

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: P522244

Luminaire Tested: **CST-CA8-480-740-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522244
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-480-740-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47002 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G5

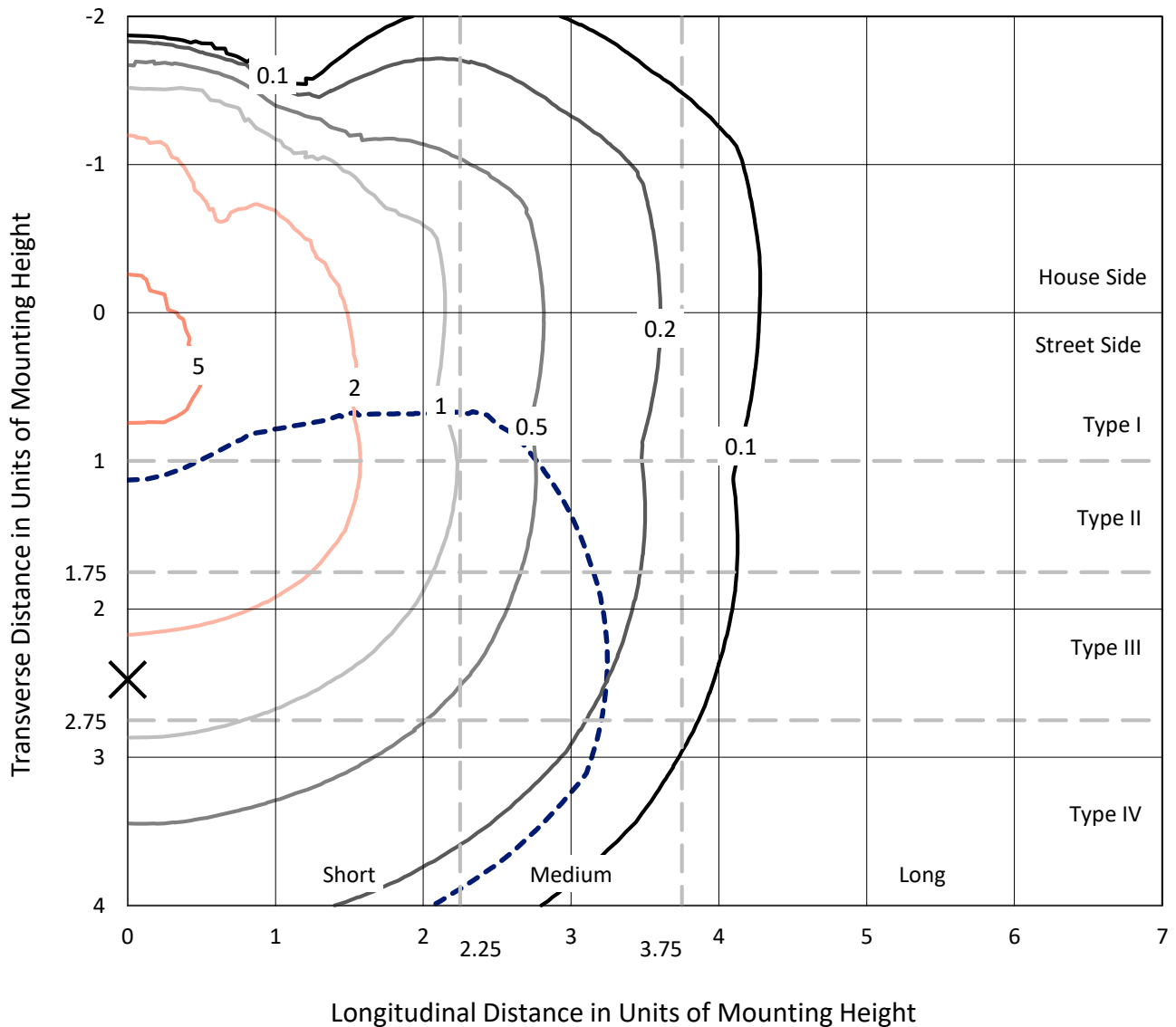
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P522244
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

