

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: P522142

Luminaire Tested: **CST-CA10-310-760-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522142
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: STREETWORKS
Catalog Number: CST-CA10-310-760-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 5700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31941 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G4

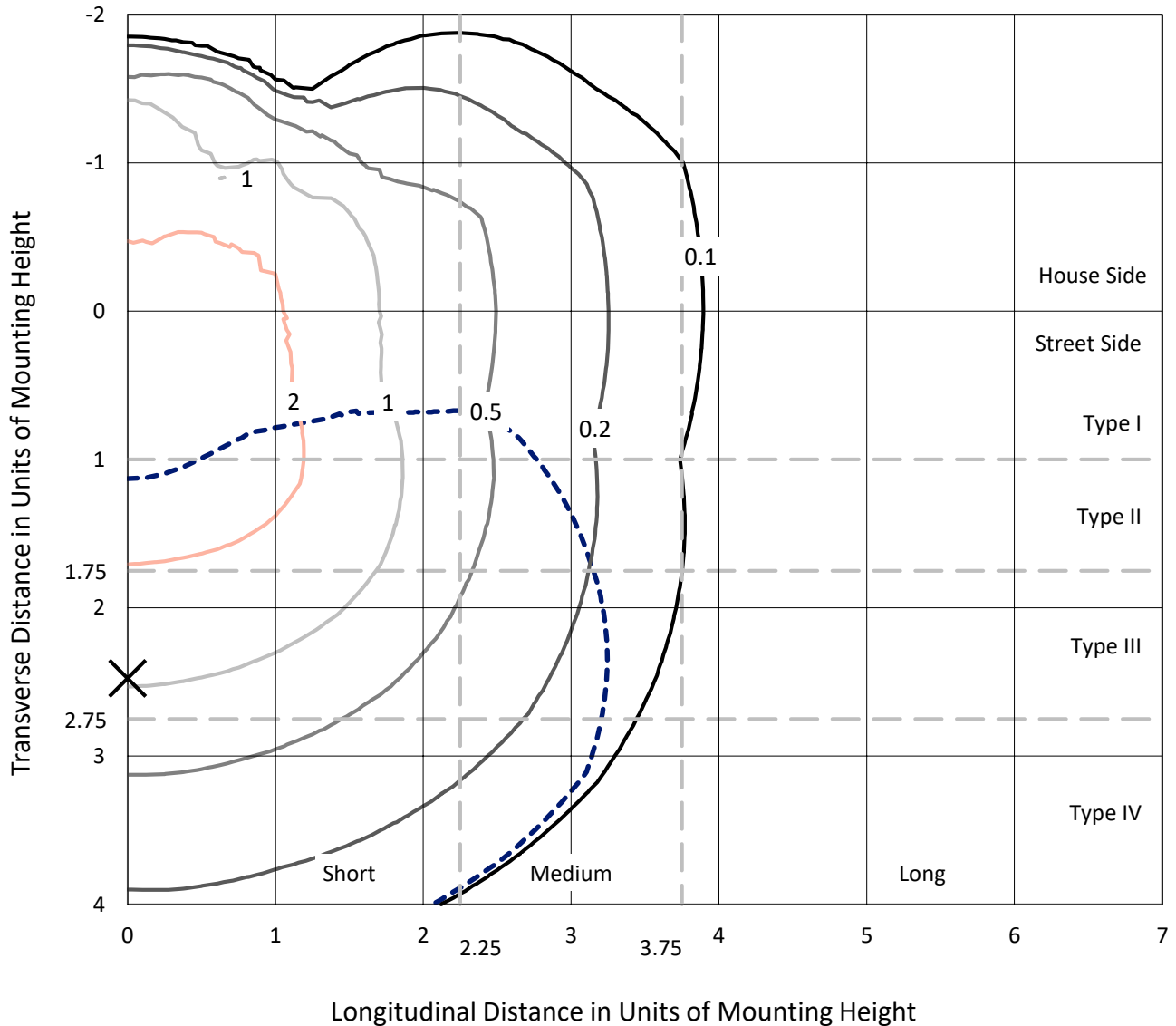
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

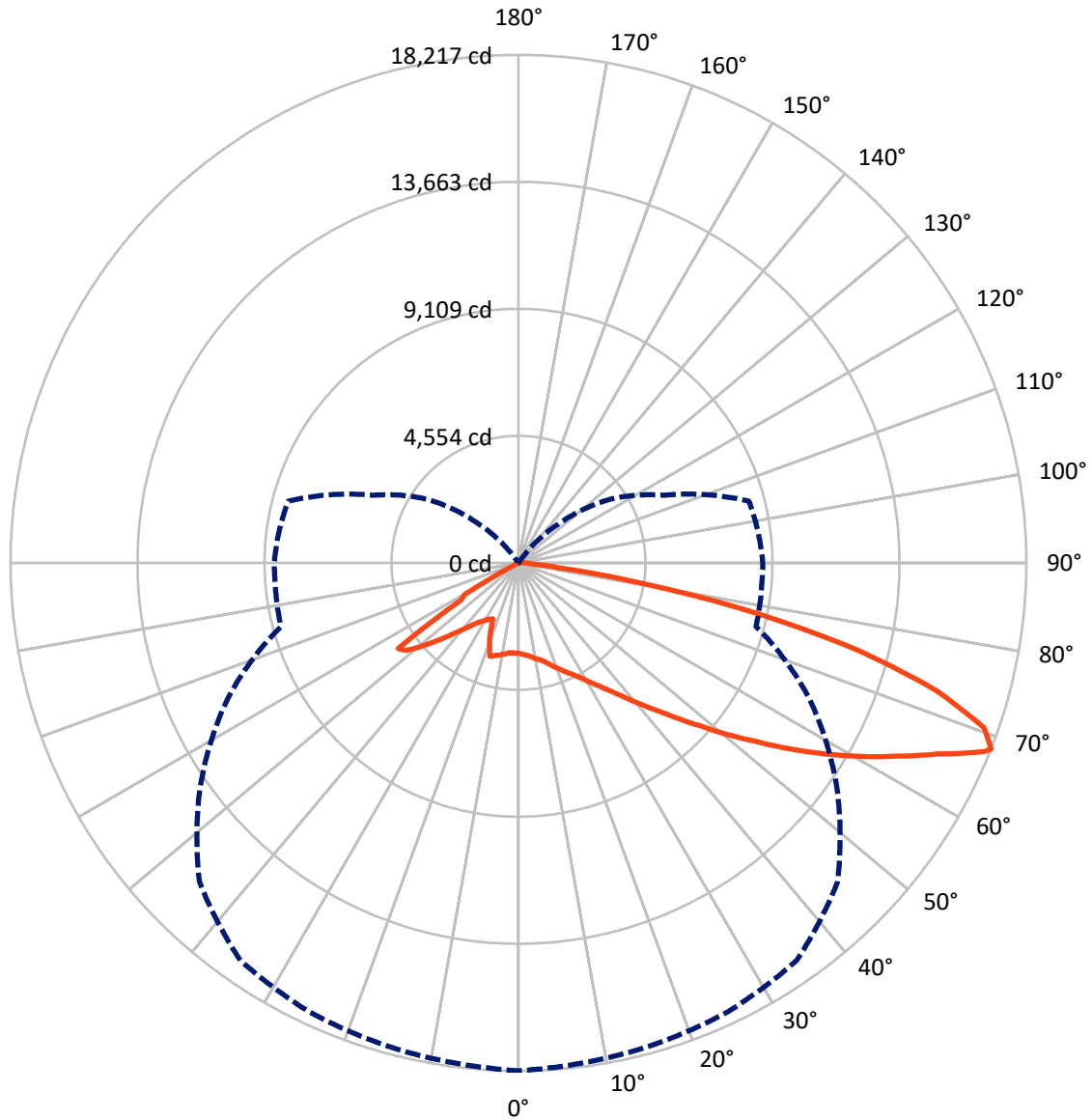
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.7 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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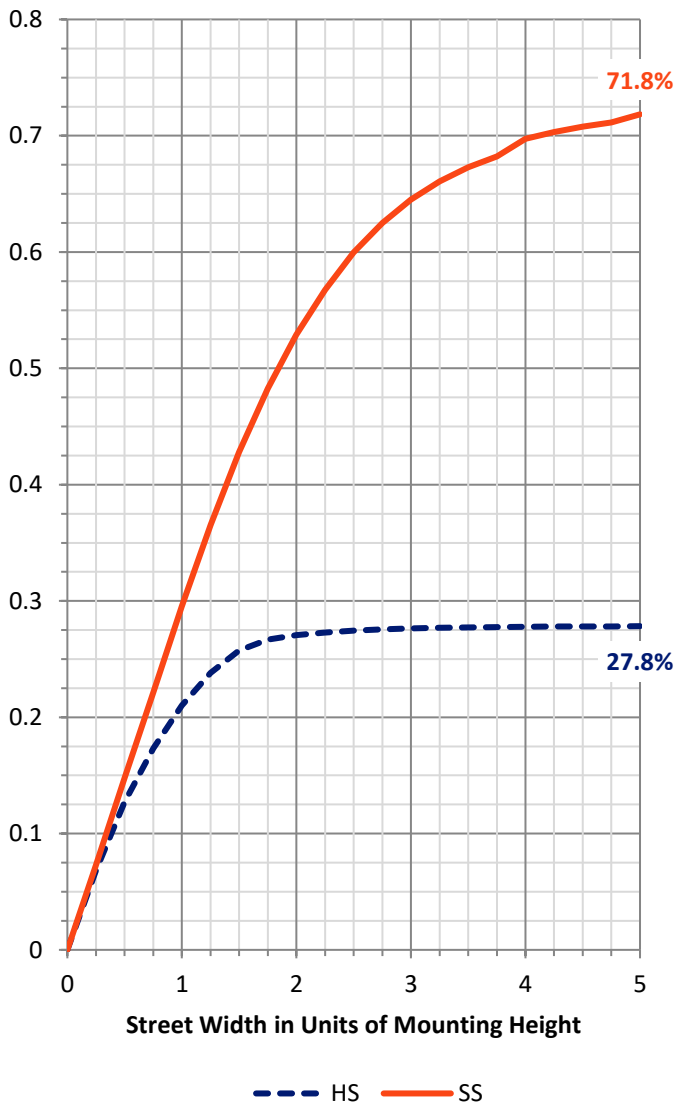
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8921.2	0.2	8921.4
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	23001.3	18.3	23019.6
	% Fixture	72.0	0.1	72.1
Total	Lumens	31922.5	18.5	31941.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.1	1.0
10°-20°	995.2	3.1
20°-30°	1684.9	5.3
30°-40°	2669.2	8.4
40°-50°	4364.0	13.7
50°-60°	6684.5	20.9
60°-70°	8219.1	25.7
70°-80°	6350.8	19.9
80°-90°	640.8	2.0
90°-100°	18.2	0.1
100°-110°	0.3	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°	31922.5	99.9
0°-180°	31941.0	100.0

