

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: P579626

Luminaire Tested: **CTN-CA10-310-727-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-727-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27791 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

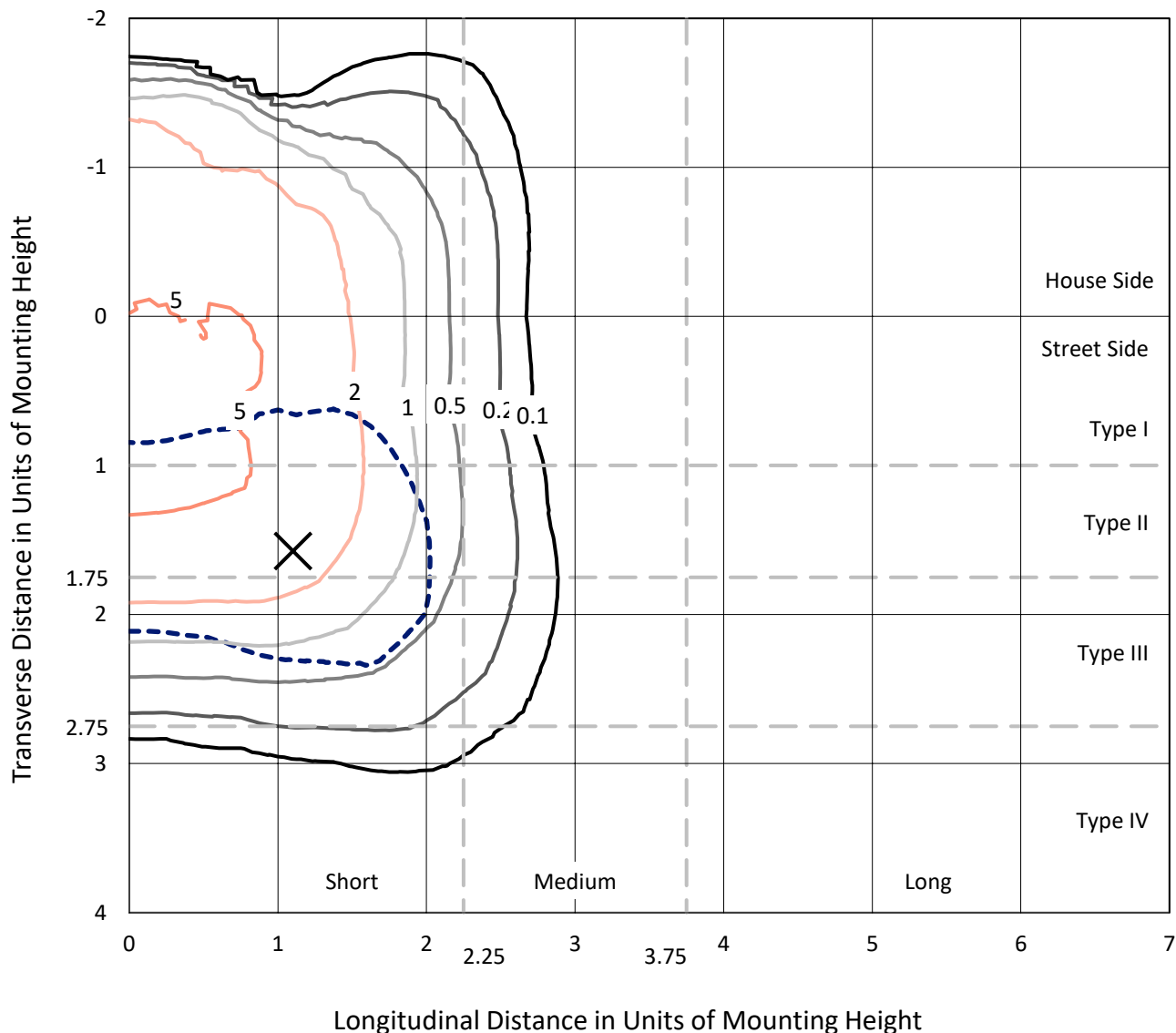
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

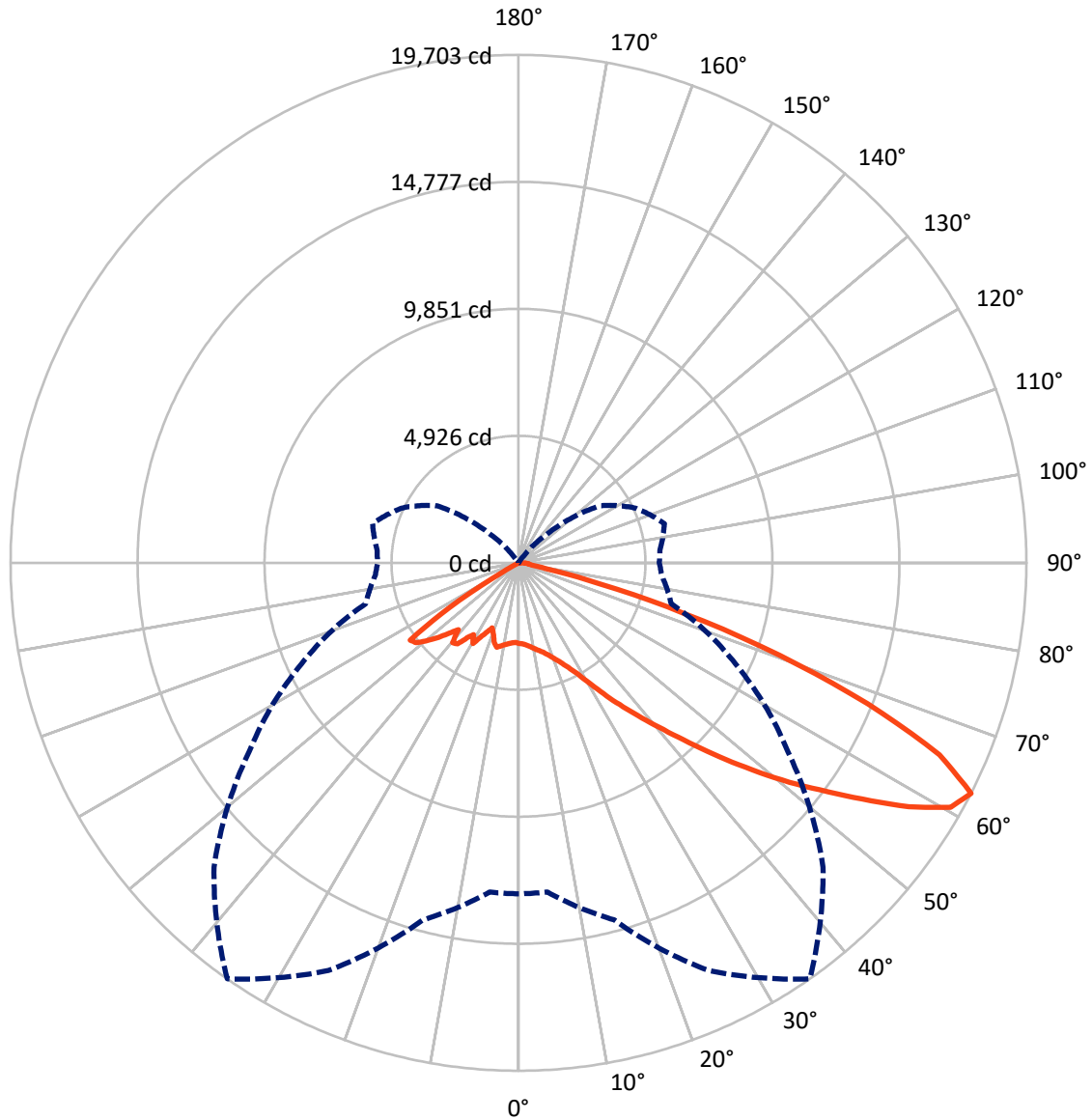
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 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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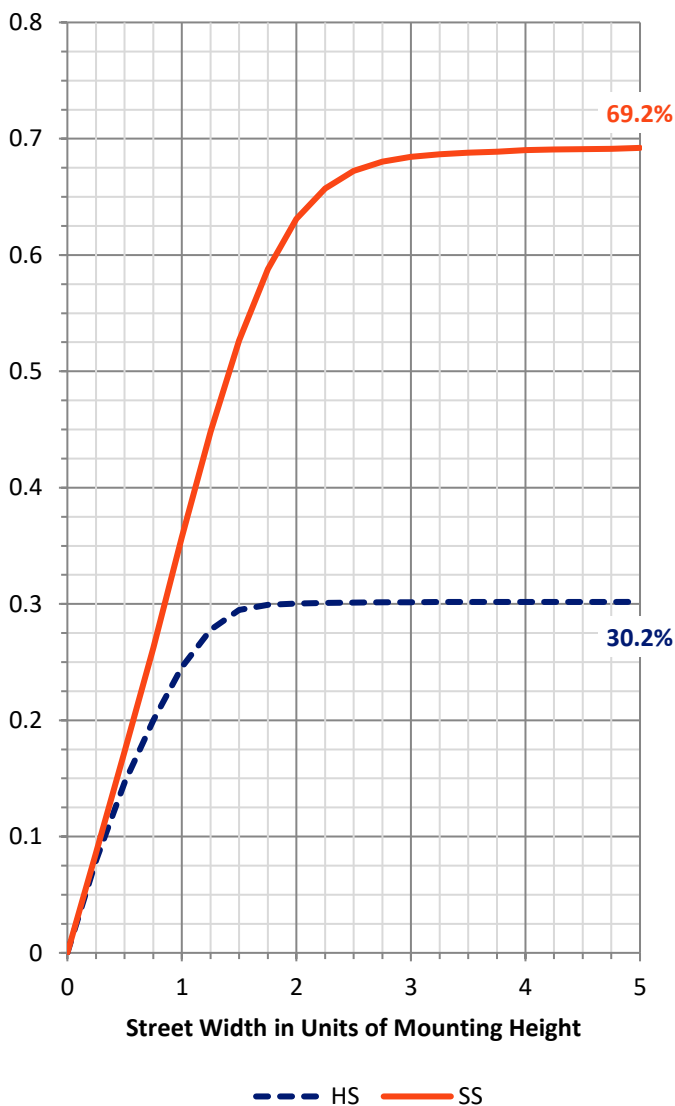
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8434.7	0.0	8434.7
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	19332.2	24.1	19356.3
	% Fixture	69.6	0.1	69.6
Total	Lumens	27766.9	24.1	27791.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.8	1.1
10°-20°	991.0	3.6
20°-30°	1811.4	6.5
30°-40°	3451.8	12.4
40°-50°	5924.8	21.3
50°-60°	7948.2	28.6
60°-70°	6042.2	21.7
70°-80°	1144.1	4.1
80°-90°	144.5	0.5
90°-100°	21.2	0.1
100°-110°	2.9	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°	27766.9	99.9
0°-180°	27791.0	100.0

Coefficient of Utilization



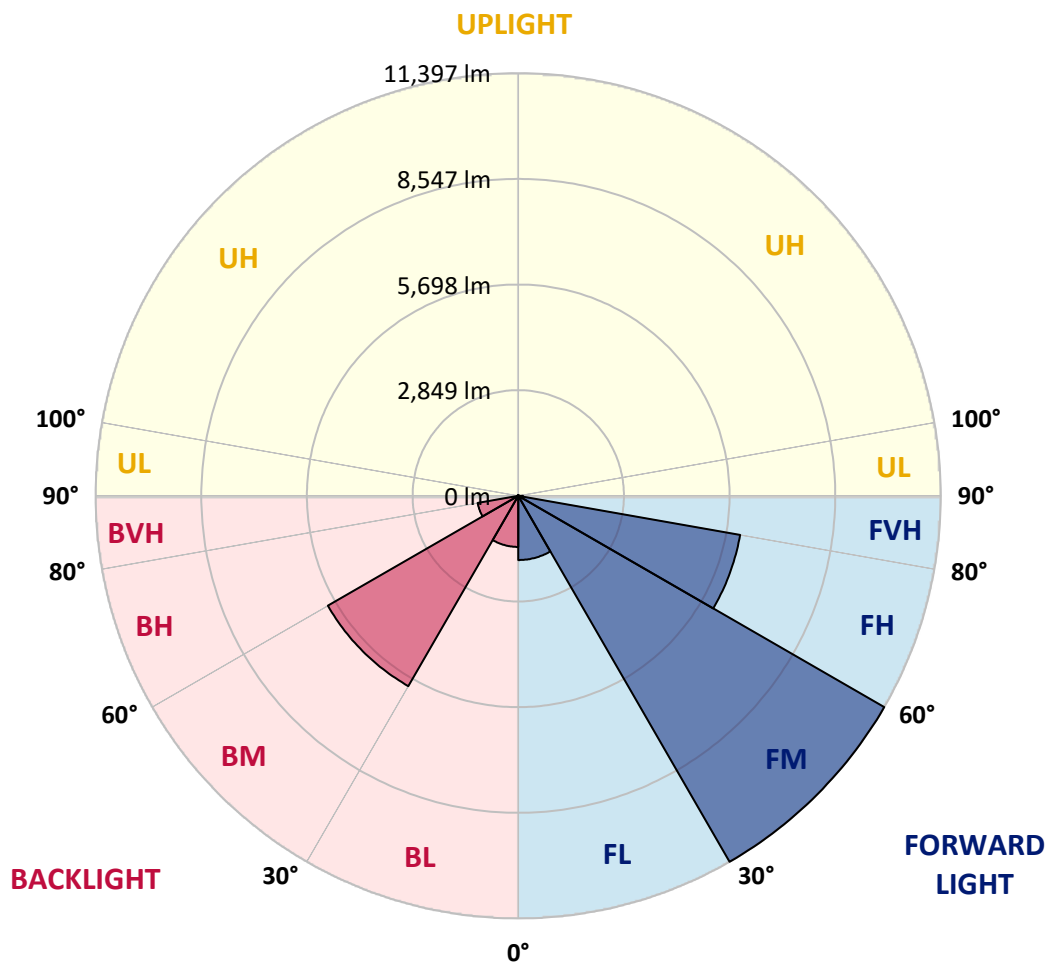
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1732.4	6.2			
