

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: P591116

Luminaire Tested: **CTN-CA10-310-722-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591116  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-722-U-T4-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21429 lumens  
Efficiency: N/A  
Efficacy: 68.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

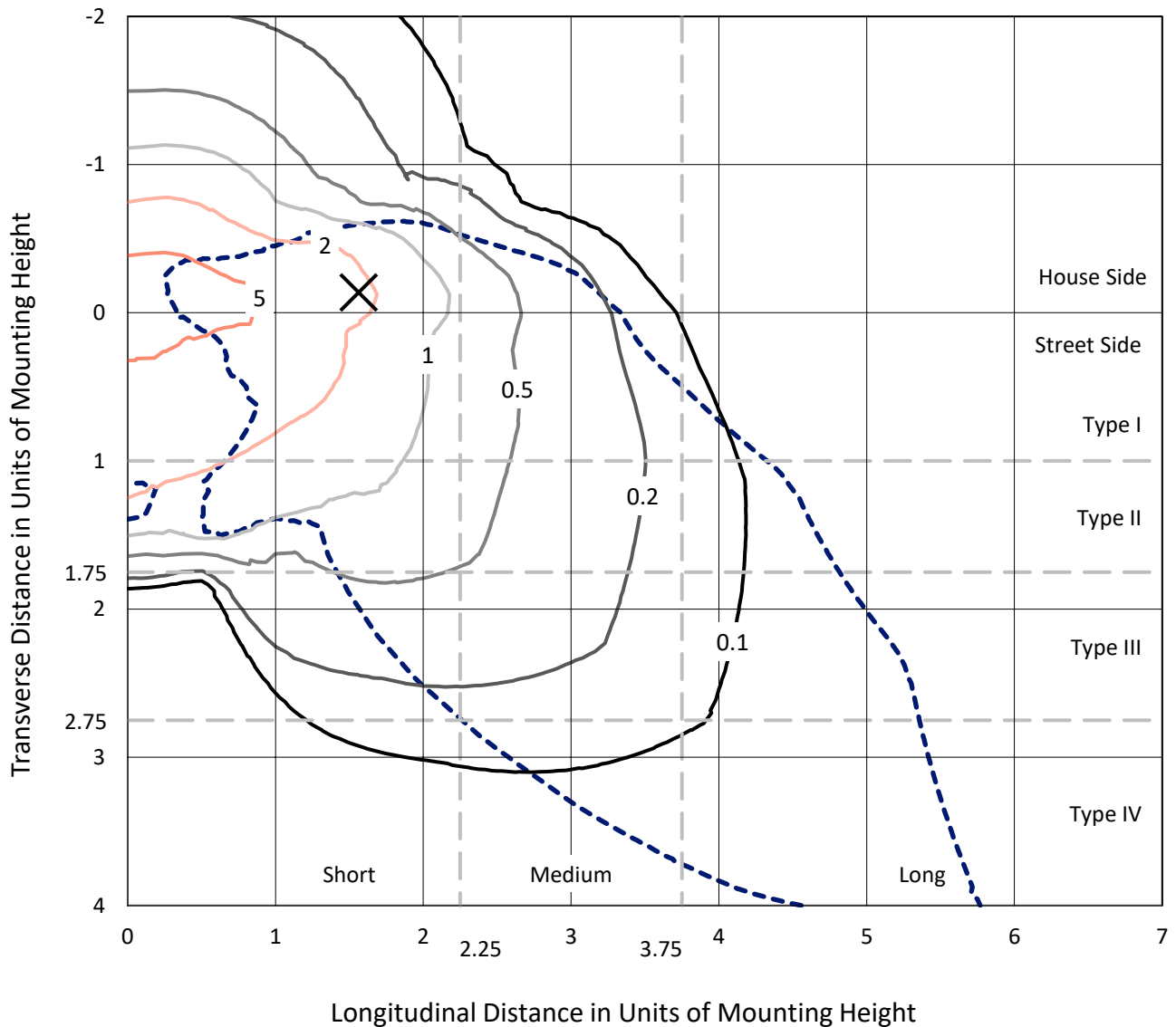
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591116  
 CATALOG NUMBER: CTN-CA10-310-722-U-T4-SSS-HM-EX120