Coefficient of Utilization

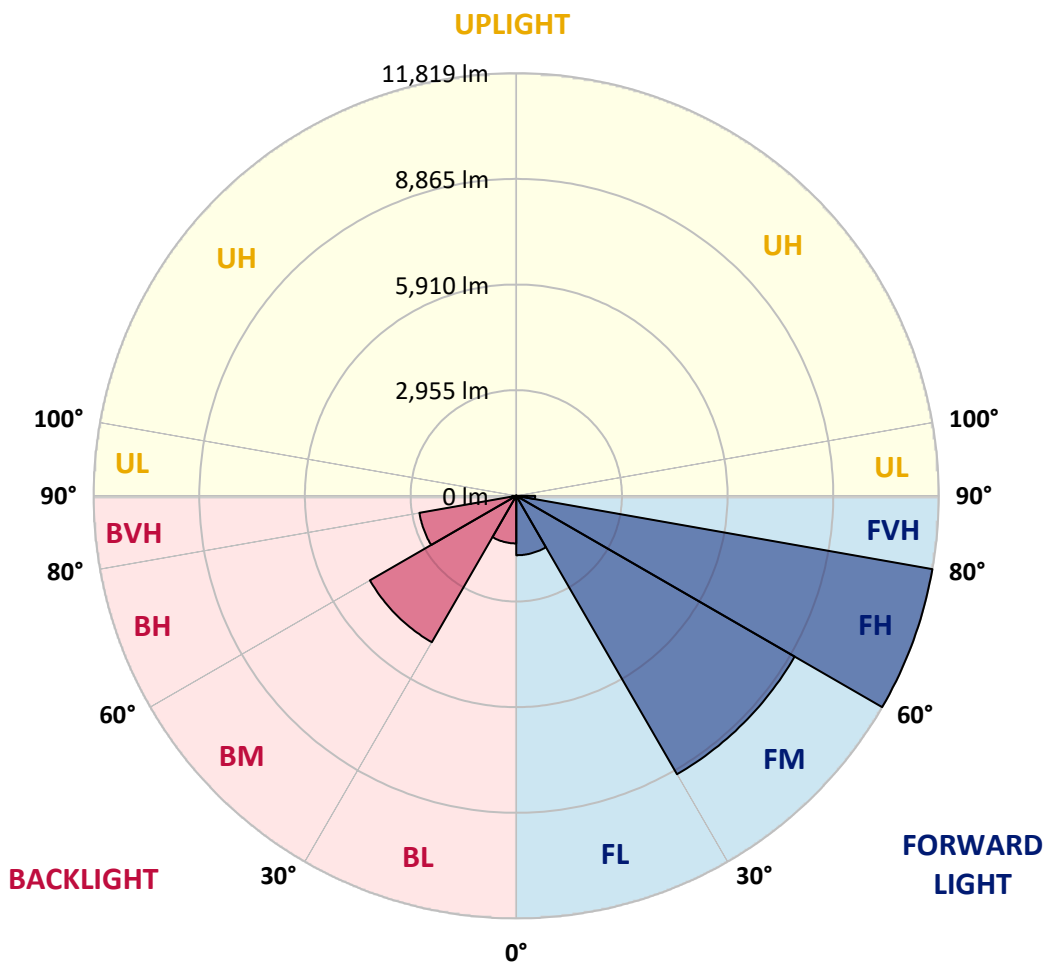


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1662.6	5.2			
FM (30°-60°)	8990.8	28.1			
FH (60°-80°)	11819.5	37.0			G4/12000
FVH (80°-90°)	528.4	1.7			G4/750
BL (0°-30°)	1331.6	4.2	B3/2500		
BM (30°-60°)	4726.8	14.8	B3/5000		
BH (60°-80°)	2750.4	8.6	B4/5000		G4/5000
BVH (80°-90°)	112.3	0.4			G2/225
UL (90°-100°)	18.2	0.1		U2/50	
UH (100°-180°)	0.3	0.0		U1/10	

BUG Rating: B4-U2-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0
2.5°	3294.4	3288.3	3282.1	3296.0	3242.1	3265.2	3246.7	3263.7	3251.4	3265.2	3260.6
5°	3337.5	3331.4	3312.9	3328.3	3292.9	3302.1	3279.0	3285.2	3243.7	3268.3	3266.7
7.5°	3408.3	3391.4	3379.1	3379.1	3348.3	3346.8	3309.8	3311.4	3279.0	3276.0	3282.1
10°	3503.7	3491.4	3457.5	3460.6	3417.5	3411.4	3365.2	3363.7	3337.5	3322.1	3336.0
12.5°	3574.5	3586.8	3556.0	3556.0	3512.9	3482.2	3449.8	3428.3	3408.3	3385.2	3374.5
15°	3703.7	3716.0	3674.5	3673.0	3656.0	3619.1	3583.7	3537.6	3502.2	3491.4	3474.5
17.5°	3871.5	3863.8	3828.4	3829.9	3833.0	3773.0	3737.6	3677.6	3626.8	3589.9	3580.6
20°	4042.3	4042.3	4003.8	4016.1	4000.7	3945.3	3922.2	3839.1	3768.4	3728.4	3696.0
22.5°	4233.1	4225.4	4199.2	4225.4	4194.6	4139.2	4100.7	4017.6	3926.9	3700.7	3608.3
25°	4414.6	4410.0	4420.8	4428.5	4390.0	4320.8	4294.6	4206.9	3954.6	3657.6	3471.4
