

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: P579455

Luminaire Tested: **CTN-CA8-230-730-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579455
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-CA8-230-730-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: 21705 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

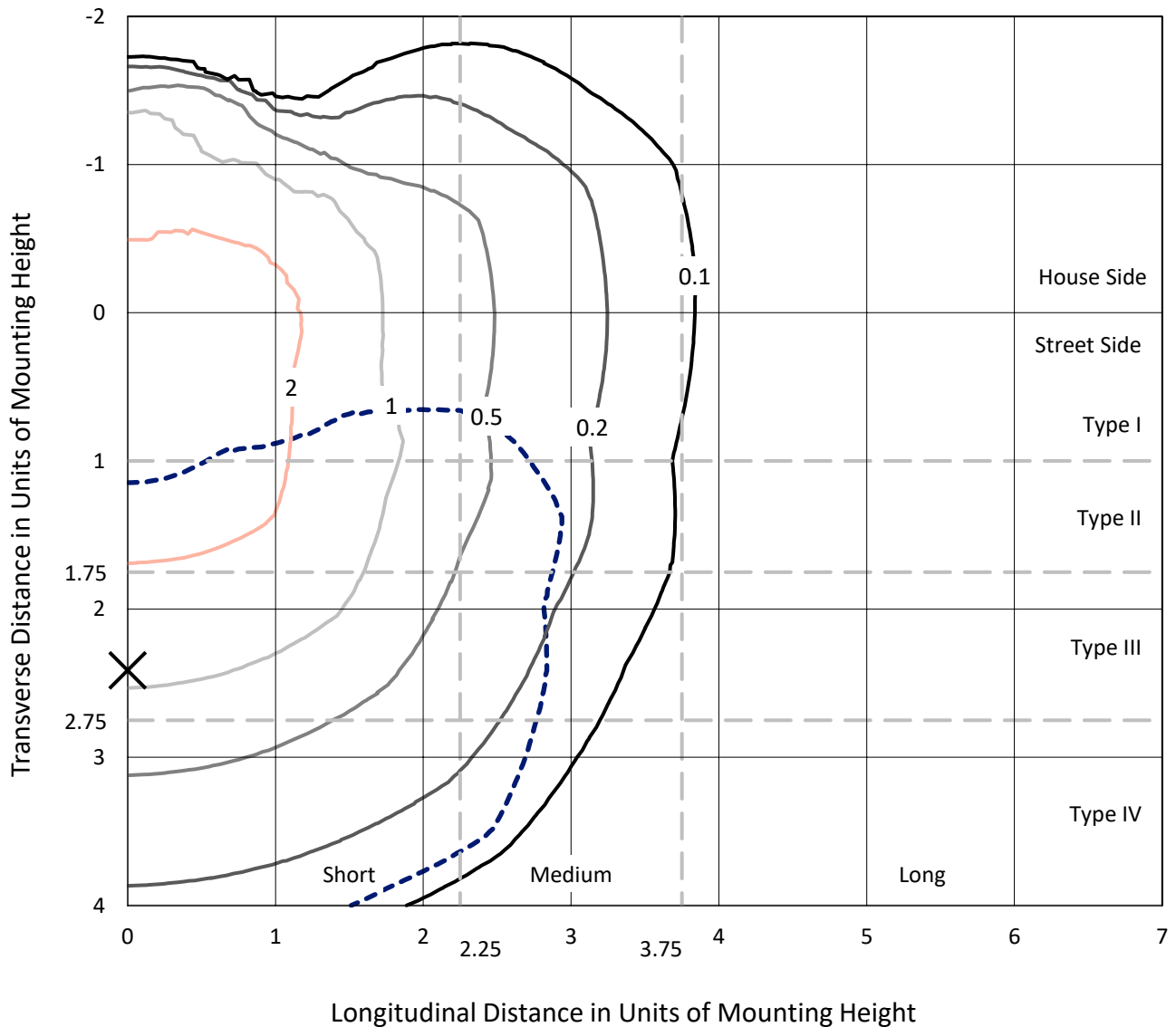
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P579455
 CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

