

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: P256730

Luminaire Tested: **CST-10-3-D-U-T5R-7050-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256730
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-10-3-D-U-T5R-7050-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K 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: 24775.9 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U1 - G4

Input Watts (W): 212
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

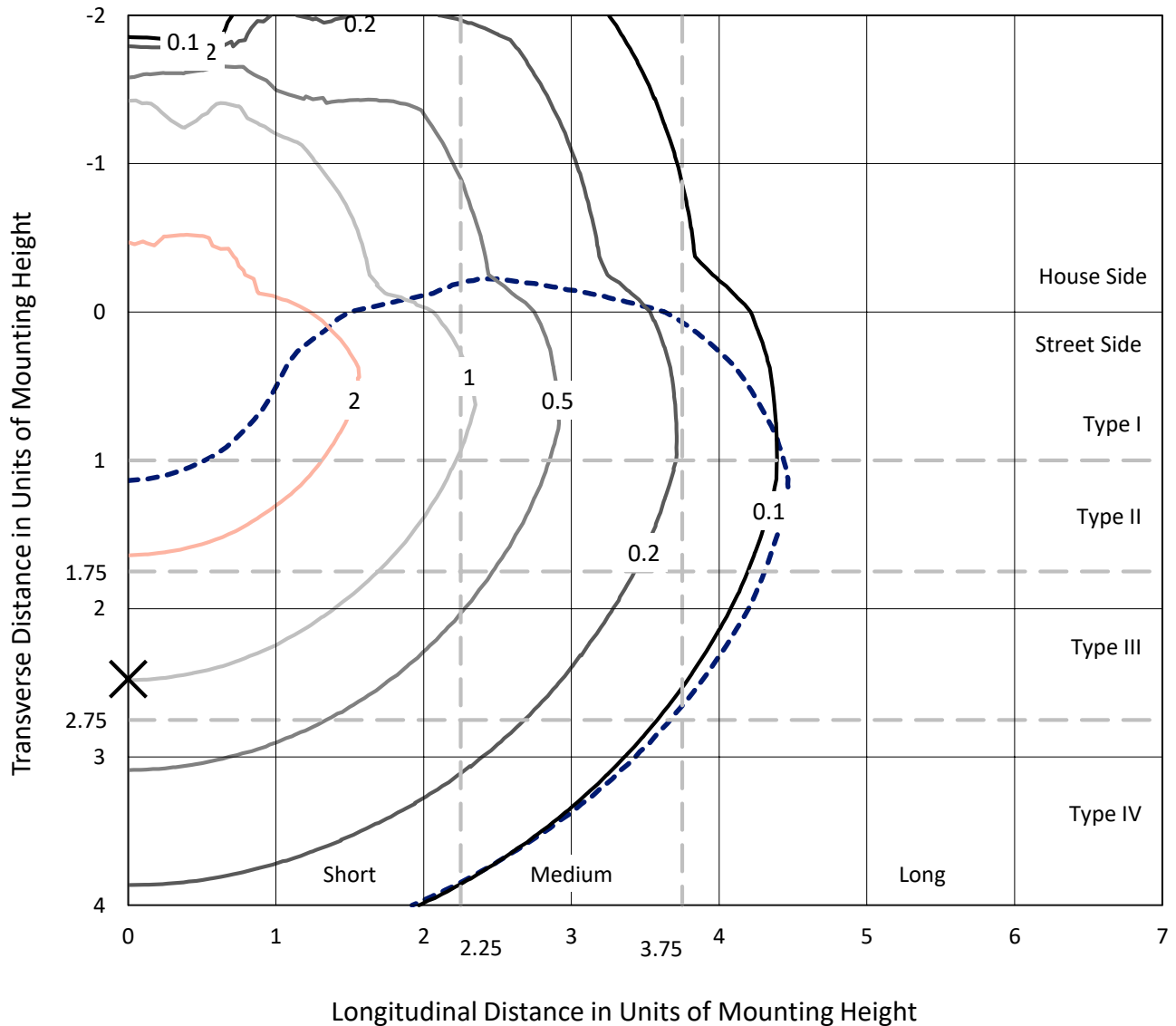


REPORT NUMBER: P256730

