

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: P256739

Luminaire Tested: **CST-8-4-D-U-T5R-7030-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256739
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
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-7030-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 180
DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27973 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U2 - G4

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

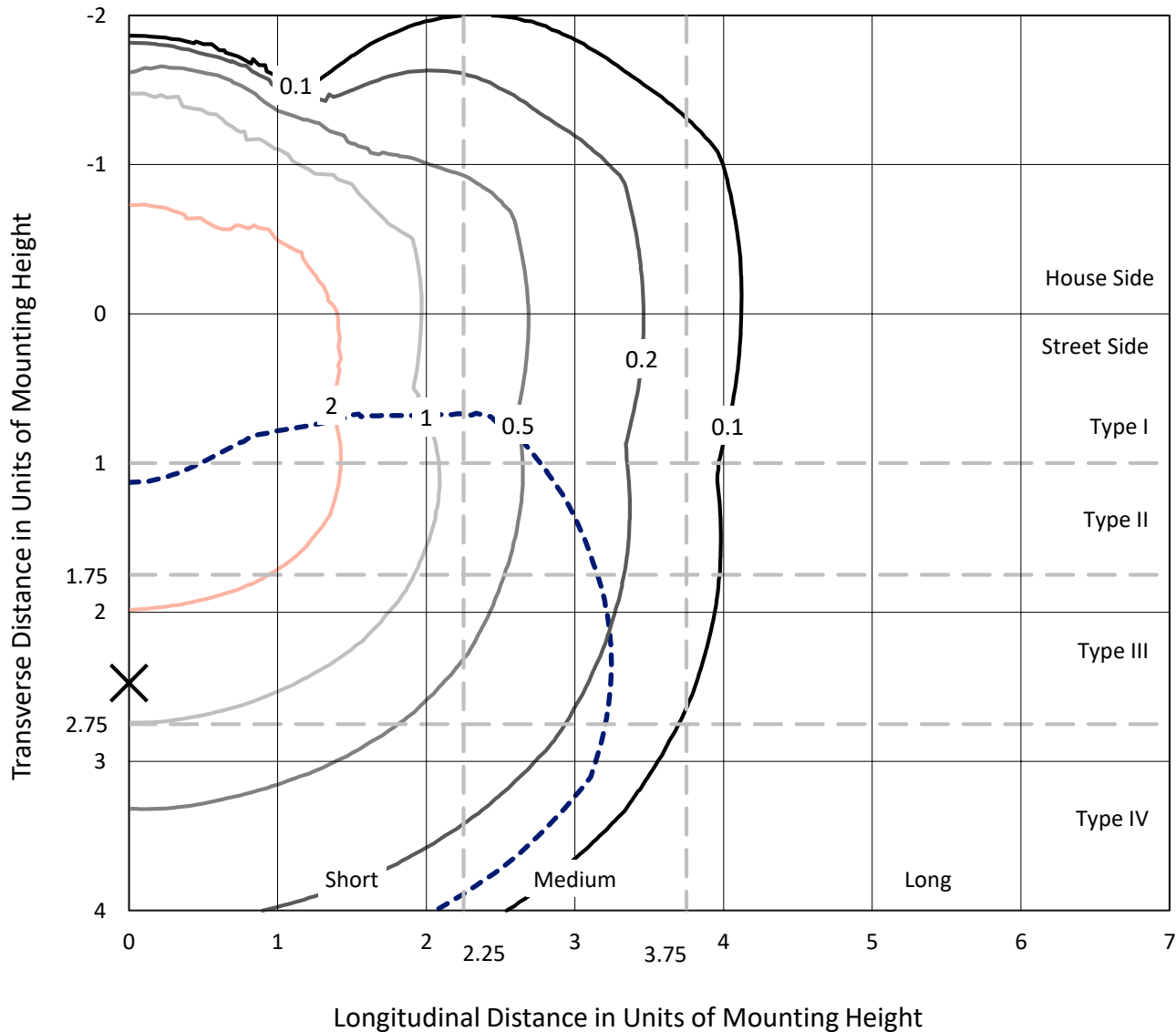


REPORT NUMBER: P256739

CATALOG NUMBER: CST-8-4-D-U-T5R-7030-HSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

