

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: P579655

Luminaire Tested: **CTN-CA8-330-727-U-T5N-HSS-HM-EX120**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579655
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-727-U-T5N-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32559 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

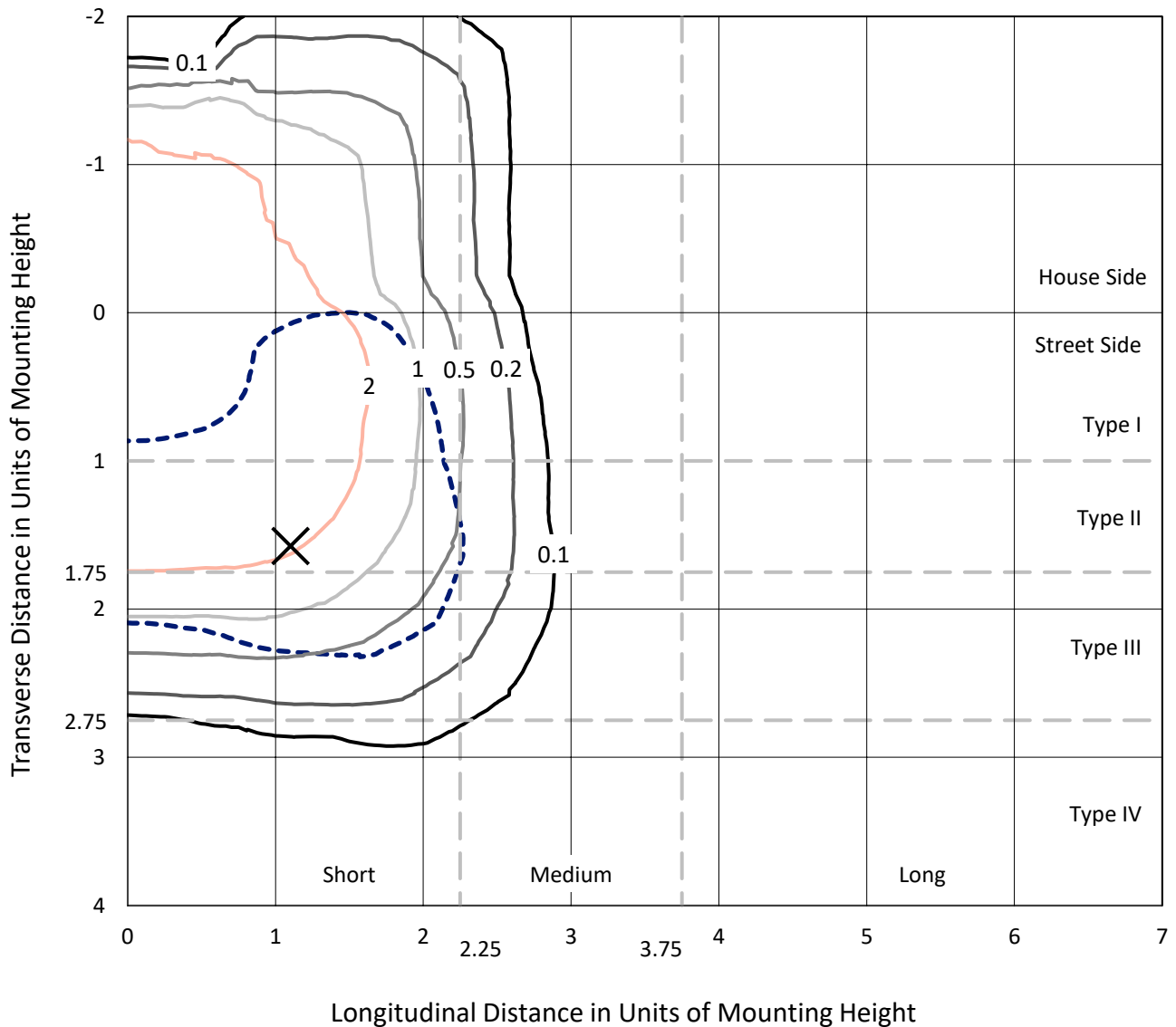
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

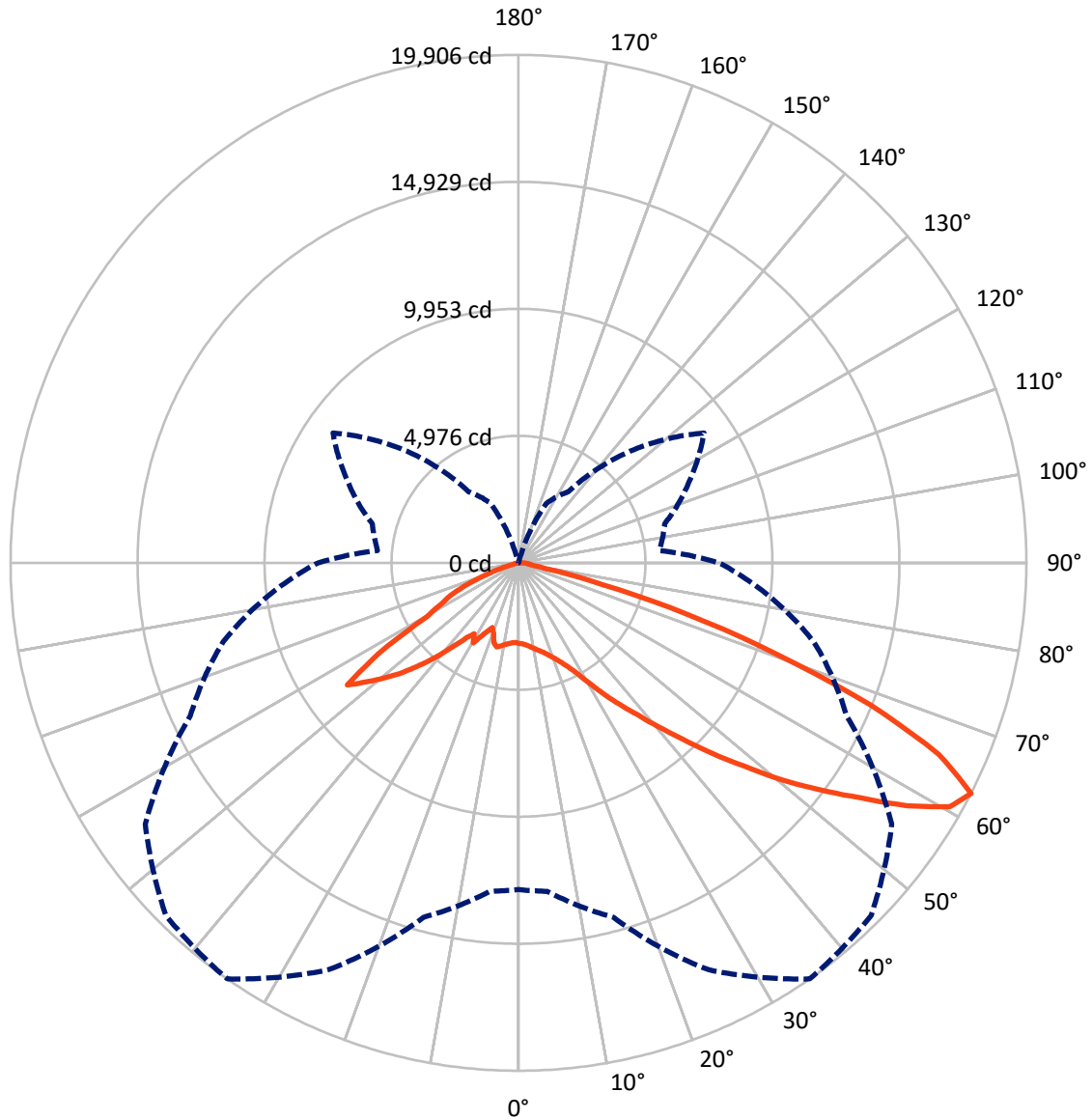
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.8 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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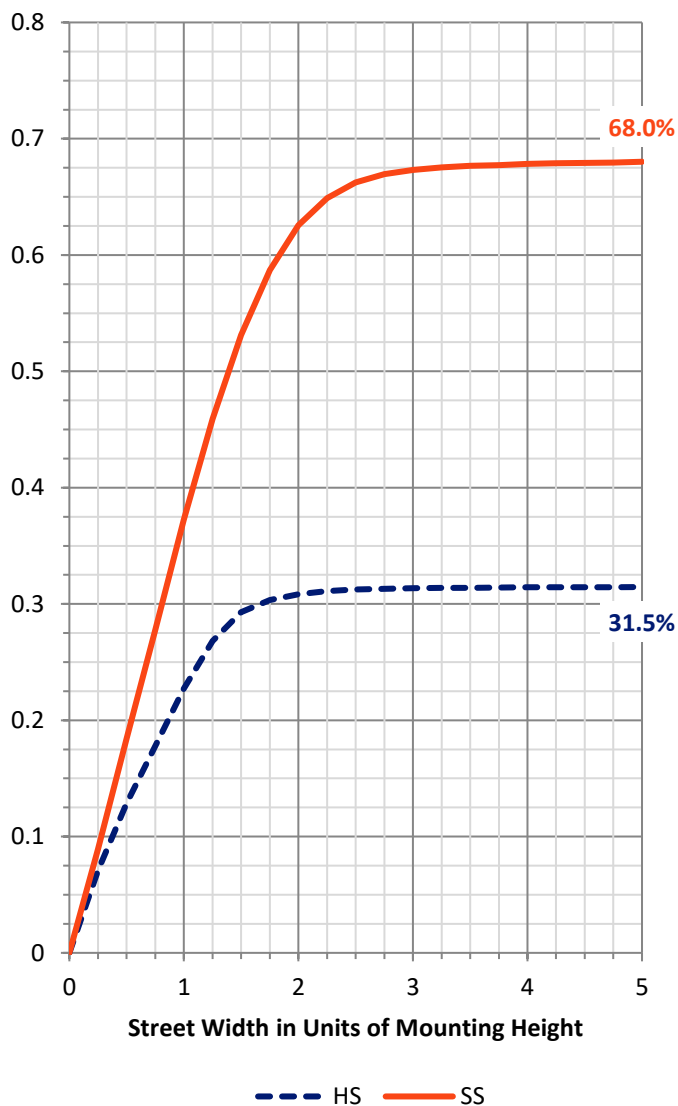
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10300.3	0.0	10300.3
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	22240.1	18.6	22258.7
	% Fixture	68.3	0.1	68.4
Total	Lumens	32540.4	18.6	32559.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.6	1.0
10°-20°	1002.0	3.1
20°-30°	1860.6	5.7
30°-40°	3668.3	11.3
40°-50°	6585.0	20.2
50°-60°	9572.0	29.4
60°-70°	7866.6	24.2
70°-80°	1495.3	4.6
80°-90°	179.0	0.5
90°-100°	16.9	0.1
100°-110°	1.6	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°	32540.4	99.9
0°-180°	32559.0	100.0

Coefficient of Utilization



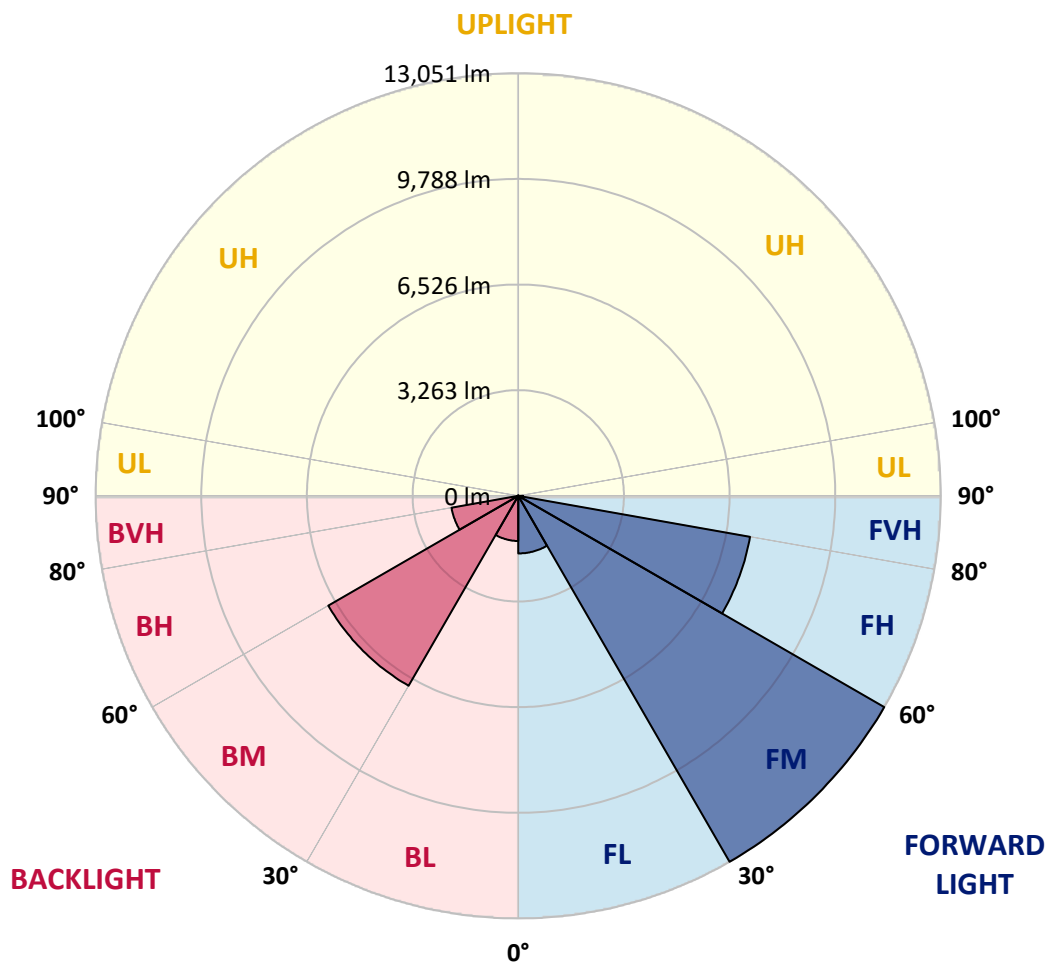
