

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: P579431

Luminaire Tested: **CTN-CA10-310-730-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)
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-T5-HSS-HM-EX180
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: 29339 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

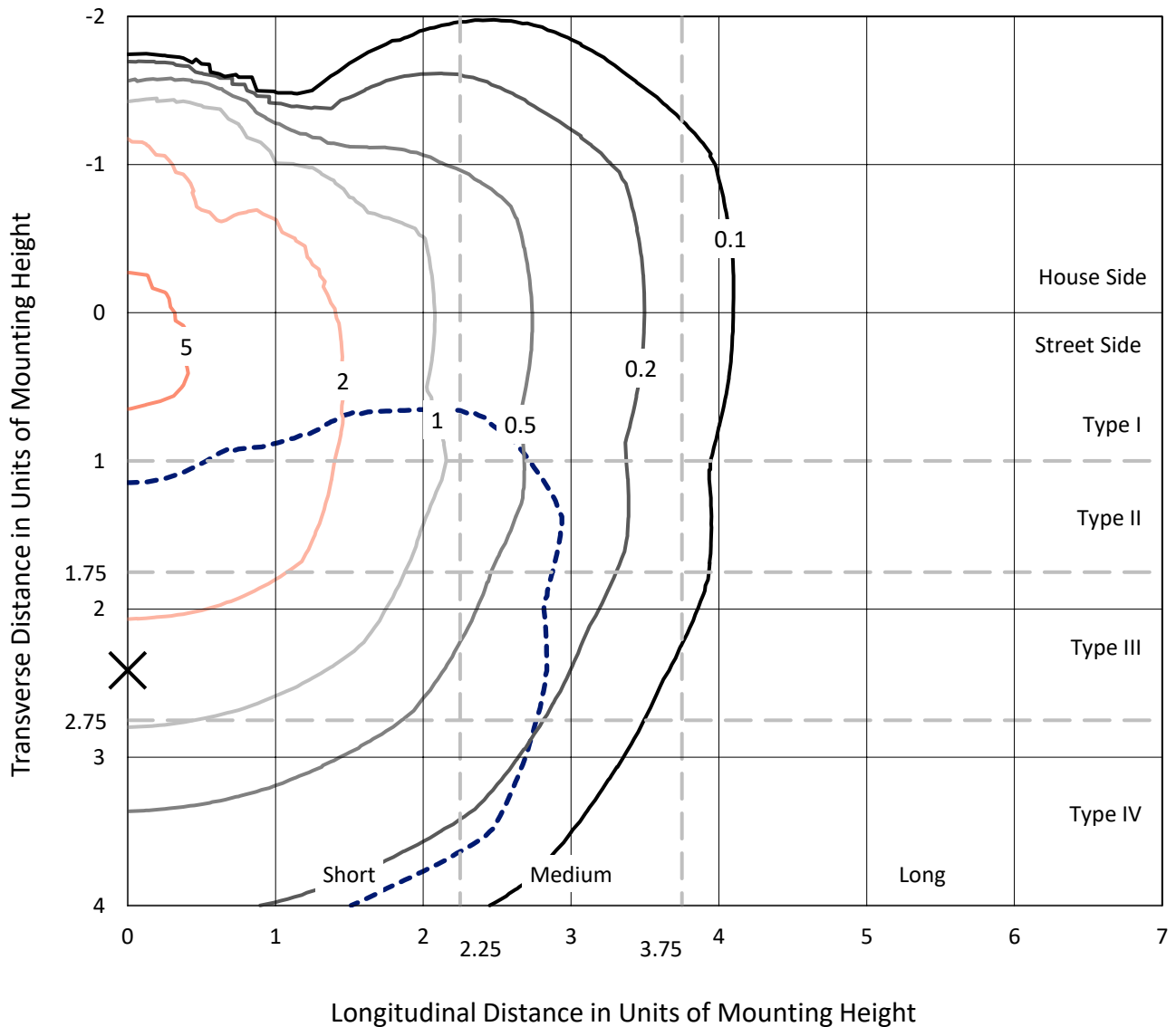
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

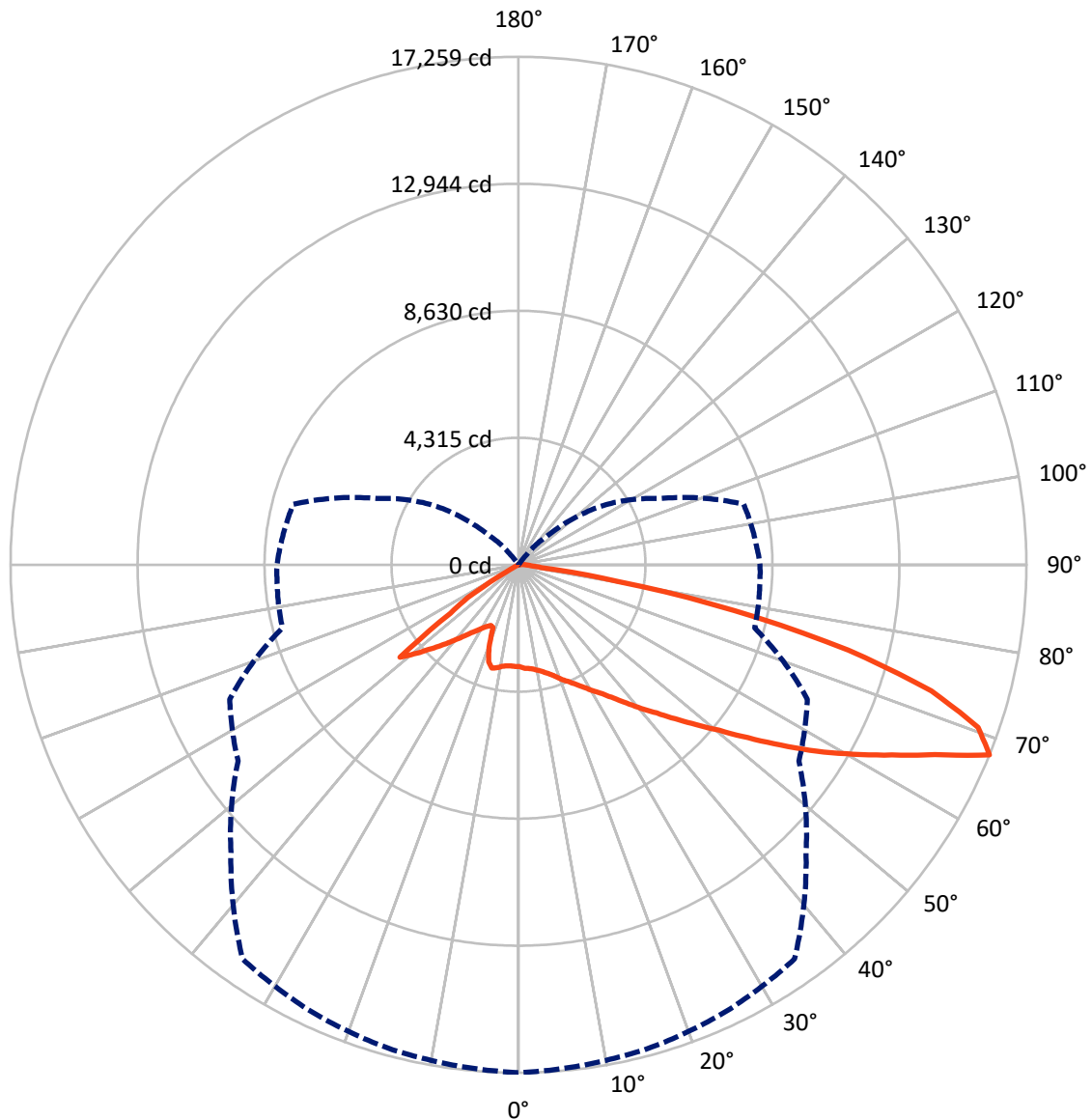
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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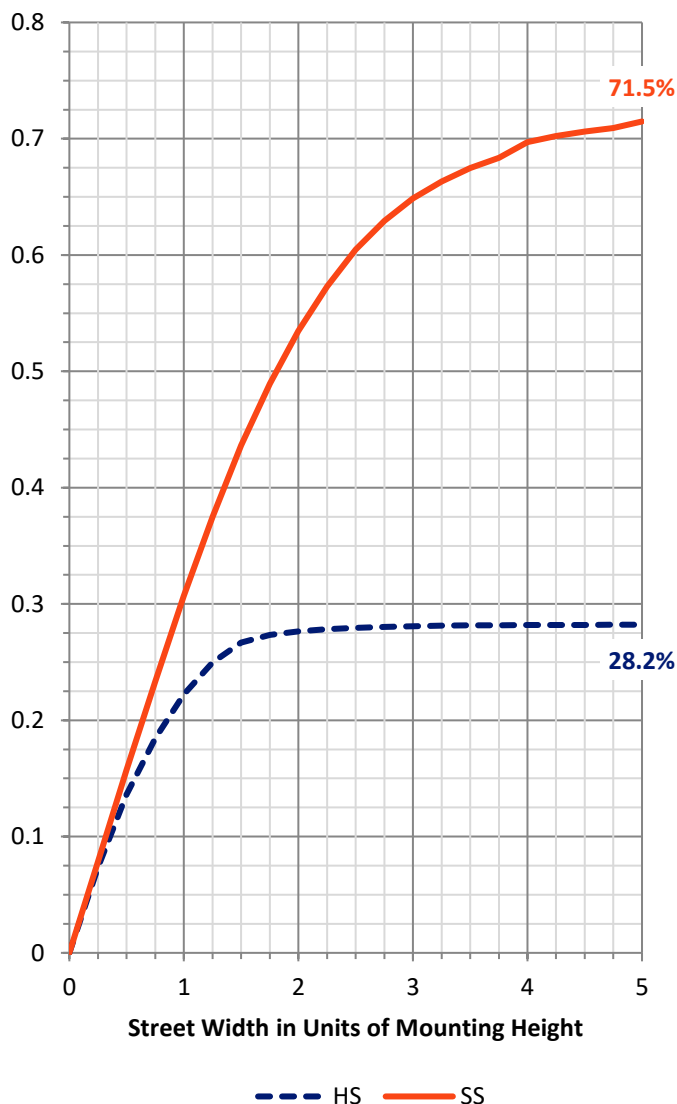
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8315.2	0.1	8315.3
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	20986.3	37.4	21023.7
	% Fixture	71.5	0.1	71.7
Total	Lumens	29301.5	37.5	29339.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.2	1.1
10°-20°	1025.8	3.5
20°-30°	1698.6	5.8
30°-40°	2673.9	9.1
40°-50°	4184.7	14.3
50°-60°	6042.0	20.6
60°-70°	7485.0	25.5
70°-80°	5451.1	18.6
80°-90°	407.2	1.4
90°-100°	32.0	0.1
100°-110°	5.3	0.0
110°-120°	0.2	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°	29301.5	99.9
0°-180°	29339.0	100.0

Coefficient of Utilization

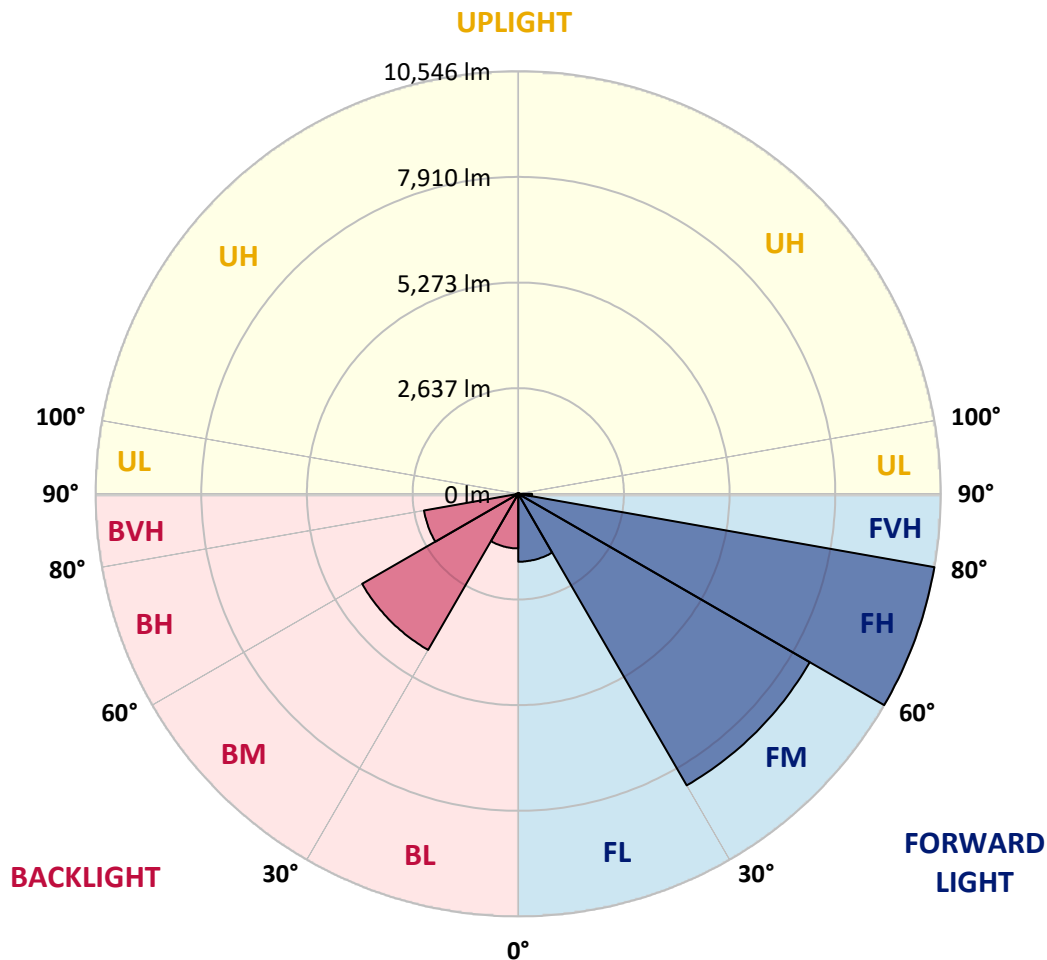


