

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: P579461

Luminaire Tested: **CTN-CA8-330-730-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579461  
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-CA8-330-730-U-T5-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29639 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U2 - G4

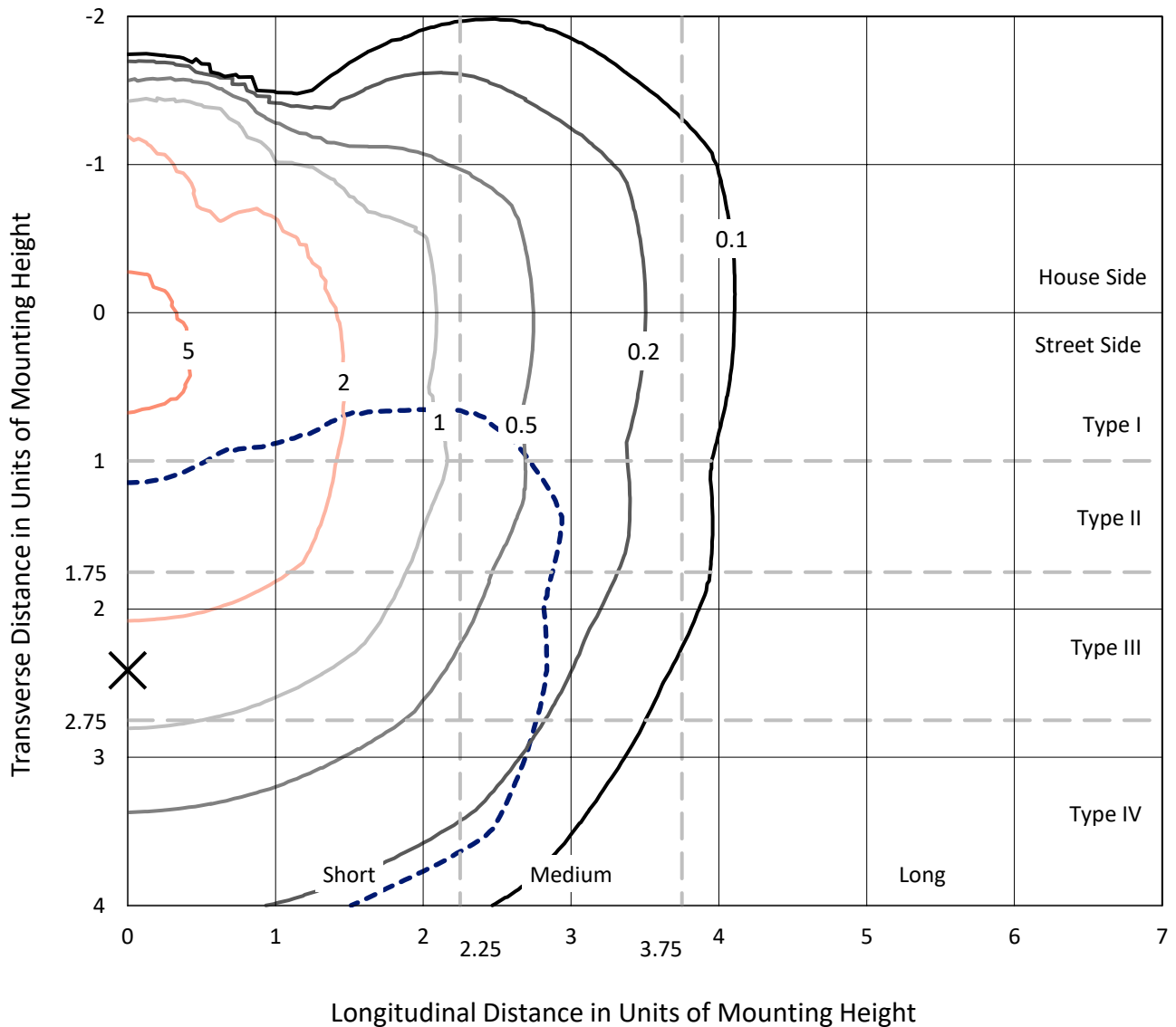
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

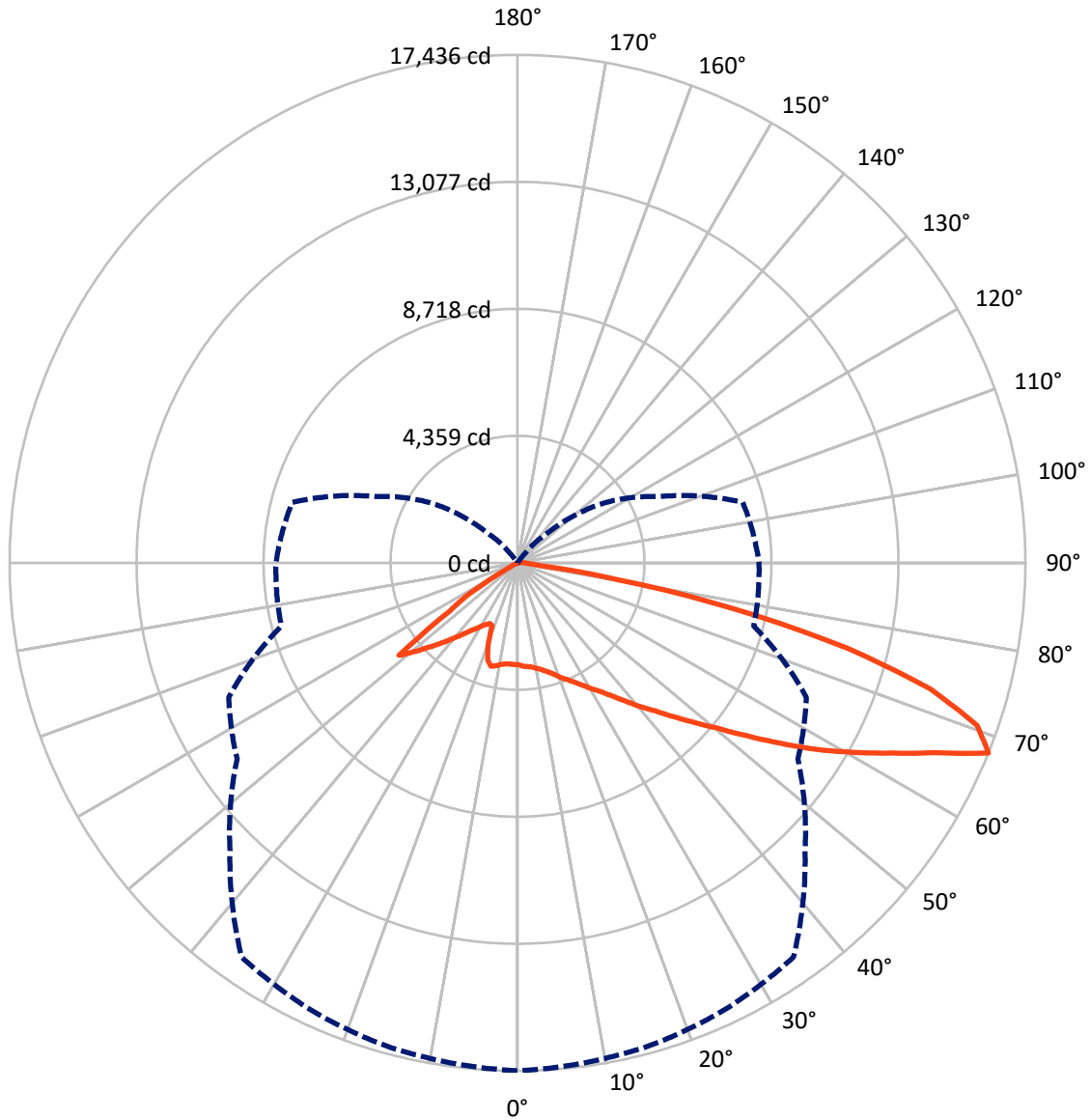
× Max cd  
 - - - 1/2 Max cd



Based on 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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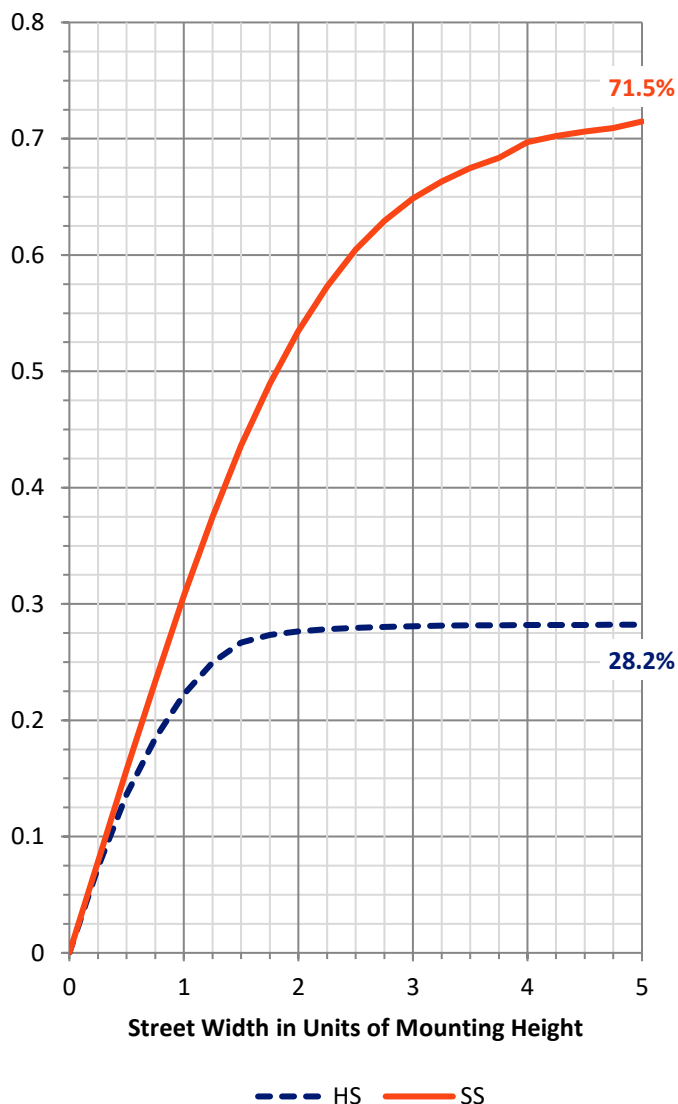
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8400.2	0.1	8400.4
	% Fixture	28.3	0.0	28.3
<b>Street Side</b>	Lumens	21200.9	37.7	21238.6
	% Fixture	71.5	0.1	71.7
<b>Total</b>	Lumens	29601.1	37.9	29639.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	336.6	1.1
10°-20°	1036.3	3.5
20°-30°	1716.0	5.8
30°-40°	2701.2	9.1
40°-50°	4227.5	14.3
50°-60°	6103.8	20.6
60°-70°	7561.5	25.5
70°-80°	5506.9	18.6
80°-90°	411.4	1.4
90°-100°	32.3	0.1
100°-110°	5.4	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°	29601.1	99.9
0°-180°	29639.0	100.0

**Coefficient of Utilization**

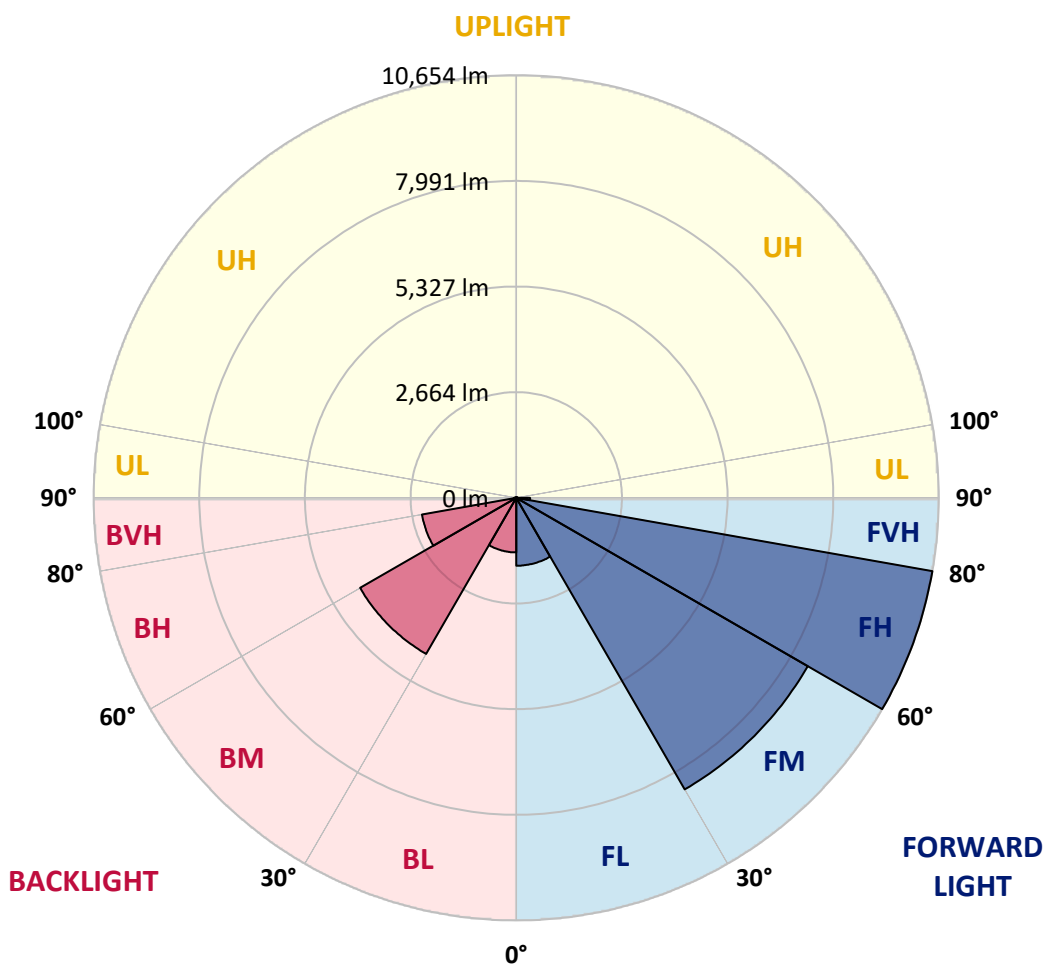


