

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: P591417

Luminaire Tested: **CTN-CA10-630-740-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591417  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-740-U-T4-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40567 lumens  
Efficiency: N/A  
Efficacy: 64.2 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B5 - U0 - G4

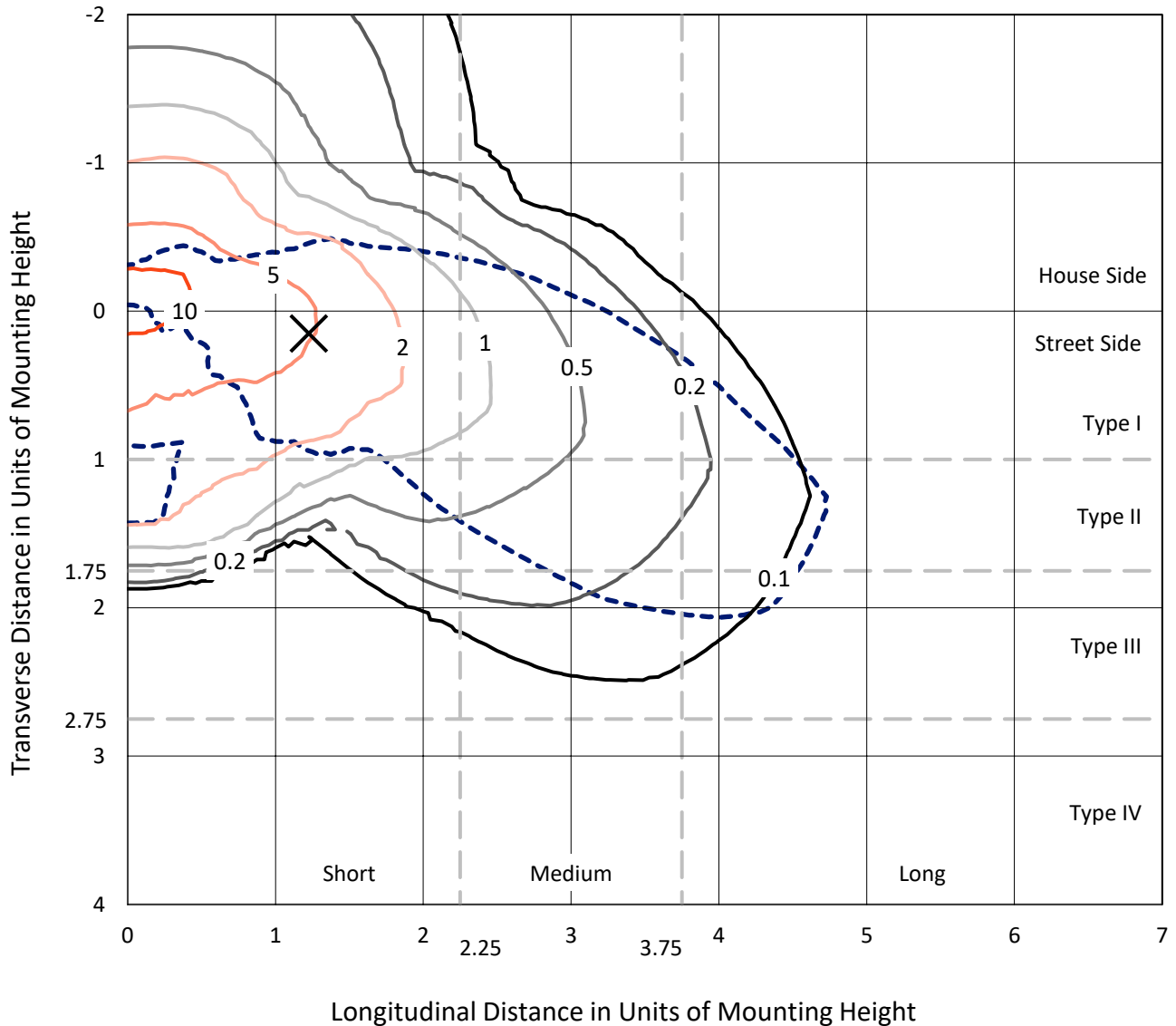
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591417  
 CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX180