27.5°	4643.9	4628.5	4653.1	4668.5	4630.1	4570.0	4514.7	4416.2	3882.2	3648.3	3628.3
30°	4937.8	4904.0	4939.3	4947.0	4907.0	4870.1	4787.0	4294.6	3906.9	3839.1	3833.0
32.5°	5251.7	5211.7	5257.9	5264.0	5211.7	5180.9	4971.7	4231.5	4148.4	4070.0	4077.7
35°	5624.1	5624.1	5647.2	5650.2	5611.8	5559.5	4762.4	4539.3	4465.4	4393.1	4391.6
37.5°	6078.0	6064.2	6125.7	6162.6	6121.1	5971.8	5067.1	4962.4	4848.6	4756.2	4565.4
40°	6625.8	6650.4	6667.3	6704.3	6664.3	6328.8	5511.8	5393.3	5304.0	4994.7	4513.1
42.5°	7216.7	7222.8	7259.8	7305.9	7305.9	6952.0	6031.8	5930.3	5814.9	4884.0	4667.0
45°	7923.0	7909.1	7979.9	8053.7	8033.7	7667.5	6636.6	6561.2	6021.1	5205.5	5207.1
47.5°	8724.6	8707.7	8809.3	8906.2	8806.2	8461.5	7301.3	7242.8	5811.8	5750.3	5738.0
50°	9651.0	9609.4	9726.4	9855.6	9774.1	9347.8	8109.1	6985.9	6395.0	6345.8	6338.1
52.5°	10640.4	10608.1	10678.8	10898.9	10791.2	10275.7	8873.9	7207.4	7070.5	7015.1	7001.3
55°	11757.5	11694.4	11846.7	12014.5	11889.8	11302.0	9627.9	7943.0	7801.4	7706.0	7567.5
57.5°	12931.5	12840.8	12919.2	13130.0	13010.0	12353.0	10600.4	8700.0	8532.3	7061.3	6499.6
60°	14101.0	14059.4	14090.2	14276.4	14128.7	13374.7	11511.3	9458.6	7221.3	6984.3	7012.0
62.5°	15276.6	15185.8	15213.5	15404.3	15215.0	14347.2	12374.5	10148.0	7599.8	7516.7	7546.0
