

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: McGRAW-EDISON

Report Number: P579422

Luminaire Tested: **CTN-CA8-480-722-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579422
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-722-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2200K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39232 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G4

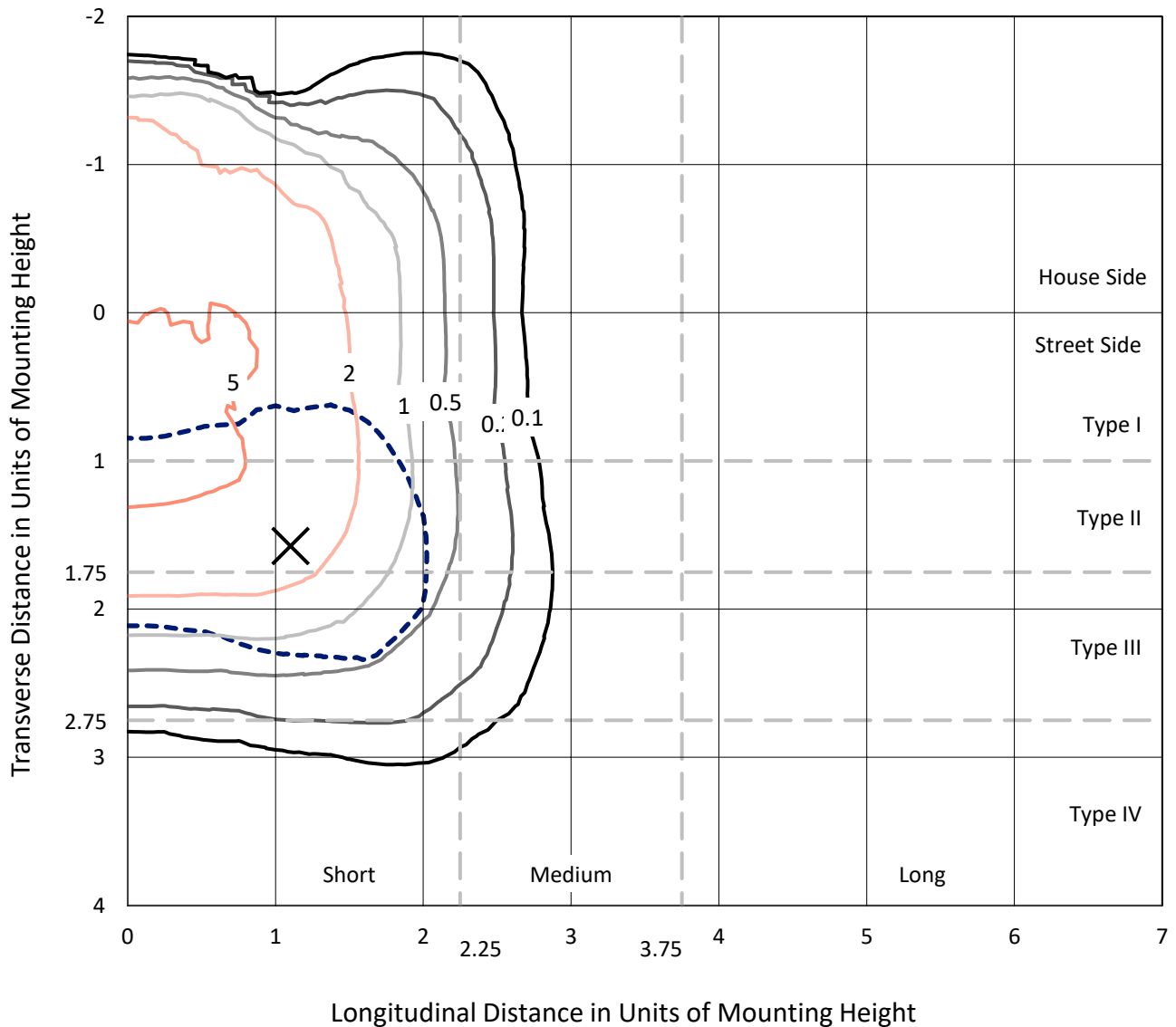
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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 CATALOG NUMBER: CTN-CA8-480-722-U-T5N-HSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