### Iso-Footcandle Lines of Horizontal Illumination

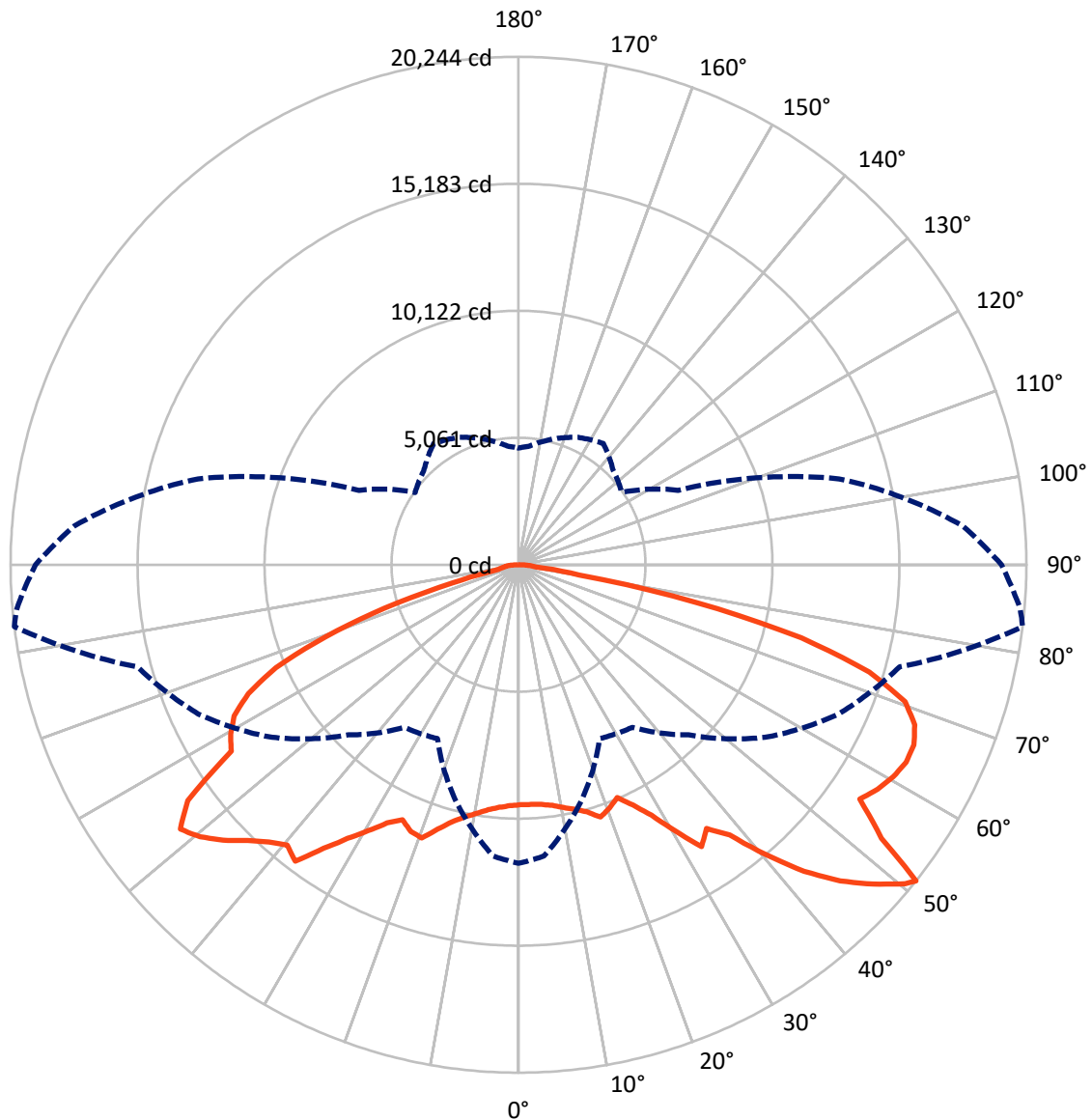
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.3 fc  
 Type II - Short - N/A

REPORT NUMBER: P591417  
CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX180

### Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral      - - - Horizontal Cone Through 51-Deg Vertical

REPORT NUMBER: P591417  
 CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX180