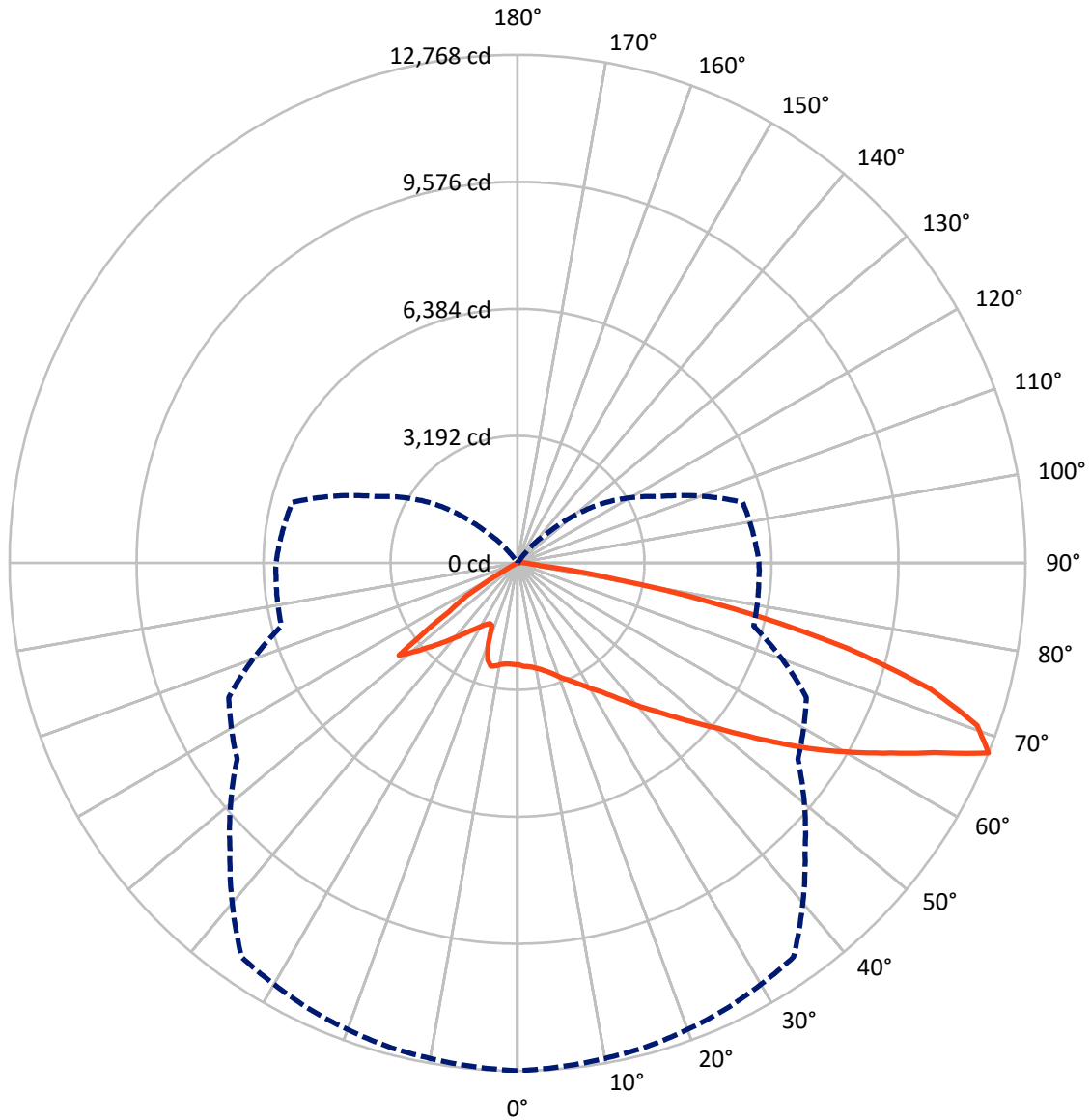
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - N/A

REPORT NUMBER: P579455
CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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 CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX180