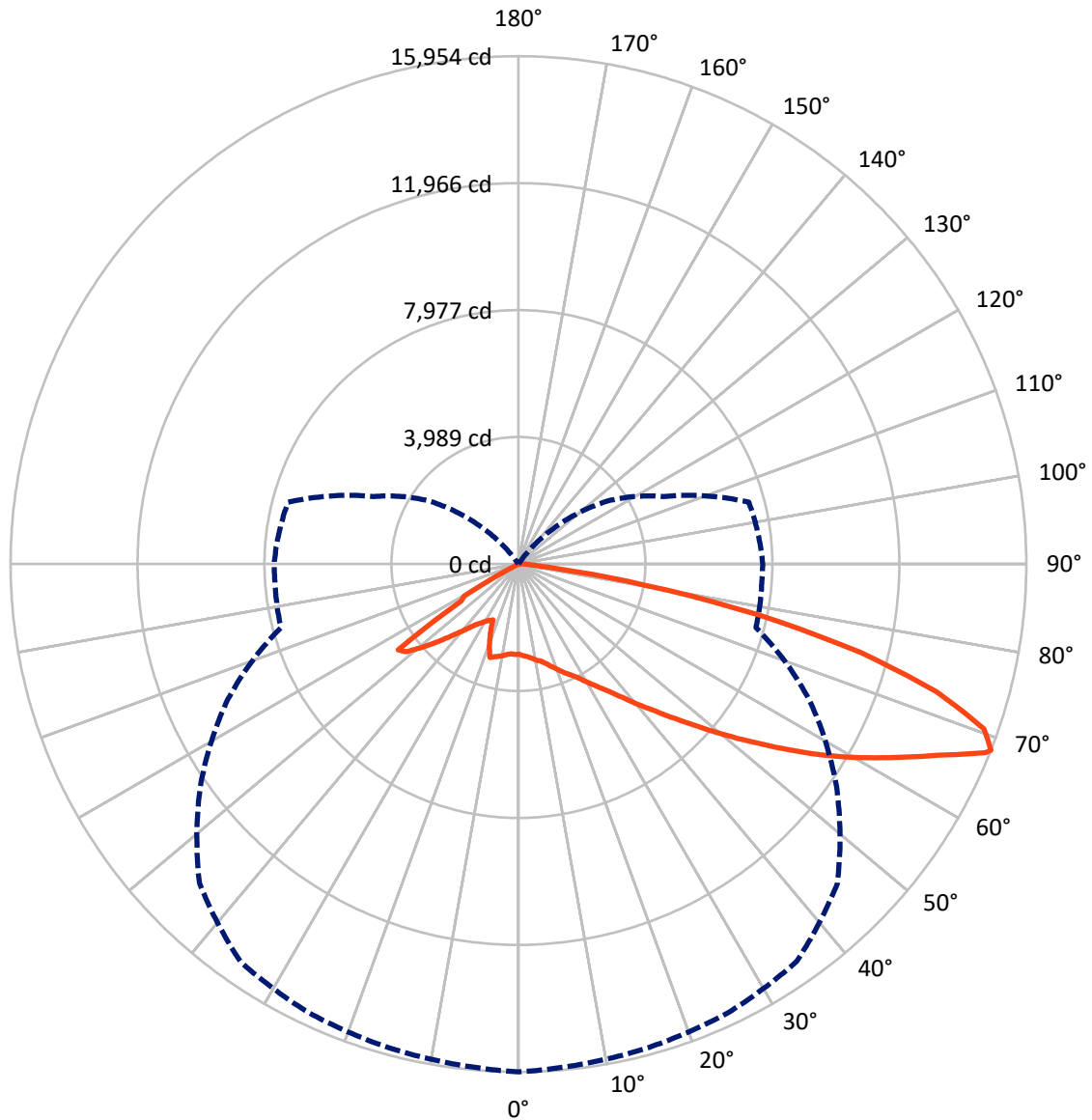


Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256739

CATALOG NUMBER: CST-8-4-D-U-T5R-7030-HSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P256739