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX120

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

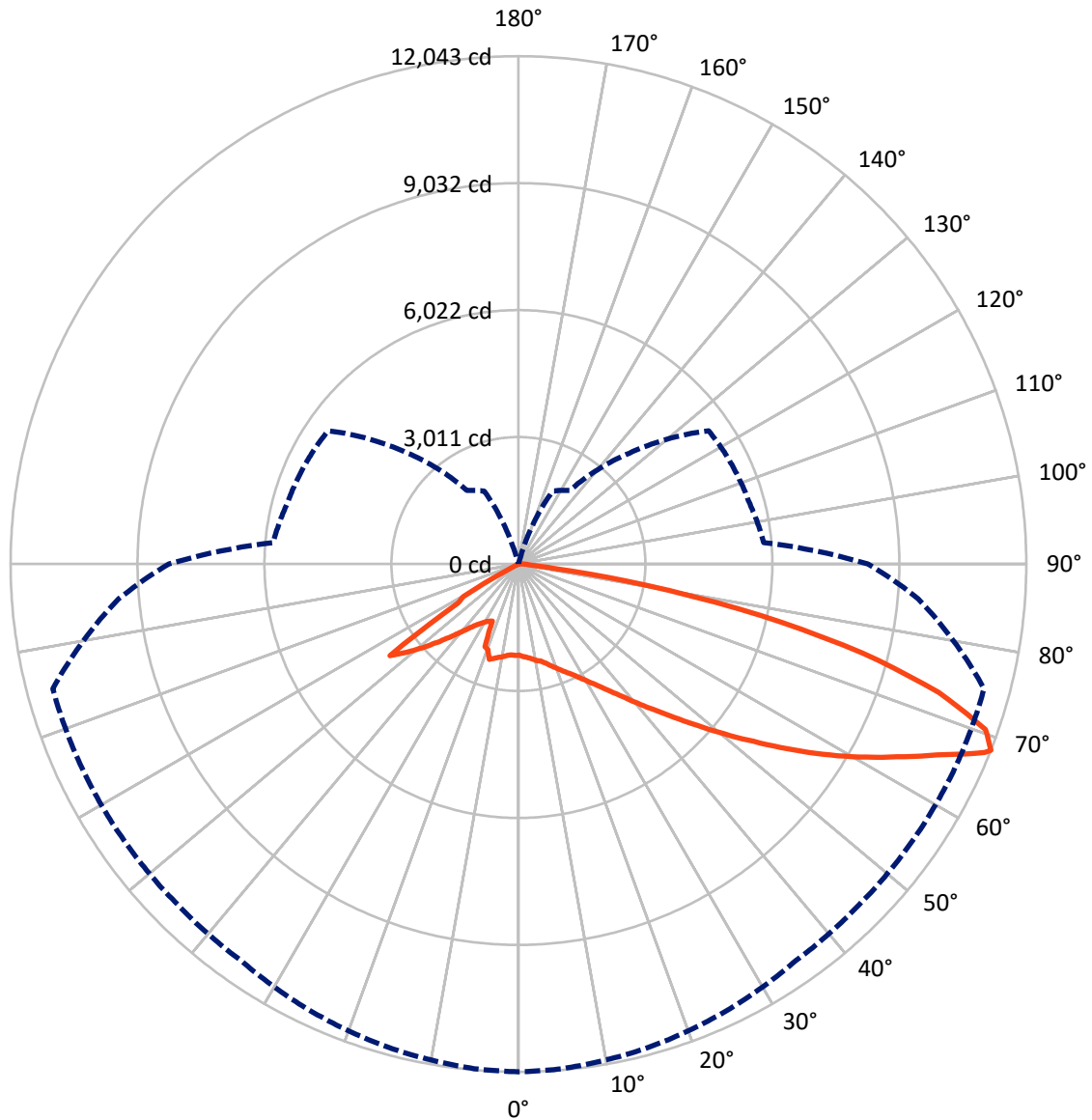


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256730

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX120

Luminous Intensity Polar Plot



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



REPORT NUMBER: P256730

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX120

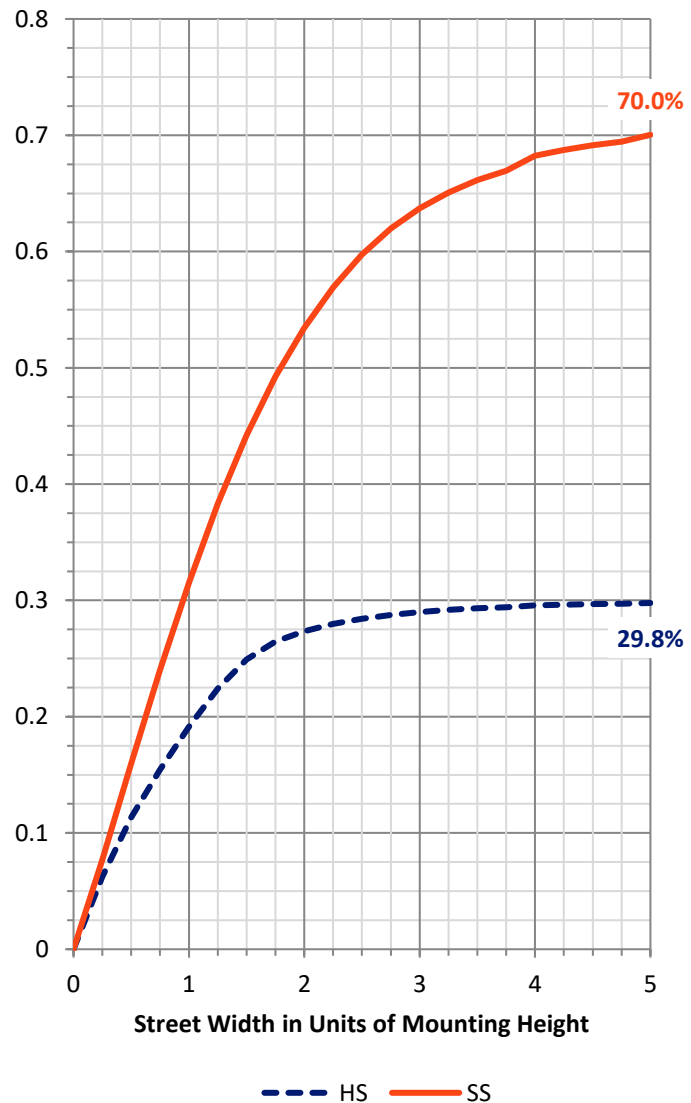
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7385.4	1.1	7386.6
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	17379.3	10.1	17389.4
	% Fixture	70.1	0.0	70.2
Total	Lumens	24764.7	11.2	24775.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.6	0.8
10°-20°	667.2	2.7
20°-30°	1142.9	4.6
30°-40°	1854.0	7.5
40°-50°	3126.7	12.6
50°-60°	5096.6	20.6
60°-70°	6835.4	27.6
70°-80°	5309.3	21.4
80°-90°	522.9	2.1
90°-100°	9.9	0.0
100°-110°	0.6	0.0
110°-120°	0.1	0.0
120°-130°	0.1	0.0
130°-140°	0.1	0.0
140°-150°	0.1	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	24764.7	100.0
0°-180°	24775.9	100.0



