

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: P522151

Luminaire Tested: **CTN-CA10-630-730-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522151  
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: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-730-U-T5R-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 59920 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

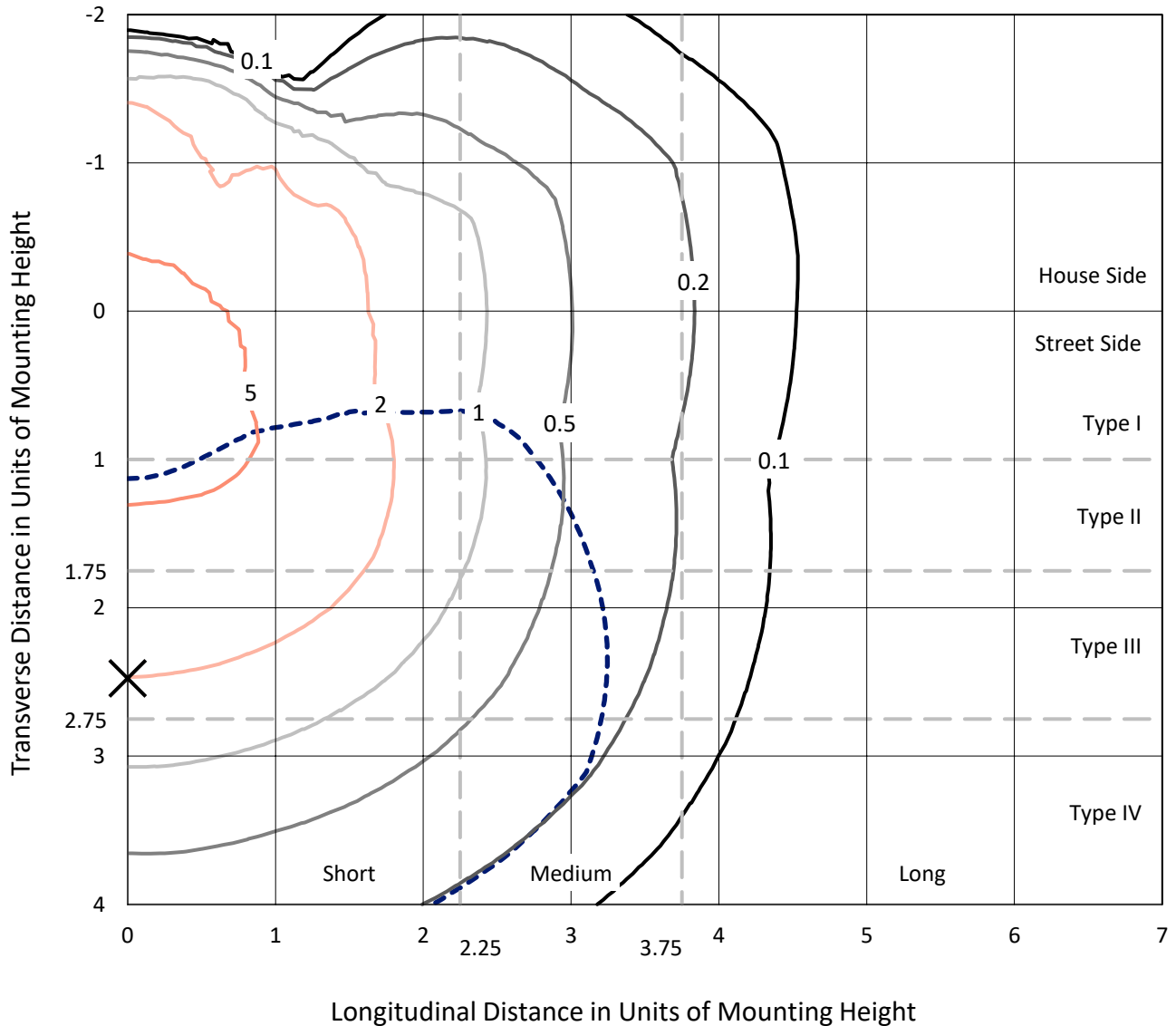
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

