

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: P591182

Luminaire Tested: **CTN-CA8-480-722-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591182  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-480-722-U-T2-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35474 lumens  
Efficiency: N/A  
Efficacy: 73.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G4

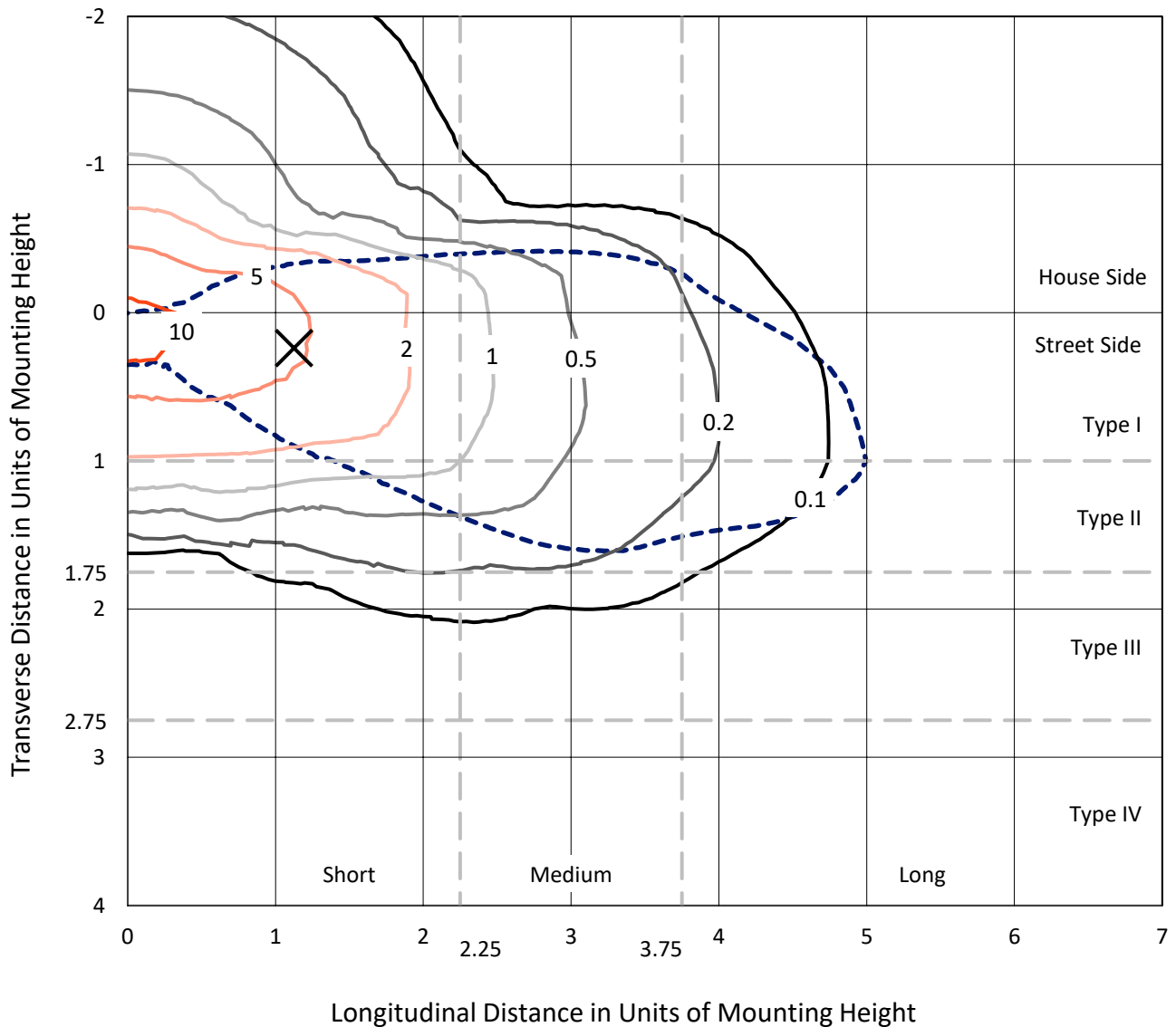
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591182  
 CATALOG NUMBER: CTN-CA8-480-722-U-T2-SSS-HM-EX120