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1694.6	5.8			
FM (30°-60°)	8401.8	28.6			
FH (60°-80°)	10546.4	35.9			G4/12000
FVH (80°-90°)	343.5	1.2			G3/500
BL (0°-30°)	1363.1	4.6	B3/2500		
BM (30°-60°)	4498.7	15.3	B3/5000		
BH (60°-80°)	2389.7	8.1	B3/2500		G3/2500
BVH (80°-90°)	63.7	0.2			G1/100
UL (90°-100°)	32.0	0.1		U2/50	
UH (100°-180°)	5.5	0.0		U1/10	

BUG Rating: B3-U2-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4
2.5°	3518.6	3499.5	3499.5	3520.1	3462.7	3480.4	3456.8	3477.4	3465.7	3471.6	3478.9
5°	3539.2	3517.1	3518.6	3543.6	3492.1	3506.8	3478.9	3489.2	3478.9	3483.3	3483.3
7.5°	3577.4	3558.3	3558.3	3573.0	3521.5	3526.0	3501.0	3501.0	3487.7	3498.0	3489.2
10°	3649.5	3628.9	3618.6	3625.9	3580.4	3574.5	3540.7	3540.7	3520.1	3536.2	3523.0
12.5°	3736.2	3706.8	3703.9	3705.3	3653.9	3643.6	3605.4	3606.8	3568.6	3590.7	3574.5
15°	3840.6	3803.9	3800.9	3806.8	3752.4	3733.3	3690.6	3690.6	3648.0	3659.8	3637.7
17.5°	3974.4	3931.8	3924.4	3934.7	3880.3	3862.7	3812.7	3803.9	3756.8	3748.0	3728.9
20°	4150.9	4102.3	4087.6	4109.7	4040.6	4024.4	3964.1	3945.0	3881.8	3777.4	3640.6
22.5°	4309.7	4271.4	4262.6	4277.3	4214.1	4197.9	4139.1	4099.4	3946.5	3736.2	3609.8
25°	4490.5	4475.8	4471.4	4462.6	4405.2	4377.3	4321.4	4265.6	3918.5	3630.4	3627.4
27.5°	4714.0	4706.7	4686.1	4678.7	4615.5	4597.9	4524.3	4164.1	3818.6	3798.0	3786.2