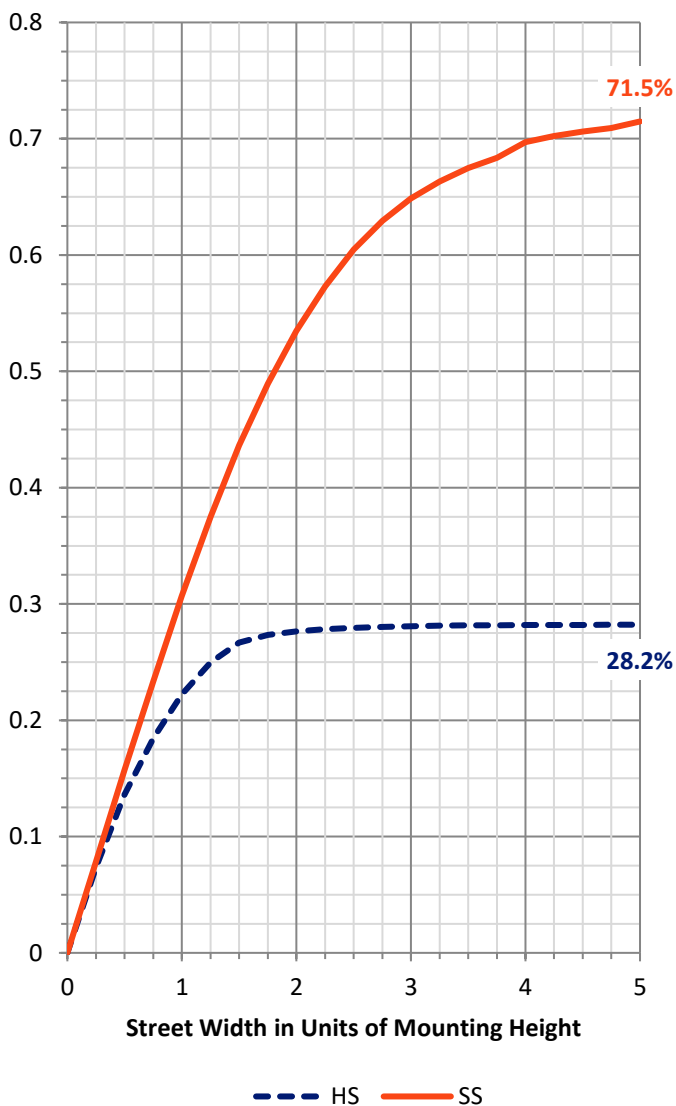
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6151.6	0.1	6151.7
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	15525.7	27.7	15553.3
	% Fixture	71.5	0.1	71.7
Total	Lumens	21677.3	27.7	21705.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.5	1.1
10°-20°	758.9	3.5
20°-30°	1256.6	5.8
30°-40°	1978.1	9.1
40°-50°	3095.8	14.3
50°-60°	4469.9	20.6
60°-70°	5537.4	25.5
70°-80°	4032.8	18.6
80°-90°	301.3	1.4
90°-100°	23.7	0.1
100°-110°	4.0	0.0
110°-120°	0.1	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°	21677.3	99.9
0°-180°	21705.0	100.0

