

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: P591178

Luminaire Tested: **CTN-CA8-330-722-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591178  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-722-U-T4-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 25305 lumens  
Efficiency: N/A  
Efficacy: 76.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4

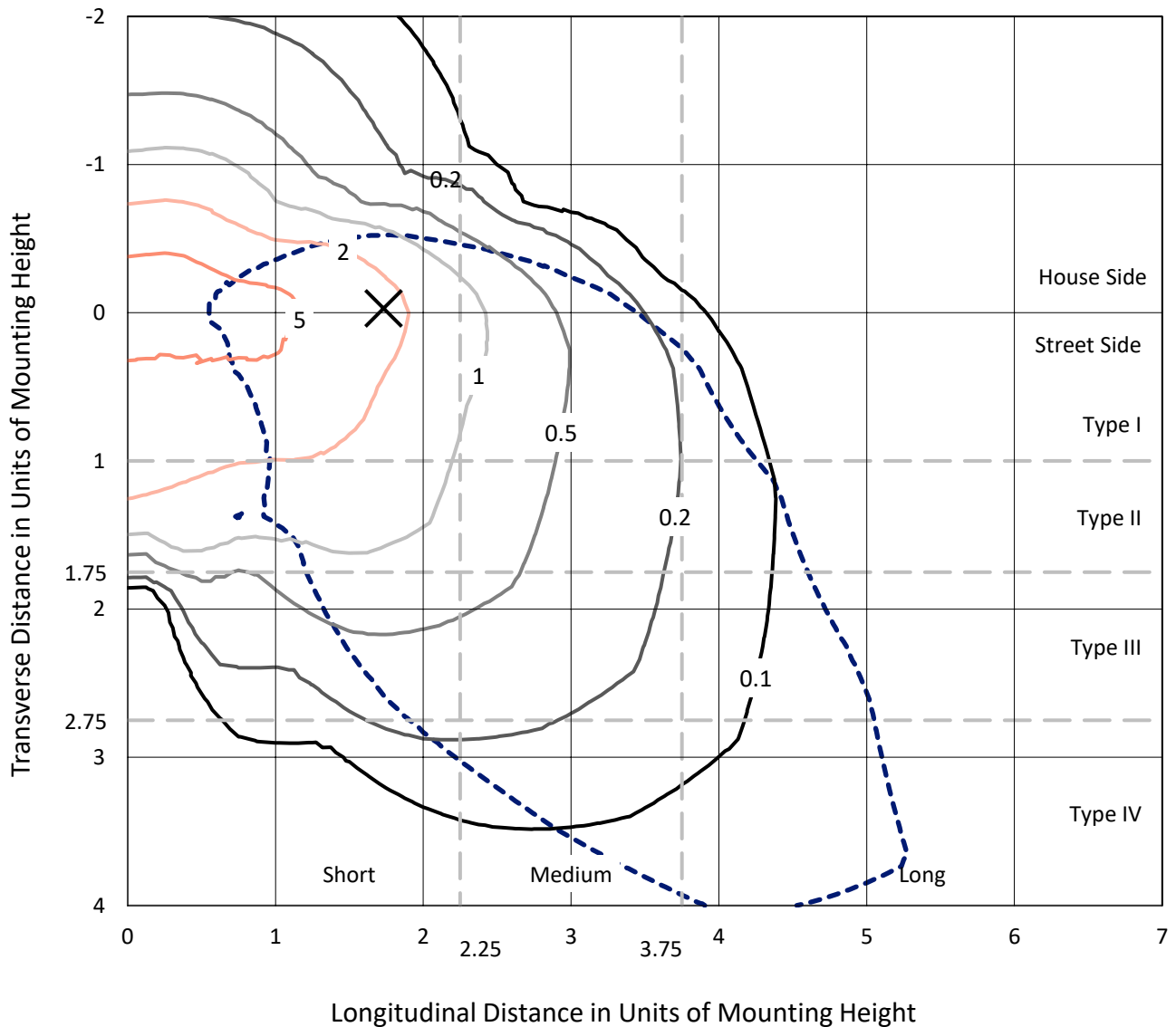
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591178  
 CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX90

