

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: P256705

Luminaire Tested: **CST-8-3-D-U-T5R-7050-HSS-HM-EX90**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-8-3-D-U-T5R-7050-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 90
DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26932 lumens
Efficiency: N/A
Efficacy: 119.2 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): 226
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

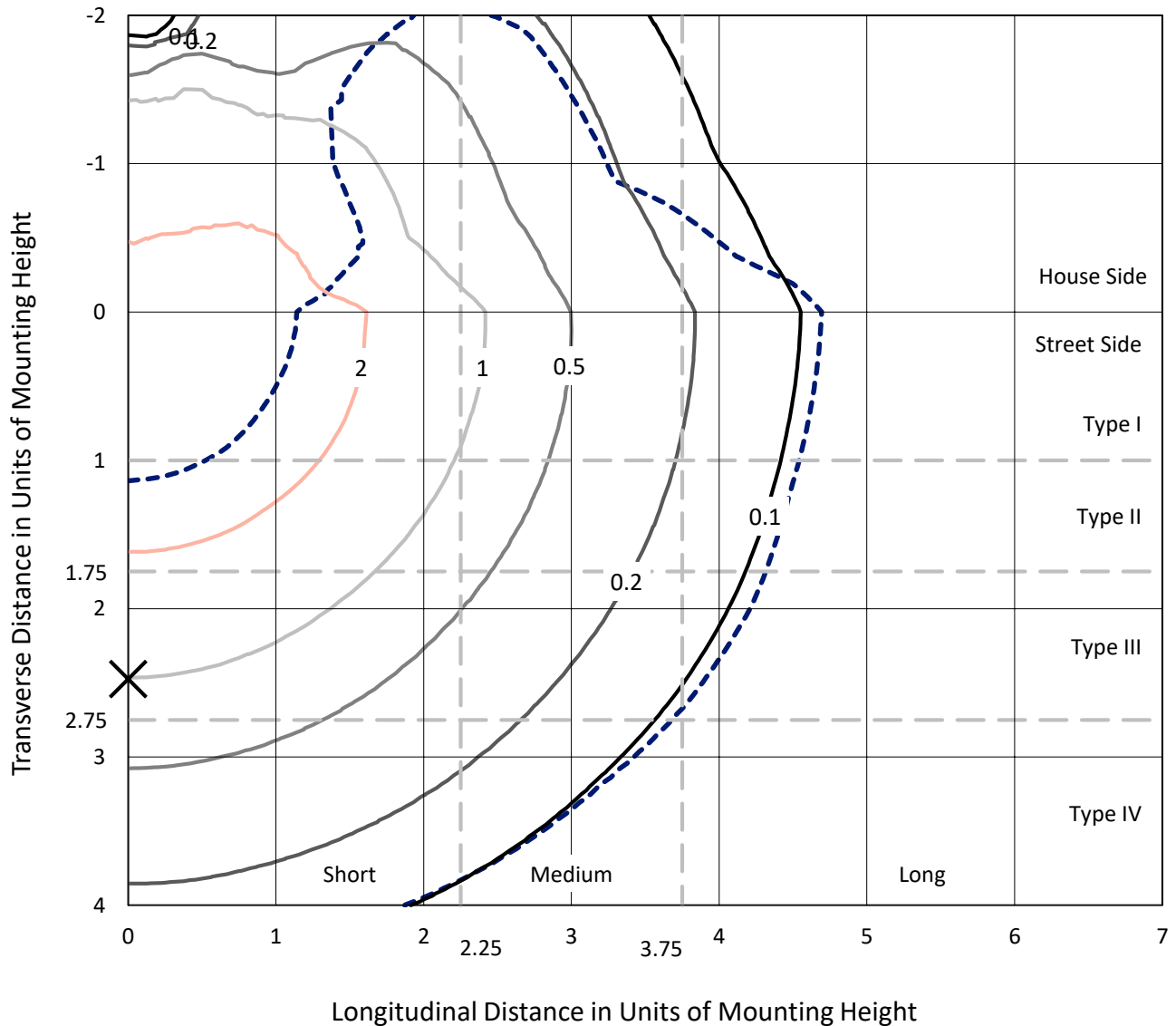


REPORT NUMBER: P256705

CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX90

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

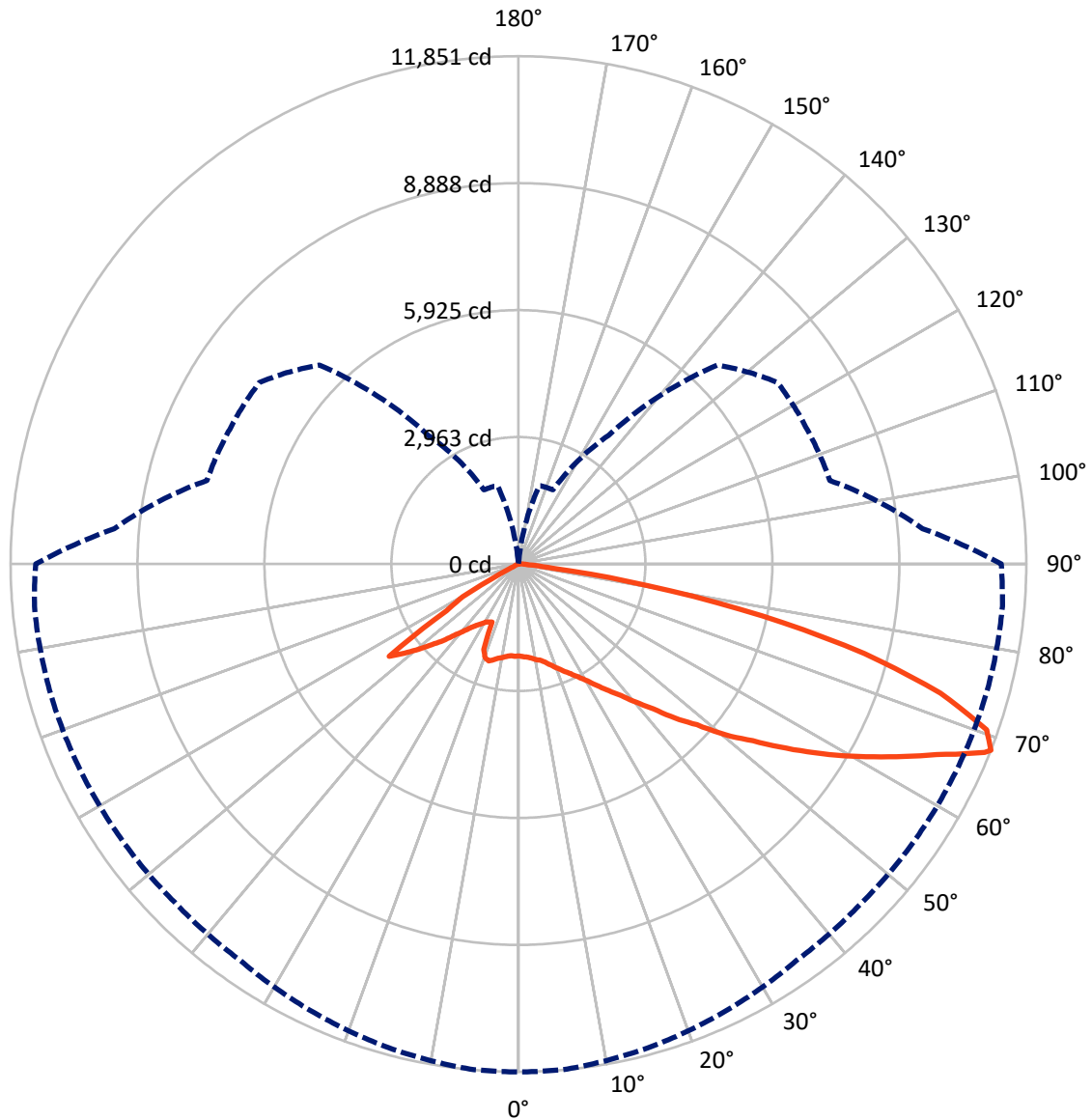


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256705

CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX90

Luminous Intensity Polar Plot



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



REPORT NUMBER: P256705

CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX90

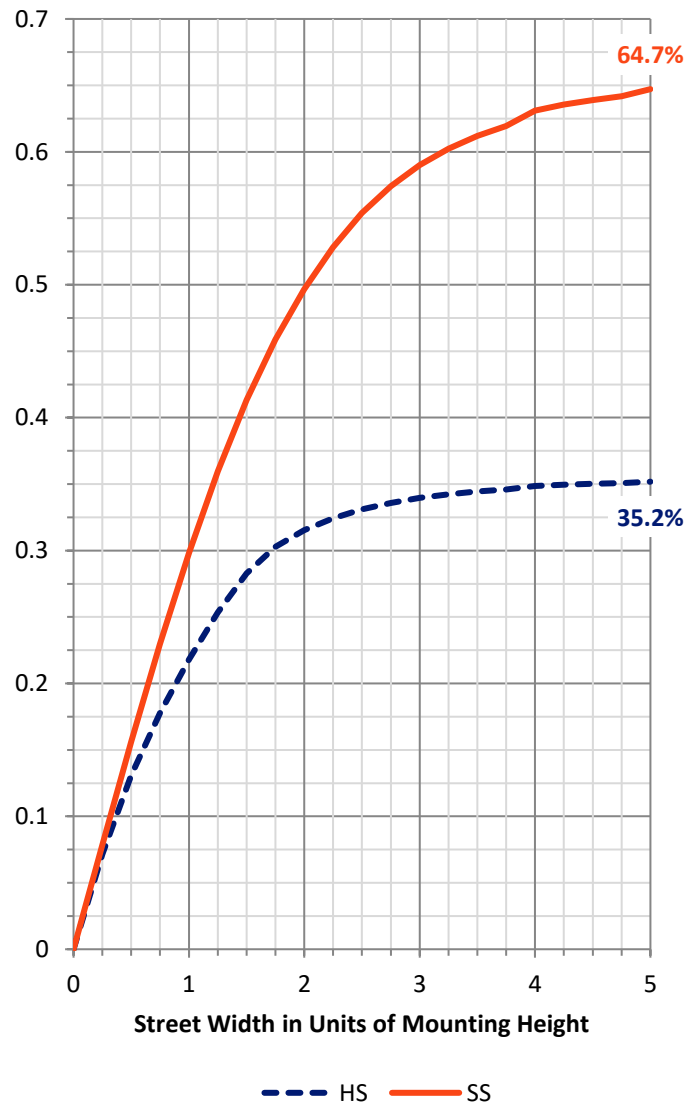
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9478.2	1.6	9479.8
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	17445.0	7.1	17452.1
	% Fixture	64.8	0.0	64.8
Total	Lumens	26923.3	8.7	26932.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.4	0.8
10°-20°	664.3	2.5
20°-30°	1186.0	4.4
30°-40°	1929.3	7.2
40°-50°	3294.7	12.2
50°-60°	5497.3	20.4
60°-70°	7647.9	28.4
70°-80°	5928.3	22.0
80°-90°	568.1	2.1
90°-100°	6.9	0.0
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.2	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°	26923.3	100.0
0°-180°	26932.0	100.0

