

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: P256733

Luminaire Tested: **CST-8-6-D-U-T5R-7050-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256733
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-8-6-D-U-T5R-7050-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K 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: 49083 lumens
Efficiency: N/A
Efficacy: 102.9 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): 477
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

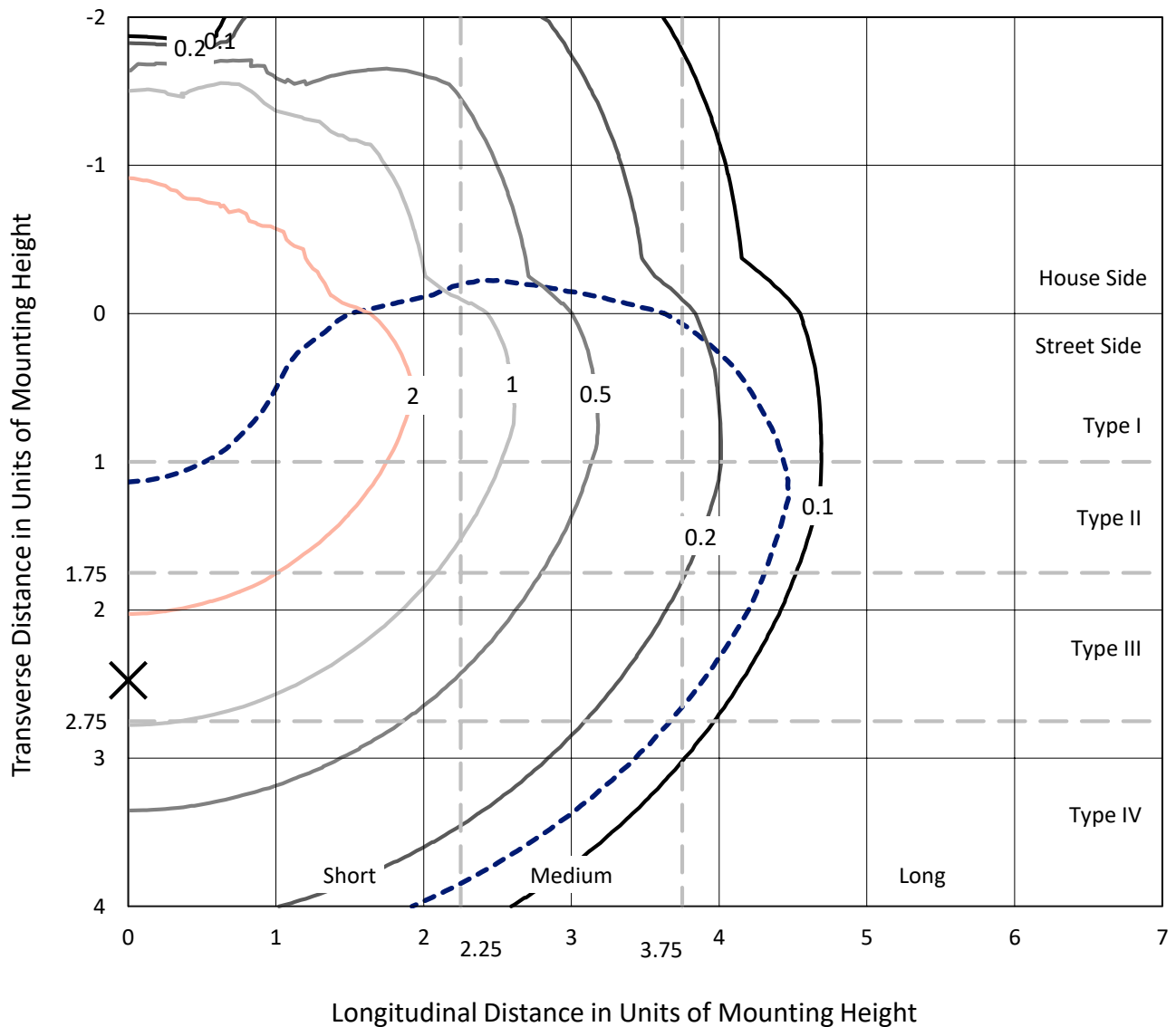