FM	(30°-60°)	11396.6	41.0			
FH	(60°-80°)	6075.6	21.9			G3/7500
FVH	(80°-90°)	127.5	0.5			G2/225
BL	(0°-30°)	1378.8	5.0	B3/2500		
BM	(30°-60°)	5928.2	21.3	B4/8500		
BH	(60°-80°)	1110.7	4.0	B3/2500		G3/2500
BVH	(80°-90°)	16.9	0.1			G1/100
UL	(90°-100°)	21.2	0.1		U2/50	
UH	(100°-180°)	2.9	0.0		U1/10	

BUG Rating: B4-U2-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6
2.5°	3206.9	3183.3	3184.6	3205.6	3145.3	3167.6	3141.4	3167.6	3153.2	3163.7	3168.9
5°	3263.2	3239.6	3237.0	3259.3	3208.2	3223.9	3197.7	3216.1	3196.4	3209.5	3209.5
7.5°	3348.4	3324.8	3316.9	3334.0	3286.8	3298.6	3271.1	3281.6	3259.3	3276.3	3267.2
10°	3449.2	3423.0	3413.9	3423.0	3382.4	3389.0	3356.2	3368.0	3335.3	3354.9	3341.8
12.5°	3556.7	3522.6	3522.6	3530.5	3487.2	3488.5	3458.4	3465.0	3432.2	3453.2	3437.5
15°	3673.3	3635.3	3640.5	3648.4	3602.5	3610.4	3578.9	3589.4	3555.4	3576.3	3560.6
17.5°	3827.8	3787.2	3782.0	3805.6	3762.3	3776.8	3741.4	3754.5	3724.4	3730.9	3723.0
20°	4041.4	3990.3	3978.5	4009.9	3961.5	3971.9	3945.7	3971.9	3940.5	3893.3	3761.0
22.5°	4296.8	4252.3	4232.6	4253.6	4196.0	4214.3	4213.0	4254.9	4168.4	3871.1	3738.8
25°	4633.5	4603.4	4565.4	4568.0	4498.6	4526.1	4575.9	4608.6	4240.5	3979.8	3982.4
27.5°	5082.8	5052.7	5000.3	4980.6	4879.8	4946.6	5023.9	4704.2	4414.7	4481.5	4444.9