30°	4958.1	4943.4	4922.8	4924.3	4881.6	4849.3	4674.3	4074.4	4011.2	4011.2	3980.3
32.5°	5228.6	5212.5	5191.9	5196.3	5178.7	5150.7	4624.3	4311.1	4262.6	4275.8	4237.6
35°	5563.9	5537.4	5530.1	5547.7	5549.2	5368.3	4712.5	4633.1	4594.9	4586.1	4442.0
37.5°	5955.0	5933.0	5959.4	6000.6	5953.5	5424.2	5064.0	5039.0	5000.7	4787.5	4446.4
40°	6424.1	6384.4	6416.7	6443.2	6412.3	5756.5	5433.0	5441.9	5408.0	4775.8	4397.9
42.5°	6888.7	6850.5	6878.4	6944.6	6932.8	6168.2	5883.0	5902.1	5561.0	4803.7	4774.3
45°	7463.6	7450.4	7441.6	7496.0	7541.5	6660.8	6416.7	6415.2	5452.1	5247.8	5221.3
47.5°	8115.0	8097.3	8101.8	8170.9	8240.0	7248.9	7047.5	6456.4	5733.0	5753.6	5730.0
50°	8841.4	8822.2	8879.6	8979.6	9014.9	7909.1	7662.1	6344.7	6318.2	6340.3	6300.6
52.5°	9763.3	9720.6	9808.9	9916.2	9961.8	8689.9	7695.9	7004.9	6960.8	6965.2	6838.7
55°	10811.7	10777.8	10857.2	10977.8	11045.4	9561.8	8398.8	7647.4	7620.9	6871.1	6187.3
57.5°	11951.2	11913.0	12018.8	12054.1	12071.8	10463.2	9106.0	8344.4	7119.6	6274.1	6235.9
60°	13068.7	13027.5	13161.3	13167.2	13218.7	11363.1	9778.0	9016.3	6859.3	6747.5	6715.2
62.5°	14242.0	14190.6	14308.2	14303.8	14202.3	12186.5	10444.1	9661.8	7323.9	7235.7	7185.7
65°	15544.8	15506.6	15588.9	15456.6	15255.1	13037.8	11135.1	10364.7	7865.0	7848.9	7837.1
