

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: P579456

Luminaire Tested: **CTN-CA8-230-730-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)
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-EX90
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: 28415 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G4

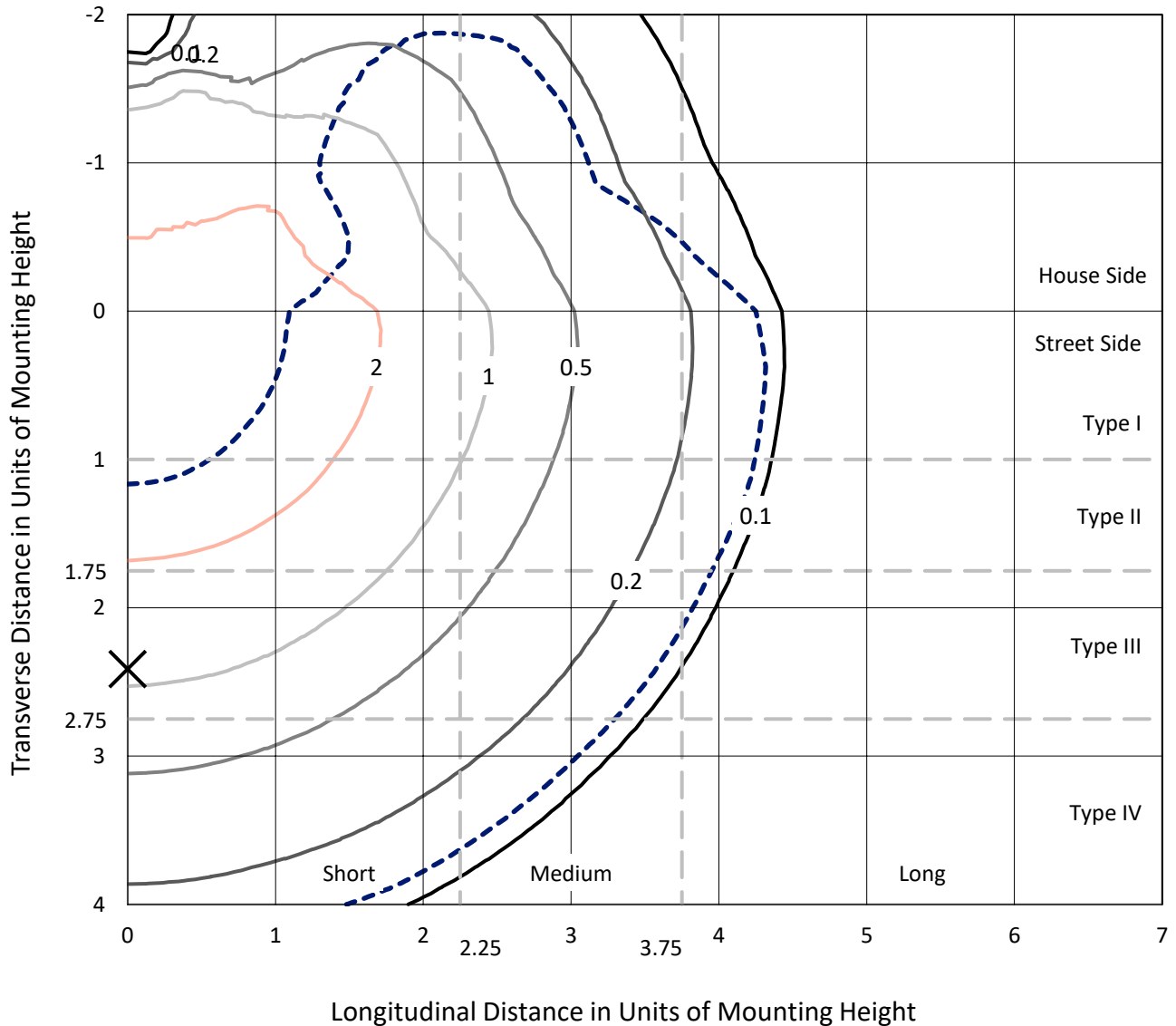
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