30°	5656.6	5651.4	5545.3	5511.2	5401.2	5485.0	5418.2	4870.6	4970.2	5063.2	5006.8
32.5°	6420.3	6383.7	6230.4	6168.8	6053.5	6102.0	5512.5	5433.9	5581.9	5707.7	5648.8
35°	7343.9	7232.6	7076.7	6954.8	6754.4	6484.5	5871.5	6024.7	6246.1	6419.0	6133.5
37.5°	8416.8	8296.3	8052.6	7833.8	7518.1	6677.1	6412.5	6719.0	6996.7	6809.4	6150.5
40°	9521.1	9413.7	9184.5	8902.8	8369.6	7274.5	7068.8	7435.6	7751.3	6678.4	6350.9
42.5°	10617.6	10525.9	10341.2	10063.5	9377.0	7985.8	7788.0	8182.3	7884.9	6933.9	6923.4
45°	11723.3	11677.4	11467.8	11230.7	10570.4	8896.3	8593.6	8901.5	7587.6	7545.6	7520.8
47.5°	12619.3	12627.2	12553.8	12430.7	11843.8	9895.8	9501.5	8588.4	7949.1	7995.0	8006.8
50°	13542.9	13483.9	13480.0	13487.8	13242.9	11183.5	10119.8	8446.9	8422.0	8418.1	8407.6
52.5°	14283.0	14208.3	14362.9	14486.1	14631.5	12620.6	10026.8	8926.4	8783.6	8733.8	8428.6
55°	14885.6	14856.8	15108.3	15524.9	16172.0	14142.8	10849.5	9394.1	9108.5	7945.2	7167.1
57.5°	15251.1	15293.0	15811.8	16630.5	17842.3	15404.4	11807.1	9868.3	7798.5	6998.1	6948.3
60°	14551.6	14773.0	15655.9	17453.2	19254.5	16591.2	12519.7	9963.9	7017.7	6589.3	6489.8
62.5°	12839.4	12818.4	14335.4	17453.2	19702.5	16709.1	12745.1	9286.6	6130.8	5572.8	5461.4
65°	9087.5	9142.5	10763.0	15727.9	17948.4	15541.9	11756.0	7895.4	4890.3	4378.0	4227.4
