

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: P579434

Luminaire Tested: **CTN-CA10-310-730-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579434  
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-CA10-310-730-U-T5N-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32225 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U2 - G3

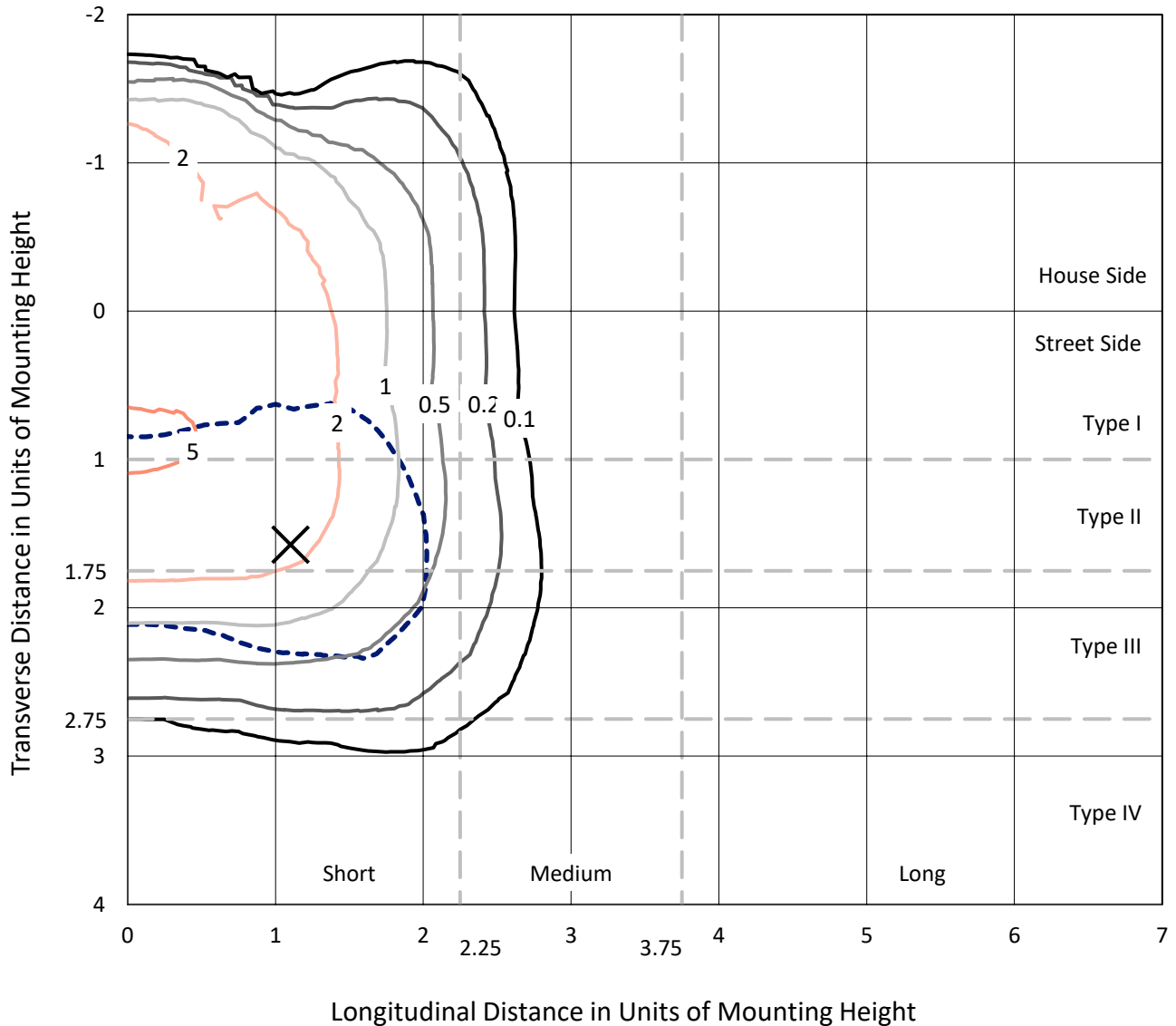
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

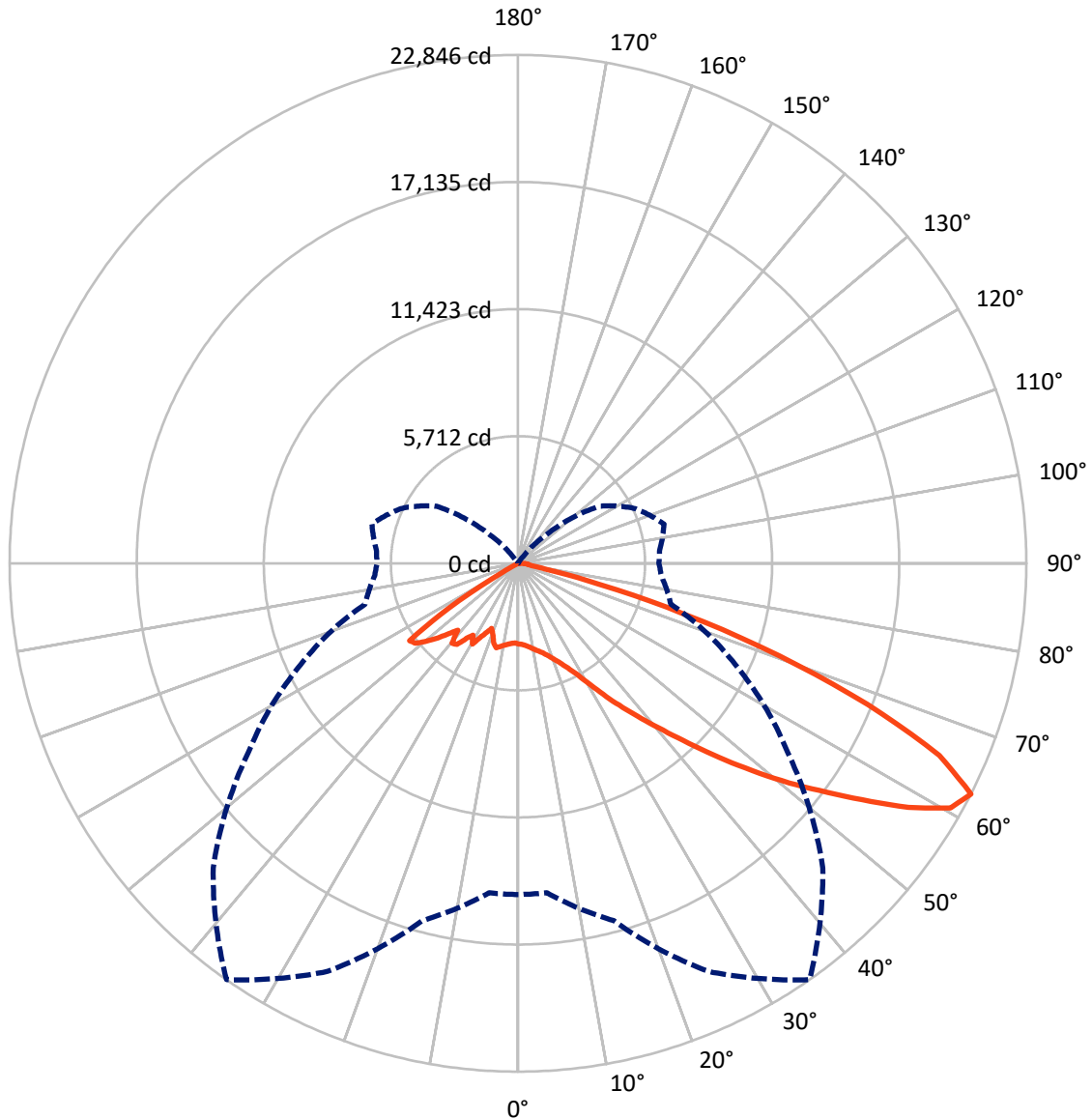
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.5 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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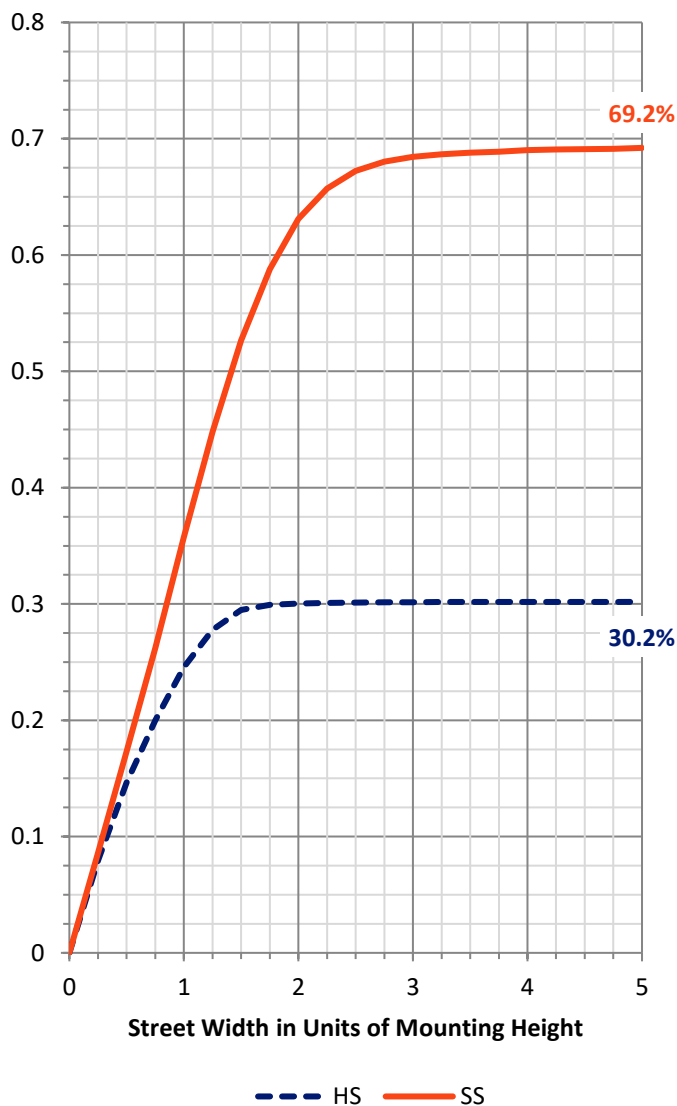
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9780.4	0.0	9780.4
	% Fixture	30.4	0.0	30.4
<b>Street Side</b>	Lumens	22416.6	28.0	22444.6
	% Fixture	69.6	0.1	69.6
<b>Total</b>	Lumens	32197.0	28.0	32225.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	358.0	1.1
10°-20°	1149.2	3.6
20°-30°	2100.3	6.5
30°-40°	4002.6	12.4
40°-50°	6870.1	21.3
50°-60°	9216.4	28.6
60°-70°	7006.3	21.7
70°-80°	1326.6	4.1
80°-90°	167.5	0.5
90°-100°	24.6	0.1
100°-110°	3.3	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°	32197.0	99.9
0°-180°	32225.0	100.0

**Coefficient of Utilization**

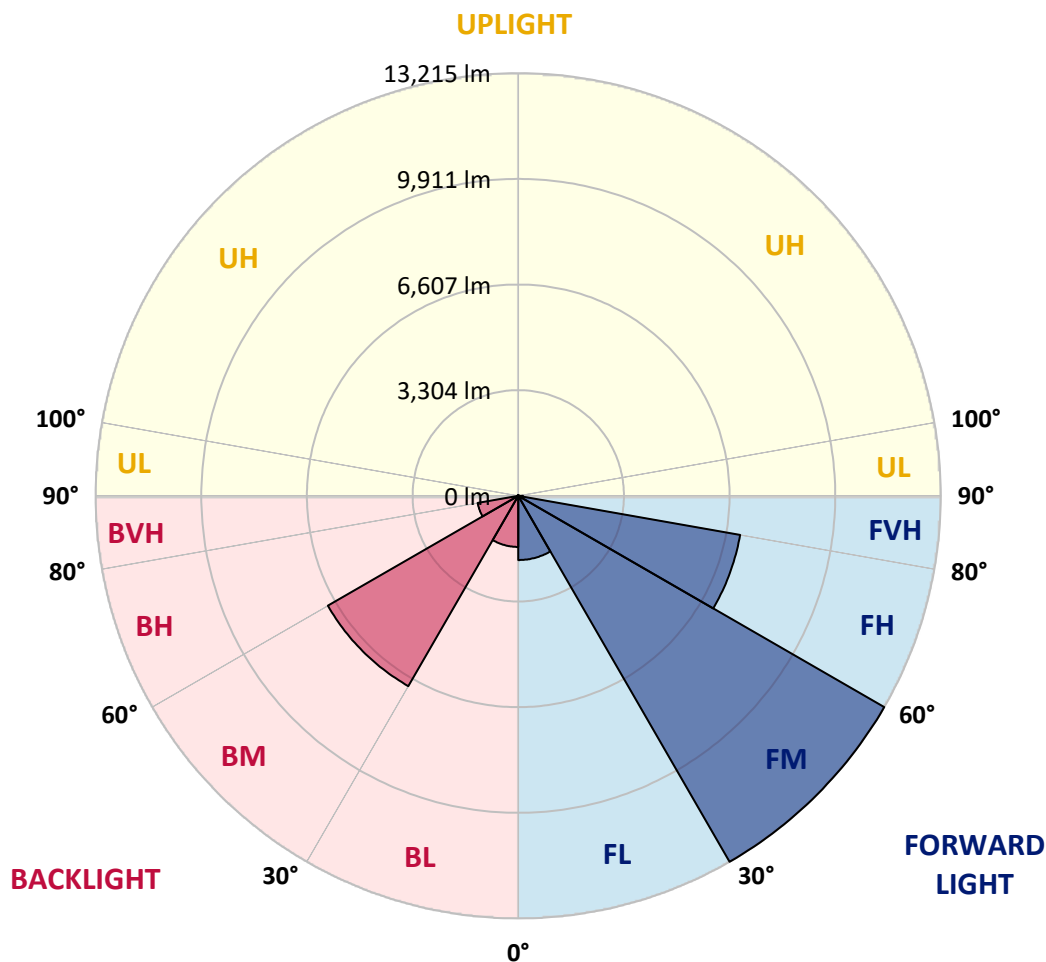