CATALOG NUMBER: CST-8-4-D-U-T5R-7030-HSS-HM-EX180

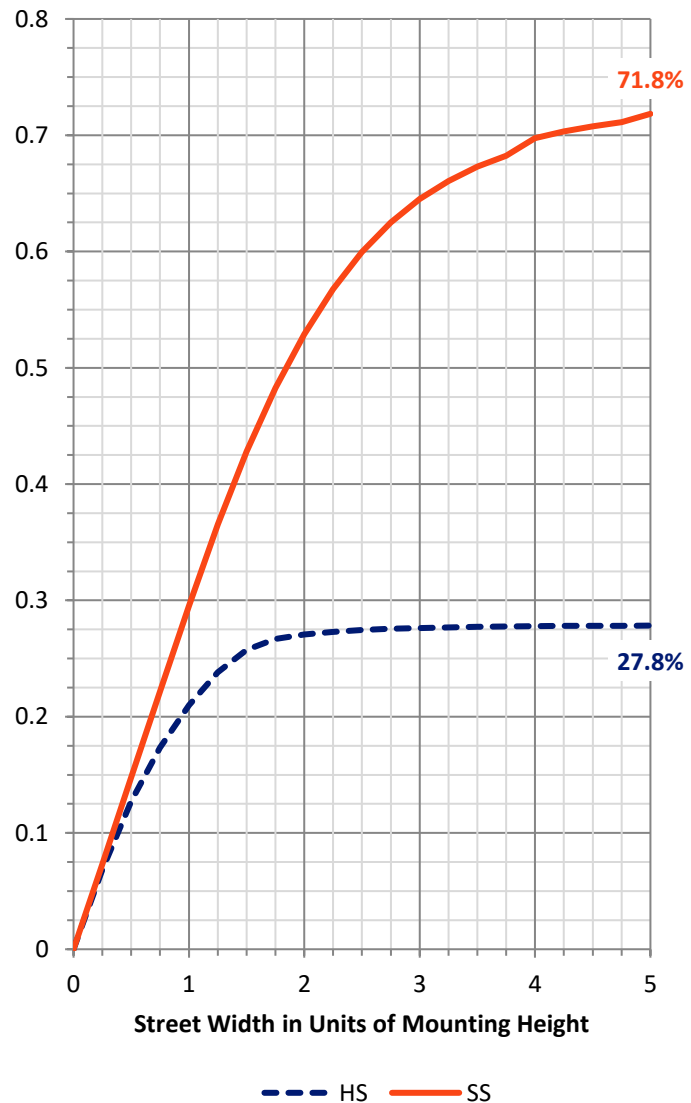
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7812.9	0.2	7813.1
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	20143.9	16.0	20159.9
	% Fixture	72.0	0.1	72.1
Total	Lumens	27956.8	16.2	27973.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.1	1.0
10°-20°	871.6	3.1
20°-30°	1475.5	5.3
30°-40°	2337.6	8.4
40°-50°	3821.8	13.7
50°-60°	5854.1	20.9
60°-70°	7198.0	25.7
70°-80°	5561.9	19.9
80°-90°	561.2	2.0
90°-100°	15.9	0.1
100°-110°	0.3	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°	27956.8	99.9
0°-180°	27973.0	100.0



