

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: P522132

Luminaire Tested: **CTN-CA10-310-730-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522132
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: McGRAW-EDISON
Catalog Number: CTN-CA10-310-730-U-T5R-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36651 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G5

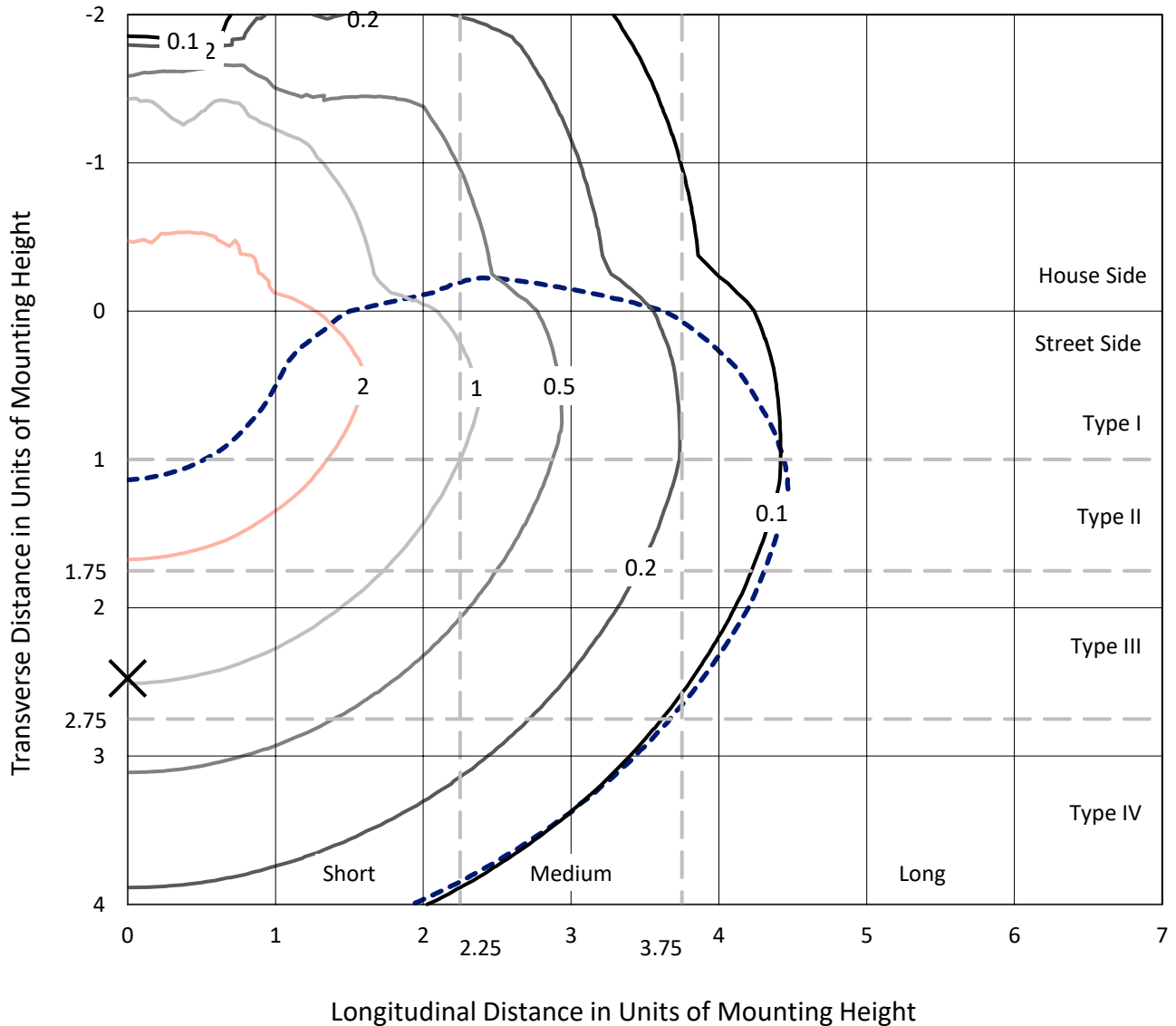
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

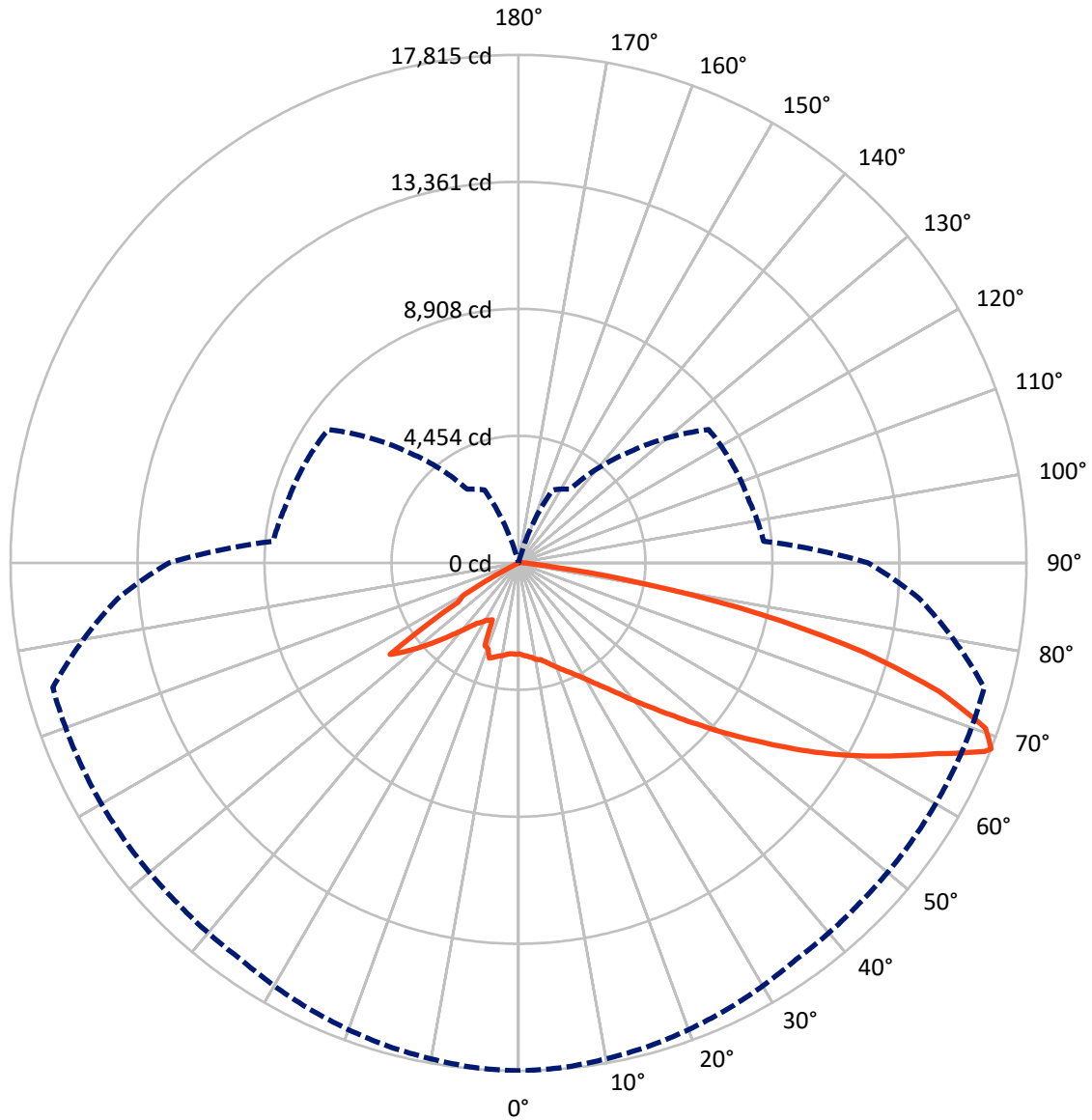
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.6 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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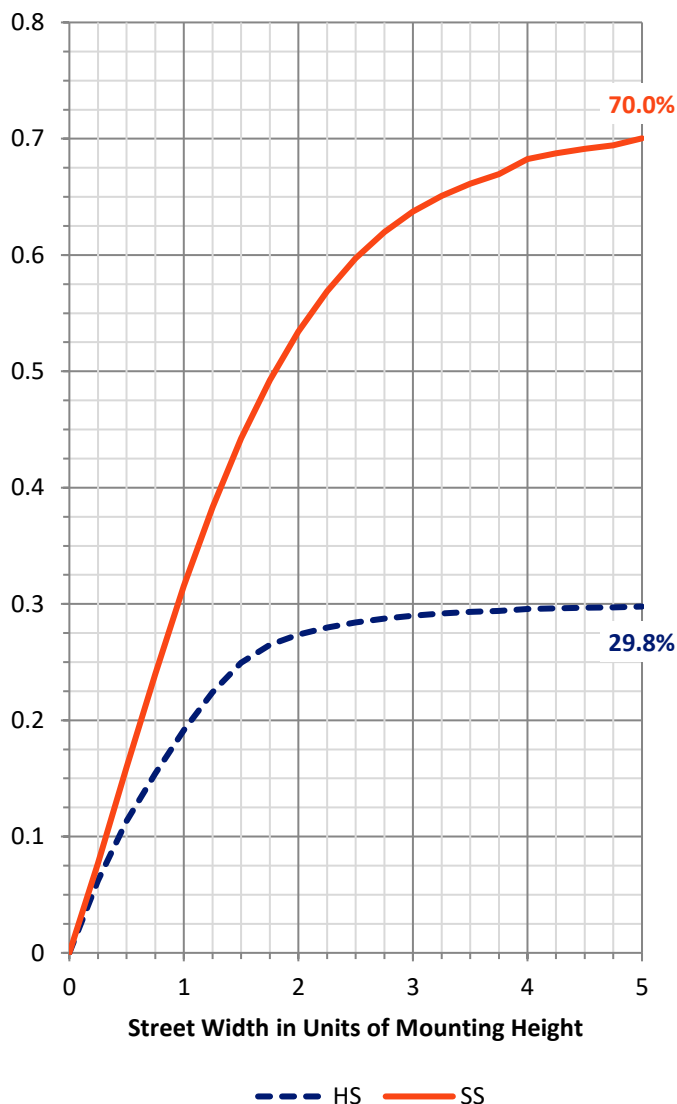
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10925.3	1.7	10926.9
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	25709.0	15.0	25724.0
	% Fixture	70.1	0.0	70.2
Total	Lumens	36634.3	16.7	36651.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.1	0.8
10°-20°	987.0	2.7
20°-30°	1690.7	4.6
30°-40°	2742.6	7.5
40°-50°	4625.3	12.6
50°-60°	7539.4	20.6
60°-70°	10111.6	27.6
70°-80°	7854.1	21.4
80°-90°	773.5	2.1
90°-100°	14.7	0.0
100°-110°	0.8	0.0
110°-120°	0.2	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	36634.3	100.0
0°-180°	36651.0	100.0

Coefficient of Utilization

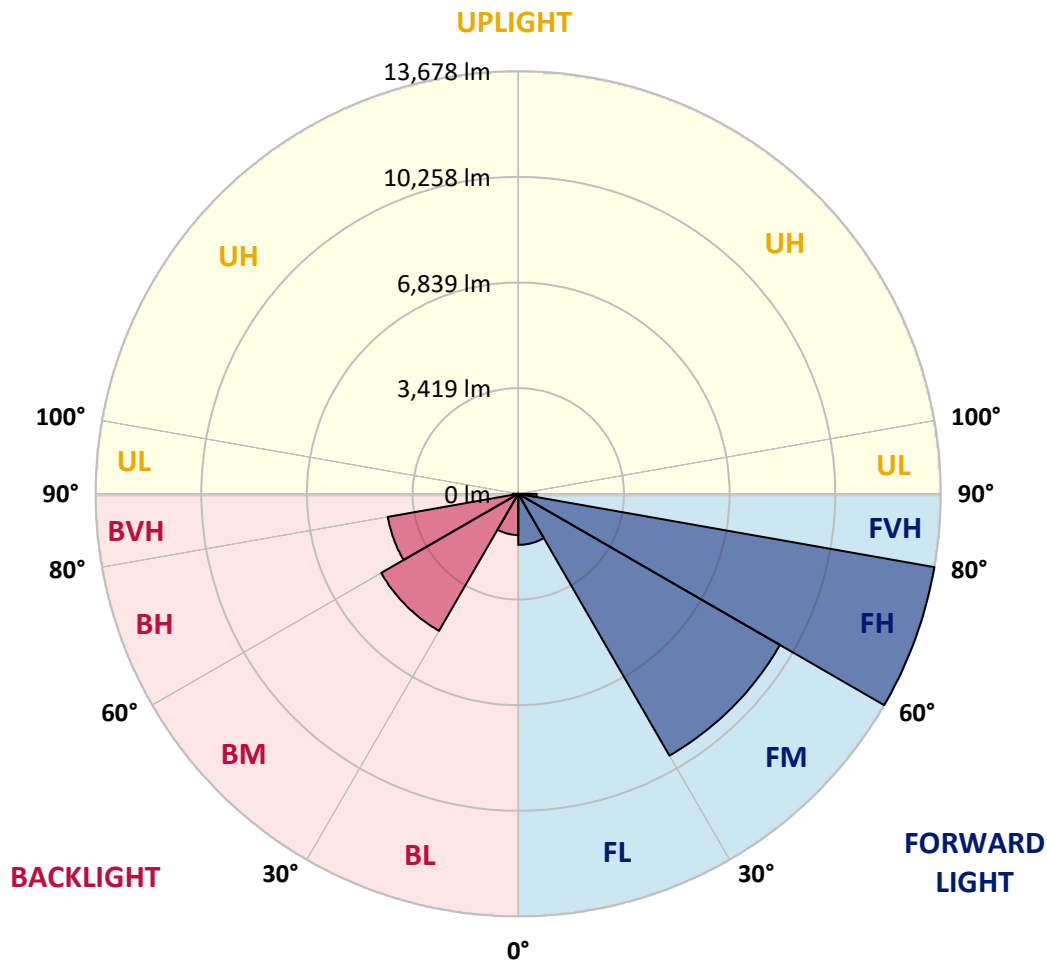


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1653.2	4.5			
