

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: P256742

Luminaire Tested: **CST-10-8-D-U-T5R-7030-HSS-HM-EX180**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256742  
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-10-8-D-U-T5R-7030-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 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: 52232 lumens  
Efficiency: N/A  
Efficacy: 82.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B4 - U2 - G5

Input Watts (W): 631  
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

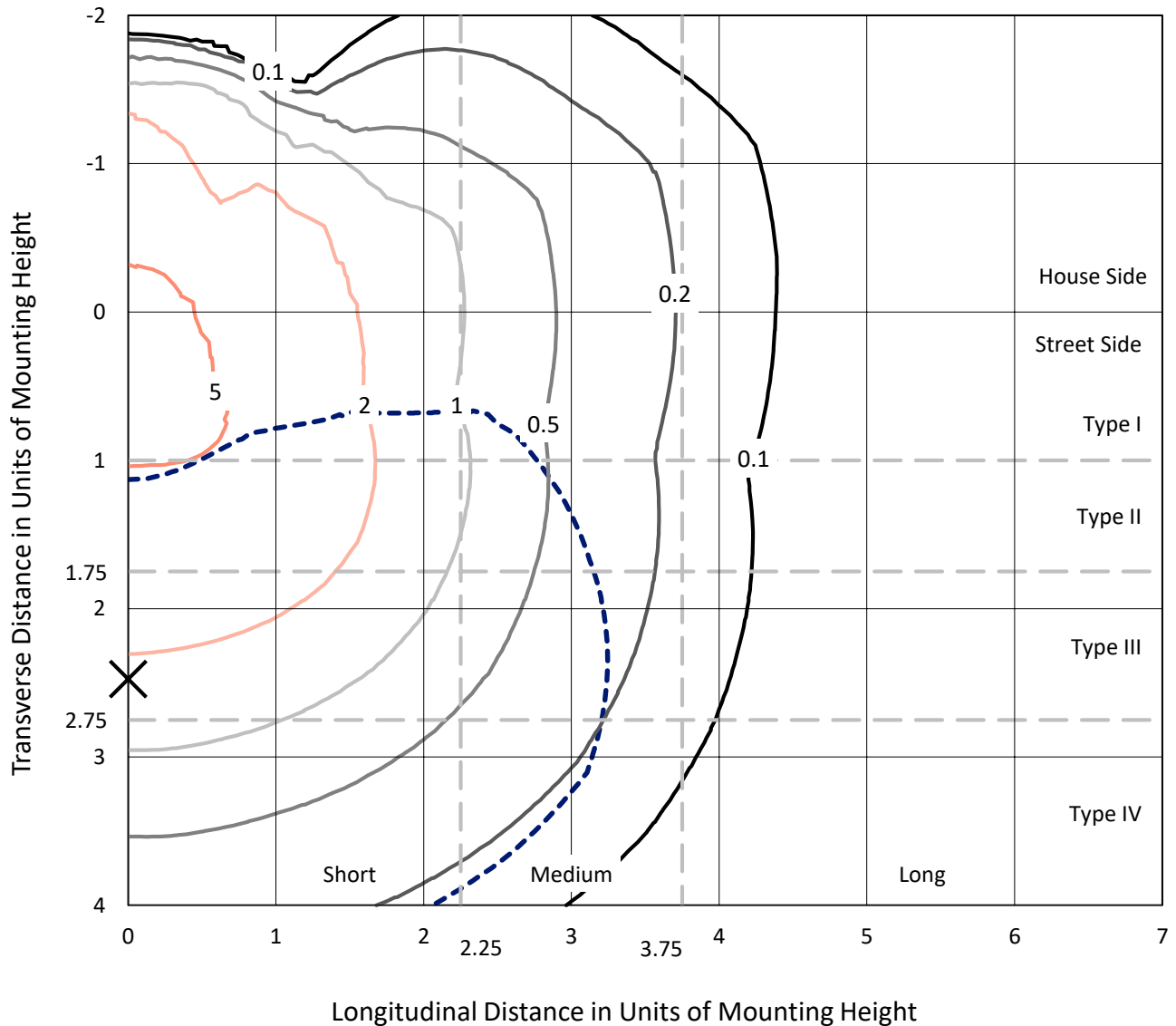


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

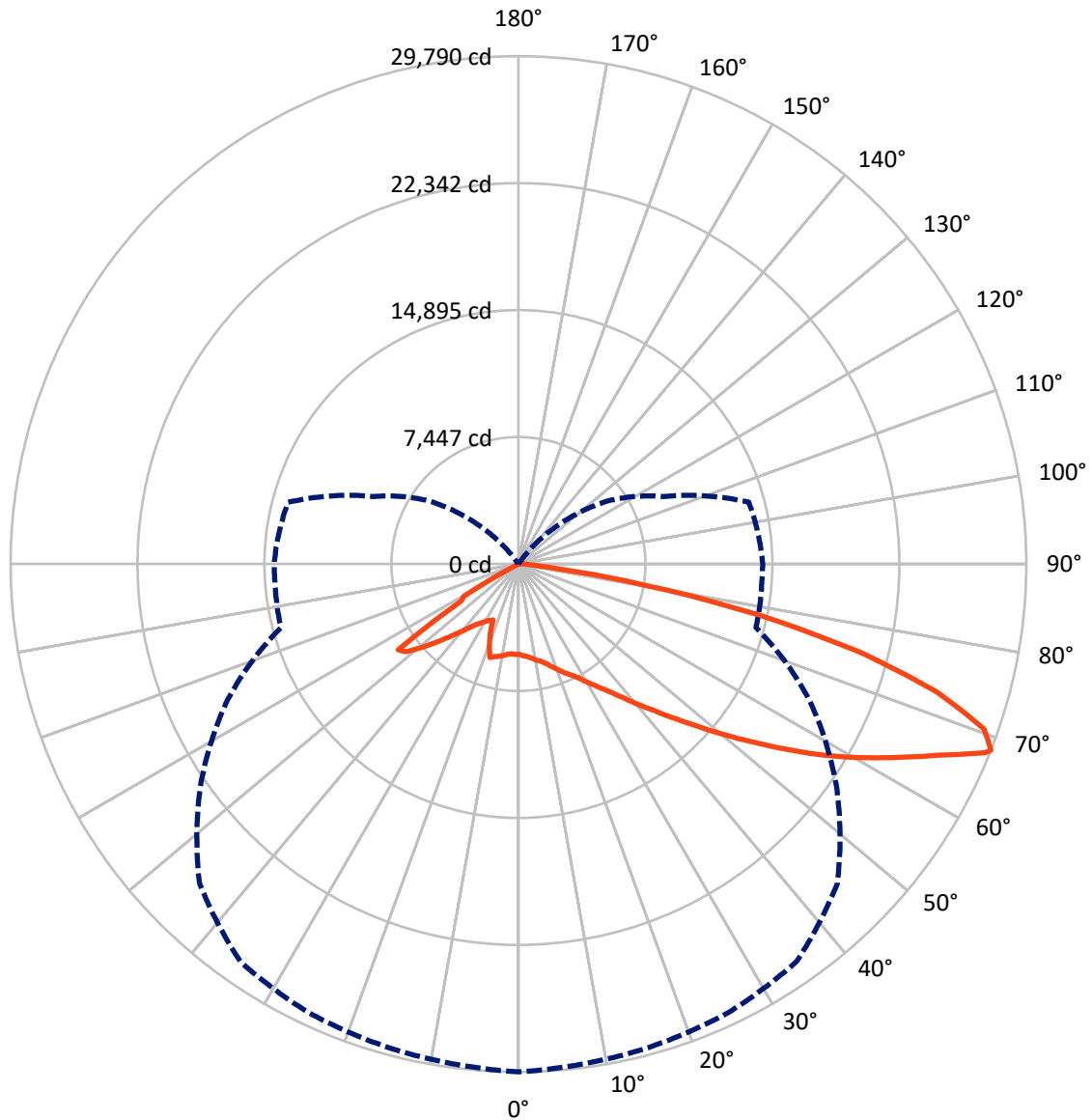


Based on 30 foot mounting height. Maximum calculated value = 6.1 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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



