

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: P579482

Luminaire Tested: **CTN-CA10-310-740-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579482  
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-CA10-310-740-U-T5N-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32819 lumens  
Efficiency: N/A  
Efficacy: 105.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U2 - G3

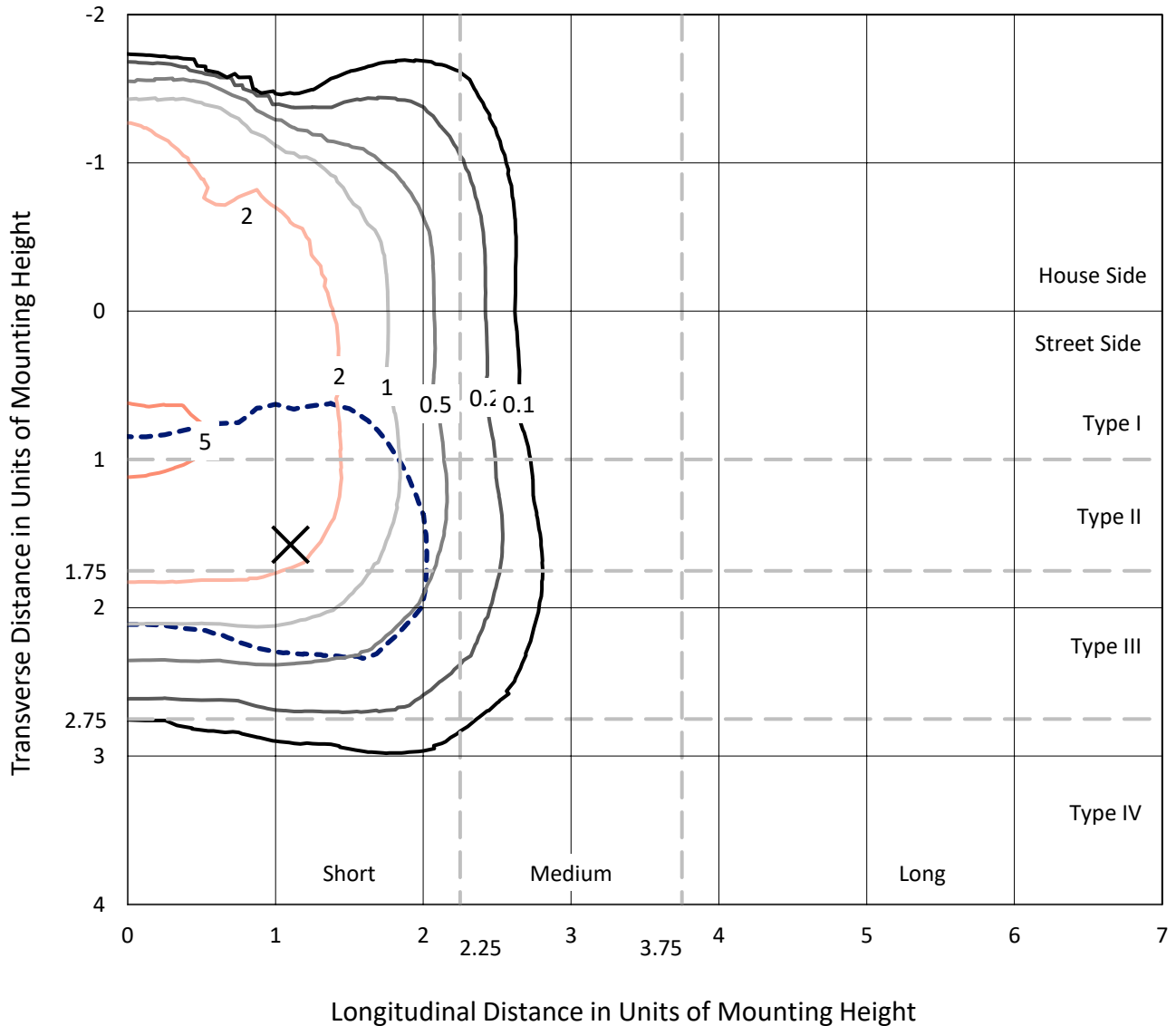
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P579482  
 CATALOG NUMBER: CTN-CA10-310-740-U-T5N-HSS-HM-EX180