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2008.8	6.2			
FM (30°-60°)	13214.9	41.0			
FH (60°-80°)	7045.0	21.9			G3/7500
FVH (80°-90°)	147.9	0.5			G2/225
BL (0°-30°)	1598.7	5.0	B3/2500		
BM (30°-60°)	6874.1	21.3	B4/8500		
BH (60°-80°)	1287.9	4.0	B3/2500		G3/2500
BVH (80°-90°)	19.6	0.1			G1/100
UL (90°-100°)	24.6	0.1		U2/50	
UH (100°-180°)	3.4	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°	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9
2.5°	3718.6	3691.2	3692.7	3717.0	3647.2	3673.0	3642.6	3673.0	3656.3	3668.4	3674.5
5°	3783.9	3756.5	3753.5	3779.3	3720.1	3738.3	3707.9	3729.2	3706.4	3721.6	3721.6
7.5°	3882.6	3855.3	3846.1	3865.9	3811.2	3824.9	3793.0	3805.1	3779.3	3799.1	3788.4
10°	3999.6	3969.2	3958.6	3969.2	3922.1	3929.7	3891.7	3905.4	3867.4	3890.2	3875.0
12.5°	4124.1	4084.6	4084.6	4093.7	4043.6	4045.1	4010.2	4017.8	3979.8	4004.1	3985.9
15°	4259.3	4215.3	4221.3	4230.5	4177.3	4186.4	4150.0	4162.1	4122.6	4146.9	4128.7
17.5°	4438.6	4391.5	4385.4	4412.7	4362.6	4379.3	4338.3	4353.5	4318.6	4326.2	4317.0
20°	4686.2	4626.9	4613.3	4649.7	4593.5	4605.7	4575.3	4605.7	4569.2	4514.5	4361.1
22.5°	4982.4	4930.7	4907.9	4932.2	4865.4	4886.7	4885.2	4933.8	4833.5	4488.7	4335.3
25°	5372.8	5337.8	5293.8	5296.8	5216.3	5248.2	5305.9	5343.9	4917.1	4614.8	4617.8
