

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: P256694

Luminaire Tested: **CST-10-8-D-U-T5R-7030-HSS-HM-EX90**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256694
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-10-8-D-U-T5R-7030-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 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: 66871 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B5 - U2 - G5

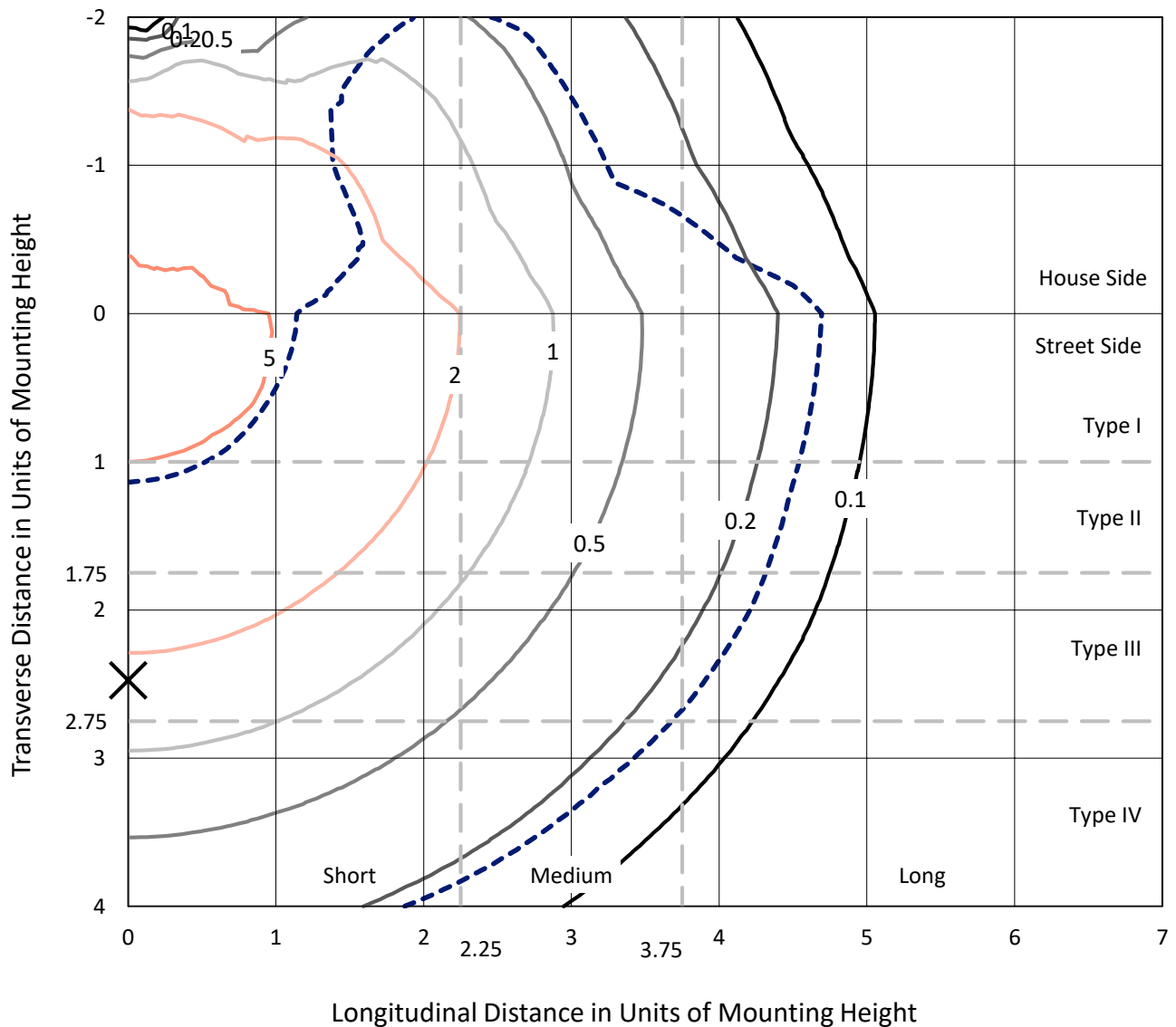
Input Watts (W): 631
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P256694
 CATALOG NUMBER: CST-10-8-D-U-T5R-7030-HSS-HM-EX90