REPORT NUMBER: P256730

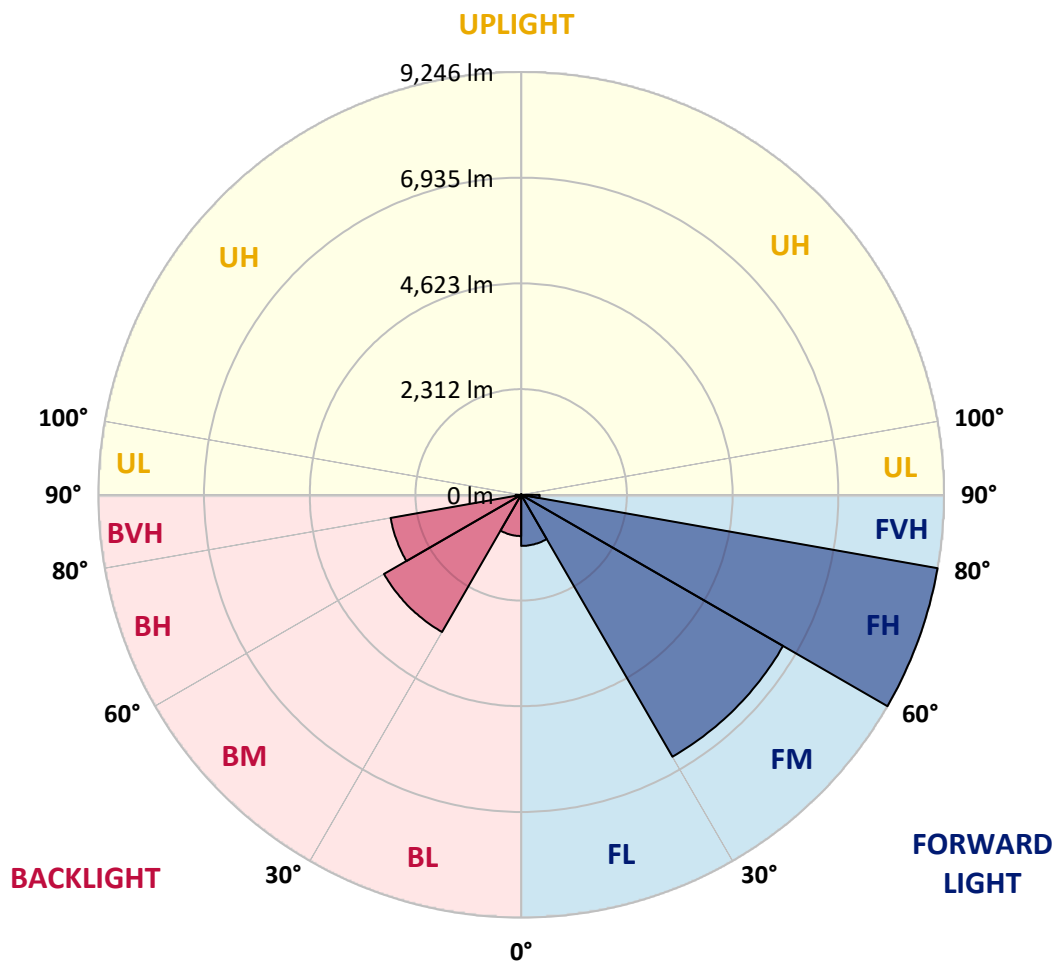
CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1117.5	4.5			
FM	(30°-60°)	6613.6	26.7			
FH	(60°-80°)	9246.1	37.3			G4/12000
FVH	(80°-90°)	402.0	1.6			G3/500
BL	(0°-30°)	902.2	3.6	B2/1000		
BM	(30°-60°)	3463.8	14.0	B3/5000		
BH	(60°-80°)	2898.6	11.7	B4/5000		G4/5000
BVH	(80°-90°)	120.9	0.5			G2/225
UL	(90°-100°)	9.9	0.0		U1/10	
UH	(100°-180°)	1.1	0.0		U1/10	