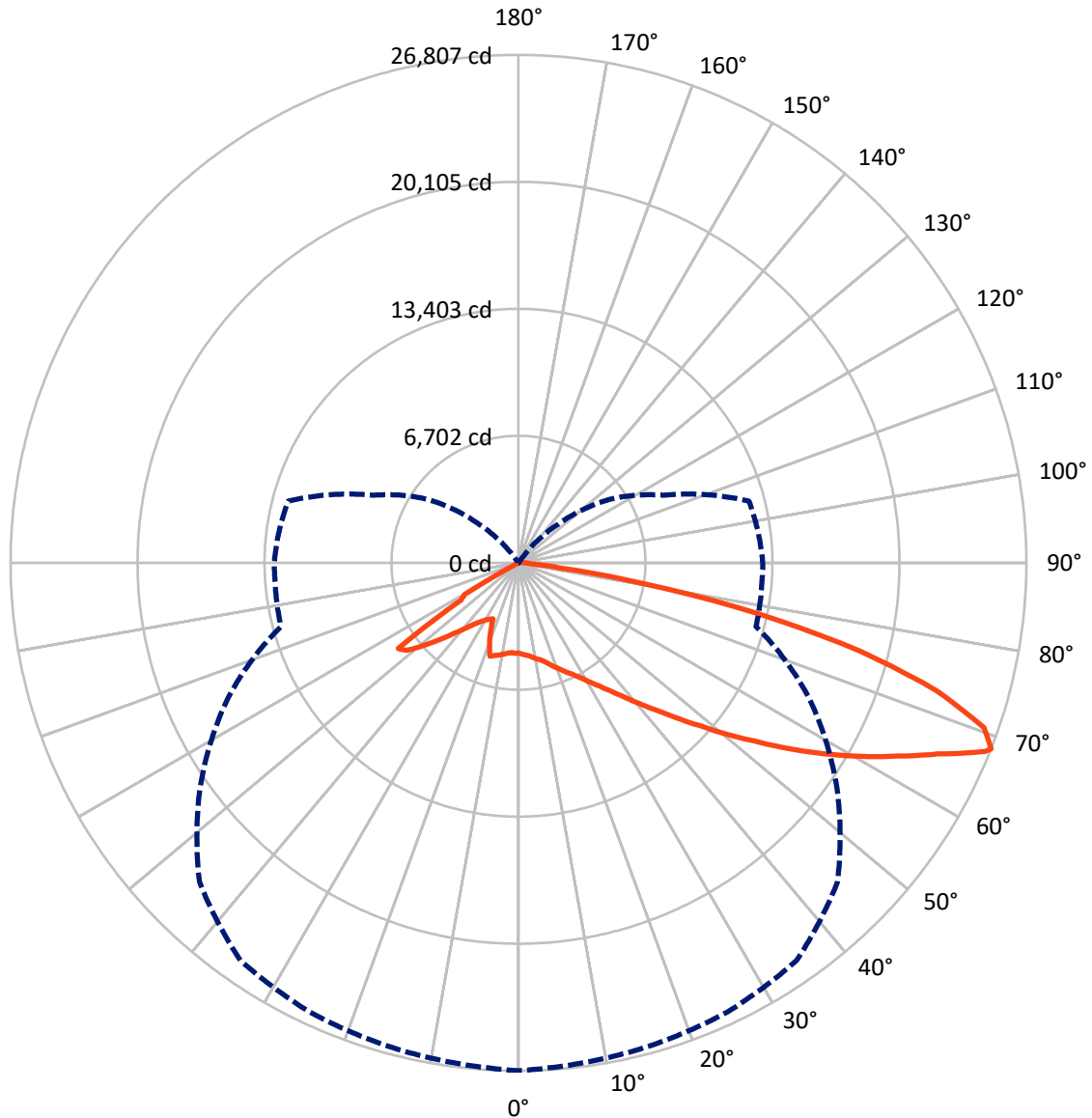
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - N/A

REPORT NUMBER: P522244
CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX180

