

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: P522245

Luminaire Tested: **CST-CA8-480-740-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522245  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)  
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-EX90  
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: 60176.1 lumens  
Efficiency: N/A  
Efficacy: 125.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

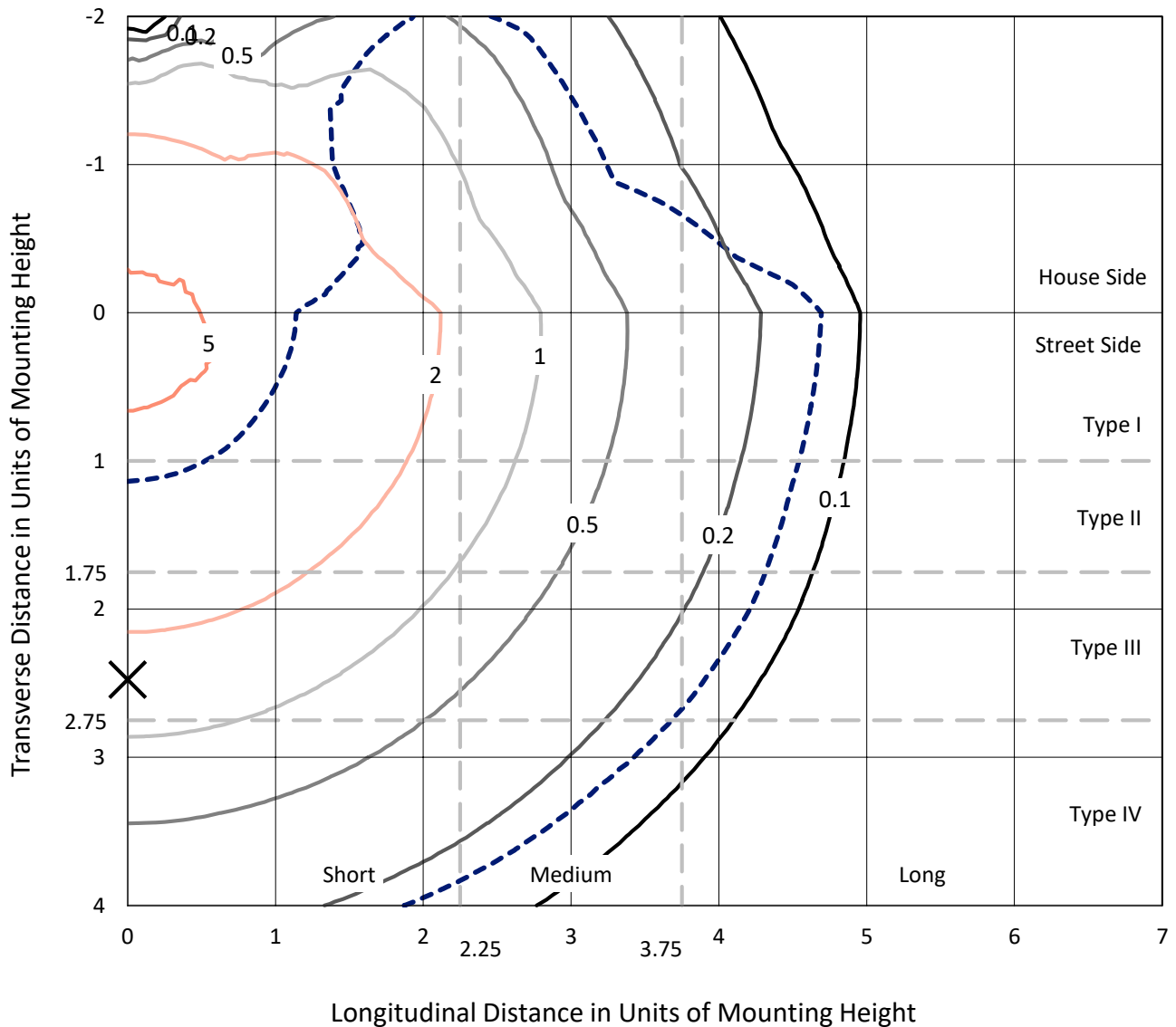
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P522245  
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX90

