

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: P256689

Luminaire Tested: **CST-8-3-D-U-T5R-7030-HSS-HM-EX90**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256689
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-7030-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K 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: 25944.1 lumens
Efficiency: N/A
Efficacy: 114.8 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

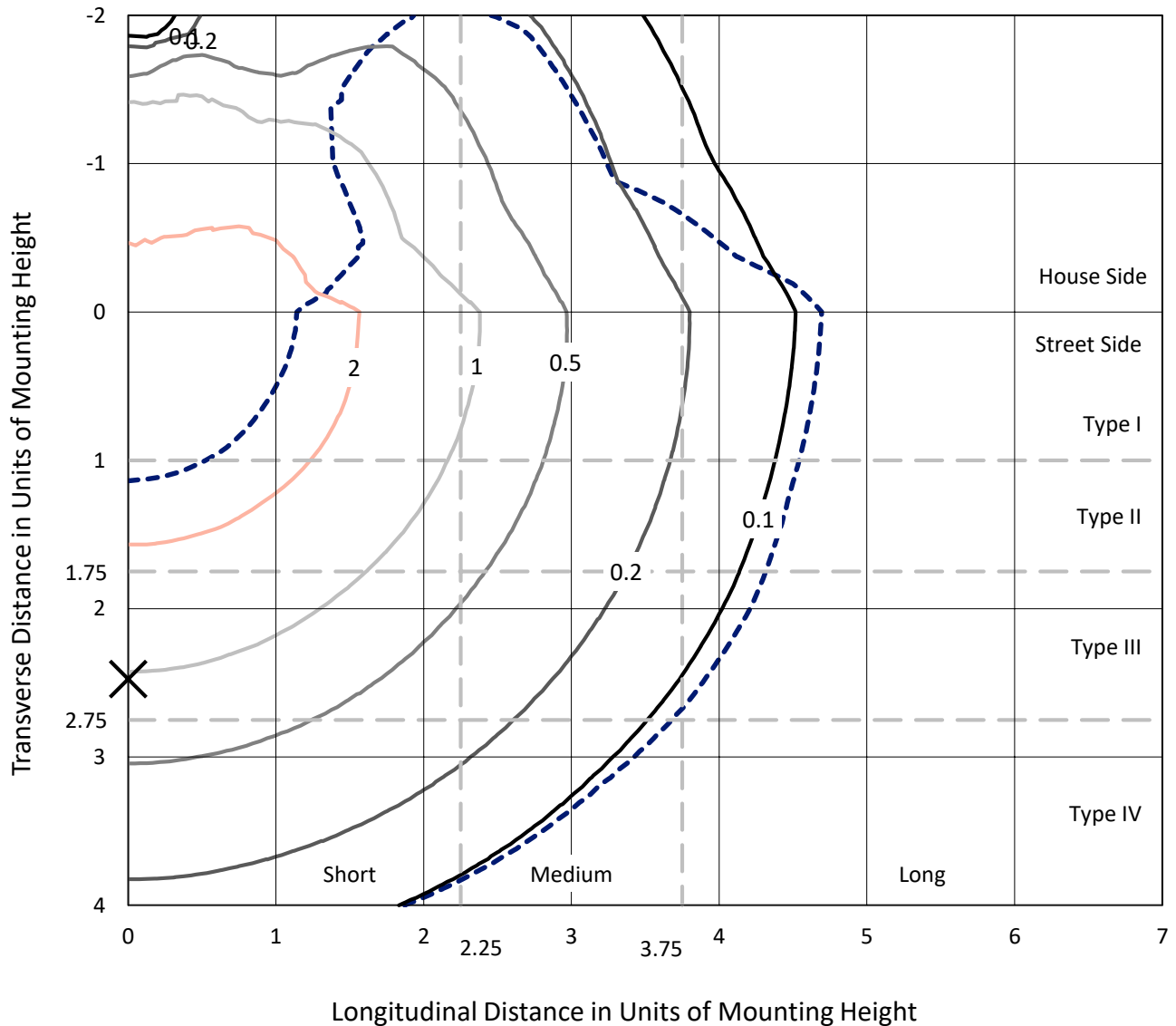


REPORT NUMBER: P256689