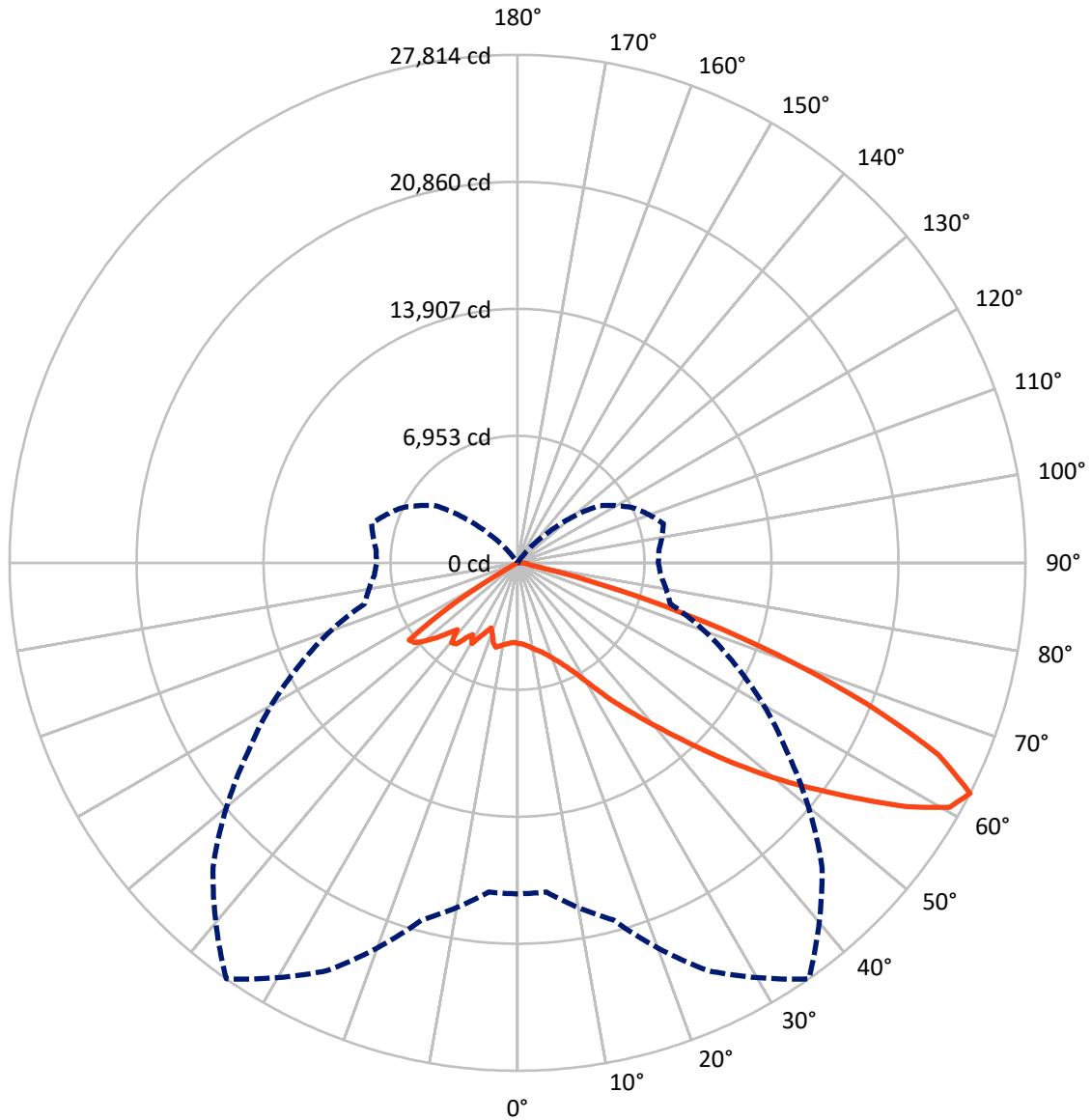
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.7 fc
 Type III - Short - N/A

REPORT NUMBER: P579422
CATALOG NUMBER: CTN-CA8-480-722-U-T5N-HSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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 CATALOG NUMBER: CTN-CA8-480-722-U-T5N-HSS-HM-EX180

