

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: P256721

Luminaire Tested: **CST-8-3-D-U-T5R-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256721
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-8-3-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: 24257 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U1 - G4

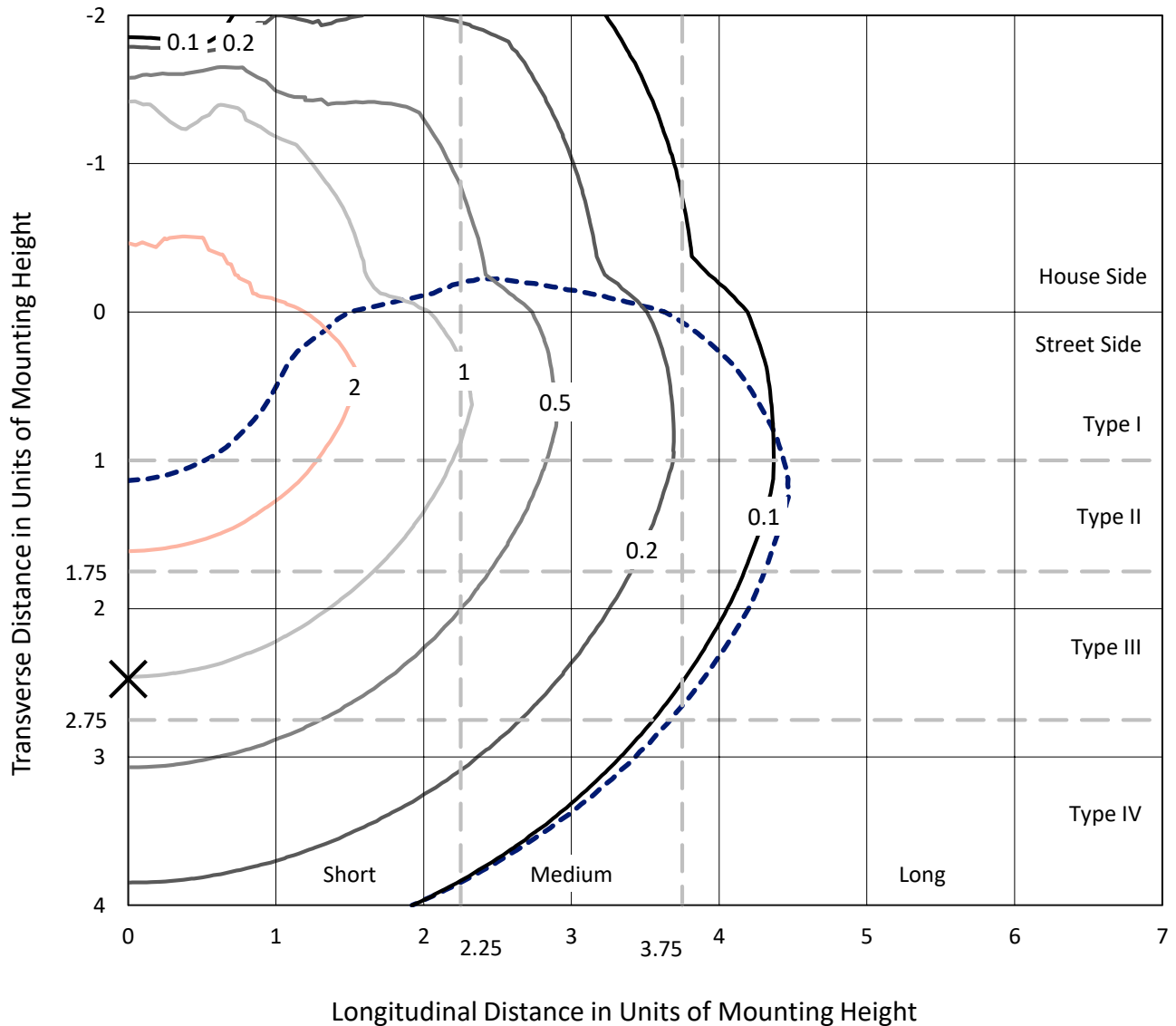
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P256721
 CATALOG NUMBER: CST-8-3-D-U-T5R-HSS-HM-EX120