27.5°	5893.8	5858.8	5798.1	5775.3	5658.3	5735.8	5825.4	5454.8	5119.1	5196.6	5154.0
30°	6559.1	6553.0	6430.0	6390.5	6262.9	6360.1	6282.7	5647.7	5763.1	5871.0	5805.7
32.5°	7444.7	7402.2	7224.4	7153.0	7019.4	7075.6	6392.0	6300.9	6472.5	6618.4	6550.0
35°	8515.6	8386.5	8205.7	8064.5	7832.0	7519.1	6808.2	6986.0	7242.7	7443.2	7112.0
37.5°	9759.7	9619.9	9337.4	9083.7	8717.6	7742.4	7435.6	7791.0	8113.1	7895.8	7131.8
40°	11040.2	10915.7	10649.8	10323.2	9705.0	8435.1	8196.6	8621.9	8988.0	7743.9	7364.2
42.5°	12311.6	12205.3	11991.1	11669.1	10873.1	9259.9	9030.6	9487.8	9143.0	8040.2	8028.0
45°	13593.7	13540.5	13297.5	13022.5	12256.9	10315.6	9964.7	10321.7	8798.1	8749.5	8720.7
47.5°	14632.7	14641.8	14556.7	14413.9	13733.4	11474.7	11017.4	9958.7	9217.4	9270.6	9284.2
50°	15703.6	15635.2	15630.7	15639.8	15355.7	12967.8	11734.4	9794.6	9765.8	9761.2	9749.0
52.5°	16561.8	16475.3	16654.5	16797.3	16965.9	14634.2	11626.6	10350.6	10185.0	10127.3	9773.4
55°	17260.6	17227.2	17518.8	18001.9	18752.3	16399.3	12580.5	10892.9	10561.7	9212.8	8310.5
57.5°	17684.4	17733.0	18334.5	19283.9	20689.0	17862.1	13690.9	11442.8	9042.7	8114.6	8056.9
60°	16873.2	17129.9	18153.8	20237.9	22326.5	19238.3	14517.2	11553.6	8137.4	7640.7	7525.2
62.5°	14887.9	14863.6	16622.6	20237.9	22846.0	19375.1	14778.5	10768.3	7109.0	6461.9	6332.8