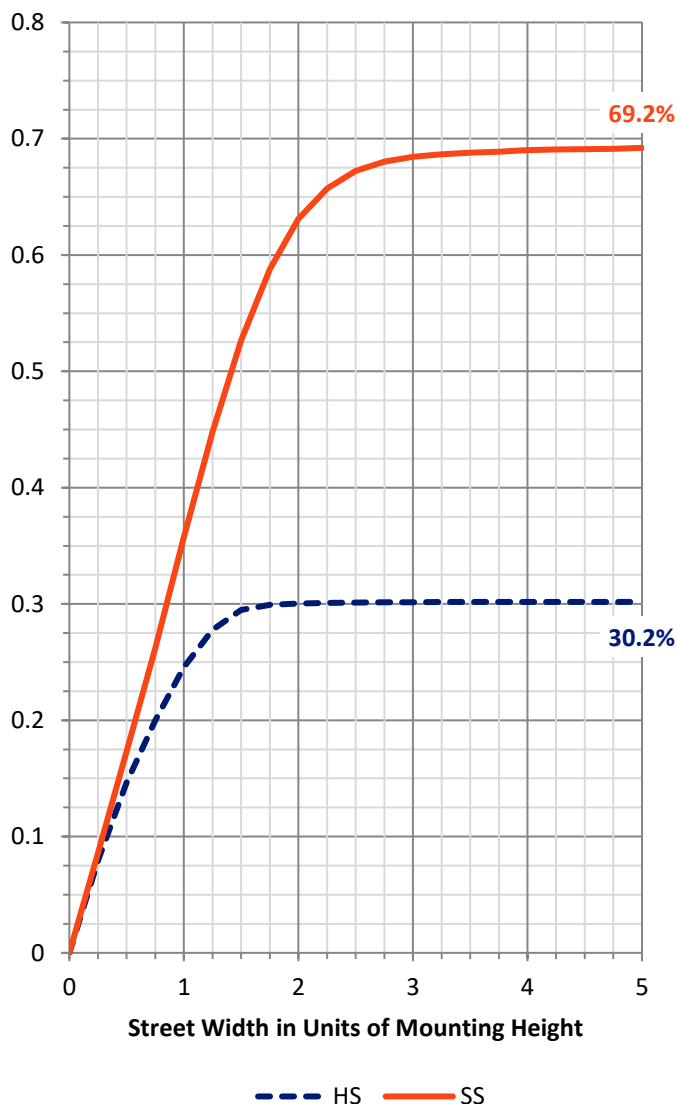
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11907.0	0.0	11907.0
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	27290.9	34.0	27324.9
	% Fixture	69.6	0.1	69.6
Total	Lumens	39197.9	34.1	39232.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	435.9	1.1
10°-20°	1399.0	3.6
20°-30°	2557.0	6.5
30°-40°	4872.9	12.4
40°-50°	8363.9	21.3
50°-60°	11220.4	28.6
60°-70°	8529.7	21.7
70°-80°	1615.1	4.1
80°-90°	203.9	0.5
90°-100°	30.0	0.1
100°-110°	4.0	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°	39197.9	99.9
0°-180°	39232.0	100.0