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1779.5	5.5			
FM	(30°-60°)	13051.1	40.1			
FH	(60°-80°)	7267.9	22.3			G3/7500
FVH	(80°-90°)	141.5	0.4			G2/225
BL	(0°-30°)	1394.7	4.3	B3/2500		
BM	(30°-60°)	6774.1	20.8	B4/8500		
BH	(60°-80°)	2094.0	6.4	B3/2500		G3/2500
BVH	(80°-90°)	37.5	0.1			G1/100
UL	(90°-100°)	16.9	0.1		U2/50	
UH	(100°-180°)	1.6	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°	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4
2.5°	3241.1	3214.6	3217.3	3237.1	3177.6	3197.4	3169.6	3193.4	3182.9	3193.4	3200.1
5°	3305.9	3272.8	3271.5	3291.4	3243.7	3255.6	3223.9	3239.8	3225.2	3238.4	3238.4
7.5°	3385.3	3357.5	3350.9	3366.8	3324.5	3329.8	3298.0	3304.6	3287.4	3304.6	3291.4
10°	3484.6	3459.4	3448.9	3456.8	3418.4	3421.1	3386.7	3389.3	3364.2	3378.7	3368.1
12.5°	3589.1	3554.7	3549.4	3562.7	3523.0	3517.7	3488.6	3491.2	3463.4	3476.7	3468.7
15°	3697.7	3661.9	3663.3	3676.5	3636.8	3639.4	3609.0	3614.3	3586.5	3599.7	3589.1
17.5°	3841.9	3806.2	3803.5	3827.4	3794.3	3804.9	3773.1	3779.7	3759.9	3762.5	3750.6
20°	4048.4	4002.1	3992.8	4027.2	3983.5	3996.8	3979.6	4002.1	3994.1	3987.5	3978.2
22.5°	4294.5	4258.8	4240.3	4266.7	4215.1	4240.3	4249.5	4295.9	4307.8	4299.8	4154.3
25°	4624.1	4605.5	4587.0	4575.1	4512.9	4552.6	4600.2	4677.0	4727.3	4747.1	4544.7