65°	10537.4	10601.2	12480.2	18237.3	20812.0	18021.6	13631.7	9155.1	5670.5	5076.6	4901.9
67.5°	6521.1	6516.6	8356.1	13431.1	16941.6	15088.4	11476.2	7017.9	3935.8	3375.3	3185.4
70°	2252.7	2316.5	3758.0	7859.4	12471.1	11821.0	8588.5	4431.0	2075.0	1479.5	1248.6
72.5°	896.2	917.5	1348.9	3504.4	7791.0	7897.4	5219.3	2152.4	621.3	394.9	370.6
75°	586.3	589.4	647.1	1265.3	3780.8	4248.7	2424.4	618.2	288.6	264.3	258.2
77.5°	505.8	507.4	537.7	641.0	1231.9	1652.7	689.6	366.1	241.5	217.2	211.1
80°	469.4	470.9	486.1	551.4	593.9	563.6	367.6	294.7	203.5	192.9	191.4
82.5°	443.6	449.6	457.2	496.7	480.0	423.8	305.3	238.5	156.5	167.1	171.6
85°	408.6	414.7	419.2	442.0	401.0	309.9	237.0	179.2	100.3	109.4	107.9
87.5°	306.8	309.9	303.8	300.8	279.5	217.2	156.5	113.9	39.5	36.5	33.4
90°	147.3	145.8	139.7	129.1	112.4	88.1	65.3	36.5	16.7	7.6	3.0
92.5°	117.0	115.4	112.4	101.8	88.1	65.3	47.1	25.8	15.2	6.1	1.5
95°	79.0	76.0	72.9	65.3	54.7	39.5	27.3	18.2	12.2	4.6	1.5
97.5°	51.6	50.1	45.6	39.5	30.4	21.3	16.7	13.7	10.6	4.6	1.5
100°	31.9	31.9	28.9	22.8	15.2	12.2	10.6	10.6	7.6	3.0	0.0
102.5°	19.7	18.2	16.7	10.6	7.6	7.6	7.6	7.6	6.1	3.0	0.0
105°	10.6	10.6	7.6	6.1	4.6	3.0	4.6	6.1	4.6	1.5	0.0
107.5°	3.0	3.0	3.0	1.5	1.5	0.0	1.5	3.0	3.0	1.5	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	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°	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9	3628.9