Coefficient of Utilization



REPORT NUMBER: P256705

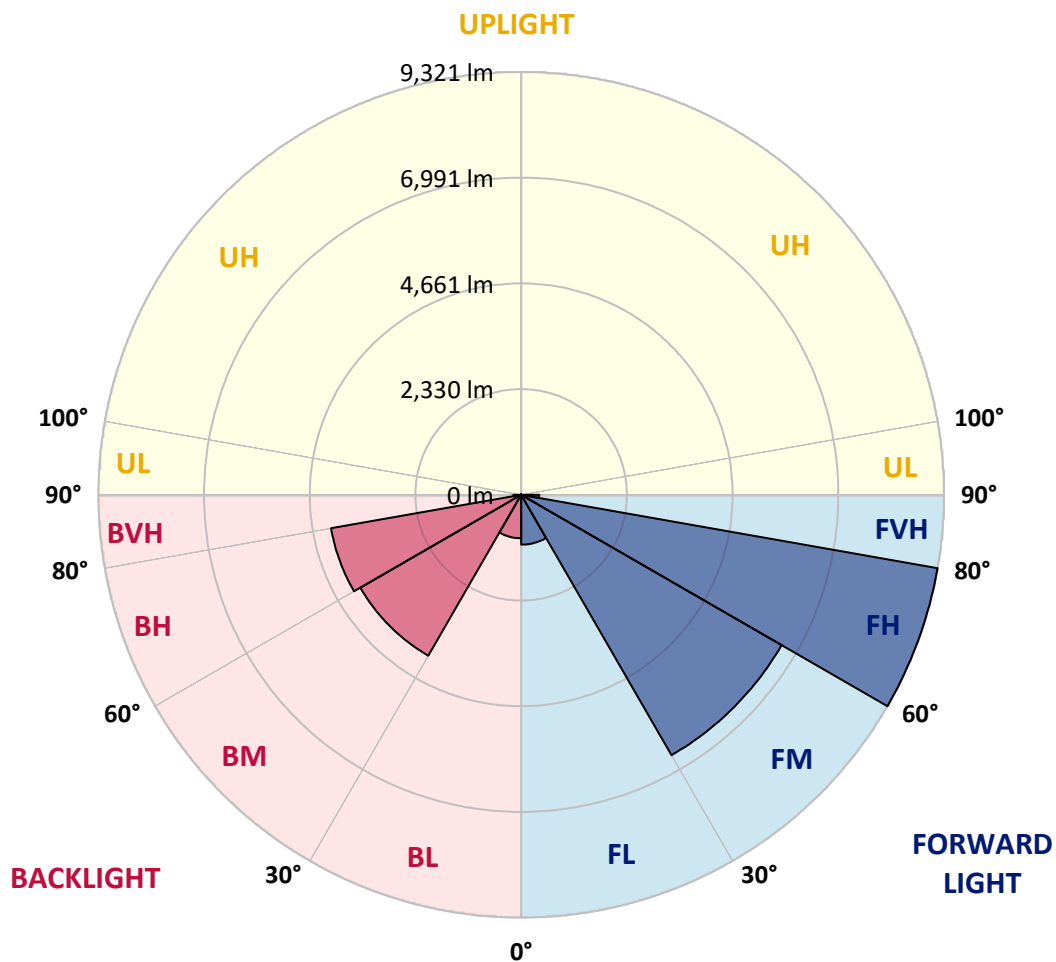
CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1099.2	4.1			
FM	(30°-60°)	6627.2	24.6			
FH	(60°-80°)	9321.3	34.6			G4/12000
FVH	(80°-90°)	397.4	1.5			G3/500
BL	(0°-30°)	958.4	3.6	B2/1000		
BM	(30°-60°)	4094.2	15.2	B3/5000		
BH	(60°-80°)	4255.0	15.8	B4/5000		G4/5000
BVH	(80°-90°)	170.6	0.6			G2/225
UL	(90°-100°)	6.9	0.0		U1/10	
UH	(100°-180°)	1.6	0.0		U1/10	