FM (30°-60°)	9783.4	26.7			
FH (60°-80°)	13677.7	37.3			G5
FVH (80°-90°)	594.7	1.6			G4/750
BL (0°-30°)	1334.6	3.6	B3/2500		
BM (30°-60°)	5123.9	14.0	B4/8500		
BH (60°-80°)	4287.9	11.7	B4/5000		G4/5000
BVH (80°-90°)	178.8	0.5			G2/225
UL (90°-100°)	14.7	0.0		U2/50	
UH (100°-180°)	2.0	0.0		U1/10	

BUG Rating: B4-U2-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3
2.5°	3248.3	3239.2	3237.7	3255.9	3198.3	3227.1	3201.4	3222.6	3208.9	3219.5	3221.1
5°	3292.3	3275.6	3265.0	3286.2	3249.9	3263.5	3234.7	3243.8	3205.9	3227.1	3230.2
7.5°	3356.0	3328.7	3325.6	3331.7	3299.9	3310.5	3263.5	3274.1	3246.8	3234.7	3245.3
10°	3442.4	3416.6	3396.9	3410.5	3368.1	3374.2	3324.1	3325.6	3305.9	3283.2	3301.4
12.5°	3490.9	3493.9	3484.8	3495.4	3460.6	3440.8	3406.0	3393.9	3374.2	3346.9	3337.8
15°	3612.1	3606.1	3587.9	3604.6	3600.0	3581.8	3539.4	3512.1	3469.6	3454.5	3439.3
17.5°	3760.7	3741.0	3725.8	3747.0	3769.8	3731.9	3691.0	3653.1	3597.0	3566.7	3548.5
20°	3916.8	3903.2	3888.0	3921.4	3928.9	3900.1	3869.8	3813.7	3748.6	3709.1	3671.2
22.5°	4091.1	4063.8	4068.4	4112.3	4098.7	4085.1	4045.6	4000.2	3921.4	3871.3	3762.2
25°	4271.5	4256.3	4277.6	4297.3	4286.7	4257.9	4238.2	4204.8	4116.9	4056.3	3897.1
27.5°	4495.8	4471.6	4498.9	4506.5	4497.4	4489.8	4462.5	4436.7	4341.2	4273.0	4074.4
30°	4759.6	4730.8	4774.7	4764.1	4755.0	4761.1	4744.4	4688.3	4603.5	4511.0	4312.4
32.5°	5073.4	5035.5	5085.5	5062.7	5041.5	5084.0	5044.6	4991.5	4891.5	4783.8	4589.8