### Iso-Footcandle Lines of Horizontal Illumination

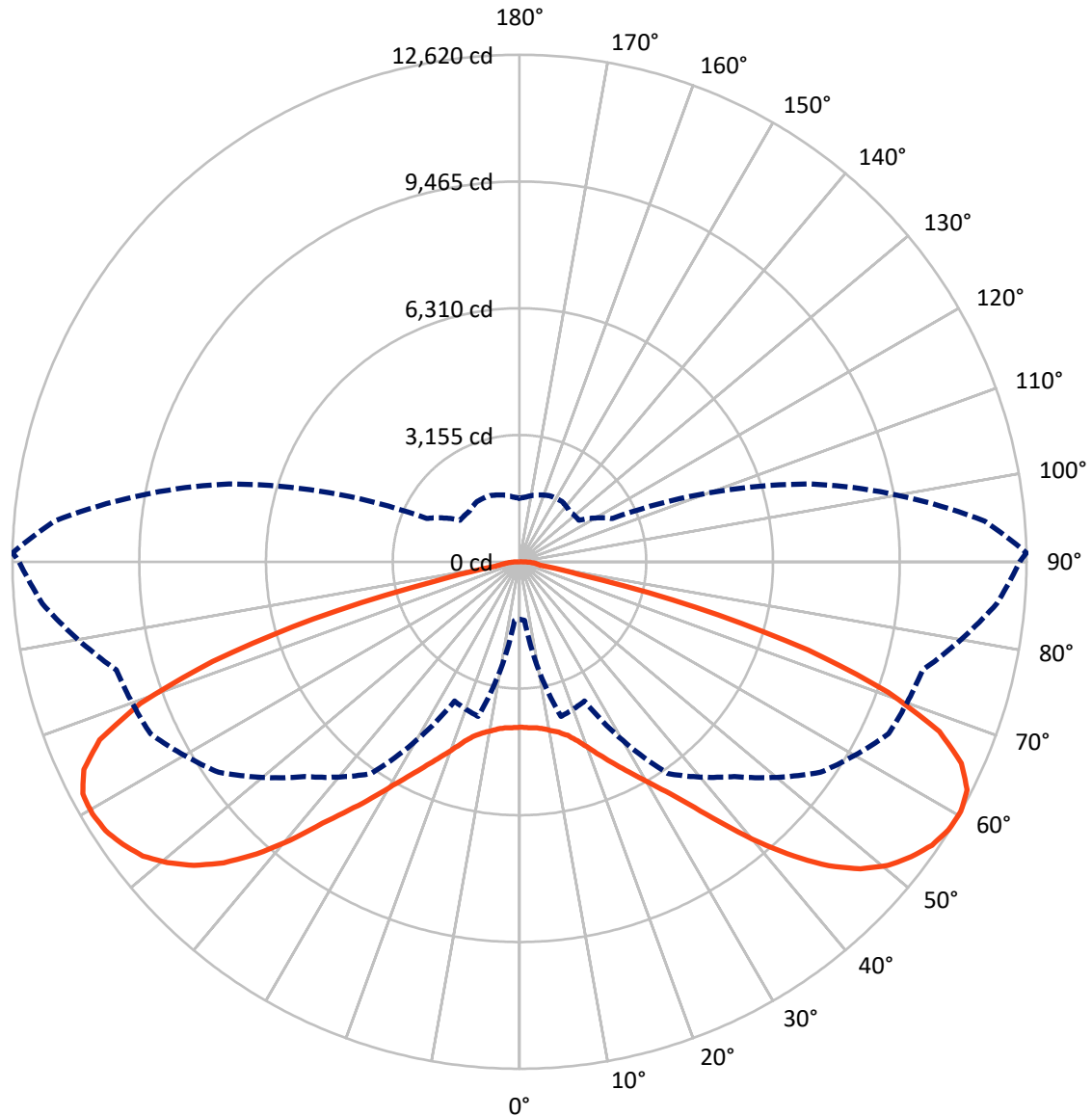
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc  
 Type IV - Short - N/A

REPORT NUMBER: P591178  
CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX90

### Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral      - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P591178  
 CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX90

