

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: P579423

Luminaire Tested: **CTN-CA8-480-722-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579423  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)  
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-EX90  
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: 49335 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B5 - 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

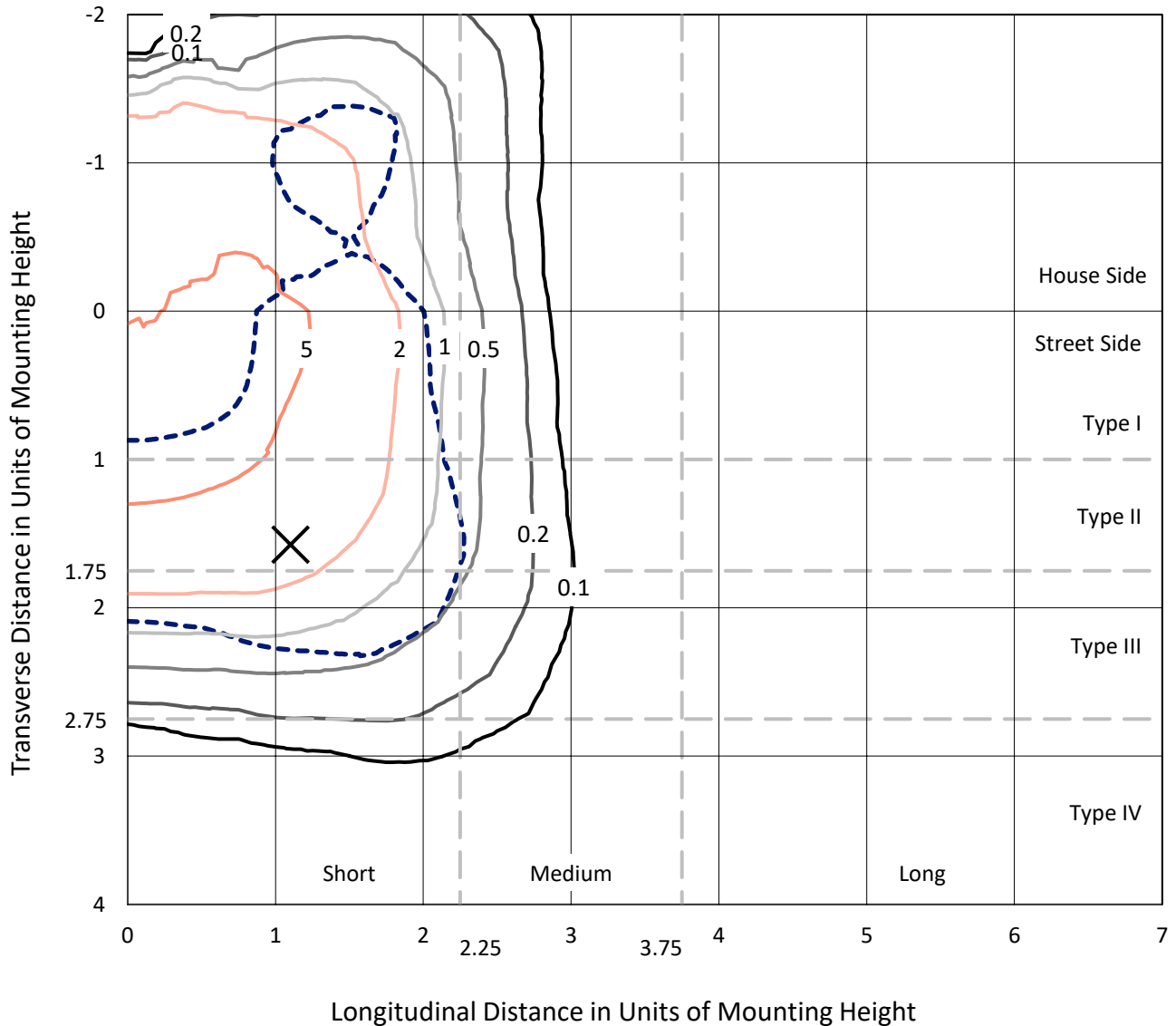




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### Iso-Footcandle Lines of Horizontal Illumination