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1711.9	5.8			
FM (30°-60°)	8487.8	28.6			
FH (60°-80°)	10654.2	35.9			G4/12000
FVH (80°-90°)	347.0	1.2			G3/500
BL (0°-30°)	1377.0	4.6	B3/2500		
BM (30°-60°)	4544.7	15.3	B3/5000		
BH (60°-80°)	2414.1	8.1	B3/2500		G3/2500
BVH (80°-90°)	64.4	0.2			G1/100
UL (90°-100°)	32.3	0.1		U2/50	
UH (100°-180°)	5.6	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°	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7
2.5°	3554.6	3535.3	3535.3	3556.1	3498.1	3516.0	3492.2	3513.0	3501.1	3507.1	3514.5
5°	3575.4	3553.1	3554.6	3579.8	3527.8	3542.7	3514.5	3524.9	3514.5	3518.9	3518.9
7.5°	3614.0	3594.7	3594.7	3609.5	3557.6	3562.0	3536.8	3536.8	3523.4	3533.8	3524.9
10°	3686.8	3666.0	3655.6	3663.0	3617.0	3611.0	3576.9	3576.9	3556.1	3572.4	3559.0
12.5°	3774.4	3744.7	3741.7	3743.2	3691.2	3680.8	3642.2	3643.7	3605.1	3627.4	3611.0
15°	3879.9	3842.8	3839.8	3845.7	3790.8	3771.5	3728.4	3728.4	3685.3	3697.2	3674.9
17.5°	4015.1	3972.0	3964.6	3975.0	3920.0	3902.2	3851.7	3842.8	3795.2	3786.3	3767.0
20°	4193.3	4144.3	4129.4	4151.7	4081.9	4065.6	4004.7	3985.4	3921.5	3816.0	3677.9
22.5°	4353.7	4315.1	4306.2	4321.1	4257.2	4240.8	4181.4	4141.3	3986.8	3774.4	3646.7
25°	4536.4	4521.6	4517.1	4508.2	4450.3	4422.1	4365.6	4309.2	3958.6	3667.5	3664.5
