

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: P256754

Luminaire Tested: **CST-10-3-D-U-T5R-7050-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256754
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-10-3-D-U-T5R-7050-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K 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: 21271 lumens
Efficiency: N/A
Efficacy: 100.3 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): 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

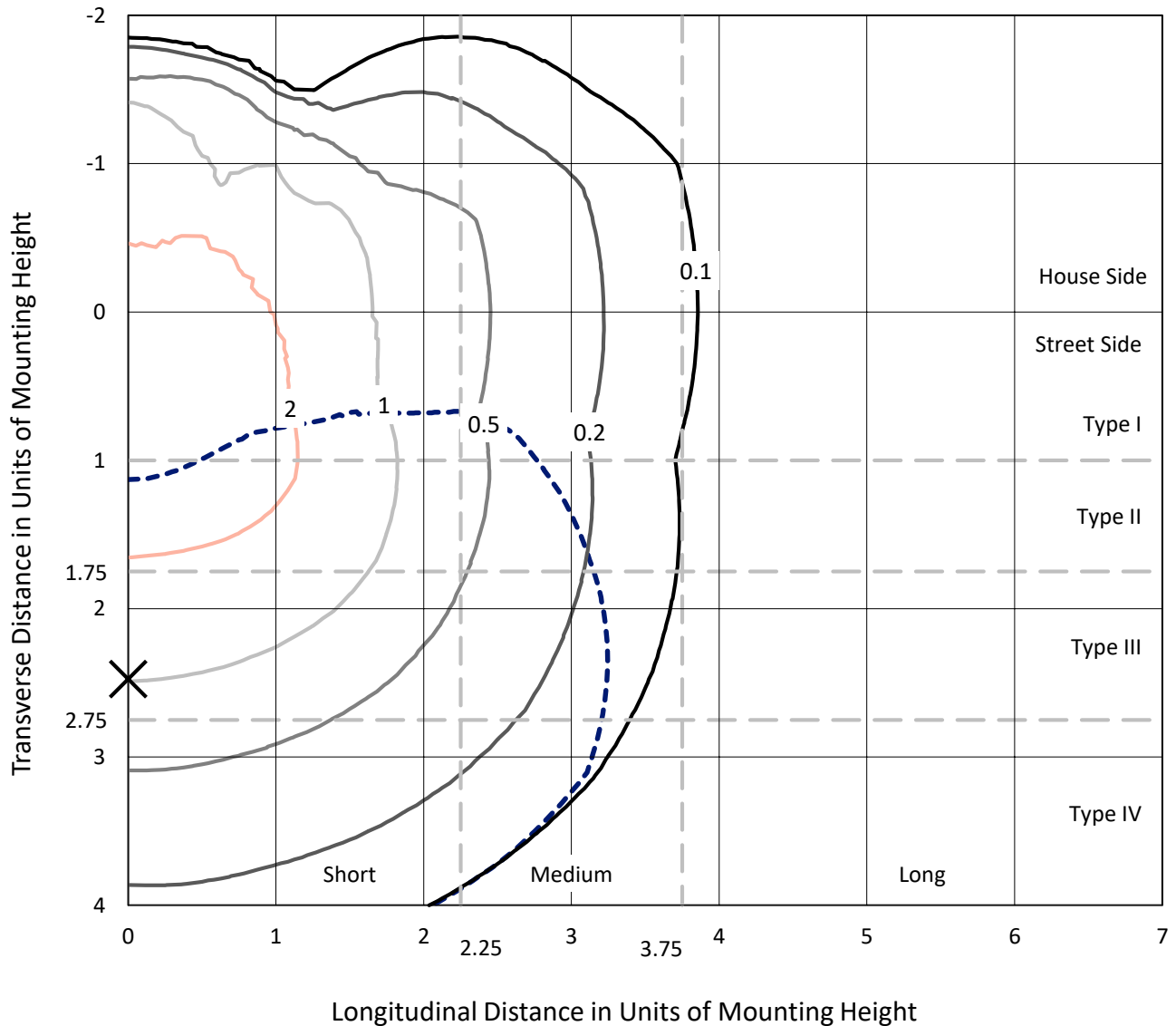


REPORT NUMBER: P256754

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

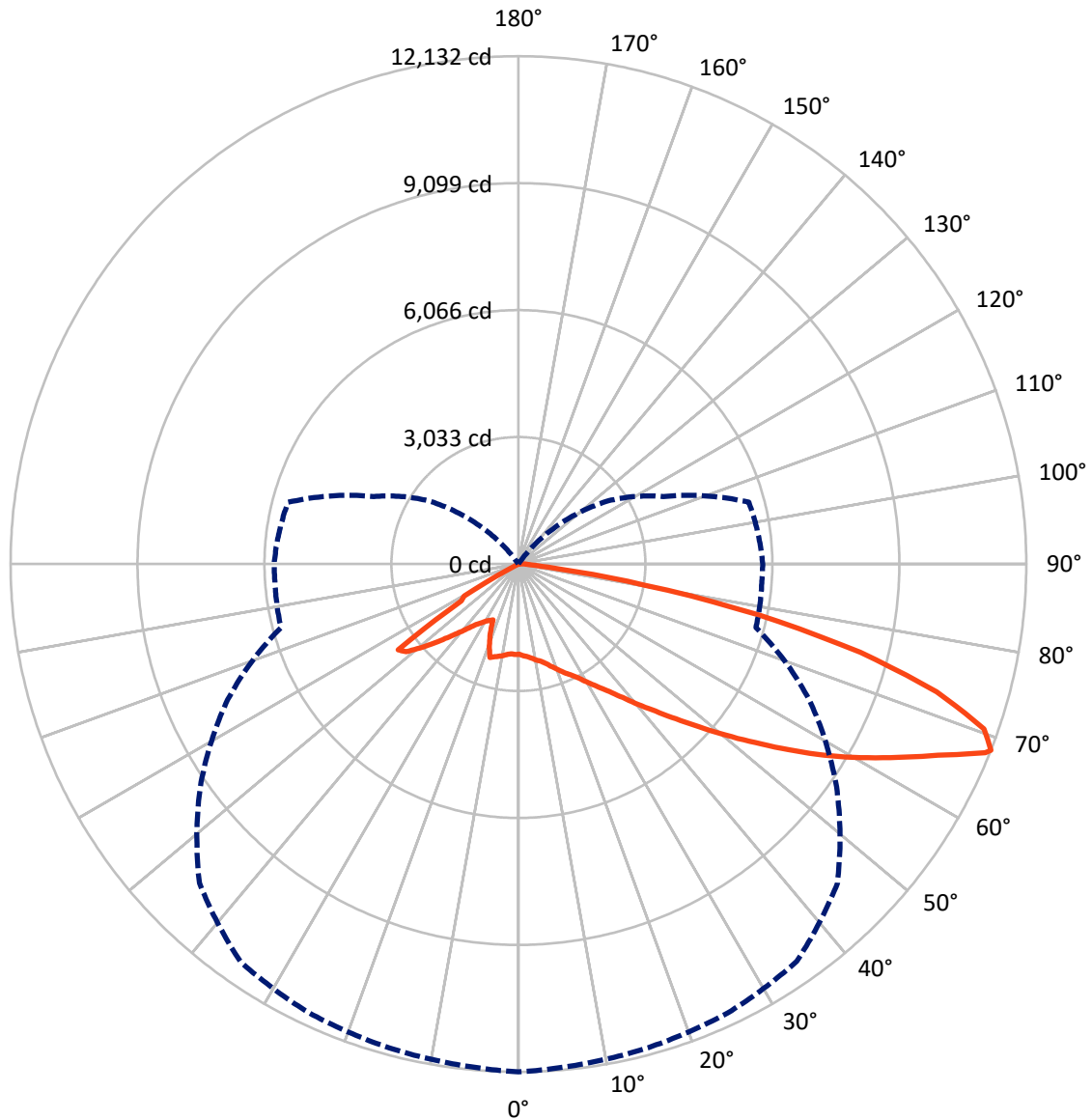


Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256754

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX180

Luminous Intensity Polar Plot



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



REPORT NUMBER: P256754

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX180

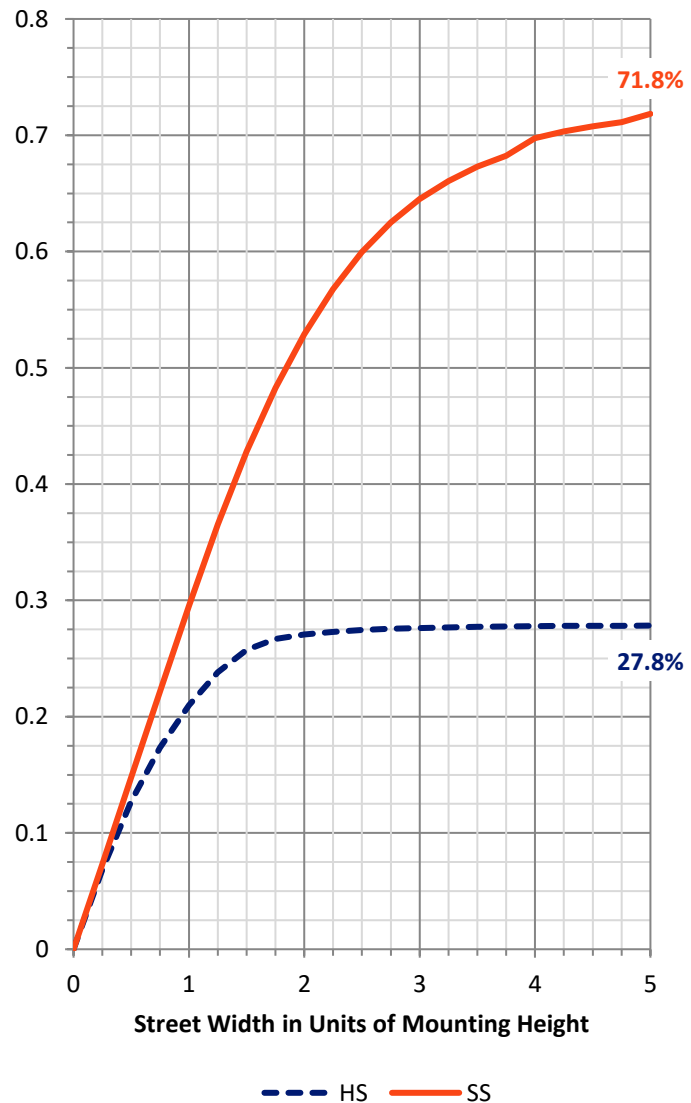
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5941.0	0.1	5941.2
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	15317.7	12.2	15329.8
	% Fixture	72.0	0.1	72.1
Total	Lumens	21258.7	12.3	21271.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.2	1.0
10°-20°	662.7	3.1
20°-30°	1122.0	5.3
30°-40°	1777.5	8.4
40°-50°	2906.2	13.7
50°-60°	4451.5	20.9
60°-70°	5473.5	25.7
70°-80°	4229.3	19.9
80°-90°	426.7	2.0
90°-100°	12.1	0.1
100°-110°	0.2	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°	21258.7	99.9
0°-180°	21271.0	100.0