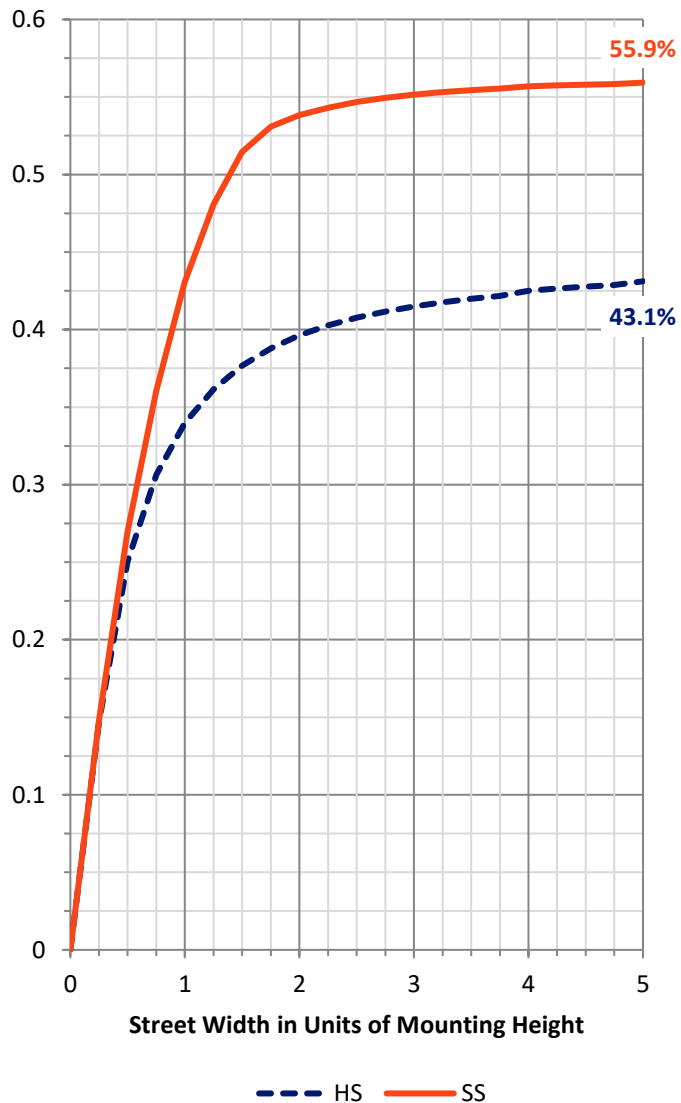
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	17880.2	0.0	17880.2
	% Fixture	44.1	0.0	44.1
<b>Street Side</b>	Lumens	22686.8	0.0	22686.8
	% Fixture	55.9	0.0	55.9
<b>Total</b>	Lumens	40567.0	0.0	40567.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	934.0	2.3
10°-20°	2842.6	7.0
20°-30°	4415.8	10.9
30°-40°	5908.5	14.6
40°-50°	7665.6	18.9
50°-60°	8164.0	20.1
60°-70°	5687.1	14.0
70°-80°	3967.7	9.8
80°-90°	981.7	2.4
90°-100°	0.0	0.0
100°-110°	0.0	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°	40567.0	100.0
0°-180°	40567.0	100.0