Coefficient of Utilization



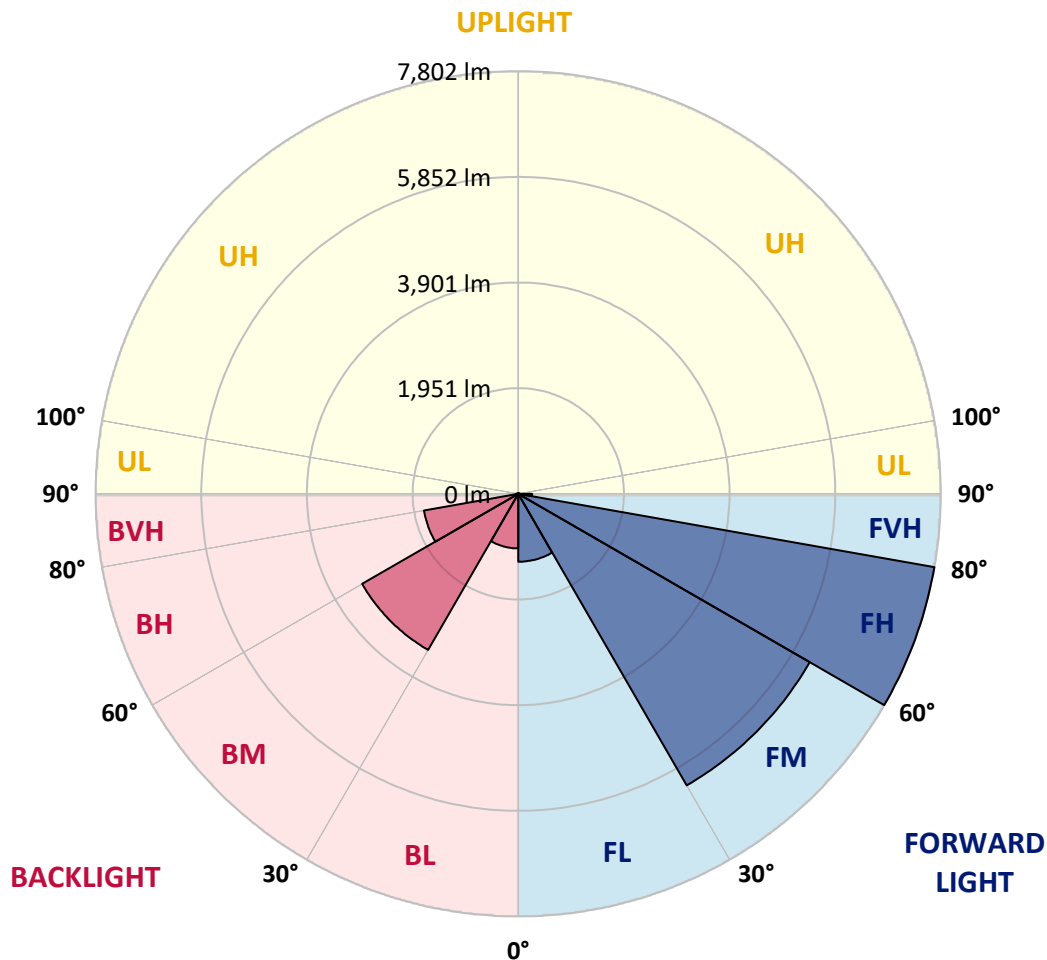
REPORT NUMBER: P579455
 CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1253.6	5.8			
FM (30°-60°)	6215.7	28.6			
FH (60°-80°)	7802.2	35.9			G4/12000
FVH (80°-90°)	254.1	1.2			G3/500
BL (0°-30°)	1008.4	4.6	B3/2500		
BM (30°-60°)	3328.1	15.3	B3/5000		
BH (60°-80°)	1767.9	8.1	B3/2500		G3/2500
BVH (80°-90°)	47.2	0.2			G1/100
UL (90°-100°)	23.7	0.1		U2/50	
UH (100°-180°)	4.1	0.0		U1/10	

