

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: P579416

Luminaire Tested: **CTN-CA8-330-722-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579416
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-CA8-330-722-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2200K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27022 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

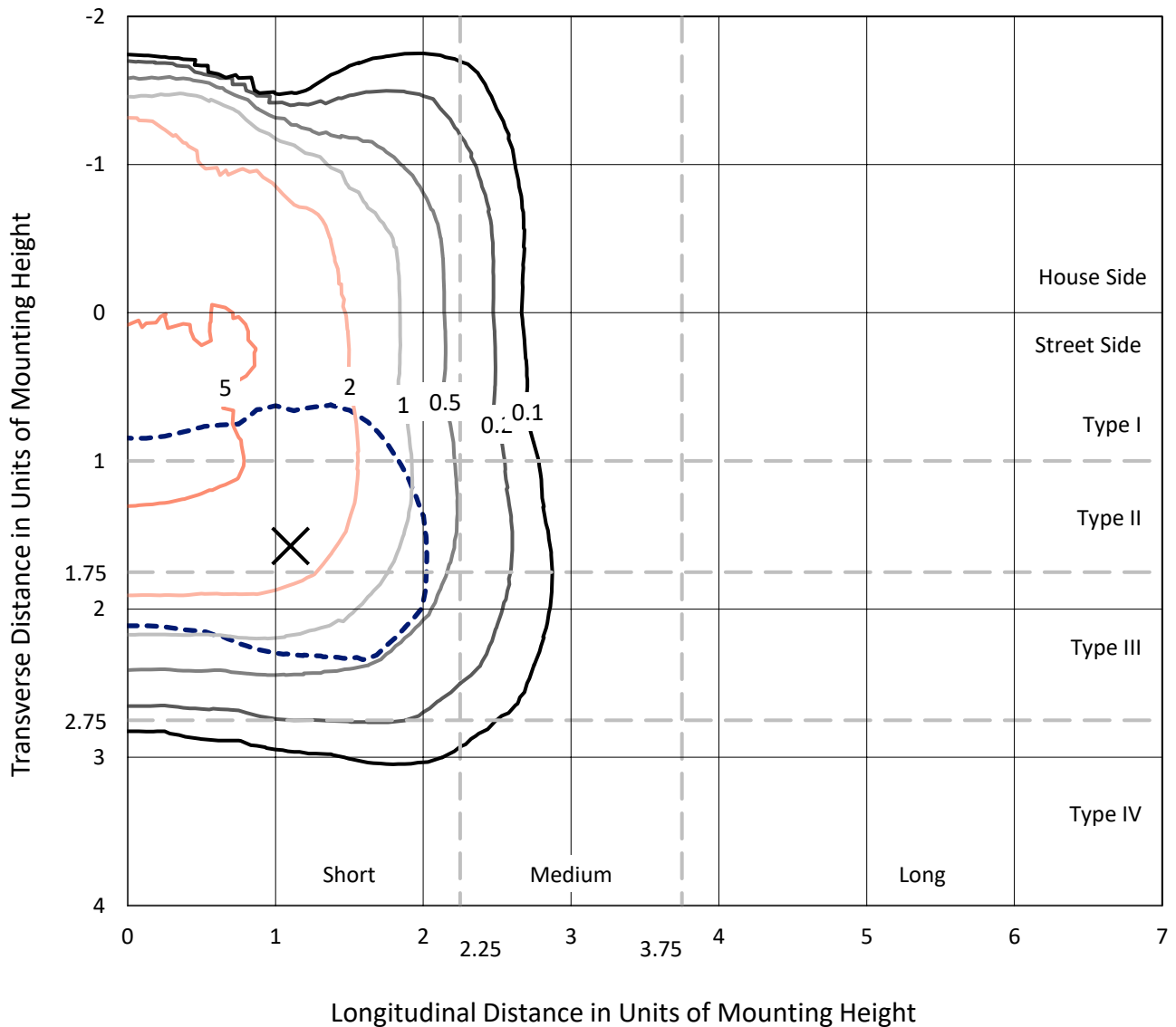
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

