

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: P579435

Luminaire Tested: **CTN-CA10-310-730-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579435
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-730-U-T5N-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39225 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B5 - U2 - G4

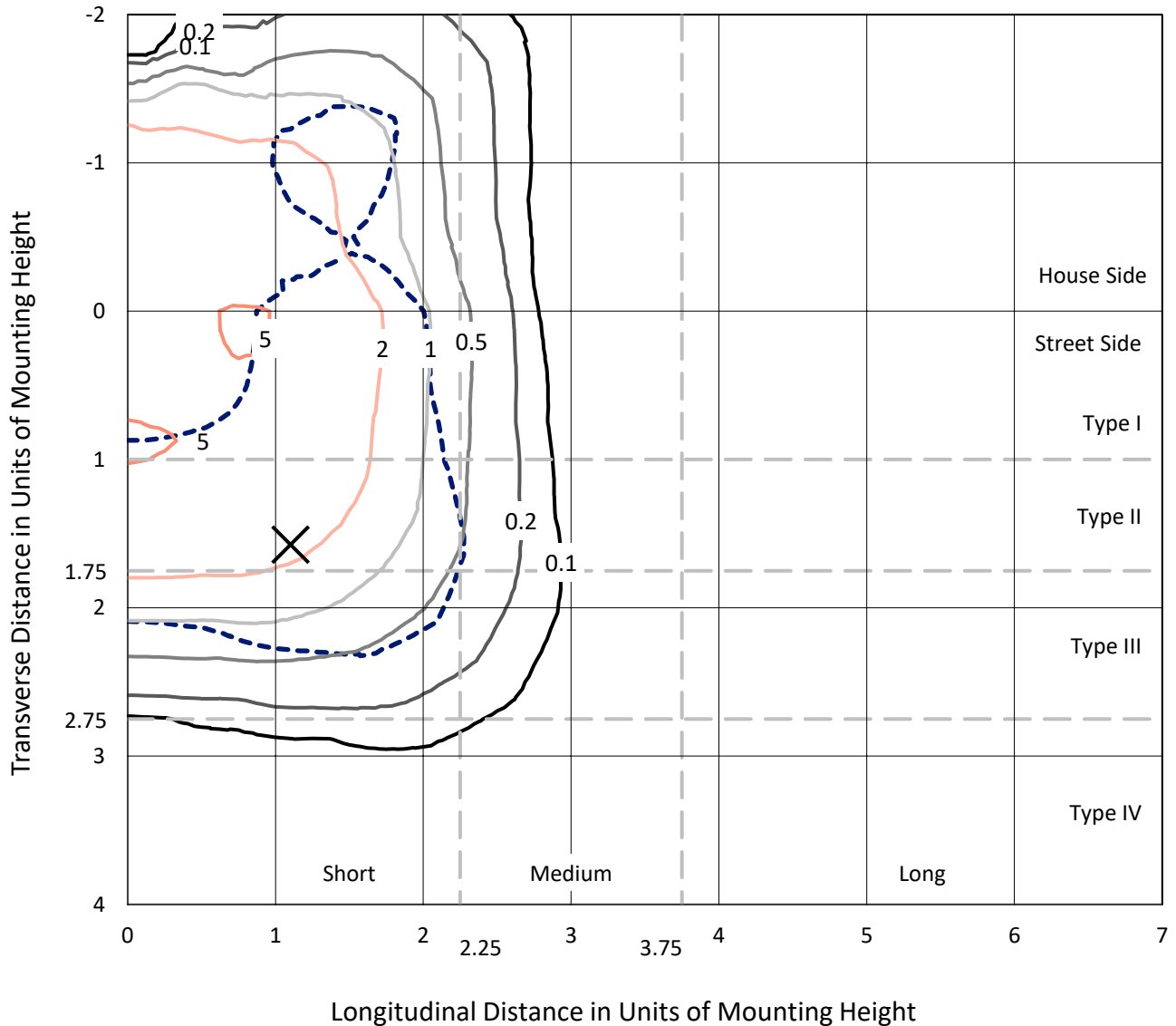
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

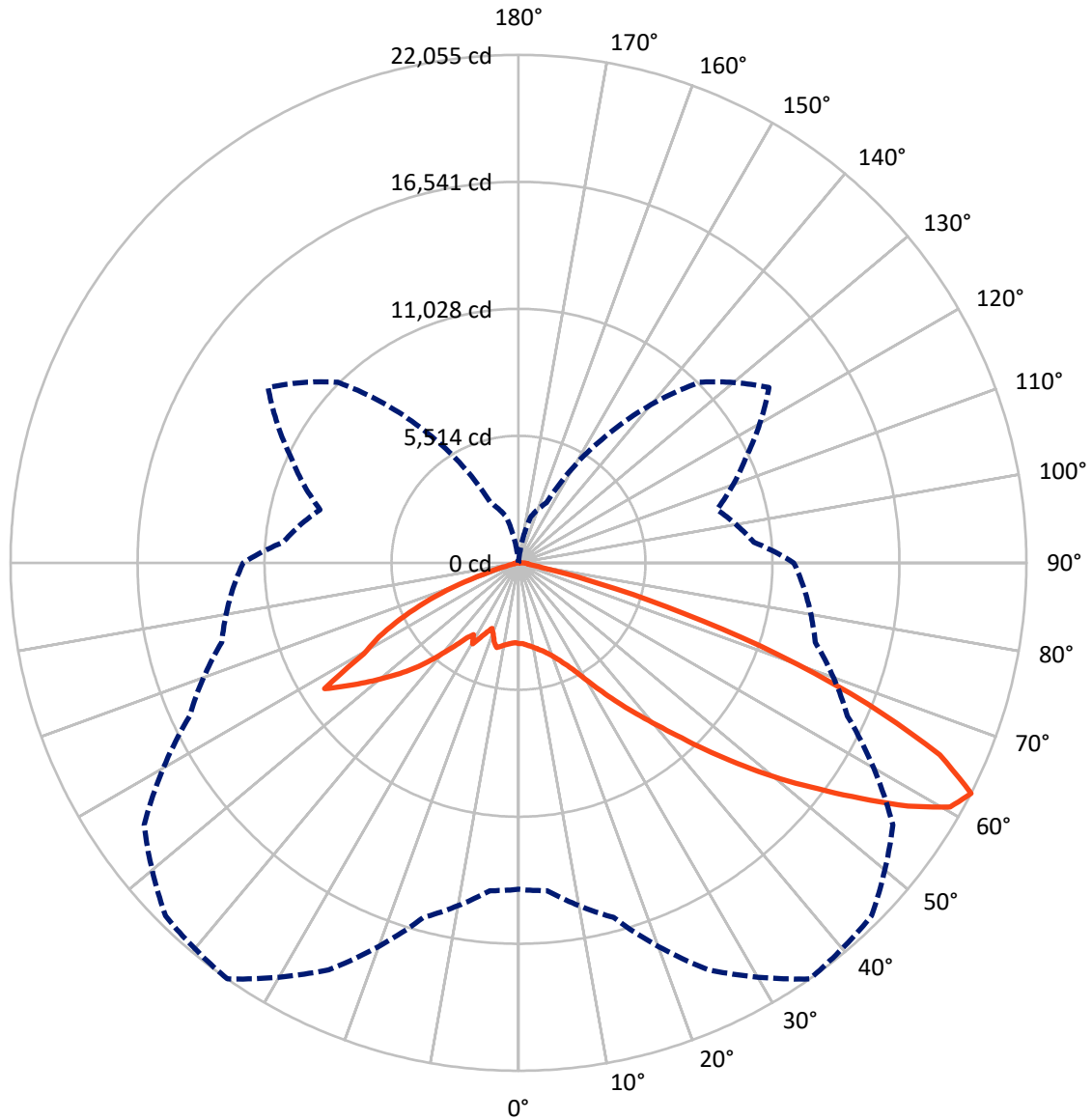
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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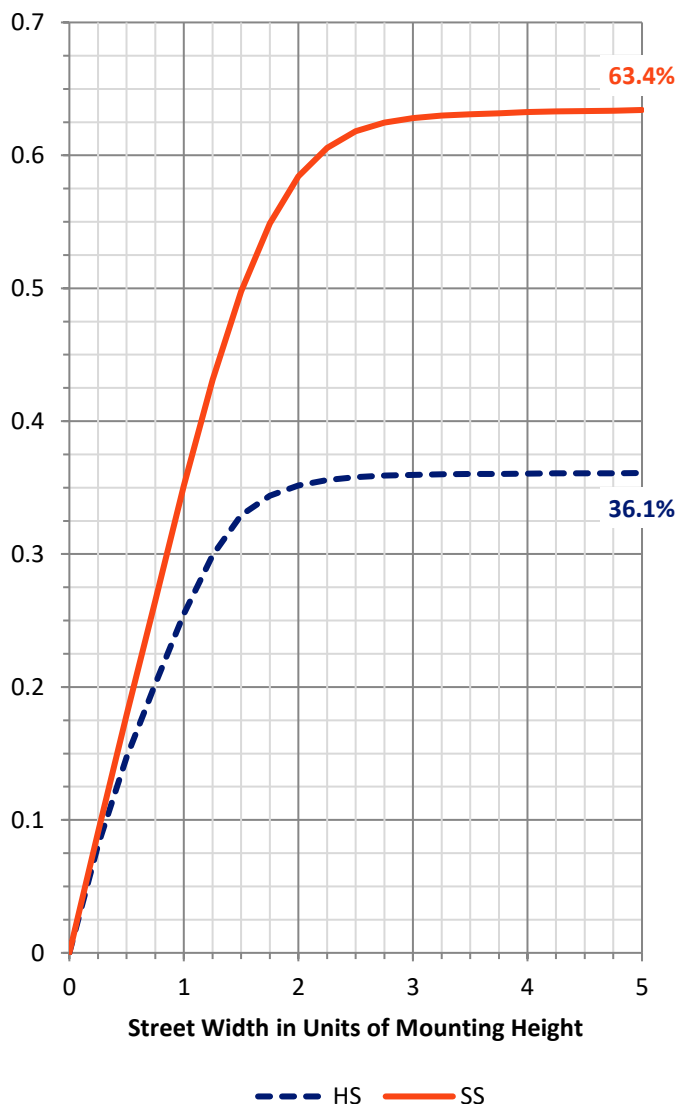
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14237.7	0.0	14237.8
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	24968.6	18.6	24987.2
	% Fixture	63.7	0.0	63.7
Total	Lumens	39206.4	18.6	39225.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.1	0.9
10°-20°	1115.2	2.8
20°-30°	2145.5	5.5
30°-40°	4280.0	10.9
40°-50°	7815.0	19.9
50°-60°	11678.3	29.8
60°-70°	9785.3	24.9
70°-80°	1831.2	4.7
80°-90°	210.8	0.5
90°-100°	16.8	0.0
100°-110°	1.8	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°	39206.4	100.0
0°-180°	39225.0	100.0

Coefficient of Utilization

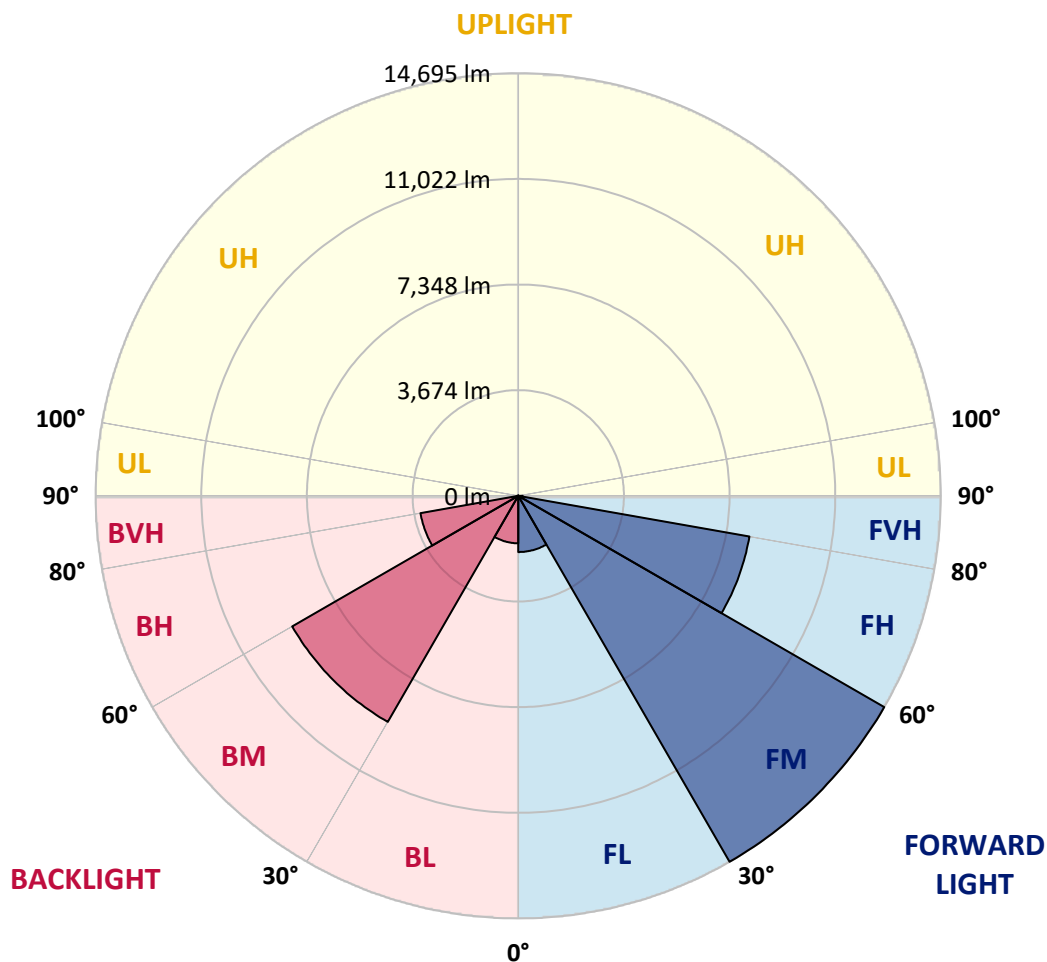


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1955.8	5.0			