### Iso-Footcandle Lines of Horizontal Illumination

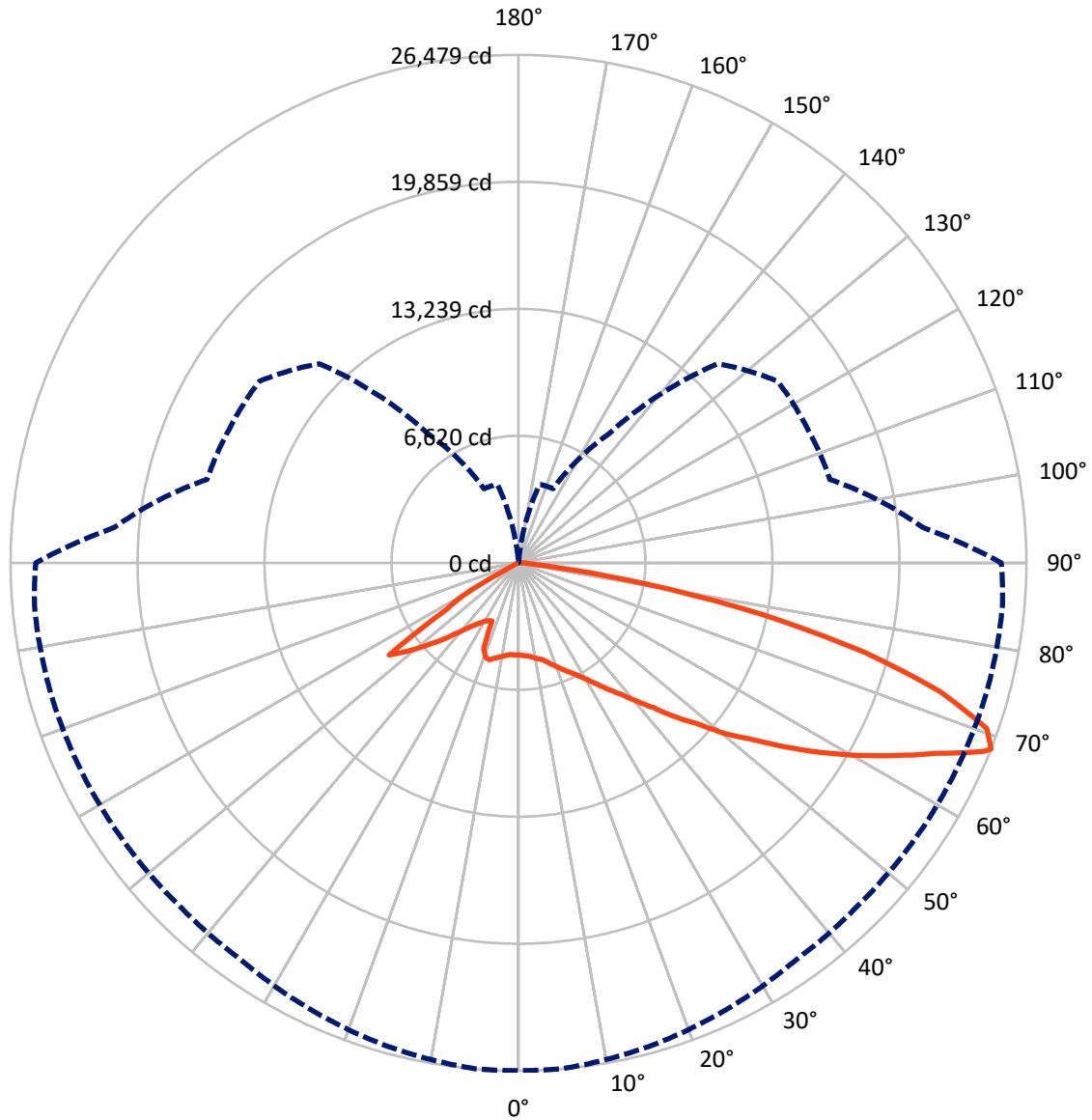
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.4 fc  
 Type IV - Short - N/A

REPORT NUMBER: P522245  
CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX90

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P522245  
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX90