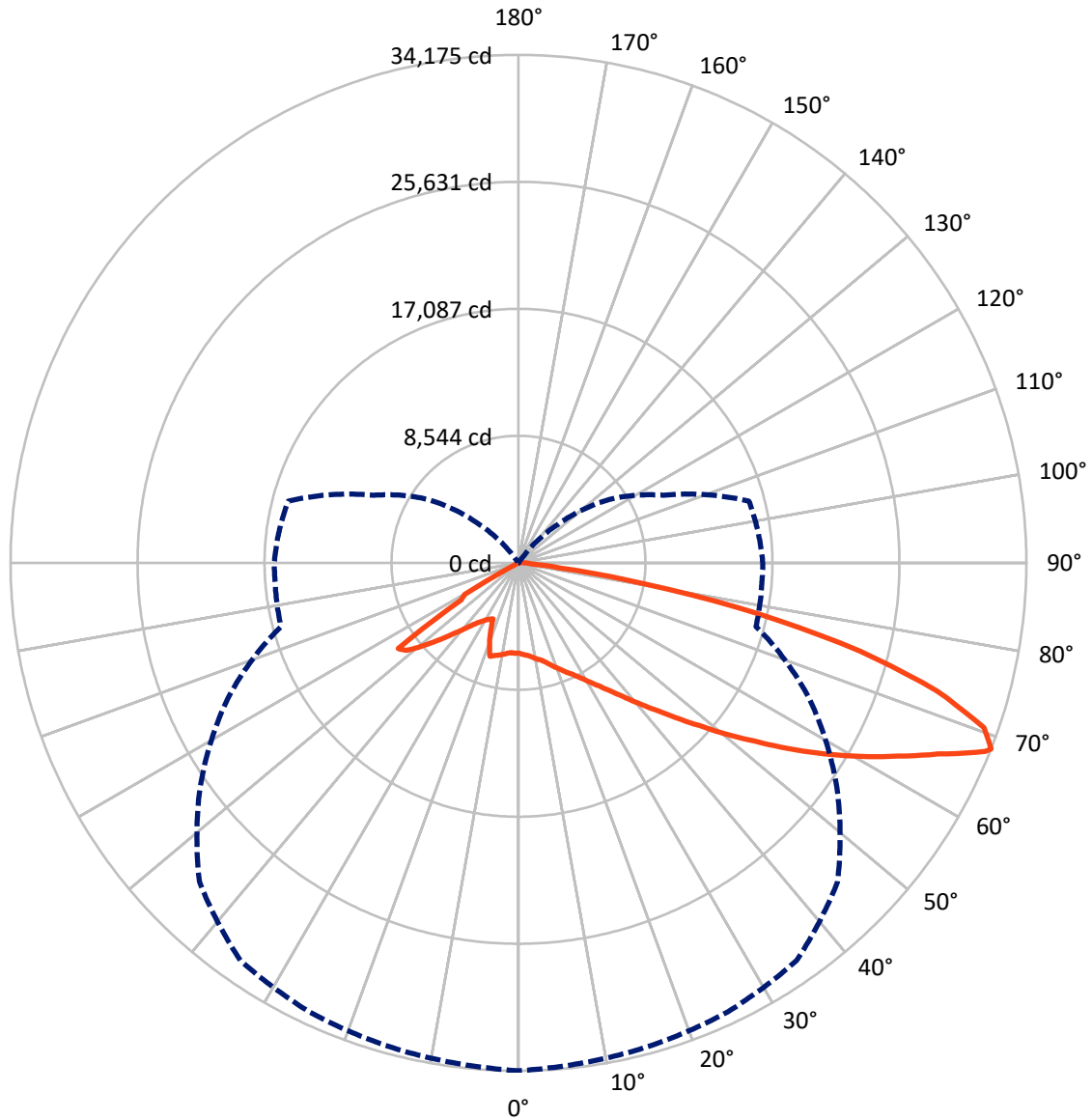
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 fc  
 Type IV - Short - N/A

REPORT NUMBER: P522151  
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### Luminous Intensity Polar Plot