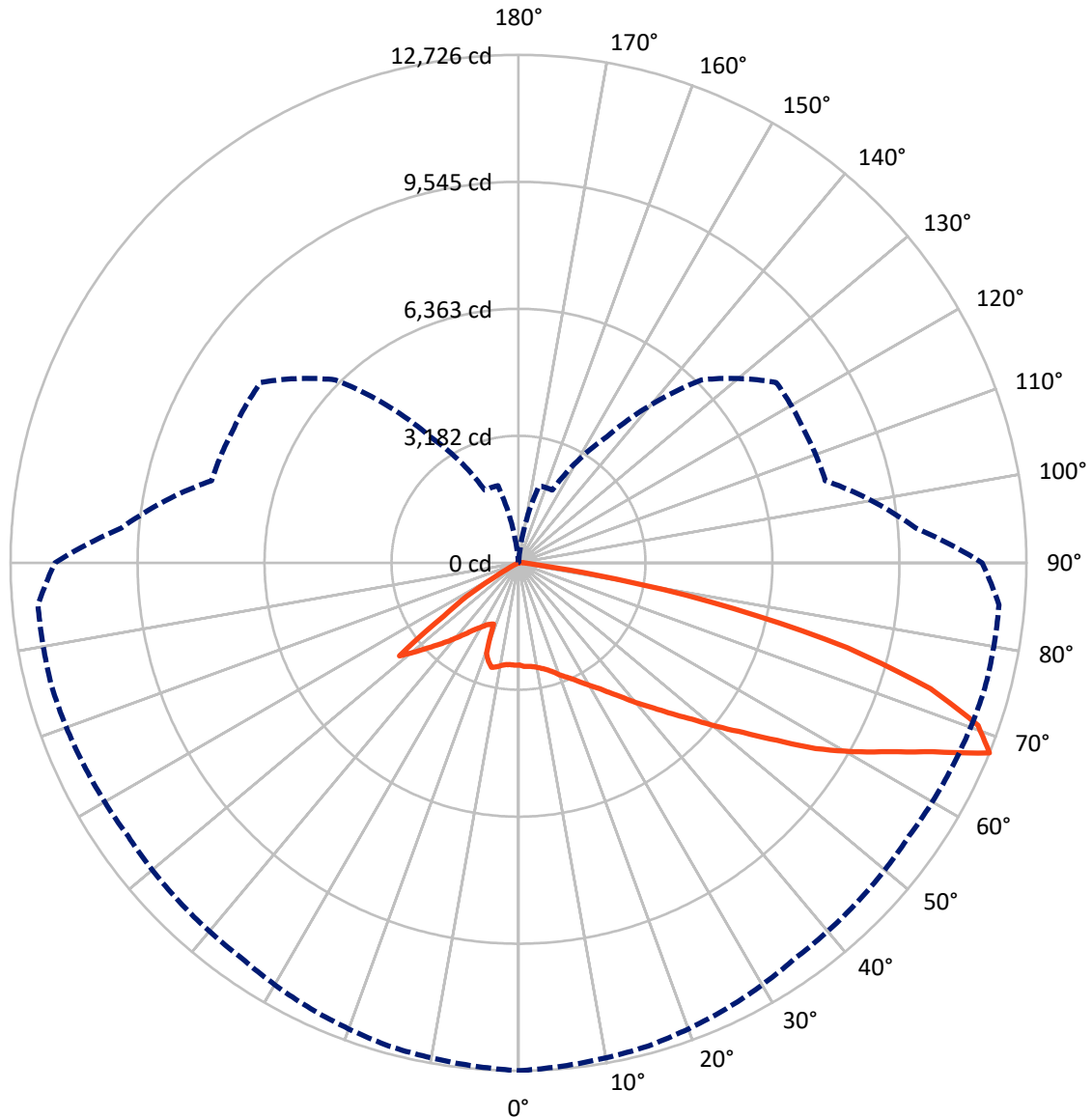
× Max cd
 - - - 1/2 Max cd



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

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CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX90