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

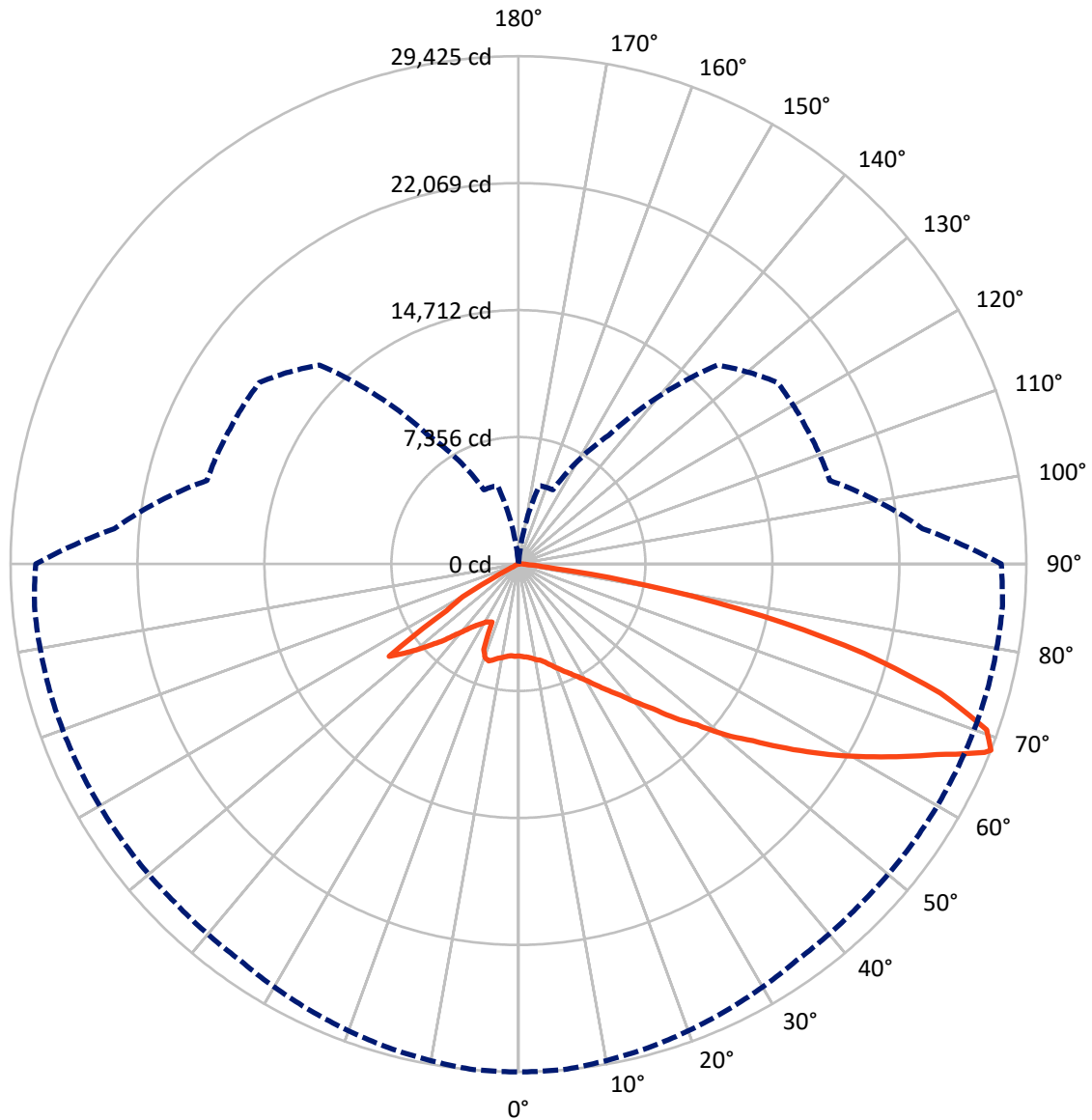


Based on 30 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256694

CATALOG NUMBER: CST-10-8-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: P256694