27.5°	5068.7	5078.0	4997.3	4984.0	4913.9	4976.1	5062.1	5186.5	5288.4	5325.5	5052.9
30°	5640.5	5652.4	5542.5	5510.8	5468.4	5521.4	5681.5	5817.8	5968.7	6030.9	5666.9
32.5°	6400.1	6389.5	6228.1	6167.2	6128.8	6150.0	6318.1	6504.7	6674.1	6814.3	6367.0
35°	7327.8	7294.8	7122.7	6954.6	6802.4	6867.3	6990.4	7216.7	7473.4	7679.9	7057.9
37.5°	8405.1	8373.3	8111.3	7837.4	7536.9	7564.7	7674.6	8043.8	8374.7	8428.9	6940.1
40°	9518.1	9504.9	9257.4	8909.3	8442.2	8311.1	8456.7	8906.7	9256.1	8309.8	7214.0
42.5°	10629.8	10566.3	10427.3	10079.3	9457.2	9168.7	9364.6	9814.6	10190.4	8712.1	7849.3
45°	11750.7	11685.9	11568.1	11312.7	10665.5	10246.0	10302.9	10801.8	11142.0	9466.5	8511.0
47.5°	12746.0	12698.3	12613.6	12470.7	11893.7	11513.9	11404.0	11753.4	11985.0	10079.3	9019.2
50°	13603.6	13562.5	13595.6	13548.0	13378.6	12980.2	12617.6	12595.1	12706.3	10624.5	9486.4
52.5°	14357.9	14302.3	14443.9	14612.0	14768.2	14679.5	13802.1	13393.1	13292.5	11033.4	9800.0
55°	14981.2	14961.4	15204.9	15658.8	16253.1	16486.0	15068.6	14130.3	13816.6	11380.2	9829.1
57.5°	15354.5	15402.1	15916.9	16795.7	17957.6	18067.5	16550.8	14913.7	14278.5	11590.6	9968.1
60°	14716.6	14878.0	15804.4	17648.0	19408.1	19455.8	17616.2	15069.9	13673.7	10833.6	9225.6
62.5°	12805.5	12922.0	14379.1	17593.7	19905.7	19543.1	17854.4	14188.5	11983.7	9189.9	7846.6
