

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: P579657

Luminaire Tested: **CTN-CA8-330-727-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579657  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)  
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-EX90  
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: 34175 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U2 - G4

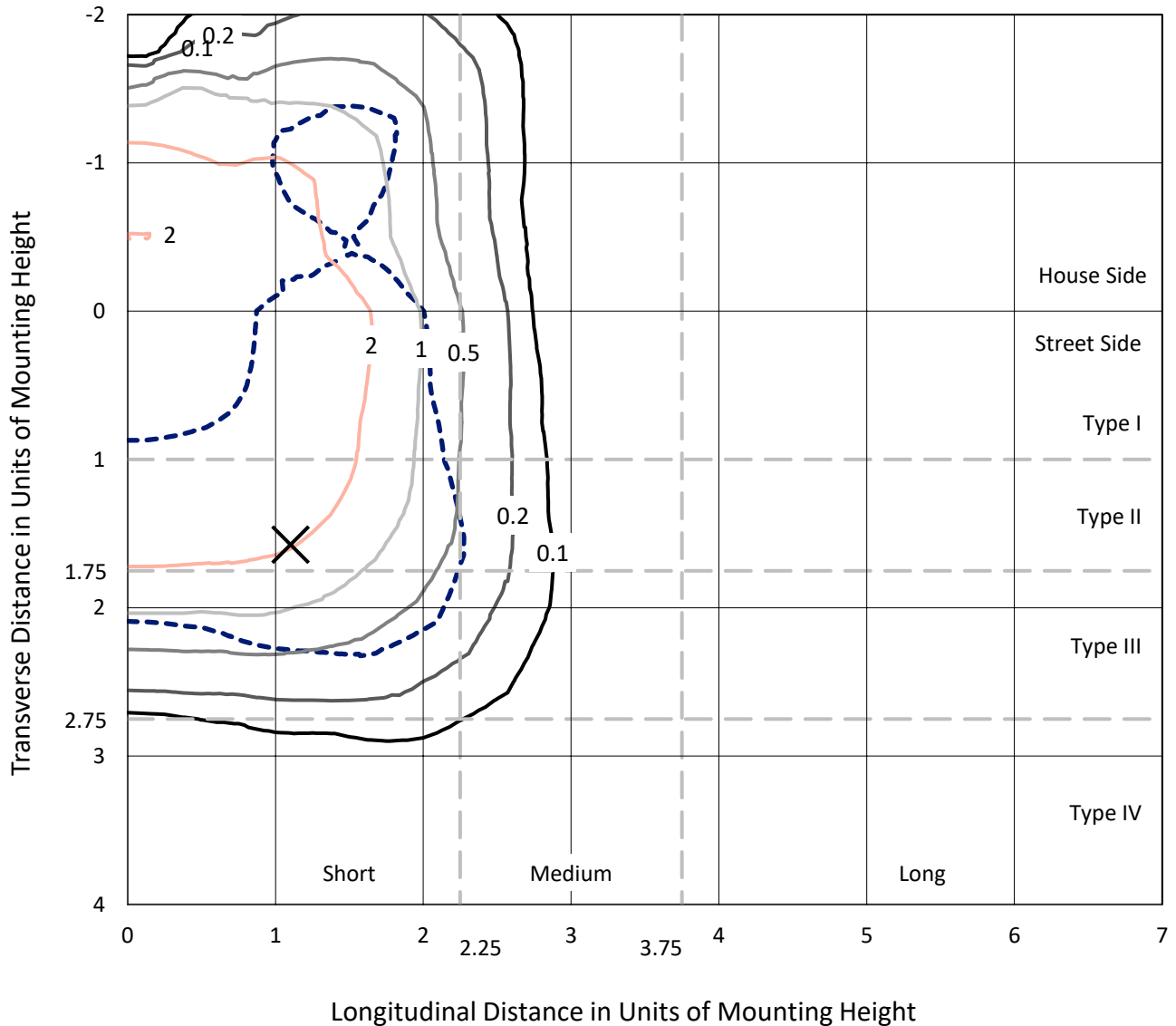
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