### Iso-Footcandle Lines of Horizontal Illumination

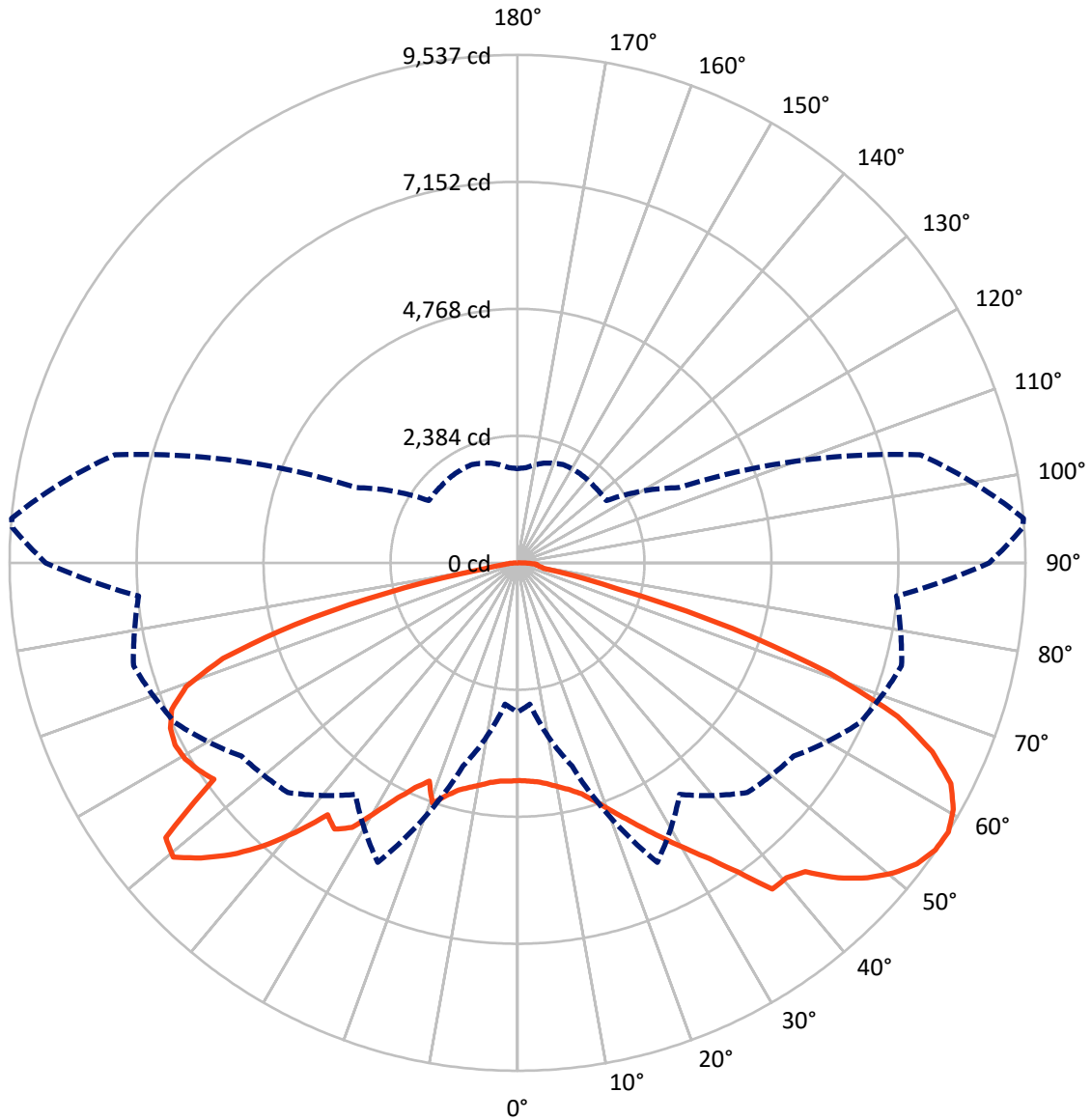
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc  
 Type III - Short - N/A