Luminous Intensity Polar Plot



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



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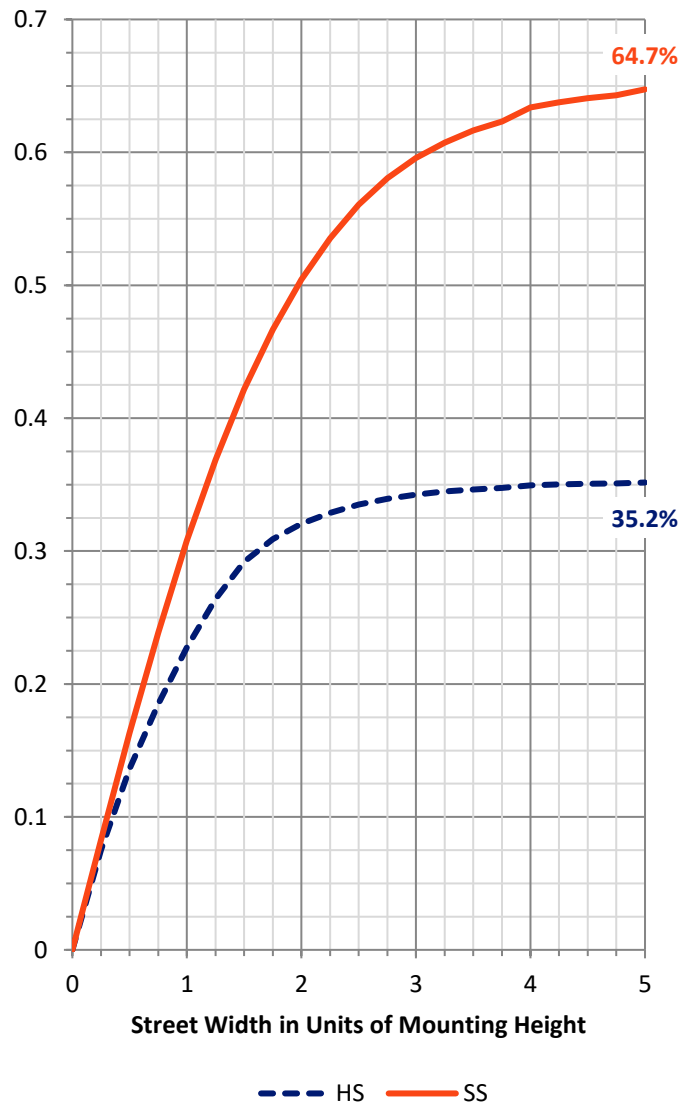
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10002.0	0.6	10002.6
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	18392.3	20.1	18412.4
	% Fixture	64.7	0.1	64.8
Total	Lumens	28394.4	20.6	28415.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.3	0.9
10°-20°	765.3	2.7
20°-30°	1326.8	4.7
30°-40°	2177.1	7.7
40°-50°	3631.4	12.8
50°-60°	5877.0	20.7
60°-70°	8112.2	28.5
70°-80°	5852.6	20.6
80°-90°	405.7	1.4
90°-100°	17.6	0.1
100°-110°	3.0	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°	28394.4	99.9
0°-180°	28415.0	100.0