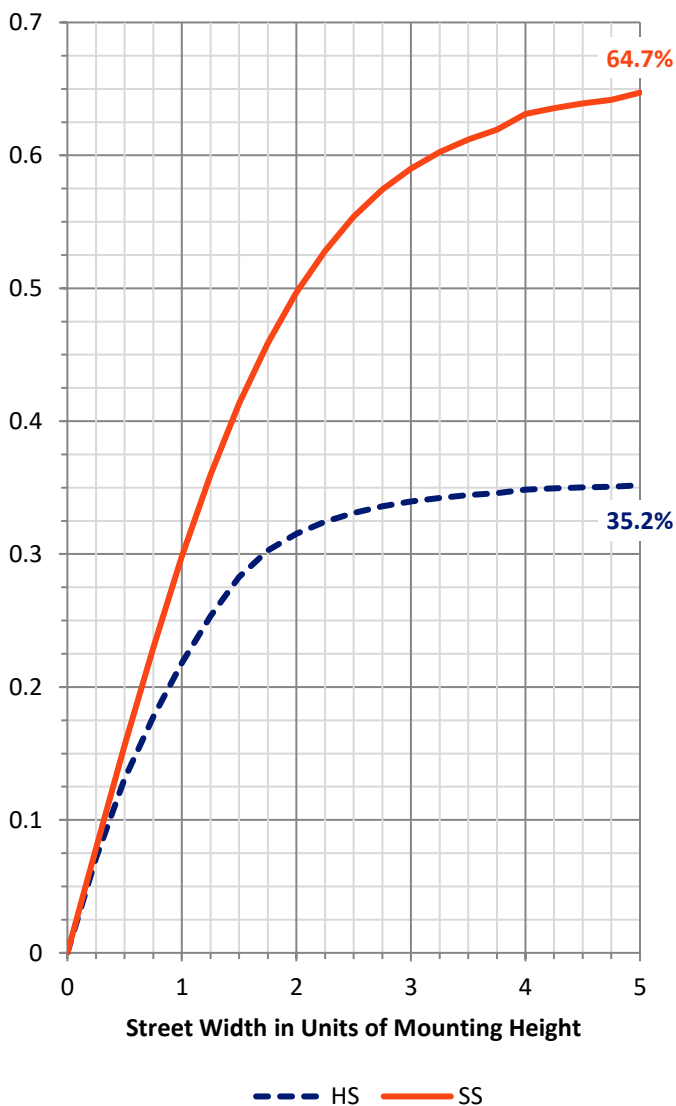
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	21177.9	3.7	21181.5
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	38978.6	15.9	38994.5
	% Fixture	64.8	0.0	64.8
<b>Total</b>	Lumens	60156.5	19.6	60176.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	463.3	0.8
10°-20°	1484.4	2.5
20°-30°	2649.9	4.4
30°-40°	4310.8	7.2
40°-50°	7361.5	12.2
50°-60°	12283.1	20.4
60°-70°	17088.3	28.4
70°-80°	13246.0	22.0
80°-90°	1269.3	2.1
90°-100°	15.4	0.0
100°-110°	1.3	0.0
110°-120°	0.7	0.0
120°-130°	0.4	0.0
130°-140°	0.5	0.0
140°-150°	0.5	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	60156.5	100.0
0°-180°	60176.1	100.0