65°	16536.8	16429.1	16453.7	16509.1	16275.2	15219.6	13137.7	10798.9	8169.2	8081.4	8113.8
67.5°	18055.5	17957.1	17823.2	17658.5	17335.4	16146.0	13896.3	11483.6	8809.3	8760.0	8770.8
68°	18217.1	18121.7	17960.1	17764.7	17401.6	16184.4	13928.6	11503.6	8818.5	8757.0	8760.0
70°	17713.9	17770.9	17587.8	17260.0	16956.9	15621.3	13400.9	11060.4	8426.1	8335.3	8312.3
72.5°	15687.4	15812.1	15559.7	15504.3	15131.9	13916.3	11726.7	9597.1	7329.0	7358.2	7275.1
75°	12665.3	12848.5	12542.2	12559.2	12346.8	11608.2	9827.9	7990.7	6018.0	6151.9	6176.5
77.5°	8807.7	9070.9	8937.0	9070.9	8966.2	8700.0	7606.0	6153.4	4591.6	4745.5	4805.5
80°	4593.1	4905.5	5082.4	5137.8	5171.7	5160.9	4631.6	3693.0	2654.3	2711.3	2708.2
82.5°	1452.6	1377.2	1421.8	1409.5	1371.0	1386.4	1249.5	977.1	677.0	746.3	714.0
85°	438.5	441.6	429.3	426.2	393.9	346.2	283.1	163.1	80.0	93.9	87.7
87.5°	323.1	326.2	301.6	286.2	267.7	232.3	180.0	101.6	38.5	36.9	29.2
90°	178.5	172.3	160.0	147.7	140.0	120.0	90.8	38.5	13.8	10.8	9.2
92.5°	96.9	92.3	86.2	81.6	70.8	56.9	36.9	12.3	6.2	1.5	0.0
95°	44.6	41.5	40.0	35.4	30.8	21.5	12.3	7.7	4.6	1.5	0.0
97.5°	20.0	18.5	16.9	13.8	10.8	6.2	6.2	4.6	3.1	1.5	0.0
100°	4.6	4.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	1.5	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	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°	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0	3236.0