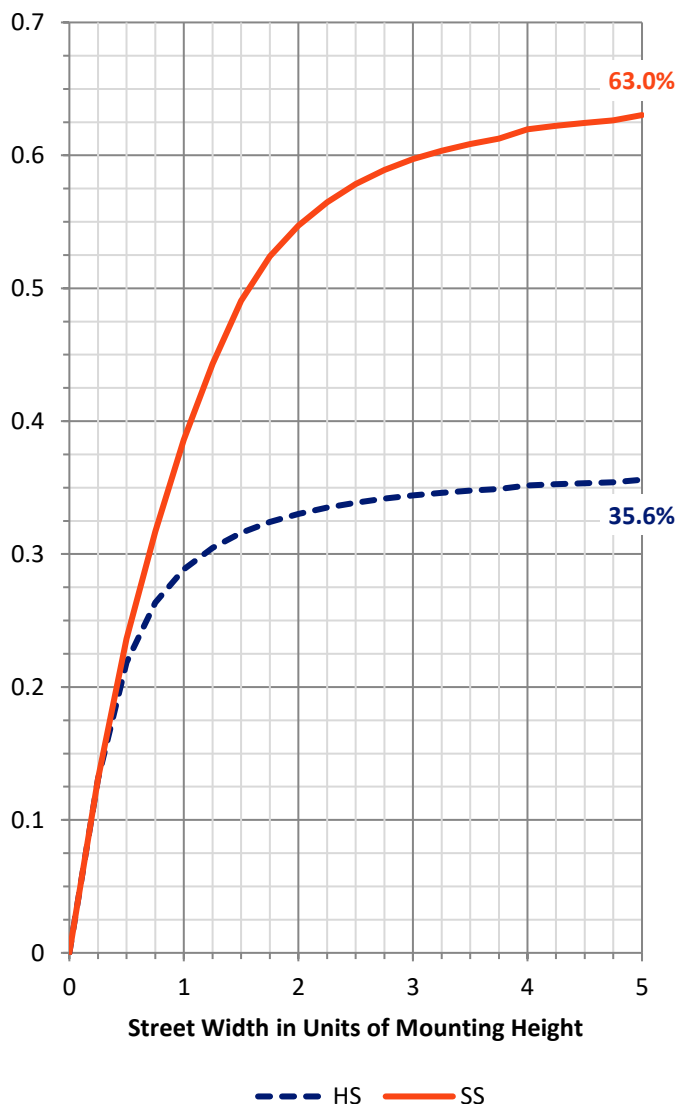
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9189.8	0.0	9189.8
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	16115.2	0.0	16115.2
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	25305.0	0.0	25305.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	401.3	1.6
10°-20°	1230.6	4.9
20°-30°	2017.3	8.0
30°-40°	2849.0	11.3
40°-50°	4010.6	15.8
50°-60°	5046.6	19.9
60°-70°	5079.7	20.1
70°-80°	3737.0	14.8
80°-90°	932.9	3.7
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°	25305.0	100.0
0°-180°	25305.0	100.0