27.5°	4762.2	4754.8	4734.0	4726.6	4662.7	4644.9	4570.6	4206.7	3857.6	3836.8	3824.9
30°	5008.8	4993.9	4973.1	4974.6	4931.6	4898.9	4722.1	4116.1	4052.2	4052.2	4021.0
32.5°	5282.1	5265.8	5245.0	5249.4	5231.6	5203.4	4671.6	4355.2	4306.2	4319.6	4280.9
35°	5620.8	5594.1	5586.6	5604.4	5605.9	5423.2	4760.7	4680.5	4641.9	4633.0	4487.4
37.5°	6015.9	5993.6	6020.4	6062.0	6014.4	5479.7	5115.7	5090.5	5051.9	4836.5	4491.9
40°	6489.8	6449.6	6482.3	6509.1	6477.9	5815.4	5488.6	5497.5	5463.3	4824.6	4442.9
42.5°	6959.1	6920.5	6948.7	7015.6	7003.7	6231.3	5943.1	5962.4	5617.8	4852.8	4823.1
45°	7539.9	7526.6	7517.7	7572.6	7618.7	6728.9	6482.3	6480.8	5507.9	5301.4	5274.7
47.5°	8198.0	8180.1	8184.6	8254.4	8324.2	7323.1	7119.6	6522.4	5791.6	5812.4	5788.6
50°	8931.8	8912.5	8970.4	9071.4	9107.0	7990.0	7740.5	6409.5	6382.8	6405.1	6365.0
52.5°	9863.1	9820.0	9909.2	10017.6	10063.6	8778.8	7774.6	7076.5	7031.9	7036.4	6908.6
55°	10922.2	10888.0	10968.3	11090.1	11158.4	9659.6	8484.7	7725.6	7698.9	6941.3	6250.6
57.5°	12073.4	12034.8	12141.7	12177.4	12195.2	10570.2	9199.1	8429.7	7192.4	6338.2	6299.6
60°	13202.3	13160.7	13295.9	13301.8	13353.8	11479.2	9878.0	9108.5	6929.4	6816.5	6783.9
62.5°	14387.7	14335.7	14454.5	14450.1	14347.6	12311.1	10550.9	9760.6	7398.8	7309.7	7259.2
65°	15703.7	15665.1	15748.3	15614.6	15411.1	13171.1	11249.0	10470.6	7945.5	7929.1	7917.2