### Iso-Footcandle Lines of Horizontal Illumination

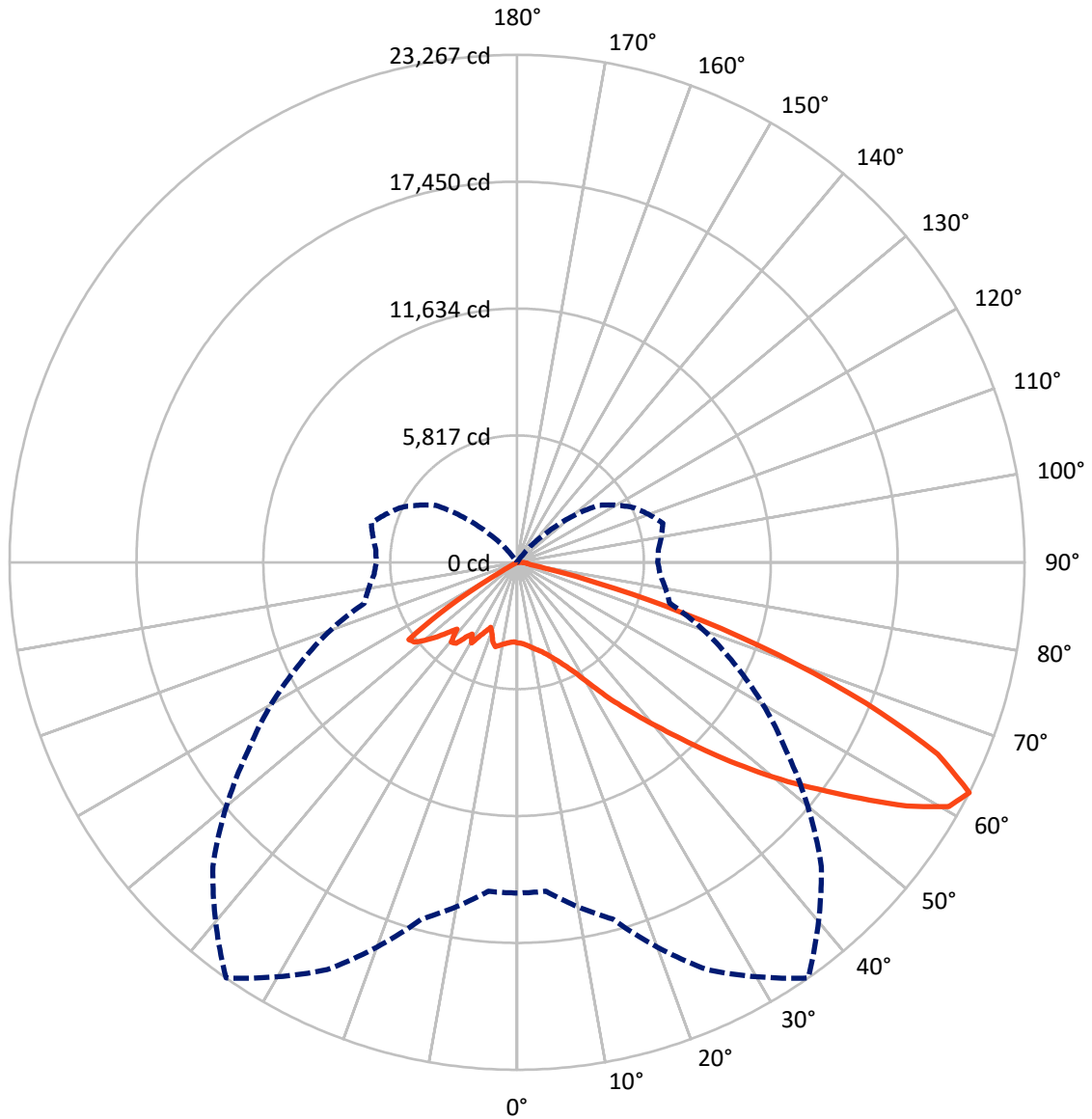
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.6 fc  
 Type III - Short - N/A

REPORT NUMBER: P579482  
CATALOG NUMBER: CTN-CA10-310-740-U-T5N-HSS-HM-EX180

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P579482  
 CATALOG NUMBER: CTN-CA10-310-740-U-T5N-HSS-HM-EX180

