

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: P256737

Luminaire Tested: **CST-8-3-D-U-T5R-7030-HSS-HM-EX180**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256737  
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-8-3-D-U-T5R-7030-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 3000K 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: 20265 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U2 - G3

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

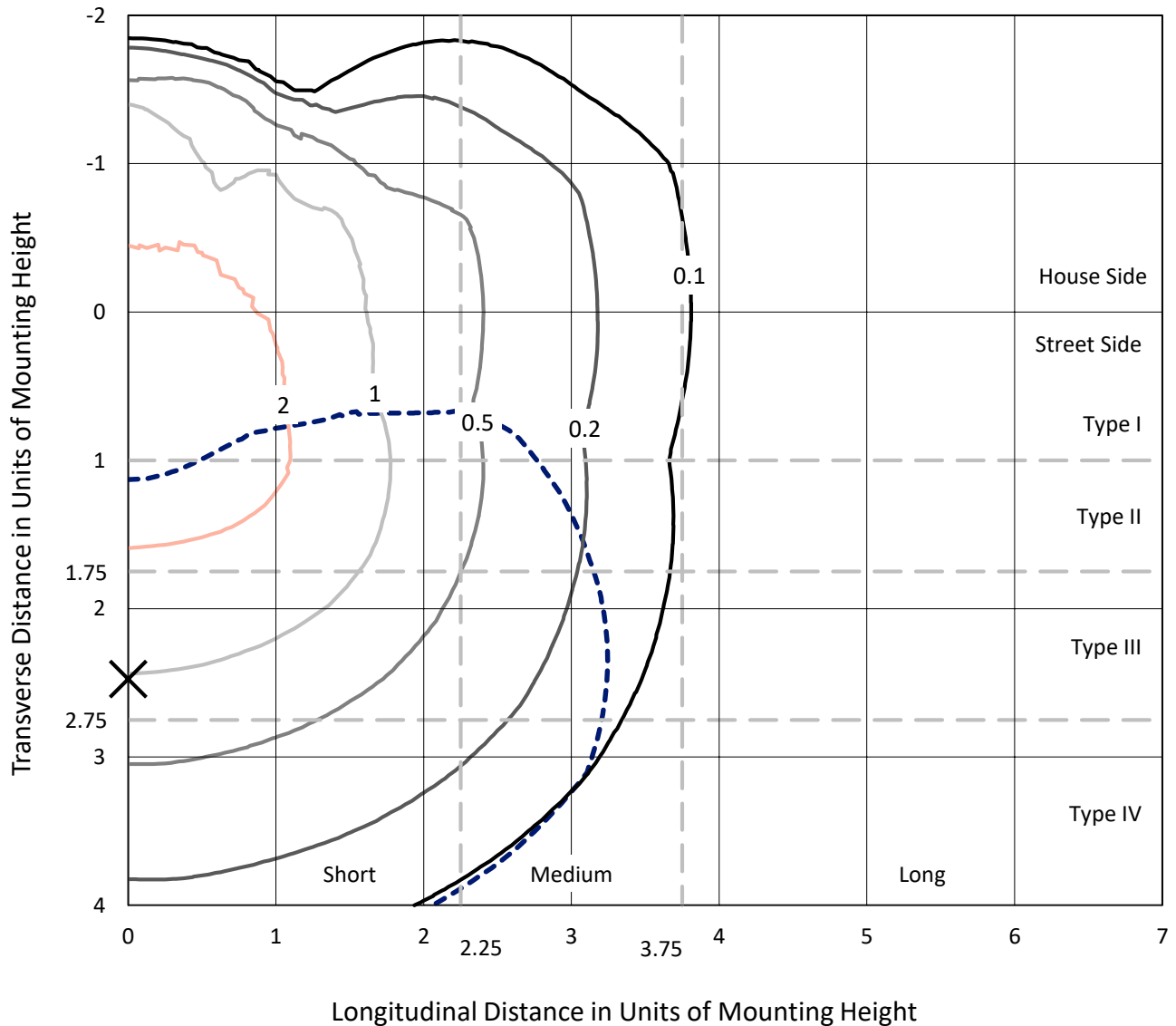