FM	(30°-60°)	14695.5	37.5			
FH	(60°-80°)	8163.8	20.8			G4/12000
FVH	(80°-90°)	153.5	0.4			G2/225
BL	(0°-30°)	1649.9	4.2	B3/2500		
BM	(30°-60°)	9077.8	23.1	B5		
BH	(60°-80°)	3452.7	8.8	B4/5000		G4/5000
BVH	(80°-90°)	57.3	0.1			G1/100
UL	(90°-100°)	16.8	0.0		U2/50	
UH	(100°-180°)	1.8	0.0		U1/10	

BUG Rating: B5-U2-G4
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7
2.5°	3584.7	3555.3	3559.7	3580.3	3515.6	3542.1	3514.1	3540.6	3531.8	3543.5	3552.4
5°	3636.2	3599.4	3602.3	3625.9	3575.9	3597.9	3570.0	3587.6	3572.9	3589.1	3590.6
7.5°	3706.7	3675.9	3671.5	3695.0	3652.3	3671.5	3643.5	3652.3	3637.6	3656.8	3650.9
10°	3800.8	3772.9	3765.6	3781.7	3747.9	3758.2	3728.8	3740.6	3718.5	3740.6	3730.3
12.5°	3905.2	3868.5	3870.0	3887.6	3853.8	3861.1	3837.6	3850.8	3824.4	3847.9	3840.5
15°	4028.7	3975.8	3986.1	4005.2	3972.9	3994.9	3967.0	3986.1	3961.1	3986.1	3977.3
17.5°	4189.0	4128.7	4136.1	4167.0	4140.5	4175.8	4143.4	4167.0	4155.2	4171.4	4168.4
20°	4391.9	4352.2	4344.9	4383.1	4344.9	4389.0	4371.3	4412.5	4415.4	4431.6	4439.0
22.5°	4662.5	4636.0	4618.4	4644.8	4611.0	4641.9	4666.9	4737.5	4763.9	4806.6	4809.5
25°	5022.7	5021.2	4981.5	4983.0	4940.4	4981.5	5052.1	5162.4	5233.0	5287.4	5266.8
27.5°	5509.4	5518.2	5457.9	5434.4	5384.4	5446.2	5591.7	5728.5	5856.4	5932.8	5932.8