Iso-Footcandle Lines of Horizontal Illumination

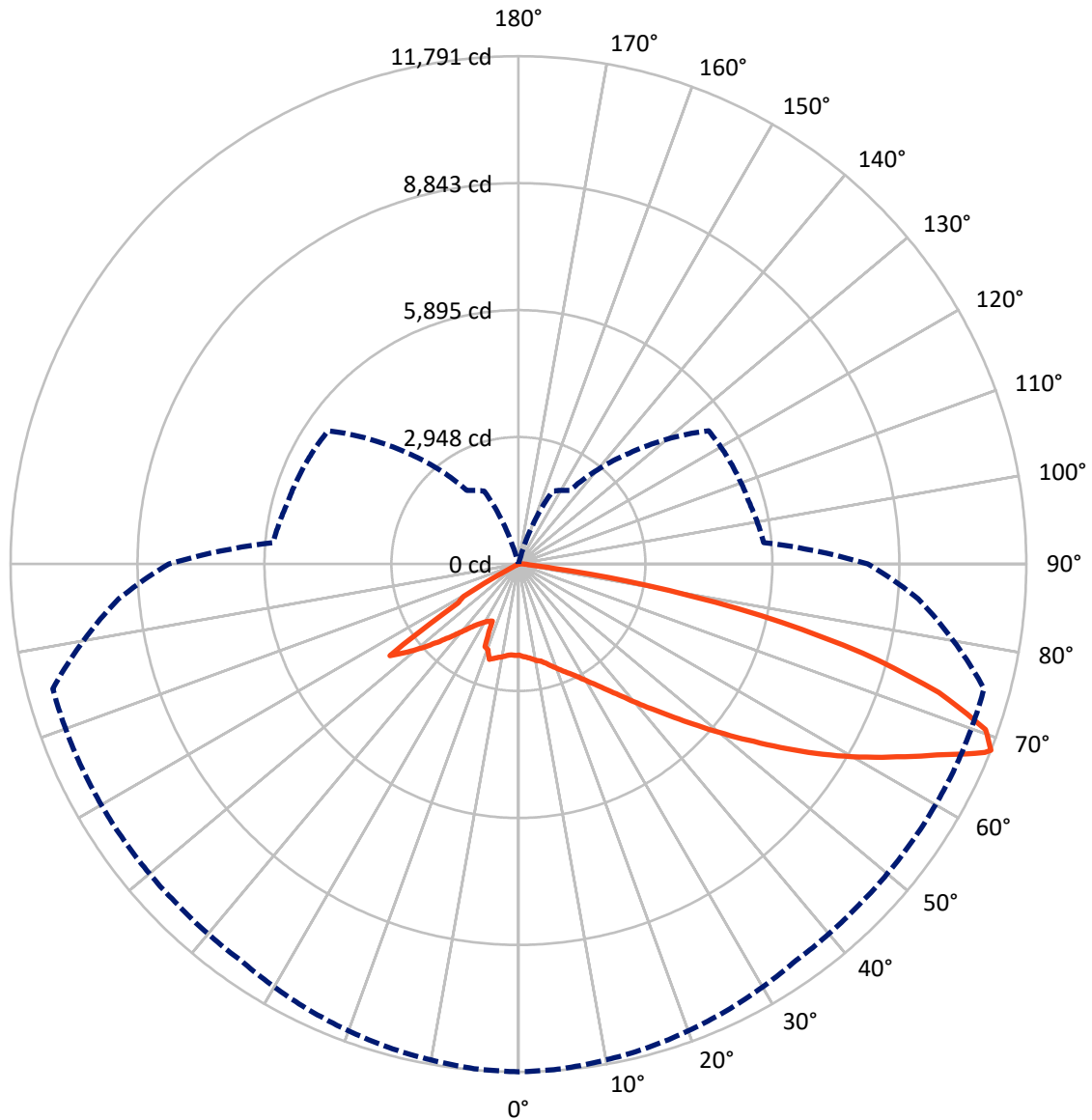
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P256721
CATALOG NUMBER: CST-8-3-D-U-T5R-HSS-HM-EX120