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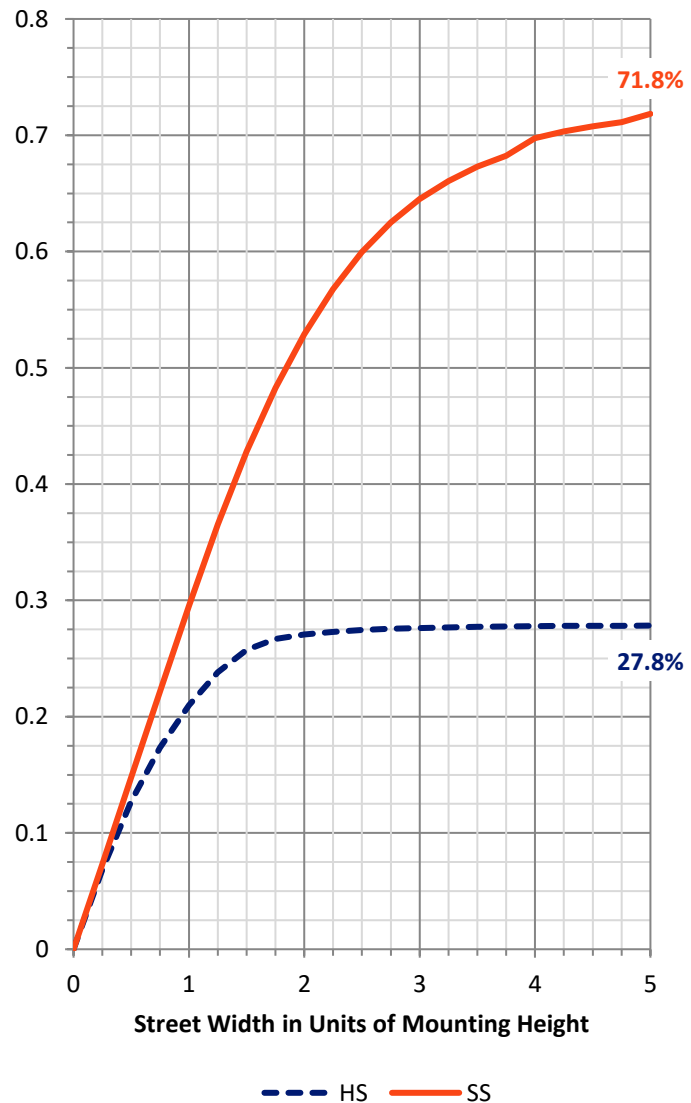
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14588.5	0.3	14588.8
	% Fixture	27.9	0.0	27.9
<b>Street Side</b>	Lumens	37613.3	29.9	37643.2
	% Fixture	72.0	0.1	72.1
<b>Total</b>	Lumens	52201.8	30.2	52232.0
	% Fixture	99.9	0.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	513.6	1.0
10°-20°	1627.4	3.1
20°-30°	2755.2	5.3
30°-40°	4364.8	8.4
40°-50°	7136.3	13.7
50°-60°	10930.9	20.9
60°-70°	13440.4	25.7
70°-80°	10385.3	19.9
80°-90°	1047.9	2.0
90°-100°	29.8	0.1
100°-110°	0.5	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°	52201.8	99.9
0°-180°	52232.0	100.0