REPORT NUMBER: P256733

CATALOG NUMBER: CST-8-6-D-U-T5R-7050-HSS-HM-EX120

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

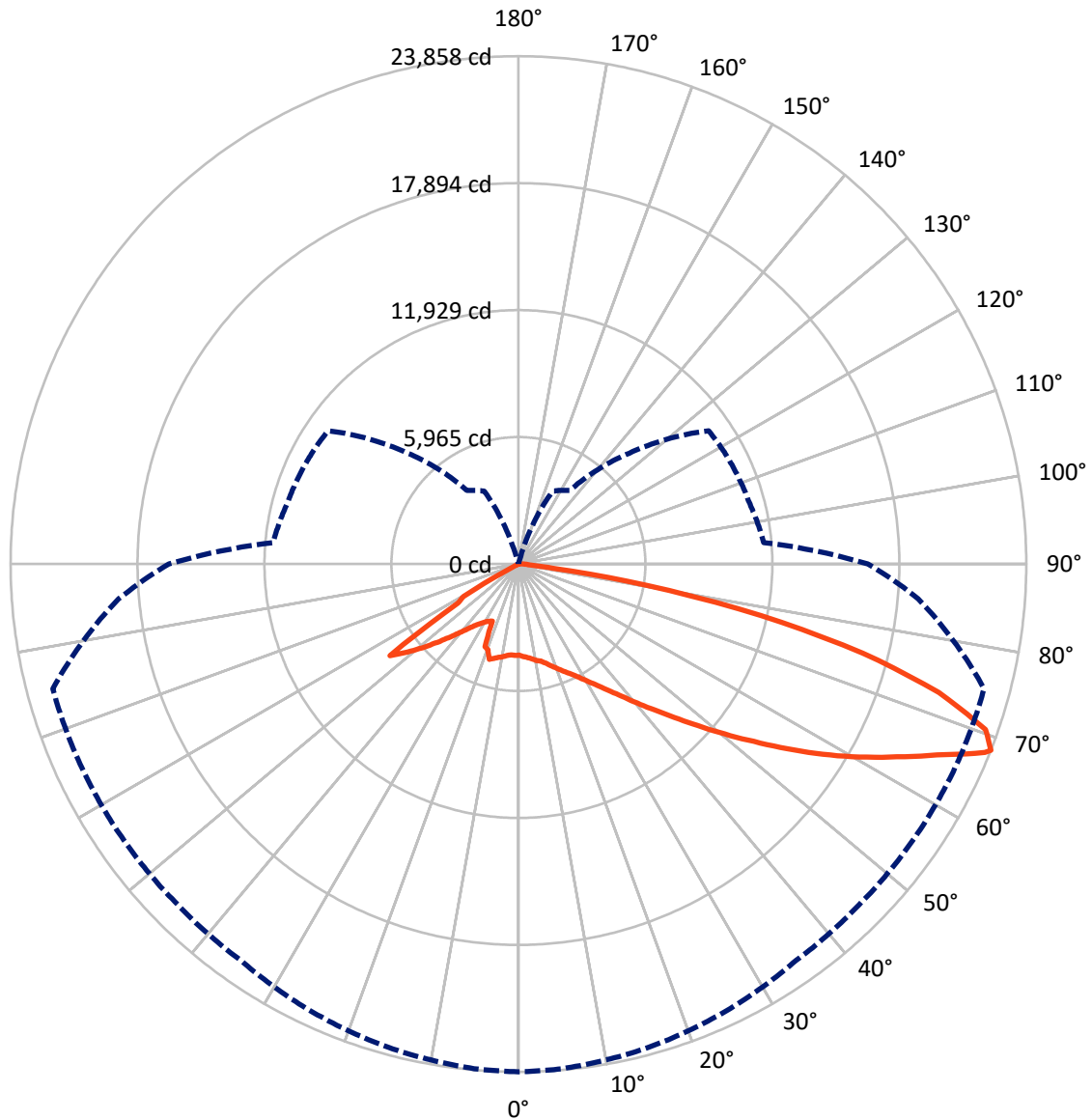


Based on 30 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P256733

CATALOG NUMBER: CST-8-6-D-U-T5R-7050-HSS-HM-EX120

Luminous Intensity Polar Plot



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



REPORT NUMBER: P256733

CATALOG NUMBER: CST-8-6-D-U-T5R-7050-HSS-HM-EX120

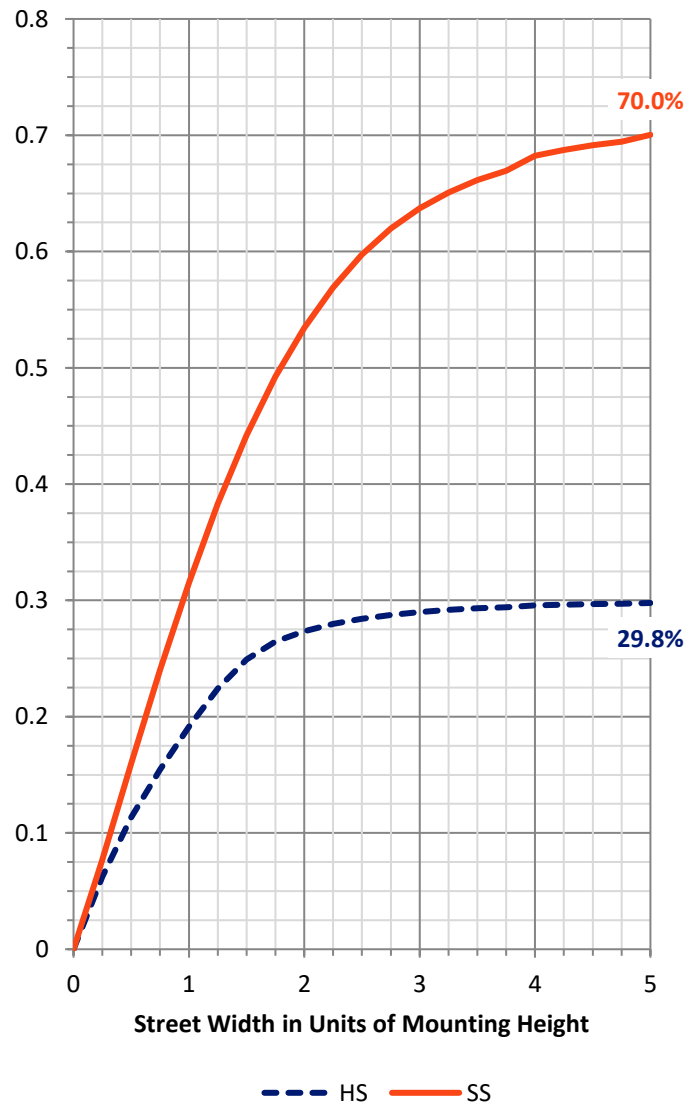
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14631.1	2.2	14633.3
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	34429.5	20.1	34449.6
	% Fixture	70.1	0.0	70.2
Total	Lumens	49060.6	22.3	49083.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	415.3	0.8
10°-20°	1321.8	2.7
20°-30°	2264.1	4.6
30°-40°	3672.9	7.5
40°-50°	6194.2	12.6
50°-60°	10096.8	20.6
60°-70°	13541.4	27.6
70°-80°	10518.2	21.4
80°-90°	1035.9	2.1
90°-100°	19.7	0.0
100°-110°	1.1	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.3	0.0
140°-150°	0.3	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	49060.6	100.0
0°-180°	49083.0	100.0