Luminous Intensity Polar Plot



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



REPORT NUMBER: P256721

CATALOG NUMBER: CST-8-3-D-U-T5R-HSS-HM-EX120

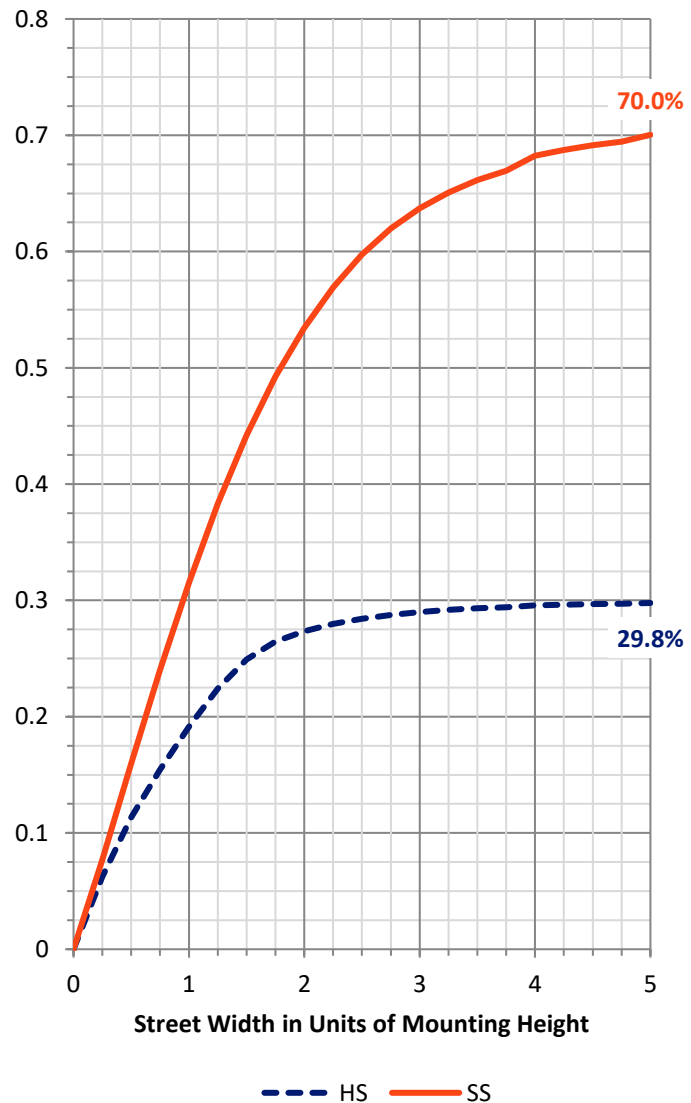
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7230.7	1.1	7231.9
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	17015.2	9.9	17025.1
	% Fixture	70.1	0.0	70.2
Total	Lumens	24245.9	11.0	24257.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	0.8
10°-20°	653.2	2.7
20°-30°	1118.9	4.6
30°-40°	1815.2	7.5
40°-50°	3061.2	12.6
50°-60°	4989.9	20.6
60°-70°	6692.2	27.6
70°-80°	5198.1	21.4
80°-90°	511.9	2.1
90°-100°	9.7	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°	24245.9	100.0
0°-180°	24257.0	100.0