67.5°	17259.3	17184.3	17018.1	16735.8	16350.6	13818.6	11629.2	10827.8	8304.7	8229.7	8206.2
70°	16569.6	16481.4	16355.0	16044.7	15652.1	13084.9	10835.2	10127.9	7765.0	7768.0	7712.1
72.5°	14671.4	14518.5	14399.4	13964.1	13748.0	11427.7	9441.3	8789.9	6716.7	6841.7	6815.2
75°	11573.3	11417.5	11221.9	11051.3	11027.8	9269.2	7612.1	7143.1	5355.1	5446.3	5512.4
77.5°	7501.8	7444.5	7691.5	7529.8	7675.4	6382.9	5437.4	5034.6	3690.6	3921.5	3890.6
80°	3433.3	3367.2	3764.2	3652.4	3706.8	3134.8	2657.0	2552.6	1670.3	1682.1	1717.4
82.5°	776.4	749.9	777.8	714.6	697.0	589.6	519.0	470.5	295.5	313.2	329.4
85°	424.9	424.9	419.1	389.6	333.8	275.0	217.6	167.6	91.2	100.0	98.5
87.5°	298.5	291.1	289.7	258.8	222.0	188.2	150.0	107.3	51.5	35.3	32.3
90°	204.4	201.4	191.1	172.0	148.5	122.0	91.2	52.9	22.1	10.3	7.4
92.5°	148.5	145.6	138.2	122.0	101.5	82.3	60.3	35.3	17.6	7.4	1.5
95°	98.5	97.0	92.6	79.4	66.2	52.9	38.2	22.1	14.7	5.9	1.5
97.5°	67.6	66.2	61.8	52.9	42.6	33.8	23.5	16.2	11.8	4.4	1.5
100°	45.6	44.1	41.2	33.8	26.5	20.6	14.7	11.8	8.8	4.4	1.5
102.5°	29.4	27.9	25.0	20.6	14.7	11.8	10.3	8.8	5.9	2.9	1.5
105°	17.6	16.2	13.2	10.3	8.8	7.4	7.4	5.9	4.4	1.5	1.5
107.5°	8.8	7.4	5.9	5.9	5.9	4.4	4.4	4.4	2.9	1.5	0.0
110°	1.5	1.5	2.9	2.9	2.9	2.9	2.9	2.9	2.9	1.5	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°	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4	3455.4