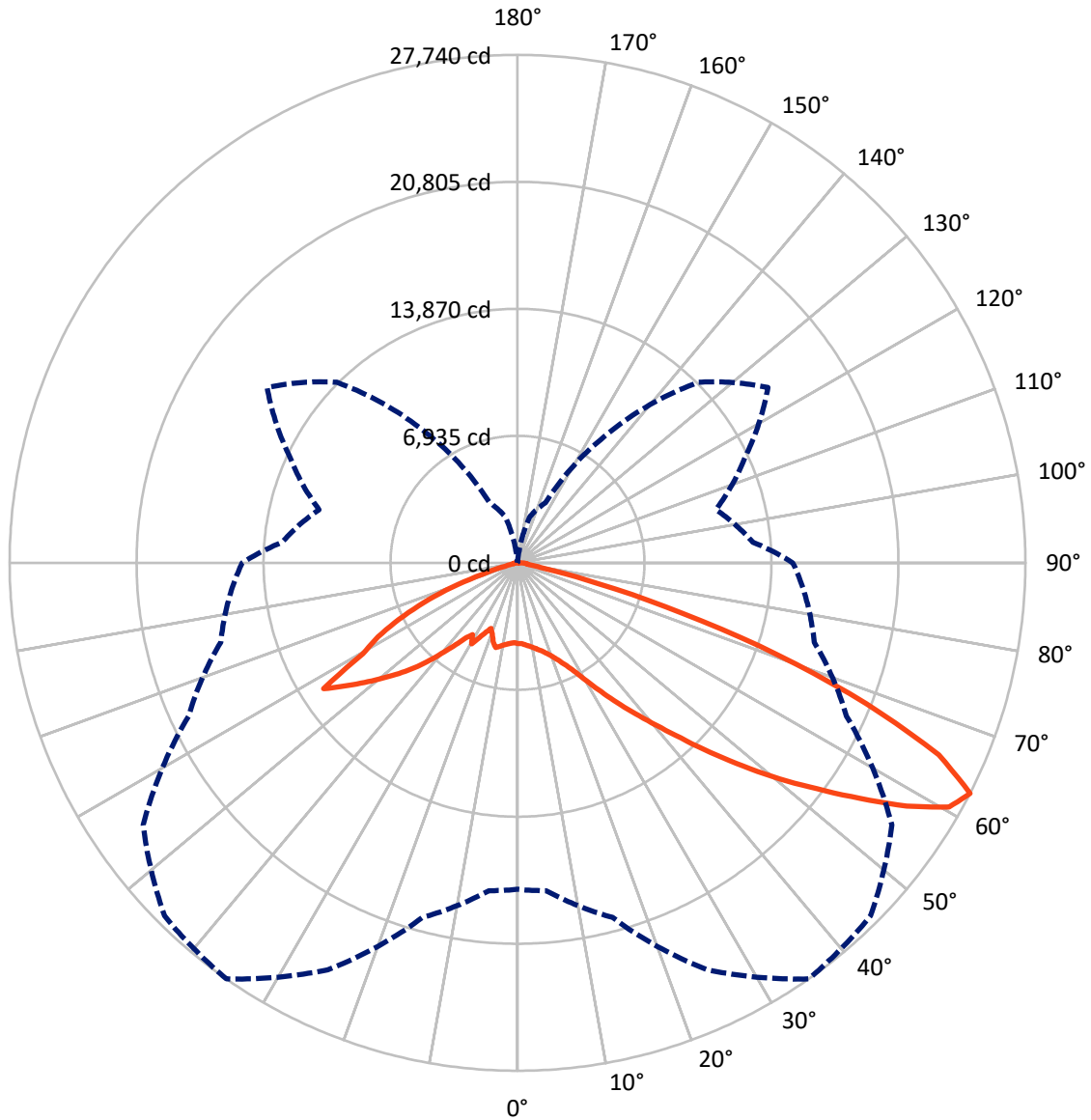
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.6 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