65°	9048.3	9183.3	10939.5	15865.3	18109.8	18123.1	16355.0	12269.5	9579.0	7114.8	6058.7
67.5°	5457.8	5676.2	7339.8	11517.8	14911.1	15182.4	13644.6	9289.2	6855.4	4645.2	3921.3
70°	1790.6	1990.4	3350.9	6817.0	10748.9	11910.9	10247.3	6036.2	3579.9	1964.0	1581.5
72.5°	709.4	800.7	1180.5	3014.8	6926.8	7952.5	6314.1	2916.8	1201.7	521.4	453.9
75°	473.8	483.1	545.3	1027.0	3389.3	4348.8	3043.9	848.3	446.0	325.6	285.9
77.5°	412.9	414.2	442.0	541.3	1103.7	1667.5	876.1	455.3	369.2	267.3	236.9
80°	378.5	383.8	401.0	461.9	505.6	566.4	432.8	379.8	320.3	246.2	223.7
82.5°	362.6	366.6	377.2	418.2	408.9	424.8	349.4	301.7	270.0	226.3	214.4
85°	330.9	337.5	344.1	369.2	336.2	291.2	270.0	202.5	193.2	170.7	157.5
87.5°	250.1	248.8	242.2	246.2	225.0	184.0	152.2	113.8	92.6	76.8	63.5
90°	104.6	105.9	101.9	96.6	84.7	70.1	52.9	31.8	15.9	5.3	2.6
92.5°	79.4	80.7	78.1	70.1	60.9	49.0	35.7	18.5	10.6	4.0	1.3
95°	49.0	50.3	47.6	42.3	37.1	27.8	18.5	11.9	6.6	2.6	0.0
97.5°	29.1	30.4	27.8	25.1	19.9	13.2	10.6	7.9	5.3	2.6	0.0
100°	17.2	17.2	15.9	13.2	9.3	7.9	6.6	5.3	4.0	1.3	0.0
102.5°	7.9	7.9	7.9	5.3	4.0	4.0	4.0	4.0	4.0	1.3	0.0
105°	2.6	2.6	1.3	1.3	1.3	2.6	2.6	2.6	2.6	1.3	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	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	1.3	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°	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4	3160.4