30°	6144.6	6153.4	6065.2	6018.1	5972.5	6079.9	6253.4	6431.3	6613.6	6723.9	6698.9
32.5°	6985.6	6957.7	6831.2	6745.9	6668.0	6791.5	6991.5	7192.9	7441.4	7600.2	7581.1
35°	8006.0	7904.6	7778.1	7619.3	7451.7	7548.8	7737.0	7989.9	8335.4	8573.6	8513.3
37.5°	9191.1	9091.2	8875.0	8601.5	8308.9	8320.7	8469.2	8907.4	9339.6	9533.7	9492.6
40°	10421.8	10343.9	10145.4	9794.0	9264.7	9142.6	9386.7	9914.5	10327.7	10571.8	10502.7
42.5°	11676.0	11596.6	11446.6	11093.8	10392.4	10098.3	10352.7	10927.6	11368.7	11608.4	11529.0
45°	12927.3	12836.1	12717.0	12405.3	11736.3	11305.5	11448.1	11976.0	12378.8	12650.9	12487.7
47.5°	14027.1	13966.8	13885.9	13759.5	13174.3	12697.9	12687.6	13036.1	13314.0	13493.4	13293.4
50°	14984.3	14941.7	14987.2	14960.8	14747.6	14313.8	14047.7	14024.2	14113.9	14244.7	13959.5
52.5°	15843.0	15768.0	15937.1	16147.3	16304.7	16216.4	15354.8	14871.1	14772.6	14816.7	14493.2
55°	16545.8	16510.5	16794.3	17322.1	18050.0	18244.1	16697.3	15694.5	15331.3	15307.8	14940.2
57.5°	16975.1	17025.1	17592.7	18598.4	19933.5	19995.2	18345.5	16575.2	15875.3	15622.4	15199.0
60°	16291.4	16484.1	17453.0	19527.7	21531.8	21570.0	19555.6	16737.0	15196.0	14629.9	14105.0
62.5°	14177.1	14291.8	15940.0	19496.8	22055.2	21681.7	19843.8	15760.6	13341.9	12439.1	11953.9
65°	9986.6	10201.3	11967.1	17541.2	20098.2	20145.2	18204.4	13627.2	10654.1	9655.8	9342.6