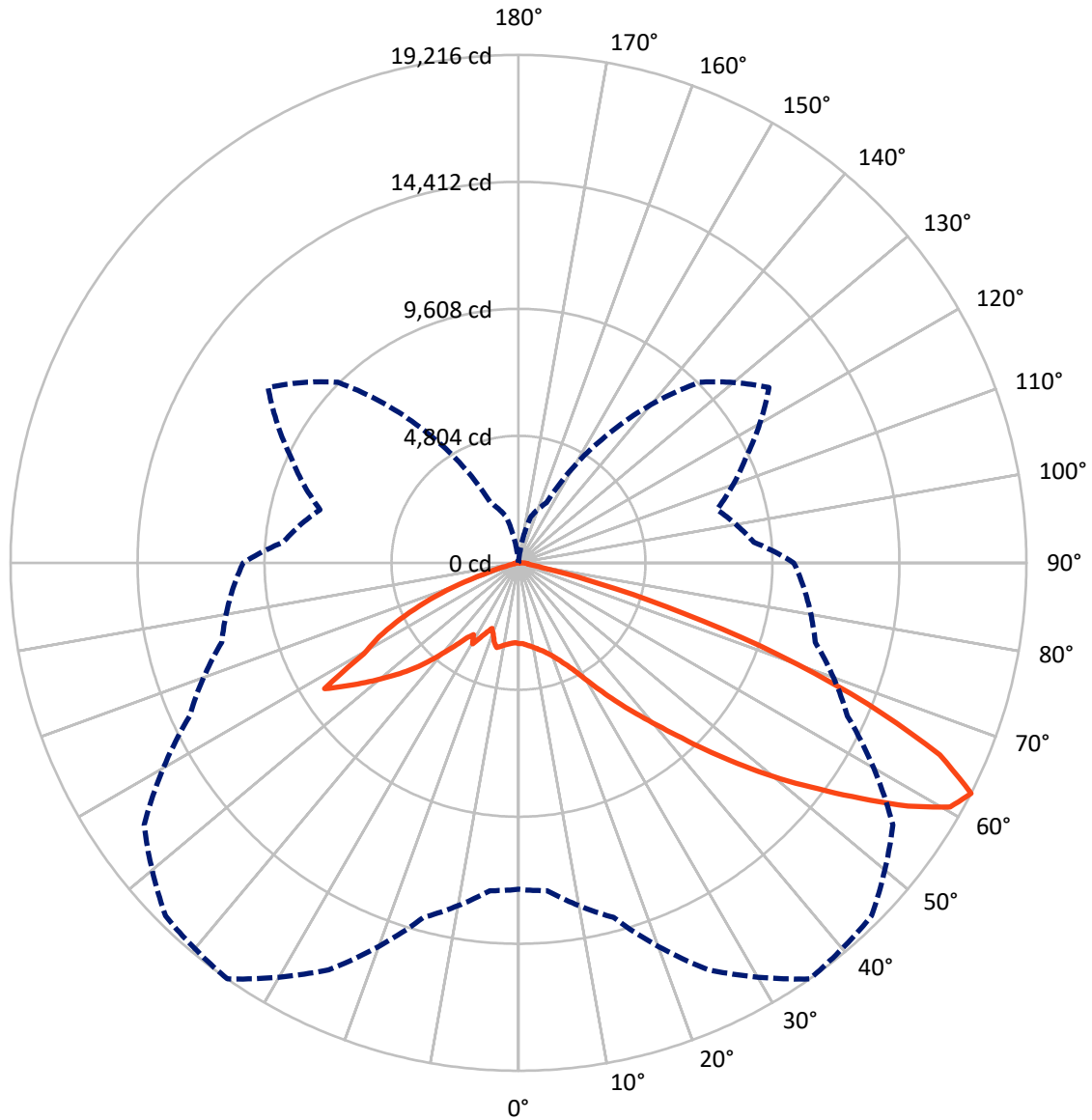
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.6 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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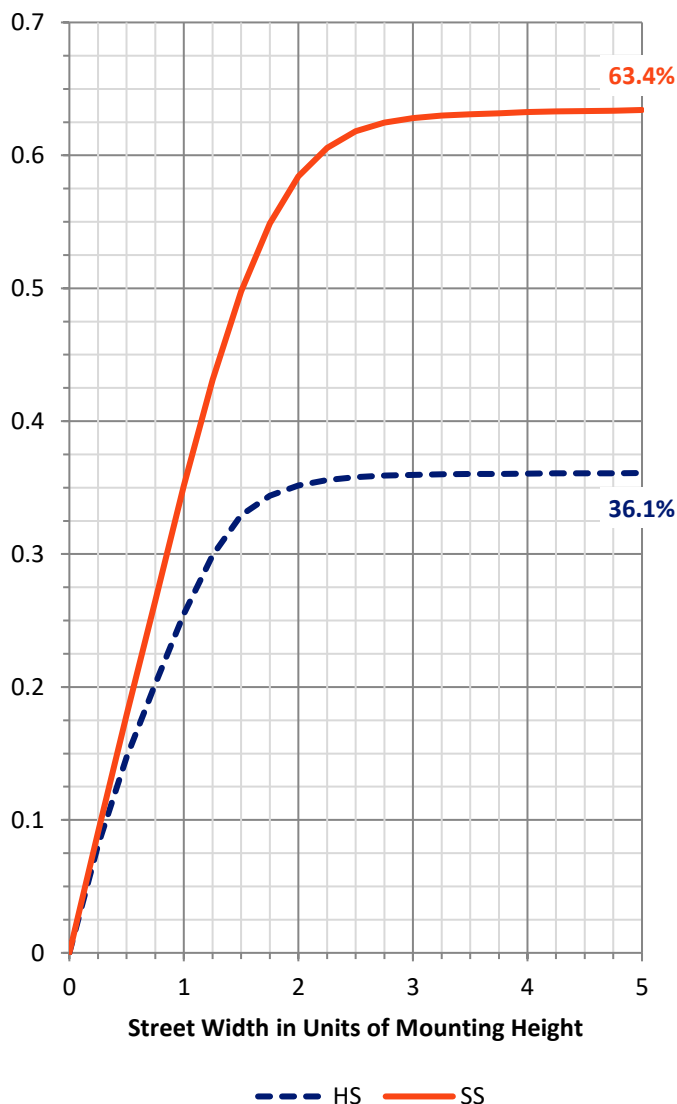
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12404.7	0.0	12404.7
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	21754.1	16.2	21770.3
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	34158.8	16.2	34175.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	300.6	0.9
10°-20°	971.6	2.8
20°-30°	1869.2	5.5
30°-40°	3729.0	10.9
40°-50°	6808.9	19.9
50°-60°	10174.8	29.8
60°-70°	8525.5	24.9
70°-80°	1595.5	4.7
80°-90°	183.7	0.5
90°-100°	14.6	0.0
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°	34158.8	100.0
0°-180°	34175.0	100.0