2.5°	3256.0	3246.7	3242.1	3212.9	3222.1	3196.0	3246.7	3234.4	3226.7	3248.3
5°	3259.0	3226.7	3246.7	3229.8	3236.0	3199.0	3239.0	3222.1	3220.6	3229.8
7.5°	3266.7	3245.2	3265.2	3231.3	3246.7	3231.3	3260.6	3243.7	3257.5	3266.7
10°	3308.3	3296.0	3286.7	3279.0	3289.8	3259.0	3296.0	3297.5	3302.1	3329.8
12.5°	3366.8	3354.4	3339.1	3319.1	3329.8	3317.5	3345.2	3352.9	3369.8	3383.7
15°	3448.3	3425.2	3419.1	3400.6	3411.4	3405.2	3411.4	3406.8	3439.1	3434.5
17.5°	3560.6	3534.5	3446.8	3357.5	3300.6	3317.5	3388.3	3480.6	3503.7	3506.8
20°	3602.2	3417.5	3408.3	3306.7	3260.6	3257.5	3111.3	2892.8	2959.0	3114.4
22.5°	3552.9	3300.6	3274.4	3254.4	3057.5	2734.3	2703.6	2671.2	2663.6	2686.6
25°	3442.2	3412.9	3389.8	3128.3	2817.4	2819.0	2774.3	2562.0	2231.2	2203.5
27.5°	3611.4	3571.4	3348.3	2945.1	2939.0	2935.9	2869.7	2325.0	2254.2	2271.2
30°	3803.8	3737.6	3154.4	3102.1	3100.6	3072.9	2572.8	2345.0	2345.0	2348.1
32.5°	4025.3	3614.5	3265.2	3289.8	3288.3	3157.5	2485.1	2469.7	2463.5	2478.9
35°	4194.6	3516.0	3503.7	3548.3	3517.6	2678.9	2640.5	2626.6	2620.5	2612.8
37.5°	4142.3	3799.1	3799.1	3826.8	3579.1	2852.8	2834.4	2834.4	2822.0	2815.9
40°	4222.3	4151.5	4116.1	4126.9	2600.5	3063.6	3077.5	3074.4	3072.9	3083.6
42.5°	4643.9	4580.8	4548.5	4166.9	2911.3	3045.2	3383.7	3382.1	3386.8	3382.1