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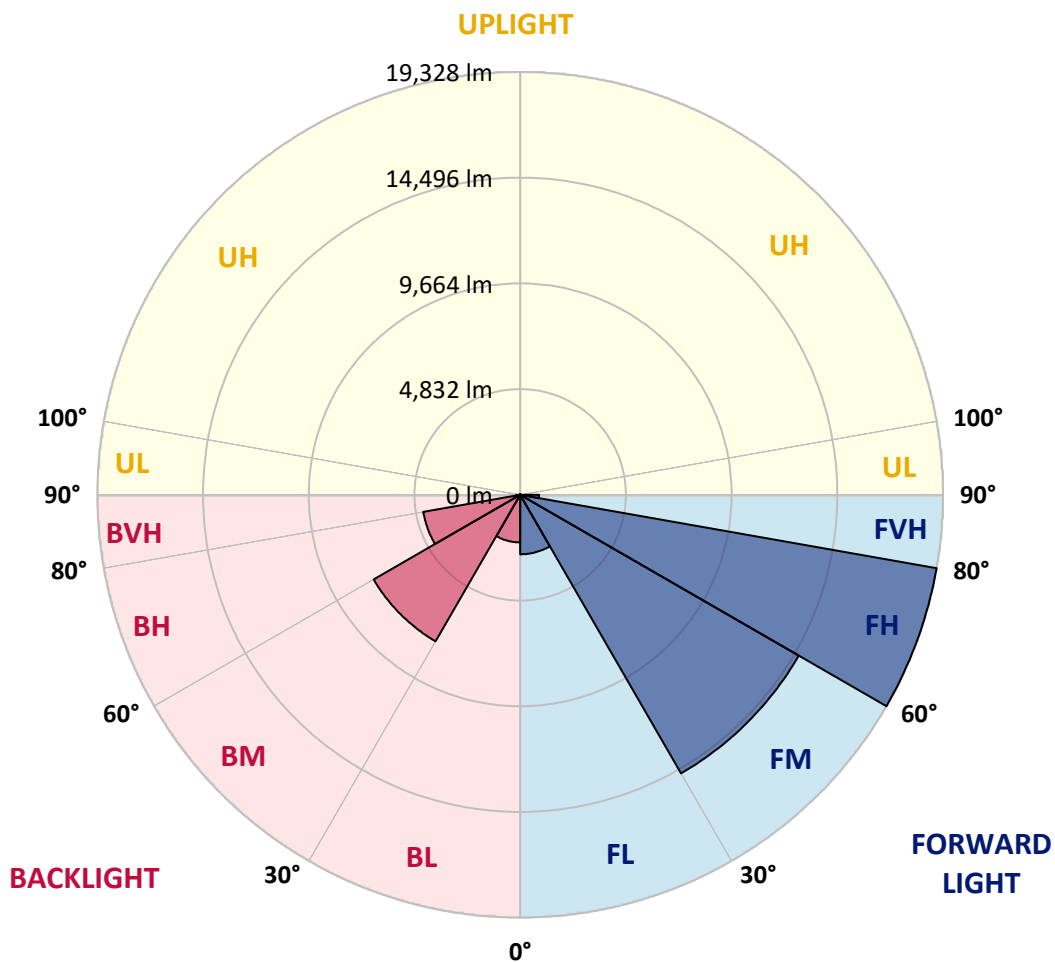
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2718.7	5.2			
FM	(30°-60°)	14702.4	28.1			
FH	(60°-80°)	19328.0	37.0			G5
FVH	(80°-90°)	864.2	1.7			G5
BL	(0°-30°)	2177.5	4.2	B3/2500		
BM	(30°-60°)	7729.6	14.8	B4/8500		
BH	(60°-80°)	4497.7	8.6	B4/5000		G4/5000
BVH	(80°-90°)	183.7	0.4			G2/225
UL	(90°-100°)	29.8	0.1		U2/50	
UH	(100°-180°)	0.3	0.0		U1/10	