**Coefficient of Utilization**

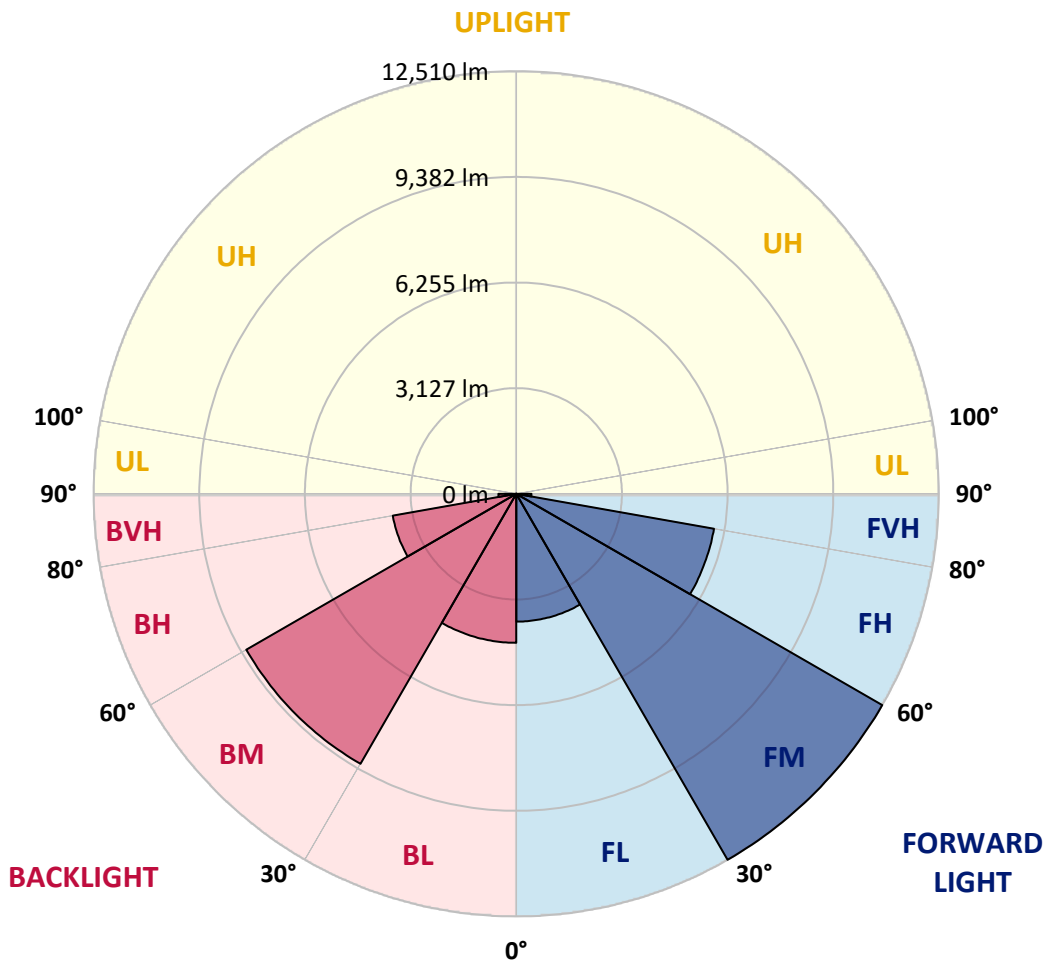


REPORT NUMBER: P591417  
 CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX180

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3782.5	9.3			
FM (30°-60°)	12509.7	30.8			
FH (60°-80°)	5944.0	14.7			G3/7500
FVH (80°-90°)	450.7	1.1			G3/500
BL (0°-30°)	4410.0	10.9	B4/5000		
BM (30°-60°)	9228.4	22.7	B5		
BH (60°-80°)	3710.8	9.1	B4/5000		G4/5000
BVH (80°-90°)	531.0	1.3			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**  
 Type II Short