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

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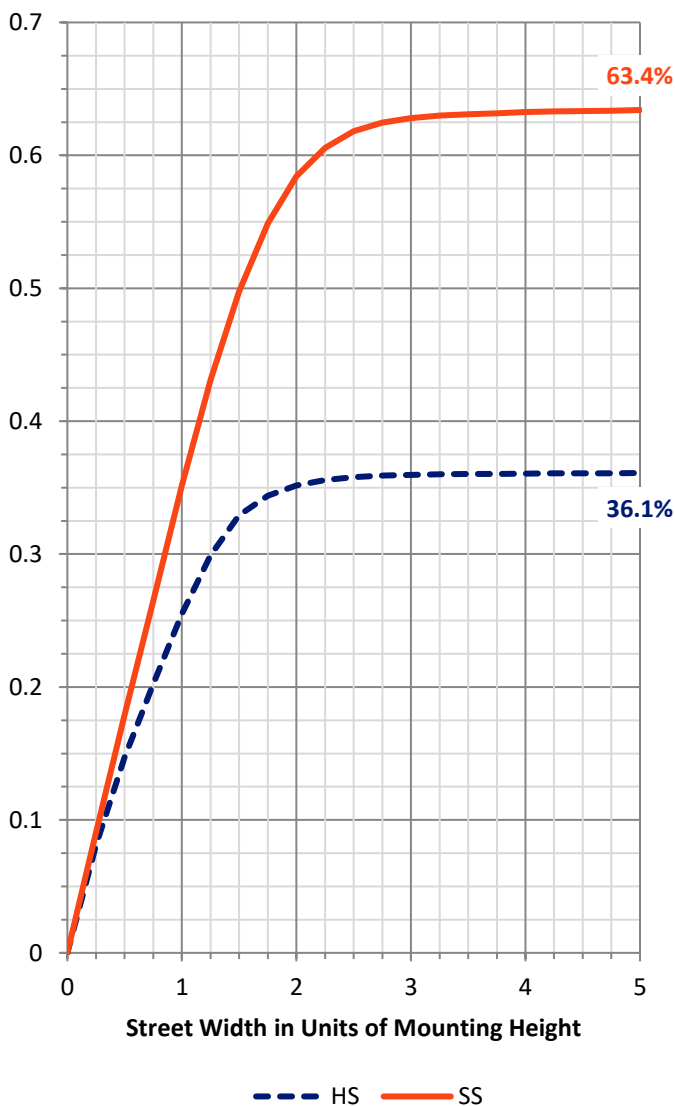
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	17907.4	0.0	17907.5
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	31404.2	23.4	31427.5
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	49311.6	23.4	49335.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	434.0	0.9
10°-20°	1402.6	2.8
20°-30°	2698.4	5.5
30°-40°	5383.1	10.9
40°-50°	9829.3	19.9
50°-60°	14688.3	29.8
60°-70°	12307.5	24.9
70°-80°	2303.2	4.7
80°-90°	265.1	0.5
90°-100°	21.1	0.0
100°-110°	2.3	0.0
110°-120°	0.1	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°	49311.6	100.0
0°-180°	49335.0	100.0