Luminous Intensity Polar Plot



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

REPORT NUMBER: P522244
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX180

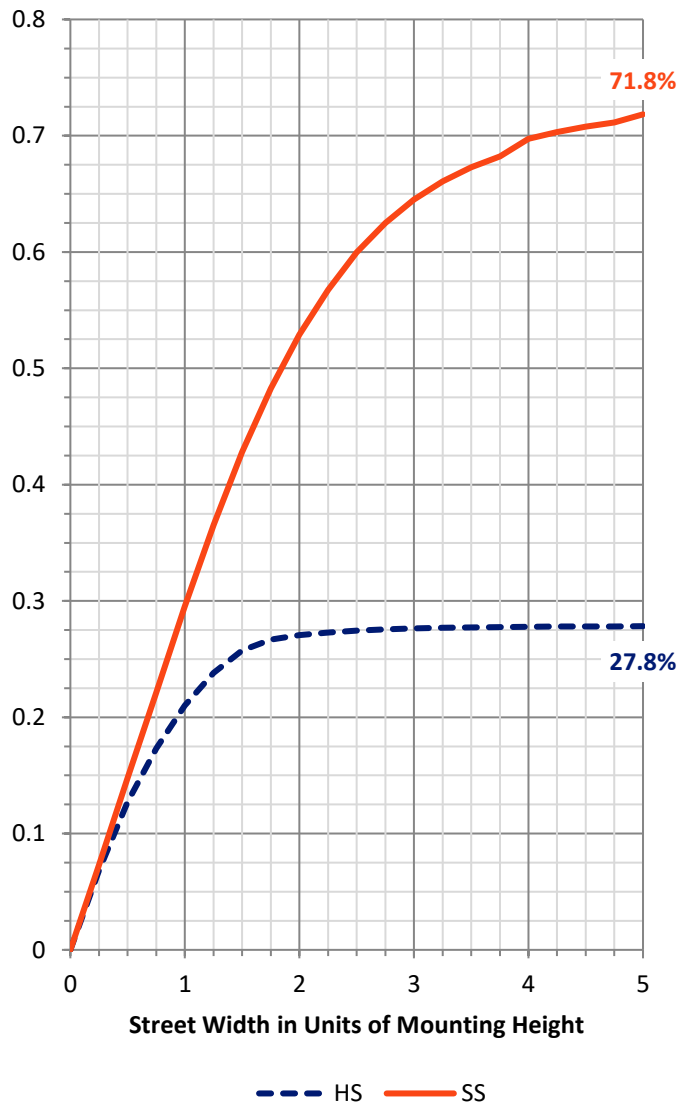
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13127.7	0.3	13128.0
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	33847.1	26.9	33874.0
	% Fixture	72.0	0.1	72.1
Total	Lumens	46974.8	27.2	47002.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	462.2	1.0
10°-20°	1464.5	3.1
20°-30°	2479.3	5.3
30°-40°	3927.8	8.4
40°-50°	6421.7	13.7
50°-60°	9836.4	20.9
60°-70°	12094.6	25.7
70°-80°	9345.4	19.9
80°-90°	942.9	2.0
90°-100°	26.8	0.1
100°-110°	0.4	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°	46974.8	99.9
0°-180°	47002.0	100.0