**Coefficient of Utilization**

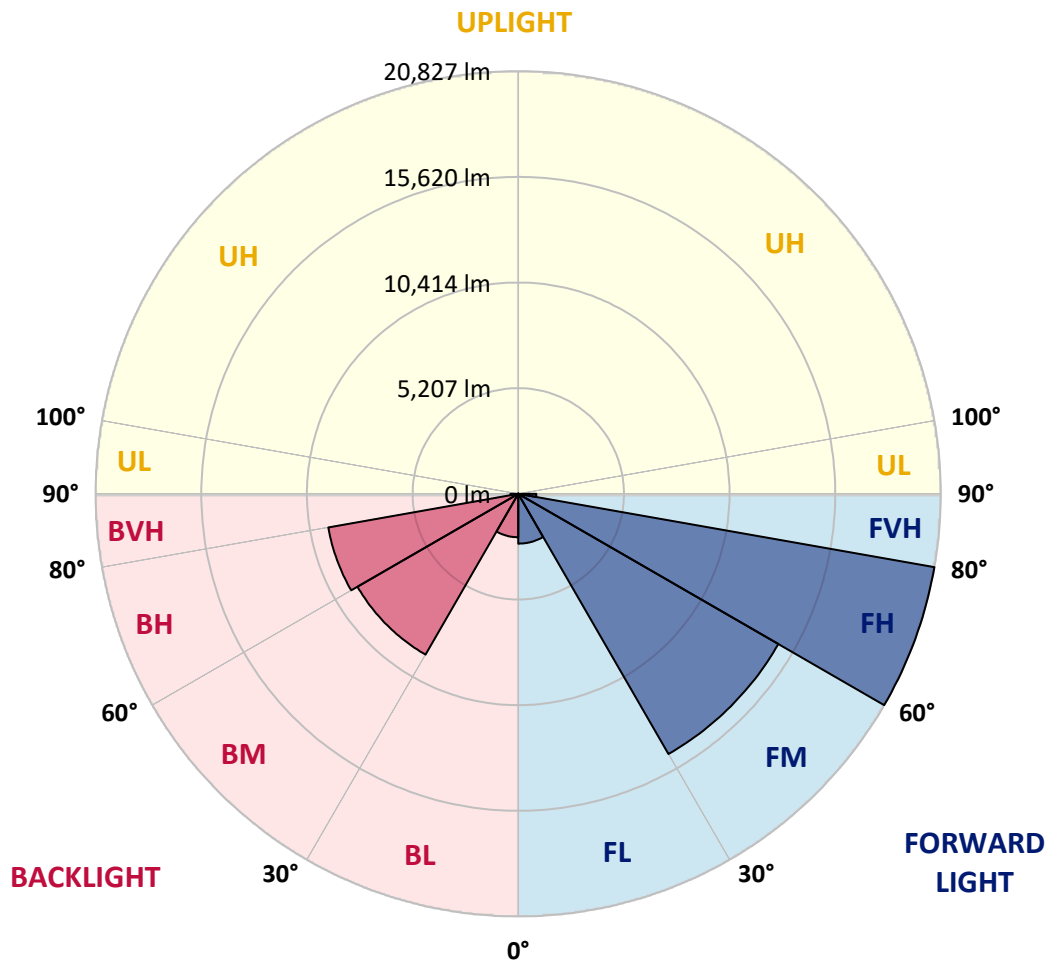


REPORT NUMBER: P522245  
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX90

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2456.0	4.1			
FM (30°-60°)	14807.5	24.6			
FH (60°-80°)	20827.1	34.6			G5
FVH (80°-90°)	888.0	1.5			G5
BL (0°-30°)	2141.5	3.6	B3/2500		
BM (30°-60°)	9147.9	15.2	B5		
BH (60°-80°)	9507.2	15.8	B5		G5
BVH (80°-90°)	381.3	0.6			G3/500
UL (90°-100°)	15.4	0.0		U2/50	
UH (100°-180°)	4.2	0.0		U1/10	