**Coefficient of Utilization**

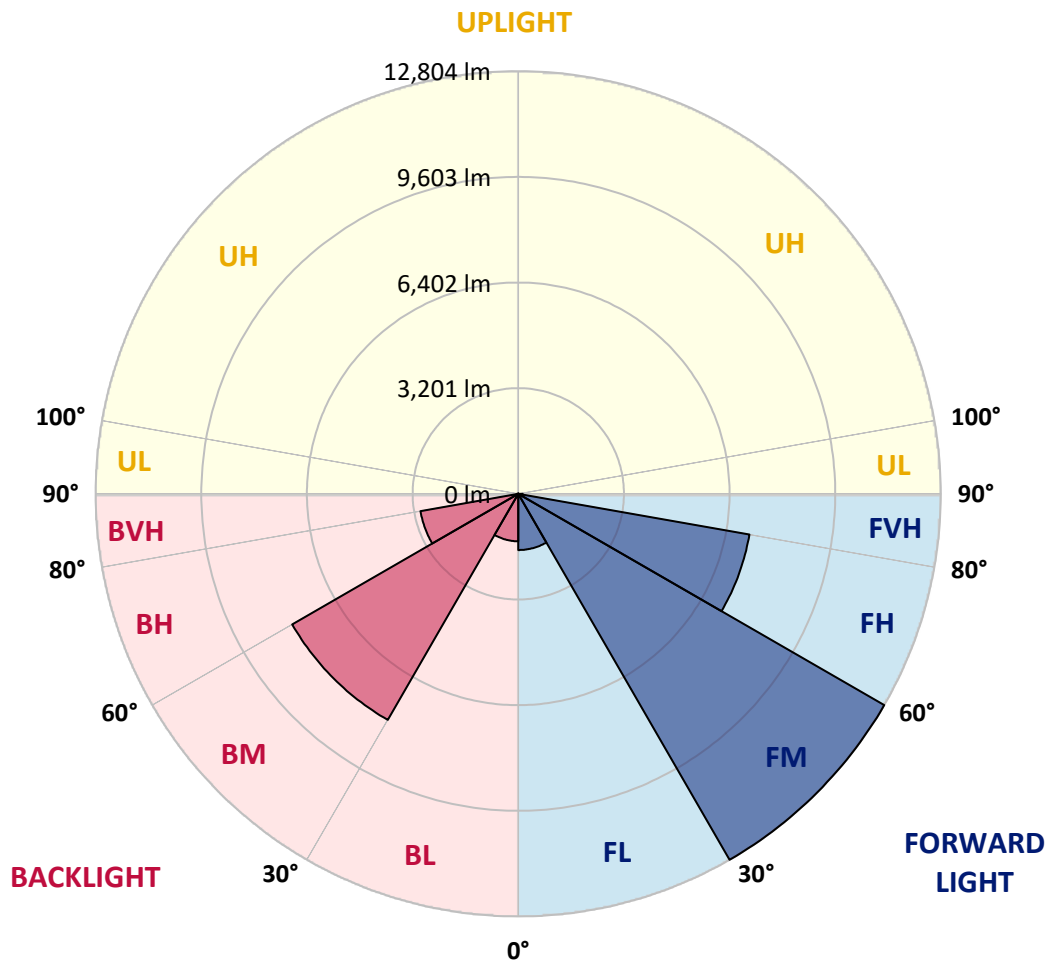


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1704.0	5.0			
FM (30°-60°)	12803.5	37.5			
FH (60°-80°)	7112.8	20.8			G3/7500
FVH (80°-90°)	133.7	0.4			G2/225
BL (0°-30°)	1437.5	4.2	B3/2500		
BM (30°-60°)	7909.1	23.1	B4/8500		
BH (60°-80°)	3008.2	8.8	B4/5000		G4/5000
BVH (80°-90°)	49.9	0.1			G1/100
UL (90°-100°)	14.6	0.0		U2/50	
UH (100°-180°)	1.6	0.0		U1/10	