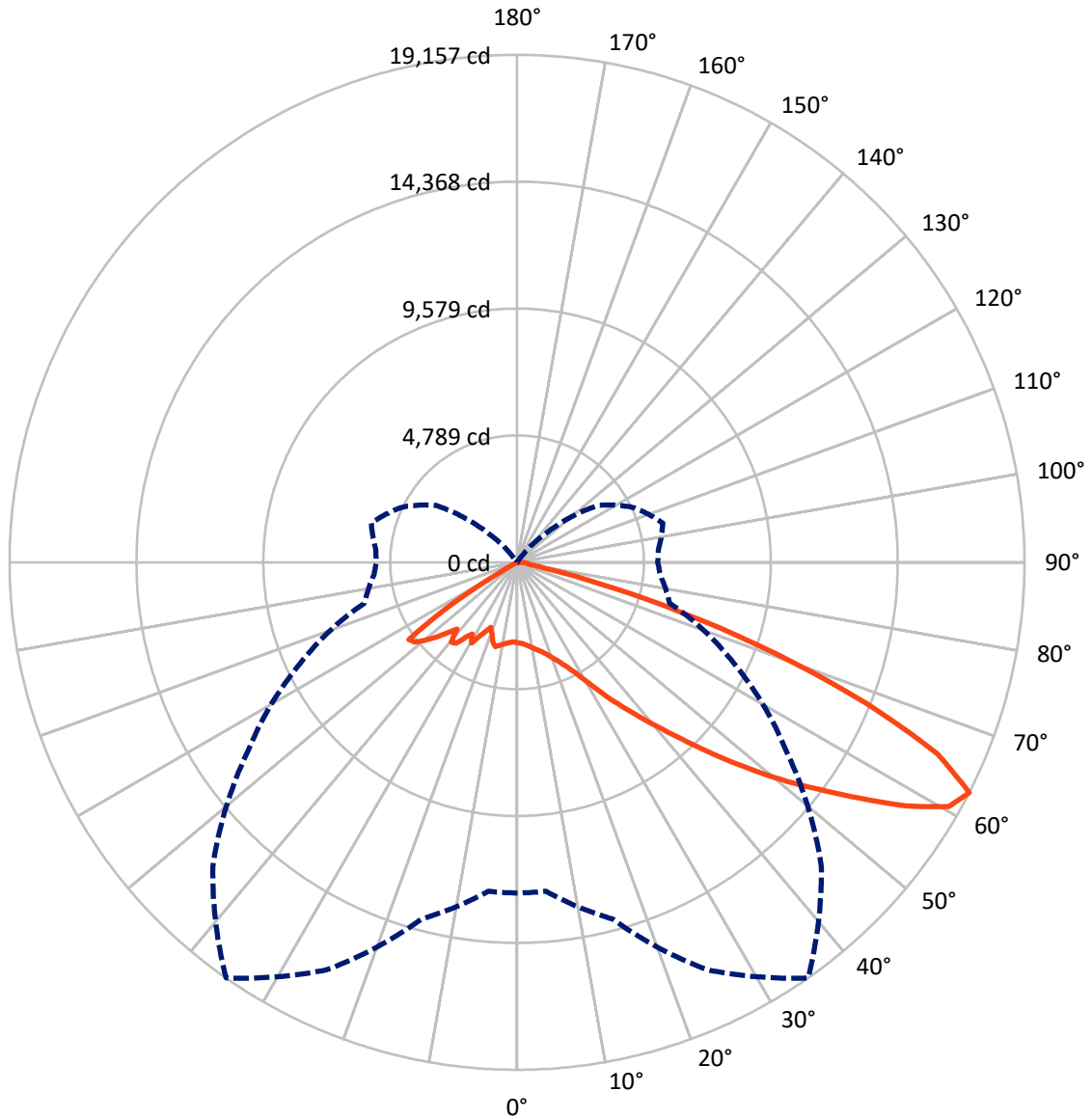
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type III - Short - N/A