2.5°	3666.9	3638.0	3645.6	3616.8	3612.2	3581.8	3633.5	3636.5	3622.9	3638.0
5°	3714.0	3679.1	3692.7	3657.8	3651.7	3612.2	3653.2	3648.7	3638.0	3650.2
7.5°	3780.8	3745.9	3753.5	3712.5	3704.9	3660.8	3700.3	3685.1	3671.5	3688.2
10°	3873.5	3834.0	3840.1	3791.5	3785.4	3733.7	3779.3	3756.5	3736.8	3759.6
12.5°	3987.4	3935.8	3929.7	3878.0	3873.5	3824.9	3872.0	3849.2	3829.4	3865.9
15°	4118.1	4049.7	4040.6	3975.3	3967.7	3917.5	3963.1	3929.7	3914.5	3961.6
17.5°	4292.7	4051.2	3916.0	3820.3	3765.6	3738.3	3820.3	3931.2	3897.8	3899.3
20°	4221.3	3961.6	3780.8	3698.8	3639.6	3375.3	3010.7	3115.5	3328.2	3433.0
22.5°	4200.1	4108.9	4034.5	3896.3	3308.4	3159.6	3180.8	3156.5	2755.5	2602.1
25°	4607.2	4502.4	4341.3	3616.8	3446.6	3413.2	3425.4	3006.1	2703.8	2747.9
27.5°	5128.2	5020.3	4225.9	3820.3	3786.9	3742.9	3502.9	2978.8	3019.8	3062.3
30°	5784.4	5217.8	4406.7	4282.1	4219.8	4174.3	3284.1	3326.6	3395.0	3448.2
32.5°	6423.9	5201.1	4924.7	4769.7	4692.2	3808.2	3711.0	3809.7	3879.6	3920.6
35°	6431.5	5796.6	5504.9	5305.9	4813.8	4093.7	4183.4	4348.9	4520.6	4552.5
37.5°	6606.2	6471.0	6136.8	5886.2	3580.3	4569.2	4766.7	4956.6	5128.2	5138.8
40°	7301.9	7156.1	6843.2	6291.8	3954.0	4660.3	5409.2	5623.4	5767.7	5760.1