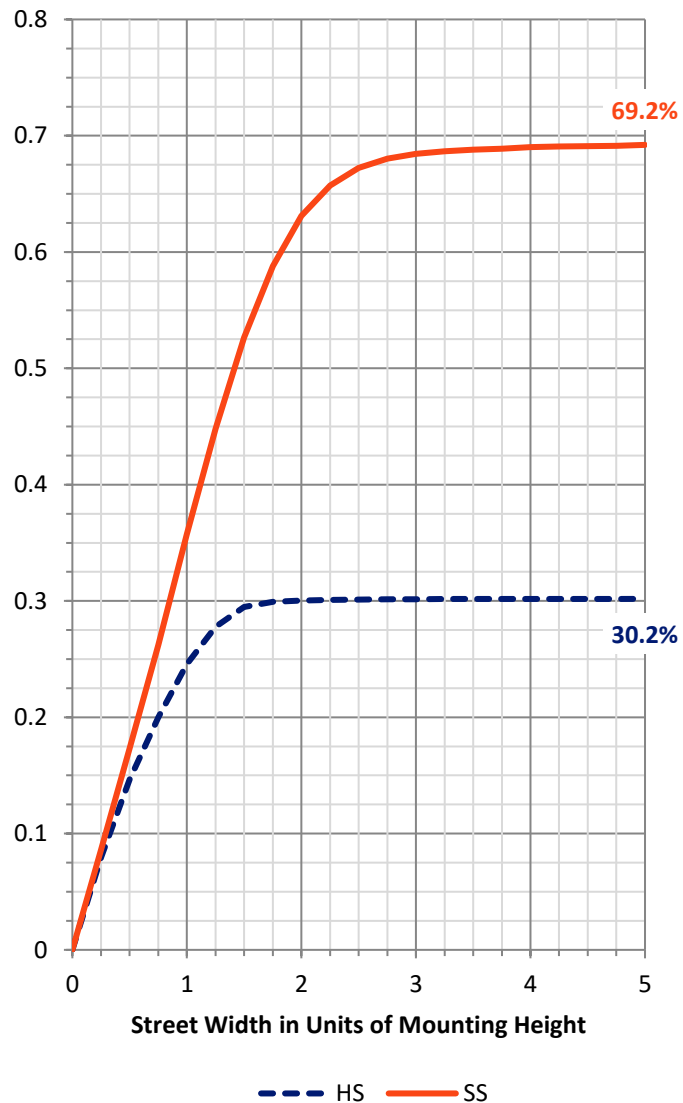
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9960.7	0.0	9960.7
	% Fixture	30.4	0.0	30.4
<b>Street Side</b>	Lumens	22829.8	28.5	22858.3
	% Fixture	69.6	0.1	69.6
<b>Total</b>	Lumens	32790.5	28.5	32819.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	364.6	1.1
10°-20°	1170.3	3.6
20°-30°	2139.1	6.5
30°-40°	4076.3	12.4
40°-50°	6996.7	21.3
50°-60°	9386.3	28.6
60°-70°	7135.4	21.7
70°-80°	1351.1	4.1
80°-90°	170.6	0.5
90°-100°	25.1	0.1
100°-110°	3.4	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°	32790.5	99.9
0°-180°	32819.0	100.0