REPORT NUMBER: P579416
CATALOG NUMBER: CTN-CA8-330-722-U-T5N-HSS-HM-EX180

Luminous Intensity Polar Plot



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



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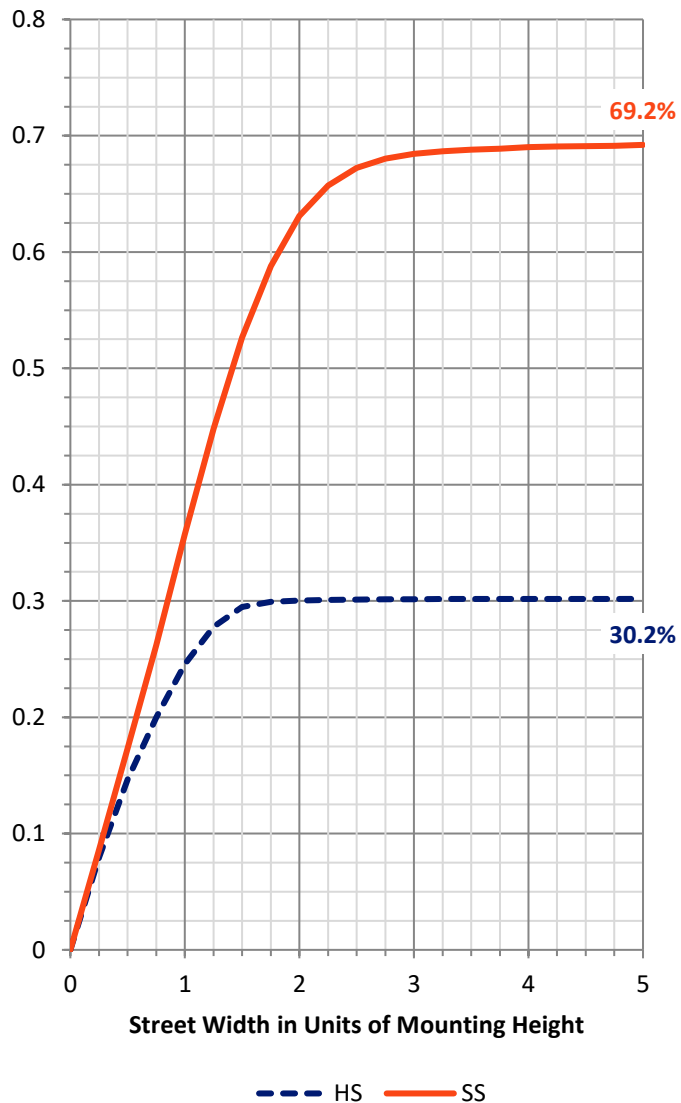
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8201.3	0.0	8201.3
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	18797.3	23.5	18820.7
	% Fixture	69.6	0.1	69.6
Total	Lumens	26998.5	23.5	27022.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.2	1.1
10°-20°	963.6	3.6
20°-30°	1761.2	6.5
30°-40°	3356.3	12.4
40°-50°	5760.8	21.3
50°-60°	7728.3	28.6
60°-70°	5875.0	21.7
70°-80°	1112.4	4.1
80°-90°	140.5	0.5
90°-100°	20.6	0.1
100°-110°	2.8	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°	26998.5	99.9
0°-180°	27022.0	100.0