### Iso-Footcandle Lines of Horizontal Illumination

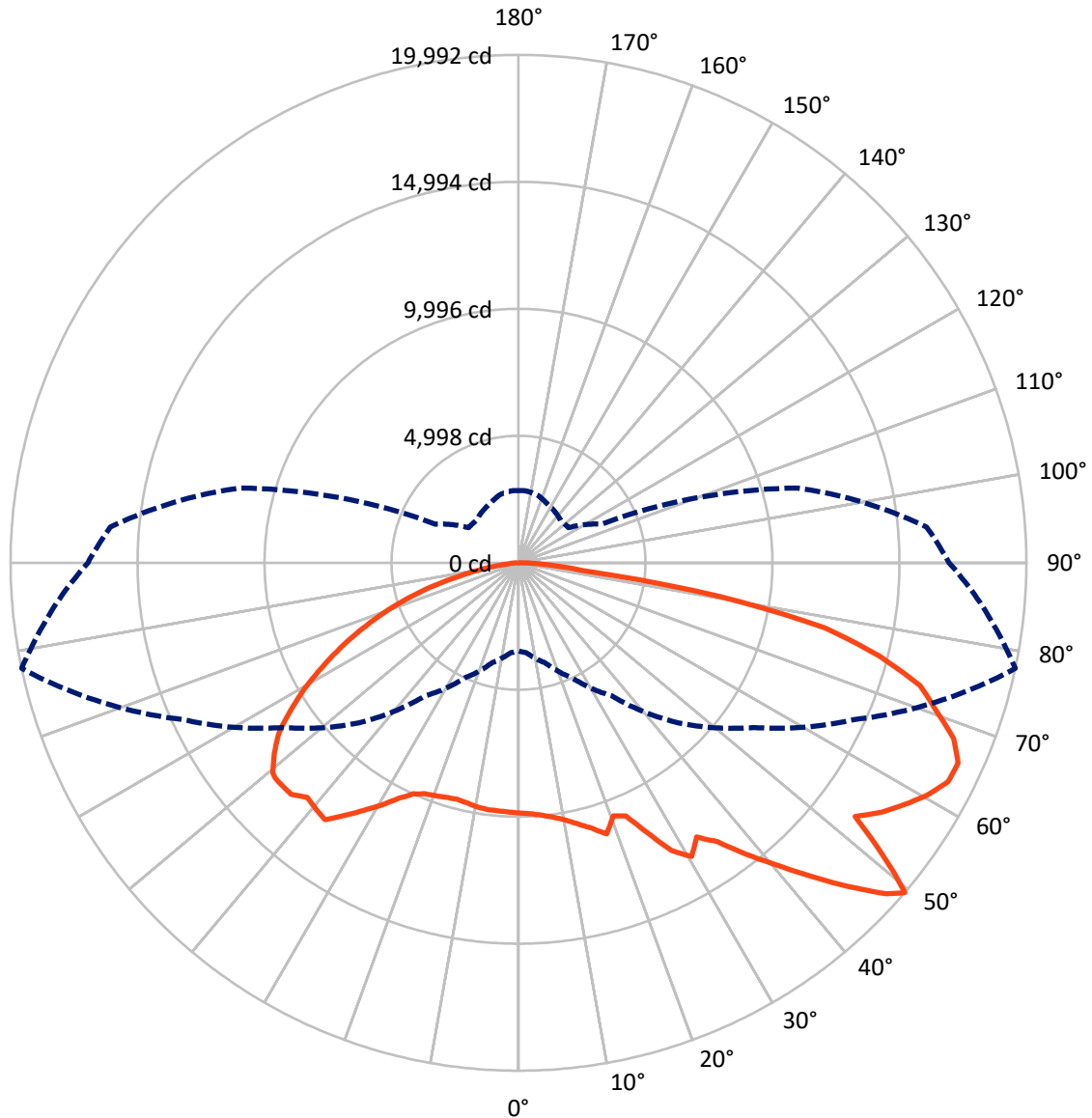
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.5 fc  
 Type II - Short - N/A