2.5°	3193.4	3168.3	3172.3	3149.8	3144.5	3120.7	3163.0	3167.0	3155.1	3167.0
5°	3233.1	3202.7	3210.6	3185.5	3178.9	3145.8	3180.2	3177.6	3168.3	3180.2
7.5°	3291.4	3257.0	3260.9	3231.8	3225.2	3188.1	3219.9	3210.6	3200.1	3214.6
10°	3365.5	3332.4	3333.7	3294.0	3290.1	3247.7	3288.7	3271.5	3255.6	3276.8
12.5°	3468.7	3422.4	3418.4	3374.7	3373.4	3329.8	3372.1	3357.5	3336.4	3369.5
15°	3587.8	3525.6	3509.7	3454.2	3452.8	3406.5	3448.9	3426.4	3415.8	3455.5
17.5°	3742.7	3664.6	3544.1	3354.9	3268.9	3283.4	3433.0	3487.2	3345.6	3366.8
20°	3836.6	3458.1	3282.1	3204.0	3163.0	2927.4	2608.5	2635.0	2948.6	3098.2
22.5°	3677.8	3565.3	3500.5	3390.6	2818.9	2738.2	2756.7	2751.4	2346.4	2226.0
25°	4008.7	3902.8	3785.0	3107.4	2989.6	2955.2	2964.5	2584.7	2363.6	2372.9
27.5°	4485.1	4348.8	3602.4	3308.6	3284.8	3234.5	3051.8	2595.2	2623.0	2641.6
30°	5087.3	4602.9	3836.6	3708.3	3660.6	3606.4	2832.1	2899.6	2951.3	3008.2
32.5°	5669.6	4477.2	4285.3	4151.6	4077.5	3274.2	3194.8	3319.2	3370.8	3419.7
35°	5616.6	5015.8	4767.0	4597.6	4458.6	3533.6	3603.7	3793.0	3929.3	3927.9
37.5°	5762.2	5602.1	5314.9	5100.5	3869.7	3958.4	4105.3	4321.0	4486.4	4485.1
40°	6369.7	6196.3	5926.3	5465.8	4287.9	4494.4	4695.5	4898.0	5017.1	5026.4
