

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: P579384

Luminaire Tested: **CTN-CA10-310-722-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579384
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-CA10-310-722-U-T5-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31880 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G4

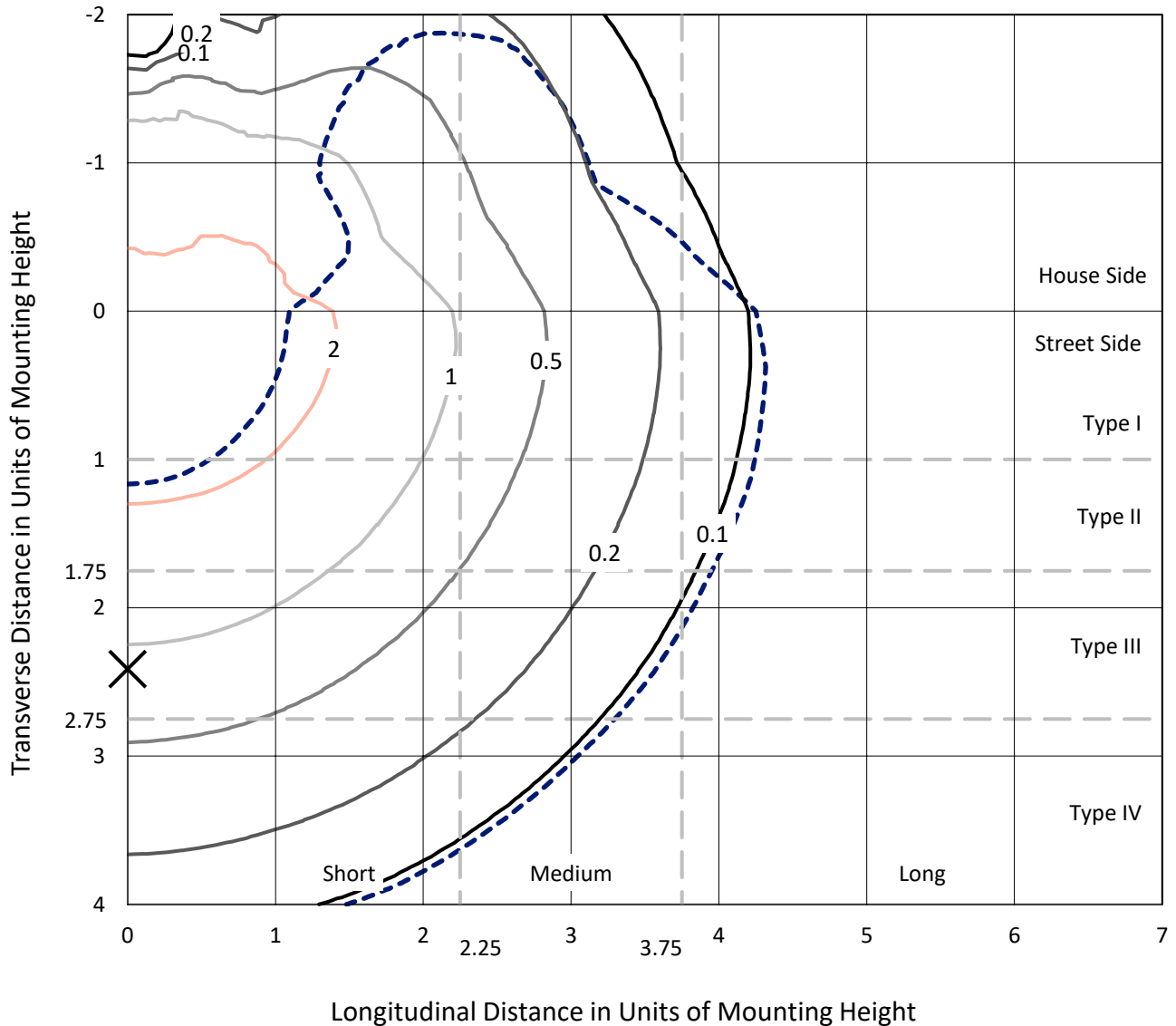
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