REPORT NUMBER: P591182  
CATALOG NUMBER: CTN-CA8-480-722-U-T2-SSS-HM-EX120

### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 49-Deg Vertical

REPORT NUMBER: P591182  
 CATALOG NUMBER: CTN-CA8-480-722-U-T2-SSS-HM-EX120

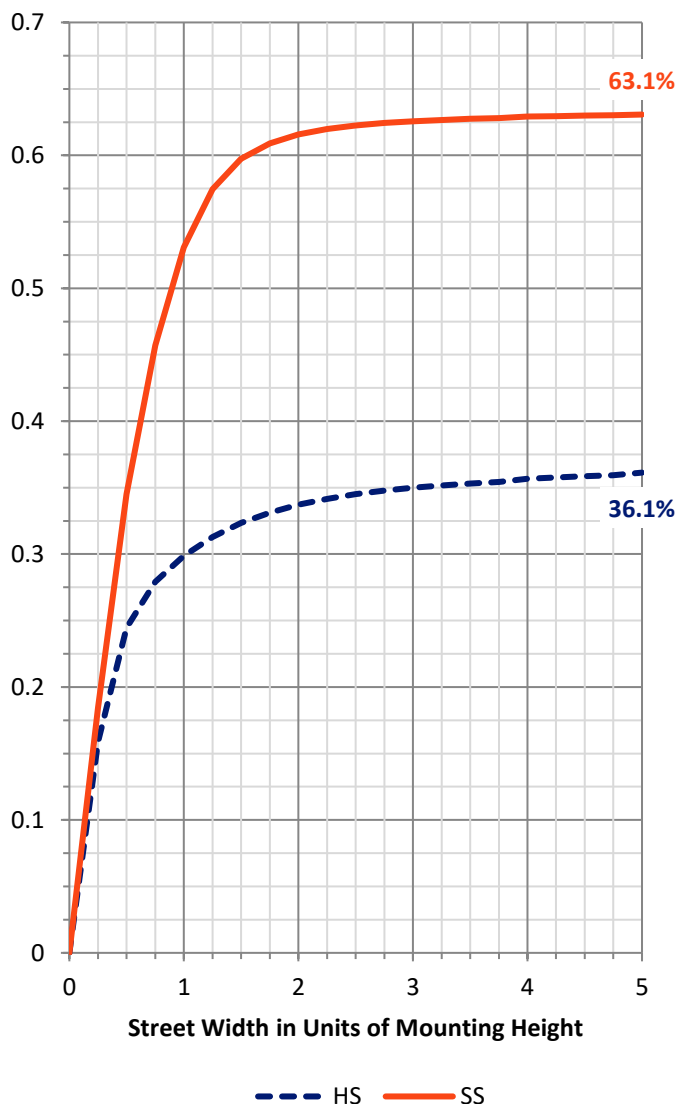
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13134.7	0.0	13134.7
	% Fixture	37.0	0.0	37.0
<b>Street Side</b>	Lumens	22339.3	0.0	22339.3
	% Fixture	63.0	0.0	63.0
<b>Total</b>	Lumens	35474.0	0.0	35474.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	954.9	2.7
10°-20°	2810.0	7.9
20°-30°	4011.3	11.3
30°-40°	5163.9	14.6
40°-50°	6057.3	17.1
50°-60°	6248.9	17.6
60°-70°	5673.9	16.0
70°-80°	3768.2	10.6
80°-90°	785.7	2.2
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°	35474.0	100.0
0°-180°	35474.0	100.0