**BUG Rating: B4-U2-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7
2.5°	5387.3	5377.2	5367.1	5389.8	5301.7	5339.5	5309.3	5337.0	5316.8	5339.5	5331.9
5°	5457.7	5447.7	5417.5	5442.6	5384.8	5399.9	5362.1	5372.2	5304.2	5344.5	5342.0
7.5°	5573.5	5545.8	5525.7	5525.7	5475.3	5472.8	5412.4	5415.0	5362.1	5357.1	5367.1
10°	5729.5	5709.4	5654.0	5659.0	5588.6	5578.5	5503.0	5500.5	5457.7	5432.6	5455.2
12.5°	5845.2	5865.4	5815.0	5815.0	5744.6	5694.3	5641.4	5606.2	5573.5	5535.7	5518.1
15°	6056.6	6076.7	6008.8	6006.3	5978.6	5918.2	5860.3	5784.8	5727.0	5709.4	5681.7
17.5°	6330.9	6318.3	6260.4	6262.9	6268.0	6169.8	6112.0	6013.8	5930.8	5870.4	5855.3
20°	6610.2	6610.2	6547.3	6567.4	6542.2	6451.6	6413.9	6278.0	6162.3	6096.9	6044.0
22.5°	6922.2	6909.6	6866.8	6909.6	6859.3	6768.7	6705.8	6569.9	6421.5	6051.6	5900.6
25°	7219.1	7211.6	7229.2	7241.7	7178.8	7065.6	7022.8	6879.4	6466.7	5981.1	5676.6
27.5°	7594.0	7568.9	7609.1	7634.3	7571.4	7473.2	7382.7	7221.6	6348.5	5966.0	5933.3
30°	8074.6	8019.3	8077.1	8089.7	8024.3	7963.9	7828.0	7022.8	6388.7	6278.0	6268.0
32.5°	8587.9	8522.5	8598.0	8608.1	8522.5	8472.2	8130.0	6919.7	6783.8	6655.5	6668.0
35°	9196.9	9196.9	9234.6	9239.6	9176.7	9091.2	7787.8	7422.9	7302.1	7183.9	7181.4
37.5°	9939.2	9916.5	10017.2	10077.6	10009.6	9765.5	8286.0	8114.9	7928.7	7777.7	7465.7
40°	10834.9	10875.2	10902.9	10963.3	10897.8	10349.3	9013.2	8819.4	8673.5	8167.7	7380.1
42.5°	11801.2	11811.2	11871.6	11947.1	11947.1	11368.4	9863.7	9697.6	9508.9	7986.6	7631.8
45°	12956.1	12933.5	13049.2	13170.0	13137.3	12538.4	10852.6	10729.3	9846.1	8512.4	8515.0
47.5°	14267.1	14239.4	14405.5	14564.0	14400.5	13836.8	11939.6	11844.0	9503.8	9403.2	9383.1
50°	15781.9	15713.9	15905.2	16116.5	15983.2	15286.2	13260.6	11423.7	10457.5	10377.0	10364.4
52.5°	17399.8	17347.0	17462.7	17822.5	17646.4	16803.5	14511.2	11786.1	11562.1	11471.6	11448.9
55°	19226.6	19123.4	19372.6	19646.8	19443.0	18481.8	15744.1	12988.8	12757.4	12601.3	12374.9
57.5°	21146.5	20998.0	21126.4	21471.1	21274.8	20200.4	17334.4	14226.8	13952.6	11547.0	10628.6
60°	23058.8	22990.9	23041.2	23345.7	23104.1	21871.2	18824.0	15467.3	11808.7	11421.2	11466.5
62.5°	24981.3	24832.8	24878.1	25190.1	24880.6	23461.4	20235.6	16594.6	12427.7	12291.8	12339.7
65°	27042.1	26865.9	26906.2	26996.8	26614.3	24888.2	21483.7	17659.0	13358.7	13215.3	13268.1
67.5°	29525.6	29364.6	29145.6	28876.4	28348.0	26402.9	22724.2	18778.7	14405.5	14325.0	14342.6
68°	29789.8	29633.8	29369.6	29050.0	28456.2	26465.8	22777.0	18811.4	14420.6	14319.9	14325.0
70°	28967.0	29060.1	28760.7	28224.7	27729.0	25544.9	21914.0	18086.8	13778.9	13630.5	13592.7
72.5°	25653.1	25856.9	25444.2	25353.7	24744.7	22756.9	19176.3	15693.8	11984.9	12032.7	11896.8
75°	20711.2	21010.6	20509.9	20537.6	20190.3	18982.5	16071.2	13066.8	9841.0	10059.9	10100.2
77.5°	14403.0	14833.3	14614.3	14833.3	14662.1	14226.8	12437.8	10062.5	7508.5	7760.1	7858.2
80°	7511.0	8021.8	8311.1	8401.7	8457.1	8439.5	7573.9	6039.0	4340.5	4433.6	4428.6
82.5°	2375.3	2252.0	2325.0	2304.9	2242.0	2267.1	2043.2	1597.8	1107.1	1220.4	1167.5
85°	717.1	722.2	702.0	697.0	644.2	566.2	463.0	266.7	130.8	153.5	143.4
87.5°	528.4	533.4	493.2	468.0	437.8	380.0	294.4	166.1	62.9	60.4	47.8