CATALOG NUMBER: CST-10-8-D-U-T5R-7030-HSS-HM-EX90

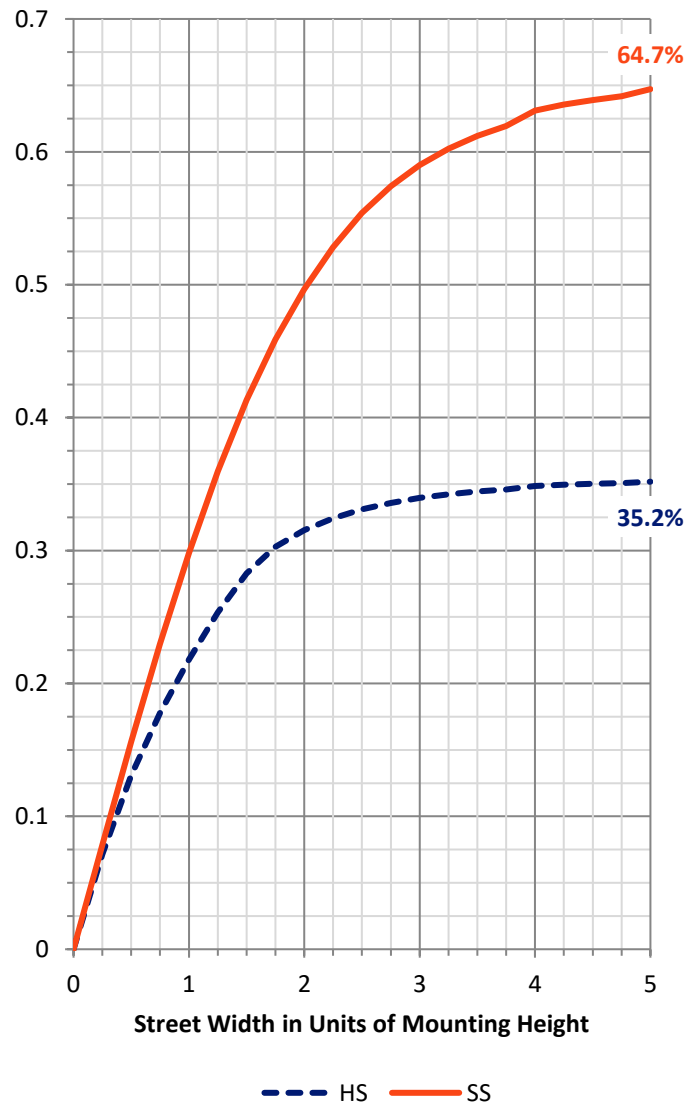
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	23534.0	4.0	23538.0
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	43315.3	17.6	43332.9
	% Fixture	64.8	0.0	64.8
Total	Lumens	66849.3	21.6	66871.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	514.8	0.8
10°-20°	1649.5	2.5
20°-30°	2944.7	4.4
30°-40°	4790.4	7.2
40°-50°	8180.6	12.2
50°-60°	13649.7	20.4
60°-70°	18989.4	28.4
70°-80°	14719.7	22.0
80°-90°	1410.5	2.1
90°-100°	17.0	0.0
100°-110°	1.4	0.0
110°-120°	0.7	0.0
120°-130°	0.5	0.0
130°-140°	0.5	0.0
140°-150°	0.6	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	66849.3	100.0
0°-180°	66871.0	100.0