**Coefficient of Utilization**

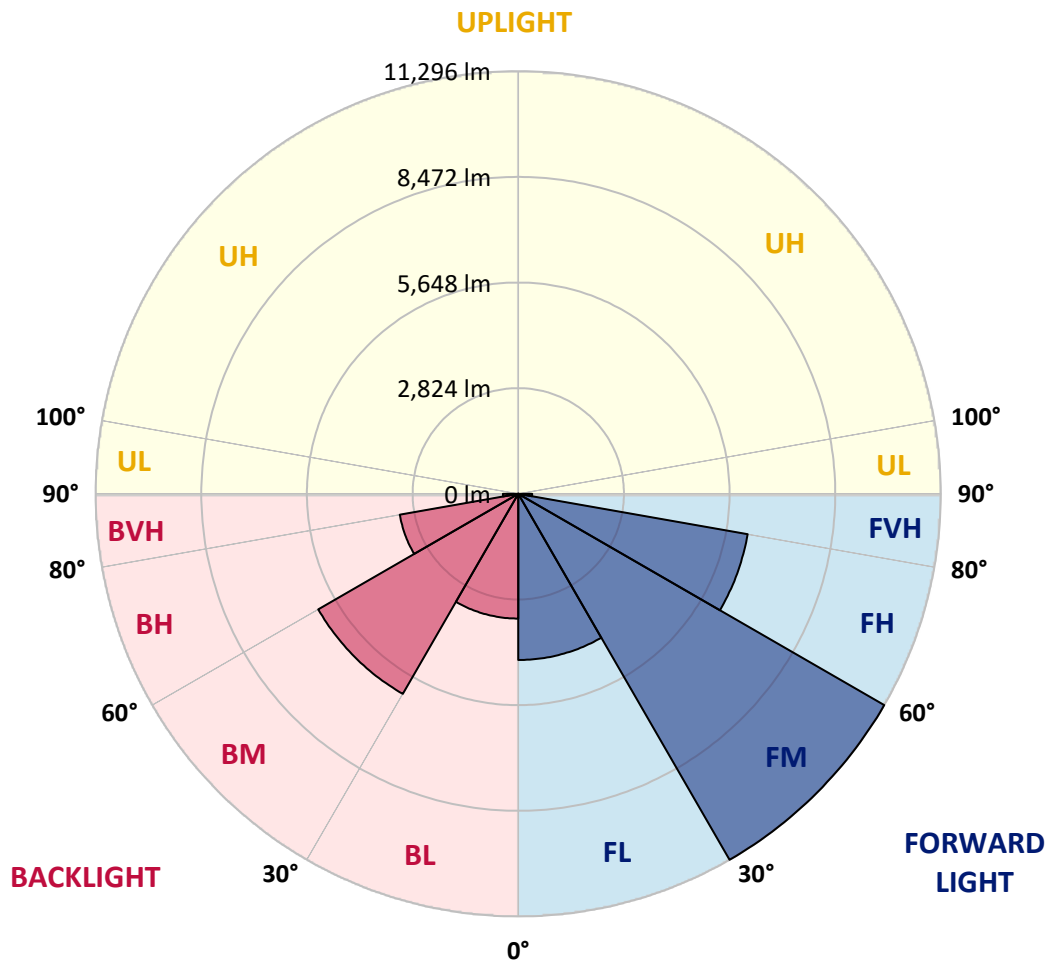


REPORT NUMBER: P591182  
 CATALOG NUMBER: CTN-CA8-480-722-U-T2-SSS-HM-EX120

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4441.8	12.5			
FM (30°-60°)	11296.0	31.8			
FH (60°-80°)	6227.0	17.6			G3/7500
FVH (80°-90°)	374.5	1.1			G3/500
BL (0°-30°)	3334.4	9.4	B4/5000		
BM (30°-60°)	6174.1	17.4	B4/8500		
BH (60°-80°)	3215.1	9.1	B4/5000		G4/5000
BVH (80°-90°)	411.2	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type II Short