67.5°	17435.7	17360.0	17192.1	16906.9	16517.7	13959.9	11748.1	10938.6	8389.6	8313.8	8290.1
70°	16739.1	16649.9	16522.2	16208.8	15812.2	13218.7	10946.0	10231.5	7844.4	7847.4	7791.0
72.5°	14821.4	14666.9	14546.6	14106.9	13888.6	11544.6	9537.8	8879.8	6785.3	6911.6	6884.9
75°	11691.7	11534.2	11336.6	11164.3	11140.6	9364.0	7690.0	7216.1	5409.9	5502.0	5568.8
77.5°	7578.6	7520.6	7770.2	7606.8	7753.8	6448.2	5493.0	5086.0	3728.4	3961.6	3930.4
80°	3468.4	3401.6	3802.6	3689.8	3744.7	3166.9	2684.1	2578.7	1687.4	1699.3	1735.0
82.5°	784.3	757.6	785.8	721.9	704.1	595.6	524.3	475.3	298.6	316.4	332.7
85°	429.3	429.3	423.3	393.6	337.2	277.8	219.8	169.3	92.1	101.0	99.5
87.5°	301.5	294.1	292.6	261.4	224.3	190.1	151.5	108.4	52.0	35.6	32.7
90°	206.5	203.5	193.1	173.8	150.0	123.3	92.1	53.5	22.3	10.4	7.4
92.5°	150.0	147.1	139.6	123.3	102.5	83.2	60.9	35.6	17.8	7.4	1.5
95°	99.5	98.0	93.6	80.2	66.8	53.5	38.6	22.3	14.9	5.9	1.5
97.5°	68.3	66.8	62.4	53.5	43.1	34.2	23.8	16.3	11.9	4.5	1.5
100°	46.0	44.6	41.6	34.2	26.7	20.8	14.9	11.9	8.9	4.5	1.5
102.5°	29.7	28.2	25.3	20.8	14.9	11.9	10.4	8.9	5.9	3.0	1.5
105°	17.8	16.3	13.4	10.4	8.9	7.4	7.4	5.9	4.5	1.5	1.5
107.5°	8.9	7.4	5.9	5.9	5.9	4.5	4.5	4.5	3.0	1.5	0.0
110°	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	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°	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7	3490.7