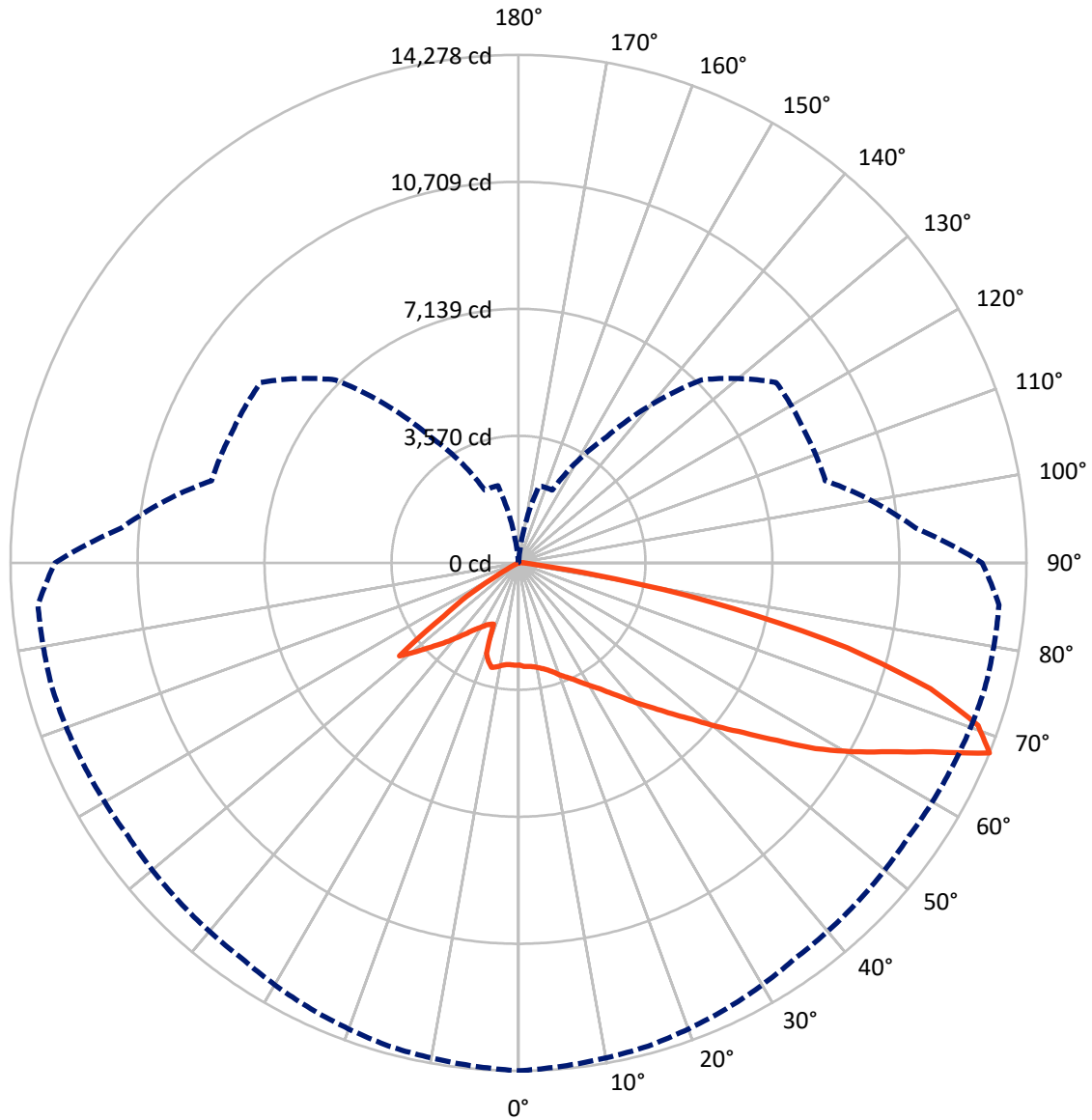
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.2 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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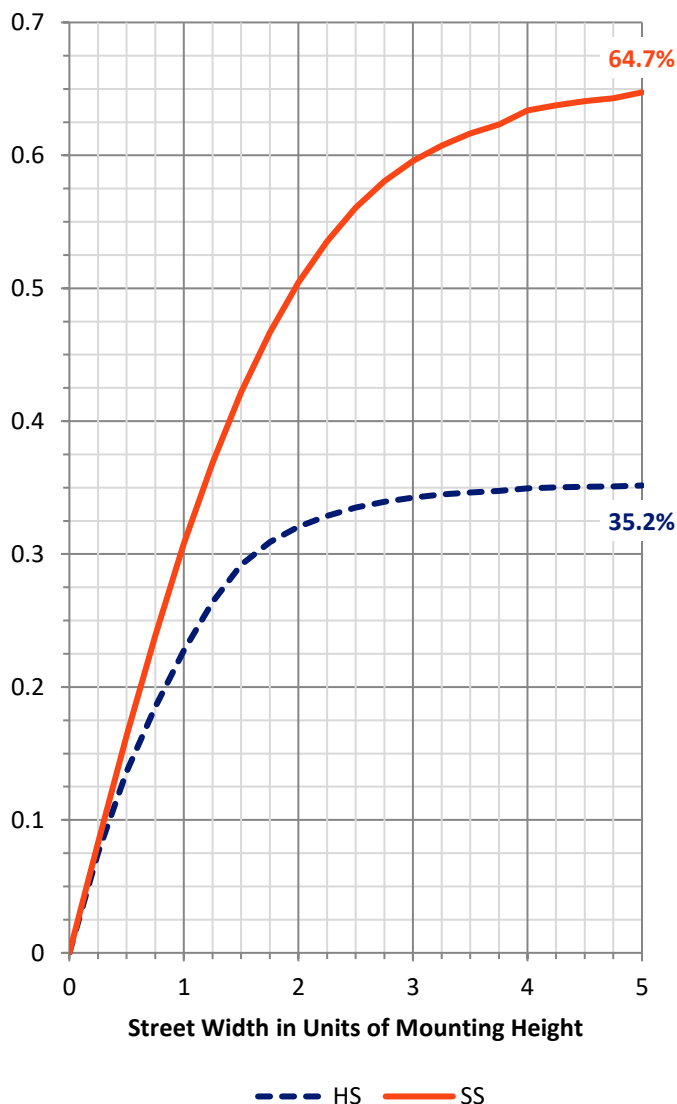
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11221.7	0.7	11222.4
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	20635.1	22.5	20657.6
	% Fixture	64.7	0.1	64.8
Total	Lumens	31856.9	23.1	31880.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.4	0.9
10°-20°	858.6	2.7
20°-30°	1488.6	4.7
30°-40°	2442.6	7.7
40°-50°	4074.3	12.8
50°-60°	6593.7	20.7
60°-70°	9101.4	28.5
70°-80°	6566.3	20.6
80°-90°	455.1	1.4
90°-100°	19.7	0.1
100°-110°	3.3	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°	31856.9	99.9
0°-180°	31880.0	100.0