REPORT NUMBER: P591116  
CATALOG NUMBER: CTN-CA10-310-722-U-T4-SSS-HM-EX120

### Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P591116  
 CATALOG NUMBER: CTN-CA10-310-722-U-T4-SSS-HM-EX120

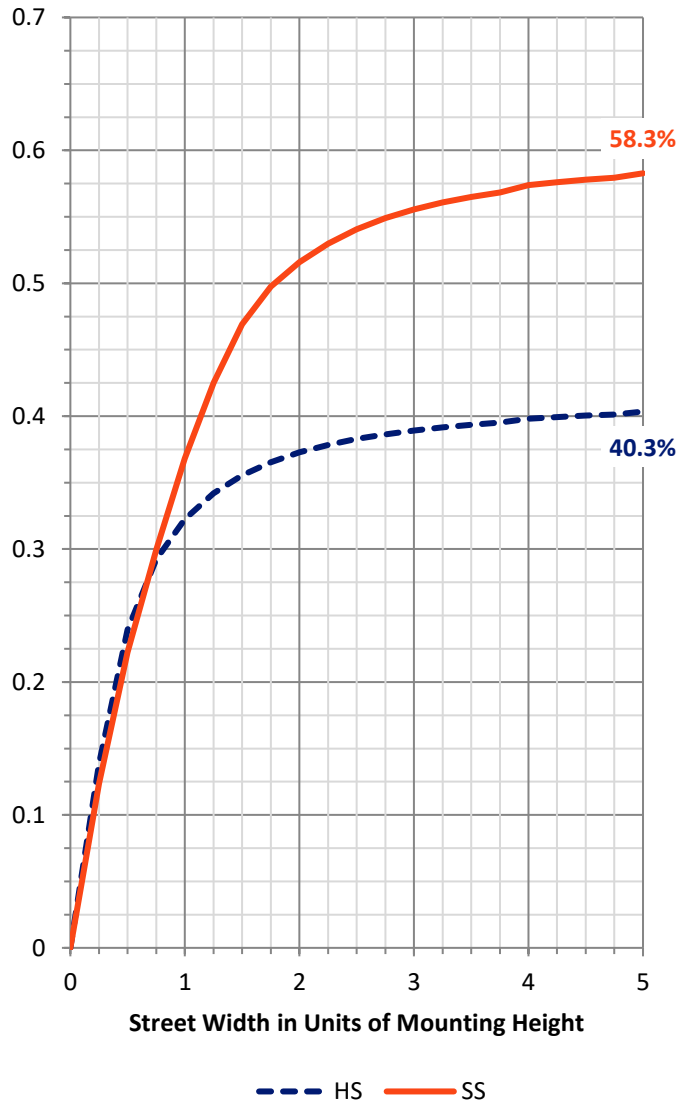
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8825.9	0.0	8825.9
	% Fixture	41.2	0.0	41.2
<b>Street Side</b>	Lumens	12603.1	0.0	12603.1
	% Fixture	58.8	0.0	58.8
<b>Total</b>	Lumens	21429.0	0.0	21429.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	399.2	1.9
10°-20°	1220.9	5.7
20°-30°	1929.3	9.0
30°-40°	2665.9	12.4
40°-50°	3594.6	16.8
50°-60°	4234.3	19.8
60°-70°	3782.8	17.7
70°-80°	2824.5	13.2
80°-90°	777.5	3.6
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°	21429.0	100.0
0°-180°	21429.0	100.0

