5838.9	5837.0	5702.3	5468.0	3559.8	1991.2	1788.2	9.2	0.0	0.0
80°	3157.5	3441.7	3338.3	3218.4	2018.9	1083.3	1031.6	7.4	0.0	0.0
82.5°	887.6	839.7	806.4	754.8	424.4	236.2	230.7	7.4	0.0	0.0
85°	123.6	136.6	151.3	171.6	97.8	62.7	55.4	3.7	0.0	0.0
87.5°	70.1	79.4	97.8	101.5	36.9	29.5	9.2	0.0	0.0	0.0
90°	14.8	16.6	18.5	18.5	7.4	7.4	0.0	0.0	0.0	0.0
92.5°	0.0	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.8	1.8	1.8	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°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.8	1.8	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)