2.5°	3507.1	3483.3	3496.7	3475.9	3471.4	3449.1	3484.8	3489.2	3486.3	3492.2
5°	3511.5	3486.3	3501.1	3475.9	3475.9	3452.1	3486.3	3486.3	3477.3	3480.3
7.5°	3523.4	3498.1	3508.5	3480.3	3481.8	3453.6	3495.2	3490.7	3483.3	3493.7
10°	3557.6	3529.3	3527.8	3501.1	3507.1	3477.3	3529.3	3529.3	3521.9	3541.2
12.5°	3612.5	3570.9	3563.5	3530.8	3542.7	3517.4	3581.3	3584.3	3585.8	3617.0
15°	3670.4	3619.9	3627.4	3588.7	3584.3	3570.9	3628.9	3625.9	3624.4	3667.5
17.5°	3752.1	3514.5	3475.9	3449.1	3443.2	3410.5	3464.0	3566.5	3513.0	3483.3
20°	3622.9	3498.1	3345.1	3293.2	3282.8	2999.0	2774.7	2875.8	3012.4	3024.3
22.5°	3505.6	3461.0	3449.1	3367.4	2914.4	2819.3	2828.2	2791.1	2467.3	2326.2
25°	3651.1	3612.5	3562.0	3062.9	2956.0	2921.8	2911.4	2531.1	2275.6	2292.0
27.5°	3813.0	3770.0	3330.3	3070.3	3094.1	3046.6	2811.9	2361.8	2346.9	2375.2
30°	4015.1	3670.4	3250.1	3235.2	3257.5	3196.6	2498.5	2465.8	2461.3	2491.0
32.5°	4245.3	3539.7	3464.0	3464.0	3453.6	2795.5	2632.1	2609.9	2621.7	2652.9
35°	4159.1	3744.7	3735.8	3772.9	3523.4	2868.3	2846.0	2807.4	2816.3	2826.7
37.5°	4064.1	4081.9	4086.4	4067.0	2569.8	3076.3	3058.5	3051.0	3042.1	3045.1
40°	4417.6	4429.5	4425.0	4248.3	2773.3	3116.4	3299.1	3285.7	3284.2	3302.1
42.5°	4830.6	4863.2	4838.0	3747.7	3045.1	2620.3	3576.9	3569.4	3566.5	3603.6