REPORT NUMBER: P256737

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX180

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

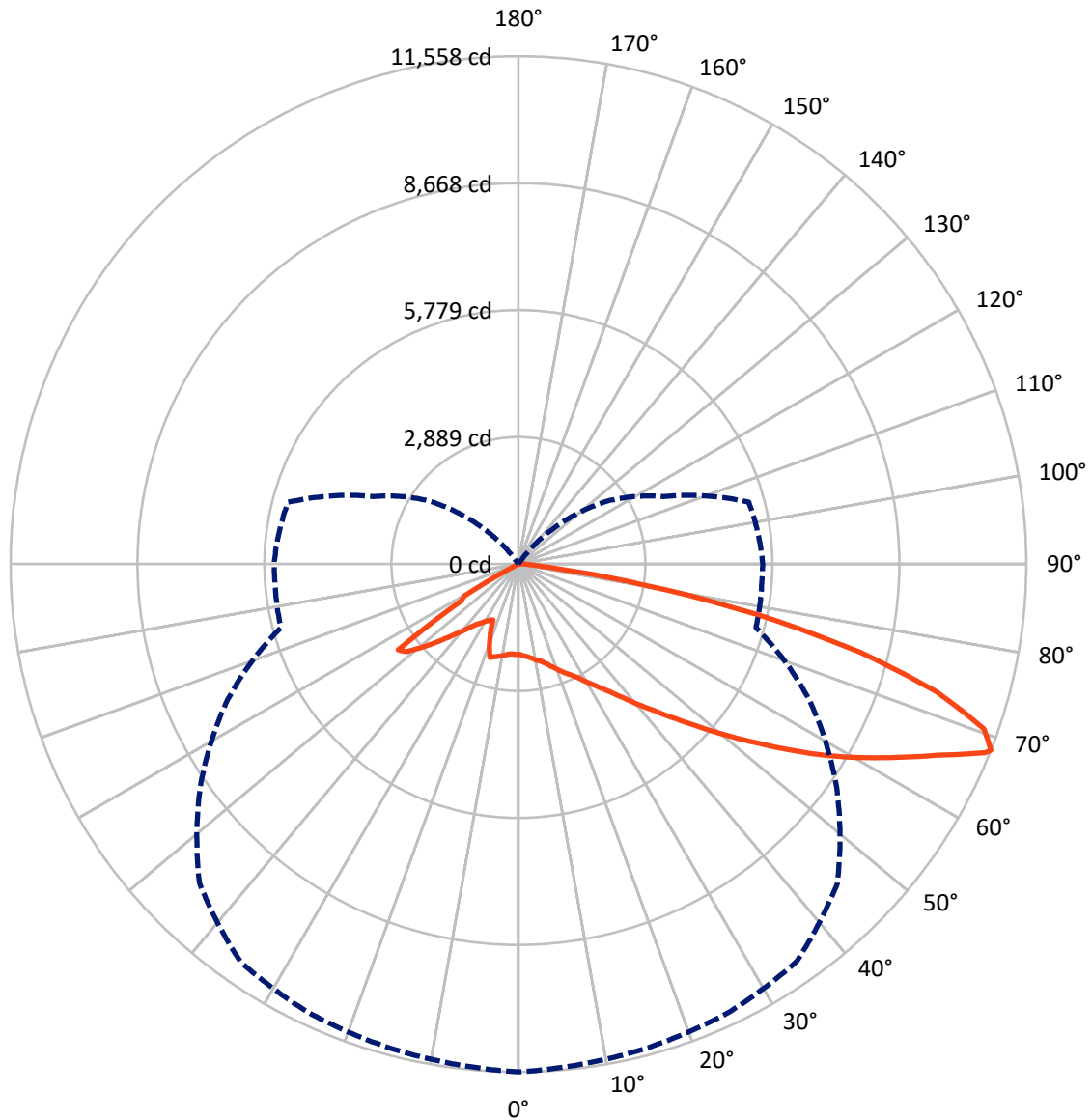


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256737

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX180

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P256737

CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX180

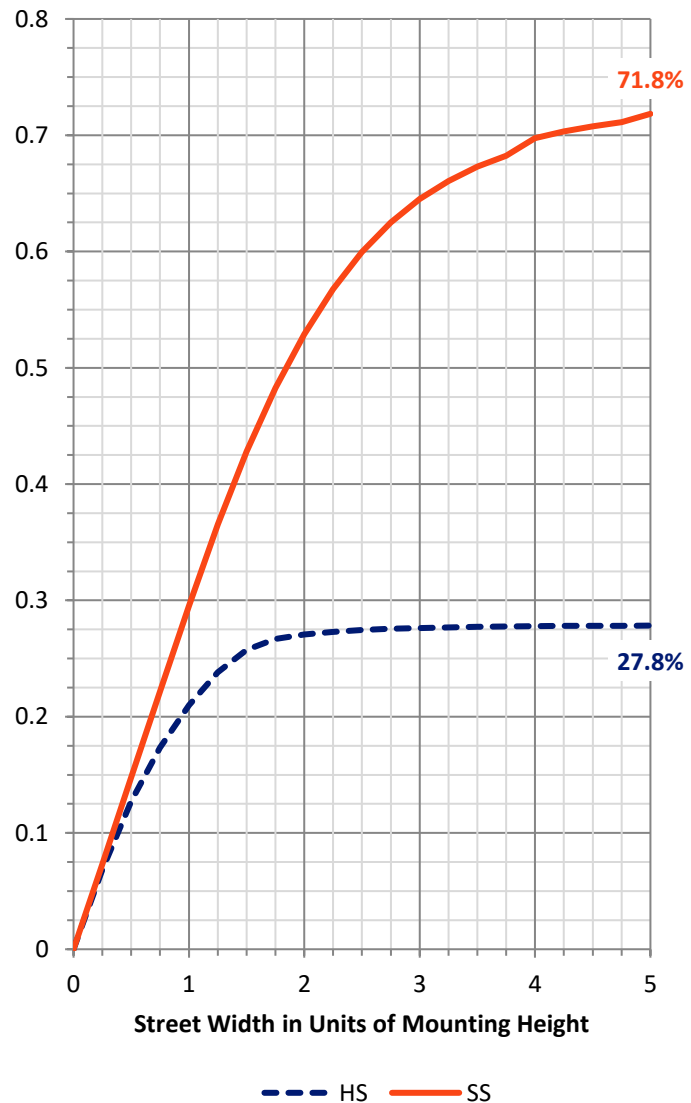
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5660.0	0.1	5660.2
	% Fixture	27.9	0.0	27.9
<b>Street Side</b>	Lumens	14593.2	11.6	14604.8
	% Fixture	72.0	0.1	72.1
<b>Total</b>	Lumens	20253.3	11.7	20265.0
	% Fixture	99.9	0.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	199.3	1.0
10°-20°	631.4	3.1
20°-30°	1069.0	5.3
30°-40°	1693.5	8.4
40°-50°	2768.7	13.7
50°-60°	4241.0	20.9
60°-70°	5214.6	25.7
70°-80°	4029.3	19.9
80°-90°	406.5	2.0
90°-100°	11.5	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°	20253.3	99.9
0°-180°	20265.0	100.0