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

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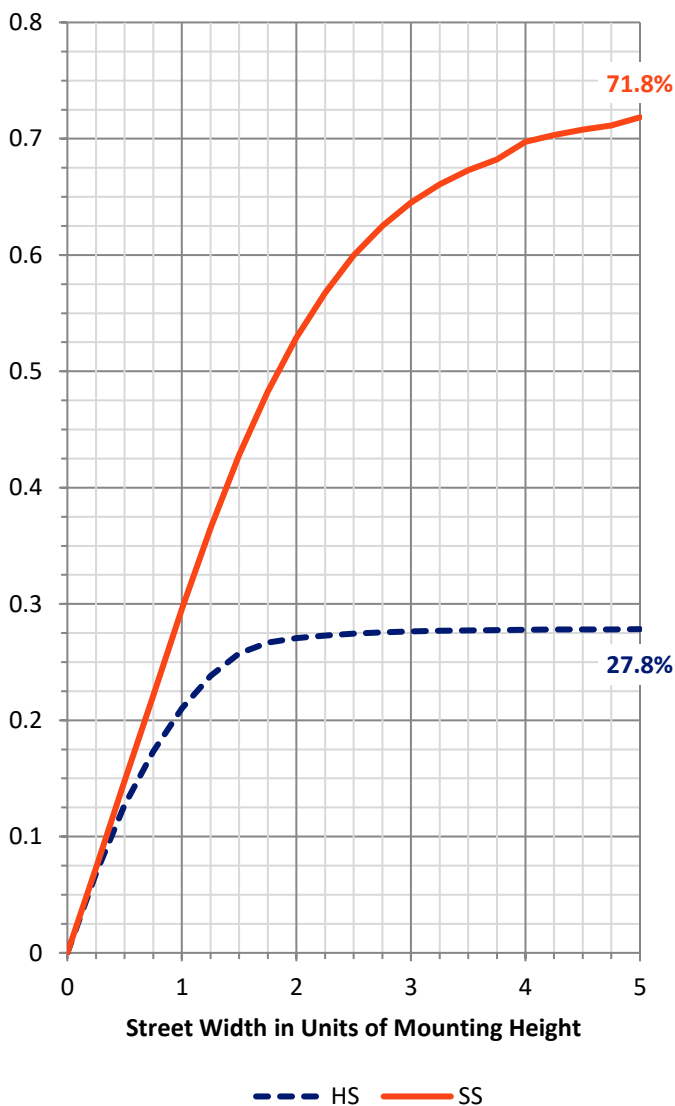
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16735.7	0.4	16736.1
	% Fixture	27.9	0.0	27.9
<b>Street Side</b>	Lumens	43149.6	34.3	43183.9
	% Fixture	72.0	0.1	72.1
<b>Total</b>	Lumens	59885.3	34.7	59920.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	589.2	1.0
10°-20°	1866.9	3.1
20°-30°	3160.7	5.3
30°-40°	5007.3	8.4
40°-50°	8186.6	13.7
50°-60°	12539.8	20.9
60°-70°	15418.7	25.7
70°-80°	11913.9	19.9
80°-90°	1202.1	2.0
90°-100°	34.1	0.1
100°-110°	0.6	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°	59885.3	99.9
0°-180°	59920.0	100.0