BUG Rating: B4-U1-G4

Type IV Short





REPORT NUMBER: P256730

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX120

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0
2.5°	2195.9	2189.7	2188.7	2201.0	2162.1	2181.5	2164.1	2178.5	2169.2	2176.4	2177.4
5°	2225.6	2214.3	2207.1	2221.5	2196.9	2206.1	2186.7	2192.8	2167.2	2181.5	2183.6
7.5°	2268.6	2250.2	2248.1	2252.2	2230.7	2237.9	2206.1	2213.3	2194.8	2186.7	2193.8
10°	2327.0	2309.6	2296.3	2305.5	2276.8	2280.9	2247.1	2248.1	2234.8	2219.4	2231.7
12.5°	2359.8	2361.9	2355.7	2362.9	2339.3	2326.0	2302.4	2294.2	2280.9	2262.5	2256.3
15°	2441.8	2437.7	2425.4	2436.7	2433.6	2421.3	2392.6	2374.2	2345.5	2335.2	2325.0
17.5°	2542.2	2528.9	2518.6	2533.0	2548.4	2522.7	2495.1	2469.5	2431.5	2411.1	2398.8
20°	2647.8	2638.5	2628.3	2650.8	2656.0	2636.5	2616.0	2578.1	2534.0	2507.4	2481.8
22.5°	2765.6	2747.1	2750.2	2779.9	2770.7	2761.5	2734.9	2704.1	2650.8	2617.0	2543.2
25°	2887.5	2877.3	2891.6	2904.9	2897.8	2878.3	2865.0	2842.4	2783.0	2742.0	2634.4
27.5°	3039.2	3022.8	3041.2	3046.4	3040.2	3035.1	3016.6	2999.2	2934.7	2888.6	2754.3
30°	3217.5	3198.0	3227.7	3220.5	3214.4	3218.5	3207.2	3169.3	3111.9	3049.4	2915.2
32.5°	3429.6	3404.0	3437.8	3422.4	3408.1	3436.8	3410.1	3374.2	3306.6	3233.9	3102.7
35°	3675.5	3676.5	3693.9	3668.3	3663.2	3693.9	3676.5	3632.5	3570.0	3494.1	3307.6
37.5°	3973.7	3965.5	4009.5	3997.2	3978.8	4019.8	4024.9	3969.6	3856.9	3782.1	3561.8
40°	4336.4	4334.4	4348.7	4350.8	4345.6	4365.1	4374.3	4300.5	4227.8	4115.1	3360.9
42.5°	4723.7	4731.9	4757.6	4739.1	4763.7	4789.3	4792.4	4730.9	4626.4	3948.1	3570.0
45°	5188.9	5214.6	5232.0	5227.9	5239.1	5276.0	5279.1	5246.3	5143.9	4277.0	3949.1
47.5°	5722.8	5747.4	5752.5	5785.3	5775.1	5827.3	5820.1	5821.2	5711.5	4735.0	4362.0
50°	6336.6	6347.8	6389.9	6408.3	6382.7	6453.4	6434.9	6457.5	6322.2	5259.6	4805.7
52.5°	6988.3	7007.7	7025.2	7094.8	7062.0	7123.5	7098.9	7151.2	6994.4	5793.5	5298.6
55°	7729.1	7732.2	7761.9	7832.6	7789.6	7863.3	7827.5	7846.9	7721.9	6383.7	5811.9
57.5°	8514.0	8503.8	8515.0	8571.4	8532.4	8587.8	8573.4	8591.9	8475.1	7004.7	6187.0
60°	9290.7	9275.3	9291.7	9329.6	9276.4	9371.7	9320.4	9337.8	9211.8	7638.9	6721.9
62.5°	10071.5	10060.2	10041.8	10079.7	10001.8	10051.0	10072.5	10043.8	9933.2	8212.7	7187.1
65°	10909.7	10898.4	10830.8	10854.4	10715.0	10691.4	10699.6	10708.9	10635.1	8781.4	7697.3
67.5°	11928.2	11911.8	11784.8	11624.9	11424.1	11380.0	11384.1	11408.7	11418.9	9513.1	8294.7
68°	12043.0	12013.3	11871.9	11686.4	11476.3	11425.1	11420.0	11425.1	11430.2	9519.2	8288.6
70°	11749.9	11738.6	11631.1	11406.7	11191.5	11068.5	10961.9	10957.8	10908.7	9032.5	7830.5
72.5°	10427.1	10412.7	10284.6	10125.8	9992.6	9800.0	9661.6	9669.8	9588.9	7983.2	6854.0
75°	8438.2	8437.2	8283.5	8150.2	8152.3	8137.9	8091.8	8172.8	8088.8	6771.0	5845.8
77.5°	5880.6	5901.1	5890.8	5813.0	5922.6	6074.3	6239.2	6395.0	6346.8	5348.8	4661.2
80°	3072.0	3129.3	3332.2	3341.5	3418.3	3565.9	3678.6	3783.1	3790.3	3035.1	2692.8
82.5°	816.7	834.1	902.7	883.3	877.1	906.8	931.4	934.5	936.6	791.0	738.8
85°	254.1	261.3	253.1	241.8	224.4	204.9	199.8	162.9	129.1	106.6	93.2
87.5°	180.3	192.6	174.2	163.9	145.5	138.3	124.0	97.3	75.8	53.3	35.9
90°	93.2	95.3	85.0	72.8	67.6	63.5	54.3	38.9	19.5	10.2	9.2
92.5°	47.1	48.2	42.0	35.9	30.7	26.6	20.5	11.3	6.1	3.1	1.0
95°	18.4	19.5	17.4	15.4	12.3	9.2	8.2	6.1	4.1	2.0	1.0
97.5°	6.1	6.1	6.1	5.1	5.1	5.1	5.1	4.1	3.1	2.0	1.0
100°	0.0	0.0	0.0	1.0	2.0	3.1	3.1	3.1	2.0	1.0	1.0
102.5°	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.0	2.0	1.0	1.0
105°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0



REPORT NUMBER: P256730

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-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	1.0	1.0	1.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
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	1.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
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: P256730