REPORT NUMBER: P256694

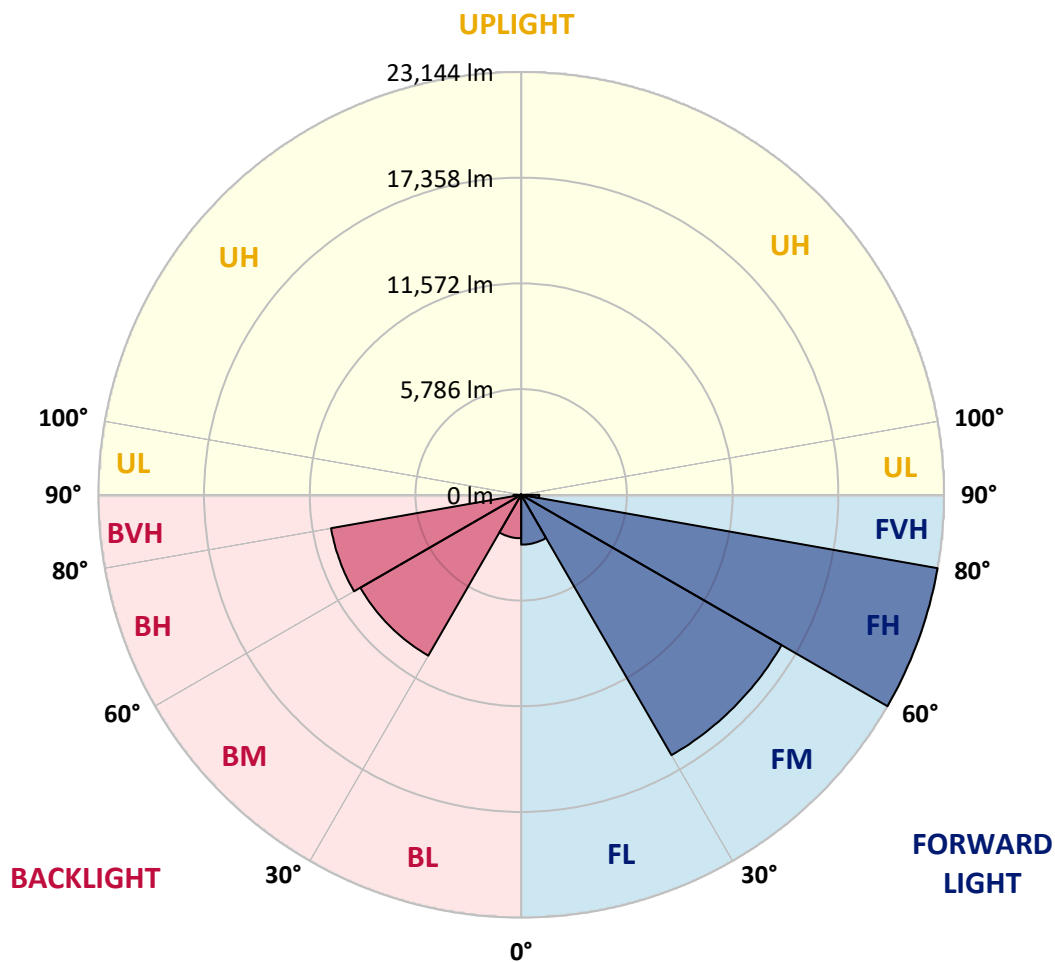
CATALOG NUMBER: CST-10-8-D-U-T5R-7030-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2729.3	4.1			
FM	(30°-60°)	16454.9	24.6			
FH	(60°-80°)	23144.3	34.6			G5
FVH	(80°-90°)	986.8	1.5			G5
BL	(0°-30°)	2379.8	3.6	B3/2500		
BM	(30°-60°)	10165.7	15.2	B5		
BH	(60°-80°)	10564.9	15.8	B5		G5
BVH	(80°-90°)	423.7	0.6			G3/500
UL	(90°-100°)	17.0	0.0		U2/50	
UH	(100°-180°)	4.0	0.0		U1/10	