2.5°	3471.6	3448.0	3461.3	3440.7	3436.3	3414.2	3449.5	3453.9	3451.0	3456.8
5°	3476.0	3451.0	3465.7	3440.7	3440.7	3417.1	3451.0	3451.0	3442.1	3445.1
7.5°	3487.7	3462.7	3473.0	3445.1	3446.6	3418.6	3459.8	3455.4	3448.0	3458.3
10°	3521.5	3493.6	3492.1	3465.7	3471.6	3442.1	3493.6	3493.6	3486.3	3505.4
12.5°	3575.9	3534.8	3527.4	3495.1	3506.8	3481.8	3545.1	3548.0	3549.5	3580.4
15°	3633.3	3583.3	3590.7	3552.4	3548.0	3534.8	3592.1	3589.2	3587.7	3630.4
17.5°	3714.2	3478.9	3440.7	3414.2	3408.3	3376.0	3428.9	3530.4	3477.4	3448.0
20°	3586.2	3462.7	3311.3	3259.8	3249.5	2968.7	2746.7	2846.6	2981.9	2993.7
22.5°	3470.1	3426.0	3414.2	3333.3	2884.9	2790.8	2799.6	2762.8	2442.3	2302.6
25°	3614.2	3575.9	3526.0	3031.9	2926.0	2892.2	2881.9	2505.5	2252.6	2268.8
27.5°	3774.5	3731.8	3296.6	3039.3	3062.8	3015.7	2783.4	2337.9	2323.2	2351.1
30°	3974.4	3633.3	3217.2	3202.5	3224.5	3164.2	2473.2	2440.8	2436.4	2465.8
32.5°	4202.3	3503.9	3428.9	3428.9	3418.6	2767.2	2605.5	2583.4	2595.2	2626.1
35°	4117.0	3706.8	3698.0	3734.7	3487.7	2839.3	2817.2	2779.0	2787.8	2798.1
37.5°	4022.9	4040.6	4045.0	4025.9	2543.7	3045.1	3027.5	3020.1	3011.3	3014.3
40°	4372.9	4384.7	4380.2	4205.3	2745.2	3084.8	3265.7	3252.5	3251.0	3268.6