45°	5295.5	5326.7	4796.4	4013.6	3334.7	2712.4	3596.2	3872.5	3894.7	3927.4
47.5°	5799.0	5793.1	4426.5	4422.1	3674.9	2967.8	2990.1	4234.9	4272.0	4283.9
50°	6378.3	5426.2	4846.9	4683.5	4059.6	3254.5	3169.9	3885.8	4705.8	4717.7
52.5°	6255.1	5368.3	5329.6	4108.6	4404.2	3570.9	3487.7	3465.5	4878.1	5164.8
55°	5830.2	5874.8	5819.8	4508.2	3229.3	3853.2	3801.2	3778.9	3628.9	2872.8
57.5°	6302.6	6316.0	6268.4	4875.1	3284.2	2401.9	3741.7	3210.0	2085.5	2075.1
60°	6792.8	6815.1	4668.6	3581.3	2104.8	803.6	191.6	202.0	576.3	506.5
62.5°	7260.7	7283.0	4942.0	3272.4	1329.4	59.4	38.6	26.7	29.7	29.7
65°	7871.2	7880.1	5289.5	3464.0	1381.4	14.9	4.5	0.0	0.0	0.0
67.5°	8187.6	8004.9	5377.2	3551.6	1418.6	8.9	3.0	0.0	0.0	0.0
70°	7709.3	7513.2	5005.8	3328.8	1322.0	7.4	1.5	0.0	0.0	0.0
72.5°	6792.8	6697.7	4493.4	2951.5	1170.5	4.5	1.5	0.0	0.0	0.0
75°	5629.7	5503.4	3725.4	2459.8	968.5	3.0	0.0	0.0	0.0	0.0
77.5°	4004.7	4019.5	2596.5	1792.9	659.5	3.0	0.0	0.0	0.0	0.0
80°	1752.8	1792.9	1137.8	822.9	233.2	1.5	0.0	0.0	0.0	0.0
82.5°	334.2	307.5	148.5	117.3	29.7	0.0	0.0	0.0	0.0	0.0
85°	109.9	120.3	55.0	44.6	13.4	0.0	0.0	0.0	0.0	0.0
87.5°	38.6	49.0	16.3	13.4	3.0	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



REPORT NUMBER: P579461  
 CATALOG NUMBER: CTN-CA8-330-730-U-T5-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)