REPORT NUMBER: P256739

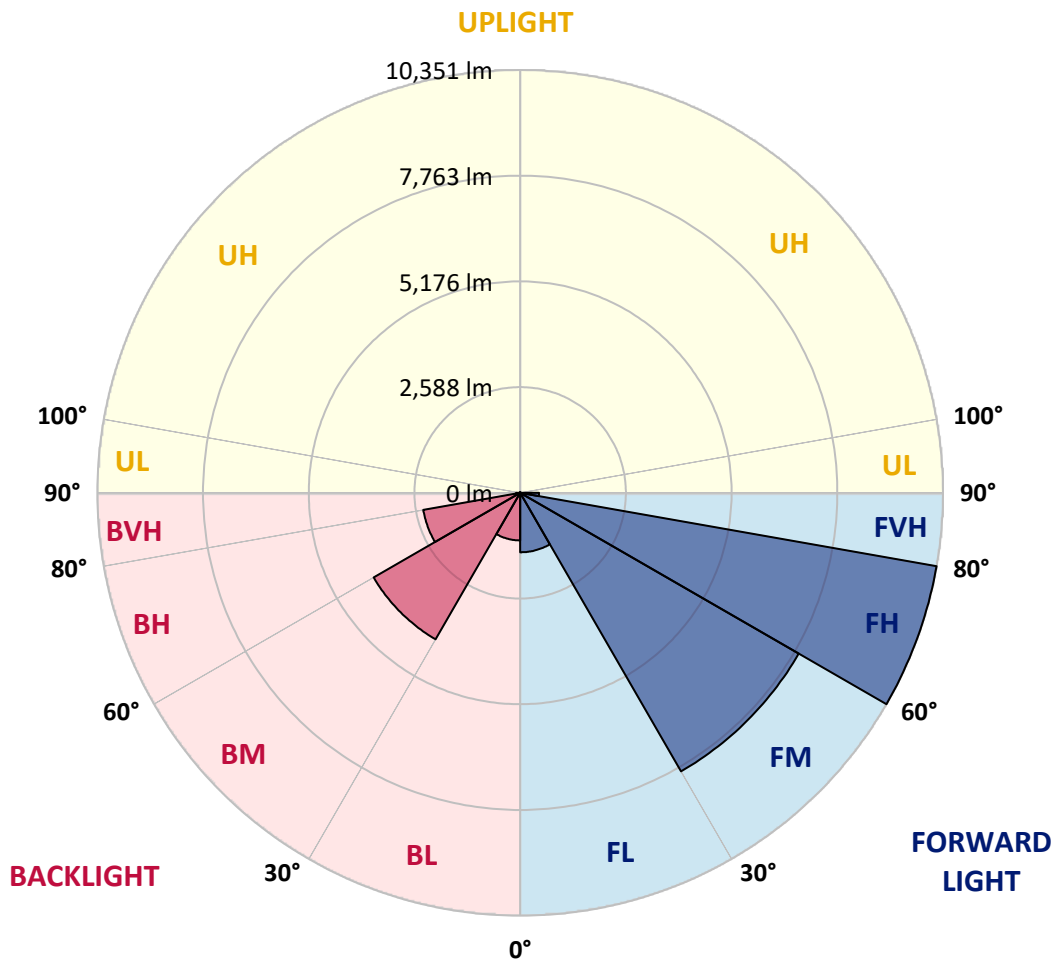
CATALOG NUMBER: CST-8-4-D-U-T5R-7030-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1456.0	5.2			
FM	(30°-60°)	7873.9	28.1			
FH	(60°-80°)	10351.2	37.0			G4/12000
FVH	(80°-90°)	462.8	1.7			G3/500
BL	(0°-30°)	1166.2	4.2	B3/2500		
BM	(30°-60°)	4139.6	14.8	B3/5000		
BH	(60°-80°)	2408.7	8.6	B3/2500		G3/2500
BVH	(80°-90°)	98.4	0.4			G1/100
UL	(90°-100°)	15.9	0.1		U2/50	
UH	(100°-180°)	0.2	0.0		U1/10	