Coefficient of Utilization



REPORT NUMBER: P579422

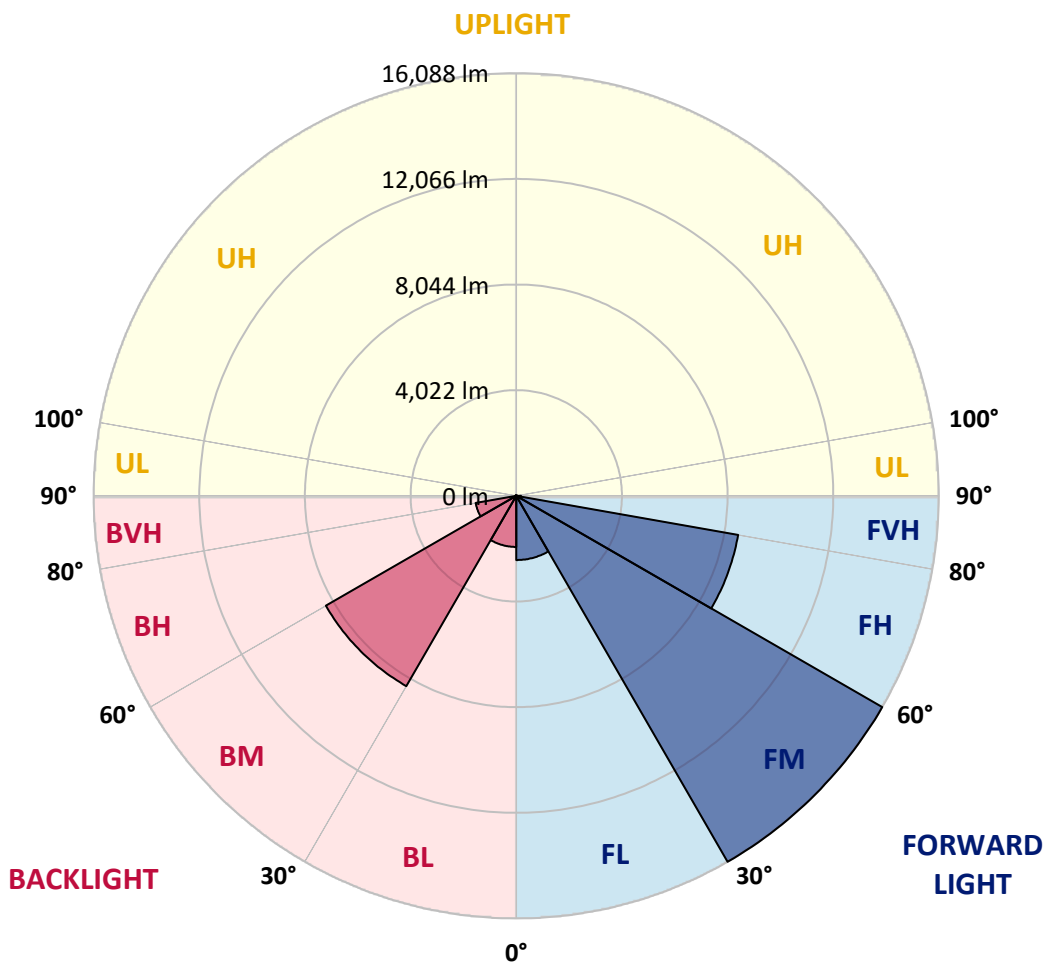
CATALOG NUMBER: CTN-CA8-480-722-U-T5N-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2445.6	6.2			
FM (30°-60°)	16088.4	41.0			
FH (60°-80°)	8576.8	21.9			G4/12000
FVH (80°-90°)	180.1	0.5			G2/225
BL (0°-30°)	1946.4	5.0	B3/2500		
BM (30°-60°)	8368.8	21.3	B4/8500		
BH (60°-80°)	1568.0	4.0	B3/2500		G3/2500
BVH (80°-90°)	23.9	0.1			G1/100
UL (90°-100°)	30.0	0.1		U2/50	
UH (100°-180°)	4.1	0.0		U1/10	