REPORT NUMBER: P256754

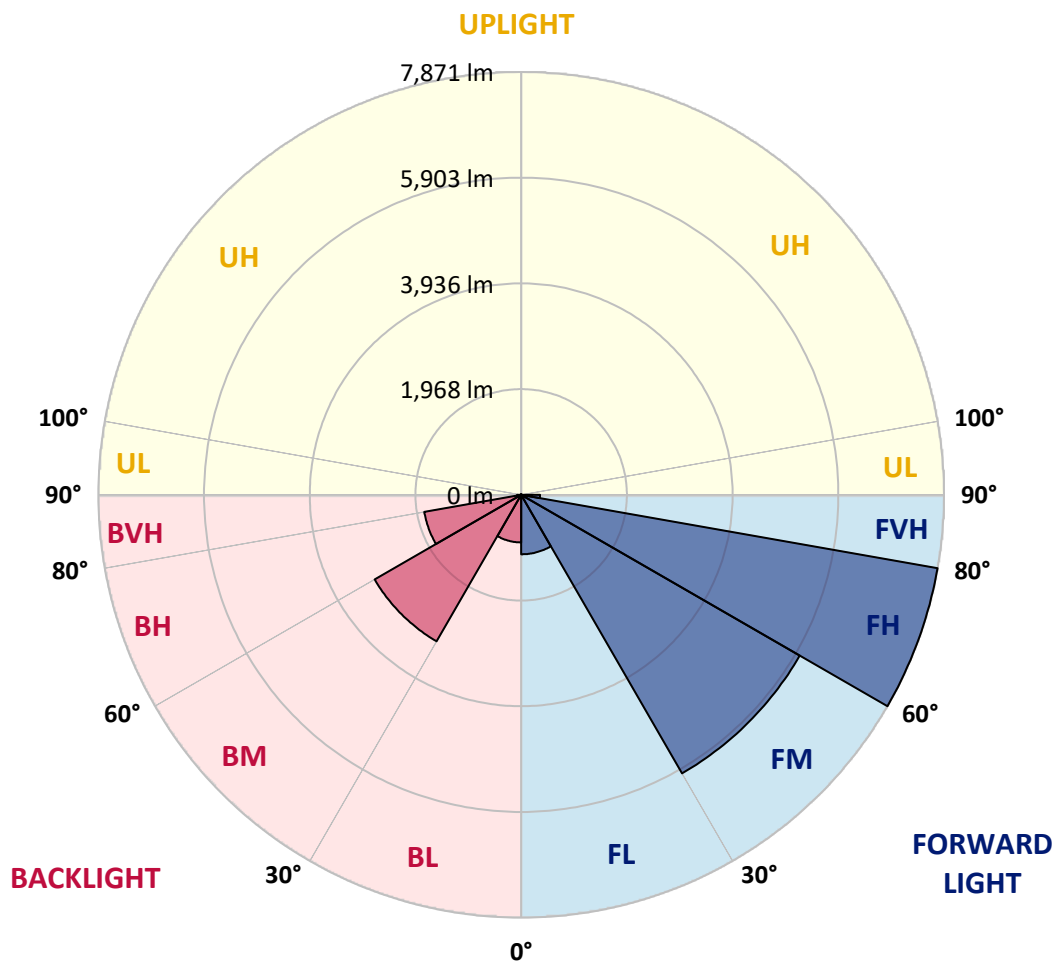
CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1107.2	5.2			
FM	(30°-60°)	5987.4	28.1			
FH	(60°-80°)	7871.2	37.0			G4/12000
FVH	(80°-90°)	351.9	1.7			G3/500
BL	(0°-30°)	886.8	4.2	B2/1000		
BM	(30°-60°)	3147.8	14.8	B3/5000		
BH	(60°-80°)	1831.6	8.6	B3/2500		G3/2500
BVH	(80°-90°)	74.8	0.4			G1/100
UL	(90°-100°)	12.1	0.1		U2/50	
UH	(100°-180°)	0.1	0.0		U1/10	