Coefficient of Utilization

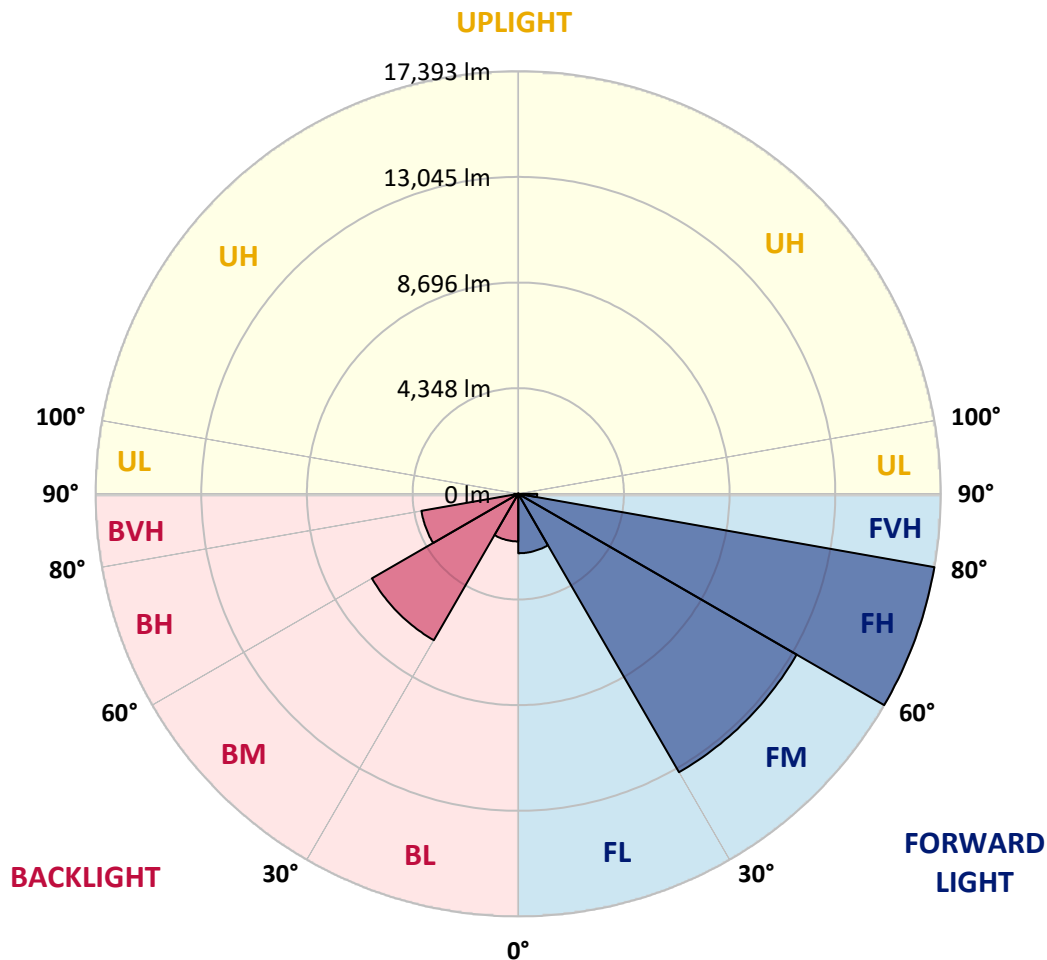


REPORT NUMBER: P522244
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2446.5	5.2			
FM (30°-60°)	13230.3	28.1			
FH (60°-80°)	17392.7	37.0			G5
FVH (80°-90°)	777.6	1.7			G5
BL (0°-30°)	1959.4	4.2	B3/2500		
BM (30°-60°)	6955.6	14.8	B4/8500		
BH (60°-80°)	4047.3	8.6	B4/5000		G4/5000
BVH (80°-90°)	165.3	0.4			G2/225
UL (90°-100°)	26.8	0.1		U2/50	
UH (100°-180°)	0.4	0.0		U1/10	