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX90

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

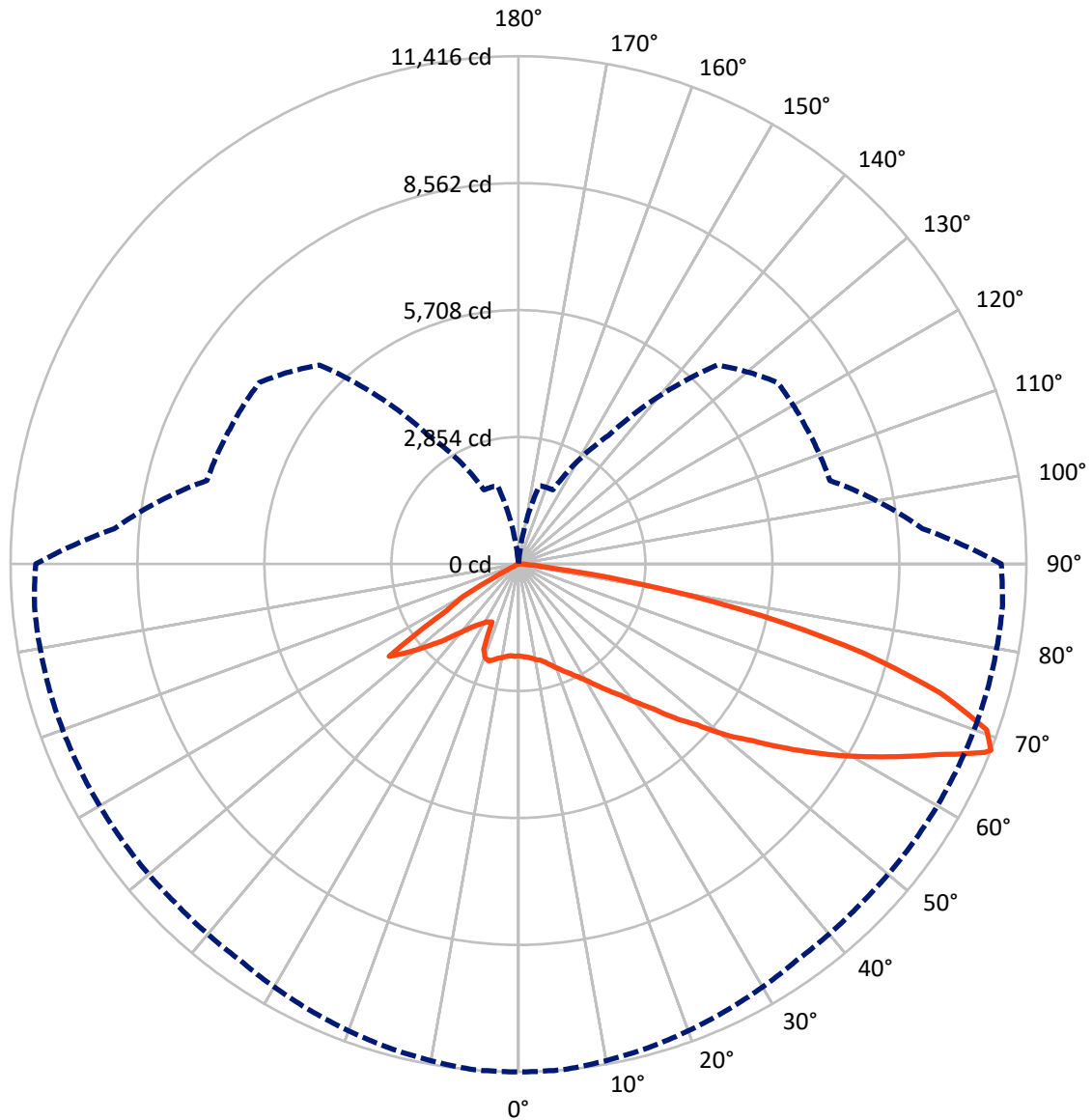


Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256689

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX90

Luminous Intensity Polar Plot



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

REPORT NUMBER: P256689

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX90

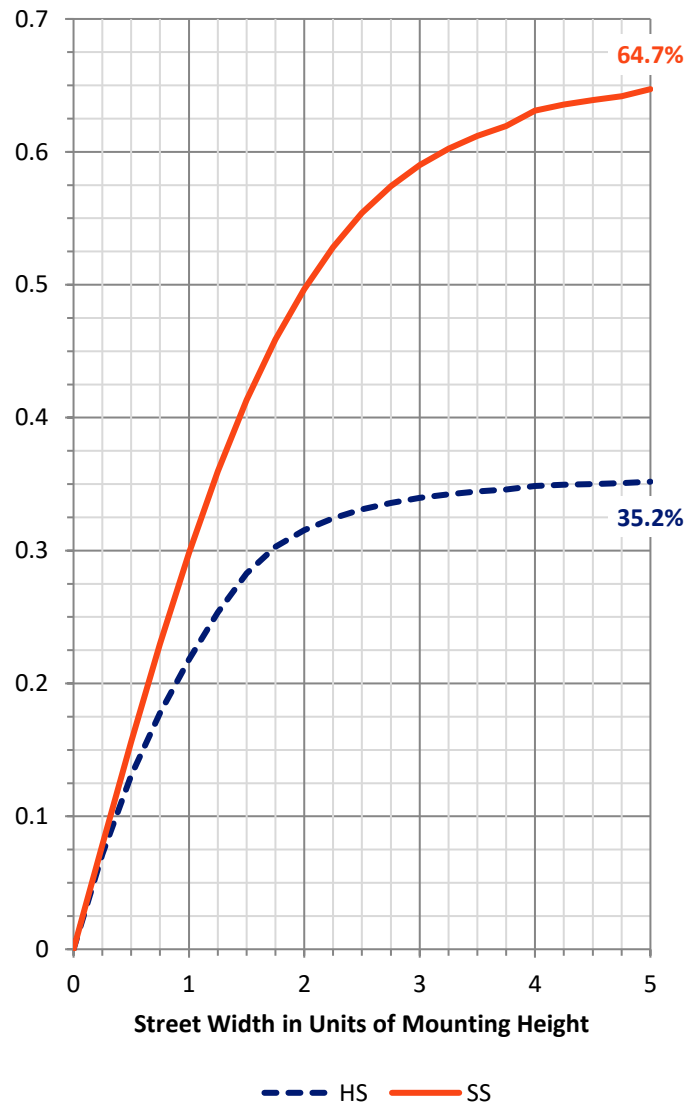
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9130.5	1.6	9132.1
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	16805.1	6.9	16811.9
	% Fixture	64.8	0.0	64.8
Total	Lumens	25935.6	8.5	25944.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.7	0.8
10°-20°	640.0	2.5
20°-30°	1142.5	4.4
30°-40°	1858.5	7.2
40°-50°	3173.8	12.2
50°-60°	5295.7	20.4
60°-70°	7367.4	28.4
70°-80°	5710.8	22.0
80°-90°	547.2	2.1
90°-100°	6.6	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°	25935.6	100.0
0°-180°	25944.1	100.0