**Coefficient of Utilization**

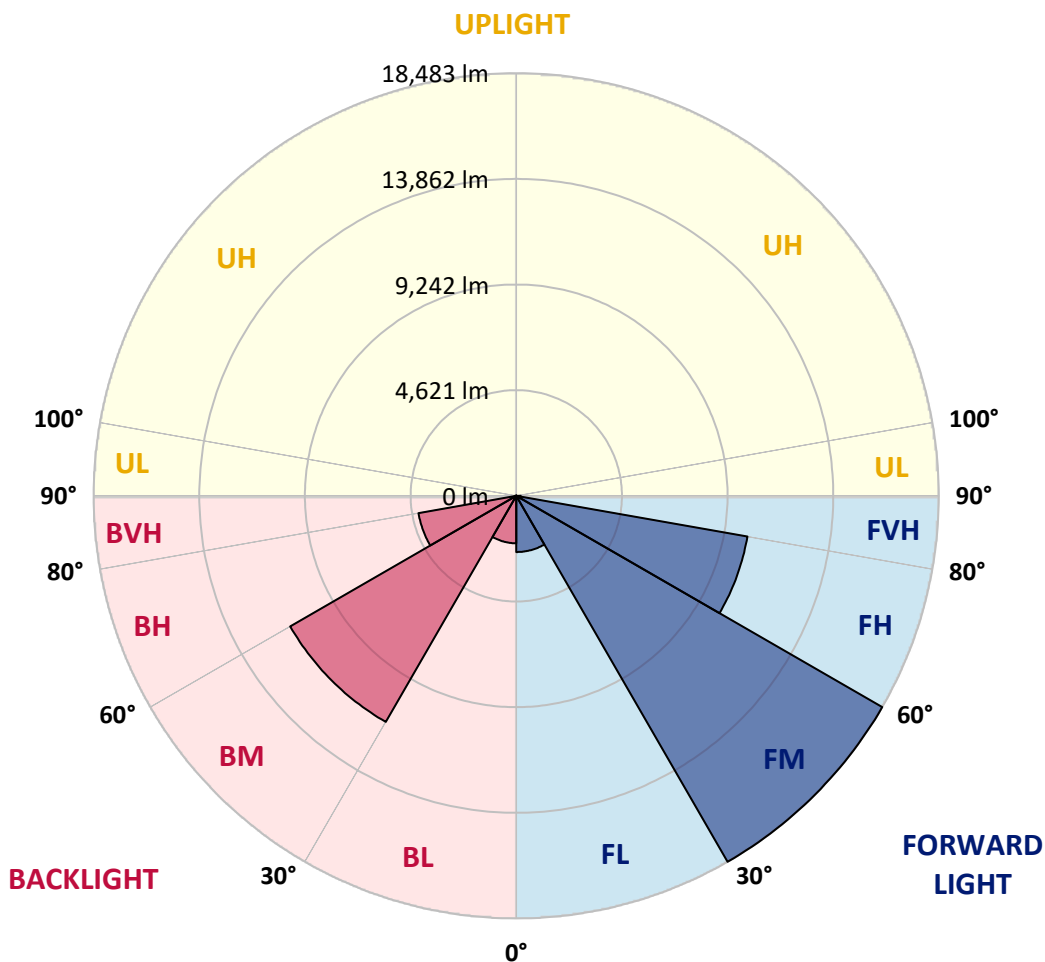


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2459.9	5.0			
FM (30°-60°)	18483.1	37.5			
FH (60°-80°)	10268.0	20.8			G4/12000
FVH (80°-90°)	193.1	0.4			G2/225
BL (0°-30°)	2075.1	4.2	B3/2500		
BM (30°-60°)	11417.6	23.1	B5		
BH (60°-80°)	4342.7	8.8	B4/5000		G4/5000
BVH (80°-90°)	72.0	0.1			G1/100
UL (90°-100°)	21.1	0.0		U2/50	
UH (100°-180°)	2.3	0.0		U1/10	