35°	5437.1	5438.7	5464.4	5426.5	5419.0	5464.4	5438.7	5373.5	5281.0	5168.9	4893.0
37.5°	5878.2	5866.1	5931.3	5913.1	5885.8	5946.5	5954.0	5872.2	5705.4	5594.8	5268.9
40°	6414.8	6411.8	6433.0	6436.1	6428.5	6457.3	6470.9	6361.8	6254.2	6087.4	4971.8
42.5°	6987.8	6999.9	7037.8	7010.5	7046.9	7084.8	7089.4	6998.4	6843.8	5840.3	5281.0
45°	7676.0	7713.9	7739.6	7733.6	7750.2	7804.8	7809.4	7760.9	7609.3	6326.9	5841.9
47.5°	8465.7	8502.1	8509.7	8558.2	8543.0	8620.3	8609.7	8611.2	8449.0	7004.5	6452.7
50°	9373.7	9390.3	9452.5	9479.8	9441.9	9546.5	9519.2	9552.5	9352.4	7780.6	7109.1
52.5°	10337.7	10366.5	10392.3	10495.3	10446.8	10537.8	10501.4	10578.7	10346.8	8570.3	7838.2
55°	11433.6	11438.2	11482.1	11586.7	11523.1	11632.2	11579.1	11607.9	11423.0	9443.4	8597.6
57.5°	12594.7	12579.6	12596.2	12679.6	12622.0	12703.9	12682.6	12709.9	12537.1	10362.0	9152.4
60°	13743.7	13721.0	13745.2	13801.3	13722.5	13863.4	13787.6	13813.4	13627.0	11300.2	9943.6
62.5°	14898.7	14882.0	14854.8	14910.8	14795.6	14868.4	14900.2	14857.8	14694.1	12149.1	10631.8
65°	16138.6	16122.0	16021.9	16056.8	15850.6	15815.8	15827.9	15841.5	15732.4	12990.3	11386.6
67.5°	17645.3	17621.1	17433.1	17196.7	16899.6	16834.4	16840.5	16876.8	16892.0	14072.6	12270.3
68°	17815.1	17771.1	17562.0	17287.6	16976.9	16901.1	16893.5	16901.1	16908.7	14081.7	12261.2
70°	17381.6	17364.9	17205.8	16873.8	16555.5	16373.6	16215.9	16209.9	16137.1	13361.7	11583.7