**Coefficient of Utilization**

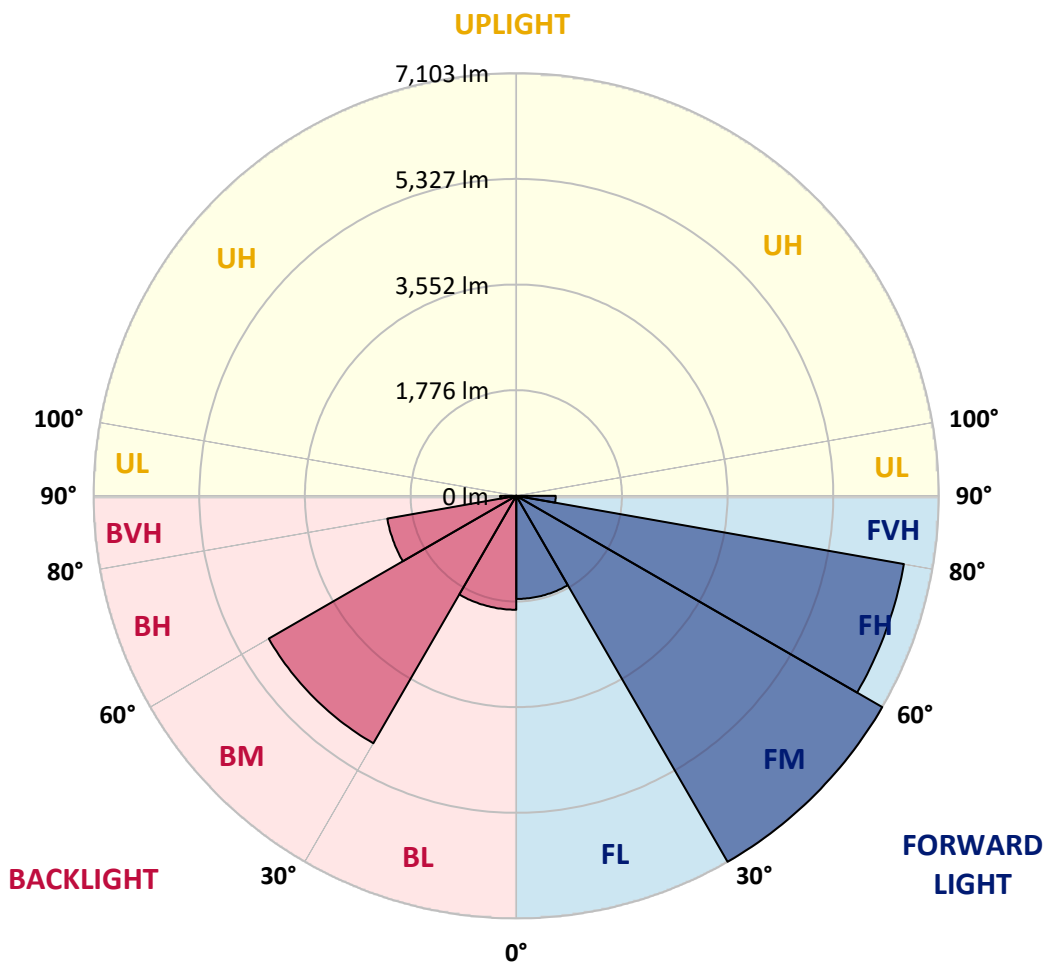


REPORT NUMBER: P591178  
 CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX90

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1733.7	6.9			
FM	(30°-60°)	7103.1	28.1			
FH	(60°-80°)	6615.8	26.1			G3/7500
FVH	(80°-90°)	662.6	2.6			G4/750
BL	(0°-30°)	1915.5	7.6	B3/2500		
BM	(30°-60°)	4803.1	19.0	B3/5000		
BH	(60°-80°)	2201.0	8.7	B3/2500		G3/2500
BVH	(80°-90°)	270.3	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**  
 Type IV Short