BUG Rating: B5-U2-G5

Type IV Short





REPORT NUMBER: P256694

CATALOG NUMBER: CST-10-8-D-U-T5R-7030-HSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8
2.5°	5382.2	5374.6	5369.6	5402.3	5309.2	5347.0	5321.8	5354.5	5347.0	5362.1	5364.6
5°	5419.9	5407.4	5389.7	5425.0	5369.6	5394.8	5367.1	5382.2	5334.4	5374.6	5379.7
7.5°	5505.5	5470.3	5467.7	5477.8	5440.1	5457.7	5409.9	5427.5	5402.3	5387.2	5402.3
10°	5633.8	5603.6	5570.9	5591.0	5528.1	5550.8	5500.5	5515.6	5503.0	5470.3	5500.5
12.5°	5721.9	5731.9	5709.3	5724.4	5669.0	5648.9	5631.3	5628.8	5621.2	5573.4	5565.9
15°	5918.1	5923.2	5882.9	5893.0	5880.4	5870.3	5845.2	5825.0	5784.8	5754.6	5734.5
17.5°	6174.8	6147.1	6109.4	6119.4	6154.7	6109.4	6094.3	6056.5	5998.7	5948.3	5938.3
20°	6444.0	6426.4	6391.2	6411.3	6408.8	6378.6	6386.2	6323.3	6240.2	6197.5	6164.7
22.5°	6743.5	6718.3	6693.1	6730.9	6700.7	6680.6	6673.0	6630.2	6527.1	6479.3	6471.7
25°	7042.9	7030.3	7047.9	7035.4	6992.6	6977.5	6987.5	6972.4	6851.7	6793.8	6758.6
27.5°	7417.8	7387.6	7415.3	7400.2	7354.9	7357.4	7359.9	7362.5	7226.6	7151.1	7100.8
30°	7845.6	7835.5	7870.7	7822.9	7780.2	7807.8	7830.5	7780.2	7661.9	7551.2	7533.6
32.5°	8401.7	8338.8	8379.0	8318.6	8253.2	8318.6	8358.9	8258.2	8162.6	8021.7	8046.9
35°	9018.1	8998.0	8998.0	8920.0	8884.8	8987.9	9028.2	8930.1	8781.6	8658.3	8628.1
37.5°	9672.3	9692.5	9755.4	9722.7	9690.0	9752.9	9843.5	9712.6	9521.4	9390.5	9355.3
40°	10540.4	10590.8	10633.5	10590.8	10553.0	10593.3	10696.5	10525.3	10392.0	10321.5	10246.0
42.5°	11474.0	11559.5	11531.8	11536.9	11569.6	11627.5	11730.6	11574.6	11421.1	11418.6	11307.9
45°	12737.1	12737.1	12679.2	12734.6	12729.6	12873.0	12918.3	12832.7	12704.4	12666.7	12571.0
47.5°	13917.2	14040.5	14017.9	14098.4	14035.5	14156.3	14309.7	14236.8	14088.3	13955.0	13934.8
50°	15562.8	15532.6	15502.4	15623.2	15613.1	15696.2	15837.1	15791.8	15585.5	15434.5	15406.8