**Coefficient of Utilization**

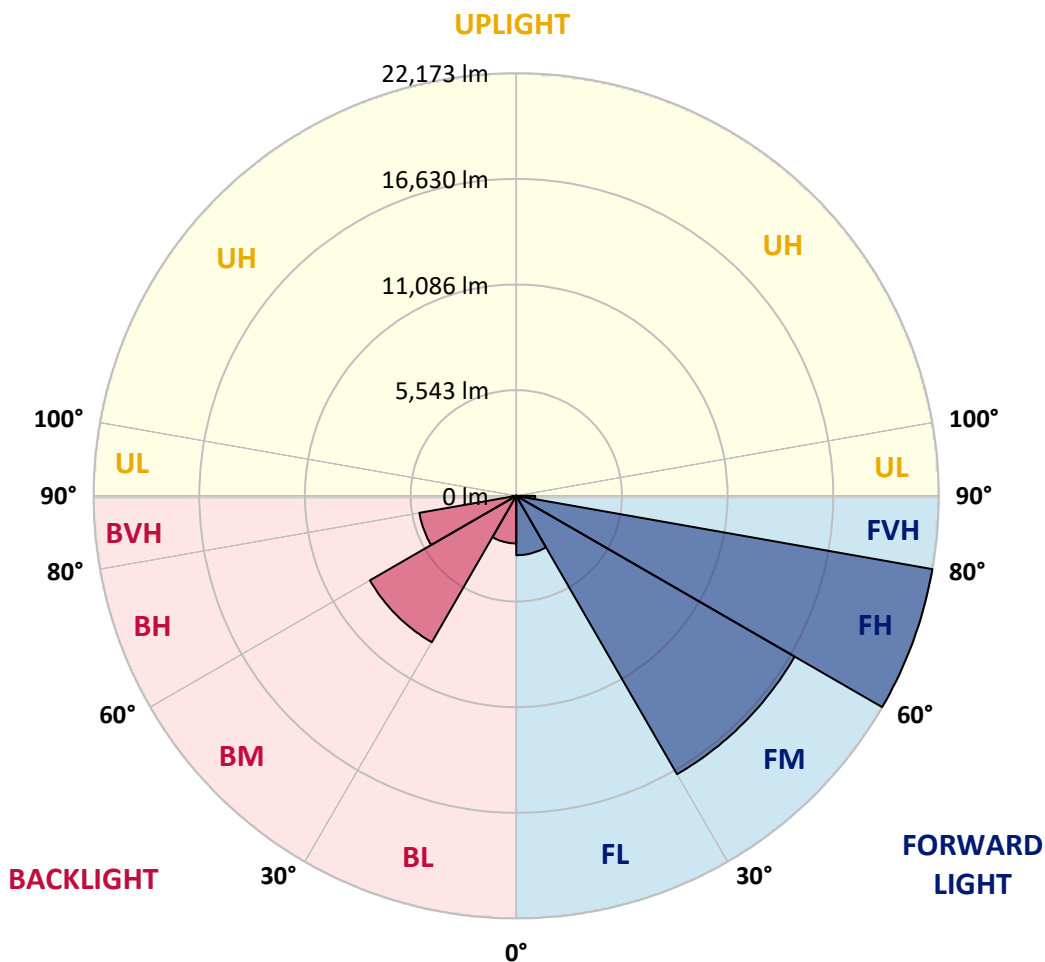


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3118.9	5.2			
FM	(30°-60°)	16866.4	28.1			
FH	(60°-80°)	22172.9	37.0			G5
FVH	(80°-90°)	991.4	1.7			G5
BL	(0°-30°)	2498.0	4.2	B3/2500		
BM	(30°-60°)	8867.3	14.8	B5		
BH	(60°-80°)	5159.7	8.6	B5		G5
BVH	(80°-90°)	210.7	0.4			G2/225
UL	(90°-100°)	34.1	0.1		U2/50	
UH	(100°-180°)	0.6	0.0		U1/10	