REPORT NUMBER: P591178

CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX90

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5
2.5°	4074.9	4049.0	4050.2	4088.4	4030.5	4067.5	4058.8	4118.0	4106.9	4127.9	4132.8
5°	4046.5	4025.5	4025.5	4071.2	4031.7	4063.8	4036.6	4088.4	4106.9	4137.7	4143.9
7.5°	4057.6	4035.4	4044.0	4083.5	4039.1	4072.4	4069.9	4115.5	4126.6	4178.4	4185.8
10°	4077.3	4057.6	4060.1	4093.3	4063.8	4125.4	4114.3	4179.7	4178.4	4259.8	4266.0
12.5°	4042.8	4028.0	4028.0	4072.4	4089.6	4155.0	4177.2	4245.0	4252.4	4343.6	4351.0
15°	3988.5	3963.9	4000.9	4067.5	4103.2	4205.5	4243.8	4351.0	4370.8	4457.1	4475.6
17.5°	3875.1	3886.2	3989.8	3942.9	3780.2	3931.8	4352.3	4489.1	4532.3	4634.6	4679.0
20°	3523.7	3386.9	3115.6	3189.6	3525.0	3957.7	4503.9	4664.2	4759.1	4880.0	4955.2
22.5°	2661.9	2748.2	3255.0	3308.0	3322.8	3611.3	4716.0	4878.7	5004.5	5157.4	5257.2
25°	2760.5	2751.9	2925.8	3469.5	3484.3	3649.5	4439.8	5158.6	5272.0	5484.1	5584.0
27.5°	2851.8	2851.8	2841.9	3275.9	3652.0	3814.7	4584.1	4952.7	5623.4	5854.0	5971.1
30°	3003.4	3008.4	2952.9	2951.6	3790.0	3966.4	4862.7	5045.2	5934.1	6370.6	6397.7
32.5°	3304.3	3287.0	3218.0	3111.9	3278.4	4142.7	5135.2	5379.3	5634.5	6951.3	6926.6
35°	3521.3	3507.7	3458.4	3384.4	3308.0	4222.8	5390.4	5729.5	6147.4	7122.7	7596.1
37.5°	3783.9	3761.7	3706.2	3618.7	3569.3	3645.8	5653.0	6125.2	6788.5	7326.1	8351.9
40°	4071.2	4065.0	3979.9	3866.5	3798.7	3855.4	5854.0	6618.4	7583.8	8190.4	9185.4
42.5°	4291.8	4286.9	4216.6	4151.3	4119.2	4233.9	5354.6	7271.9	8493.7	8975.8	9988.0
45°	4490.4	4483.0	4480.5	4458.3	4484.2	4762.8	5902.1	7675.0	9387.6	9651.4	10717.9
47.5°	4640.8	4618.6	4555.7	4561.9	4634.6	5104.4	6471.7	7067.2	10112.5	10246.9	11287.5
50°	4998.3	4976.1	4759.1	4766.5	4907.1	5528.5	6962.4	7771.2	9438.1	10762.3	11724.0
52.5°	5317.7	5133.9	5015.6	5020.5	5212.9	5979.7	7519.7	8499.9	9277.8	11170.4	12076.6
55°	4592.7	4474.3	5625.9	5465.6	5571.6	6471.7	8060.9	9131.1	9718.0	11482.3	12278.8
57.5°	2695.2	2680.4	6191.8	6331.1	6207.8	7003.1	8608.4	9656.4	10103.9	11773.3	12414.4
60°	1430.2	1464.7	3982.4	3827.0	6434.7	7557.9	9138.5	10133.5	10389.9	11923.7	12451.4
62.5°	131.9	117.1	2617.5	2973.8	5767.7	8282.9	9767.3	10619.3	10583.5	12003.9	12386.1
65°	25.9	34.5	2568.2	2938.1	6408.8	9485.0	10794.4	10992.9	10688.3	11907.7	12043.3
67.5°	19.7	29.6	2426.4	2906.0	6802.1	9947.3	11976.7	11124.8	10694.5	11600.7	11288.8
70°	19.7	30.8	2141.6	2716.2	6988.3	9967.1	12256.6	11073.0	10556.4	10905.3	9867.2
72.5°	19.7	30.8	1798.9	2353.7	6671.4	9539.2	11765.9	10785.7	10042.3	9390.0	7696.0
75°	19.7	28.4	1411.7	1912.3	5766.4	8879.6	10923.8	9535.5	8453.0	6871.2	4937.9
77.5°	19.7	27.1	1040.6	1496.8	4812.1	7831.6	9499.8	7837.8	6371.8	3597.7	1817.3
80°	18.5	27.1	633.7	1055.4	3707.4	6317.6	7465.4	5791.1	3348.7	905.0	525.2
82.5°	18.5	25.9	302.1	675.6	2605.2	4513.8	4871.3	2480.7	712.6	418.0	418.0
85°	16.0	23.4	161.5	367.4	1702.7	2959.0	2350.0	420.4	278.6	282.3	321.8
87.5°	9.9	12.3	76.4	165.2	981.4	1581.9	905.0	154.1	115.9	122.1	182.5
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: P591178