67.5°	5623.9	5619.9	7206.4	11583.1	14610.5	13012.3	9897.1	6052.2	3394.2	2910.8	2747.1
70°	1942.7	1997.8	3241.0	6778.0	10755.2	10194.5	7406.8	3821.3	1789.5	1275.9	1076.8
72.5°	772.9	791.2	1163.3	3022.2	6719.0	6810.7	4501.2	1856.3	535.8	340.6	319.6
75°	505.7	508.3	558.1	1091.2	3260.6	3664.1	2090.8	533.2	248.9	227.9	222.7
77.5°	436.2	437.5	463.7	552.8	1062.4	1425.3	594.7	315.7	208.3	187.3	182.1
80°	404.8	406.1	419.2	475.5	512.2	486.0	317.0	254.1	175.5	166.4	165.1
82.5°	382.5	387.8	394.3	428.4	414.0	365.5	263.3	205.7	134.9	144.1	148.0
85°	352.4	357.6	361.6	381.2	345.8	267.2	204.4	154.6	86.5	94.3	93.0
87.5°	264.6	267.2	262.0	259.4	241.0	187.3	134.9	98.3	34.1	31.4	28.8
90°	127.1	125.8	120.5	111.4	96.9	76.0	56.3	31.4	14.4	6.6	2.6
92.5°	100.9	99.6	96.9	87.8	76.0	56.3	40.6	22.3	13.1	5.2	1.3
95°	68.1	65.5	62.9	56.3	47.2	34.1	23.6	15.7	10.5	3.9	1.3
97.5°	44.5	43.2	39.3	34.1	26.2	18.3	14.4	11.8	9.2	3.9	1.3
100°	27.5	27.5	24.9	19.7	13.1	10.5	9.2	9.2	6.6	2.6	0.0
102.5°	17.0	15.7	14.4	9.2	6.6	6.6	6.6	6.6	5.2	2.6	0.0
105°	9.2	9.2	6.6	5.2	3.9	2.6	3.9	5.2	3.9	1.3	0.0
107.5°	2.6	2.6	2.6	1.3	1.3	0.0	1.3	2.6	2.6	1.3	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.6	1.3	0.0



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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°	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6	3129.6