Coefficient of Utilization

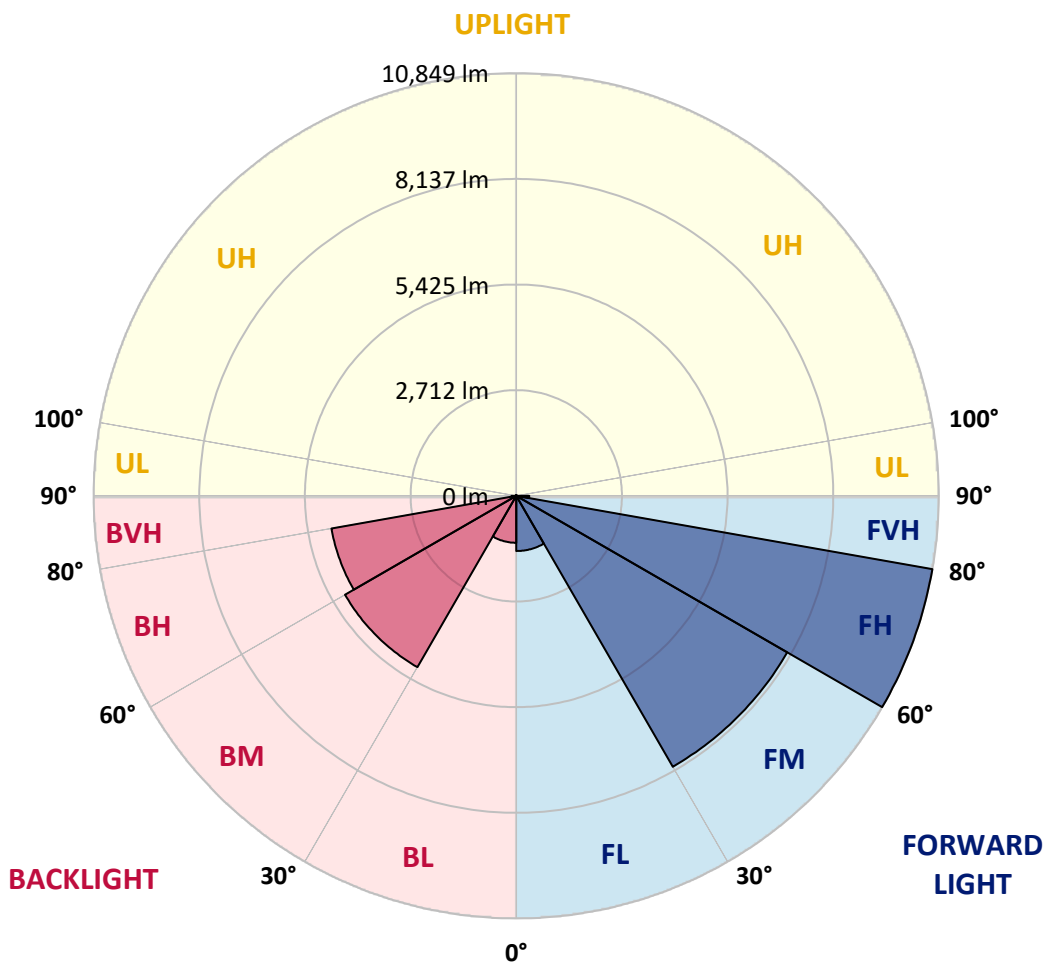


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 CATALOG NUMBER: CTN-CA10-310-722-U-T5-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1417.7	4.4			
FM	(30°-60°)	8033.0	25.2			
FH	(60°-80°)	10849.2	34.0			G4/12000
FVH	(80°-90°)	335.3	1.1			G3/500
BL	(0°-30°)	1205.9	3.8	B3/2500		
BM	(30°-60°)	5077.6	15.9	B4/8500		
BH	(60°-80°)	4818.5	15.1	B4/5000		G4/5000
BVH	(80°-90°)	119.8	0.4			G2/225
UL	(90°-100°)	19.7	0.1		U2/50	
UH	(100°-180°)	3.4	0.0		U1/10	