**Coefficient of Utilization**

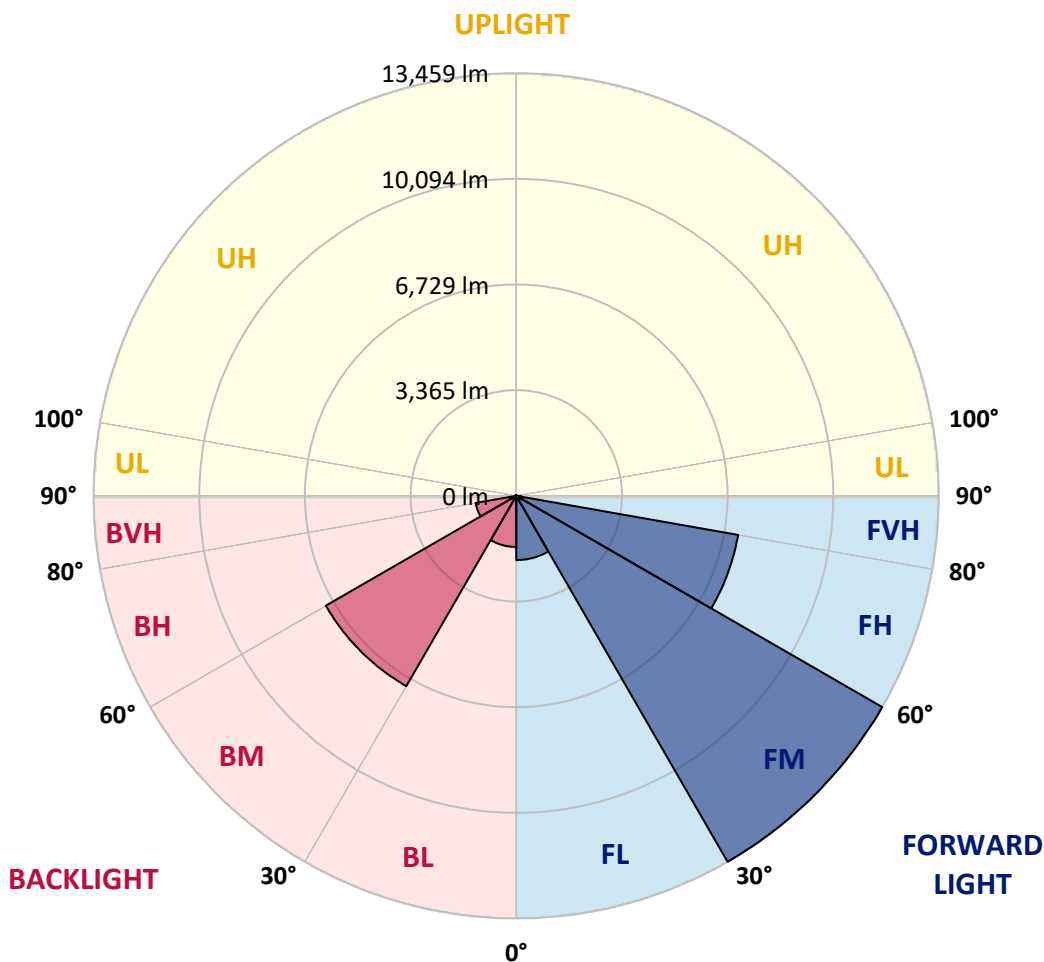


REPORT NUMBER: P579482  
 CATALOG NUMBER: CTN-CA10-310-740-U-T5N-HSS-HM-EX180

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2045.8	6.2			
FM (30°-60°)	13458.5	41.0			
FH (60°-80°)	7174.8	21.9			G3/7500
FVH (80°-90°)	150.6	0.5			G2/225
BL (0°-30°)	1628.2	5.0	B3/2500		
BM (30°-60°)	7000.8	21.3	B4/8500		
BH (60°-80°)	1311.7	4.0	B3/2500		G3/2500
BVH (80°-90°)	20.0	0.1			G1/100
UL (90°-100°)	25.1	0.1		U2/50	
UH (100°-180°)	3.4	0.0		U1/10	