BUG Rating: B3-U2-G4

Type IV Short





REPORT NUMBER: P256739

CATALOG NUMBER: CST-8-4-D-U-T5R-7030-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0
2.5°	2885.2	2879.8	2874.4	2886.5	2839.4	2859.6	2843.4	2858.2	2847.4	2859.6	2855.5
5°	2922.9	2917.5	2901.3	2914.8	2883.8	2891.9	2871.7	2877.1	2840.7	2862.3	2860.9
7.5°	2984.9	2970.1	2959.3	2959.3	2932.3	2931.0	2898.6	2900.0	2871.7	2869.0	2874.4
10°	3068.4	3057.7	3028.0	3030.7	2993.0	2987.6	2947.2	2945.8	2922.9	2909.4	2921.6
12.5°	3130.4	3141.2	3114.3	3114.3	3076.5	3049.6	3021.3	3002.4	2984.9	2964.7	2955.2
15°	3243.6	3254.4	3218.0	3216.7	3201.9	3169.5	3138.5	3098.1	3067.1	3057.7	3042.8
17.5°	3390.5	3383.8	3352.8	3354.1	3356.8	3304.3	3273.3	3220.7	3176.2	3143.9	3135.8
20°	3540.1	3540.1	3506.4	3517.2	3503.7	3455.2	3435.0	3362.2	3300.2	3265.2	3236.9
22.5°	3707.2	3700.5	3677.5	3700.5	3673.5	3625.0	3591.3	3518.5	3439.0	3240.9	3160.1
25°	3866.2	3862.2	3871.6	3878.3	3844.6	3784.0	3761.1	3684.3	3463.3	3203.2	3040.1
27.5°	4067.0	4053.5	4075.1	4088.6	4054.9	4002.3	3953.8	3867.6	3399.9	3195.1	3177.6
30°	4324.4	4294.7	4325.7	4332.5	4297.4	4265.1	4192.3	3761.1	3421.5	3362.2	3356.8
32.5°	4599.3	4564.3	4604.7	4610.1	4564.3	4537.3	4354.0	3705.8	3633.1	3564.4	3571.1
35°	4925.4	4925.4	4945.6	4948.3	4914.6	4868.8	4170.8	3975.4	3910.7	3847.3	3846.0
37.5°	5322.9	5310.8	5364.7	5397.1	5360.7	5230.0	4437.6	4345.9	4246.2	4165.4	3998.3
40°	5802.7	5824.2	5839.1	5871.4	5836.4	5542.6	4827.0	4723.3	4645.1	4374.2	3952.5
42.5°	6320.2	6325.5	6357.9	6398.3	6398.3	6088.4	5282.5	5193.6	5092.5	4277.2	4087.2
45°	6938.7	6926.6	6988.6	7053.2	7035.7	6715.0	5812.1	5746.1	5273.1	4558.9	4560.2
47.5°	7640.8	7626.0	7714.9	7799.8	7712.2	7410.3	6394.3	6343.1	5089.8	5035.9	5025.1
50°	8452.0	8415.6	8518.1	8631.3	8559.8	8186.6	7101.8	6118.0	5600.5	5557.4	5550.7
52.5°	9318.5	9290.2	9352.2	9544.9	9450.6	8999.1	7771.5	6312.1	6192.1	6143.6	6131.5
55°	10296.9	10241.6	10375.0	10521.9	10412.8	9898.0	8431.8	6956.2	6832.2	6748.7	6627.4
57.5°	11325.1	11245.6	11314.3	11498.9	11393.8	10818.4	9283.5	7619.2	7472.3	6184.0	5692.2
60°	12349.2	12312.8	12339.8	12502.9	12373.5	11713.2	10081.3	8283.6	6324.2	6116.7	6140.9
62.5°	13378.8	13299.3	13323.5	13490.6	13324.9	12564.8	10837.2	8887.3	6655.7	6582.9	6608.5
65°	14482.5	14388.1	14409.7	14458.2	14253.4	13328.9	11505.6	9457.3	7154.3	7077.5	7105.8
67.5°	15812.5	15726.3	15609.0	15464.8	15181.8	14140.2	12170.0	10057.0	7714.9	7671.8	7681.2
68°	15954.0	15870.5	15729.0	15557.8	15239.8	14173.9	12198.3	10074.5	7723.0	7669.1	7671.8
70°	15513.4	15563.2	15402.9	15115.8	14850.3	13680.6	11736.1	9686.4	7379.4	7299.8	7279.6
72.5°	13738.6	13847.7	13626.7	13578.2	13252.1	12187.5	10269.9	8404.9	6418.5	6444.1	6371.4
75°	11091.9	11252.3	10984.1	10999.0	10813.0	10166.2	8607.0	6998.0	5270.4	5387.6	5409.2
77.5°	7713.6	7944.0	7826.8	7944.0	7852.4	7619.2	6661.1	5389.0	4021.2	4155.9	4208.5
80°	4022.5	4296.1	4451.1	4499.6	4529.2	4519.8	4056.2	3234.2	2324.6	2374.4	2371.7
82.5°	1272.1	1206.1	1245.2	1234.4	1200.7	1214.2	1094.2	855.7	592.9	653.6	625.3
85°	384.1	386.8	376.0	373.3	345.0	303.2	248.0	142.8	70.1	82.2	76.8
87.5°	283.0	285.7	264.1	250.7	234.5	203.5	157.7	88.9	33.7	32.3	25.6
90°	156.3	150.9	140.1	129.4	122.6	105.1	79.5	33.7	12.1	9.4	8.1
92.5°	84.9	80.9	75.5	71.4	62.0	49.9	32.3	10.8	5.4	1.3	0.0
95°	39.1	36.4	35.0	31.0	27.0	18.9	10.8	6.7	4.0	1.3	0.0
97.5°	17.5	16.2	14.8	12.1	9.4	5.4	5.4	4.0	2.7	1.3	0.0
100°	4.0	4.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.3	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0



REPORT NUMBER: P256739

CATALOG NUMBER: CST-8-4-D-U-T5R-7030-HSS-HM-EX180

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	0.0	0.0	0.0
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: P256739