REPORT NUMBER: P256721

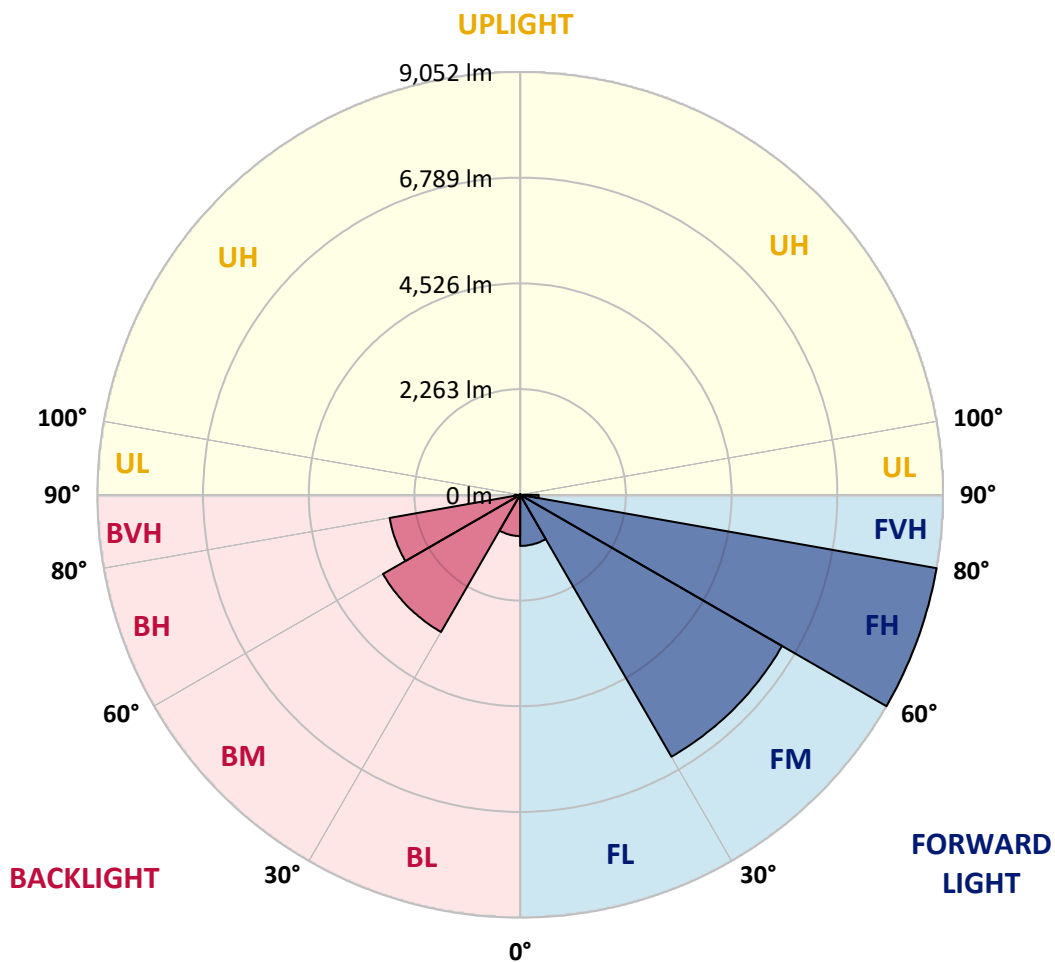
CATALOG NUMBER: CST-8-3-D-U-T5R-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1094.1	4.5			
FM	(30°-60°)	6475.0	26.7			
FH	(60°-80°)	9052.4	37.3			G4/12000
FVH	(80°-90°)	393.6	1.6			G3/500
BL	(0°-30°)	883.3	3.6	B2/1000		
BM	(30°-60°)	3391.2	14.0	B3/5000		
BH	(60°-80°)	2837.9	11.7	B4/5000		G4/5000
BVH	(80°-90°)	118.3	0.5			G2/225
UL	(90°-100°)	9.7	0.0		U1/10	
UH	(100°-180°)	1.1	0.0		U1/10	