2.5°	3162.4	3137.5	3144.0	3119.1	3115.2	3089.0	3133.5	3136.2	3124.4	3137.5
5°	3203.0	3172.8	3184.6	3154.5	3149.3	3115.2	3150.6	3146.6	3137.5	3147.9
7.5°	3260.6	3230.5	3237.0	3201.7	3195.1	3157.1	3191.2	3178.1	3166.3	3180.7
10°	3340.5	3306.5	3311.7	3269.8	3264.5	3220.0	3259.3	3239.6	3222.6	3242.3
12.5°	3438.8	3394.2	3389.0	3344.4	3340.5	3298.6	3339.2	3319.6	3302.5	3334.0
15°	3551.4	3492.5	3484.6	3428.3	3421.7	3378.5	3417.8	3389.0	3375.9	3416.5
17.5°	3702.1	3493.8	3377.2	3294.7	3247.5	3223.9	3294.7	3390.3	3361.5	3362.8
20°	3640.5	3416.5	3260.6	3189.9	3138.8	2910.8	2596.4	2686.8	2870.2	2960.6
22.5°	3622.2	3543.6	3479.4	3360.2	2853.2	2724.8	2743.2	2722.2	2376.4	2244.0
25°	3973.3	3882.9	3744.0	3119.1	2972.4	2943.6	2954.1	2592.5	2331.8	2369.8
27.5°	4422.6	4329.6	3644.4	3294.7	3265.8	3227.9	3020.9	2568.9	2604.3	2641.0
30°	4988.5	4499.9	3800.3	3692.9	3639.2	3599.9	2832.2	2868.9	2927.9	2973.7
32.5°	5540.0	4485.5	4247.0	4113.4	4046.6	3284.2	3200.3	3285.5	3345.8	3381.1
35°	5546.6	4999.0	4747.5	4575.9	4151.4	3530.5	3607.8	3750.6	3898.6	3926.1
37.5°	5697.2	5580.6	5292.4	5076.3	3087.7	3940.5	4110.8	4274.6	4422.6	4431.8
40°	6297.2	6171.4	5901.6	5426.1	3409.9	4019.1	4664.9	4849.6	4974.1	4967.5