Coefficient of Utilization

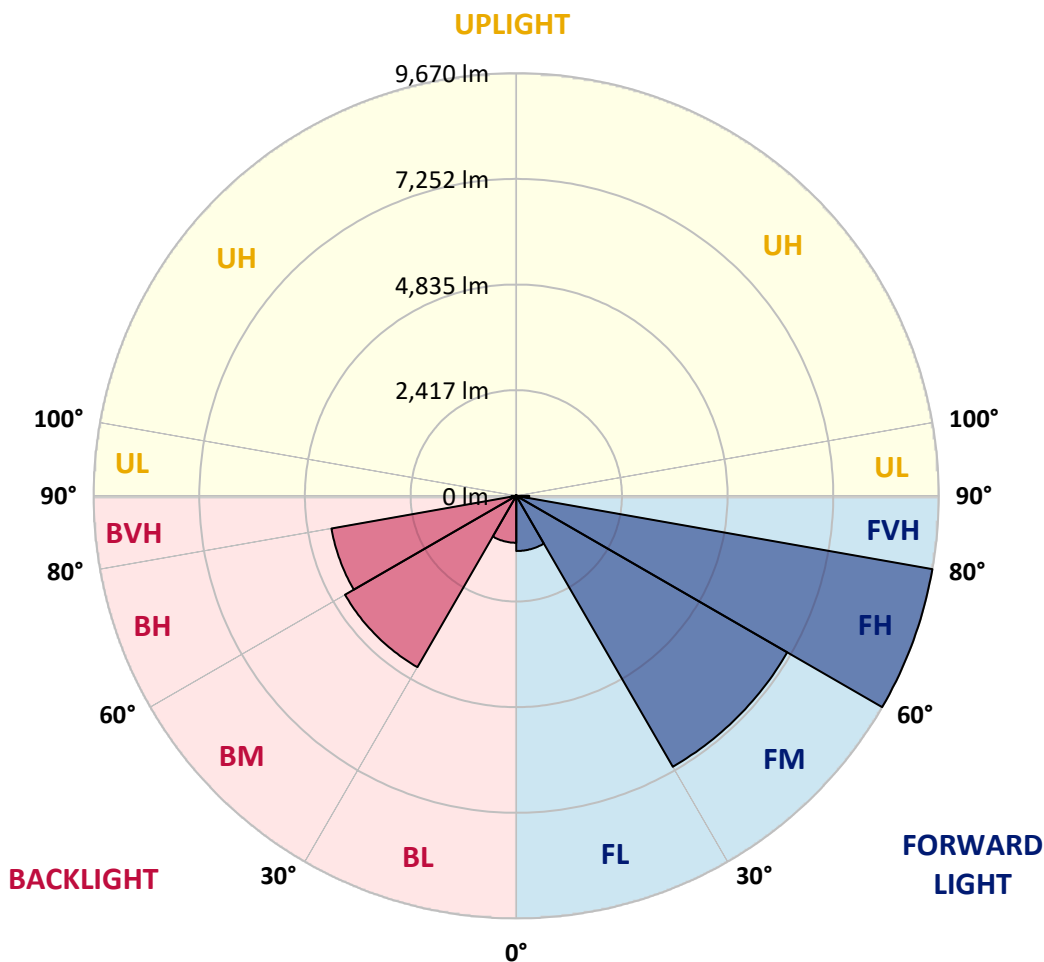


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 CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1263.6	4.4			
FM (30°-60°)	7159.9	25.2			
FH (60°-80°)	9670.0	34.0			G4/12000
FVH (80°-90°)	298.9	1.1			G3/500
BL (0°-30°)	1074.9	3.8	B3/2500		
BM (30°-60°)	4525.7	15.9	B3/5000		
BH (60°-80°)	4294.8	15.1	B4/5000		G4/5000
BVH (80°-90°)	106.8	0.4			G2/225
UL (90°-100°)	17.6	0.1		U2/50	
UH (100°-180°)	3.1	0.0		U1/10	