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0	2160.0
2.5°	2172.3	2166.2	2169.2	2143.6	2149.8	2133.4	2168.2	2159.0	2154.9	2169.2
5°	2177.4	2154.9	2173.3	2155.9	2159.0	2135.4	2164.1	2152.8	2151.8	2160.0
7.5°	2179.5	2168.2	2185.6	2156.9	2166.2	2156.9	2178.5	2167.2	2177.4	2184.6
10°	2208.2	2202.0	2200.0	2189.7	2196.9	2176.4	2203.0	2203.0	2208.2	2227.6
12.5°	2250.2	2242.0	2236.9	2218.4	2225.6	2219.4	2241.0	2245.1	2254.3	2262.5
15°	2307.6	2293.2	2288.1	2271.7	2276.8	2275.8	2291.2	2292.2	2312.7	2311.7
17.5°	2381.3	2360.8	2367.0	2354.7	2355.7	2347.5	2339.3	2339.3	2357.8	2361.9
20°	2469.5	2352.6	2198.9	2112.9	2097.5	2108.8	2152.8	2225.6	2134.4	2160.0
22.5°	2310.6	2205.1	2197.9	2178.5	2166.2	1891.5	1820.8	1798.3	1916.1	2119.0
25°	2331.1	2286.0	2272.7	2248.1	1885.4	1882.3	1861.8	1828.0	1494.0	1486.8
27.5°	2439.7	2395.7	2374.2	1969.4	1961.2	1960.2	1929.5	1590.3	1513.4	1523.7
30°	2566.8	2515.6	2130.3	2068.8	2061.6	2045.2	1869.0	1570.8	1569.8	1570.8
32.5°	2713.3	2543.2	2191.8	2188.7	2192.8	2142.6	1655.9	1649.7	1648.7	1658.9
35°	2914.2	2359.8	2345.5	2360.8	2339.3	1852.6	1755.3	1752.2	1753.2	1748.1
37.5°	2781.0	2544.3	2541.2	2541.2	2491.0	1895.6	1876.2	1890.5	1888.5	1881.3
40°	2837.3	2767.6	2749.2	2743.0	2105.7	2045.2	2034.0	2052.4	2055.5	2060.6
42.5°	3110.9	3047.4	3038.2	2965.4	2291.2	2271.7	2236.9	2256.3	2254.3	2260.4
45°	3447.0	3404.0	3364.0	2570.9	2541.2	2516.6	2480.7	2503.3	2509.4	2505.3
47.5°	3838.4	3791.3	3502.3	2827.1	2826.0	2806.6	2766.6	2785.1	2782.0	2782.0
50°	4231.9	4180.7	3181.6	3152.9	3142.7	3111.9	3079.1	3082.2	3083.2	3093.5
52.5°	4671.5	3733.9	3521.8	3464.4	3472.6	3452.1	3420.4	2589.3	3405.0	3414.2
55°	4366.1	3908.1	3895.8	3820.0	3839.4	3812.8	3792.3	2554.5	3386.5	3742.1
57.5°	4316.9	4284.2	4273.9	4196.0	4220.6	3967.5	4157.1	2795.3	2342.4	1711.2
60°	4693.0	4658.2	4652.0	4583.4	4581.3	3152.9	3779.0	1917.2	1498.1	1508.3
62.5°	5057.8	5001.4	5016.8	4935.8	3479.8	1921.3	1693.8	43.0	68.7	72.8
65°	5464.6	5370.3	5385.7	5310.9	3589.4	2025.8	1831.1	22.5	19.5	18.4
67.5°	5856.0	5691.0	5612.1	5533.2	3727.8	2133.4	1907.9	6.1	0.0	0.0
68°	5836.5	5662.3	5581.4	5506.6	3713.4	2130.3	1903.8	6.1	0.0	0.0
70°	5507.6	5350.8	5274.0	5216.6	3545.4	2057.5	1827.0	6.1	0.0	0.0
72.5°	4814.9	4727.8	4678.7	4628.4	3149.8	1840.3	1638.5	6.1	0.0	0.0
75°	4091.5	4066.9	4036.2	3925.5	2625.2	1506.3	1346.4	6.1	0.0	0.0
77.5°	3242.1	3241.0	3166.2	3036.1	1976.6	1105.6	992.9	5.1	0.0	0.0
80°	1753.2	1911.0	1853.6	1787.0	1121.0	601.5	572.8	4.1	0.0	0.0
82.5°	492.9	466.2	447.8	419.1	235.7	131.2	128.1	4.1	0.0	0.0
85°	68.7	75.8	84.0	95.3	54.3	34.8	30.7	2.0	0.0	0.0
87.5°	38.9	44.1	54.3	56.4	20.5	16.4	5.1	0.0	0.0	0.0
90°	8.2	9.2	10.2	10.2	4.1	4.1	0.0	0.0	0.0	0.0
92.5°	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P256730

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.0	1.0	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)