Coefficient of Utilization



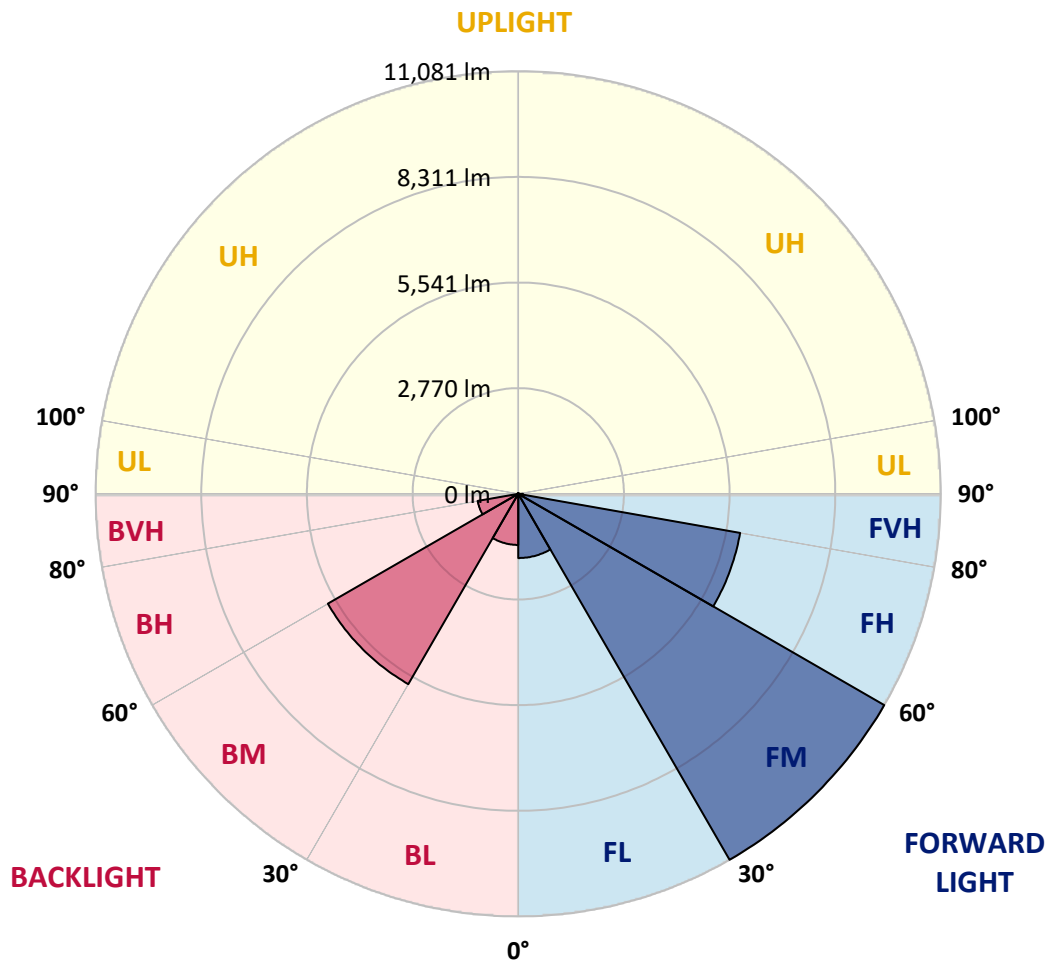
REPORT NUMBER: P579416
 CATALOG NUMBER: CTN-CA8-330-722-U-T5N-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1684.5	6.2			
FM	(30°-60°)	11081.3	41.0			
FH	(60°-80°)	5907.5	21.9			G3/7500
FVH	(80°-90°)	124.0	0.5			G2/225
BL	(0°-30°)	1340.6	5.0	B3/2500		
BM	(30°-60°)	5764.2	21.3	B4/8500		
BH	(60°-80°)	1080.0	4.0	B3/2500		G3/2500
BVH	(80°-90°)	16.5	0.1			G1/100
UL	(90°-100°)	20.6	0.1		U2/50	
UH	(100°-180°)	2.8	0.0		U1/10	