**BUG Rating: B4-U2-G4**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9
2.5°	3123.2	3097.6	3101.4	3119.4	3063.0	3086.0	3061.7	3084.8	3077.1	3087.3	3095.0
5°	3168.0	3136.0	3138.6	3159.1	3115.5	3134.7	3110.4	3125.8	3112.9	3127.0	3128.3
7.5°	3229.5	3202.6	3198.8	3219.3	3182.1	3198.8	3174.4	3182.1	3169.3	3186.0	3180.8
10°	3311.5	3287.2	3280.8	3294.9	3265.4	3274.4	3248.7	3259.0	3239.8	3259.0	3250.0
12.5°	3402.5	3370.4	3371.7	3387.1	3357.6	3364.0	3343.5	3355.1	3332.0	3352.5	3346.1
15°	3510.1	3464.0	3472.9	3489.6	3461.4	3480.6	3456.3	3472.9	3451.1	3472.9	3465.2
17.5°	3649.7	3597.2	3603.6	3630.5	3607.4	3638.2	3610.0	3630.5	3620.2	3634.3	3631.8
20°	3826.5	3791.9	3785.5	3818.8	3785.5	3823.9	3808.6	3844.4	3847.0	3861.1	3867.5
22.5°	4062.2	4039.1	4023.8	4046.8	4017.4	4044.3	4066.0	4127.5	4150.6	4187.7	4190.3
25°	4376.1	4374.8	4340.2	4341.5	4304.3	4340.2	4401.7	4497.8	4559.2	4606.6	4588.7
27.5°	4800.1	4807.8	4755.2	4734.8	4691.2	4745.0	4871.8	4991.0	5102.4	5169.0	5169.0
30°	5353.5	5361.2	5284.3	5243.3	5203.6	5297.1	5448.3	5603.3	5762.2	5858.2	5836.5
32.5°	6086.3	6061.9	5951.7	5877.4	5809.5	5917.2	6091.4	6266.9	6483.4	6621.7	6605.1
35°	6975.3	6886.9	6776.7	6638.4	6492.3	6576.9	6740.9	6961.2	7262.3	7469.8	7417.3
37.5°	8007.8	7920.7	7732.4	7494.1	7239.2	7249.4	7378.8	7760.6	8137.2	8306.3	8270.4
40°	9080.1	9012.2	8839.2	8533.1	8071.9	7965.6	8178.2	8638.1	8998.1	9210.7	9150.5
42.5°	10172.8	10103.6	9973.0	9665.5	9054.4	8798.2	9019.9	9520.7	9905.1	10113.9	10044.7
45°	11263.0	11183.5	11079.8	10808.2	10225.3	9850.0	9974.2	10434.1	10785.1	11022.1	10879.9
47.5°	12221.2	12168.7	12098.2	11988.0	11478.2	11063.1	11054.2	11357.8	11599.9	11756.2	11581.9
50°	13055.2	13018.0	13057.7	13034.7	12848.9	12471.0	12239.1	12218.6	12296.8	12410.8	12162.3
52.5°	13803.3	13738.0	13885.3	14068.5	14205.5	14128.7	13378.0	12956.5	12870.7	12909.1	12627.3
55°	14415.6	14384.9	14632.1	15092.0	15726.1	15895.2	14547.6	13673.9	13357.5	13337.0	13016.7
57.5°	14789.7	14833.2	15327.7	16204.0	17367.2	17421.0	15983.6	14441.2	13831.5	13611.1	13242.2
60°	14194.0	14361.8	15206.0	17013.6	18759.7	18793.0	17037.9	14582.2	13239.6	12746.4	12289.1
62.5°	12351.9	12451.8	13887.8	16986.7	19215.7	18890.3	17289.0	13731.5	11624.2	10837.7	10414.9
65°	8700.9	8887.9	10426.4	15282.9	17510.6	17551.6	15860.6	11872.7	9282.5	8412.6	8139.8
67.5°	5254.9	5434.2	7072.7	11032.4	14235.0	14694.9	13230.7	8989.1	6656.3	5557.2	5281.8
70°	1706.4	1901.1	3223.1	6502.6	10471.3	11574.3	9956.3	5850.5	3485.7	2441.7	2145.8
72.5°	648.2	707.1	1049.2	2840.1	6521.8	7727.3	6158.0	2934.9	1079.9	643.1	564.9
75°	421.5	430.4	490.6	995.4	3145.0	4254.4	2968.2	859.6	433.0	384.3	356.1
77.5°	362.5	368.9	394.6	495.8	1001.8	1626.9	851.9	439.4	361.3	320.3	301.0
80°	342.0	344.6	361.3	420.2	468.9	543.2	409.9	367.7	315.1	301.0	287.0
82.5°	324.1	333.1	342.0	381.8	380.5	390.7	329.2	288.2	267.7	281.8	276.7
85°	302.3	307.5	313.9	340.8	310.0	262.6	253.6	198.6	193.4	206.2	193.4
87.5°	212.7	225.5	217.8	229.3	215.2	167.8	142.2	112.7	89.7	74.3	71.7
90°	87.1	88.4	83.3	76.9	67.9	56.4	44.8	28.2	12.8	6.4	2.6
92.5°	67.9	67.9	65.3	58.9	51.2	42.3	32.0	17.9	9.0	3.8	1.3
95°	42.3	43.6	41.0	37.2	32.0	25.6	19.2	10.2	6.4	2.6	1.3
97.5°	26.9	26.9	24.3	21.8	17.9	12.8	9.0	7.7	5.1	2.6	0.0
100°	15.4	15.4	14.1	11.5	9.0	6.4	6.4	5.1	3.8	1.3	0.0
102.5°	9.0	9.0	6.4	5.1	3.8	3.8	3.8	3.8	2.6	1.3	0.0
105°	3.8	3.8	2.6	2.6	1.3	1.3	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	2.6	1.3	1.3