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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5
2.5°	6180.2	6168.7	6157.1	6183.1	6082.1	6125.4	6090.7	6122.5	6099.4	6125.4	6116.7
5°	6261.1	6249.5	6214.9	6243.7	6177.3	6194.7	6151.4	6162.9	6085.0	6131.2	6128.3
7.5°	6393.8	6362.1	6339.0	6339.0	6281.3	6278.4	6209.1	6212.0	6151.4	6145.6	6157.1
10°	6572.8	6549.7	6486.2	6492.0	6411.2	6399.6	6313.0	6310.1	6261.1	6232.2	6258.2
12.5°	6705.6	6728.7	6670.9	6670.9	6590.1	6532.4	6471.8	6431.4	6393.8	6350.5	6330.3
15°	6948.1	6971.2	6893.2	6890.3	6858.6	6789.3	6722.9	6636.3	6569.9	6549.7	6518.0
17.5°	7262.7	7248.3	7181.9	7184.8	7190.5	7078.0	7011.6	6899.0	6803.7	6734.5	6717.1
20°	7583.1	7583.1	7511.0	7534.0	7505.2	7401.3	7358.0	7202.1	7069.3	6994.2	6933.6
22.5°	7941.1	7926.6	7877.6	7926.6	7868.9	7765.0	7692.8	7536.9	7366.6	6942.3	6769.1
25°	8281.7	8273.0	8293.2	8307.7	8235.5	8105.6	8056.5	7892.0	7418.6	6861.5	6512.2
27.5°	8711.8	8682.9	8729.1	8758.0	8685.8	8573.2	8469.3	8284.6	7282.9	6844.1	6806.6
30°	9263.1	9199.6	9266.0	9280.4	9205.4	9136.1	8980.2	8056.5	7329.1	7202.1	7190.5
32.5°	9852.0	9776.9	9863.5	9875.1	9776.9	9719.2	9326.6	7938.2	7782.3	7635.1	7649.5
35°	10550.5	10550.5	10593.8	10599.6	10527.5	10429.3	8934.0	8515.5	8376.9	8241.3	8238.4
37.5°	11402.1	11376.1	11491.6	11560.9	11482.9	11202.9	9505.6	9309.3	9095.7	8922.5	8564.6
40°	12429.7	12475.9	12507.7	12576.9	12501.9	11872.6	10339.8	10117.6	9950.1	9369.9	8466.4
42.5°	13538.2	13549.7	13619.0	13705.6	13705.6	13041.7	11315.5	11125.0	10908.5	9162.1	8755.1
45°	14863.1	14837.2	14969.9	15108.5	15071.0	14384.0	12449.9	12308.5	11295.3	9765.4	9768.3
47.5°	16367.1	16335.3	16525.8	16707.7	16520.1	15873.5	13697.0	13587.3	10902.7	10787.3	10764.2
50°	18104.8	18026.9	18246.2	18488.7	18335.7	17536.1	15212.4	13105.2	11996.7	11904.4	11889.9
52.5°	19960.9	19900.3	20033.1	20445.8	20243.8	19276.8	16647.1	13520.9	13264.0	13160.0	13134.1
55°	22056.6	21938.2	22224.0	22538.6	22304.8	21202.1	18061.5	14900.7	14635.1	14456.1	14196.3
57.5°	24259.0	24088.7	24236.0	24631.4	24406.3	23173.7	19885.8	16320.9	16006.2	13246.6	12193.0
60°	26452.9	26374.9	26432.7	26781.9	26504.8	25090.4	21594.7	17744.0	13546.8	13102.3	13154.3
62.5°	28658.2	28487.9	28539.9	28897.8	28542.8	26914.7	23214.1	19037.2	14257.0	14101.1	14155.9
65°	31022.4	30820.3	30866.5	30970.4	30531.6	28551.4	24645.9	20258.2	15325.0	15160.5	15221.1
67.5°	33871.4	33686.7	33435.6	33126.7	32520.5	30289.2	26068.9	21542.7	16525.8	16433.5	16453.7
68°	34174.5	33995.6	33692.5	33325.9	32644.6	30361.3	26129.6	21580.3	16543.1	16427.7	16433.5
70°	33230.6	33337.4	32993.9	32379.1	31810.4	29304.8	25139.5	20748.9	15807.1	15636.8	15593.5
72.5°	29429.0	29662.8	29189.4	29085.5	28386.9	26106.5	21998.8	18003.8	13748.9	13803.8	13647.9
75°	23759.7	24103.2	23528.7	23560.5	23162.1	21776.6	18436.8	14990.2	11289.5	11540.7	11586.8
77.5°	16522.9	17016.5	16765.4	17016.5	16820.3	16320.9	14268.5	11543.5	8613.6	8902.3	9014.9
80°	8616.5	9202.5	9534.5	9638.4	9701.9	9681.7	8688.7	6927.9	4979.4	5086.2	5080.4
82.5°	2725.0	2583.5	2667.2	2644.1	2572.0	2600.8	2343.9	1833.0	1270.1	1400.0	1339.4
85°	822.7	828.5	805.4	799.6	739.0	649.5	531.1	306.0	150.1	176.1	164.5
87.5°	606.2	612.0	565.8	536.9	502.3	435.9	337.7	190.5	72.2	69.3	54.8
90°	334.8	323.3	300.2	277.1	262.7	225.2	170.3	72.2	26.0	20.2	17.3
92.5°	181.9	173.2	161.6	153.0	132.8	106.8	69.3	23.1	11.5	2.9	0.0
95°	83.7	77.9	75.1	66.4	57.7	40.4	23.1	14.4	8.7	2.9	0.0
97.5°	37.5	34.6	31.8	26.0	20.2	11.5	11.5	8.7	5.8	2.9	0.0
100°	8.7	8.7	5.8	5.8	5.8	5.8	5.8	5.8	5.8	2.9	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0



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 CATALOG NUMBER: CTN-CA10-630-730-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





