

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: STREETWORKS

Report Number: P256723

Luminaire Tested: **CST-8-4-D-U-T5R-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256723
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-8-4-D-U-T5R-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 4000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 120
DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33484 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U2 - G5

Input Watts (W): 325
Input Voltage (V): NR
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: 28.75 FT

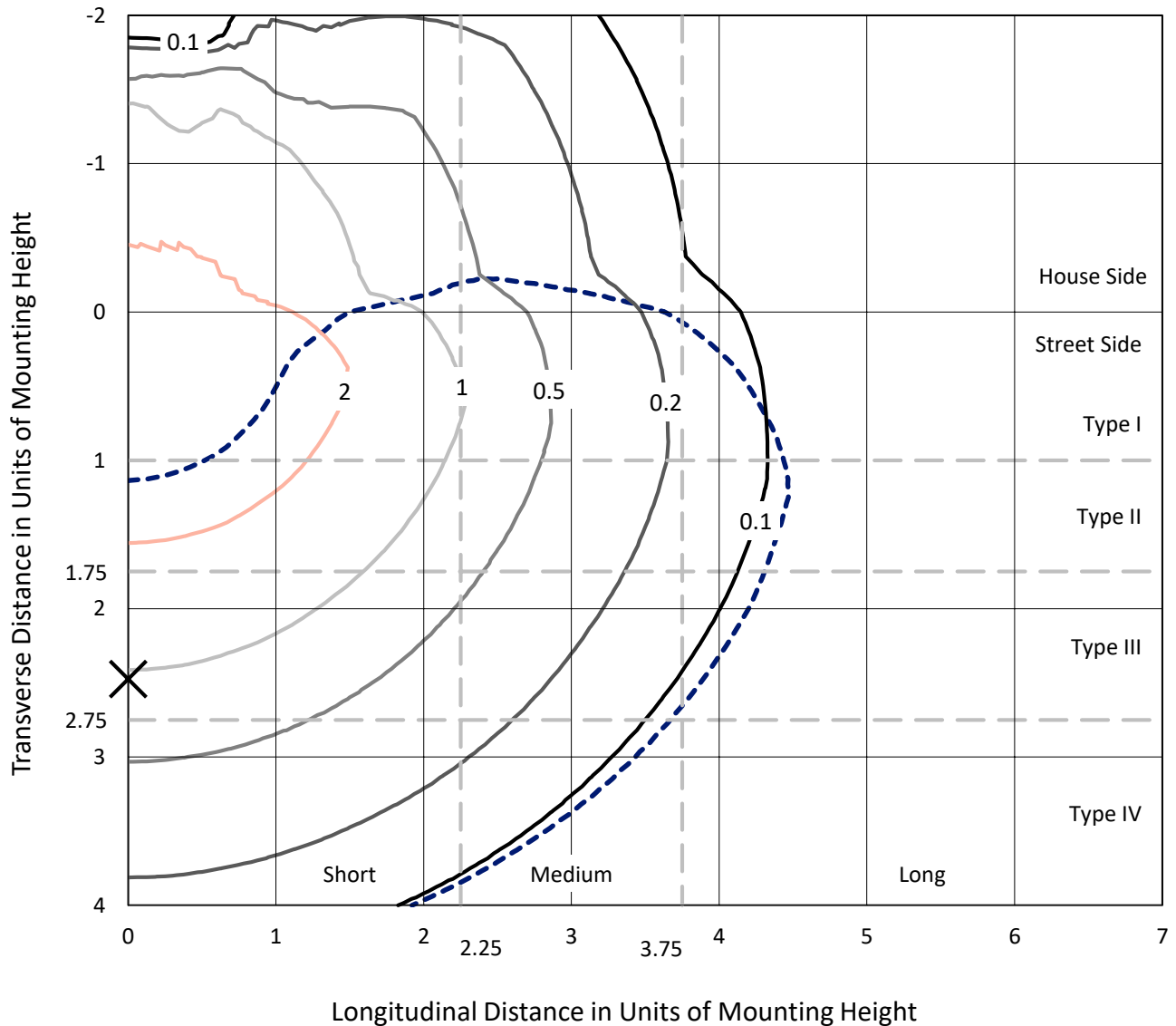


REPORT NUMBER: P256723

CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX120

Iso-Footcandle Lines of Horizontal Illumination

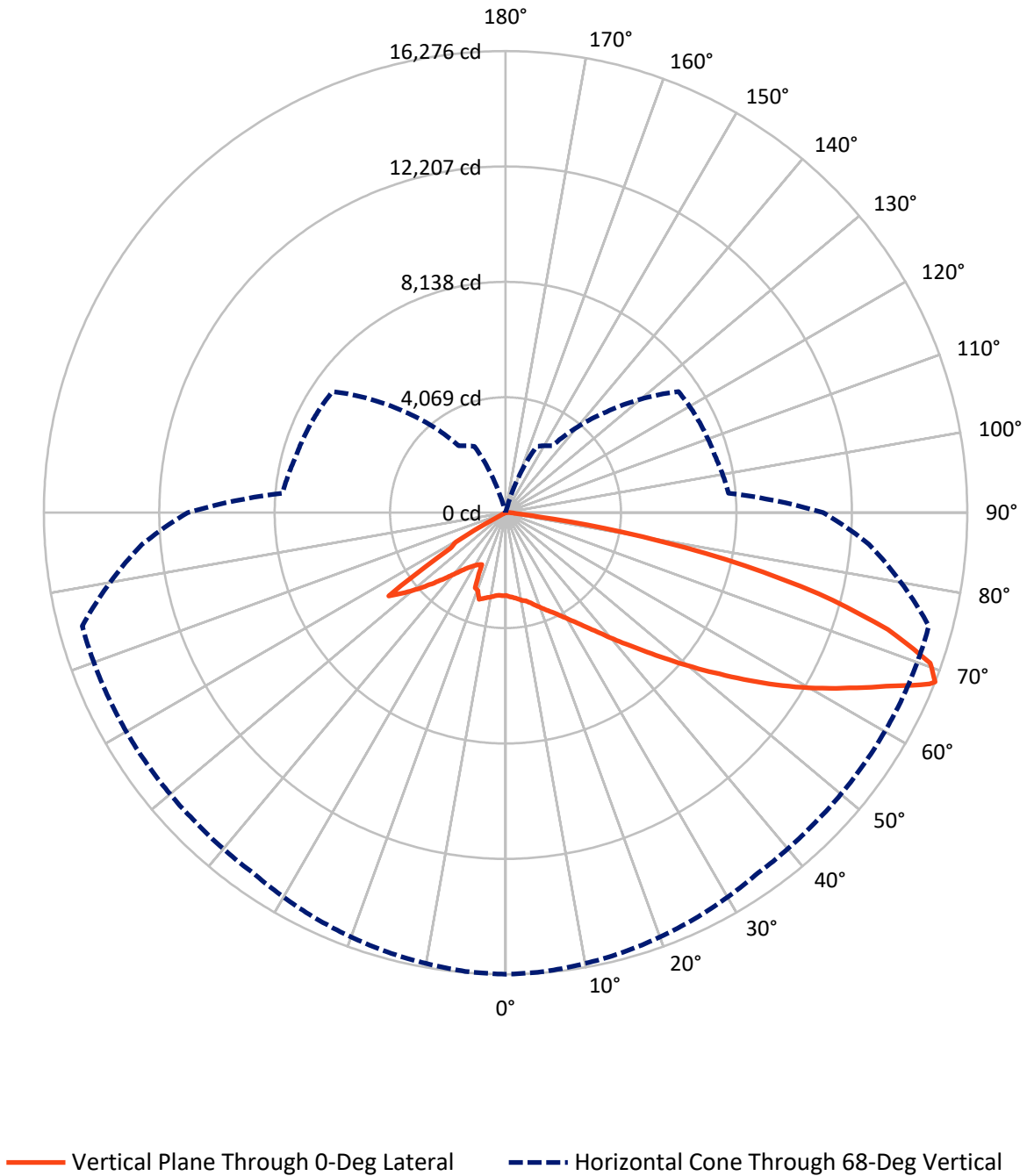
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256723
CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX120