67.5°	6031.4	6237.2	8117.8	12662.6	16338.5	16866.3	15185.7	10317.4	7639.9	6378.4	6062.2
70°	1958.5	2182.0	3699.4	7463.5	12018.6	13284.6	11427.5	6715.1	4000.8	2802.5	2462.8
72.5°	744.0	811.6	1204.2	3259.8	7485.5	8869.1	7068.0	3368.6	1239.5	738.1	648.4
75°	483.7	494.0	563.1	1142.5	3609.7	4883.0	3406.8	986.6	497.0	441.1	408.8
77.5°	416.1	423.5	452.9	569.0	1149.8	1867.3	977.8	504.3	414.6	367.6	345.5
80°	392.6	395.5	414.6	482.3	538.1	623.4	470.5	422.0	361.7	345.5	329.4
82.5°	372.0	382.3	392.6	438.2	436.7	448.5	377.9	330.8	307.3	323.5	317.6
85°	347.0	352.9	360.2	391.1	355.8	301.4	291.1	227.9	222.0	236.7	222.0
87.5°	244.1	258.8	250.0	263.2	247.0	192.6	163.2	129.4	102.9	85.3	82.3
90°	100.0	101.5	95.6	88.2	77.9	64.7	51.5	32.3	14.7	7.4	2.9
92.5°	77.9	77.9	75.0	67.6	58.8	48.5	36.8	20.6	10.3	4.4	1.5
95°	48.5	50.0	47.1	42.6	36.8	29.4	22.1	11.8	7.4	2.9	1.5
97.5°	30.9	30.9	27.9	25.0	20.6	14.7	10.3	8.8	5.9	2.9	0.0
100°	17.6	17.6	16.2	13.2	10.3	7.4	7.4	5.9	4.4	1.5	0.0
102.5°	10.3	10.3	7.4	5.9	4.4	4.4	4.4	4.4	2.9	1.5	0.0
105°	4.4	4.4	2.9	2.9	1.5	1.5	2.9	2.9	2.9	1.5	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.9	2.9	1.5	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.9	1.5	1.5



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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°	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7	3509.7