BUG Rating: B3-U2-G4

Type IV Short





REPORT NUMBER: P256754

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0
2.5°	2193.9	2189.8	2185.7	2194.9	2159.1	2174.4	2162.2	2173.4	2165.2	2174.4	2171.4
5°	2222.6	2218.5	2206.2	2216.5	2192.9	2199.0	2183.7	2187.8	2160.1	2176.5	2175.5
7.5°	2269.7	2258.5	2250.3	2250.3	2229.8	2228.8	2204.2	2205.2	2183.7	2181.6	2185.7
10°	2333.3	2325.1	2302.5	2304.6	2275.9	2271.8	2241.1	2240.0	2222.6	2212.4	2221.6
12.5°	2380.4	2388.6	2368.1	2368.1	2339.4	2318.9	2297.4	2283.1	2269.7	2254.4	2247.2
15°	2466.5	2474.7	2447.0	2446.0	2434.7	2410.1	2386.6	2355.8	2332.3	2325.1	2313.8
17.5°	2578.2	2573.1	2549.5	2550.5	2552.6	2512.6	2489.0	2449.1	2415.3	2390.7	2384.5
20°	2691.9	2691.9	2666.3	2674.5	2664.3	2627.4	2612.0	2556.7	2509.5	2482.9	2461.4
22.5°	2819.0	2813.9	2796.5	2813.9	2793.4	2756.5	2730.9	2675.5	2615.1	2464.4	2403.0
25°	2939.9	2936.8	2944.0	2949.1	2923.5	2877.4	2860.0	2801.6	2633.5	2435.8	2311.8
27.5°	3092.6	3082.3	3098.7	3109.0	3083.4	3043.4	3006.5	2940.9	2585.4	2429.6	2416.3
30°	3288.3	3265.8	3289.3	3294.5	3267.8	3243.2	3187.9	2860.0	2601.8	2556.7	2552.6
32.5°	3497.4	3470.7	3501.5	3505.6	3470.7	3450.2	3310.9	2818.0	2762.6	2710.4	2715.5
35°	3745.3	3745.3	3760.7	3762.8	3737.1	3702.3	3171.5	3022.9	2973.7	2925.6	2924.5
37.5°	4047.6	4038.4	4079.4	4104.0	4076.3	3976.9	3374.4	3304.7	3228.9	3167.4	3040.3
40°	4412.4	4428.8	4440.1	4464.7	4438.0	4214.7	3670.5	3591.6	3532.2	3326.2	3005.5
42.5°	4805.9	4810.0	4834.6	4865.4	4865.4	4629.7	4016.9	3949.3	3872.4	3252.5	3108.0
45°	5276.3	5267.0	5314.2	5363.4	5350.0	5106.2	4419.6	4369.4	4009.7	3466.6	3467.6
47.5°	5810.1	5798.9	5866.5	5931.1	5864.5	5634.9	4862.3	4823.3	3870.4	3829.4	3821.2
50°	6427.0	6399.4	6477.2	6563.3	6509.0	6225.2	5400.3	4652.2	4258.7	4225.9	4220.8
52.5°	7085.9	7064.4	7111.5	7258.1	7186.3	6843.1	5909.5	4799.8	4708.6	4671.7	4662.5
55°	7829.9	7787.8	7889.3	8001.0	7918.0	7526.5	6411.7	5289.6	5195.3	5131.8	5039.6
57.5°	8611.7	8551.3	8603.5	8743.9	8664.0	8226.4	7059.3	5793.7	5682.1	4702.4	4328.4
60°	9390.5	9362.8	9383.3	9507.3	9408.9	8906.8	7665.9	6298.9	4809.0	4651.2	4669.6
62.5°	10173.4	10112.9	10131.4	10258.4	10132.4	9554.5	8240.8	6758.0	5061.1	5005.7	5025.2
65°	11012.6	10940.9	10957.3	10994.2	10838.4	10135.5	8749.0	7191.5	5440.2	5381.8	5403.3
67.5°	12024.0	11958.4	11869.3	11759.6	11544.5	10752.4	9254.2	7647.5	5866.5	5833.7	5840.9
68°	12131.6	12068.1	11960.5	11830.4	11588.5	10778.0	9275.7	7660.8	5872.7	5831.7	5833.7
70°	11796.5	11834.5	11712.5	11494.2	11292.4	10402.9	8924.3	7365.7	5611.3	5550.9	5535.5
72.5°	10447.0	10530.0	10361.9	10325.0	10077.1	9267.5	7809.4	6391.2	4880.7	4900.2	4844.9
75°	8434.4	8556.4	8352.5	8363.7	8222.3	7730.5	6544.9	5321.4	4007.7	4096.8	4113.2
77.5°	5865.5	6040.7	5951.6	6040.7	5971.0	5793.7	5065.2	4097.8	3057.8	3160.2	3200.2
80°	3058.8	3266.8	3384.6	3421.5	3444.1	3436.9	3084.4	2459.3	1767.6	1805.6	1803.5
82.5°	967.3	917.1	946.8	938.6	913.0	923.3	832.1	650.7	450.9	497.0	475.5
85°	292.0	294.1	285.9	283.8	262.3	230.6	188.5	108.6	53.3	62.5	58.4
87.5°	215.2	217.2	200.8	190.6	178.3	154.7	119.9	67.6	25.6	24.6	19.5
90°	118.9	114.8	106.6	98.4	93.2	79.9	60.5	25.6	9.2	7.2	6.1
92.5°	64.6	61.5	57.4	54.3	47.1	37.9	24.6	8.2	4.1	1.0	0.0
95°	29.7	27.7	26.6	23.6	20.5	14.3	8.2	5.1	3.1	1.0	0.0
97.5°	13.3	12.3	11.3	9.2	7.2	4.1	4.1	3.1	2.0	1.0	0.0
100°	3.1	3.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0