**BUG Rating: B4-U2-G3**  
 Type III Short





REPORT NUMBER: P579482

CATALOG NUMBER: CTN-CA10-310-740-U-T5N-HSS-HM-EX180

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8
2.5°	3787.1	3759.2	3760.8	3785.5	3714.4	3740.7	3709.7	3740.7	3723.7	3736.0	3742.2
5°	3853.6	3825.8	3822.7	3849.0	3788.6	3807.2	3776.3	3797.9	3774.7	3790.2	3790.2
7.5°	3954.2	3926.3	3917.0	3937.2	3881.5	3895.4	3862.9	3875.3	3849.0	3869.1	3858.3
10°	4073.3	4042.4	4031.5	4042.4	3994.4	4002.1	3963.5	3977.4	3938.7	3961.9	3946.4
12.5°	4200.1	4159.9	4159.9	4169.2	4118.2	4119.7	4084.1	4091.9	4053.2	4077.9	4059.4
15°	4337.8	4293.0	4299.2	4308.4	4254.3	4263.6	4226.4	4238.8	4198.6	4223.4	4204.8
17.5°	4520.4	4472.4	4466.2	4494.1	4443.0	4460.0	4418.3	4433.7	4398.2	4405.9	4396.6
20°	4772.5	4712.2	4698.3	4735.4	4678.2	4690.6	4659.6	4690.6	4653.4	4597.7	4441.5
22.5°	5074.2	5021.6	4998.4	5023.2	4955.1	4976.8	4975.2	5024.7	4922.6	4571.4	4415.2
25°	5471.8	5436.2	5391.4	5394.4	5312.5	5344.9	5403.7	5442.4	5007.7	4699.8	4702.9
27.5°	6002.4	5966.8	5905.0	5881.8	5762.6	5841.5	5932.8	5555.3	5213.4	5292.3	5249.0
30°	6680.0	6673.8	6548.5	6508.3	6378.3	6477.4	6398.5	5751.8	5869.4	5979.2	5912.7
32.5°	7581.9	7538.6	7357.6	7284.9	7148.8	7206.0	6509.8	6417.0	6591.8	6740.4	6670.7
35°	8672.6	8541.1	8357.0	8213.1	7976.4	7657.7	6933.7	7114.7	7376.2	7580.4	7243.1
37.5°	9939.6	9797.3	9509.5	9251.2	8878.3	7885.1	7572.6	7934.6	8262.6	8041.4	7263.2
40°	11243.7	11116.9	10846.1	10513.5	9883.9	8590.6	8347.7	8780.9	9153.7	7886.7	7499.9
42.5°	12538.6	12430.3	12212.1	11884.2	11073.5	9430.6	9197.0	9662.7	9311.5	8188.4	8176.0
45°	13844.2	13790.1	13542.6	13262.6	12482.9	10505.8	10148.4	10512.0	8960.3	8910.8	8881.4
47.5°	14902.4	14911.7	14825.1	14679.6	13986.6	11686.2	11220.5	10142.2	9387.3	9441.4	9455.4
50°	15993.1	15923.4	15918.8	15928.1	15638.8	13206.9	11950.7	9975.2	9945.8	9941.1	9928.8
52.5°	16867.1	16778.9	16961.5	17106.9	17278.6	14904.0	11840.9	10541.4	10372.7	10314.0	9953.5
55°	17578.7	17544.7	17841.7	18333.7	19097.9	16701.6	12812.4	11093.7	10756.4	9382.7	8463.7
57.5°	18010.4	18059.9	18672.5	19639.4	21070.4	18191.4	13943.3	11653.7	9209.4	8264.2	8205.4
60°	17184.3	17445.7	18488.4	20610.9	22738.0	19593.0	14784.8	11766.6	8287.4	7781.5	7663.9
62.5°	15162.3	15137.6	16929.0	20610.9	23267.1	19732.2	15050.9	10966.8	7240.0	6581.0	6449.5
65°	10731.7	10796.6	12710.3	18573.5	21195.7	18353.8	13882.9	9323.9	5775.0	5170.1	4992.2
67.5°	6641.3	6636.7	8510.1	13678.7	17253.9	15366.5	11687.7	7147.2	4008.3	3437.5	3244.1
70°	2294.2	2359.2	3827.3	8004.3	12701.0	12038.9	8746.8	4512.6	2113.2	1506.8	1271.6
72.5°	912.7	934.4	1373.8	3569.0	7934.6	8042.9	5315.5	2192.1	632.7	402.2	377.5
75°	597.1	600.2	659.0	1288.7	3850.5	4327.0	2469.0	629.6	293.9	269.2	263.0
77.5°	515.2	516.7	547.6	652.8	1254.6	1683.2	702.3	372.8	246.0	221.2	215.0
80°	478.0	479.6	495.0	561.6	604.9	573.9	374.4	300.1	207.3	196.5	194.9
82.5°	451.7	457.9	465.7	505.9	488.9	431.6	311.0	242.9	159.3	170.2	174.8
85°	416.1	422.3	427.0	450.2	408.4	315.6	241.3	182.5	102.1	111.4	109.8
87.5°	312.5	315.6	309.4	306.3	284.7	221.2	159.3	116.0	40.2	37.1	34.0
90°	150.1	148.5	142.3	131.5	114.5	89.7	66.5	37.1	17.0	7.7	3.1
92.5°	119.1	117.6	114.5	103.7	89.7	66.5	48.0	26.3	15.5	6.2	1.5
95°	80.4	77.4	74.3	66.5	55.7	40.2	27.8	18.6	12.4	4.6	1.5
97.5°	52.6	51.1	46.4	40.2	30.9	21.7	17.0	13.9	10.8	4.6	1.5
100°	32.5	32.5	29.4	23.2	15.5	12.4	10.8	10.8	7.7	3.1	0.0
102.5°	20.1	18.6	17.0	10.8	7.7	7.7	7.7	7.7	6.2	3.1	0.0
105°	10.8	10.8	7.7	6.2	4.6	3.1	4.6	6.2	4.6	1.5	0.0
107.5°	3.1	3.1	3.1	1.5	1.5	0.0	1.5	3.1	3.1	1.5	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.1	1.5	0.0