2.5°	3546.5	3520.0	3524.4	3499.4	3495.0	3470.0	3520.0	3525.9	3511.2	3524.4
5°	3587.6	3555.3	3565.6	3537.7	3533.2	3499.4	3543.5	3540.6	3528.8	3542.1
7.5°	3649.4	3615.6	3621.5	3590.6	3584.7	3547.9	3589.1	3575.9	3564.1	3580.3
10°	3736.1	3697.9	3700.9	3661.2	3665.6	3617.1	3667.0	3643.5	3628.8	3650.9
12.5°	3840.5	3797.9	3799.4	3758.2	3756.7	3709.7	3753.8	3740.6	3718.5	3752.3
15°	3975.8	3927.3	3922.9	3868.5	3853.8	3800.8	3842.0	3817.0	3802.3	3850.8
17.5°	4165.5	4111.1	4094.9	4028.7	3753.8	3595.0	3815.5	3890.5	3799.4	3784.7
20°	4418.4	4372.8	4336.1	4236.1	3774.4	3278.9	2912.8	2915.7	3300.9	3478.8
22.5°	4761.0	4706.6	4637.5	4494.8	3462.7	3071.6	3073.0	3068.6	2633.4	2449.6
25°	5230.0	5163.9	5022.7	4217.0	3675.9	3314.2	3305.3	2874.5	2634.9	2648.1
27.5°	5863.7	5728.5	4902.1	4568.4	4055.2	3628.8	3417.1	2893.6	2923.0	2943.6
30°	6669.5	6125.5	5297.7	5099.2	4511.0	4046.4	3159.8	3231.8	3290.6	3303.9
32.5°	7495.8	6143.1	5929.9	5719.6	5072.7	3681.7	3561.2	3697.9	3759.7	3767.0
35°	7488.5	6895.9	6621.0	6384.2	5593.2	3939.1	4015.5	4225.8	4383.1	4375.8
37.5°	7925.2	7726.7	7398.8	7098.8	5034.5	4437.5	4574.2	4812.4	5003.6	4997.7
40°	8838.3	8608.9	8261.9	7632.6	5574.1	5008.0	5199.1	5455.0	5590.3	5597.6
42.5°	9701.3	9511.7	9157.3	7131.2	6249.0	5694.7	5868.2	6040.2	6124.0	6150.5