Coefficient of Utilization



REPORT NUMBER: P256689

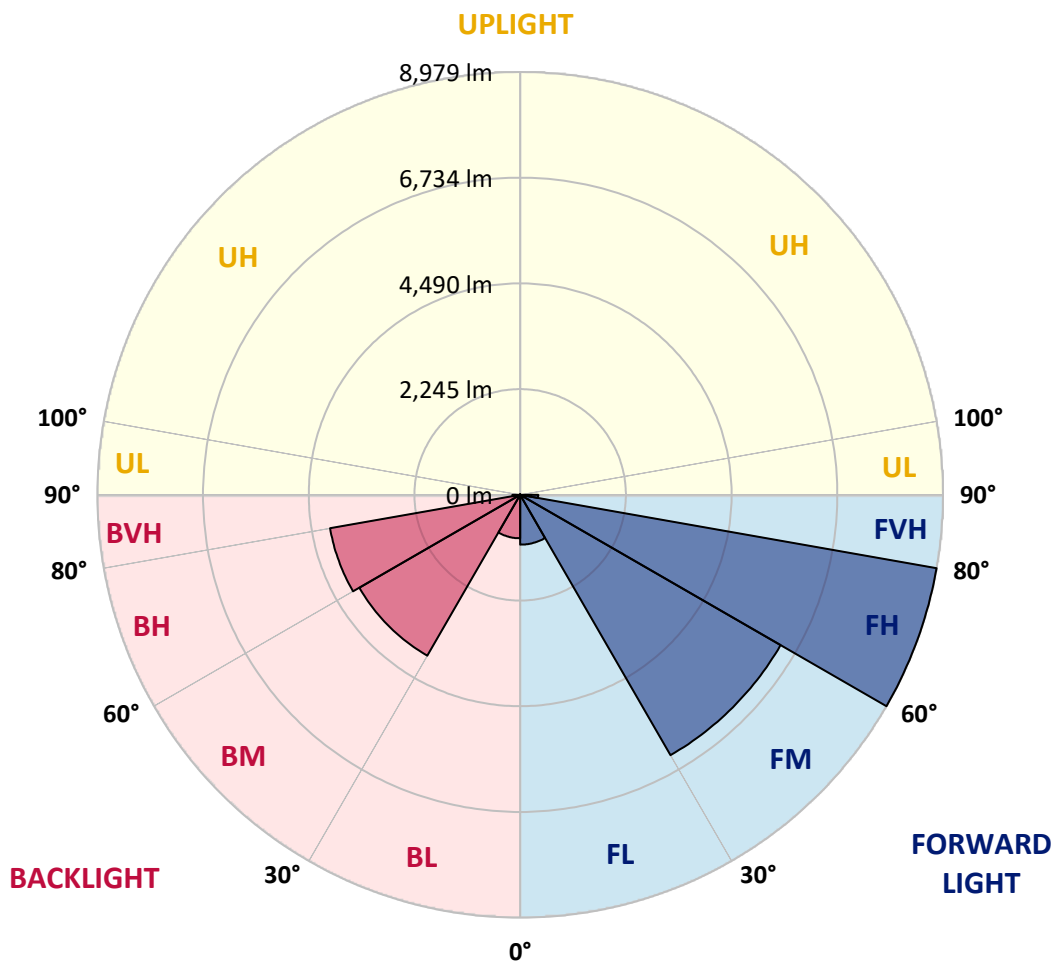
CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1058.9	4.1			
FM	(30°-60°)	6384.0	24.6			
FH	(60°-80°)	8979.3	34.6			G4/12000
FVH	(80°-90°)	382.8	1.5			G3/500
BL	(0°-30°)	923.3	3.6	B2/1000		
BM	(30°-60°)	3944.0	15.2	B3/5000		
BH	(60°-80°)	4098.9	15.8	B4/5000		G4/5000
BVH	(80°-90°)	164.4	0.6			G2/225
UL	(90°-100°)	6.6	0.0		U1/10	
UH	(100°-180°)	1.6	0.0		U1/10	