72.5°	15424.7	15403.5	15214.0	14979.1	14782.0	14497.0	14292.4	14304.5	14184.8	11809.5	10139.1
75°	12482.5	12481.0	12253.7	12056.6	12059.6	12038.4	11970.2	12090.0	11965.7	10016.4	8647.6
77.5°	8699.1	8729.4	8714.3	8599.1	8761.3	8985.6	9229.7	9460.1	9388.8	7912.4	6895.3
80°	4544.3	4629.2	4929.4	4943.0	5056.7	5275.0	5441.7	5596.3	5606.9	4489.8	3983.5
82.5°	1208.1	1233.9	1335.4	1306.6	1297.5	1341.5	1377.9	1382.4	1385.4	1170.2	1092.9
85°	375.9	386.5	374.4	357.7	332.0	303.2	295.6	241.0	191.0	157.6	137.9
87.5°	266.8	285.0	257.7	242.5	215.2	204.6	183.4	144.0	112.2	78.8	53.1
90°	137.9	141.0	125.8	107.6	100.0	94.0	80.3	57.6	28.8	15.2	13.6
92.5°	69.7	71.2	62.1	53.1	45.5	39.4	30.3	16.7	9.1	4.5	1.5
95°	27.3	28.8	25.8	22.7	18.2	13.6	12.1	9.1	6.1	3.0	1.5
97.5°	9.1	9.1	9.1	7.6	7.6	7.6	7.6	6.1	4.5	3.0	1.5
100°	0.0	0.0	0.0	1.5	3.0	4.5	4.5	4.5	3.0	1.5	1.5
102.5°	0.0	0.0	0.0	0.0	0.0	1.5	3.0	3.0	3.0	1.5	1.5
105°	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5



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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	1.5	1.5	1.5
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
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	1.5
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
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°	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3	3195.3