45°	10560.0	10424.8	9245.5	7881.1	7065.0	6385.7	6500.4	6532.7	6621.0	6610.7
47.5°	11257.0	11107.0	8889.7	8822.1	8054.6	7041.5	7032.7	6990.0	7022.4	7029.7
50°	11893.6	10086.6	9604.3	9829.3	9092.6	7710.5	7542.9	7456.1	7412.0	7392.9
52.5°	12396.5	10089.5	10271.8	10870.3	10264.5	8436.8	8076.6	7832.5	6857.7	7620.8
55°	12824.4	10505.6	10904.1	11983.3	11274.6	9197.0	8558.9	8123.7	4577.2	3670.0
57.5°	13069.9	10821.7	11530.5	13025.8	12156.8	10042.5	7879.6	6813.6	2587.8	2584.9
60°	12121.5	10254.2	11512.8	13572.8	11902.5	7789.9	3208.3	2684.9	489.6	502.9
62.5°	10261.5	8920.6	10918.8	13272.8	11084.9	6853.3	2877.5	2067.3	16.2	13.2
65°	7950.2	7116.5	9194.1	11674.5	10085.1	5718.2	2145.2	1489.5	4.4	0.0
67.5°	5200.6	5015.4	6784.2	9680.8	8225.1	4430.2	1439.5	713.1	2.9	0.0
70°	2217.3	2568.7	4297.8	7019.4	6296.0	3048.0	694.0	257.3	1.5	0.0
72.5°	620.5	821.9	1912.9	4112.6	3959.6	1602.7	270.5	108.8	1.5	0.0
75°	367.6	316.1	548.4	1640.9	1927.6	563.1	125.0	83.8	1.5	0.0
77.5°	305.8	247.0	314.7	419.0	583.7	202.9	105.9	75.0	0.0	0.0
80°	286.7	219.1	272.0	292.6	288.2	169.1	104.4	75.0	0.0	0.0
82.5°	272.0	191.1	225.0	225.0	241.1	155.9	98.5	73.5	0.0	0.0
85°	204.4	133.8	150.0	194.1	173.5	110.3	72.0	58.8	0.0	0.0
87.5°	77.9	48.5	58.8	61.8	50.0	25.0	5.9	5.9	0.0	0.0
90°	1.5	0.0	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)