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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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0
2.5°	2168.3	2162.2	2159.1	2139.6	2145.8	2128.3	2162.2	2154.0	2148.8	2163.2
5°	2170.3	2148.8	2162.2	2150.9	2155.0	2130.4	2157.0	2145.8	2144.7	2150.9
7.5°	2175.5	2161.1	2174.4	2151.9	2162.2	2151.9	2171.4	2160.1	2169.3	2175.5
10°	2203.1	2194.9	2188.8	2183.7	2190.8	2170.3	2194.9	2196.0	2199.0	2217.5
12.5°	2242.1	2233.9	2223.6	2210.3	2217.5	2209.3	2227.7	2232.9	2244.1	2253.4
15°	2296.4	2281.0	2276.9	2264.6	2271.8	2267.7	2271.8	2268.7	2290.2	2287.2
17.5°	2371.2	2353.8	2295.4	2235.9	2198.0	2209.3	2256.4	2317.9	2333.3	2335.3
20°	2398.9	2275.9	2269.7	2202.1	2171.4	2169.3	2072.0	1926.5	1970.5	2074.0
22.5°	2366.1	2198.0	2180.6	2167.3	2036.1	1820.9	1800.4	1778.9	1773.8	1789.2
25°	2292.3	2272.8	2257.5	2083.2	1876.3	1877.3	1847.6	1706.2	1485.8	1467.4
27.5°	2405.0	2378.4	2229.8	1961.3	1957.2	1955.2	1911.1	1548.3	1501.2	1512.5
30°	2533.1	2489.0	2100.7	2065.8	2064.8	2046.4	1713.3	1561.7	1561.7	1563.7
32.5°	2680.7	2407.1	2174.4	2190.8	2189.8	2102.7	1654.9	1644.7	1640.6	1650.8
35°	2793.4	2341.5	2333.3	2363.0	2342.5	1784.0	1758.4	1749.2	1745.1	1740.0
37.5°	2758.5	2530.0	2530.0	2548.5	2383.5	1899.8	1887.5	1887.5	1879.3	1875.2
40°	2811.8	2764.7	2741.1	2748.3	1731.8	2040.2	2049.4	2047.4	2046.4	2053.5
42.5°	3092.6	3050.6	3029.1	2774.9	1938.8	2027.9	2253.4	2252.3	2255.4	2252.3
45°	3450.2	3411.3	3354.9	2596.6	2201.1	1777.9	2483.9	2495.2	2496.2	2495.2
47.5°	3825.3	3800.7	3223.8	2874.3	2486.0	1908.0	2374.3	2772.9	2767.8	2773.9
50°	4221.8	4111.2	3207.4	3203.3	2789.3	2123.2	2124.2	3015.7	3068.0	3084.4
52.5°	4663.5	3726.9	3554.7	3243.2	3096.7	2344.6	2322.0	2672.5	3385.7	3402.1
55°	4331.5	3937.0	3933.9	2886.6	3221.7	2557.7	2560.8	2536.2	3104.9	3529.1
57.5°	4310.0	4319.2	4312.0	3220.7	2350.7	2397.8	2790.3	2768.8	2010.5	1629.3
60°	4681.9	4695.3	4189.0	3477.9	2541.3	1474.6	1718.4	1460.2	1479.7	1495.1
62.5°	5037.5	5041.6	3407.2	2280.0	1259.4	59.4	28.7	23.6	22.5	22.5
65°	5431.0	5431.0	3652.1	2487.0	1216.3	22.5	4.1	3.1	11.3	11.3
67.5°	5811.2	5727.1	3831.4	2640.7	1237.9	3.1	0.0	0.0	0.0	0.0
68°	5789.6	5697.4	3815.0	2636.6	1234.8	2.0	0.0	0.0	0.0	0.0
70°	5467.9	5378.7	3619.3	2516.7	1188.7	2.0	0.0	0.0	0.0	0.0
72.5°	4826.4	4744.4	3205.3	2218.5	1071.9	1.0	0.0	0.0	0.0	0.0
75°	4085.5	4074.3	2768.8	1872.2	919.2	1.0	0.0	0.0	0.0	0.0
77.5°	3287.3	3236.1	2164.2	1467.4	740.9	0.0	0.0	0.0	0.0	0.0
80°	1831.2	1907.0	1266.5	862.8	466.2	0.0	0.0	0.0	0.0	0.0
82.5°	494.9	463.2	276.7	187.5	89.2	0.0	0.0	0.0	0.0	0.0
85°	63.5	69.7	31.8	25.6	6.1	0.0	0.0	0.0	0.0	0.0
87.5°	32.8	38.9	10.2	8.2	2.0	0.0	0.0	0.0	0.0	0.0
90°	6.1	7.2	3.1	1.0	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: P256754

CATALOG NUMBER: CST-10-3-D-U-T5R-7050-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)