REPORT NUMBER: P256733

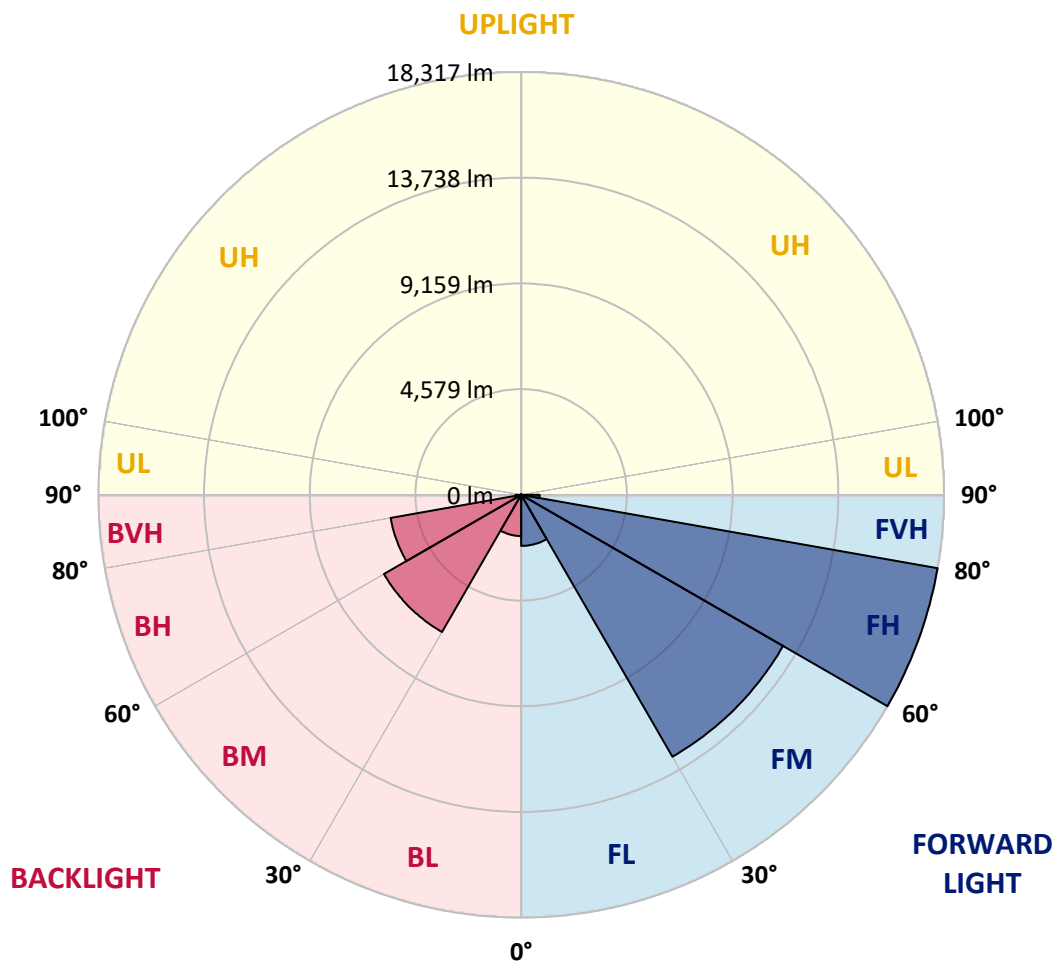
CATALOG NUMBER: CST-8-6-D-U-T5R-7050-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2213.9	4.5			
FM (30°-60°)	13102.0	26.7			
FH (60°-80°)	18317.2	37.3			G5
FVH (80°-90°)	796.5	1.6			G5
BL (0°-30°)	1787.4	3.6	B3/2500		
BM (30°-60°)	6862.0	14.0	B4/8500		
BH (60°-80°)	5742.4	11.7	B5		G5
BVH (80°-90°)	239.4	0.5			G3/500
UL (90°-100°)	19.7	0.0		U2/50	
UH (100°-180°)	2.2	0.0		U1/10	