BUG Rating: B4-U2-G3

Type III Short





REPORT NUMBER: P579416

CATALOG NUMBER: CTN-CA8-330-722-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0
2.5°	3118.2	3095.2	3096.5	3116.9	3058.3	3079.9	3054.5	3079.9	3065.9	3076.1	3081.2
5°	3172.9	3150.0	3147.5	3169.1	3119.4	3134.7	3109.2	3127.1	3108.0	3120.7	3120.7
7.5°	3255.7	3232.8	3225.2	3241.7	3195.9	3207.3	3180.6	3190.8	3169.1	3185.7	3176.8
10°	3353.8	3328.3	3319.4	3328.3	3288.8	3295.2	3263.4	3274.8	3243.0	3262.1	3249.4
12.5°	3458.3	3425.1	3425.1	3432.8	3390.7	3392.0	3362.7	3369.1	3337.2	3357.6	3342.3
15°	3571.6	3534.7	3539.8	3547.4	3502.8	3510.5	3479.9	3490.1	3457.0	3477.4	3462.1
17.5°	3721.9	3682.4	3677.3	3700.3	3658.2	3672.2	3637.9	3650.6	3621.3	3627.7	3620.0
20°	3929.5	3879.9	3868.4	3899.0	3851.8	3862.0	3836.6	3862.0	3831.5	3785.6	3657.0
22.5°	4177.9	4134.6	4115.5	4135.9	4079.8	4097.7	4096.4	4137.2	4053.1	3764.0	3635.3
25°	4505.3	4476.0	4439.0	4441.6	4374.1	4400.8	4449.2	4481.1	4123.2	3869.7	3872.2
27.5°	4942.2	4912.9	4861.9	4842.8	4744.7	4809.7	4884.9	4574.1	4292.6	4357.5	4321.9
30°	5500.1	5495.0	5391.8	5358.7	5251.7	5333.2	5268.3	4735.8	4832.6	4923.1	4868.3
32.5°	6242.7	6207.0	6058.0	5998.1	5886.0	5933.2	5360.0	5283.5	5427.5	5549.8	5492.4
35°	7140.7	7032.4	6880.8	6762.4	6567.5	6305.1	5709.0	5858.0	6073.3	6241.4	5963.7
37.5°	8183.9	8066.7	7829.8	7617.1	7310.1	6492.3	6235.0	6533.1	6803.1	6621.0	5980.3
40°	9257.7	9153.2	8930.3	8656.5	8138.0	7073.2	6873.2	7229.9	7536.8	6493.6	6175.2
42.5°	10323.8	10234.6	10055.0	9785.0	9117.6	7764.8	7572.5	7955.9	7666.8	6742.0	6731.8
45°	11398.9	11354.3	11150.5	10919.9	10278.0	8650.1	8355.9	8655.2	7377.6	7336.8	7312.6
47.5°	12270.1	12277.8	12206.4	12086.7	11516.0	9622.0	9238.6	8350.8	7729.2	7773.7	7785.2
50°	13168.1	13110.8	13107.0	13114.6	12876.4	10874.1	9839.8	8213.2	8189.0	8185.2	8175.0
52.5°	13887.8	13815.2	13965.5	14085.2	14226.6	12271.4	9749.3	8679.4	8540.5	8492.1	8195.4
55°	14473.7	14445.7	14690.3	15095.3	15724.5	13751.5	10549.3	9134.1	8856.4	7725.3	6968.7
57.5°	14829.1	14869.9	15374.3	16170.4	17348.6	14978.1	11480.4	9595.2	7582.7	6804.4	6756.0
60°	14148.9	14364.2	15222.7	16970.3	18721.7	16132.1	12173.3	9688.2	6823.5	6407.0	6310.2
62.5°	12484.1	12463.7	13938.7	16970.3	19157.3	16246.8	12392.4	9029.7	5961.2	5418.6	5310.3
65°	8836.1	8889.6	10465.2	15292.7	17451.8	15111.9	11430.7	7676.9	4754.9	4256.9	4110.4
67.5°	5468.2	5464.4	7006.9	11262.6	14206.2	12652.2	9623.2	5884.8	3300.3	2830.3	2671.1
70°	1889.0	1942.5	3151.3	6590.4	10457.6	9912.4	7201.8	3715.6	1740.0	1240.6	1047.0
72.5°	751.5	769.4	1131.1	2938.6	6533.1	6622.3	4376.6	1804.9	521.0	331.2	310.8
75°	491.7	494.2	542.6	1061.0	3170.4	3562.7	2032.9	518.4	242.0	221.6	216.5
77.5°	424.2	425.4	450.9	537.5	1033.0	1385.8	578.3	307.0	202.5	182.1	177.1
80°	393.6	394.9	407.6	462.4	498.0	472.6	308.2	247.1	170.7	161.8	160.5
82.5°	371.9	377.0	383.4	416.5	402.5	355.4	256.0	200.0	131.2	140.1	143.9
85°	342.6	347.7	351.6	370.7	336.3	259.8	198.7	150.3	84.1	91.7	90.4
87.5°	257.3	259.8	254.8	252.2	234.4	182.1	131.2	95.5	33.1	30.6	28.0
90°	123.6	122.3	117.2	108.3	94.3	73.9	54.8	30.6	14.0	6.4	2.5
92.5°	98.1	96.8	94.3	85.3	73.9	54.8	39.5	21.7	12.7	5.1	1.3
95°	66.2	63.7	61.1	54.8	45.9	33.1	22.9	15.3	10.2	3.8	1.3
97.5°	43.3	42.0	38.2	33.1	25.5	17.8	14.0	11.5	8.9	3.8	1.3
100°	26.7	26.7	24.2	19.1	12.7	10.2	8.9	8.9	6.4	2.5	0.0
102.5°	16.6	15.3	14.0	8.9	6.4	6.4	6.4	6.4	5.1	2.5	0.0
105°	8.9	8.9	6.4	5.1	3.8	2.5	3.8	5.1	3.8	1.3	0.0
107.5°	2.5	2.5	2.5	1.3	1.3	0.0	1.3	2.5	2.5	1.3	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.5	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