BUG Rating: B4-U1-G4

Type IV Short





REPORT NUMBER: P256705

CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3
2.5°	2167.7	2164.6	2162.6	2175.8	2138.3	2153.5	2143.3	2156.5	2153.5	2159.5	2160.6
5°	2182.9	2177.8	2170.7	2184.9	2162.6	2172.7	2161.6	2167.7	2148.4	2164.6	2166.6
7.5°	2217.3	2203.1	2202.1	2206.2	2191.0	2198.1	2178.8	2185.9	2175.8	2169.7	2175.8
10°	2269.0	2256.8	2243.7	2251.8	2226.4	2235.6	2215.3	2221.4	2216.3	2203.1	2215.3
12.5°	2304.5	2308.5	2299.4	2305.5	2283.2	2275.1	2268.0	2267.0	2263.9	2244.7	2241.6
15°	2383.5	2385.5	2369.3	2373.4	2368.3	2364.3	2354.1	2346.0	2329.8	2317.6	2309.5
17.5°	2486.9	2475.7	2460.5	2464.6	2478.8	2460.5	2454.4	2439.2	2415.9	2395.7	2391.6
20°	2595.3	2588.2	2574.0	2582.1	2581.1	2569.0	2572.0	2546.7	2513.2	2496.0	2482.8
22.5°	2715.9	2705.8	2695.6	2710.8	2698.7	2690.6	2687.5	2670.3	2628.8	2609.5	2606.5
25°	2836.5	2831.4	2838.5	2833.5	2816.2	2810.1	2814.2	2808.1	2759.5	2736.2	2722.0
27.5°	2987.5	2975.3	2986.5	2980.4	2962.2	2963.2	2964.2	2965.2	2910.5	2880.1	2859.8
30°	3159.8	3155.7	3169.9	3150.6	3133.4	3144.6	3153.7	3133.4	3085.8	3041.2	3034.1
32.5°	3383.7	3358.4	3374.6	3350.3	3323.9	3350.3	3366.5	3326.0	3287.5	3230.7	3240.8
35°	3632.0	3623.9	3623.9	3592.5	3578.3	3619.9	3636.1	3596.5	3536.8	3487.1	3474.9
37.5°	3895.5	3903.6	3928.9	3915.8	3902.6	3927.9	3964.4	3911.7	3834.7	3782.0	3767.8
40°	4245.1	4265.4	4282.6	4265.4	4250.2	4266.4	4307.9	4239.0	4185.3	4157.0	4126.6
42.5°	4621.1	4655.5	4644.4	4646.4	4659.6	4682.9	4724.5	4661.6	4599.8	4598.8	4554.2
45°	5129.8	5129.8	5106.5	5128.8	5126.8	5184.5	5202.8	5168.3	5116.6	5101.4	5062.9
47.5°	5605.1	5654.8	5645.6	5678.1	5652.7	5701.4	5763.2	5733.8	5674.0	5620.3	5612.2
50°	6267.9	6255.7	6243.5	6292.2	6288.1	6321.6	6378.3	6360.1	6277.0	6216.2	6205.0
52.5°	6850.6	6914.4	6899.2	6972.2	6931.6	6979.3	7047.2	7044.1	6942.8	6883.0	6865.8
55°	7586.3	7628.8	7625.8	7700.8	7645.1	7707.9	7764.6	7770.7	7660.3	7575.1	7601.5
57.5°	8352.4	8387.9	8367.6	8429.4	8374.7	8460.8	8495.3	8473.0	8408.2	8300.7	8340.3
60°	9119.6	9150.0	9173.3	9178.3	9146.9	9197.6	9230.0	9249.3	9146.9	9024.3	9071.9
62.5°	9898.9	9933.3	9913.0	9921.2	9834.0	9902.9	9943.4	9948.5	9831.0	9722.5	9756.0
65°	10719.7	10767.3	10694.4	10645.7	10538.3	10537.3	10591.0	10600.1	10517.0	10440.0	10426.8
67.5°	11736.1	11757.4	11601.4	11438.2	11256.8	11217.3	11254.8	11276.1	11323.7	11321.7	11261.9
68°	11850.7	11846.6	11688.5	11493.9	11299.4	11253.8	11272.0	11299.4	11330.8	11336.9	11264.9
70°	11590.2	11540.6	11450.4	11205.1	11012.6	10893.0	10829.2	10879.8	10794.7	10795.7	10660.9
72.5°	10295.1	10289.0	10122.8	10001.2	9829.9	9631.3	9540.1	9539.1	9547.2	9488.4	9349.6
75°	8339.2	8347.3	8153.8	8069.7	8017.0	7979.5	7998.7	8058.5	8064.6	8063.6	8015.0
77.5°	5815.9	5849.3	5797.6	5660.8	5807.8	5933.4	6175.6	6299.3	6259.8	6378.3	6453.3
80°	3048.3	3115.2	3117.2	3213.5	3332.0	3446.6	3655.3	3842.8	3705.0	3644.2	3581.3
82.5°	801.6	825.9	862.4	806.7	823.9	841.1	1003.3	988.1	912.1	952.6	1013.4
85°	229.0	236.1	226.0	204.7	187.5	172.3	176.3	149.0	129.7	128.7	124.6
87.5°	161.1	173.3	153.0	131.7	118.6	110.5	106.4	90.2	73.0	63.8	50.7
90°	75.0	74.0	63.8	49.7	43.6	41.5	41.5	32.4	18.2	11.1	10.1
92.5°	31.4	32.4	26.3	21.3	18.2	14.2	11.1	7.1	4.1	2.0	1.0
95°	11.1	12.2	10.1	8.1	7.1	6.1	5.1	4.1	2.0	1.0	1.0
97.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0
100°	0.0	0.0	0.0	1.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0
102.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	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: P256705

CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX90

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	1.0	1.0	1.0	1.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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	0.0	1.0	1.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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	1.0	1.0	1.0	1.0	1.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
165°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
170°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
172.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
175°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
177.5°	0.0	0.0	0.0	0.0	1.0	1.0	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: P256705

CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3	2143.3
2.5°	2158.5	2153.5	2151.4	2126.1	2133.2	2118.0	2153.5	2143.3	2141.3	2155.5
5°	2163.6	2140.3	2154.5	2138.3	2142.3	2120.0	2148.4	2136.2	2137.3	2144.3
7.5°	2166.6	2153.5	2167.7	2139.3	2150.4	2142.3	2162.6	2150.4	2162.6	2168.7
10°	2197.0	2191.0	2180.8	2172.7	2180.8	2161.6	2186.9	2184.9	2192.0	2210.2
12.5°	2238.6	2231.5	2221.4	2207.2	2213.3	2206.2	2225.4	2227.4	2240.6	2249.7
15°	2300.4	2291.3	2286.2	2272.0	2274.1	2269.0	2280.1	2282.2	2308.5	2305.5
17.5°	2387.6	2377.4	2381.5	2368.3	2363.2	2351.1	2330.8	2323.7	2355.1	2364.3
20°	2482.8	2471.7	2476.7	2465.6	2371.3	2179.8	2308.5	2396.7	2329.8	2324.7
22.5°	2591.3	2579.1	2583.1	2565.9	2449.4	2090.6	1819.0	1796.8	2052.1	2155.5
25°	2710.8	2694.6	2692.6	2670.3	2287.2	1893.0	1862.6	1823.1	1636.6	1488.7
27.5°	2858.8	2834.5	2822.3	2485.9	2271.0	1967.0	1921.4	1780.5	1510.0	1519.1
30°	3018.9	2983.4	2755.4	2533.5	2389.6	2054.2	1993.4	1560.6	1562.7	1558.6
32.5°	3201.3	3122.3	2699.7	2679.4	2531.5	2147.4	1654.9	1636.6	1638.7	1644.7
35°	3440.5	2898.3	2887.2	2888.2	2704.8	2077.5	1753.2	1735.9	1738.0	1742.0
37.5°	3491.2	3124.3	3126.3	3103.0	2889.2	1898.1	1872.8	1871.7	1867.7	1863.6
40°	3531.7	3409.1	3379.7	3342.2	2678.4	2044.0	2035.9	2029.8	2032.9	2041.0
42.5°	3848.9	3756.7	3728.3	3683.7	2747.3	2264.9	2238.6	2231.5	2239.6	2235.6
45°	4270.5	4193.4	4137.7	3406.0	3035.1	2505.1	2483.8	2474.7	2477.8	2503.1
47.5°	4716.3	4670.7	4500.5	3679.6	3370.6	2788.9	2767.6	2753.4	2758.5	2752.4
50°	5201.8	5160.2	4166.1	4092.1	3741.5	3094.9	3063.5	3058.4	3060.5	3059.4
52.5°	5728.7	4860.2	4617.0	4540.0	4132.6	3415.1	3404.0	3376.6	3382.7	3376.6
55°	6346.9	5119.7	5113.6	5023.4	4572.4	3787.1	3773.9	3735.4	3493.2	3705.0
57.5°	6933.7	5615.2	5615.2	5528.1	5022.4	4157.0	4135.7	4107.3	2482.8	2002.5
60°	7576.2	6111.8	6097.6	6025.7	5456.1	4509.6	3665.5	3657.3	1499.8	1504.9
62.5°	8131.5	6554.6	6580.0	6513.1	5873.6	3376.6	1698.5	1664.0	148.0	228.0
65°	8753.7	7044.1	7074.5	7005.6	6325.6	3581.3	1843.4	1826.1	33.4	30.4
67.5°	9459.0	7532.6	7463.7	7387.7	6590.1	3687.7	1915.3	1900.1	9.1	6.1
68°	9465.1	7522.4	7433.3	7381.6	6564.8	3667.5	1909.2	1895.1	9.1	6.1
70°	8978.7	7143.4	7054.3	7067.4	6250.6	3507.4	1830.2	1803.8	9.1	6.1
72.5°	7877.1	6357.0	6256.7	6185.8	5543.3	3118.2	1640.7	1591.0	9.1	6.1
75°	6740.1	5387.2	5221.0	5065.0	4460.0	2551.7	1345.8	1290.1	9.1	6.1
77.5°	5312.2	4106.3	3870.2	3767.8	3351.3	1884.9	1000.2	939.4	9.1	5.1
80°	2935.8	2356.1	2155.5	2092.7	1916.3	1107.6	573.6	537.1	8.1	5.1
82.5°	759.0	569.5	496.6	479.3	449.9	262.5	139.8	132.8	7.1	4.1
85°	108.4	80.1	88.2	104.4	100.3	67.9	48.6	41.5	6.1	3.0
87.5°	56.8	47.6	55.7	62.8	63.8	39.5	20.3	11.1	3.0	0.0
90°	9.1	9.1	10.1	11.1	11.1	5.1	4.1	0.0	0.0	0.0
92.5°	1.0	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	1.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P256705

CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

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