45°	5180.9	5122.5	5037.8	3899.2	3305.2	2669.7	3729.9	3746.8	3748.4	3746.8
47.5°	5744.1	5707.2	4840.9	4316.2	3733.0	2865.1	3565.3	4163.8	4156.1	4165.4
50°	6339.6	6173.4	4816.2	4810.1	4188.4	3188.3	3189.8	4528.5	4607.0	4631.6
52.5°	7002.8	5596.4	5337.9	4870.1	4650.1	3520.6	3486.8	4013.0	5084.0	5108.6
55°	6504.2	5911.8	5907.2	4334.6	4837.8	3840.7	3845.3	3808.4	4662.4	5299.4
57.5°	6471.9	6485.8	6475.0	4836.3	3529.9	3600.6	4190.0	4157.7	3019.0	2446.6
60°	7030.5	7050.5	6290.4	5222.5	3816.1	2214.2	2580.5	2192.7	2221.9	2245.0
62.5°	7564.4	7570.6	5116.3	3423.7	1891.1	89.2	43.1	35.4	33.9	33.9
65°	8155.3	8155.3	5484.1	3734.5	1826.5	33.9	6.2	4.6	16.9	16.9
67.5°	8726.2	8600.0	5753.3	3965.3	1858.8	4.6	0.0	0.0	0.0	0.0
68°	8693.9	8555.4	5728.7	3959.2	1854.2	3.1	0.0	0.0	0.0	0.0
70°	8210.7	8076.8	5434.8	3779.1	1784.9	3.1	0.0	0.0	0.0	0.0
72.5°	7247.5	7124.4	4813.2	3331.4	1609.5	1.5	0.0	0.0	0.0	0.0
75°	6134.9	6118.0	4157.7	2811.3	1380.2	1.5	0.0	0.0	0.0	0.0
77.5°	4936.3	4859.3	3249.8	2203.5	1112.5	0.0	0.0	0.0	0.0	0.0
80°	2749.7	2863.6	1901.9	1295.6	700.1	0.0	0.0	0.0	0.0	0.0
82.5°	743.2	695.5	415.5	281.6	133.9	0.0	0.0	0.0	0.0	0.0
85°	95.4	104.6	47.7	38.5	9.2	0.0	0.0	0.0	0.0	0.0
87.5°	49.2	58.5	15.4	12.3	3.1	0.0	0.0	0.0	0.0	0.0
90°	9.2	10.8	4.6	1.5	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)