52.5°	17009.6	17168.2	17130.4	17311.6	17210.9	17329.2	17497.8	17490.2	17238.6	17090.2	17047.4
55°	18836.4	18942.1	18934.6	19120.8	18982.4	19138.4	19279.3	19294.4	19020.1	18808.7	18874.2
57.5°	20738.7	20826.8	20776.4	20929.9	20794.0	21007.9	21093.5	21038.1	20877.1	20610.4	20708.5
60°	22643.5	22719.0	22776.8	22789.4	22711.4	22837.2	22917.7	22965.5	22711.4	22406.9	22525.2
62.5°	24578.4	24664.0	24613.7	24633.8	24417.4	24588.5	24689.2	24701.7	24409.9	24140.6	24223.7
65°	26616.6	26734.8	26553.7	26432.9	26166.2	26163.7	26297.0	26319.7	26113.3	25922.1	25889.4
67.5°	29140.3	29193.2	28805.7	28400.6	27950.2	27852.0	27945.1	27998.0	28116.2	28111.2	27962.8
68°	29424.7	29414.6	29022.1	28539.0	28055.9	27942.6	27987.9	28055.9	28133.9	28149.0	27970.3
70°	28778.0	28654.7	28430.8	27821.8	27343.8	27046.8	26888.3	27014.1	26802.8	26805.3	26470.6
72.5°	25562.3	25547.2	25134.5	24832.6	24407.3	23914.2	23687.7	23685.2	23705.3	23559.4	23214.6
75°	20706.0	20726.1	20245.5	20036.7	19905.8	19812.7	19860.5	20009.0	20024.1	20021.6	19900.8
77.5°	14440.6	14523.6	14395.3	14055.6	14420.5	14732.5	15333.8	15640.8	15542.7	15837.1	16023.3
80°	7568.8	7734.9	7739.9	7978.9	8273.3	8557.7	9076.0	9541.5	9199.3	9048.3	8892.3
82.5°	1990.3	2050.7	2141.3	2002.9	2045.7	2088.5	2491.1	2453.3	2264.6	2365.2	2516.2
85°	568.7	586.3	561.1	508.3	465.5	427.8	437.8	369.9	322.1	319.6	309.5
87.5°	400.1	430.3	379.9	327.1	294.4	274.3	264.2	223.9	181.2	158.5	125.8
90°	186.2	183.7	158.5	123.3	108.2	103.2	103.2	80.5	45.3	27.7	25.2
92.5°	78.0	80.5	65.4	52.8	45.3	35.2	27.7	17.6	10.1	5.0	2.5
95°	27.7	30.2	25.2	20.1	17.6	15.1	12.6	10.1	5.0	2.5	2.5
97.5°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	5.0	5.0	2.5	2.5
100°	0.0	0.0	0.0	2.5	5.0	5.0	5.0	5.0	2.5	2.5	2.5
102.5°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
105°	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5