BUG Rating: B5-U2-G5

Type IV Short





REPORT NUMBER: P256733

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1
2.5°	4350.2	4338.0	4336.0	4360.3	4283.2	4321.8	4287.3	4315.7	4297.4	4311.6	4313.6
5°	4409.0	4386.7	4372.5	4400.9	4352.2	4370.5	4331.9	4344.1	4293.3	4321.8	4325.8
7.5°	4494.3	4457.8	4453.7	4461.8	4419.2	4433.4	4370.5	4384.7	4348.1	4331.9	4346.1
10°	4610.0	4575.5	4549.1	4567.4	4510.5	4518.7	4451.7	4453.7	4427.3	4396.9	4421.2
12.5°	4675.0	4679.0	4666.9	4681.1	4634.4	4608.0	4561.3	4545.1	4518.7	4482.1	4469.9
15°	4837.4	4829.2	4804.9	4827.2	4821.1	4796.8	4739.9	4703.4	4646.6	4626.3	4606.0
17.5°	5036.3	5009.9	4989.6	5018.0	5048.5	4997.7	4942.9	4892.2	4817.1	4776.5	4752.1
20°	5245.4	5227.1	5206.8	5251.5	5261.6	5223.1	5182.5	5107.3	5020.1	4967.3	4916.5
22.5°	5478.8	5442.3	5448.4	5507.2	5489.0	5470.7	5417.9	5357.0	5251.5	5184.5	5038.3
25°	5720.4	5700.1	5728.5	5754.9	5740.7	5702.1	5675.7	5631.1	5513.3	5432.1	5219.0
27.5°	6020.8	5988.3	6024.9	6035.0	6022.9	6012.7	5976.2	5941.7	5813.8	5722.4	5456.5
30°	6374.0	6335.5	6394.3	6380.1	6367.9	6376.1	6353.7	6278.6	6165.0	6041.1	5775.2
32.5°	6794.2	6743.5	6810.5	6780.0	6751.6	6808.4	6755.7	6684.6	6550.6	6406.5	6146.7
35°	7281.4	7283.5	7318.0	7267.2	7257.1	7318.0	7283.5	7196.2	7072.3	6922.1	6552.7
37.5°	7872.1	7855.9	7943.2	7918.8	7882.3	7963.5	7973.6	7864.0	7640.7	7492.5	7056.1
40°	8590.7	8586.7	8615.1	8619.2	8609.0	8647.6	8665.8	8519.7	8375.6	8152.3	6658.2
42.5°	9358.1	9374.3	9425.0	9388.5	9437.2	9488.0	9494.1	9372.3	9165.2	7821.4	7072.3
45°	10279.7	10330.4	10364.9	10356.8	10379.1	10452.2	10458.3	10393.3	10190.3	8473.0	7823.4
47.5°	11337.3	11386.0	11396.1	11461.1	11440.8	11544.3	11530.1	11532.1	11314.9	9380.4	8641.5
50°	12553.2	12575.5	12658.8	12695.3	12644.5	12784.6	12748.1	12792.7	12524.8	10419.7	9520.5
52.5°	13844.2	13882.8	13917.3	14055.4	13990.4	14112.2	14063.5	14167.0	13856.4	11477.3	10496.9
55°	15311.9	15318.0	15376.9	15516.9	15431.7	15577.8	15506.8	15545.3	15297.7	12646.6	11513.9
57.5°	16866.8	16846.5	16868.9	16980.5	16903.4	17013.0	16984.6	17021.1	16789.7	13876.7	12256.8
60°	18405.5	18375.1	18407.6	18482.7	18377.1	18565.9	18464.4	18498.9	18249.2	15133.3	13316.5
62.5°	19952.4	19930.0	19893.5	19968.6	19814.3	19911.8	19954.4	19897.6	19678.3	16270.0	14238.1
65°	21612.9	21590.5	21456.6	21503.2	21227.2	21180.5	21196.7	21215.0	21068.8	17396.7	15249.0
67.5°	23630.6	23598.1	23346.4	23029.8	22631.9	22544.6	22552.7	22601.4	22621.7	18846.0	16432.4
68°	23858.0	23799.1	23519.0	23151.6	22735.4	22633.9	22623.8	22633.9	22644.1	18858.2	16420.2
70°	23277.4	23255.1	23041.9	22597.4	22171.1	21927.5	21716.4	21708.3	21610.8	17894.0	15512.9
72.5°	20656.8	20628.3	20374.6	20059.9	19796.1	19414.4	19140.4	19156.6	18996.3	15815.3	13578.3
75°	16716.6	16714.6	16410.1	16146.2	16150.3	16121.8	16030.5	16190.9	16024.4	13413.9	11580.9
77.5°	11649.9	11690.5	11670.2	11515.9	11733.1	12033.5	12360.4	12668.9	12573.5	10596.3	9234.2
80°	6085.8	6199.5	6601.4	6619.7	6771.9	7064.2	7287.5	7494.6	7508.8	6012.7	5334.7
82.5°	1617.9	1652.4	1788.4	1749.8	1737.6	1796.5	1845.2	1851.3	1855.4	1567.1	1463.6
85°	503.4	517.6	501.4	479.1	444.6	406.0	395.8	322.8	255.8	211.1	184.7
87.5°	357.3	381.6	345.1	324.8	288.3	274.0	245.6	192.8	150.2	105.6	71.0
90°	184.7	188.8	168.5	144.1	134.0	125.9	107.6	77.1	38.6	20.3	18.3
92.5°	93.4	95.4	83.2	71.0	60.9	52.8	40.6	22.3	12.2	6.1	2.0
95°	36.5	38.6	34.5	30.4	24.4	18.3	16.2	12.2	8.1	4.1	2.0
97.5°	12.2	12.2	12.2	10.1	10.1	10.1	10.1	8.1	6.1	4.1	2.0
100°	0.0	0.0	0.0	2.0	4.1	6.1	6.1	6.1	4.1	2.0	2.0
102.5°	0.0	0.0	0.0	0.0	0.0	2.0	4.1	4.1	4.1	2.0	2.0
105°	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0