BUG Rating: B4-U2-G4
 Type IV Short





REPORT NUMBER: P579384

CATALOG NUMBER: CTN-CA10-310-722-U-T5-HSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9
2.5°	2916.9	2899.8	2901.0	2918.1	2871.7	2888.8	2869.3	2886.4	2877.8	2883.9	2891.3
5°	2925.4	2904.7	2907.1	2927.9	2891.3	2904.7	2881.5	2891.3	2883.9	2891.3	2892.5
7.5°	2947.4	2926.6	2927.9	2943.7	2905.9	2915.7	2893.7	2898.6	2886.4	2899.8	2896.1
10°	2993.8	2974.2	2966.9	2980.3	2947.4	2948.6	2923.0	2927.9	2909.6	2927.9	2920.5
12.5°	3056.0	3029.2	3031.6	3038.9	2998.7	3001.1	2970.6	2977.9	2947.4	2973.0	2964.5
15°	3131.7	3098.7	3102.4	3114.6	3075.5	3071.9	3043.8	3043.8	3017.0	3036.5	3027.9
17.5°	3236.6	3200.0	3197.6	3206.1	3174.4	3174.4	3142.7	3139.0	3112.2	3128.0	3125.6
20°	3373.3	3331.8	3324.5	3340.4	3300.1	3305.0	3264.7	3261.0	3231.8	3241.5	3242.7
22.5°	3496.6	3463.6	3462.4	3486.8	3439.2	3445.3	3408.7	3399.0	3374.6	3388.0	3391.6
25°	3638.2	3633.3	3629.6	3638.2	3590.6	3590.6	3564.9	3556.4	3540.5	3550.3	3560.1
27.5°	3816.4	3813.9	3804.2	3805.4	3765.1	3771.2	3743.1	3738.2	3730.9	3729.7	3724.8
30°	4012.8	4001.9	3988.4	3997.0	3978.7	3984.8	3960.4	3944.5	3942.1	3943.3	3936.0
32.5°	4231.3	4216.7	4208.1	4222.8	4230.1	4247.2	4246.0	4202.0	4202.0	4220.3	4187.4
35°	4502.2	4479.1	4486.4	4505.9	4520.6	4564.5	4557.2	4526.7	4536.4	4545.0	4505.9
37.5°	4820.8	4804.9	4837.9	4874.5	4875.7	4938.0	4923.3	4930.6	4929.4	4918.4	4892.8
40°	5202.8	5177.2	5211.3	5239.4	5222.3	5296.8	5294.3	5327.3	5349.2	5387.1	5372.4
42.5°	5582.4	5562.8	5595.8	5656.8	5647.0	5732.5	5744.7	5795.9	5826.4	5885.0	5850.9
45°	6049.8	6038.8	6069.3	6116.9	6149.9	6263.4	6308.5	6330.5	6407.4	6478.2	6398.8
47.5°	6573.4	6588.0	6583.1	6669.8	6743.0	6880.9	6899.2	6970.0	7037.1	7115.2	7038.4
50°	7225.1	7200.7	7222.6	7305.6	7425.2	7525.3	7619.3	7720.6	7786.5	7867.0	7725.5
52.5°	7926.8	7947.6	7996.4	8124.6	8212.4	8330.8	8416.2	8537.1	8601.8	8671.3	8487.0
55°	8811.7	8828.8	8882.5	9014.3	9076.5	9210.8	9269.3	9390.2	9452.4	9482.9	9247.4
57.5°	9849.1	9791.7	9835.6	9904.0	10000.4	10145.6	10161.5	10275.0	10275.0	10314.0	10013.8
60°	10775.4	10736.3	10782.7	10880.3	10918.2	11050.0	11036.6	11129.3	11153.7	11124.4	10765.6
62.5°	11688.3	11695.6	11755.4	11787.1	11772.5	11850.6	11882.3	11980.0	11939.7	11949.5	11535.7
65°	12796.4	12813.5	12807.4	12748.8	12617.0	12770.8	12762.3	12917.3	12927.0	13014.9	12534.0
67.5°	14278.1	14202.4	14064.5	13828.9	13567.8	13477.5	13398.1	13475.0	13573.9	13558.0	13030.8
70°	13702.0	13578.8	13506.7	13301.7	12952.7	12772.0	12607.3	12620.7	12764.7	12778.1	12238.7
72.5°	12113.0	12050.7	11773.7	11594.3	11355.1	11216.0	11017.0	11062.2	11250.1	11281.9	10852.3
75°	9554.9	9497.6	9247.4	9188.8	9070.4	9138.7	9089.9	9108.2	9259.6	9120.4	8862.9
77.5°	6184.0	6197.5	6158.4	6291.4	6286.6	6290.2	6468.4	6486.7	6634.4	6548.9	6300.0
80°	2772.9	2813.1	2908.3	3101.2	2984.0	3047.5	3115.8	3095.1	3244.0	2907.1	3027.9
82.5°	561.4	580.9	548.0	572.4	534.6	554.1	582.2	539.4	534.6	495.5	460.1
85°	289.2	292.9	291.7	285.6	251.4	231.9	223.3	187.9	169.6	166.0	153.8
87.5°	187.9	190.4	184.3	183.1	161.1	147.7	131.8	111.1	92.8	64.7	53.7
90°	114.7	114.7	108.6	102.5	91.5	81.8	65.9	47.6	28.1	11.0	6.1
92.5°	76.9	76.9	74.4	70.8	63.5	54.9	42.7	28.1	13.4	4.9	2.4
95°	48.8	48.8	47.6	46.4	41.5	35.4	26.8	17.1	8.5	3.7	1.2
97.5°	31.7	31.7	31.7	30.5	28.1	24.4	18.3	11.0	6.1	2.4	1.2
100°	19.5	20.7	19.5	19.5	18.3	15.9	12.2	7.3	4.9	2.4	1.2
102.5°	11.0	11.0	12.2	12.2	11.0	9.8	7.3	6.1	3.7	2.4	1.2
105°	4.9	4.9	6.1	6.1	6.1	4.9	4.9	3.7	2.4	2.4	1.2
107.5°	1.2	1.2	1.2	2.4	3.7	3.7	3.7	3.7	2.4	1.2	1.2
110°	0.0	0.0	0.0	1.2	1.2	2.4	2.4	2.4	2.4	1.2	1.2



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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