BUG Rating: B4-U2-G5
 Type IV Short





REPORT NUMBER: P522244

CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8
2.5°	4847.8	4838.8	4829.7	4850.1	4770.9	4804.8	4777.7	4802.6	4784.4	4804.8	4798.0
5°	4911.2	4902.2	4875.0	4897.7	4845.6	4859.2	4825.2	4834.3	4773.1	4809.4	4807.1
7.5°	5015.4	4990.5	4972.4	4972.4	4927.1	4924.8	4870.5	4872.8	4825.2	4820.7	4829.7
10°	5155.8	5137.7	5087.9	5092.4	5029.0	5019.9	4952.0	4949.7	4911.2	4888.6	4909.0
12.5°	5259.9	5278.1	5232.8	5232.8	5169.4	5124.1	5076.5	5044.8	5015.4	4981.4	4965.6
15°	5450.1	5468.3	5407.1	5404.9	5380.0	5325.6	5273.5	5205.6	5153.5	5137.7	5112.8
17.5°	5697.0	5685.6	5633.6	5635.8	5640.3	5552.0	5500.0	5411.7	5336.9	5282.6	5269.0
20°	5948.3	5948.3	5891.7	5909.8	5887.2	5805.6	5771.7	5649.4	5545.2	5486.4	5438.8
22.5°	6229.1	6217.7	6179.2	6217.7	6172.5	6090.9	6034.3	5912.1	5778.5	5445.6	5309.8
25°	6496.3	6489.5	6505.3	6516.6	6460.0	6358.1	6319.6	6190.6	5819.2	5382.2	5108.2
27.5°	6833.6	6811.0	6847.2	6869.9	6813.3	6724.9	6643.4	6498.5	5712.8	5368.6	5339.2
30°	7266.1	7216.3	7268.4	7279.7	7220.8	7166.5	7044.2	6319.6	5749.0	5649.4	5640.3
32.5°	7728.0	7669.2	7737.1	7746.1	7669.2	7623.9	7315.9	6226.8	6104.5	5989.0	6000.4
35°	8276.0	8276.0	8309.9	8314.5	8257.9	8180.9	7008.0	6679.7	6571.0	6464.6	6462.3
37.5°	8943.9	8923.6	9014.1	9068.5	9007.3	8787.7	7456.3	7302.3	7134.8	6998.9	6718.2
40°	9750.0	9786.3	9811.2	9865.5	9806.6	9313.0	8110.7	7936.3	7805.0	7349.9	6641.2
42.5°	10619.5	10628.6	10682.9	10750.9	10750.9	10230.1	8876.0	8726.6	8556.8	7186.9	6867.6
45°	11658.8	11638.5	11742.6	11851.3	11821.9	11283.0	9765.9	9654.9	8860.2	7660.1	7662.4
47.5°	12838.5	12813.6	12963.1	13105.7	12958.5	12451.3	10744.1	10658.0	8552.2	8461.7	8443.5
50°	14201.6	14140.5	14312.6	14502.8	14382.8	13755.6	11932.8	10279.9	9410.4	9337.9	9326.6
52.5°	15657.6	15610.0	15714.2	16038.0	15879.5	15120.9	13058.2	10605.9	10404.4	10322.9	10302.5
55°	17301.4	17208.6	17432.8	17679.6	17496.2	16631.2	14167.7	11688.3	11480.0	11339.6	11135.8
57.5°	19029.1	18895.5	19011.0	19321.2	19144.6	18177.7	15598.7	12802.3	12555.5	10390.8	9564.4
60°	20750.0	20688.8	20734.1	21008.1	20790.7	19681.2	16939.2	13918.6	10626.3	10277.6	10318.4
62.5°	22479.9	22346.3	22387.0	22667.8	22389.3	21112.2	18209.4	14933.0	11183.3	11061.1	11104.1
65°	24334.3	24175.8	24212.1	24293.6	23949.4	22396.1	19332.5	15890.8	12021.1	11892.1	11939.6
67.5°	26569.2	26424.3	26227.3	25985.0	25509.5	23759.2	20448.8	16898.4	12963.1	12890.6	12906.5
68°	26806.9	26666.6	26428.8	26141.2	25606.9	23815.8	20496.4	16927.8	12976.7	12886.1	12890.6
70°	26066.5	26150.3	25880.8	25398.6	24952.5	22987.1	19719.7	16275.7	12399.3	12265.7	12231.7
72.5°	23084.4	23267.9	22896.5	22815.0	22267.0	20478.2	17256.2	14122.4	10784.8	10827.8	10705.6
75°	18637.4	18906.8	18456.2	18481.1	18168.7	17081.8	14462.0	11758.5	8855.6	9052.6	9088.9
77.5°	12960.8	13348.0	13151.0	13348.0	13194.0	12802.3	11192.4	9054.9	6756.6	6983.1	7071.4
80°	6758.9	7218.6	7479.0	7560.5	7610.3	7594.4	6815.5	5434.3	3905.9	3989.7	3985.2
82.5°	2137.5	2026.5	2092.2	2074.1	2017.5	2040.1	1838.6	1437.8	996.3	1098.2	1050.6
85°	645.3	649.9	631.7	627.2	579.7	509.5	416.6	240.0	117.7	138.1	129.1
87.5°	475.5	480.0	443.8	421.2	394.0	341.9	264.9	149.4	56.6	54.3	43.0
90°	262.7	253.6	235.5	217.4	206.1	176.6	133.6	56.6	20.4	15.9	13.6
92.5°	142.7	135.9	126.8	120.0	104.2	83.8	54.3	18.1	9.1	2.3	0.0
95°	65.7	61.1	58.9	52.1	45.3	31.7	18.1	11.3	6.8	2.3	0.0
97.5°	29.4	27.2	24.9	20.4	15.9	9.1	9.1	6.8	4.5	2.3	0.0
100°	6.8	6.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5	2.3	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0



REPORT NUMBER: P522244
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-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