REPORT NUMBER: P591182

CATALOG NUMBER: CTN-CA8-480-722-U-T2-SSS-HM-EX120

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8
2.5°	10253.5	10174.8	10199.8	10242.8	10047.7	10090.6	10006.5	10040.5	9936.7	9897.3	9915.2
5°	10978.5	10894.4	10924.8	10939.1	10656.3	10541.7	10278.6	10223.1	10060.2	9988.6	9981.4
7.5°	11336.5	11245.2	11252.4	11261.3	11035.8	11051.9	10813.8	10529.2	10226.7	10117.5	10069.2
10°	11925.5	11798.4	11755.4	11737.5	11433.2	11306.1	11098.4	10942.7	10470.1	10305.4	10181.9
12.5°	12288.8	12195.8	12195.8	12177.9	11855.6	11757.2	11386.7	11222.0	10756.5	10561.4	10348.4
15°	12355.1	12292.4	12373.0	12356.9	12145.6	12031.1	11866.4	11522.7	11046.5	10844.3	10593.6
17.5°	11606.8	11440.4	11121.7	11170.1	11171.8	11404.6	11291.8	11528.1	11388.4	11223.8	10953.5
20°	9532.1	9589.4	10099.6	9976.1	9929.5	10423.6	10928.4	10942.7	10665.3	10638.4	11003.6
22.5°	8304.1	8100.1	8667.5	9492.8	9544.7	10205.2	10794.1	11503.0	11059.1	10821.0	10541.7
25°	7072.6	7147.8	8003.4	9072.1	9827.5	9974.3	10650.9	11782.3	11972.0	11751.8	11168.3
27.5°	6859.6	6856.0	7228.3	8413.3	9963.5	10514.9	10738.6	11624.7	12947.6	12824.1	12086.6
30°	6813.0	6784.4	6979.5	7964.0	9331.6	11001.8	11427.8	11744.7	12870.6	13420.2	13114.1
32.5°	6608.9	6583.9	6791.5	7307.1	8825.1	11358.0	12084.8	12557.4	12609.3	12868.8	14198.9
35°	6288.5	6308.2	6596.4	7156.7	8092.9	10502.4	12757.8	13472.1	13660.0	13481.0	13665.4
37.5°	5960.9	5982.4	6265.3	6900.7	7965.8	10144.3	13192.8	14356.4	14746.6	14555.1	13703.0
40°	5554.6	5588.6	5916.2	6630.4	7819.0	9337.0	12299.6	15360.6	15890.5	15639.9	14691.1
42.5°	5092.8	5107.1	5479.4	6218.7	7632.9	9385.3	11377.7	16287.9	17000.3	16862.5	15664.9
45°	4691.8	4691.8	5030.1	5688.9	7208.6	9294.1	10987.5	15596.9	18362.6	18167.4	16640.5
47.5°	4145.8	4194.1	4591.5	5244.9	6709.2	9082.8	11211.2	14044.9	19631.7	19468.8	17619.7
49°	3472.7	3555.1	4079.6	5001.5	6388.8	8907.4	11300.7	14592.7	18756.4	19991.5	18255.2
50°	3197.1	3240.0	3245.4	4827.8	6150.7	8748.1	11341.9	15013.3	17279.6	19148.4	18700.9
52.5°	2767.5	2497.2	2219.7	4346.3	5672.7	8159.1	11367.0	16155.4	16925.1	16590.4	18353.6
55°	1168.9	1530.5	1945.8	3555.1	5157.2	7430.6	11284.6	17410.2	17703.8	17335.1	15736.5
57.5°	884.3	941.6	1045.4	2758.5	3694.7	6600.0	11007.2	18205.0	18360.8	17941.9	16375.6
60°	128.9	132.5	186.2	1118.8	2115.9	4711.5	10008.3	18181.8	18849.5	18527.2	16926.9
62.5°	53.7	55.5	71.6	916.5	1630.8	3626.7	9136.5	17877.5	19323.8	18978.3	17444.3
65°	9.0	10.7	30.4	810.9	1347.9	3388.6	8180.6	17938.3	19155.6	19012.4	17644.7
67.5°	7.2	9.0	28.6	728.6	1111.6	3102.2	7237.3	16969.9	18541.6	18478.9	17109.5
70°	7.2	9.0	30.4	658.7	961.3	2733.4	6071.9	15629.1	17415.6	17440.7	16210.9
72.5°	9.0	9.0	30.4	588.9	836.0	2336.0	4804.6	13839.0	16393.5	16531.3	14932.8
75°	9.0	9.0	28.6	512.0	717.8	1947.6	3460.2	10176.6	14701.9	14660.7	13096.2
77.5°	9.0	9.0	28.6	406.3	596.1	1602.1	2253.7	5731.8	12174.3	12347.9	10949.9
80°	9.0	9.0	28.6	297.2	467.2	1201.1	1365.8	2933.9	6499.8	8046.4	7532.6
82.5°	9.0	9.0	28.6	200.5	320.4	692.8	787.6	1485.8	2334.3	2558.0	2993.0
85°	7.2	7.2	21.5	119.9	164.7	245.2	379.5	791.2	1276.3	1333.6	1301.4
87.5°	3.6	3.6	10.7	43.0	71.6	89.5	170.1	318.6	469.0	479.7	417.1
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: P591182