Luminous Intensity Polar Plot





REPORT NUMBER: P256723

CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX120

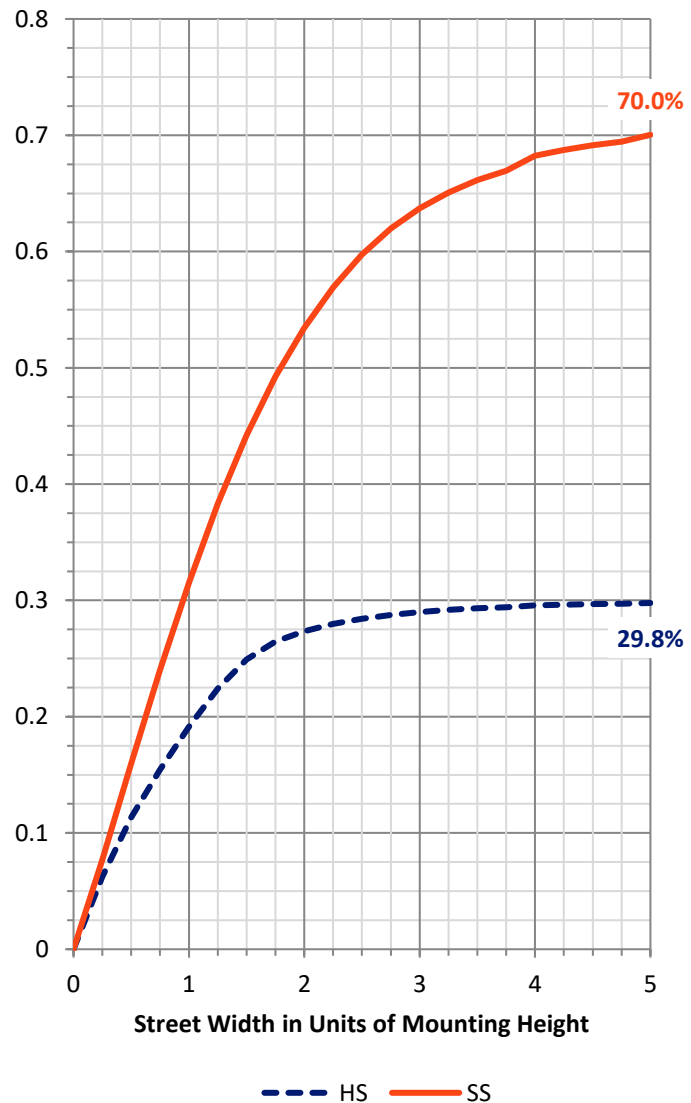
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9981.2	1.6	9982.8
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	23487.5	13.7	23501.3
	% Fixture	70.1	0.0	70.2
Total	Lumens	33468.7	15.3	33484.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.3	0.8
10°-20°	901.7	2.7
20°-30°	1544.6	4.6
30°-40°	2505.6	7.5
40°-50°	4225.6	12.6
50°-60°	6887.9	20.6
60°-70°	9237.8	27.6
70°-80°	7175.4	21.4
80°-90°	706.7	2.1
90°-100°	13.4	0.0
100°-110°	0.8	0.0
110°-120°	0.2	0.0
120°-130°	0.1	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	33468.7	100.0
0°-180°	33484.0	100.0