BUG Rating: B4-U2-G4

Type III Short





REPORT NUMBER: P579422

CATALOG NUMBER: CTN-CA8-480-722-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0
2.5°	4527.1	4493.8	4495.7	4525.3	4440.2	4471.6	4434.6	4471.6	4451.3	4466.1	4473.5
5°	4606.6	4573.3	4569.6	4601.1	4529.0	4551.2	4514.2	4540.1	4512.3	4530.8	4530.8
7.5°	4726.8	4693.6	4682.5	4706.5	4639.9	4656.6	4617.7	4632.5	4601.1	4625.1	4612.2
10°	4869.2	4832.3	4819.3	4832.3	4774.9	4784.2	4737.9	4754.6	4708.3	4736.1	4717.6
12.5°	5020.9	4972.8	4972.8	4983.9	4922.9	4924.7	4882.2	4891.4	4845.2	4874.8	4852.6
15°	5185.5	5131.8	5139.2	5150.3	5085.6	5096.7	5052.3	5067.1	5019.0	5048.6	5026.4
17.5°	5403.7	5346.4	5339.0	5372.2	5311.2	5331.6	5281.6	5300.1	5257.6	5266.8	5255.7
20°	5705.1	5633.0	5616.4	5660.7	5592.3	5607.1	5570.1	5607.1	5562.7	5496.2	5309.4
22.5°	6065.7	6002.9	5975.1	6004.7	5923.3	5949.2	5947.4	6006.6	5884.5	5464.7	5277.9
25°	6541.0	6498.5	6444.8	6448.5	6350.5	6389.4	6459.6	6505.9	5986.2	5618.2	5621.9
27.5°	7175.3	7132.8	7058.8	7031.1	6888.7	6983.0	7092.1	6640.9	6232.2	6326.5	6274.7
30°	7985.3	7977.9	7828.1	7780.1	7624.7	7743.1	7648.8	6875.7	7016.3	7147.6	7068.1
32.5°	9063.5	9011.7	8795.3	8708.4	8545.7	8614.1	7781.9	7670.9	7879.9	8057.4	7974.2
35°	10367.2	10210.0	9990.0	9818.0	9535.0	9154.1	8288.6	8505.0	8817.5	9061.6	8658.5
37.5°	11881.8	11711.7	11367.7	11058.9	10613.2	9425.9	9052.4	9485.1	9877.2	9612.7	8682.5
40°	13440.8	13289.2	12965.5	12567.9	11815.2	10269.2	9978.9	10496.7	10942.4	9427.8	8965.5
42.5°	14988.7	14859.2	14598.5	14206.4	13237.4	11273.4	10994.2	11550.8	11131.0	9788.4	9773.6
45°	16549.5	16484.8	16188.9	15854.1	14922.1	12558.7	12131.5	12566.1	10711.2	10652.0	10616.9
47.5°	17814.4	17825.5	17721.9	17548.1	16719.6	13969.7	13413.1	12124.1	11221.6	11286.3	11303.0
50°	19118.2	19035.0	19029.4	19040.5	18694.7	15787.6	14285.9	11924.4	11889.2	11883.7	11868.9
52.5°	20163.0	20057.6	20275.8	20449.7	20655.0	17816.3	14154.6	12601.2	12399.6	12329.4	11898.5
55°	21013.7	20973.0	21328.1	21916.2	22829.7	19965.2	15316.0	13261.4	12858.3	11216.1	10117.6
57.5°	21529.7	21588.9	22321.2	23477.0	25187.6	21746.1	16667.8	13930.9	11008.9	9879.0	9808.7
60°	20542.1	20854.7	22101.1	24638.4	27181.2	23421.5	17673.9	14065.9	9906.8	9302.0	9161.5
62.5°	18125.1	18095.5	20237.0	24638.4	27813.6	23588.0	17991.9	13109.8	8654.8	7867.0	7709.8
65°	12828.7	12906.3	15193.9	22202.8	25337.4	21940.2	16595.7	11145.8	6903.5	6180.4	5967.7
67.5°	7939.1	7933.5	10173.1	16351.6	20625.4	18369.2	13971.5	8543.8	4791.6	4109.2	3878.0
70°	2742.5	2820.2	4575.2	9568.3	15182.8	14391.3	10456.0	5394.4	2526.2	1801.2	1520.1
72.5°	1091.1	1117.0	1642.2	4266.4	9485.1	9614.6	6354.2	2620.5	756.4	480.8	451.2
75°	713.8	717.5	787.8	1540.5	4602.9	5172.5	2951.5	752.7	351.4	321.8	314.4
77.5°	615.8	617.7	654.7	780.4	1499.8	2012.1	839.6	445.7	294.0	264.5	257.1
80°	571.4	573.3	591.8	671.3	723.1	686.1	447.5	358.8	247.8	234.9	233.0
82.5°	540.0	547.4	556.6	604.7	584.4	516.0	371.7	290.3	190.5	203.4	209.0
85°	497.5	504.9	510.4	538.1	488.2	377.3	288.5	218.2	122.1	133.2	131.3
87.5°	373.6	377.3	369.9	366.2	340.3	264.5	190.5	138.7	48.1	44.4	40.7
90°	179.4	177.5	170.1	157.2	136.8	107.3	79.5	44.4	20.3	9.2	3.7
92.5°	142.4	140.5	136.8	123.9	107.3	79.5	57.3	31.4	18.5	7.4	1.8
95°	96.2	92.5	88.8	79.5	66.6	48.1	33.3	22.2	14.8	5.5	1.8
97.5°	62.9	61.0	55.5	48.1	37.0	25.9	20.3	16.6	12.9	5.5	1.8
100°	38.8	38.8	35.1	27.7	18.5	14.8	12.9	12.9	9.2	3.7	0.0
102.5°	24.0	22.2	20.3	12.9	9.2	9.2	9.2	9.2	7.4	3.7	0.0
105°	12.9	12.9	9.2	7.4	5.5	3.7	5.5	7.4	5.5	1.8	0.0
107.5°	3.7	3.7	3.7	1.8	1.8	0.0	1.8	3.7	3.7	1.8	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.7	1.8	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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: P579422