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CATALOG NUMBER: CST-8-6-D-U-T5R-7050-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	2.0	2.0	2.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
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	2.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
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°	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1	4279.1
2.5°	4303.5	4291.3	4297.4	4246.7	4258.8	4226.4	4295.4	4277.1	4269.0	4297.4
5°	4313.6	4269.0	4305.5	4271.0	4277.1	4230.4	4287.3	4264.9	4262.9	4279.1
7.5°	4317.7	4295.4	4329.9	4273.0	4291.3	4273.0	4315.7	4293.3	4313.6	4327.8
10°	4374.5	4362.4	4358.3	4338.0	4352.2	4311.6	4364.4	4364.4	4374.5	4413.1
12.5°	4457.8	4441.5	4431.4	4394.8	4409.0	4396.9	4439.5	4447.6	4465.9	4482.1
15°	4571.4	4543.0	4532.9	4500.4	4510.5	4508.5	4539.0	4541.0	4581.6	4579.6
17.5°	4717.6	4677.0	4689.2	4664.8	4666.9	4650.6	4634.4	4634.4	4670.9	4679.0
20°	4892.2	4660.8	4356.3	4185.8	4155.3	4177.6	4264.9	4409.0	4228.4	4279.1
22.5°	4577.5	4368.4	4354.2	4315.7	4291.3	3747.3	3607.2	3562.6	3796.0	4197.9
25°	4618.1	4528.8	4502.4	4453.7	3735.1	3729.0	3688.4	3621.4	2959.7	2945.5
27.5°	4833.3	4746.0	4703.4	3901.6	3885.3	3883.3	3822.4	3150.5	2998.2	3018.5
30°	5085.0	4983.5	4220.3	4098.5	4084.3	4051.8	3702.6	3111.9	3109.9	3111.9
32.5°	5375.3	5038.3	4342.1	4336.0	4344.1	4244.6	3280.4	3268.2	3266.2	3286.5
35°	5773.2	4675.0	4646.6	4677.0	4634.4	3670.1	3477.3	3471.2	3473.2	3463.1
37.5°	5509.3	5040.4	5034.3	5034.3	4934.8	3755.4	3716.8	3745.3	3741.2	3727.0
40°	5620.9	5482.9	5446.4	5434.2	4171.5	4051.8	4029.4	4066.0	4072.1	4082.2
42.5°	6162.9	6037.1	6018.8	5874.7	4539.0	4500.4	4431.4	4469.9	4465.9	4478.1
45°	6828.7	6743.5	6664.3	5093.1	5034.3	4985.6	4914.5	4959.2	4971.3	4963.2
47.5°	7604.2	7510.8	6938.4	5600.6	5598.6	5560.0	5480.9	5517.4	5511.3	5511.3
50°	8383.7	8282.2	6303.0	6246.2	6225.9	6165.0	6100.0	6106.1	6108.1	6128.4
52.5°	9254.5	7397.1	6976.9	6863.3	6879.5	6838.9	6776.0	5129.7	6745.5	6763.8
55°	8649.6	7742.2	7717.9	7567.6	7606.2	7553.4	7512.8	5060.7	6709.0	7413.4
57.5°	8552.2	8487.2	8466.9	8312.6	8361.4	7860.0	8235.5	5537.7	4640.5	3390.0
60°	9297.2	9228.1	9216.0	9080.0	9075.9	6246.2	7486.4	3798.0	2967.8	2988.1
62.5°	10019.8	9908.2	9938.6	9778.3	6893.7	3806.2	3355.5	85.3	136.0	144.1
65°	10825.7	10639.0	10669.4	10521.2	7110.9	4013.2	3627.5	44.7	38.6	36.5
67.5°	11601.2	11274.3	11118.0	10961.7	7385.0	4226.4	3779.8	12.2	0.0	0.0
68°	11562.6	11217.5	11057.1	10908.9	7356.5	4220.3	3771.6	12.2	0.0	0.0
70°	10911.0	10600.4	10448.1	10334.5	7023.6	4076.1	3619.4	12.2	0.0	0.0
72.5°	9538.7	9366.2	9268.7	9169.3	6240.1	3645.8	3245.9	12.2	0.0	0.0
75°	8105.6	8056.9	7996.0	7776.7	5200.7	2984.0	2667.4	12.2	0.0	0.0
77.5°	6422.8	6420.7	6272.5	6014.7	3915.8	2190.3	1967.0	10.1	0.0	0.0
80°	3473.2	3785.9	3672.2	3540.2	2220.8	1191.6	1134.7	8.1	0.0	0.0
82.5°	976.4	923.6	887.1	830.2	466.9	259.8	253.7	8.1	0.0	0.0
85°	136.0	150.2	166.5	188.8	107.6	69.0	60.9	4.1	0.0	0.0
87.5°	77.1	87.3	107.6	111.6	40.6	32.5	10.1	0.0	0.0	0.0
90°	16.2	18.3	20.3	20.3	8.1	8.1	0.0	0.0	0.0	0.0
92.5°	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P256733

CATALOG NUMBER: CST-8-6-D-U-T5R-7050-HSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.0	2.0	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)