42.5°	6973.2	6839.5	6596.0	4827.9	4800.1	5085.9	5296.4	5424.7	5497.5	5522.7
45°	7574.0	7448.3	6480.8	5340.0	5424.7	5708.0	5836.3	5861.5	5939.6	5936.9
47.5°	8051.8	7944.6	5962.1	5948.8	6159.2	6355.1	6314.1	6282.3	6302.2	6312.8
50°	8492.5	6916.3	6427.9	6621.1	6941.4	6965.2	6794.5	5382.4	6663.5	6641.0
52.5°	7889.0	6749.5	6862.0	7314.6	7859.9	7583.3	7249.8	4718.0	6249.2	6843.5
55°	6903.0	7016.8	7270.9	8030.6	8569.2	8241.0	7683.8	4858.3	4147.6	3376.1
57.5°	7040.7	7220.6	7703.7	8753.2	9223.0	6527.2	7171.7	3425.0	2318.7	2317.3
60°	6556.3	6828.9	7694.4	9077.4	7465.5	4182.0	2873.2	78.1	450.0	446.0
62.5°	5542.5	5930.3	7341.1	8872.3	6184.4	3398.6	2559.5	6.6	2.6	2.6
65°	4286.6	4743.2	6120.9	7682.5	5479.0	2927.4	1900.4	0.0	0.0	0.0
67.5°	2811.0	3234.5	4596.3	6381.6	4548.6	2212.8	1277.1	0.0	0.0	0.0
70°	1171.2	1694.0	2856.0	4612.2	3345.6	1449.2	606.1	0.0	0.0	0.0
72.5°	338.8	516.1	1286.4	2754.1	2076.5	758.3	225.0	0.0	0.0	0.0
75°	223.7	235.6	389.1	1107.7	1009.8	277.9	91.3	0.0	0.0	0.0
77.5°	187.9	193.2	247.5	309.7	324.2	109.8	74.1	0.0	0.0	0.0
80°	173.4	174.7	222.3	230.3	173.4	91.3	72.8	0.0	0.0	0.0
82.5°	161.5	157.5	189.3	182.6	144.3	79.4	67.5	0.0	0.0	0.0
85°	111.2	113.8	128.4	162.8	87.3	39.7	47.6	0.0	0.0	0.0
87.5°	34.4	39.7	50.3	51.6	15.9	5.3	0.0	0.0	0.0	0.0
90°	1.3	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)