42.5°	7996.1	7895.8	7570.8	5591.5	4455.3	4037.5	6083.7	6224.9	6316.1	6379.9
45°	8694.9	8594.6	7496.3	6139.9	5052.2	4421.9	5919.6	6720.1	6820.4	6852.3
47.5°	9240.2	8992.6	6869.0	6867.5	5798.1	4914.0	4888.2	7166.7	7254.8	7232.0
50°	9744.5	8028.0	7425.0	7106.0	6569.7	5377.3	5198.1	6030.5	7648.2	7614.8
52.5°	8866.5	7791.0	7901.9	6463.4	7189.5	5837.6	5547.4	5407.7	6949.5	7844.2
55°	7929.3	8081.2	8389.5	7101.4	5216.3	5986.4	5843.7	5565.7	4689.2	3946.4
57.5°	8091.8	8318.1	8333.3	7692.3	5398.6	3739.8	4789.5	4192.5	2649.2	2655.2
60°	7549.5	7844.2	6091.3	5128.2	2902.8	779.3	76.0	66.8	461.8	562.0
62.5°	6382.9	6793.0	5814.8	4467.4	1862.3	28.9	7.6	1.5	0.0	0.0
65°	4942.9	5436.6	4914.0	3855.3	1652.7	9.1	0.0	0.0	0.0	0.0
67.5°	3259.8	3704.9	3733.7	3224.9	1377.7	4.6	0.0	0.0	0.0	0.0
70°	1365.6	1923.1	2324.1	2397.0	1083.1	1.5	0.0	0.0	0.0	0.0
72.5°	394.9	610.6	1118.0	1440.0	688.1	0.0	0.0	0.0	0.0	0.0
75°	262.8	281.0	323.6	648.6	343.3	0.0	0.0	0.0	0.0	0.0
77.5°	217.2	221.8	185.3	177.7	98.7	0.0	0.0	0.0	0.0	0.0
80°	197.5	194.4	148.9	104.8	36.5	0.0	0.0	0.0	0.0	0.0
82.5°	182.3	173.2	107.9	54.7	24.3	0.0	0.0	0.0	0.0	0.0
85°	123.0	121.5	48.6	33.4	4.6	0.0	0.0	0.0	0.0	0.0
87.5°	33.4	42.5	10.6	4.6	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: P579434  
 CATALOG NUMBER: CTN-CA10-310-730-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)