REPORT NUMBER: P256723

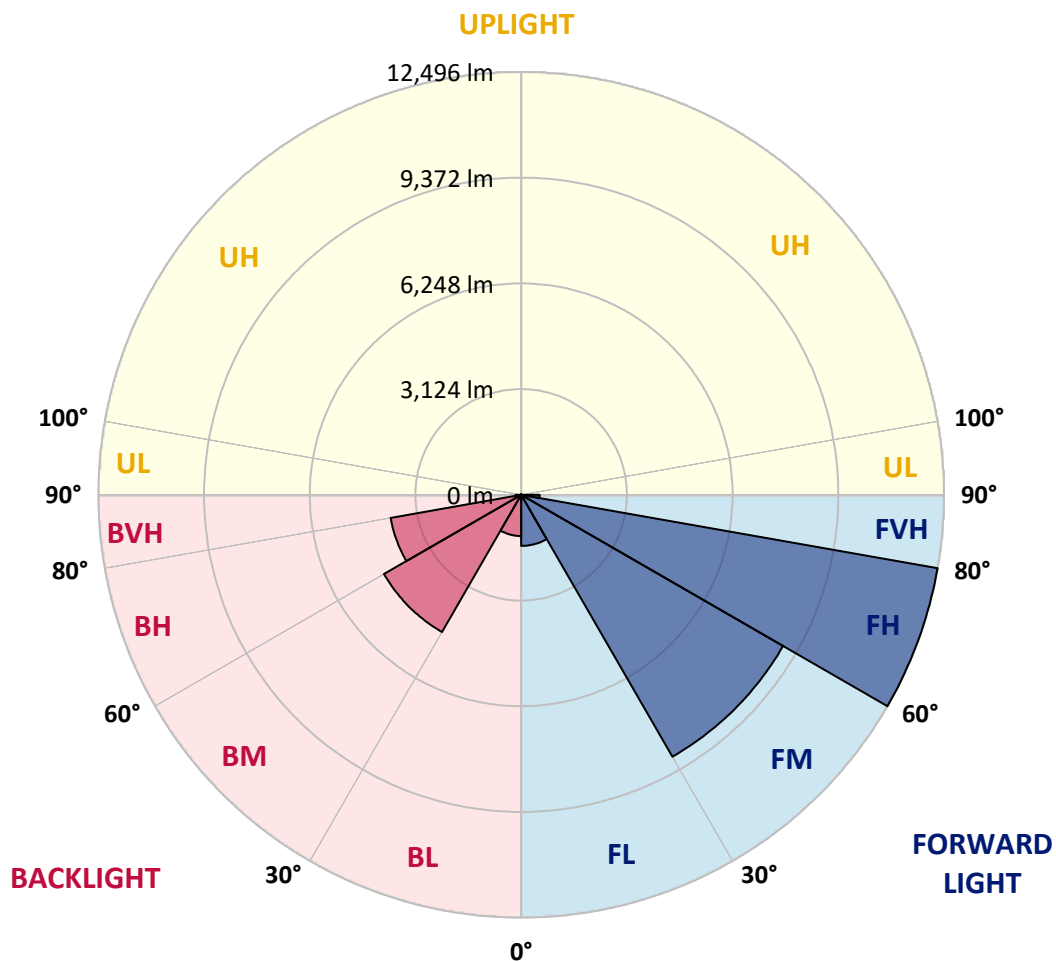
CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1510.3	4.5			
FM	(30°-60°)	8938.1	26.7			
FH	(60°-80°)	12495.8	37.3			G5
FVH	(80°-90°)	543.3	1.6			G4/750
BL	(0°-30°)	1219.3	3.6	B3/2500		
BM	(30°-60°)	4681.2	14.0	B3/5000		
BH	(60°-80°)	3917.4	11.7	B4/5000		G4/5000
BVH	(80°-90°)	163.3	0.5			G2/225
UL	(90°-100°)	13.4	0.0		U2/50	
UH	(100°-180°)	1.6	0.0		U1/10	