REPORT NUMBER: P256737

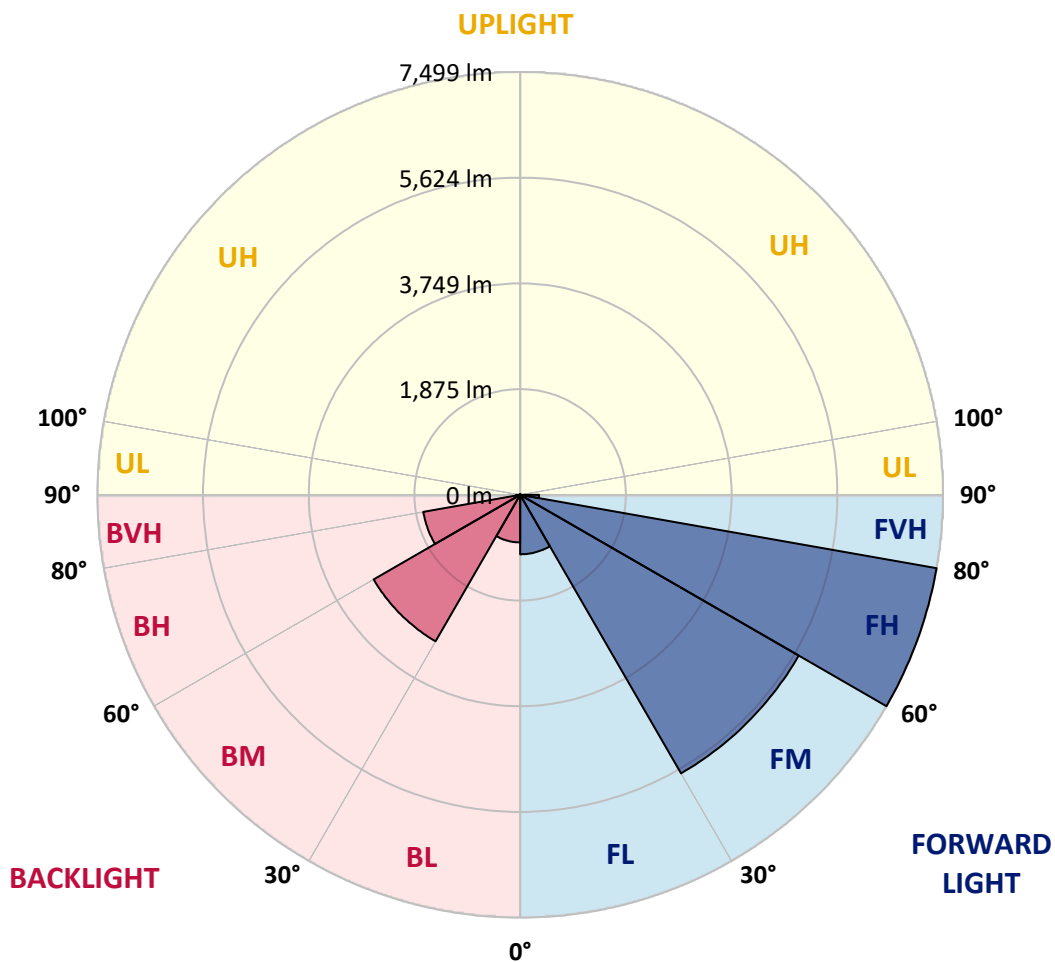
CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX180

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1054.8	5.2			
FM	(30°-60°)	5704.3	28.1			
FH	(60°-80°)	7498.9	37.0			G3/7500
FVH	(80°-90°)	335.3	1.7			G3/500
BL	(0°-30°)	844.8	4.2	B2/1000		
BM	(30°-60°)	2998.9	14.8	B3/5000		
BH	(60°-80°)	1745.0	8.6	B3/2500		G3/2500
BVH	(80°-90°)	71.3	0.4			G1/100
UL	(90°-100°)	11.5	0.1		U2/50	
UH	(100°-180°)	0.1	0.0		U1/10	