BUG Rating: B4-U1-G4

Type IV Short





REPORT NUMBER: P256689

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7
2.5°	2088.1	2085.2	2083.3	2095.9	2059.8	2074.5	2064.7	2077.4	2074.5	2080.3	2081.3
5°	2102.8	2097.9	2091.1	2104.7	2083.3	2093.0	2082.3	2088.1	2069.6	2085.2	2087.2
7.5°	2136.0	2122.3	2121.3	2125.2	2110.6	2117.4	2098.9	2105.7	2095.9	2090.1	2095.9
10°	2185.8	2174.0	2161.4	2169.2	2144.8	2153.5	2134.0	2139.9	2135.0	2122.3	2134.0
12.5°	2219.9	2223.8	2215.0	2220.9	2199.4	2191.6	2184.8	2183.8	2180.9	2162.3	2159.4
15°	2296.1	2298.0	2282.4	2286.3	2281.4	2277.5	2267.8	2259.9	2244.3	2232.6	2224.8
17.5°	2395.6	2384.9	2370.3	2374.2	2387.8	2370.3	2364.4	2349.8	2327.3	2307.8	2303.9
20°	2500.1	2493.3	2479.6	2487.4	2486.4	2474.7	2477.6	2453.2	2421.0	2404.4	2391.7
22.5°	2616.3	2606.5	2596.7	2611.4	2599.7	2591.9	2588.9	2572.3	2532.3	2513.8	2510.8
25°	2732.4	2727.6	2734.4	2729.5	2712.9	2707.1	2711.0	2705.1	2658.2	2635.8	2622.1
27.5°	2877.9	2866.2	2876.9	2871.1	2853.5	2854.5	2855.4	2856.4	2803.7	2774.4	2754.9
30°	3043.9	3039.9	3053.6	3035.1	3018.5	3029.2	3038.0	3018.5	2972.6	2929.6	2922.8
32.5°	3259.6	3235.2	3250.8	3227.4	3202.0	3227.4	3243.0	3204.0	3166.9	3112.2	3122.0
35°	3498.8	3491.0	3491.0	3460.7	3447.0	3487.1	3502.7	3464.6	3407.0	3359.2	3347.5
37.5°	3752.6	3760.4	3784.8	3772.1	3759.4	3783.8	3819.0	3768.2	3694.0	3643.3	3629.6
40°	4089.4	4108.9	4125.5	4108.9	4094.3	4109.9	4149.9	4083.5	4031.8	4004.5	3975.2
42.5°	4451.6	4484.8	4474.0	4476.0	4488.7	4511.1	4551.1	4490.6	4431.1	4430.1	4387.1
45°	4941.6	4941.6	4919.2	4940.6	4938.7	4994.3	5011.9	4978.7	4928.9	4914.3	4877.2
47.5°	5399.5	5447.3	5438.5	5469.8	5445.4	5492.2	5551.8	5523.5	5465.9	5414.1	5406.3
50°	6037.9	6026.2	6014.5	6061.4	6057.4	6089.7	6144.3	6126.8	6046.7	5988.1	5977.4
52.5°	6599.2	6660.7	6646.1	6716.4	6677.3	6723.2	6788.6	6785.7	6688.1	6630.5	6613.9
55°	7308.0	7349.0	7346.1	7418.3	7364.6	7425.1	7479.8	7485.7	7379.2	7297.2	7322.6
57.5°	8046.0	8080.2	8060.6	8120.2	8067.5	8150.5	8183.7	8162.2	8099.7	7996.2	8034.3
60°	8785.0	8814.3	8836.7	8841.6	8811.4	8860.2	8891.4	8910.0	8811.4	8693.2	8739.1
62.5°	9535.7	9568.9	9549.4	9557.2	9473.2	9539.6	9578.7	9583.6	9470.3	9365.9	9398.1
65°	10326.5	10372.3	10302.1	10255.2	10151.7	10150.7	10202.5	10211.3	10131.2	10057.0	10044.3
67.5°	11305.6	11326.1	11175.8	11018.6	10843.9	10805.8	10841.9	10862.4	10908.3	10906.3	10848.7
68°	11415.9	11412.0	11259.7	11072.3	10884.9	10840.9	10858.5	10884.9	10915.1	10921.0	10851.7
70°	11165.0	11117.2	11030.3	10794.1	10608.6	10493.4	10431.9	10480.7	10398.7	10399.7	10269.8
72.5°	9917.4	9911.6	9751.5	9634.3	9469.3	9278.0	9190.1	9189.2	9197.0	9140.3	9006.6
75°	8033.3	8041.1	7854.7	7773.6	7722.9	7686.8	7705.3	7762.9	7768.8	7767.8	7720.9
77.5°	5602.5	5634.7	5585.0	5453.2	5594.7	5715.8	5949.1	6068.2	6030.1	6144.3	6216.6
80°	2936.5	3000.9	3002.9	3095.6	3209.8	3320.1	3521.2	3701.8	3569.1	3510.5	3450.0
82.5°	772.2	795.6	830.8	777.1	793.7	810.3	966.5	951.8	878.6	917.6	976.2
85°	220.6	227.5	217.7	197.2	180.6	166.0	169.9	143.5	125.0	124.0	120.1
87.5°	155.2	166.9	147.4	126.9	114.2	106.4	102.5	86.9	70.3	61.5	48.8
90°	72.2	71.3	61.5	47.8	42.0	40.0	40.0	31.2	17.6	10.7	9.8
92.5°	30.3	31.2	25.4	20.5	17.6	13.7	10.7	6.8	3.9	2.0	1.0
95°	10.7	11.7	9.8	7.8	6.8	5.9	4.9	3.9	2.0	1.0	1.0
97.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	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: P256689

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-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: P256689