BUG Rating: B4-U2-G4
 Type IV Short





REPORT NUMBER: P579456

CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7
2.5°	2599.8	2584.6	2585.7	2600.9	2559.6	2574.8	2557.4	2572.7	2565.0	2570.5	2577.0
5°	2607.5	2589.0	2591.1	2609.6	2577.0	2589.0	2568.3	2577.0	2570.5	2577.0	2578.1
7.5°	2627.0	2608.6	2609.6	2623.8	2590.1	2598.8	2579.2	2583.5	2572.7	2584.6	2581.4
10°	2668.4	2651.0	2644.4	2656.4	2627.0	2628.1	2605.3	2609.6	2593.3	2609.6	2603.1
12.5°	2723.9	2699.9	2702.1	2708.6	2672.7	2674.9	2647.7	2654.2	2627.0	2649.9	2642.3
15°	2791.3	2761.9	2765.2	2776.1	2741.3	2738.0	2713.0	2713.0	2689.0	2706.5	2698.8
17.5°	2884.9	2852.2	2850.0	2857.7	2829.4	2829.4	2801.1	2797.8	2773.9	2788.0	2785.9
20°	3006.7	2969.7	2963.2	2977.3	2941.4	2945.8	2909.9	2906.6	2880.5	2889.2	2890.3
22.5°	3116.6	3087.2	3086.1	3107.9	3065.4	3070.9	3038.2	3029.5	3007.8	3019.7	3023.0
25°	3242.7	3238.4	3235.1	3242.7	3200.3	3200.3	3177.5	3169.9	3155.7	3164.4	3173.1
27.5°	3401.6	3399.4	3390.7	3391.8	3355.9	3361.3	3336.3	3331.9	3325.4	3324.3	3320.0
30°	3576.7	3566.9	3554.9	3562.6	3546.2	3551.7	3529.9	3515.8	3513.6	3514.7	3508.2
32.5°	3771.4	3758.4	3750.7	3763.8	3770.3	3785.6	3784.5	3745.3	3745.3	3761.6	3732.3
35°	4012.9	3992.2	3998.8	4016.2	4029.2	4068.4	4061.9	4034.7	4043.4	4051.0	4016.2
37.5°	4296.8	4282.7	4312.1	4344.7	4345.8	4401.3	4388.2	4394.7	4393.6	4383.8	4361.0
40°	4637.3	4614.5	4644.9	4669.9	4654.7	4721.1	4718.9	4748.3	4767.8	4801.6	4788.5
42.5°	4975.6	4958.2	4987.6	5042.0	5033.3	5109.4	5120.3	5166.0	5193.2	5245.4	5214.9
45°	5392.2	5382.4	5409.6	5452.1	5481.4	5582.6	5622.9	5642.4	5711.0	5774.1	5703.4
47.5°	5858.9	5872.0	5867.6	5944.8	6010.1	6133.0	6149.4	6212.4	6272.3	6341.9	6273.4
50°	6439.8	6418.0	6437.6	6511.6	6618.2	6707.4	6791.2	6881.4	6940.2	7012.0	6885.8
52.5°	7065.3	7083.8	7127.3	7241.5	7319.8	7425.3	7501.5	7609.2	7666.8	7728.8	7564.6
55°	7853.9	7869.2	7917.0	8034.5	8090.0	8209.6	8261.9	8369.6	8425.0	8452.2	8242.3
57.5°	8778.6	8727.4	8766.6	8827.5	8913.5	9042.9	9057.0	9158.2	9158.2	9193.0	8925.4
60°	9604.2	9569.4	9610.7	9697.8	9731.5	9849.0	9837.0	9919.7	9941.4	9915.3	9595.5
62.5°	10417.9	10424.4	10477.7	10506.0	10492.9	10562.6	10590.9	10677.9	10642.0	10650.7	10281.9
65°	11405.6	11420.8	11415.4	11363.2	11245.7	11382.8	11375.2	11513.3	11522.0	11600.3	11171.7
67.5°	12726.2	12658.8	12535.8	12325.9	12093.1	12012.6	11941.9	12010.4	12098.5	12084.4	11614.5
70°	12212.8	12102.9	12038.7	11856.0	11544.9	11383.9	11237.0	11249.0	11377.3	11389.3	10908.5
72.5°	10796.4	10741.0	10494.0	10334.1	10120.9	9996.9	9819.6	9859.8	10027.4	10055.7	9672.7
75°	8516.4	8465.3	8242.3	8190.1	8084.6	8145.5	8102.0	8118.3	8253.2	8129.2	7899.6
77.5°	5511.9	5523.9	5489.1	5607.6	5603.3	5606.5	5765.4	5781.7	5913.3	5837.2	5615.2
80°	2471.5	2507.4	2592.2	2764.1	2659.7	2716.2	2777.2	2758.7	2891.4	2591.1	2698.8
82.5°	500.4	517.8	488.4	510.2	476.5	493.9	518.9	480.8	476.5	441.6	410.1
85°	257.8	261.1	260.0	254.5	224.1	206.7	199.1	167.5	151.2	147.9	137.1
87.5°	167.5	169.7	164.3	163.2	143.6	131.6	117.5	99.0	82.7	57.7	47.9
90°	102.3	102.3	96.8	91.4	81.6	72.9	58.7	42.4	25.0	9.8	5.4
92.5°	68.5	68.5	66.4	63.1	56.6	49.0	38.1	25.0	12.0	4.4	2.2
95°	43.5	43.5	42.4	41.3	37.0	31.5	23.9	15.2	7.6	3.3	1.1
97.5°	28.3	28.3	28.3	27.2	25.0	21.8	16.3	9.8	5.4	2.2	1.1
100°	17.4	18.5	17.4	17.4	16.3	14.1	10.9	6.5	4.4	2.2	1.1
102.5°	9.8	9.8	10.9	10.9	9.8	8.7	6.5	5.4	3.3	2.2	1.1
105°	4.4	4.4	5.4	5.4	5.4	4.4	4.4	3.3	2.2	2.2	1.1
107.5°	1.1	1.1	1.1	2.2	3.3	3.3	3.3	3.3	2.2	1.1	1.1
110°	0.0	0.0	0.0	1.1	1.1	2.2	2.2	2.2	2.2	1.1	1.1



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 CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX90