**BUG Rating: B5-U2-G4**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3
2.5°	4508.6	4471.7	4477.2	4503.1	4421.7	4455.0	4419.9	4453.2	4442.1	4456.9	4468.0
5°	4573.4	4527.1	4530.8	4560.4	4497.5	4525.3	4490.1	4512.3	4493.8	4514.2	4516.0
7.5°	4662.1	4623.3	4617.7	4647.3	4593.7	4617.7	4582.6	4593.7	4575.2	4599.3	4591.9
10°	4780.5	4745.4	4736.1	4756.4	4713.9	4726.9	4689.9	4704.7	4676.9	4704.7	4691.7
12.5°	4911.8	4865.6	4867.4	4889.6	4847.1	4856.3	4826.7	4843.4	4810.1	4839.7	4830.4
15°	5067.1	5000.6	5013.5	5037.5	4996.9	5024.6	4989.5	5013.5	4982.1	5013.5	5002.4
17.5°	5268.7	5192.9	5202.1	5241.0	5207.7	5252.1	5211.4	5241.0	5226.2	5246.5	5242.8
20°	5523.9	5474.0	5464.7	5512.8	5464.7	5520.2	5498.0	5549.8	5553.5	5573.8	5583.1
22.5°	5864.2	5830.9	5808.7	5842.0	5799.5	5838.3	5869.7	5958.5	5991.8	6045.4	6049.1
25°	6317.3	6315.4	6265.5	6267.3	6213.7	6265.5	6354.3	6493.0	6581.7	6650.2	6624.3
27.5°	6929.4	6940.5	6864.7	6835.1	6772.2	6849.9	7033.0	7204.9	7365.8	7462.0	7462.0
30°	7728.3	7739.4	7628.4	7569.3	7511.9	7646.9	7865.2	8088.9	8318.2	8456.9	8425.5
32.5°	8786.1	8751.0	8591.9	8484.7	8386.7	8542.0	8793.5	9046.9	9359.4	9559.1	9535.1
35°	10069.5	9941.9	9782.9	9583.2	9372.3	9494.4	9731.1	10049.2	10483.8	10783.4	10707.6
37.5°	11560.1	11434.3	11162.5	10818.5	10450.5	10465.3	10652.1	11203.2	11746.9	11991.0	11939.2
40°	13108.0	13010.0	12760.3	12318.3	11652.6	11499.1	11806.1	12470.0	12989.6	13296.6	13209.7
42.5°	14685.4	14585.6	14396.9	13953.1	13071.0	12701.1	13021.1	13744.1	14298.9	14600.4	14500.5
45°	16259.2	16144.6	15994.8	15602.7	14761.3	14219.4	14398.8	15062.7	15569.4	15911.5	15706.3
47.5°	17642.5	17566.7	17465.0	17305.9	16569.9	15970.7	15957.8	16396.1	16745.6	16971.2	16719.7
50°	18846.4	18792.8	18850.1	18816.8	18548.7	18003.1	17668.4	17638.8	17751.6	17916.2	17557.4
52.5°	19926.4	19832.1	20044.8	20309.2	20507.1	20396.1	19312.4	18704.0	18580.1	18635.6	18228.7
55°	20810.4	20766.0	21122.9	21786.8	22702.2	22946.3	21000.9	19739.6	19282.8	19253.3	18790.9
57.5°	21350.4	21413.3	22127.1	23392.0	25071.2	25148.9	23074.0	20847.4	19967.1	19649.0	19116.4
60°	20490.5	20732.7	21951.4	24560.8	27081.4	27129.5	24595.9	21050.8	19112.7	18400.7	17740.5
62.5°	17831.1	17975.4	20048.5	24522.0	27739.8	27270.1	24958.4	19822.8	16780.7	15645.2	15035.0
65°	12560.6	12830.6	15051.6	22062.4	25278.3	25337.5	22896.4	17139.5	13400.2	12144.5	11750.6
67.5°	7585.9	7844.8	10210.1	15926.3	20549.6	21213.5	19099.8	12976.7	9609.1	8022.3	7624.7
70°	2463.3	2744.4	4652.9	9387.1	15116.3	16708.6	14372.9	8445.8	5032.0	3524.8	3097.6
72.5°	935.8	1020.8	1514.6	4099.9	9414.9	11155.1	8889.7	4236.8	1559.0	928.4	815.5
75°	608.4	621.4	708.3	1436.9	4540.1	6141.6	4284.9	1240.9	625.1	554.8	514.1
77.5°	523.4	532.6	569.6	715.7	1446.2	2348.6	1229.8	634.3	521.5	462.3	434.6
80°	493.8	497.5	521.5	606.6	676.9	784.1	591.8	530.8	454.9	434.6	414.2
82.5°	467.9	480.8	493.8	551.1	549.2	564.0	475.3	416.1	386.5	406.9	399.5
85°	436.4	443.8	453.1	491.9	447.5	379.1	366.2	286.6	279.2	297.7	279.2
87.5°	307.0	325.5	314.4	331.0	310.7	242.3	205.3	162.7	129.5	107.3	103.6
90°	125.8	127.6	120.2	111.0	98.0	81.4	64.7	40.7	18.5	9.2	3.7
92.5°	98.0	98.0	94.3	85.1	74.0	61.0	46.2	25.9	12.9	5.5	1.8
95°	61.0	62.9	59.2	53.6	46.2	37.0	27.7	14.8	9.2	3.7	1.8
97.5°	38.8	38.8	35.1	31.4	25.9	18.5	12.9	11.1	7.4	3.7	0.0
100°	22.2	22.2	20.3	16.6	12.9	9.2	9.2	7.4	5.5	1.8	0.0
102.5°	12.9	12.9	9.2	7.4	5.5	5.5	5.5	5.5	3.7	1.8	0.0
105°	5.5	5.5	3.7	3.7	1.8	1.8	3.7	3.7	3.7	1.8	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	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	1.8



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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