BUG Rating: B4-U2-G5

Type IV Short





REPORT NUMBER: P256723

CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX120

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2
2.5°	2967.7	2959.3	2958.0	2974.6	2922.0	2948.3	2924.7	2944.1	2931.6	2941.3	2942.7
5°	3007.8	2992.6	2982.9	3002.3	2969.0	2981.5	2955.2	2963.5	2928.9	2948.3	2951.0
7.5°	3066.0	3041.0	3038.3	3043.8	3014.7	3024.4	2981.5	2991.2	2966.3	2955.2	2964.9
10°	3144.9	3121.4	3103.4	3115.8	3077.1	3082.6	3036.9	3038.3	3020.3	2999.5	3016.1
12.5°	3189.2	3192.0	3183.7	3193.4	3161.5	3143.5	3111.7	3100.6	3082.6	3057.7	3049.4
15°	3300.0	3294.5	3277.9	3293.1	3288.9	3272.3	3233.5	3208.6	3169.8	3156.0	3142.1
17.5°	3435.7	3417.7	3403.9	3423.3	3444.0	3409.4	3372.0	3337.4	3286.2	3258.5	3241.8
20°	3578.4	3565.9	3552.0	3582.5	3589.4	3563.1	3535.4	3484.2	3424.6	3388.6	3354.0
22.5°	3737.6	3712.7	3716.8	3757.0	3744.5	3732.1	3696.1	3654.5	3582.5	3536.8	3437.1
25°	3902.4	3888.6	3907.9	3925.9	3916.3	3889.9	3871.9	3841.5	3761.2	3705.8	3560.4
27.5°	4107.4	4085.2	4110.1	4117.0	4108.7	4101.8	4076.9	4053.3	3966.1	3903.8	3722.4
30°	4348.3	4322.0	4362.2	4352.5	4344.2	4349.7	4334.5	4283.2	4205.7	4121.2	3939.8
32.5°	4635.0	4600.3	4646.0	4625.3	4605.9	4644.7	4608.7	4560.2	4468.8	4370.5	4193.2
35°	4967.3	4968.7	4992.3	4957.6	4950.7	4992.3	4968.7	4909.2	4824.7	4722.2	4470.2
37.5°	5370.3	5359.2	5418.8	5402.2	5377.2	5432.6	5439.5	5364.8	5212.4	5111.3	4813.6
40°	5860.5	5857.8	5877.1	5879.9	5873.0	5899.3	5911.8	5812.1	5713.7	5561.4	4542.2
42.5°	6384.0	6395.1	6429.7	6404.8	6438.0	6472.6	6476.8	6393.7	6252.4	5335.7	4824.7
45°	7012.7	7047.3	7070.9	7065.3	7080.5	7130.4	7134.6	7090.2	6951.8	5780.2	5337.1
47.5°	7734.2	7767.4	7774.3	7818.7	7804.8	7875.4	7865.7	7867.1	7718.9	6399.2	5895.1
50°	8563.7	8578.9	8635.7	8660.6	8626.0	8721.6	8696.6	8727.1	8544.3	7108.2	6494.8
52.5°	9444.4	9470.7	9494.3	9588.4	9544.1	9627.2	9594.0	9664.6	9452.7	7829.7	7160.9
55°	10445.6	10449.8	10490.0	10585.5	10527.3	10627.1	10578.6	10604.9	10436.0	8627.4	7854.7
57.5°	11506.4	11492.6	11507.8	11584.0	11531.3	11606.1	11586.7	11611.7	11453.8	9466.6	8361.5
60°	12556.1	12535.3	12557.5	12608.7	12536.7	12665.5	12596.3	12619.8	12449.5	10323.8	9084.4
62.5°	13611.3	13596.1	13571.2	13622.4	13517.2	13583.6	13612.7	13573.9	13424.4	11099.3	9713.1
65°	14744.1	14728.9	14637.5	14669.3	14481.0	14449.1	14460.2	14472.7	14373.0	11867.8	10402.7
67.5°	16120.6	16098.5	15926.7	15710.7	15439.3	15379.7	15385.3	15418.5	15432.4	12856.6	11210.1
68°	16275.7	16235.5	16044.4	15793.8	15509.9	15440.7	15433.7	15440.7	15447.6	12864.9	11201.8
70°	15879.7	15864.4	15719.0	15415.7	15124.9	14958.8	14814.7	14809.2	14742.7	12207.1	10582.7
72.5°	14091.9	14072.5	13899.4	13684.7	13504.7	13244.4	13057.4	13068.5	12959.1	10789.1	9263.0
75°	11403.9	11402.6	11194.8	11014.8	11017.6	10998.2	10935.9	11045.3	10931.7	9150.8	7900.4
77.5°	7947.4	7975.1	7961.3	7856.0	8004.2	8209.2	8432.1	8642.6	8577.5	7228.7	6299.5
80°	4151.7	4229.2	4503.4	4515.9	4619.7	4819.1	4971.5	5112.7	5122.4	4101.8	3639.3
82.5°	1103.7	1127.2	1220.0	1193.7	1185.4	1225.6	1258.8	1262.9	1265.7	1069.1	998.5
85°	343.4	353.1	342.0	326.8	303.3	277.0	270.0	220.2	174.5	144.0	126.0
87.5°	243.7	260.3	235.4	221.6	196.6	186.9	167.6	131.6	102.5	72.0	48.5
90°	126.0	128.8	114.9	98.3	91.4	85.9	73.4	52.6	26.3	13.8	12.5
92.5°	63.7	65.1	56.8	48.5	41.5	36.0	27.7	15.2	8.3	4.2	1.4
95°	24.9	26.3	23.5	20.8	16.6	12.5	11.1	8.3	5.5	2.8	1.4
97.5°	8.3	8.3	8.3	6.9	6.9	6.9	6.9	5.5	4.2	2.8	1.4
100°	0.0	0.0	0.0	1.4	2.8	4.2	4.2	4.2	2.8	1.4	1.4
102.5°	0.0	0.0	0.0	0.0	0.0	1.4	2.8	2.8	2.8	1.4	1.4
105°	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4



REPORT NUMBER: P256723

CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
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	1.4
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
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: P256723

CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2	2919.2
2.5°	2935.8	2927.5	2931.6	2897.0	2905.3	2883.2	2930.3	2917.8	2912.3	2931.6
5°	2942.7	2912.3	2937.2	2913.6	2917.8	2886.0	2924.7	2909.5	2908.1	2919.2
7.5°	2945.5	2930.3	2953.8	2915.0	2927.5	2915.0	2944.1	2928.9	2942.7	2952.4
10°	2984.3	2976.0	2973.2	2959.3	2969.0	2941.3	2977.3	2977.3	2984.3	3010.6
12.5°	3041.0	3030.0	3023.0	2998.1	3007.8	2999.5	3028.6	3034.1	3046.6	3057.7
15°	3118.6	3099.2	3092.3	3070.1	3077.1	3075.7	3096.4	3097.8	3125.5	3124.1
17.5°	3218.3	3190.6	3198.9	3182.3	3183.7	3172.6	3161.5	3161.5	3186.5	3192.0
20°	3337.4	3179.5	2971.8	2855.5	2834.7	2849.9	2909.5	3007.8	2884.6	2919.2
22.5°	3122.8	2980.1	2970.4	2944.1	2927.5	2556.4	2460.8	2430.3	2589.6	2863.8
25°	3150.4	3089.5	3071.5	3038.3	2548.1	2543.9	2516.2	2470.5	2019.1	2009.4
27.5°	3297.2	3237.7	3208.6	2661.6	2650.5	2649.1	2607.6	2149.2	2045.4	2059.2
30°	3469.0	3399.7	2879.0	2795.9	2786.2	2764.1	2525.9	2122.9	2121.5	2122.9
32.5°	3667.0	3437.1	2962.1	2958.0	2963.5	2895.6	2237.9	2229.5	2228.2	2242.0
35°	3938.4	3189.2	3169.8	3190.6	3161.5	2503.7	2372.2	2368.0	2369.4	2362.5
37.5°	3758.4	3438.5	3434.3	3434.3	3366.5	2561.9	2535.6	2555.0	2552.2	2542.5
40°	3834.5	3740.4	3715.5	3707.1	2845.8	2764.1	2748.9	2773.8	2777.9	2784.9
42.5°	4204.3	4118.4	4106.0	4007.6	3096.4	3070.1	3023.0	3049.4	3046.6	3054.9
45°	4658.5	4600.3	4546.3	3474.5	3434.3	3401.1	3352.6	3383.1	3391.4	3385.9
47.5°	5187.5	5123.8	4733.3	3820.7	3819.3	3793.0	3739.0	3763.9	3759.8	3759.8
50°	5719.3	5650.0	4299.8	4261.1	4247.2	4205.7	4161.4	4165.5	4166.9	4180.8
52.5°	6313.4	5046.3	4759.6	4682.1	4693.1	4665.4	4622.5	3499.4	4601.7	4614.2
55°	5900.7	5281.7	5265.1	5162.6	5188.9	5152.9	5125.2	3452.3	4576.8	5057.3
57.5°	5834.2	5789.9	5776.1	5670.8	5704.0	5362.0	5618.2	3777.8	3165.7	2312.6
60°	6342.4	6295.4	6287.1	6194.3	6191.5	4261.1	5107.2	2591.0	2024.6	2038.4
62.5°	6835.4	6759.3	6780.0	6670.6	4702.8	2596.5	2289.1	58.2	92.8	98.3
65°	7385.2	7257.8	7278.6	7177.5	4851.0	2737.8	2474.7	30.5	26.3	24.9
67.5°	7914.2	7691.3	7584.6	7478.0	5037.9	2883.2	2578.5	8.3	0.0	0.0
68°	7887.9	7652.5	7543.1	7442.0	5018.6	2879.0	2573.0	8.3	0.0	0.0
70°	7443.4	7231.5	7127.6	7050.1	4791.5	2780.7	2469.1	8.3	0.0	0.0
72.5°	6507.2	6389.5	6323.1	6255.2	4256.9	2487.1	2214.3	8.3	0.0	0.0
75°	5529.6	5496.3	5454.8	5305.2	3547.9	2035.7	1819.6	8.3	0.0	0.0
77.5°	4381.5	4380.2	4279.1	4103.2	2671.3	1494.2	1341.9	6.9	0.0	0.0
80°	2369.4	2582.7	2505.1	2415.1	1515.0	812.9	774.1	5.5	0.0	0.0
82.5°	666.1	630.1	605.2	566.4	318.5	177.3	173.1	5.5	0.0	0.0
85°	92.8	102.5	113.6	128.8	73.4	47.1	41.5	2.8	0.0	0.0
87.5°	52.6	59.5	73.4	76.2	27.7	22.2	6.9	0.0	0.0	0.0
90°	11.1	12.5	13.8	13.8	5.5	5.5	0.0	0.0	0.0	0.0
92.5°	0.0	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P256723

CATALOG NUMBER: CST-8-4-D-U-T5R-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.4	1.4	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)