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5	6070.5
2.5°	6108.1	6090.7	6082.1	6027.2	6044.6	5995.5	6090.7	6067.6	6053.2	6093.6
5°	6113.8	6053.2	6090.7	6059.0	6070.5	6001.3	6076.3	6044.6	6041.7	6059.0
7.5°	6128.3	6087.9	6125.4	6061.9	6090.7	6061.9	6116.7	6085.0	6110.9	6128.3
10°	6206.2	6183.1	6165.8	6151.4	6171.6	6113.8	6183.1	6186.0	6194.7	6246.6
12.5°	6315.9	6292.8	6263.9	6226.4	6246.6	6223.5	6275.5	6289.9	6321.7	6347.6
15°	6468.9	6425.6	6414.0	6379.4	6399.6	6388.1	6399.6	6390.9	6451.6	6442.9
17.5°	6679.6	6630.5	6466.0	6298.6	6191.8	6223.5	6356.3	6529.5	6572.8	6578.6
20°	6757.5	6411.2	6393.8	6203.3	6116.7	6110.9	5836.7	5426.8	5550.9	5842.5
22.5°	6665.2	6191.8	6142.7	6105.2	5735.7	5129.5	5071.8	5011.1	4996.7	5040.0
25°	6457.3	6402.5	6359.2	5868.5	5285.4	5288.3	5204.6	4806.2	4185.6	4133.6
27.5°	6774.9	6699.8	6281.3	5525.0	5513.4	5507.6	5383.5	4361.7	4228.9	4260.6
30°	7135.7	7011.6	5917.5	5819.4	5816.5	5764.6	4826.4	4399.2	4399.2	4405.0
32.5°	7551.4	6780.6	6125.4	6171.6	6168.7	5923.3	4661.9	4633.0	4621.5	4650.3
35°	7868.9	6595.9	6572.8	6656.5	6598.8	5025.6	4953.4	4927.4	4915.9	4901.5
37.5°	7770.7	7127.0	7127.0	7179.0	6714.2	5351.8	5317.1	5317.1	5294.0	5282.5
40°	7920.8	7788.1	7721.7	7741.9	4878.4	5747.2	5773.2	5767.4	5764.6	5784.8
42.5°	8711.8	8593.4	8532.8	7816.9	5461.5	5712.6	6347.6	6344.8	6353.4	6344.8
45°	9719.2	9609.5	9450.8	7314.7	6200.4	5008.3	6997.1	7028.9	7031.8	7028.9
47.5°	10775.7	10706.4	9081.3	8096.9	7002.9	5374.9	6688.3	7811.2	7796.7	7814.0
50°	11892.8	11581.1	9035.1	9023.5	7857.3	5981.0	5983.9	8495.3	8642.5	8688.7
52.5°	13136.9	10498.6	10013.6	9136.1	8723.3	6604.6	6541.1	7528.3	9537.3	9583.5
55°	12201.7	11090.3	11081.7	8131.6	9075.5	7205.0	7213.6	7144.4	8746.4	9941.5
57.5°	12141.1	12167.0	12146.8	9072.6	6621.9	6754.7	7860.2	7799.6	5663.5	4589.7
60°	13188.9	13226.4	11800.4	9797.1	7158.8	4153.8	4840.8	4113.4	4168.3	4211.6
62.5°	14190.6	14202.1	9598.0	6422.7	3547.6	167.4	80.8	66.4	63.5	63.5
65°	15299.0	15299.0	10287.9	7005.8	3426.4	63.5	11.5	8.7	31.8	31.8
67.5°	16369.9	16133.2	10793.0	7438.8	3487.0	8.7	0.0	0.0	0.0	0.0
68°	16309.3	16049.5	10746.8	7427.2	3478.4	5.8	0.0	0.0	0.0	0.0
70°	15402.9	15151.8	10195.5	7089.5	3348.5	5.8	0.0	0.0	0.0	0.0
72.5°	13595.9	13365.0	9029.3	6249.5	3019.4	2.9	0.0	0.0	0.0	0.0
75°	11508.9	11477.1	7799.6	5273.8	2589.3	2.9	0.0	0.0	0.0	0.0
77.5°	9260.2	9115.9	6096.5	4133.6	2087.0	0.0	0.0	0.0	0.0	0.0
80°	5158.4	5372.0	3567.8	2430.5	1313.4	0.0	0.0	0.0	0.0	0.0
82.5°	1394.2	1304.7	779.4	528.2	251.1	0.0	0.0	0.0	0.0	0.0
85°	179.0	196.3	89.5	72.2	17.3	0.0	0.0	0.0	0.0	0.0
87.5°	92.4	109.7	28.9	23.1	5.8	0.0	0.0	0.0	0.0	0.0
90°	17.3	20.2	8.7	2.9	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: P522151  
 CATALOG NUMBER: CTN-CA10-630-730-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)