**BUG Rating: B3-U2-G3**

Type IV Short





REPORT NUMBER: P256737

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1
2.5°	2090.2	2086.3	2082.3	2091.1	2057.0	2071.6	2059.9	2070.6	2062.8	2071.6	2068.7
5°	2117.5	2113.6	2101.9	2111.6	2089.2	2095.0	2080.4	2084.3	2057.9	2073.6	2072.6
7.5°	2162.4	2151.7	2143.9	2143.9	2124.3	2123.4	2099.9	2100.9	2080.4	2078.4	2082.3
10°	2222.9	2215.1	2193.6	2195.6	2168.3	2164.4	2135.1	2134.1	2117.5	2107.7	2116.5
12.5°	2267.8	2275.6	2256.1	2256.1	2228.8	2209.3	2188.8	2175.1	2162.4	2147.8	2140.9
15°	2349.8	2357.7	2331.3	2330.3	2319.6	2296.1	2273.7	2244.4	2222.0	2215.1	2204.4
17.5°	2456.3	2451.4	2428.9	2429.9	2431.8	2393.8	2371.3	2333.2	2301.0	2277.6	2271.7
20°	2564.6	2564.6	2540.2	2548.0	2538.3	2503.1	2488.5	2435.8	2390.8	2365.5	2345.0
22.5°	2685.7	2680.8	2664.2	2680.8	2661.3	2626.1	2601.7	2549.0	2491.4	2347.9	2289.3
25°	2800.9	2797.9	2804.8	2809.7	2785.3	2741.3	2724.7	2669.1	2509.0	2320.6	2202.4
27.5°	2946.3	2936.6	2952.2	2962.0	2937.5	2899.5	2864.3	2801.8	2463.1	2314.7	2302.0
30°	3132.8	3111.3	3133.8	3138.7	3113.3	3089.8	3037.1	2724.7	2478.7	2435.8	2431.8
32.5°	3332.0	3306.6	3335.9	3339.8	3306.6	3287.0	3154.3	2684.7	2632.0	2582.2	2587.1
35°	3568.2	3568.2	3582.8	3584.8	3560.4	3527.2	3021.5	2879.9	2833.1	2787.2	2786.2
37.5°	3856.2	3847.4	3886.5	3909.9	3883.5	3788.8	3214.8	3148.4	3076.2	3017.6	2896.5
40°	4203.7	4219.4	4230.1	4253.5	4228.2	4015.3	3496.9	3421.8	3365.1	3168.9	2863.4
42.5°	4578.6	4582.5	4606.0	4635.3	4635.3	4410.7	3826.9	3762.5	3689.3	3098.6	2961.0
45°	5026.7	5017.9	5062.8	5109.7	5097.0	4864.7	4210.6	4162.7	3820.1	3302.7	3303.6
47.5°	5535.4	5524.6	5589.0	5650.6	5587.1	5368.4	4632.3	4595.2	3687.3	3648.3	3640.4
50°	6123.1	6096.7	6170.9	6252.9	6201.2	5930.7	5144.9	4432.2	4057.3	4026.1	4021.2
52.5°	6750.8	6730.3	6775.2	6914.8	6846.5	6519.4	5630.1	4572.8	4485.9	4450.7	4442.0
55°	7459.6	7419.5	7516.2	7622.6	7543.5	7170.6	6108.4	5039.4	4949.6	4889.1	4801.2
57.5°	8204.4	8146.8	8196.6	8330.4	8254.2	7837.4	6725.4	5519.7	5413.3	4480.0	4123.7
60°	8946.4	8920.0	8939.6	9057.7	8964.0	8485.6	7303.4	6001.0	4581.6	4431.2	4448.8
62.5°	9692.2	9634.6	9652.2	9773.3	9653.2	9102.6	7851.0	6438.4	4821.7	4769.0	4787.5
65°	10491.8	10423.5	10439.1	10474.2	10325.8	9656.1	8335.2	6851.3	5182.9	5127.3	5147.8
67.5°	11455.4	11392.9	11307.9	11203.5	10998.5	10243.8	8816.5	7285.8	5589.0	5557.8	5564.6
68°	11557.9	11497.3	11394.8	11270.8	11040.4	10268.2	8837.0	7298.5	5594.9	5555.9	5557.8
70°	11238.6	11274.7	11158.6	10950.6	10758.3	9910.9	8502.2	7017.3	5346.0	5288.4	5273.7
72.5°	9952.9	10032.0	9871.9	9836.7	9600.5	8829.2	7440.0	6088.9	4649.9	4668.4	4615.7
75°	8035.5	8151.7	7957.4	7968.2	7833.5	7364.9	6235.3	5069.7	3818.1	3903.1	3918.7
77.5°	5588.1	5755.0	5670.1	5755.0	5688.6	5519.7	4825.6	3904.0	2913.1	3010.8	3048.8
80°	2914.1	3112.3	3224.6	3259.7	3281.2	3274.4	2938.5	2343.0	1684.0	1720.2	1718.2
82.5°	921.6	873.7	902.1	894.2	869.8	879.6	792.7	619.9	429.6	473.5	453.0
85°	278.2	280.2	272.4	270.4	249.9	219.7	179.6	103.5	50.8	59.6	55.6
87.5°	205.0	207.0	191.3	181.6	169.9	147.4	114.2	64.4	24.4	23.4	18.5
90°	113.2	109.3	101.5	93.7	88.8	76.1	57.6	24.4	8.8	6.8	5.9
92.5°	61.5	58.6	54.7	51.7	44.9	36.1	23.4	7.8	3.9	1.0	0.0
95°	28.3	26.4	25.4	22.5	19.5	13.7	7.8	4.9	2.9	1.0	0.0
97.5°	12.7	11.7	10.7	8.8	6.8	3.9	3.9	2.9	2.0	1.0	0.0
100°	2.9	2.9	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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CATALOG NUMBER: CST-8-3-D-U-T5R-7030-HSS-HM-EX180