42.5°	6895.9	6809.4	6529.1	4822.1	3842.3	3482.0	5246.6	5368.4	5447.0	5502.0
45°	7498.5	7412.0	6464.9	5295.0	4357.1	3813.4	5105.1	5795.5	5881.9	5909.4
47.5°	7968.8	7755.2	5923.9	5922.5	5000.3	4237.9	4215.6	6180.6	6256.6	6236.9
50°	8403.7	6923.4	6403.3	6128.2	5665.8	4637.4	4482.8	5200.7	6595.9	6567.1
52.5°	7646.5	6719.0	6814.7	5574.1	6200.3	5034.4	4784.1	4663.6	5993.3	6764.9
55°	6838.2	6969.2	7235.2	6124.3	4498.6	5162.7	5039.6	4799.9	4044.0	3403.4
57.5°	6978.4	7173.6	7186.7	6633.9	4655.8	3225.2	4130.5	3615.6	2284.7	2289.9
60°	6510.7	6764.9	5253.1	4422.6	2503.4	672.0	65.5	57.6	398.2	484.7
62.5°	5504.7	5858.4	5014.7	3852.7	1606.1	24.9	6.6	1.3	0.0	0.0
65°	4262.8	4688.5	4237.9	3324.8	1425.3	7.9	0.0	0.0	0.0	0.0
67.5°	2811.3	3195.1	3220.0	2781.1	1188.2	3.9	0.0	0.0	0.0	0.0
70°	1177.7	1658.5	2004.3	2067.2	934.0	1.3	0.0	0.0	0.0	0.0
72.5°	340.6	526.6	964.2	1241.9	593.4	0.0	0.0	0.0	0.0	0.0
75°	226.6	242.4	279.0	559.4	296.1	0.0	0.0	0.0	0.0	0.0
77.5°	187.3	191.3	159.8	153.3	85.2	0.0	0.0	0.0	0.0	0.0
80°	170.3	167.7	128.4	90.4	31.4	0.0	0.0	0.0	0.0	0.0
82.5°	157.2	149.3	93.0	47.2	21.0	0.0	0.0	0.0	0.0	0.0
85°	106.1	104.8	41.9	28.8	3.9	0.0	0.0	0.0	0.0	0.0
87.5°	28.8	36.7	9.2	3.9	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	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)