BUG Rating: B4-U1-G4

Type IV Short





REPORT NUMBER: P256721

CATALOG NUMBER: CST-8-3-D-U-T5R-HSS-HM-EX120

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8
2.5°	2149.9	2143.9	2142.9	2154.9	2116.8	2135.8	2118.8	2132.8	2123.8	2130.8	2131.8
5°	2179.0	2167.9	2160.9	2175.0	2150.9	2159.9	2140.8	2146.9	2121.8	2135.8	2137.8
7.5°	2221.1	2203.0	2201.0	2205.1	2184.0	2191.0	2159.9	2166.9	2148.9	2140.8	2147.9
10°	2278.3	2261.2	2248.2	2257.2	2229.1	2233.1	2200.0	2201.0	2188.0	2172.9	2185.0
12.5°	2310.4	2312.4	2306.4	2313.4	2290.3	2277.3	2254.2	2246.2	2233.1	2215.1	2209.1
15°	2390.6	2386.6	2374.6	2385.6	2382.6	2370.6	2342.5	2324.4	2296.3	2286.3	2276.3
17.5°	2489.0	2475.9	2465.9	2479.9	2495.0	2469.9	2442.8	2417.7	2380.6	2360.5	2348.5
20°	2592.3	2583.3	2573.2	2595.3	2600.3	2581.3	2561.2	2524.1	2480.9	2454.8	2429.8
22.5°	2707.7	2689.6	2692.6	2721.7	2712.7	2703.6	2677.6	2647.5	2595.3	2562.2	2490.0
25°	2827.0	2817.0	2831.1	2844.1	2837.1	2818.0	2805.0	2782.9	2724.7	2684.6	2579.2
27.5°	2975.5	2959.5	2977.5	2982.5	2976.5	2971.5	2953.4	2936.4	2873.2	2828.0	2696.6
30°	3150.1	3131.0	3160.1	3153.1	3147.1	3151.1	3140.0	3102.9	3046.7	2985.5	2854.1
32.5°	3357.7	3332.7	3365.8	3350.7	3336.7	3364.8	3338.7	3303.6	3237.4	3166.1	3037.7
35°	3598.5	3599.5	3616.6	3591.5	3586.5	3616.6	3599.5	3556.4	3495.2	3420.9	3238.4
37.5°	3890.4	3882.4	3925.6	3913.5	3895.5	3935.6	3940.6	3886.4	3776.1	3702.8	3487.2
40°	4245.6	4243.6	4257.6	4259.6	4254.6	4273.7	4282.7	4210.5	4139.2	4028.9	3290.5
42.5°	4624.8	4632.8	4657.9	4639.8	4663.9	4689.0	4692.0	4631.8	4529.5	3865.4	3495.2
45°	5080.2	5105.3	5122.4	5118.4	5129.4	5165.5	5168.5	5136.4	5036.1	4187.4	3866.4
47.5°	5602.9	5627.0	5632.0	5664.1	5654.1	5705.2	5698.2	5699.2	5591.9	4635.8	4270.7
50°	6203.8	6214.9	6256.0	6274.1	6249.0	6318.2	6300.1	6322.2	6189.8	5149.5	4705.0
52.5°	6841.9	6860.9	6878.0	6946.2	6914.1	6974.3	6950.2	7001.4	6847.9	5672.1	5187.6
55°	7567.2	7570.2	7599.3	7668.5	7626.4	7698.6	7663.5	7682.6	7560.2	6250.0	5690.2
57.5°	8335.7	8325.6	8336.7	8391.8	8353.7	8407.9	8393.8	8411.9	8297.5	6857.9	6057.4
60°	9096.1	9081.0	9097.1	9134.2	9082.0	9175.3	9125.2	9142.2	9018.8	7478.9	6581.0
62.5°	9860.5	9849.5	9831.4	9868.6	9792.3	9840.5	9861.5	9833.4	9725.1	8040.7	7036.5
65°	10681.2	10670.1	10603.9	10627.0	10490.5	10467.5	10475.5	10484.5	10412.3	8597.5	7536.1
67.5°	11678.3	11662.3	11537.9	11381.4	11184.8	11141.6	11145.6	11169.7	11179.7	9313.8	8121.0
68°	11790.7	11761.6	11623.2	11441.6	11235.9	11185.8	11180.8	11185.8	11190.8	9319.8	8114.9
70°	11503.8	11492.7	11387.4	11167.7	10957.0	10836.7	10732.3	10728.3	10680.2	8843.3	7666.5
72.5°	10208.6	10194.6	10069.2	9913.7	9783.3	9594.7	9459.2	9467.3	9388.0	7816.0	6710.5
75°	8261.4	8260.4	8109.9	7979.5	7981.5	7967.5	7922.3	8001.6	7919.3	6629.2	5723.3
77.5°	5757.4	5777.5	5767.4	5691.2	5798.5	5947.0	6108.5	6261.0	6213.9	5236.7	4563.6
80°	3007.6	3063.8	3262.4	3271.5	3346.7	3491.2	3601.5	3703.8	3710.9	2971.5	2636.4
82.5°	799.6	816.6	883.8	864.8	858.7	887.8	911.9	914.9	916.9	774.5	723.3
85°	248.8	255.8	247.8	236.8	219.7	200.6	195.6	159.5	126.4	104.3	91.3
87.5°	176.6	188.6	170.5	160.5	142.5	135.4	121.4	95.3	74.2	52.2	35.1
90°	91.3	93.3	83.3	71.2	66.2	62.2	53.2	38.1	19.1	10.0	9.0
92.5°	46.1	47.2	41.1	35.1	30.1	26.1	20.1	11.0	6.0	3.0	1.0
95°	18.1	19.1	17.1	15.0	12.0	9.0	8.0	6.0	4.0	2.0	1.0
97.5°	6.0	6.0	6.0	5.0	5.0	5.0	5.0	4.0	3.0	2.0	1.0
100°	0.0	0.0	0.0	1.0	2.0	3.0	3.0	3.0	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: P256721

CATALOG NUMBER: CST-8-3-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	1.0	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: P256721