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7	2064.7
2.5°	2079.3	2074.5	2072.5	2048.1	2054.9	2040.3	2074.5	2064.7	2062.8	2076.4
5°	2084.2	2061.8	2075.4	2059.8	2063.7	2042.3	2069.6	2057.9	2058.8	2065.7
7.5°	2087.2	2074.5	2088.1	2060.8	2071.5	2063.7	2083.3	2071.5	2083.3	2089.1
10°	2116.4	2110.6	2100.8	2093.0	2100.8	2082.3	2106.7	2104.7	2111.6	2129.1
12.5°	2156.5	2149.6	2139.9	2126.2	2132.1	2125.2	2143.8	2145.7	2158.4	2167.2
15°	2216.0	2207.2	2202.4	2188.7	2190.6	2185.8	2196.5	2198.4	2223.8	2220.9
17.5°	2300.0	2290.2	2294.1	2281.4	2276.5	2264.8	2245.3	2238.5	2268.7	2277.5
20°	2391.7	2381.0	2385.9	2375.1	2284.4	2099.8	2223.8	2308.8	2244.3	2239.4
22.5°	2496.2	2484.5	2488.4	2471.8	2359.5	2013.9	1752.3	1730.8	1976.8	2076.4
25°	2611.4	2595.8	2593.8	2572.3	2203.3	1823.6	1794.3	1756.2	1576.6	1434.1
27.5°	2753.9	2730.5	2718.8	2394.7	2187.7	1894.8	1850.9	1715.2	1454.6	1463.4
30°	2908.2	2874.0	2654.3	2440.6	2301.9	1978.8	1920.2	1503.4	1505.3	1501.4
32.5°	3083.9	3007.7	2600.7	2581.1	2438.6	2068.6	1594.2	1576.6	1578.5	1584.4
35°	3314.3	2792.0	2781.3	2782.2	2605.5	2001.3	1688.9	1672.3	1674.2	1678.1
37.5°	3363.1	3009.7	3011.6	2989.2	2783.2	1828.5	1804.1	1803.1	1799.2	1795.3
40°	3402.1	3284.0	3255.7	3219.6	2580.1	1969.0	1961.2	1955.4	1958.3	1966.1
42.5°	3707.7	3618.8	3591.5	3548.6	2646.5	2181.9	2156.5	2149.6	2157.4	2153.5
45°	4113.8	4039.6	3985.9	3281.1	2923.8	2413.2	2392.7	2383.9	2386.9	2411.3
47.5°	4543.3	4499.4	4335.4	3544.7	3246.9	2686.6	2666.1	2652.4	2657.3	2651.4
50°	5010.9	4970.9	4013.2	3942.0	3604.2	2981.4	2951.1	2946.2	2948.2	2947.2
52.5°	5518.6	4682.0	4447.7	4373.5	3981.0	3289.9	3279.1	3252.8	3258.6	3252.8
55°	6114.1	4931.9	4926.0	4839.1	4404.7	3648.1	3635.4	3598.3	3365.0	3569.1
57.5°	6679.3	5409.2	5409.2	5325.3	4838.1	4004.5	3984.0	3956.6	2391.7	1929.0
60°	7298.2	5887.6	5873.9	5804.6	5256.0	4344.2	3531.0	3523.2	1444.8	1449.7
62.5°	7833.2	6314.2	6338.6	6274.2	5658.2	3252.8	1636.1	1603.0	142.5	219.6
65°	8432.6	6785.7	6815.0	6748.6	6093.6	3450.0	1775.7	1759.1	32.2	29.3
67.5°	9112.0	7256.2	7189.9	7116.6	6348.4	3552.5	1845.1	1830.4	8.8	5.9
68°	9117.9	7246.5	7160.6	7110.8	6324.0	3532.9	1839.2	1825.5	8.8	5.9
70°	8649.3	6881.4	6795.5	6808.2	6021.3	3378.7	1763.1	1737.7	8.8	5.9
72.5°	7588.2	6123.8	6027.2	5958.8	5339.9	3003.8	1580.5	1532.7	8.8	5.9
75°	6492.8	5189.6	5029.5	4879.1	4296.3	2458.1	1296.4	1242.7	8.8	5.9
77.5°	5117.3	3955.6	3728.2	3629.6	3228.4	1815.8	963.5	905.0	8.8	4.9
80°	2828.1	2269.7	2076.4	2015.9	1846.0	1067.0	552.5	517.4	7.8	4.9
82.5°	731.2	548.6	478.3	461.8	433.4	252.8	134.7	127.9	6.8	3.9
85°	104.5	77.1	84.9	100.6	96.6	65.4	46.9	40.0	5.9	2.9
87.5°	54.7	45.9	53.7	60.5	61.5	38.1	19.5	10.7	2.9	0.0
90°	8.8	8.8	9.8	10.7	10.7	4.9	3.9	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: P256689

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-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)