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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°	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9	3057.9
2.5°	3089.9	3066.8	3070.7	3048.9	3045.0	3023.3	3066.8	3072.0	3059.1	3070.7
5°	3125.8	3097.6	3106.5	3082.2	3078.4	3048.9	3087.3	3084.8	3074.5	3086.0
7.5°	3179.6	3150.1	3155.2	3128.3	3123.2	3091.2	3127.0	3115.5	3105.3	3119.4
10°	3255.1	3221.8	3224.4	3189.8	3193.7	3151.4	3194.9	3174.4	3161.6	3180.8
12.5°	3346.1	3308.9	3310.2	3274.4	3273.1	3232.1	3270.5	3259.0	3239.8	3269.2
15°	3464.0	3421.7	3417.8	3370.4	3357.6	3311.5	3347.4	3325.6	3312.8	3355.1
17.5°	3629.2	3581.8	3567.7	3510.1	3270.5	3132.2	3324.3	3389.7	3310.2	3297.4
20°	3849.5	3809.8	3777.8	3690.7	3288.4	2856.7	2537.8	2540.3	2876.0	3031.0
22.5°	4148.0	4100.6	4040.4	3916.2	3016.9	2676.1	2677.4	2673.5	2294.4	2134.2
25°	4556.7	4499.0	4376.1	3674.0	3202.6	2887.5	2879.8	2504.4	2295.6	2307.2
27.5°	5108.8	4991.0	4271.0	3980.2	3533.1	3161.6	2977.2	2521.1	2546.7	2564.7
30°	5810.8	5336.8	4615.6	4442.7	3930.3	3525.4	2753.0	2815.7	2867.0	2878.5
32.5°	6530.8	5352.2	5166.5	4983.3	4419.6	3207.7	3102.7	3221.8	3275.6	3282.0
35°	6524.4	6008.1	5768.6	5562.3	4873.1	3431.9	3498.5	3681.7	3818.8	3812.4
37.5°	6904.8	6731.9	6446.2	6184.9	4386.3	3866.2	3985.3	4192.9	4359.4	4354.3
40°	7700.4	7500.5	7198.2	6649.9	4856.5	4363.2	4529.8	4752.7	4870.5	4876.9
42.5°	8452.4	8287.1	7978.4	6213.1	5444.5	4961.5	5112.7	5262.5	5335.6	5358.6
45°	9200.5	9082.6	8055.2	6866.4	6155.4	5563.6	5663.5	5691.7	5768.6	5759.6
47.5°	9807.7	9677.0	7745.2	7686.3	7017.6	6134.9	6127.2	6090.1	6118.3	6124.7
50°	10362.4	8788.0	8367.8	8563.8	7922.0	6717.8	6571.8	6496.2	6457.8	6441.1
52.5°	10800.5	8790.5	8949.4	9470.8	8943.0	7350.6	7036.8	6824.1	5974.8	6639.7
55°	11173.3	9153.1	9500.2	10440.5	9823.1	8013.0	7457.0	7077.8	3987.9	3197.5
57.5°	11387.2	9428.5	10046.0	11348.8	10591.7	8749.6	6865.1	5936.4	2254.6	2252.1
60°	10561.0	8934.0	10030.6	11825.3	10370.1	6787.0	2795.2	2339.2	426.6	438.1
62.5°	8940.4	7772.1	9513.1	11564.0	9657.8	5971.0	2507.0	1801.2	14.1	11.5
65°	6926.6	6200.3	8010.4	10171.5	8786.7	4982.0	1869.0	1297.7	3.8	0.0
67.5°	4531.1	4369.7	5910.8	8434.4	7166.2	3859.8	1254.1	621.3	2.6	0.0
70°	1931.8	2238.0	3744.5	6115.7	5485.4	2655.6	604.7	224.2	1.3	0.0
72.5°	540.6	716.1	1666.6	3583.1	3449.9	1396.3	235.7	94.8	1.3	0.0
75°	320.3	275.4	477.8	1429.6	1679.5	490.6	108.9	73.0	1.3	0.0
77.5°	266.5	215.2	274.1	365.1	508.6	176.8	92.2	65.3	0.0	0.0
80°	249.8	190.9	237.0	254.9	251.1	147.3	91.0	65.3	0.0	0.0
82.5°	237.0	166.5	196.0	196.0	210.1	135.8	85.8	64.1	0.0	0.0
85°	178.1	116.6	130.7	169.1	151.2	96.1	62.8	51.2	0.0	0.0
87.5°	67.9	42.3	51.2	53.8	43.6	21.8	5.1	5.1	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



REPORT NUMBER: P579657  
 CATALOG NUMBER: CTN-CA8-330-727-U-T5N-HSS-HM-EX90

**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)