REPORT NUMBER: P579384

CATALOG NUMBER: CTN-CA10-310-722-U-T5-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9	2872.9
2.5°	2883.9	2869.3	2880.3	2862.0	2857.1	2841.2	2871.7	2876.6	2874.2	2879.0
5°	2886.4	2868.1	2881.5	2863.2	2862.0	2844.9	2876.6	2877.8	2869.3	2872.9
7.5°	2893.7	2876.6	2886.4	2865.6	2868.1	2847.3	2883.9	2882.7	2877.8	2886.4
10°	2920.5	2901.0	2904.7	2882.7	2888.8	2866.8	2912.0	2914.4	2909.6	2925.4
12.5°	2966.9	2940.1	2948.6	2923.0	2927.9	2905.9	2960.8	2964.5	2964.5	2990.1
15°	3030.4	3002.3	3020.6	2987.7	2988.9	2955.9	2997.4	2997.4	3002.3	3037.7
17.5°	3123.1	3089.0	3113.4	3082.9	2892.5	2820.5	2962.0	3048.7	2904.7	2892.5
20°	3237.9	3222.0	3235.4	3185.4	2876.6	2547.1	2290.8	2277.4	2561.7	2703.3
22.5°	3378.2	3362.3	3368.4	3305.0	2567.8	2335.9	2332.3	2307.9	1952.7	1855.1
25°	3543.0	3534.4	3521.0	2988.9	2654.5	2432.4	2403.1	2084.5	1880.7	1899.0
27.5°	3719.9	3694.3	3241.5	3104.8	2787.5	2528.8	2362.8	1946.6	1939.3	1956.4
30°	3917.7	3782.2	3318.4	3272.0	2942.5	2648.4	2056.5	2032.1	2032.1	2058.9
32.5°	4169.1	3532.0	3532.0	3507.6	3134.1	2325.0	2165.1	2150.4	2167.5	2178.5
35°	4131.2	3799.3	3838.3	3827.3	3394.1	2367.7	2339.6	2315.2	2318.9	2318.9
37.5°	4143.4	4156.9	4203.2	4155.6	2960.8	2553.2	2508.0	2503.1	2506.8	2515.4
40°	4526.7	4534.0	4551.1	4446.1	3181.7	2769.2	2707.0	2694.8	2707.0	2725.3
42.5°	4939.2	4959.9	4979.4	4043.4	3490.5	3014.5	2952.3	2929.1	2951.1	2970.6
45°	5427.4	5459.1	5160.1	4401.0	3839.5	3294.0	3228.1	3200.0	3213.5	3230.5
47.5°	5976.6	6026.6	4865.9	4856.2	4249.6	3624.7	3549.1	3495.4	3516.1	3514.9
50°	6596.5	5759.3	5376.1	5370.0	4707.3	3993.3	3915.2	3866.4	3882.3	3870.1
52.5°	7266.6	5916.8	5929.0	5927.7	5185.7	4390.0	4318.0	4256.9	4131.2	4247.2
55°	7952.5	6461.1	6507.5	6500.1	5687.3	4800.0	4723.2	4665.8	3048.7	2575.2
57.5°	8634.7	7029.8	7044.5	7061.5	6207.2	5195.5	4857.4	4462.0	1739.1	1730.6
60°	9308.4	7571.7	7601.0	7610.7	6487.9	4300.9	1985.7	2022.3	526.0	628.5
62.5°	10006.5	8106.2	8133.1	8124.6	6767.4	3999.4	2085.8	2044.3	48.8	45.2
65°	10897.4	8776.3	8738.4	8710.4	7208.0	4267.9	2240.8	2229.8	15.9	11.0
67.5°	11209.9	8928.8	8851.9	8842.2	7271.5	4325.3	2253.0	2244.4	15.9	11.0
70°	10502.0	8349.1	8217.3	8221.0	6766.2	4045.8	2101.6	2089.4	14.6	11.0
72.5°	9197.3	7374.0	7319.1	7028.6	5859.4	3558.8	1863.6	1817.3	14.6	9.8
75°	7550.9	5957.0	5835.0	5509.1	4663.3	2829.0	1463.3	1403.5	13.4	8.5
77.5°	5241.8	4177.6	3944.5	3612.5	3119.5	1875.8	983.7	906.8	12.2	8.5
80°	2376.2	1714.7	1723.3	1320.5	1058.1	635.9	312.4	283.1	11.0	7.3
82.5°	413.7	305.1	286.8	277.0	230.7	156.2	95.2	81.8	9.8	4.9
85°	144.0	115.9	128.1	151.3	134.2	94.0	58.6	56.1	6.1	2.4
87.5°	48.8	51.3	59.8	72.0	63.5	36.6	22.0	15.9	1.2	0.0
90°	4.9	6.1	6.1	6.1	3.7	0.0	0.0	0.0	0.0	0.0
92.5°	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P579384
 CATALOG NUMBER: CTN-CA10-310-722-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)