**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°	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1	2053.1
2.5°	2065.8	2059.9	2057.0	2038.4	2044.3	2027.7	2059.9	2052.1	2047.2	2060.9
5°	2067.7	2047.2	2059.9	2049.2	2053.1	2029.6	2055.0	2044.3	2043.3	2049.2
7.5°	2072.6	2058.9	2071.6	2050.1	2059.9	2050.1	2068.7	2057.9	2066.7	2072.6
10°	2098.9	2091.1	2085.3	2080.4	2087.2	2067.7	2091.1	2092.1	2095.0	2112.6
12.5°	2136.0	2128.2	2118.5	2105.8	2112.6	2104.8	2122.4	2127.3	2138.0	2146.8
15°	2187.8	2173.1	2169.2	2157.5	2164.4	2160.4	2164.4	2161.4	2181.9	2179.0
17.5°	2259.0	2242.5	2186.8	2130.2	2094.1	2104.8	2149.7	2208.3	2222.9	2224.9
20°	2285.4	2168.3	2162.4	2098.0	2068.7	2066.7	1974.0	1835.4	1877.3	1975.9
22.5°	2254.2	2094.1	2077.5	2064.8	1939.8	1734.8	1715.3	1694.8	1689.9	1704.5
25°	2183.9	2165.3	2150.7	1984.7	1787.5	1788.5	1760.2	1625.5	1415.6	1398.0
27.5°	2291.3	2265.9	2124.3	1868.5	1864.6	1862.7	1820.7	1475.1	1430.2	1440.9
30°	2413.3	2371.3	2001.3	1968.1	1967.2	1949.6	1632.3	1487.8	1487.8	1489.8
32.5°	2553.9	2293.2	2071.6	2087.2	2086.3	2003.3	1576.6	1566.9	1563.0	1572.7
35°	2661.3	2230.7	2222.9	2251.2	2231.7	1699.7	1675.3	1666.5	1662.6	1657.7
37.5°	2628.1	2410.4	2410.4	2427.9	2270.8	1810.0	1798.3	1798.3	1790.4	1786.5
40°	2678.8	2633.9	2611.5	2618.3	1649.9	1943.7	1952.5	1950.6	1949.6	1956.4
42.5°	2946.3	2906.3	2885.8	2643.7	1847.1	1932.0	2146.8	2145.8	2148.7	2145.8
45°	3287.0	3249.9	3196.3	2473.8	2097.0	1693.8	2366.4	2377.2	2378.2	2377.2
47.5°	3644.4	3620.9	3071.3	2738.4	2368.4	1817.8	2262.0	2641.7	2636.9	2642.7
50°	4022.2	3916.7	3055.7	3051.8	2657.4	2022.8	2023.8	2873.1	2922.9	2938.5
52.5°	4442.9	3550.6	3386.6	3089.8	2950.2	2233.7	2212.2	2546.1	3225.5	3241.2
55°	4126.6	3750.8	3747.8	2750.1	3069.3	2436.7	2439.7	2416.2	2958.0	3362.2
57.5°	4106.1	4114.9	4108.1	3068.4	2239.5	2284.4	2658.3	2637.8	1915.4	1552.2
60°	4460.5	4473.2	3990.9	3313.4	2421.1	1404.8	1637.2	1391.2	1409.7	1424.4
62.5°	4799.3	4803.2	3246.0	2172.2	1199.8	56.6	27.3	22.5	21.5	21.5
65°	5174.1	5174.1	3479.4	2369.4	1158.8	21.5	3.9	2.9	10.7	10.7
67.5°	5536.3	5456.3	3650.2	2515.8	1179.3	2.9	0.0	0.0	0.0	0.0
68°	5515.8	5428.0	3634.6	2511.9	1176.4	2.0	0.0	0.0	0.0	0.0
70°	5209.3	5124.4	3448.1	2397.7	1132.5	2.0	0.0	0.0	0.0	0.0
72.5°	4598.2	4520.1	3053.7	2113.6	1021.2	1.0	0.0	0.0	0.0	0.0
75°	3892.3	3881.6	2637.8	1783.6	875.7	1.0	0.0	0.0	0.0	0.0
77.5°	3131.8	3083.0	2061.8	1398.0	705.8	0.0	0.0	0.0	0.0	0.0
80°	1744.6	1816.8	1206.6	822.0	444.2	0.0	0.0	0.0	0.0	0.0
82.5°	471.5	441.3	263.6	178.7	84.9	0.0	0.0	0.0	0.0	0.0
85°	60.5	66.4	30.3	24.4	5.9	0.0	0.0	0.0	0.0	0.0
87.5°	31.2	37.1	9.8	7.8	2.0	0.0	0.0	0.0	0.0	0.0
90°	5.9	6.8	2.9	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: P256737

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