CATALOG NUMBER: CST-8-3-D-U-T5R-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8	2114.8
2.5°	2126.8	2120.8	2123.8	2098.7	2104.7	2088.7	2122.8	2113.8	2109.7	2123.8
5°	2131.8	2109.7	2127.8	2110.7	2113.8	2090.7	2118.8	2107.7	2106.7	2114.8
7.5°	2133.8	2122.8	2139.8	2111.8	2120.8	2111.8	2132.8	2121.8	2131.8	2138.8
10°	2161.9	2155.9	2153.9	2143.9	2150.9	2130.8	2156.9	2156.9	2161.9	2181.0
12.5°	2203.0	2195.0	2190.0	2171.9	2179.0	2172.9	2194.0	2198.0	2207.1	2215.1
15°	2259.2	2245.2	2240.2	2224.1	2229.1	2228.1	2243.2	2244.2	2264.2	2263.2
17.5°	2331.5	2311.4	2317.4	2305.4	2306.4	2298.3	2290.3	2290.3	2308.4	2312.4
20°	2417.7	2303.4	2152.9	2068.6	2053.6	2064.6	2107.7	2179.0	2089.7	2114.8
22.5°	2262.2	2158.9	2151.9	2132.8	2120.8	1851.9	1782.7	1760.6	1876.0	2074.6
25°	2282.3	2238.2	2225.1	2201.0	1845.9	1842.9	1822.8	1789.7	1462.7	1455.7
27.5°	2388.6	2345.5	2324.4	1928.2	1920.1	1919.1	1889.0	1557.0	1481.7	1491.8
30°	2513.0	2462.9	2085.7	2025.5	2018.5	2002.4	1829.9	1537.9	1536.9	1537.9
32.5°	2656.5	2490.0	2145.9	2142.9	2146.9	2097.7	1621.2	1615.2	1614.2	1624.2
35°	2853.1	2310.4	2296.3	2311.4	2290.3	1813.8	1718.5	1715.5	1716.5	1711.5
37.5°	2722.7	2491.0	2488.0	2488.0	2438.8	1855.9	1836.9	1850.9	1848.9	1841.9
40°	2777.9	2709.7	2691.6	2685.6	2061.6	2002.4	1991.4	2009.4	2012.4	2017.5
42.5°	3045.7	2983.5	2974.5	2903.3	2243.2	2224.1	2190.0	2209.1	2207.1	2213.1
45°	3374.8	3332.7	3293.5	2517.0	2488.0	2463.9	2428.8	2450.8	2456.9	2452.8
47.5°	3758.0	3711.9	3429.0	2767.9	2766.8	2747.8	2708.7	2726.7	2723.7	2723.7
50°	4143.2	4093.1	3115.0	3086.9	3076.8	3046.7	3014.6	3017.6	3018.7	3028.7
52.5°	4573.6	3655.7	3448.0	3391.8	3399.9	3379.8	3348.7	2535.1	3333.7	3342.7
55°	4274.7	3826.2	3814.2	3740.0	3759.0	3732.9	3712.9	2501.0	3315.6	3663.7
57.5°	4226.5	4194.4	4184.4	4108.1	4132.2	3884.4	4070.0	2736.8	2293.3	1675.4
60°	4594.7	4560.6	4554.6	4487.3	4485.3	3086.9	3699.8	1877.0	1466.7	1476.7
62.5°	4951.8	4896.7	4911.7	4832.5	3406.9	1881.0	1658.3	42.1	67.2	71.2
65°	5350.1	5257.8	5272.9	5199.6	3514.2	1983.3	1792.7	22.1	19.1	18.1
67.5°	5733.3	5571.8	5494.6	5417.3	3649.7	2088.7	1868.0	6.0	0.0	0.0
68°	5714.3	5543.7	5464.5	5391.2	3635.6	2085.7	1864.0	6.0	0.0	0.0
70°	5392.2	5238.8	5163.5	5107.3	3471.1	2014.4	1788.7	6.0	0.0	0.0
72.5°	4714.1	4628.8	4580.6	4531.5	3083.9	1801.8	1604.1	6.0	0.0	0.0
75°	4005.8	3981.7	3951.6	3843.3	2570.2	1474.7	1318.2	6.0	0.0	0.0
77.5°	3174.1	3173.1	3099.9	2972.5	1935.2	1082.5	972.1	5.0	0.0	0.0
80°	1716.5	1871.0	1814.8	1749.6	1097.5	588.9	560.8	4.0	0.0	0.0
82.5°	482.5	456.5	438.4	410.3	230.7	128.4	125.4	4.0	0.0	0.0
85°	67.2	74.2	82.3	93.3	53.2	34.1	30.1	2.0	0.0	0.0
87.5°	38.1	43.1	53.2	55.2	20.1	16.1	5.0	0.0	0.0	0.0
90°	8.0	9.0	10.0	10.0	4.0	4.0	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: P256721

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