CATALOG NUMBER: CST-8-4-D-U-T5R-7030-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0	2834.0
2.5°	2851.5	2843.4	2839.4	2813.7	2821.8	2798.9	2843.4	2832.6	2825.9	2844.7
5°	2854.2	2825.9	2843.4	2828.6	2834.0	2801.6	2836.7	2821.8	2820.5	2828.6
7.5°	2860.9	2842.0	2859.6	2829.9	2843.4	2829.9	2855.5	2840.7	2852.8	2860.9
10°	2897.3	2886.5	2878.4	2871.7	2881.1	2854.2	2886.5	2887.9	2891.9	2916.2
12.5°	2948.5	2937.7	2924.3	2906.7	2916.2	2905.4	2929.6	2936.4	2951.2	2963.3
15°	3019.9	2999.7	2994.3	2978.2	2987.6	2982.2	2987.6	2983.5	3011.8	3007.8
17.5°	3118.3	3095.4	3018.6	2940.4	2890.6	2905.4	2967.4	3048.2	3068.4	3071.1
20°	3154.7	2993.0	2984.9	2896.0	2855.5	2852.8	2724.8	2533.5	2591.4	2727.5
22.5°	3111.6	2890.6	2867.7	2850.1	2677.6	2394.7	2367.7	2339.4	2332.7	2352.9
25°	3014.5	2988.9	2968.7	2739.6	2467.4	2468.8	2429.7	2243.7	1954.0	1929.7
27.5°	3162.8	3127.7	2932.3	2579.3	2573.9	2571.2	2513.2	2036.2	1974.2	1989.0
30°	3331.2	3273.3	2762.5	2716.7	2715.4	2691.1	2253.2	2053.7	2053.7	2056.4
32.5°	3525.3	3165.5	2859.6	2881.1	2879.8	2765.2	2176.3	2162.9	2157.5	2171.0
35°	3673.5	3079.2	3068.4	3107.5	3080.6	2346.1	2312.4	2300.3	2294.9	2288.2
37.5°	3627.7	3327.2	3327.2	3351.4	3134.5	2498.4	2482.2	2482.2	2471.5	2466.1
40°	3697.8	3635.8	3604.8	3614.2	2277.4	2683.0	2695.2	2692.5	2691.1	2700.6
42.5°	4067.0	4011.7	3983.4	3649.2	2549.6	2666.9	2963.3	2962.0	2966.0	2962.0
45°	4537.3	4486.1	4412.0	3414.8	2894.6	2338.1	3266.5	3281.4	3282.7	3281.4
47.5°	5030.5	4998.2	4239.5	3780.0	3269.2	2509.2	3122.3	3646.6	3639.8	3647.9
50°	5552.0	5406.5	4217.9	4212.5	3668.1	2792.2	2793.5	3965.9	4034.7	4056.2
52.5°	6132.8	4901.2	4674.8	4265.1	4072.4	3083.3	3053.6	3514.5	4452.4	4474.0
55°	5696.2	5177.4	5173.4	3796.1	4236.8	3363.6	3367.6	3335.3	4083.2	4641.1
57.5°	5667.9	5680.1	5670.6	4235.4	3091.4	3153.3	3669.5	3641.2	2644.0	2142.7
60°	6157.1	6174.6	5508.9	4573.7	3342.0	1939.2	2259.9	1920.3	1945.9	1966.1
62.5°	6624.7	6630.1	4480.7	2998.4	1656.2	78.2	37.7	31.0	29.6	29.6
65°	7142.2	7142.2	4802.8	3270.6	1599.6	29.6	5.4	4.0	14.8	14.8
67.5°	7642.1	7531.6	5038.6	3472.7	1627.9	4.0	0.0	0.0	0.0	0.0
68°	7613.8	7492.6	5017.0	3467.3	1623.8	2.7	0.0	0.0	0.0	0.0
70°	7190.7	7073.5	4759.7	3309.7	1563.2	2.7	0.0	0.0	0.0	0.0
72.5°	6347.1	6239.3	4215.2	2917.5	1409.6	1.3	0.0	0.0	0.0	0.0
75°	5372.8	5358.0	3641.2	2462.0	1208.8	1.3	0.0	0.0	0.0	0.0
77.5°	4323.0	4255.7	2846.1	1929.7	974.3	0.0	0.0	0.0	0.0	0.0
80°	2408.1	2507.8	1665.6	1134.7	613.1	0.0	0.0	0.0	0.0	0.0
82.5°	650.9	609.1	363.8	246.6	117.2	0.0	0.0	0.0	0.0	0.0
85°	83.6	91.6	41.8	33.7	8.1	0.0	0.0	0.0	0.0	0.0
87.5°	43.1	51.2	13.5	10.8	2.7	0.0	0.0	0.0	0.0	0.0
90°	8.1	9.4	4.0	1.3	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



REPORT NUMBER: P256739

CATALOG NUMBER: CST-8-4-D-U-T5R-7030-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)