CATALOG NUMBER: CTN-CA8-480-722-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0	4418.0
2.5°	4464.2	4429.1	4438.3	4403.2	4397.7	4360.7	4423.6	4427.3	4410.6	4429.1
5°	4521.6	4479.0	4495.7	4453.1	4445.7	4397.7	4447.6	4442.0	4429.1	4443.9
7.5°	4602.9	4560.4	4569.6	4519.7	4510.5	4456.8	4504.9	4486.4	4469.8	4490.1
10°	4715.7	4667.7	4675.1	4615.9	4608.5	4545.6	4601.1	4573.3	4549.3	4577.0
12.5°	4854.4	4791.6	4784.2	4721.3	4715.7	4656.6	4713.9	4686.2	4662.1	4706.5
15°	5013.5	4930.3	4919.2	4839.6	4830.4	4769.4	4824.9	4784.2	4765.7	4823.0
17.5°	5226.2	4932.1	4767.5	4651.0	4584.4	4551.2	4651.0	4786.0	4745.3	4747.2
20°	5139.2	4823.0	4602.9	4503.1	4430.9	4109.2	3665.3	3792.9	4051.8	4179.4
22.5°	5113.3	5002.4	4911.8	4743.5	4027.8	3846.6	3872.5	3842.9	3354.7	3167.9
25°	5609.0	5481.4	5285.3	4403.2	4196.1	4155.4	4170.2	3659.8	3291.8	3345.4
27.5°	6243.3	6112.0	5144.8	4651.0	4610.3	4556.7	4264.5	3626.5	3676.4	3728.2
30°	7042.2	6352.4	5364.9	5213.2	5137.4	5081.9	3998.2	4050.0	4133.2	4197.9
32.5°	7820.7	6332.0	5995.5	5806.8	5712.5	4636.2	4517.9	4638.1	4723.1	4773.1
35°	7830.0	7057.0	6701.9	6459.6	5860.5	4983.9	5093.0	5294.6	5503.6	5542.4
37.5°	8042.7	7878.1	7471.2	7166.1	4358.8	5562.7	5803.1	6034.3	6243.3	6256.2
40°	8889.6	8712.1	8331.1	7659.8	4813.8	5673.7	6585.4	6846.2	7021.8	7012.6
42.5°	9734.8	9612.7	9217.0	6807.3	5424.0	4915.5	7406.5	7578.5	7689.4	7767.1
45°	10585.5	10463.4	9126.4	7474.9	6150.8	5383.3	7206.8	8181.4	8303.4	8342.2
47.5°	11249.4	10947.9	8362.6	8360.7	7058.8	5982.5	5951.1	8725.1	8832.3	8804.6
50°	11863.3	9773.6	9039.4	8651.1	7998.3	6546.6	6328.3	7341.8	9311.3	9270.6
52.5°	10794.4	9485.1	9620.1	7868.8	8752.8	7106.9	6753.7	6583.5	8460.6	9549.8
55°	9653.4	9838.3	10213.7	8645.5	6350.5	7288.1	7114.3	6775.9	5708.8	4804.5
57.5°	9851.3	10126.8	10145.3	9364.9	6572.5	4553.0	5830.9	5104.1	3225.2	3232.6
60°	9191.1	9549.8	7415.7	6243.3	3534.0	948.7	92.5	81.4	562.2	684.2
62.5°	7770.8	8270.1	7079.2	5438.8	2267.3	35.1	9.2	1.8	0.0	0.0
65°	6017.7	6618.7	5982.5	4693.6	2012.1	11.1	0.0	0.0	0.0	0.0
67.5°	3968.6	4510.5	4545.6	3926.1	1677.3	5.5	0.0	0.0	0.0	0.0
70°	1662.5	2341.2	2829.4	2918.2	1318.6	1.8	0.0	0.0	0.0	0.0
72.5°	480.8	743.4	1361.1	1753.1	837.7	0.0	0.0	0.0	0.0	0.0
75°	319.9	342.1	393.9	789.7	417.9	0.0	0.0	0.0	0.0	0.0
77.5°	264.5	270.0	225.6	216.4	120.2	0.0	0.0	0.0	0.0	0.0
80°	240.4	236.7	181.2	127.6	44.4	0.0	0.0	0.0	0.0	0.0
82.5°	221.9	210.8	131.3	66.6	29.6	0.0	0.0	0.0	0.0	0.0
85°	149.8	147.9	59.2	40.7	5.5	0.0	0.0	0.0	0.0	0.0
87.5°	40.7	51.8	12.9	5.5	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P579422
 CATALOG NUMBER: CTN-CA8-480-722-U-T5N-HSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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)