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3	4414.3
2.5°	4460.6	4427.3	4432.8	4401.4	4395.8	4364.4	4427.3	4434.7	4416.2	4432.8
5°	4512.3	4471.7	4484.6	4449.5	4443.9	4401.4	4456.9	4453.2	4438.4	4455.0
7.5°	4590.0	4547.5	4554.9	4516.0	4508.6	4462.4	4514.2	4497.5	4482.7	4503.1
10°	4699.1	4651.0	4654.7	4604.8	4610.4	4549.3	4612.2	4582.6	4564.1	4591.9
12.5°	4830.4	4776.8	4778.6	4726.9	4725.0	4665.8	4721.3	4704.7	4676.9	4719.5
15°	5000.6	4939.5	4934.0	4865.6	4847.1	4780.5	4832.3	4800.8	4782.3	4843.4
17.5°	5239.1	5170.7	5150.4	5067.1	4721.3	4521.6	4799.0	4893.3	4778.6	4760.1
20°	5557.2	5499.9	5453.6	5327.9	4747.2	4124.0	3663.5	3667.2	4151.7	4375.5
22.5°	5988.1	5919.7	5832.8	5653.4	4355.1	3863.2	3865.1	3859.5	3312.1	3081.0
25°	6578.0	6494.8	6317.3	5303.8	4623.3	4168.4	4157.3	3615.4	3314.0	3330.6
27.5°	7375.1	7204.9	6165.6	5745.8	5100.4	4564.1	4297.8	3639.5	3676.4	3702.3
30°	8388.5	7704.3	6663.1	6413.4	5673.7	5089.3	3974.2	4064.8	4138.8	4155.4
32.5°	9427.8	7726.5	7458.3	7193.9	6380.1	4630.7	4479.1	4651.0	4728.7	4738.0
35°	9418.6	8673.3	8327.5	8029.7	7034.8	4954.3	5050.5	5314.9	5512.8	5503.6
37.5°	9967.8	9718.2	9305.8	8928.5	6332.1	5581.2	5753.2	6052.8	6293.2	6285.8
40°	11116.3	10827.8	10391.3	9599.8	7010.8	6298.8	6539.2	6861.0	7031.1	7040.4
42.5°	12201.8	11963.2	11517.6	8969.2	7859.6	7162.4	7380.6	7597.0	7702.4	7735.7
45°	13281.8	13111.7	11628.5	9912.3	8886.0	8031.6	8175.8	8216.5	8327.5	8314.5
47.5°	14158.4	13969.8	11181.0	11095.9	10130.6	8856.4	8845.3	8791.7	8832.3	8841.6
50°	14959.1	12686.3	12079.8	12362.7	11436.2	9697.8	9487.0	9377.9	9322.4	9298.4
52.5°	15591.6	12690.0	12919.3	13672.0	12910.1	10611.4	10158.3	9851.3	8625.2	9585.0
55°	16129.8	13213.4	13714.5	15071.9	14180.6	11567.5	10764.9	10217.5	5756.9	4615.9
57.5°	16438.6	13611.0	14502.4	16383.1	15290.2	12630.8	9910.5	8569.7	3254.8	3251.1
60°	15245.8	12897.1	14480.2	17071.1	14970.2	9797.7	4035.2	3376.9	615.8	632.5
62.5°	12906.4	11219.8	13733.0	16693.8	13942.0	8619.7	3619.1	2600.1	20.3	16.6
65°	9999.3	8950.7	11563.8	14683.6	12684.5	7192.0	2698.2	1873.4	5.5	0.0
67.5°	6541.0	6308.0	8532.8	12175.9	10345.1	5572.0	1810.5	896.9	3.7	0.0
70°	2788.8	3230.8	5405.6	8828.6	7918.8	3833.6	872.9	323.6	1.8	0.0
72.5°	780.4	1033.8	2406.0	5172.5	4980.2	2015.8	340.3	136.8	1.8	0.0
75°	462.3	397.6	689.8	2063.8	2424.5	708.3	157.2	105.4	1.8	0.0
77.5°	384.7	310.7	395.8	527.1	734.2	255.2	133.2	94.3	0.0	0.0
80°	360.6	275.5	342.1	368.0	362.5	212.7	131.3	94.3	0.0	0.0
82.5°	342.1	240.4	282.9	282.9	303.3	196.0	123.9	92.5	0.0	0.0
85°	257.1	168.3	188.6	244.1	218.2	138.7	90.6	74.0	0.0	0.0
87.5°	98.0	61.0	74.0	77.7	62.9	31.4	7.4	7.4	0.0	0.0
90°	1.8	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: P579423  
 CATALOG NUMBER: CTN-CA8-480-722-U-T5N-HSS-HM-EX90

**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)