BUG Rating: B3-U2-G4

Type IV Short





REPORT NUMBER: P579455

CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3
2.5°	2603.1	2588.9	2588.9	2604.2	2561.7	2574.8	2557.4	2572.6	2563.9	2568.3	2573.7
5°	2618.3	2602.0	2603.1	2621.6	2583.5	2594.4	2573.7	2581.3	2573.7	2577.0	2577.0
7.5°	2646.6	2632.4	2632.4	2643.3	2605.2	2608.5	2590.0	2590.0	2580.2	2587.8	2581.3
10°	2699.9	2684.6	2677.0	2682.5	2648.8	2644.4	2619.4	2619.4	2604.2	2616.1	2606.3
12.5°	2764.1	2742.3	2740.1	2741.2	2703.1	2695.5	2667.2	2668.3	2640.0	2656.4	2644.4
15°	2841.3	2814.1	2811.9	2816.3	2776.0	2761.9	2730.3	2730.3	2698.8	2707.5	2691.2
17.5°	2940.3	2908.7	2903.3	2910.9	2870.7	2857.6	2820.6	2814.1	2779.3	2772.8	2758.6
20°	3070.8	3034.9	3024.0	3040.4	2989.2	2977.3	2932.7	2918.5	2871.7	2794.5	2693.4
22.5°	3188.3	3160.0	3153.5	3164.4	3117.6	3105.6	3062.1	3032.7	2919.6	2764.1	2670.5
25°	3322.1	3311.2	3307.9	3301.4	3259.0	3238.3	3197.0	3155.7	2898.9	2685.7	2683.6
27.5°	3487.4	3482.0	3466.8	3461.3	3414.6	3401.5	3347.1	3080.6	2825.0	2809.7	2801.0
30°	3668.0	3657.1	3641.9	3643.0	3611.4	3587.5	3458.1	3014.2	2967.5	2967.5	2944.6
32.5°	3868.2	3856.2	3841.0	3844.2	3831.2	3810.5	3421.1	3189.4	3153.5	3163.3	3135.0
35°	4116.2	4096.6	4091.2	4104.2	4105.3	3971.5	3486.3	3427.6	3399.3	3392.8	3286.2
37.5°	4405.5	4389.2	4408.8	4439.2	4404.4	4012.8	3746.3	3727.8	3699.6	3541.8	3289.5
40°	4752.5	4723.2	4747.1	4766.7	4743.8	4258.7	4019.4	4025.9	4000.9	3533.1	3253.6
42.5°	5096.3	5068.0	5088.6	5137.6	5128.9	4563.3	4352.2	4366.4	4114.0	3553.8	3532.0
45°	5521.6	5511.8	5505.3	5545.5	5579.2	4927.7	4747.1	4746.0	4033.5	3882.3	3862.7
47.5°	6003.5	5990.4	5993.7	6044.8	6095.9	5362.8	5213.7	4776.5	4241.3	4256.5	4239.1
50°	6540.8	6526.7	6569.1	6643.1	6669.2	5851.2	5668.4	4693.8	4674.2	4690.5	4661.2
52.5°	7222.9	7191.3	7256.6	7336.0	7369.7	6428.8	5693.5	5182.2	5149.6	5152.8	5059.3
55°	7998.5	7973.5	8032.2	8121.4	8171.4	7073.9	6213.4	5657.6	5638.0	5083.2	4577.4
57.5°	8841.5	8813.2	8891.5	8917.6	8930.7	7740.7	6736.6	6173.2	5267.0	4641.6	4613.3
60°	9668.2	9637.8	9736.7	9741.1	9779.2	8406.4	7233.8	6670.3	5074.5	4991.8	4967.9
62.5°	10536.3	10498.2	10585.2	10582.0	10506.9	9015.5	7726.5	7147.8	5418.2	5353.0	5316.0
65°	11500.0	11471.8	11532.7	11434.8	11285.7	9645.4	8237.8	7667.8	5818.6	5806.6	5797.9
67.5°	12768.4	12712.9	12590.0	12381.1	12096.1	10223.0	8603.3	8010.4	6143.8	6088.3	6070.9
70°	12258.2	12193.0	12099.4	11869.9	11579.5	9680.2	8015.9	7492.6	5744.6	5746.8	5705.4
72.5°	10853.9	10740.8	10652.7	10330.7	10170.8	8454.3	6984.7	6502.8	4969.0	5061.5	5041.9
75°	8561.9	8446.6	8302.0	8175.8	8158.4	6857.4	5631.5	5284.5	3961.7	4029.1	4078.1
77.5°	5549.9	5507.4	5690.2	5570.5	5678.2	4722.1	4022.6	3724.6	2730.3	2901.1	2878.3
80°	2540.0	2491.0	2784.7	2702.1	2742.3	2319.2	1965.6	1888.4	1235.7	1244.4	1270.5
82.5°	574.3	554.8	575.4	528.7	515.6	436.2	384.0	348.1	218.6	231.7	243.7
85°	314.4	314.4	310.0	288.3	246.9	203.4	161.0	124.0	67.4	74.0	72.9
87.5°	220.8	215.4	214.3	191.4	164.3	139.2	111.0	79.4	38.1	26.1	23.9
90°	151.2	149.0	141.4	127.3	109.9	90.3	67.4	39.2	16.3	7.6	5.4
92.5°	109.9	107.7	102.3	90.3	75.1	60.9	44.6	26.1	13.1	5.4	1.1
95°	72.9	71.8	68.5	58.7	49.0	39.2	28.3	16.3	10.9	4.4	1.1
97.5°	50.0	49.0	45.7	39.2	31.5	25.0	17.4	12.0	8.7	3.3	1.1
100°	33.7	32.6	30.5	25.0	19.6	15.2	10.9	8.7	6.5	3.3	1.1
102.5°	21.8	20.7	18.5	15.2	10.9	8.7	7.6	6.5	4.4	2.2	1.1
105°	13.1	12.0	9.8	7.6	6.5	5.4	5.4	4.4	3.3	1.1	1.1
107.5°	6.5	5.4	4.4	4.4	4.4	3.3	3.3	3.3	2.2	1.1	0.0
110°	1.1	1.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	0.0



REPORT NUMBER: P579455
 CATALOG NUMBER: CTN-CA8-230-730-U-T5-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: P579455

CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3	2556.3
2.5°	2568.3	2550.9	2560.6	2545.4	2542.1	2525.8	2551.9	2555.2	2553.0	2557.4
5°	2571.5	2553.0	2563.9	2545.4	2545.4	2528.0	2553.0	2553.0	2546.5	2548.7
7.5°	2580.2	2561.7	2569.3	2548.7	2549.8	2529.1	2559.6	2556.3	2550.9	2558.5
10°	2605.2	2584.6	2583.5	2563.9	2568.3	2546.5	2584.6	2584.6	2579.1	2593.3
12.5°	2645.5	2615.0	2609.6	2585.7	2594.4	2575.9	2622.6	2624.8	2625.9	2648.8
15°	2687.9	2650.9	2656.4	2628.1	2624.8	2615.0	2657.5	2655.3	2654.2	2685.7
17.5°	2747.7	2573.7	2545.4	2525.8	2521.5	2497.5	2536.7	2611.8	2572.6	2550.9
20°	2653.1	2561.7	2449.7	2411.6	2404.0	2196.2	2032.0	2105.9	2206.0	2214.7
22.5°	2567.2	2534.5	2525.8	2466.0	2134.2	2064.6	2071.1	2043.9	1806.8	1703.5
25°	2673.8	2645.5	2608.5	2243.0	2164.7	2139.7	2132.1	1853.6	1666.5	1678.4
27.5°	2792.3	2760.8	2438.8	2248.4	2265.9	2231.0	2059.2	1729.6	1718.7	1739.4
30°	2940.3	2687.9	2380.1	2369.2	2385.5	2340.9	1829.7	1805.7	1802.5	1824.2
32.5°	3108.9	2592.2	2536.7	2536.7	2529.1	2047.2	1927.6	1911.2	1919.9	1942.8
35°	3045.8	2742.3	2735.8	2763.0	2580.2	2100.5	2084.2	2055.9	2062.4	2070.1
37.5°	2976.2	2989.2	2992.5	2978.4	1881.9	2252.8	2239.7	2234.3	2227.8	2230.0
40°	3235.1	3243.8	3240.5	3111.1	2030.9	2282.2	2416.0	2406.2	2405.1	2418.1
42.5°	3537.5	3561.4	3542.9	2744.5	2230.0	1918.8	2619.4	2613.9	2611.8	2639.0
45°	3877.9	3900.8	3512.5	2939.2	2442.1	1986.3	2633.5	2835.9	2852.2	2876.1
47.5°	4246.7	4242.4	3241.6	3238.3	2691.2	2173.4	2189.7	3101.3	3128.5	3137.2
50°	4670.9	3973.7	3549.4	3429.8	2972.9	2383.3	2321.3	2845.6	3446.1	3454.8
52.5°	4580.7	3931.2	3903.0	3008.8	3225.3	2615.0	2554.1	2537.8	3572.3	3782.2
55°	4269.5	4302.2	4261.9	3301.4	2364.8	2821.7	2783.6	2767.3	2657.5	2103.8
57.5°	4615.5	4625.3	4590.4	3570.1	2405.1	1758.9	2740.1	2350.7	1527.2	1519.6
60°	4974.4	4990.7	3418.9	2622.6	1541.4	588.5	140.3	147.9	422.1	370.9
62.5°	5317.1	5333.4	3619.1	2396.4	973.6	43.5	28.3	19.6	21.8	21.8
65°	5764.2	5770.7	3873.6	2536.7	1011.6	10.9	3.3	0.0	0.0	0.0
67.5°	5995.9	5862.1	3937.8	2600.9	1038.8	6.5	2.2	0.0	0.0	0.0
70°	5645.6	5502.0	3665.8	2437.7	968.1	5.4	1.1	0.0	0.0	0.0
72.5°	4974.4	4904.8	3290.5	2161.4	857.2	3.3	1.1	0.0	0.0	0.0
75°	4122.7	4030.2	2728.2	1801.4	709.2	2.2	0.0	0.0	0.0	0.0
77.5°	2932.7	2943.5	1901.4	1313.0	483.0	2.2	0.0	0.0	0.0	0.0
80°	1283.6	1313.0	833.2	602.6	170.8	1.1	0.0	0.0	0.0	0.0
82.5°	244.8	225.2	108.8	85.9	21.8	0.0	0.0	0.0	0.0	0.0
85°	80.5	88.1	40.2	32.6	9.8	0.0	0.0	0.0	0.0	0.0
87.5°	28.3	35.9	12.0	9.8	2.2	0.0	0.0	0.0	0.0	0.0
90°	4.4	4.4	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: P579455
 CATALOG NUMBER: CTN-CA8-230-730-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)