REPORT NUMBER: P579482  
 CATALOG NUMBER: CTN-CA10-310-740-U-T5N-HSS-HM-EX180

**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: P579482

CATALOG NUMBER: CTN-CA10-310-740-U-T5N-HSS-HM-EX180

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8	3695.8
2.5°	3734.5	3705.1	3712.8	3683.4	3678.8	3647.9	3700.5	3703.6	3689.6	3705.1
5°	3782.5	3746.9	3760.8	3725.2	3719.0	3678.8	3720.6	3715.9	3705.1	3717.5
7.5°	3850.5	3814.9	3822.7	3780.9	3773.2	3728.3	3768.5	3753.1	3739.1	3756.2
10°	3944.9	3904.7	3910.9	3861.4	3855.2	3802.6	3849.0	3825.8	3805.7	3828.9
12.5°	4060.9	4008.3	4002.1	3949.5	3944.9	3895.4	3943.3	3920.1	3900.0	3937.2
15°	4194.0	4124.3	4115.1	4048.5	4040.8	3989.8	4036.2	4002.1	3986.7	4034.6
17.5°	4371.9	4125.9	3988.2	3890.7	3835.1	3807.2	3890.7	4003.7	3969.6	3971.2
20°	4299.2	4034.6	3850.5	3767.0	3706.7	3437.5	3066.2	3172.9	3389.5	3496.3
22.5°	4277.5	4184.7	4108.9	3968.1	3369.4	3217.8	3239.5	3214.7	2806.3	2650.0
25°	4692.1	4585.4	4421.4	3683.4	3510.2	3476.1	3488.5	3061.5	2753.7	2798.6
27.5°	5222.7	5112.9	4303.8	3890.7	3856.7	3811.8	3567.4	3033.7	3075.5	3118.8
30°	5891.0	5314.0	4487.9	4361.0	4297.6	4251.2	3344.6	3388.0	3457.6	3511.7
32.5°	6542.3	5297.0	5015.4	4857.6	4778.7	3878.4	3779.4	3879.9	3951.1	3992.8
35°	6550.1	5903.4	5606.4	5403.7	4902.5	4169.2	4260.5	4429.1	4603.9	4636.4
37.5°	6728.0	6590.3	6249.9	5994.7	3646.3	4653.4	4854.5	5047.9	5222.7	5233.6
40°	7436.5	7288.0	6969.3	6407.7	4026.9	4746.2	5508.9	5727.1	5874.0	5866.3
42.5°	8143.5	8041.4	7710.3	5694.6	4537.4	4112.0	6195.8	6339.7	6432.5	6497.5
45°	8855.1	8753.0	7634.5	6253.0	5145.4	4503.4	6028.7	6844.0	6946.1	6978.6
47.5°	9410.5	9158.3	6995.6	6994.1	5905.0	5004.6	4978.3	7298.8	7388.5	7365.3
50°	9924.1	8176.0	7561.8	7236.9	6690.8	5476.4	5293.9	6141.7	7789.2	7755.2
52.5°	9029.9	7934.6	8047.6	6582.6	7322.0	5945.2	5649.7	5507.4	7077.6	7988.8
55°	8075.4	8230.1	8544.2	7232.3	5312.5	6096.8	5951.4	5668.3	4775.6	4019.1
57.5°	8241.0	8471.5	8486.9	7834.1	5498.1	3808.8	4877.7	4269.8	2698.0	2704.2
60°	7688.7	7988.8	6203.5	5222.7	2956.3	793.6	77.4	68.1	470.3	572.4
62.5°	6500.6	6918.3	5922.0	4549.8	1896.6	29.4	7.7	1.5	0.0	0.0
65°	5034.0	5536.8	5004.6	3926.3	1683.2	9.3	0.0	0.0	0.0	0.0
67.5°	3319.9	3773.2	3802.6	3284.3	1403.1	4.6	0.0	0.0	0.0	0.0
70°	1390.8	1958.5	2366.9	2441.2	1103.0	1.5	0.0	0.0	0.0	0.0
72.5°	402.2	621.9	1138.6	1466.6	700.8	0.0	0.0	0.0	0.0	0.0
75°	267.6	286.2	329.5	660.6	349.6	0.0	0.0	0.0	0.0	0.0
77.5°	221.2	225.9	188.7	181.0	100.6	0.0	0.0	0.0	0.0	0.0
80°	201.1	198.0	151.6	106.7	37.1	0.0	0.0	0.0	0.0	0.0
82.5°	185.6	176.4	109.8	55.7	24.8	0.0	0.0	0.0	0.0	0.0
85°	125.3	123.8	49.5	34.0	4.6	0.0	0.0	0.0	0.0	0.0
87.5°	34.0	43.3	10.8	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: P579482  
 CATALOG NUMBER: CTN-CA10-310-740-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)