REPORT NUMBER: P522244

CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8	4761.8
2.5°	4791.2	4777.7	4770.9	4727.8	4741.4	4702.9	4777.7	4759.5	4748.2	4779.9
5°	4795.8	4748.2	4777.7	4752.7	4761.8	4707.5	4766.3	4741.4	4739.2	4752.7
7.5°	4807.1	4775.4	4804.8	4755.0	4777.7	4755.0	4798.0	4773.1	4793.5	4807.1
10°	4868.2	4850.1	4836.5	4825.2	4841.1	4795.8	4850.1	4852.4	4859.2	4899.9
12.5°	4954.3	4936.2	4913.5	4884.1	4899.9	4881.8	4922.6	4933.9	4958.8	4979.2
15°	5074.3	5040.3	5031.3	5004.1	5019.9	5010.9	5019.9	5013.1	5060.7	5053.9
17.5°	5239.6	5201.1	5072.0	4940.7	4856.9	4881.8	4986.0	5121.8	5155.8	5160.3
20°	5300.7	5029.0	5015.4	4866.0	4798.0	4793.5	4578.4	4256.9	4354.2	4582.9
22.5°	5228.2	4856.9	4818.4	4789.0	4499.1	4023.6	3978.4	3930.8	3919.5	3953.5
25°	5065.2	5022.2	4988.2	4603.3	4145.9	4148.2	4082.5	3770.0	3283.2	3242.5
27.5°	5314.3	5255.4	4927.1	4333.9	4324.8	4320.3	4222.9	3421.3	3317.2	3342.1
30°	5597.3	5500.0	4641.8	4564.8	4562.5	4521.8	3785.9	3450.8	3450.8	3455.3
32.5°	5923.4	5318.8	4804.8	4841.1	4838.8	4646.3	3656.8	3634.2	3625.1	3647.8
35°	6172.5	5173.9	5155.8	5221.5	5176.2	3942.1	3885.5	3865.1	3856.1	3844.8
37.5°	6095.5	5590.5	5590.5	5631.3	5266.7	4198.0	4170.8	4170.8	4152.7	4143.7
40°	6213.2	6109.1	6057.0	6072.8	3826.7	4508.2	4528.6	4524.1	4521.8	4537.6
42.5°	6833.6	6740.8	6693.2	6131.7	4284.0	4481.0	4979.2	4976.9	4983.7	4976.9
45°	7623.9	7537.8	7413.3	5737.7	4863.7	3928.5	5488.6	5513.5	5515.8	5513.5
47.5°	8452.6	8398.3	7123.5	6351.3	5493.2	4216.1	5246.4	6127.2	6115.8	6129.4
50°	9328.9	9084.3	7087.2	7078.2	6163.4	4691.6	4693.9	6663.8	6779.3	6815.5
52.5°	10304.8	8235.2	7854.8	7166.5	6842.7	5180.7	5130.9	5905.3	7481.2	7517.4
55°	9571.2	8699.4	8692.6	6378.5	7118.9	5651.7	5658.5	5604.1	6860.8	7798.2
57.5°	9523.6	9544.0	9528.1	7116.7	5194.3	5298.4	6165.7	6118.1	4442.5	3600.2
60°	10345.5	10375.0	9256.4	7685.0	5615.4	3258.3	3797.2	3226.6	3269.6	3303.6
62.5°	11131.3	11140.3	7528.8	5038.0	2782.8	131.3	63.4	52.1	49.8	49.8
65°	12000.7	12000.7	8069.9	5495.4	2687.7	49.8	9.1	6.8	24.9	24.9
67.5°	12840.8	12655.1	8466.2	5835.1	2735.3	6.8	0.0	0.0	0.0	0.0
68°	12793.2	12589.5	8430.0	5826.0	2728.5	4.5	0.0	0.0	0.0	0.0
70°	12082.3	11885.3	7997.5	5561.1	2626.6	4.5	0.0	0.0	0.0	0.0
72.5°	10664.8	10483.7	7082.7	4902.2	2368.4	2.3	0.0	0.0	0.0	0.0
75°	9027.7	9002.8	6118.1	4136.9	2031.1	2.3	0.0	0.0	0.0	0.0
77.5°	7263.8	7150.6	4782.2	3242.5	1637.1	0.0	0.0	0.0	0.0	0.0
80°	4046.3	4213.8	2798.7	1906.5	1030.3	0.0	0.0	0.0	0.0	0.0
82.5°	1093.7	1023.5	611.4	414.4	197.0	0.0	0.0	0.0	0.0	0.0
85°	140.4	154.0	70.2	56.6	13.6	0.0	0.0	0.0	0.0	0.0
87.5°	72.5	86.0	22.6	18.1	4.5	0.0	0.0	0.0	0.0	0.0
90°	13.6	15.9	6.8	2.3	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: P522244
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-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)