REPORT NUMBER: P591417

CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX180

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8
2.5°	9447.7	9382.1	9387.8	9476.2	9359.3	9436.3	9424.9	9561.8	9536.1	9564.6	9584.6
5°	9365.0	9313.7	9313.7	9430.6	9347.9	9430.6	9373.5	9493.3	9533.2	9596.0	9618.8
7.5°	9382.1	9327.9	9350.7	9453.4	9362.1	9447.7	9444.8	9558.9	9573.2	9684.4	9721.5
10°	9430.6	9370.7	9382.1	9464.8	9413.5	9561.8	9536.1	9692.9	9692.9	9841.2	9898.3
12.5°	9330.8	9290.8	9313.7	9424.9	9470.5	9624.5	9658.7	9818.4	9841.2	10000.9	10072.2
15°	9222.4	9165.4	9239.5	9399.2	9476.2	9698.6	9772.8	10018.0	10052.2	10217.6	10297.5
17.5°	8697.7	8660.6	8797.5	8925.8	8968.6	9185.3	9330.8	9738.6	10229.1	10574.1	10668.2
20°	7654.0	7648.3	7394.5	7340.3	8004.7	8797.5	8897.3	9245.2	9812.7	10351.7	10542.7
22.5°	6390.7	6561.8	7385.9	7648.3	7631.2	7944.8	9222.4	9550.4	9801.3	10075.1	10189.1
25°	6390.7	6376.4	6864.0	7993.3	7996.2	8130.2	8415.4	10058.0	10297.5	10611.2	10702.4
27.5°	6593.1	6607.4	6576.0	7400.2	8389.7	8515.2	8637.8	9487.6	10956.2	11304.1	11455.3
30°	6935.3	6958.2	6832.7	6835.5	8520.9	8897.3	9131.1	9464.8	11415.4	12307.9	12376.4
32.5°	7611.2	7602.6	7445.8	7243.3	7477.2	9270.9	9613.1	10046.5	10691.0	13391.6	13551.3
35°	8150.2	8113.1	8004.7	7865.0	7557.0	9165.4	10072.2	10671.1	11492.4	12909.7	13753.8
37.5°	8749.0	8694.8	8572.2	8401.1	8121.6	6396.4	10525.6	11384.0	12658.7	13665.4	13719.5
40°	9424.9	9365.0	9196.7	8945.8	8589.3	6553.2	10728.1	12265.2	14178.7	15191.0	15182.5
42.5°	9943.9	9884.0	9795.6	9530.4	7551.3	7229.1	9356.4	13502.8	15824.1	16702.4	16628.3
45°	10383.0	10331.7	10340.3	10060.8	7083.6	8058.9	10423.0	14150.1	17375.4	17974.3	17877.3
47.5°	10725.3	10645.4	10428.7	8463.9	7266.1	8632.1	11289.9	12342.2	18684.4	19023.7	18915.3
50°	11557.9	11423.9	10134.9	7514.2	7728.1	9333.6	12114.0	13614.0	17019.0	19979.0	19788.0
51°	11897.3	11654.9	9712.9	7645.4	7910.6	9587.4	11991.4	14076.0	15721.4	20244.2	20073.1
52.5°	12253.8	11774.7	8555.1	7845.0	8133.1	9938.2	10186.3	14786.1	16083.6	18116.9	19126.4
55°	10337.4	10525.6	8834.6	8575.1	8555.1	8589.3	10403.0	15844.1	16839.3	16497.1	16297.5
57.5°	6079.8	6191.0	8974.3	9601.7	7403.0	6821.3	10976.2	16642.5	17492.3	16876.4	16653.9
60°	3057.0	3199.6	3268.1	2980.0	3992.4	6222.4	9245.2	12062.7	17891.6	17161.5	16893.5
62.5°	134.0	222.4	88.4	97.0	162.5	2170.1	6792.8	12390.6	18228.1	17335.5	16981.9
65°	11.4	11.4	14.3	28.5	71.3	2278.5	7559.9	12844.1	18365.0	17318.4	16845.0
67.5°	2.9	2.9	5.7	20.0	51.3	2466.7	8461.0	13029.4	18370.7	17027.5	16448.6
70°	0.0	2.9	5.7	17.1	45.6	2580.8	8657.8	12992.4	18136.8	16343.1	15547.5
72.5°	0.0	0.0	2.9	14.3	39.9	2435.4	8429.6	12918.2	17338.3	14620.7	13491.4
75°	0.0	0.0	2.9	11.4	34.2	2478.1	8452.4	12085.5	15139.7	11640.6	10269.0
77.5°	0.0	0.0	2.9	11.4	31.4	2287.1	7739.5	10465.7	11965.7	7246.2	5746.2
80°	0.0	0.0	2.9	11.4	28.5	1962.0	6365.0	8170.1	6695.8	2458.2	1585.5
82.5°	0.0	0.0	2.9	11.4	22.8	1328.9	4229.1	4083.6	1348.9	704.4	633.1
85°	0.0	0.0	2.9	8.6	17.1	792.8	2118.8	556.1	521.9	447.7	404.9
87.5°	0.0	0.0	2.9	5.7	11.4	336.5	653.0	171.1	216.7	182.5	162.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P591417

CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX180

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8	9561.8
2.5°	9601.7	9601.7	9633.0	9738.6	9727.2	9812.7	9764.2	9869.7	9878.3	9858.3	9906.8
5°	9638.8	9673.0	9778.5	9889.7	9844.1	9969.6	10029.4	10169.2	10163.5	10146.4	10203.4
7.5°	9744.3	9815.6	9921.1	10055.1	10103.6	10206.2	10211.9	10403.0	10391.6	10383.0	10440.1
10°	9921.1	10015.2	10132.1	10334.6	10306.1	10454.3	10391.6	10531.3	10528.5	10522.8	10579.8
12.5°	10103.6	10240.5	10383.0	10579.8	10577.0	10582.7	10528.5	10599.8	10585.5	10545.6	10588.4
15°	10360.2	10542.7	10739.5	10882.1	10756.6	10731.0	10611.2	10568.4	10485.7	10371.6	10405.9
17.5°	10785.1	10964.8	11215.7	11292.7	11087.4	10970.5	10645.4	10408.7	10152.1	9978.1	10015.2
20°	11167.3	11500.9	11740.5	11734.8	11472.4	11164.4	10659.7	10260.4	9764.2	9427.7	9399.2
22.5°	10691.0	11252.8	12296.5	12173.9	11714.8	11278.5	10642.6	10023.7	9199.6	8677.7	8657.8
25°	10964.8	10976.2	11911.6	12419.2	11823.2	11230.0	10437.2	9610.2	8555.1	8013.3	7981.9
27.5°	11663.5	11600.7	11341.2	12156.8	11723.3	10981.9	10023.7	8905.9	7967.7	7497.1	7474.3
30°	12493.3	12299.4	11689.1	10884.9	11312.7	10500.0	9387.8	8184.4	7437.2	7009.5	6975.3
32.5°	13485.7	13077.9	12005.7	10745.2	9966.7	9772.8	8566.5	7614.0	6998.1	6553.2	6464.8
35°	14663.5	14053.2	12310.8	10508.5	8917.3	8694.8	7793.7	7100.7	6584.6	6134.0	6045.6
37.5°	14660.6	15296.5	12761.4	10183.4	8267.1	7485.7	7231.9	6758.5	6296.6	5751.9	5652.1
40°	14769.0	14788.9	13257.6	9866.9	7659.7	6864.0	6898.3	6590.3	6114.0	5515.2	5412.5
42.5°	16086.5	15116.9	13865.0	9442.0	7086.5	6404.9	6755.7	6530.4	6017.1	5404.0	5289.9
45°	17232.8	16115.0	12533.2	8977.2	6484.8	6048.5	6641.6	6390.7	5880.2	5269.9	5141.6
47.5°	18230.9	16907.7	12872.6	8164.4	5897.3	5757.6	6422.0	6122.6	5635.0	5067.5	4953.4
50°	18989.5	17563.6	13169.2	7072.2	5327.0	5466.7	6065.6	5760.4	5289.9	4830.8	4733.8
51°	19249.0	17774.7	13229.0	7023.7	5024.7	5329.8	5897.3	5600.7	5178.7	4739.5	4651.1
52.5°	19528.5	18048.4	13317.4	7132.1	4596.9	5104.5	5623.6	5364.1	5013.3	4636.9	4537.1
55°	16237.6	16959.1	13092.2	6904.0	4100.7	4656.8	5121.7	5004.7	4810.8	4477.2	4405.9
57.5°	15644.4	14349.8	10859.3	5846.0	3664.4	4123.6	4634.0	4711.0	4562.7	4223.4	4172.0
60°	15772.8	14218.6	9670.1	4360.3	3231.0	3647.3	4269.0	4337.4	4209.1	3952.5	3881.2
62.5°	15750.0	13882.1	8623.5	3071.3	2854.6	3399.2	4006.6	4035.2	3858.4	3644.5	3578.9
65°	15373.5	13109.3	7194.8	2324.1	2646.4	3262.3	3852.6	3866.9	3647.3	3373.6	3339.3
67.5°	14535.1	11885.9	5004.7	2041.8	2529.5	3156.8	3750.0	3687.3	3476.2	3188.2	3136.9
70°	12929.6	9684.4	2338.4	1879.3	2352.7	2962.9	3499.0	3424.9	3193.9	2925.8	2880.2
72.5°	10365.9	6730.0	1109.3	1719.6	2167.3	2720.5	3191.1	3074.1	2883.1	2783.3	2757.6
75°	6784.2	3159.7	926.8	1548.5	1922.0	2426.8	2925.8	2883.1	2706.3	2506.6	2409.7
77.5°	2751.9	832.7	838.4	1374.5	1725.3	2235.7	2643.5	2609.3	2375.5	2195.8	2155.9
80°	693.0	624.5	767.1	1135.0	1502.8	1947.7	2318.4	2221.5	2135.9	1942.0	1879.3
82.5°	527.6	501.9	601.7	878.3	1234.8	1605.5	1979.1	2019.0	1876.4	1728.1	1696.8
85°	367.9	456.3	365.0	624.5	915.4	1266.2	1659.7	1731.0	1634.0	1465.8	1351.7
87.5°	202.5	239.5	151.1	327.9	484.8	693.0	952.5	961.0	795.6	730.0	687.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)