90°	291.9	281.8	261.7	241.6	229.0	196.3	148.5	62.9	22.6	17.6	15.1
92.5°	158.5	151.0	140.9	133.4	115.7	93.1	60.4	20.1	10.1	2.5	0.0
95°	73.0	67.9	65.4	57.9	50.3	35.2	20.1	12.6	7.5	2.5	0.0
97.5°	32.7	30.2	27.7	22.6	17.6	10.1	10.1	7.5	5.0	2.5	0.0
100°	7.5	7.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.5	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	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°	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7	5291.7
2.5°	5324.4	5309.3	5301.7	5253.9	5269.0	5226.2	5309.3	5289.1	5276.6	5311.8
5°	5329.4	5276.6	5309.3	5281.6	5291.7	5231.3	5296.7	5269.0	5266.5	5281.6
7.5°	5342.0	5306.8	5339.5	5284.1	5309.3	5284.1	5331.9	5304.2	5326.9	5342.0
10°	5409.9	5389.8	5374.7	5362.1	5379.7	5329.4	5389.8	5392.3	5399.9	5445.1
12.5°	5505.5	5485.4	5460.2	5427.5	5445.1	5425.0	5470.3	5482.9	5510.6	5533.2
15°	5638.9	5601.2	5591.1	5560.9	5578.5	5568.4	5578.5	5571.0	5623.8	5616.3
17.5°	5822.6	5779.8	5636.4	5490.4	5397.3	5425.0	5540.8	5691.7	5729.5	5734.5
20°	5890.5	5588.6	5573.5	5407.4	5331.9	5326.9	5087.8	4730.5	4838.7	5092.9
22.5°	5810.0	5397.3	5354.6	5321.9	4999.8	4471.4	4421.0	4368.2	4355.6	4393.4
25°	5628.8	5581.0	5543.3	5115.5	4607.2	4609.8	4536.8	4189.5	3648.6	3603.3
27.5°	5905.6	5840.2	5475.3	4816.1	4806.0	4801.0	4692.8	3802.0	3686.3	3714.0
30°	6220.2	6112.0	5158.3	5072.7	5070.2	5024.9	4207.2	3834.8	3834.8	3839.8
32.5°	6582.5	5910.7	5339.5	5379.7	5377.2	5163.3	4063.7	4038.6	4028.5	4053.7
35°	6859.3	5749.6	5729.5	5802.5	5752.1	4380.8	4317.9	4295.2	4285.2	4272.6
37.5°	6773.7	6212.6	6212.6	6257.9	5852.8	4665.1	4634.9	4634.9	4614.8	4604.7
40°	6904.6	6788.8	6730.9	6748.6	4252.5	5009.8	5032.5	5027.5	5024.9	5042.6
42.5°	7594.0	7490.9	7438.0	6814.0	4760.7	4979.6	5533.2	5530.7	5538.3	5530.7
45°	8472.2	8376.6	8238.2	6376.2	5404.9	4365.7	6099.4	6127.1	6129.6	6127.1
47.5°	9393.1	9332.7	7916.1	7058.1	6104.4	4685.2	5830.1	6809.0	6796.4	6811.5
50°	10366.9	10095.2	7875.8	7865.8	6849.2	5213.7	5216.2	7405.3	7533.6	7573.9
52.5°	11451.4	9151.6	8728.8	7963.9	7604.1	5757.2	5701.8	6562.4	8313.7	8353.9
55°	10636.2	9667.4	9659.9	7088.3	7911.1	6280.5	6288.1	6227.7	7624.2	8665.9
57.5°	10583.3	10606.0	10588.3	7908.6	5772.3	5888.0	6851.7	6798.9	4936.9	4000.8
60°	11496.7	11529.4	10286.4	8540.1	6240.3	3620.9	4219.7	3585.6	3633.5	3671.2
62.5°	12369.8	12379.9	8366.5	5598.6	3092.5	145.9	70.5	57.9	55.4	55.4
65°	13336.1	13336.1	8967.9	6106.9	2986.8	55.4	10.1	7.5	27.7	27.7
67.5°	14269.6	14063.3	9408.2	6484.4	3039.6	7.5	0.0	0.0	0.0	0.0
68°	14216.8	13990.3	9368.0	6474.3	3032.1	5.0	0.0	0.0	0.0	0.0
70°	13426.7	13207.8	8887.4	6179.9	2918.8	5.0	0.0	0.0	0.0	0.0
72.5°	11851.5	11650.2	7870.8	5447.7	2632.0	2.5	0.0	0.0	0.0	0.0
75°	10032.3	10004.6	6798.9	4597.2	2257.1	2.5	0.0	0.0	0.0	0.0
77.5°	8072.1	7946.3	5314.3	3603.3	1819.2	0.0	0.0	0.0	0.0	0.0
80°	4496.5	4682.7	3110.1	2118.7	1144.9	0.0	0.0	0.0	0.0	0.0
82.5°	1215.3	1137.3	679.4	460.5	218.9	0.0	0.0	0.0	0.0	0.0
85°	156.0	171.1	78.0	62.9	15.1	0.0	0.0	0.0	0.0	0.0
87.5°	80.5	95.6	25.2	20.1	5.0	0.0	0.0	0.0	0.0	0.0
90°	15.1	17.6	7.5	2.5	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: P256742

CATALOG NUMBER: CST-10-8-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)