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: P579456

CATALOG NUMBER: CTN-CA8-230-730-U-T5-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7	2560.7
2.5°	2570.5	2557.4	2567.2	2550.9	2546.5	2532.4	2559.6	2564.0	2561.8	2566.1
5°	2572.7	2556.3	2568.3	2552.0	2550.9	2535.7	2564.0	2565.0	2557.4	2560.7
7.5°	2579.2	2564.0	2572.7	2554.2	2556.3	2537.8	2570.5	2569.4	2565.0	2572.7
10°	2603.1	2585.7	2589.0	2569.4	2574.8	2555.2	2595.5	2597.7	2593.3	2607.5
12.5°	2644.4	2620.5	2628.1	2605.3	2609.6	2590.1	2639.0	2642.3	2642.3	2665.1
15°	2701.0	2676.0	2692.3	2662.9	2664.0	2634.7	2671.6	2671.6	2676.0	2707.5
17.5°	2783.7	2753.2	2775.0	2747.8	2578.1	2513.9	2640.1	2717.3	2589.0	2578.1
20°	2885.9	2871.8	2883.8	2839.2	2564.0	2270.2	2041.8	2029.8	2283.3	2409.5
22.5°	3011.0	2996.9	3002.3	2945.8	2288.7	2082.1	2078.8	2057.0	1740.5	1653.5
25°	3157.9	3150.3	3138.3	2664.0	2366.0	2168.0	2141.9	1858.0	1676.3	1692.6
27.5°	3315.6	3292.8	2889.2	2767.4	2484.5	2253.9	2106.0	1735.0	1728.5	1743.7
30°	3491.8	3371.1	2957.7	2916.4	2622.7	2360.5	1832.9	1811.2	1811.2	1835.1
32.5°	3715.9	3148.1	3148.1	3126.3	2793.5	2072.3	1929.8	1916.7	1931.9	1941.7
35°	3682.2	3386.3	3421.1	3411.4	3025.2	2110.3	2085.3	2063.6	2066.8	2066.8
37.5°	3693.1	3705.1	3746.4	3704.0	2639.0	2275.7	2235.4	2231.1	2234.3	2242.0
40°	4034.7	4041.2	4056.4	3962.9	2835.9	2468.2	2412.7	2401.9	2412.7	2429.1
42.5°	4402.3	4420.8	4438.2	3603.9	3111.1	2686.9	2631.4	2610.7	2630.3	2647.7
45°	4837.5	4865.7	4599.2	3922.6	3422.2	2936.0	2877.2	2852.2	2864.2	2879.4
47.5°	5327.0	5371.6	4337.1	4328.4	3787.7	3230.8	3163.3	3115.5	3134.0	3132.9
50°	5879.6	5133.3	4791.8	4786.3	4195.7	3559.3	3489.7	3446.2	3460.3	3449.4
52.5°	6476.8	5273.7	5284.5	5283.5	4622.1	3912.8	3848.6	3794.3	3682.2	3785.6
55°	7088.1	5758.8	5800.2	5793.6	5069.2	4278.3	4209.8	4158.7	2717.3	2295.3
57.5°	7696.2	6265.7	6278.8	6294.0	5532.6	4630.8	4329.5	3977.0	1550.1	1542.5
60°	8296.7	6748.7	6774.8	6783.5	5782.8	3833.4	1769.9	1802.5	468.8	560.2
62.5°	8918.9	7225.2	7249.1	7241.5	6031.9	3564.7	1859.1	1822.1	43.5	40.2
65°	9713.0	7822.4	7788.7	7763.7	6424.6	3804.0	1997.2	1987.4	14.1	9.8
67.5°	9991.5	7958.4	7889.8	7881.1	6481.1	3855.2	2008.1	2000.5	14.1	9.8
70°	9360.5	7441.7	7324.2	7327.4	6030.8	3606.1	1873.2	1862.3	13.1	9.8
72.5°	8197.7	6572.5	6523.6	6264.7	5222.5	3172.0	1661.1	1619.7	13.1	8.7
75°	6730.2	5309.6	5200.8	4910.3	4156.5	2521.5	1304.3	1251.0	12.0	7.6
77.5°	4672.1	3723.5	3515.8	3219.9	2780.4	1672.0	876.8	808.2	10.9	7.6
80°	2118.0	1528.4	1536.0	1177.0	943.1	566.7	278.5	252.4	9.8	6.5
82.5°	368.8	272.0	255.6	246.9	205.6	139.2	84.8	72.9	8.7	4.4
85°	128.4	103.3	114.2	134.9	119.7	83.8	52.2	50.0	5.4	2.2
87.5°	43.5	45.7	53.3	64.2	56.6	32.6	19.6	14.1	1.1	0.0
90°	4.4	5.4	5.4	5.4	3.3	0.0	0.0	0.0	0.0	0.0
92.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P579456
 CATALOG NUMBER: CTN-CA8-230-730-U-T5-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)