REPORT NUMBER: P579416

CATALOG NUMBER: CTN-CA8-330-722-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0	3043.0
2.5°	3074.9	3050.7	3057.0	3032.8	3029.0	3003.5	3046.8	3049.4	3037.9	3050.7
5°	3114.3	3085.0	3096.5	3067.2	3062.1	3029.0	3063.4	3059.6	3050.7	3060.8
7.5°	3170.4	3141.1	3147.5	3113.1	3106.7	3069.8	3102.9	3090.1	3078.7	3092.7
10°	3248.1	3215.0	3220.1	3179.3	3174.2	3130.9	3169.1	3150.0	3133.4	3152.6
12.5°	3343.6	3300.3	3295.2	3251.9	3248.1	3207.3	3246.8	3227.7	3211.1	3241.7
15°	3453.2	3395.8	3388.2	3333.4	3327.1	3285.0	3323.2	3295.2	3282.5	3322.0
17.5°	3599.6	3397.1	3283.7	3203.5	3157.6	3134.7	3203.5	3296.5	3268.5	3269.7
20°	3539.8	3322.0	3170.4	3101.6	3051.9	2830.3	2524.6	2612.5	2790.8	2878.7
22.5°	3521.9	3445.5	3383.1	3267.2	2774.2	2649.4	2667.2	2646.9	2310.6	2181.9
25°	3863.3	3775.4	3640.4	3032.8	2890.2	2862.1	2872.3	2520.8	2267.3	2304.2
27.5°	4300.2	4209.8	3543.6	3203.5	3175.5	3138.5	2937.3	2497.8	2532.2	2567.9
30°	4850.5	4375.4	3695.2	3590.7	3538.5	3500.3	2753.9	2789.5	2846.8	2891.4
32.5°	5386.7	4361.3	4129.5	3999.6	3934.6	3193.3	3111.8	3194.6	3253.2	3287.6
35°	5393.1	4860.7	4616.1	4449.2	4036.5	3432.8	3507.9	3646.8	3790.7	3817.5
37.5°	5539.6	5426.2	5146.0	4935.8	3002.2	3831.5	3997.1	4156.3	4300.2	4309.1
40°	6123.0	6000.7	5738.3	5275.9	3315.6	3907.9	4535.9	4715.5	4836.5	4830.1
42.5°	6705.1	6621.0	6348.4	4688.7	3735.9	3385.6	5101.4	5219.9	5296.3	5349.8
45°	7291.0	7206.9	6286.0	5148.5	4236.5	3707.9	4963.8	5635.1	5719.2	5745.9
47.5°	7748.3	7540.6	5759.9	5758.7	4861.9	4120.6	4099.0	6009.6	6083.5	6064.4
50°	8171.2	6731.8	6226.1	5958.6	5509.0	4509.1	4358.8	5056.8	6413.4	6385.4
52.5°	7434.9	6533.1	6626.1	5419.8	6028.7	4895.1	4651.8	4534.6	5827.4	6577.7
55°	6649.0	6776.4	7035.0	5954.8	4374.1	5019.9	4900.1	4667.1	3932.1	3309.2
57.5°	6785.3	6975.1	6987.8	6450.3	4526.9	3136.0	4016.2	3515.6	2221.4	2226.5
60°	6330.6	6577.7	5107.8	4300.2	2434.2	653.4	63.7	56.0	387.2	471.3
62.5°	5352.3	5696.2	4875.9	3746.1	1561.6	24.2	6.4	1.3	0.0	0.0
65°	4144.8	4558.8	4120.6	3232.8	1385.8	7.6	0.0	0.0	0.0	0.0
67.5°	2733.5	3106.7	3130.9	2704.2	1155.3	3.8	0.0	0.0	0.0	0.0
70°	1145.1	1612.6	1948.9	2010.0	908.2	1.3	0.0	0.0	0.0	0.0
72.5°	331.2	512.1	937.5	1207.5	577.0	0.0	0.0	0.0	0.0	0.0
75°	220.4	235.6	271.3	543.9	287.9	0.0	0.0	0.0	0.0	0.0
77.5°	182.1	186.0	155.4	149.0	82.8	0.0	0.0	0.0	0.0	0.0
80°	165.6	163.0	124.8	87.9	30.6	0.0	0.0	0.0	0.0	0.0
82.5°	152.9	145.2	90.4	45.9	20.4	0.0	0.0	0.0	0.0	0.0
85°	103.2	101.9	40.8	28.0	3.8	0.0	0.0	0.0	0.0	0.0
87.5°	28.0	35.7	8.9	3.8	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



REPORT NUMBER: P579416
 CATALOG NUMBER: CTN-CA8-330-722-U-T5N-HSS-HM-EX180

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)