REPORT NUMBER: P256694

CATALOG NUMBER: CST-10-8-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	2.5	2.5	2.5	2.5
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
165°	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5
167.5°	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5
170°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
172.5°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
175°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
177.5°	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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: P256694

CATALOG NUMBER: CST-10-8-D-U-T5R-7030-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8	5321.8
2.5°	5359.5	5347.0	5341.9	5279.0	5296.6	5258.9	5347.0	5321.8	5316.8	5352.0
5°	5372.1	5314.3	5349.5	5309.2	5319.3	5263.9	5334.4	5304.2	5306.7	5324.3
7.5°	5379.7	5347.0	5382.2	5311.7	5339.4	5319.3	5369.6	5339.4	5369.6	5384.7
10°	5455.2	5440.1	5414.9	5394.8	5414.9	5367.1	5430.0	5425.0	5442.6	5487.9
12.5°	5558.3	5540.7	5515.6	5480.3	5495.4	5477.8	5525.6	5530.7	5563.4	5586.0
15°	5711.8	5689.2	5676.6	5641.4	5646.4	5633.8	5661.5	5666.5	5731.9	5724.4
17.5°	5928.2	5903.1	5913.1	5880.4	5867.8	5837.6	5787.3	5769.7	5847.7	5870.3
20°	6164.7	6137.1	6149.6	6122.0	5888.0	5412.4	5731.9	5950.9	5784.8	5772.2
22.5°	6434.0	6403.8	6413.8	6371.1	6081.7	5191.0	4516.6	4461.3	5095.3	5352.0
25°	6730.9	6690.6	6685.6	6630.2	5679.1	4700.3	4624.8	4526.7	4063.7	3696.3
27.5°	7098.3	7037.9	7007.7	6172.3	5638.8	4884.0	4770.8	4421.0	3749.2	3771.8
30°	7495.8	7407.8	6841.6	6290.6	5933.2	5100.4	4949.4	3875.0	3880.0	3869.9
32.5°	7948.7	7752.5	6703.2	6652.9	6285.5	5331.9	4109.0	4063.7	4068.7	4083.8
35°	8542.6	7196.4	7168.7	7171.2	6715.8	5158.3	4353.1	4310.3	4315.3	4325.4
37.5°	8668.4	7757.5	7762.5	7704.7	7173.7	4712.9	4650.0	4647.5	4637.4	4627.3
40°	8769.0	8464.6	8391.6	8298.5	6650.4	5075.2	5055.1	5040.0	5047.5	5067.7
42.5°	9556.6	9327.6	9257.2	9146.5	6821.5	5623.8	5558.3	5540.7	5560.8	5550.8
45°	10603.4	10412.1	10273.7	8457.0	7536.1	6220.1	6167.3	6144.6	6152.2	6215.1
47.5°	11710.5	11597.3	11174.5	9136.4	8368.9	6924.6	6871.8	6836.6	6849.2	6834.1
50°	12915.8	12812.6	10344.2	10160.5	9289.9	7684.5	7606.5	7594.0	7599.0	7596.5
52.5°	14224.2	12067.8	11463.9	11272.7	10261.1	8479.7	8452.0	8384.0	8399.1	8384.0
55°	15759.1	12711.9	12696.8	12472.9	11353.2	9403.1	9370.4	9274.8	8673.4	9199.3
57.5°	17216.0	13942.4	13942.4	13726.0	12470.4	10321.5	10268.7	10198.2	6164.7	4972.1
60°	18811.3	15175.3	15140.1	14961.4	13547.3	11197.2	9101.2	9081.0	3724.0	3736.6
62.5°	20190.1	16274.9	16337.8	16171.7	14584.0	8384.0	4217.2	4131.6	367.4	566.1
65°	21735.1	17490.2	17565.7	17394.6	15706.2	8892.3	4577.0	4534.2	83.0	75.5
67.5°	23486.4	18703.1	18532.0	18343.2	16363.0	9156.5	4755.7	4717.9	22.6	15.1
68°	23501.5	18677.9	18456.5	18328.1	16300.1	9106.2	4740.6	4705.3	22.6	15.1
70°	22293.7	17736.8	17515.4	17548.1	15520.0	8708.6	4544.3	4478.9	22.6	15.1
72.5°	19558.6	15784.2	15535.1	15359.0	13763.7	7742.4	4073.8	3950.5	22.6	15.1
75°	16735.4	13376.2	12963.6	12576.1	11073.9	6335.8	3341.5	3203.1	22.6	15.1
77.5°	13190.0	10195.7	9609.4	9355.3	8321.1	4680.2	2483.5	2332.5	22.6	12.6
80°	7289.5	5850.2	5352.0	5196.0	4758.2	2750.2	1424.2	1333.6	20.1	12.6
82.5°	1884.6	1414.1	1232.9	1190.2	1117.2	651.7	347.2	329.6	17.6	10.1
85°	269.2	198.8	218.9	259.2	249.1	168.6	120.8	103.2	15.1	7.5
87.5°	140.9	118.3	138.4	156.0	158.5	98.1	50.3	27.7	7.5	0.0
90°	22.6	22.6	25.2	27.7	27.7	12.6	10.1	0.0	0.0	0.0
92.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.5	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P256694

CATALOG NUMBER: CST-10-8-D-U-T5R-7030-HSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.5	2.5	2.5	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)