2.5°	3213.5	3204.4	3208.9	3171.0	3180.1	3155.9	3207.4	3193.8	3187.7	3208.9
5°	3221.1	3187.7	3215.0	3189.2	3193.8	3158.9	3201.4	3184.7	3183.2	3195.3
7.5°	3224.1	3207.4	3233.2	3190.7	3204.4	3190.7	3222.6	3205.9	3221.1	3231.7
10°	3266.5	3257.4	3254.4	3239.2	3249.9	3219.5	3259.0	3259.0	3266.5	3295.3
12.5°	3328.7	3316.6	3309.0	3281.7	3292.3	3283.2	3315.0	3321.1	3334.7	3346.9
15°	3413.6	3392.3	3384.8	3360.5	3368.1	3366.6	3389.3	3390.8	3421.1	3419.6
17.5°	3522.7	3492.4	3501.5	3483.3	3484.8	3472.7	3460.6	3460.6	3487.8	3493.9
20°	3653.1	3480.3	3252.9	3125.6	3102.8	3119.5	3184.7	3292.3	3157.4	3195.3
22.5°	3418.1	3262.0	3251.4	3222.6	3204.4	2798.2	2693.6	2660.2	2834.5	3134.7
25°	3448.4	3381.7	3362.0	3325.6	2789.1	2784.5	2754.2	2704.2	2210.0	2199.4
27.5°	3609.1	3543.9	3512.1	2913.4	2901.2	2899.7	2854.2	2352.5	2238.8	2254.0
30°	3797.1	3721.3	3151.3	3060.4	3049.8	3025.5	2764.8	2323.7	2322.2	2323.7
32.5°	4013.8	3762.2	3242.3	3237.7	3243.8	3169.5	2449.5	2440.4	2438.9	2454.1
35°	4310.9	3490.9	3469.6	3492.4	3460.6	2740.6	2596.6	2592.0	2593.5	2585.9
37.5°	4113.9	3763.7	3759.2	3759.2	3684.9	2804.2	2775.4	2796.6	2793.6	2783.0
40°	4197.2	4094.2	4066.9	4057.8	3115.0	3025.5	3008.8	3036.1	3040.7	3048.3
42.5°	4601.9	4508.0	4494.3	4386.7	3389.3	3360.5	3309.0	3337.8	3334.7	3343.8
45°	5099.1	5035.5	4976.3	3803.1	3759.2	3722.8	3669.7	3703.1	3712.2	3706.1
47.5°	5678.2	5608.4	5181.0	4182.1	4180.6	4151.8	4092.6	4119.9	4115.4	4115.4