**BUG Rating: B5-U2-G5**  
 Type IV Short





REPORT NUMBER: P522245

CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX90

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0
2.5°	4843.3	4836.5	4832.0	4861.5	4777.7	4811.6	4789.0	4818.4	4811.6	4825.2	4827.5
5°	4877.3	4866.0	4850.1	4881.8	4832.0	4854.7	4829.8	4843.3	4800.3	4836.5	4841.1
7.5°	4954.3	4922.6	4920.3	4929.4	4895.4	4911.3	4868.2	4884.1	4861.5	4847.9	4861.5
10°	5069.8	5042.6	5013.2	5031.3	4974.7	4995.0	4949.8	4963.3	4952.0	4922.6	4949.8
12.5°	5149.0	5158.1	5137.7	5151.3	5101.5	5083.4	5067.5	5065.2	5058.4	5015.4	5008.6
15°	5325.6	5330.2	5293.9	5303.0	5291.7	5282.6	5260.0	5241.9	5205.6	5178.5	5160.3
17.5°	5556.6	5531.7	5497.7	5506.8	5538.5	5497.7	5484.1	5450.2	5398.1	5352.8	5343.7
20°	5798.9	5783.0	5751.3	5769.4	5767.2	5740.0	5746.8	5690.2	5615.5	5577.0	5547.5
22.5°	6068.3	6045.7	6023.0	6057.0	6029.8	6011.7	6004.9	5966.4	5873.6	5830.6	5823.8
25°	6337.8	6326.5	6342.3	6331.0	6292.5	6278.9	6288.0	6274.4	6165.7	6113.6	6081.9
27.5°	6675.2	6648.0	6672.9	6659.3	6618.6	6620.8	6623.1	6625.3	6503.1	6435.1	6389.9
30°	7060.1	7051.0	7082.7	7039.7	7001.2	7026.1	7046.5	7001.2	6894.8	6795.2	6779.3
32.5°	7560.5	7503.9	7540.1	7485.8	7426.9	7485.8	7522.0	7431.4	7345.4	7218.6	7241.2
35°	8115.3	8097.1	8097.1	8026.9	7995.2	8088.1	8124.3	8036.0	7902.4	7791.5	7764.3
37.5°	8704.0	8722.1	8778.7	8749.3	8719.8	8776.4	8857.9	8740.2	8568.1	8450.4	8418.7
40°	9485.2	9530.4	9568.9	9530.4	9496.5	9532.7	9625.5	9471.6	9351.6	9288.2	9220.2
42.5°	10325.2	10402.2	10377.3	10381.8	10411.3	10463.3	10556.2	10415.8	10277.7	10275.4	10175.8
45°	11461.9	11461.9	11409.8	11459.6	11455.1	11584.2	11624.9	11547.9	11432.5	11398.5	11312.4
47.5°	12523.8	12634.8	12614.4	12686.9	12630.3	12739.0	12877.1	12811.4	12677.8	12557.8	12539.7
50°	14004.7	13977.5	13950.4	14059.0	14050.0	14124.7	14251.5	14210.8	14025.1	13889.2	13864.3
52.5°	15306.7	15449.3	15415.4	15578.4	15487.8	15594.2	15745.9	15739.2	15512.7	15379.1	15340.6
55°	16950.6	17045.7	17038.9	17206.4	17081.9	17222.3	17349.1	17362.7	17115.8	16925.6	16984.5
57.5°	18662.4	18741.6	18696.3	18834.5	18712.2	18904.6	18981.6	18931.8	18786.9	18546.9	18635.2
60°	20376.4	20444.4	20496.5	20507.8	20437.6	20550.8	20623.3	20666.3	20437.6	20163.6	20270.0
62.5°	22117.7	22194.7	22149.4	22167.5	21972.8	22126.7	22217.3	22228.6	21966.0	21723.7	21798.4
65°	23951.8	24058.2	23895.2	23786.5	23546.5	23544.2	23664.2	23684.6	23498.9	23326.8	23297.4
67.5°	26222.9	26270.4	25921.7	25557.2	25151.9	25063.5	25147.3	25194.9	25301.3	25296.8	25163.2
68°	26478.7	26469.7	26116.4	25681.7	25247.0	25145.1	25185.8	25247.0	25317.1	25330.7	25170.0
70°	25896.8	25785.9	25584.3	25036.4	24606.2	24339.0	24196.3	24309.5	24119.3	24121.6	23820.4
72.5°	23003.0	22989.4	22618.1	22346.4	21963.7	21519.9	21316.1	21313.9	21332.0	21200.6	20890.4
75°	18632.9	18651.0	18218.6	18030.6	17912.9	17829.1	17872.1	18005.7	18019.3	18017.0	17908.4
77.5°	12994.8	13069.5	12954.1	12648.4	12976.7	13257.5	13798.6	14074.9	13986.6	14251.5	14419.1
80°	6811.0	6960.5	6965.0	7180.1	7445.0	7700.9	8167.3	8586.2	8278.3	8142.4	8002.0
82.5°	1791.1	1845.4	1926.9	1802.4	1840.9	1879.4	2241.7	2207.7	2037.9	2128.4	2264.3
85°	511.7	527.6	504.9	457.4	418.9	384.9	394.0	332.9	289.8	287.6	278.5
87.5°	360.0	387.2	341.9	294.4	264.9	246.8	237.8	201.5	163.0	142.7	113.2
90°	167.6	165.3	142.7	111.0	97.4	92.8	92.8	72.5	40.8	24.9	22.6
92.5°	70.2	72.5	58.9	47.6	40.8	31.7	24.9	15.9	9.1	4.5	2.3
95°	24.9	27.2	22.6	18.1	15.9	13.6	11.3	9.1	4.5	2.3	2.3
97.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	4.5	4.5	2.3	2.3
100°	0.0	0.0	0.0	2.3	4.5	4.5	4.5	4.5	2.3	2.3	2.3
102.5°	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
105°	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3



REPORT NUMBER: P522245  
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-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	2.3	2.3	2.3	2.3
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3
165°	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3
167.5°	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3
170°	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
172.5°	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
175°	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
177.5°	0.0	0.0	0.0	0.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P522245

CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX90

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0	4789.0
2.5°	4823.0	4811.6	4807.1	4750.5	4766.4	4732.4	4811.6	4789.0	4784.5	4816.2
5°	4834.3	4782.2	4813.9	4777.7	4786.7	4736.9	4800.3	4773.1	4775.4	4791.3
7.5°	4841.1	4811.6	4843.3	4779.9	4804.8	4786.7	4832.0	4804.8	4832.0	4845.6
10°	4909.0	4895.4	4872.8	4854.7	4872.8	4829.8	4886.4	4881.8	4897.7	4938.4
12.5°	5001.8	4986.0	4963.3	4931.6	4945.2	4929.4	4972.4	4976.9	5006.4	5026.7
15°	5140.0	5119.6	5108.3	5076.6	5081.1	5069.8	5094.7	5099.2	5158.1	5151.3
17.5°	5334.7	5312.0	5321.1	5291.7	5280.3	5253.2	5207.9	5192.0	5262.2	5282.6
20°	5547.5	5522.6	5534.0	5509.0	5298.5	4870.5	5158.1	5355.1	5205.6	5194.3
22.5°	5789.8	5762.6	5771.7	5733.2	5472.8	4671.3	4064.4	4014.6	4585.2	4816.2
25°	6057.0	6020.8	6016.2	5966.4	5110.5	4229.7	4161.8	4073.5	3656.8	3326.3
27.5°	6387.6	6333.2	6306.1	5554.3	5074.3	4395.0	4293.1	3978.4	3373.8	3394.2
30°	6745.4	6666.1	6156.6	5660.8	5339.2	4589.7	4453.9	3487.0	3491.6	3482.5
32.5°	7152.9	6976.3	6032.1	5986.8	5656.2	4798.1	3697.6	3656.8	3661.4	3675.0
35°	7687.3	6475.9	6451.0	6453.3	6043.4	4641.8	3917.2	3878.7	3883.3	3892.3
37.5°	7800.5	6980.8	6985.4	6933.3	6455.5	4241.0	4184.4	4182.2	4173.1	4164.0
40°	7891.1	7617.1	7551.4	7467.7	5984.5	4567.1	4549.0	4535.4	4542.2	4560.3
42.5°	8599.8	8393.8	8330.4	8230.7	6138.5	5060.7	5001.8	4986.0	5004.1	4995.0
45°	9541.8	9369.7	9245.1	7610.3	6781.6	5597.4	5549.8	5529.4	5536.2	5592.8
47.5°	10538.1	10436.2	10055.8	8221.7	7531.1	6231.4	6183.8	6152.1	6163.4	6149.8
50°	11622.7	11529.8	9308.5	9143.2	8359.8	6915.2	6845.0	6833.7	6838.2	6835.9
52.5°	12800.1	10859.6	10316.2	10144.1	9233.8	7630.7	7605.8	7544.7	7558.2	7544.7
55°	14181.3	11439.2	11425.7	11224.1	10216.5	8461.7	8432.3	8346.2	7805.0	8278.3
57.5°	15492.3	12546.5	12546.5	12351.8	11221.9	9288.2	9240.6	9177.2	5547.5	4474.3
60°	16927.9	13656.0	13624.3	13463.5	12191.0	10076.1	8190.0	8171.9	3351.2	3362.5
62.5°	18168.7	14645.5	14702.1	14552.7	13123.9	7544.7	3795.0	3718.0	330.6	509.5
65°	19559.0	15739.2	15807.1	15653.1	14133.8	8002.0	4118.8	4080.3	74.7	67.9
67.5°	21135.0	16830.5	16676.6	16506.8	14724.7	8239.8	4279.5	4245.6	20.4	13.6
68°	21148.6	16807.9	16608.6	16493.2	14668.1	8194.5	4265.9	4234.2	20.4	13.6
70°	20061.7	15961.1	15761.8	15791.2	13966.2	7836.7	4089.3	4030.5	20.4	13.6
72.5°	17600.4	14204.0	13979.8	13821.3	12385.7	6967.3	3665.9	3555.0	20.4	13.6
75°	15059.9	12037.0	11665.7	11317.0	9965.2	5701.5	3007.0	2882.5	20.4	13.6
77.5°	11869.5	9174.9	8647.4	8418.7	7488.0	4211.6	2234.9	2099.0	20.4	11.3
80°	6559.7	5264.5	4816.2	4675.8	4281.8	2474.9	1281.6	1200.1	18.1	11.3
82.5°	1696.0	1272.5	1109.5	1071.0	1005.3	586.5	312.5	296.6	15.9	9.1
85°	242.3	178.9	197.0	233.2	224.2	151.7	108.7	92.8	13.6	6.8
87.5°	126.8	106.4	124.5	140.4	142.7	88.3	45.3	24.9	6.8	0.0
90°	20.4	20.4	22.6	24.9	24.9	11.3	9.1	0.0	0.0	0.0
92.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.3	4.5	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P522245  
 CATALOG NUMBER: CST-CA8-480-740-U-T5R-HSS-HM-EX90

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.3	2.3	2.3	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)