CATALOG NUMBER: CTN-CA8-330-722-U-T4-SSS-HM-EX90

**CANDELA DISTRIBUTION (continued):**

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5	4115.5
2.5°	4136.5	4130.3	4143.9	4187.0	4179.7	4210.5	4185.8	4229.0	4237.6	4225.3	4245.0
5°	4150.1	4158.7	4204.3	4245.0	4222.8	4272.1	4285.7	4346.1	4344.9	4333.8	4358.4
7.5°	4194.4	4217.9	4263.5	4314.0	4325.1	4364.6	4359.7	4436.1	4427.5	4422.5	4447.2
10°	4270.9	4306.6	4349.8	4433.6	4406.5	4473.1	4427.5	4479.3	4474.3	4462.0	4484.2
12.5°	4356.0	4405.3	4457.1	4533.5	4522.4	4521.2	4480.5	4496.5	4483.0	4453.4	4471.9
15°	4484.2	4544.6	4616.1	4665.4	4600.1	4575.4	4511.3	4476.8	4429.9	4360.9	4372.0
17.5°	4683.9	4755.4	4831.9	4840.5	4739.4	4675.3	4519.9	4396.6	4274.6	4182.1	4190.7
20°	4952.7	5018.0	5074.8	5034.1	4897.2	4754.2	4519.9	4325.1	4097.0	3926.9	3914.6
22.5°	5267.1	5286.8	5341.1	5241.2	5005.7	4806.0	4507.6	4217.9	3846.8	3619.9	3592.8
25°	5606.2	5603.7	5580.3	5373.1	5073.5	4777.6	4413.9	4034.2	3560.7	3324.0	3304.3
27.5°	5974.8	5944.0	5783.7	5484.1	5045.2	4675.3	4236.4	3724.7	3300.6	3097.1	3091.0
30°	6390.3	6308.9	5984.7	5495.2	4939.1	4473.1	3947.9	3412.8	3068.8	2887.5	2870.3
32.5°	6874.8	6715.8	6145.0	5459.4	4748.0	4164.9	3596.5	3167.4	2878.9	2680.4	2642.2
35°	7507.3	7228.7	6292.9	5342.3	4464.5	3798.7	3272.2	2949.2	2702.6	2499.2	2458.5
37.5°	8302.6	7893.3	6516.1	5170.9	4140.2	3471.9	3047.8	2804.9	2580.5	2340.1	2290.8
40°	9185.4	8674.9	6777.4	5004.5	3832.0	3229.1	2901.1	2737.1	2501.6	2237.8	2190.9
42.5°	10021.3	9461.5	7169.5	4788.7	3538.5	3034.3	2848.1	2717.4	2464.6	2193.4	2142.8
45°	10793.1	10153.2	7573.9	4571.7	3240.2	2875.2	2803.7	2659.4	2407.9	2141.6	2083.7
47.5°	11423.1	10698.2	7931.5	4347.3	2977.5	2750.7	2718.6	2548.5	2308.1	2057.8	2003.5
50°	11880.6	11116.1	8141.1	4139.0	2724.8	2626.2	2569.4	2390.7	2167.5	1959.1	1919.7
52.5°	12204.8	11477.4	8245.9	4115.5	2495.5	2458.5	2395.6	2227.9	2049.1	1887.6	1840.8
55°	12455.1	11674.7	8155.9	3978.7	2278.5	2247.6	2182.3	2078.7	1971.5	1821.0	1790.2
57.5°	12590.7	11764.7	7950.0	3356.1	2047.9	1994.9	1986.3	1964.1	1870.4	1721.2	1697.8
60°	12620.3	11621.7	7483.9	2552.2	1806.3	1771.7	1837.1	1808.7	1724.9	1613.9	1580.6
62.5°	12504.4	11315.9	6599.9	1908.6	1605.3	1662.0	1728.6	1685.4	1588.0	1479.5	1458.6
65°	12086.5	10614.3	5318.9	1485.7	1512.8	1610.2	1669.4	1617.6	1499.2	1376.0	1362.4
67.5°	11269.0	9522.0	3501.5	1336.5	1469.7	1567.1	1633.6	1551.0	1431.4	1298.3	1282.3
70°	9736.5	7527.1	1668.2	1246.5	1387.1	1483.2	1536.2	1442.5	1326.6	1195.9	1178.7
72.5°	7519.7	5115.5	921.0	1147.9	1284.7	1373.5	1411.7	1300.7	1193.5	1139.2	1134.3
75°	4526.1	2198.3	832.2	1050.5	1152.8	1235.4	1303.2	1219.4	1125.7	1019.6	992.5
77.5°	1494.3	638.7	782.9	934.6	1050.5	1150.3	1182.4	1101.0	983.9	893.9	886.5
80°	524.0	535.1	729.9	778.0	914.8	998.7	1034.4	940.7	885.2	791.5	773.1
82.5°	426.6	479.6	589.3	586.9	722.5	821.1	875.4	852.0	779.2	704.0	696.6
85°	348.9	438.9	373.6	410.6	517.8	625.1	728.7	731.1	675.6	599.2	548.7
87.5°	207.1	224.4	186.2	209.6	273.7	351.4	406.9	388.4	318.1	268.8	262.6
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)