50°	6260.2	6184.4	4706.5	4664.1	4648.9	4603.5	4555.0	4559.5	4561.0	4576.2
52.5°	6910.5	5523.5	5209.8	5124.9	5137.0	5106.7	5059.7	3830.4	5037.0	5050.6
55°	6458.8	5781.2	5763.0	5650.9	5679.7	5640.3	5609.9	3778.9	5009.7	5535.7
57.5°	6386.0	6337.5	6322.4	6207.2	6243.5	5869.1	6149.6	4135.1	3465.1	2531.4
60°	6942.3	6890.8	6881.7	6780.1	6777.1	4664.1	5590.2	2836.0	2216.1	2231.2
62.5°	7481.9	7398.6	7421.3	7301.6	5147.6	2842.1	2505.6	63.7	101.6	107.6
65°	8083.7	7944.3	7967.0	7856.4	5309.8	2996.7	2708.7	33.3	28.8	27.3
67.5°	8662.8	8418.7	8302.0	8185.3	5514.5	3155.9	2822.4	9.1	0.0	0.0
68°	8634.0	8376.3	8256.5	8145.9	5493.2	3151.3	2816.3	9.1	0.0	0.0
70°	8147.4	7915.5	7801.8	7716.9	5244.6	3043.7	2702.7	9.1	0.0	0.0
72.5°	7122.7	6993.9	6921.1	6846.8	4659.5	2722.4	2423.8	9.1	0.0	0.0
75°	6052.6	6016.2	5970.7	5807.0	3883.5	2228.2	1991.8	9.1	0.0	0.0
77.5°	4796.0	4794.5	4683.8	4491.3	2924.0	1635.5	1468.8	7.6	0.0	0.0
80°	2593.5	2827.0	2742.1	2643.5	1658.3	889.8	847.3	6.1	0.0	0.0
82.5°	729.1	689.7	662.4	620.0	348.6	194.0	189.5	6.1	0.0	0.0
85°	101.6	112.2	124.3	141.0	80.3	51.5	45.5	3.0	0.0	0.0
87.5°	57.6	65.2	80.3	83.4	30.3	24.3	7.6	0.0	0.0	0.0
90°	12.1	13.6	15.2	15.2	6.1	6.1	0.0	0.0	0.0	0.0
92.5°	0.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.5	1.5	1.5	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°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.5	1.5	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)