42.5°	4781.7	4814.0	4789.0	3709.8	3014.3	2593.7	3540.7	3533.3	3530.4	3567.1
45°	5241.9	5272.8	4747.8	3973.0	3301.0	2684.9	3559.8	3833.3	3855.3	3887.7
47.5°	5740.3	5734.5	4381.7	4377.3	3637.7	2937.8	2959.9	4192.0	4228.8	4240.6
50°	6313.8	5371.3	4797.8	4636.1	4018.5	3221.6	3137.8	3846.5	4658.1	4669.9
52.5°	6191.7	5313.9	5275.7	4067.1	4359.7	3534.8	3452.4	3430.4	4828.7	5112.5
55°	5771.2	5815.3	5760.9	4462.6	3196.6	3814.2	3762.7	3740.6	3592.1	2843.7
57.5°	6238.8	6252.0	6205.0	4825.8	3251.0	2377.6	3703.9	3177.5	2064.4	2054.1
60°	6724.0	6746.1	4621.4	3545.1	2083.5	795.5	189.7	200.0	570.5	501.4
62.5°	7187.2	7209.2	4891.9	3239.2	1316.0	58.8	38.2	26.5	29.4	29.4
65°	7791.5	7800.3	5236.0	3428.9	1367.4	14.7	4.4	0.0	0.0	0.0
67.5°	8104.7	7923.8	5322.8	3515.7	1404.2	8.8	2.9	0.0	0.0	0.0
70°	7631.2	7437.2	4955.2	3295.1	1308.6	7.4	1.5	0.0	0.0	0.0
72.5°	6724.0	6629.9	4447.9	2921.6	1158.7	4.4	1.5	0.0	0.0	0.0
75°	5572.7	5447.7	3687.7	2434.9	958.7	2.9	0.0	0.0	0.0	0.0
77.5°	3964.1	3978.8	2570.2	1774.7	652.8	2.9	0.0	0.0	0.0	0.0
80°	1735.0	1774.7	1126.3	814.6	230.8	1.5	0.0	0.0	0.0	0.0
82.5°	330.8	304.4	147.0	116.2	29.4	0.0	0.0	0.0	0.0	0.0
85°	108.8	119.1	54.4	44.1	13.2	0.0	0.0	0.0	0.0	0.0
87.5°	38.2	48.5	16.2	13.2	2.9	0.0	0.0	0.0	0.0	0.0
90°	5.9	5.9	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)