CATALOG NUMBER: CTN-CA8-480-722-U-T2-SSS-HM-EX120

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8	9850.8
2.5°	9915.2	9857.9	9806.0	9815.0	9704.0	9671.8	9548.2	9612.7	9550.0	9494.5	9546.5
5°	9931.3	9861.5	9766.6	9675.3	9421.2	9303.0	9154.4	9192.0	9107.9	9041.7	9098.9
7.5°	9977.9	9891.9	9745.2	9485.6	9183.1	8995.1	8826.8	8991.5	8971.8	8921.7	8980.8
10°	9999.3	9926.0	9673.6	9369.2	8946.8	8828.6	8676.5	8674.7	8680.1	8689.0	8748.1
12.5°	10056.6	9945.6	9546.5	9192.0	8800.0	8560.1	8449.1	8538.6	8377.5	8282.7	8323.8
15°	10192.7	9990.4	9460.5	8943.2	8572.7	8374.0	8019.5	8050.0	8015.9	7922.9	7964.0
17.5°	10461.2	10115.7	9457.0	8785.7	8282.7	7958.7	7649.0	7502.2	7455.7	7462.8	7498.6
20°	10790.6	10337.7	9464.1	8583.4	7980.1	7604.2	7126.3	7024.2	6870.3	6873.9	6882.8
22.5°	10581.1	10593.6	9467.7	8352.5	7602.4	7131.6	6625.1	6424.6	6306.4	6276.0	6320.7
25°	11148.6	11091.3	9523.2	8229.0	7205.0	6573.1	6043.3	5787.3	5610.1	5595.8	5645.9
27.5°	11904.0	11800.2	9809.6	7962.2	6784.4	5903.7	5329.0	5135.7	4983.6	4929.9	4965.7
30°	12822.3	12700.6	10205.2	7754.6	6216.9	5184.0	4691.8	4559.3	4408.9	4310.5	4319.4
32.5°	13781.8	13522.2	10611.5	7579.2	5635.1	4553.9	4133.3	4015.1	3837.9	3710.8	3741.3
35°	14748.4	14379.7	11064.4	7269.5	4924.5	3999.0	3658.9	3499.6	3354.6	3240.0	3220.3
37.5°	13984.0	15382.1	11503.0	6981.3	4367.8	3576.6	3191.7	3078.9	2993.0	2903.5	2901.7
40°	14046.7	14367.1	11762.6	6471.1	3746.6	3143.4	2756.7	2796.1	2831.9	2763.9	2763.9
42.5°	14667.9	14211.4	11658.7	5794.5	3284.8	2710.2	2533.0	2692.3	2805.0	2756.7	2754.9
45°	15543.2	14950.7	11836.0	5031.9	2835.5	2443.4	2470.3	2665.4	2812.2	2803.3	2799.7
47.5°	16472.2	15792.0	11495.8	4126.1	2525.8	2361.1	2470.3	2626.0	2801.5	2842.6	2833.7
49°	16950.2	16125.0	11359.8	3598.0	2402.3	2350.4	2473.9	2593.8	2781.8	2844.4	2835.5
50°	17242.0	16304.0	11184.4	3297.3	2336.0	2352.2	2481.0	2574.1	2763.9	2833.7	2828.3
52.5°	17898.9	16576.1	10314.4	2774.6	2228.6	2357.5	2527.6	2554.4	2697.6	2772.8	2812.2
55°	17229.4	17197.2	9204.6	2534.7	2171.4	2345.0	2547.3	2572.3	2642.1	2683.3	2713.7
57.5°	17125.6	17467.5	7806.5	2405.9	2121.2	2327.1	2524.0	2570.5	2611.7	2604.6	2592.0
60°	17455.0	17703.8	6365.5	2278.8	2064.0	2298.5	2447.0	2515.1	2527.6	2509.7	2481.0
62.5°	17506.9	17768.3	4892.3	2149.9	2001.3	2228.6	2334.3	2402.3	2402.3	2357.5	2346.8
65°	17265.2	17365.5	3605.2	2001.3	1926.1	2148.1	2201.8	2251.9	2275.2	2216.1	2219.7
67.5°	16572.5	15992.5	2737.0	1824.1	1834.8	2037.1	2074.7	2108.7	2114.1	2080.1	2076.5
70°	15179.8	14456.6	1956.5	1555.6	1668.3	1861.7	1919.0	1970.9	1953.0	1893.9	1884.9
72.5°	13080.1	12437.4	1330.0	1245.9	1467.9	1693.4	1729.2	1731.0	1695.2	1738.2	1768.6
75°	11252.4	9714.7	991.7	993.5	1176.1	1460.7	1571.7	1580.6	1596.7	1833.0	1881.4
77.5°	8941.4	6329.7	844.9	784.1	902.2	1215.5	1390.9	1455.3	1931.5	2094.4	2072.9
80°	5491.9	3800.3	655.2	621.2	733.9	934.4	1195.8	1487.6	1970.9	1852.7	1790.1
82.5°	2572.3	1734.6	472.6	476.2	546.0	682.0	945.2	1731.0	1702.4	1405.2	1387.3
85°	995.3	599.7	286.4	324.0	367.0	461.8	725.0	1707.7	1322.9	1190.4	1102.7
87.5°	256.0	116.4	125.3	132.5	162.9	243.4	395.6	895.0	696.3	610.4	599.7
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)