**Coefficient of Utilization**

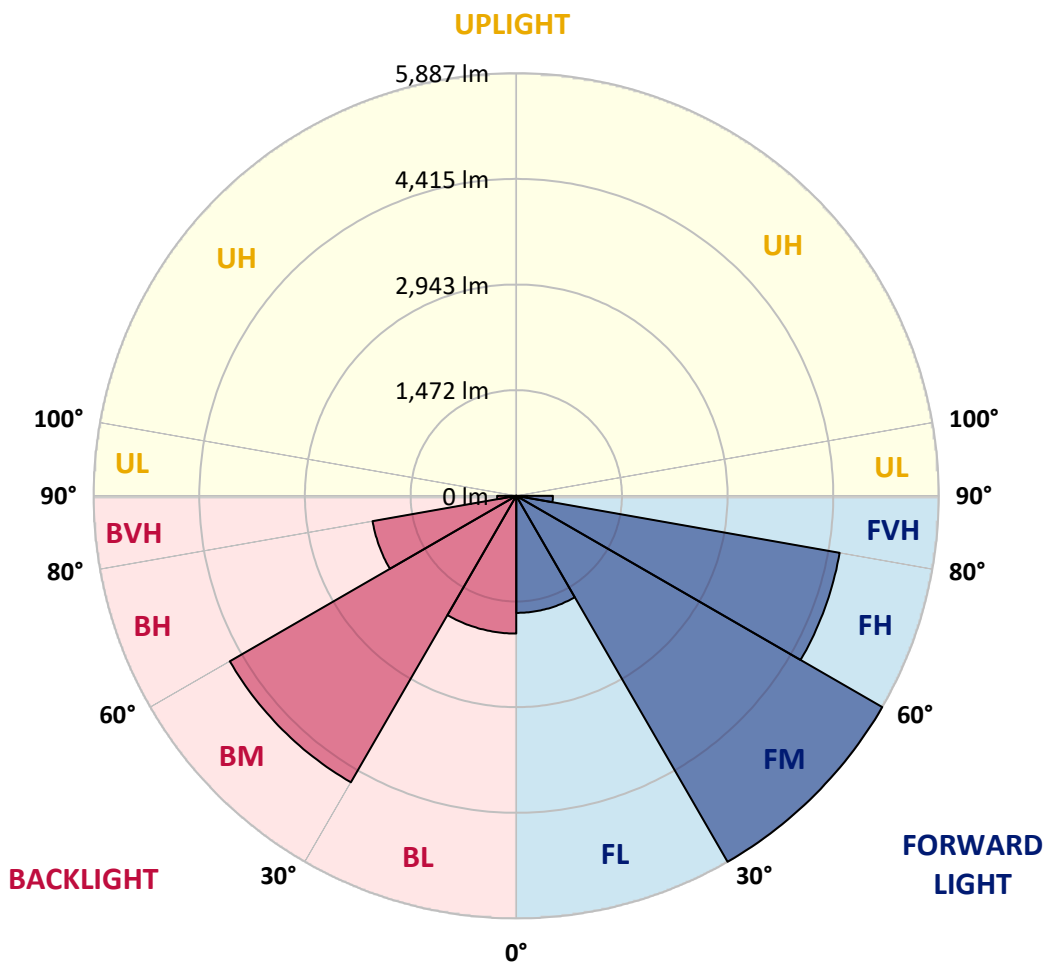


REPORT NUMBER: P591116  
 CATALOG NUMBER: CTN-CA10-310-722-U-T4-SSS-HM-EX120

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1631.0	7.6			
FM (30°-60°)	5887.0	27.5			
FH (60°-80°)	4574.4	21.3			G2/5000
FVH (80°-90°)	510.7	2.4			G4/750
BL (0°-30°)	1918.4	9.0	B3/2500		
BM (30°-60°)	4607.8	21.5	B3/5000		
BH (60°-80°)	2032.9	9.5	B3/2500		G3/2500
BVH (80°-90°)	266.8	1.2			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 III Short





REPORT NUMBER: P591116

CATALOG NUMBER: CTN-CA10-310-722-U-T4-SSS-HM-EX120

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5
2.5°	4034.8	4009.2	4010.4	4045.8	3993.3	4031.1	4026.2	4084.8	4076.3	4099.5	4106.8
5°	4001.8	3979.9	3981.1	4026.2	3990.9	4025.0	4001.8	4055.5	4075.1	4110.5	4117.8
7.5°	4010.4	3990.9	3998.2	4040.9	3997.0	4031.1	4033.6	4083.6	4093.4	4154.4	4164.2
10°	4032.3	4011.6	4016.5	4050.7	4022.6	4083.6	4076.3	4142.2	4144.6	4230.1	4242.3
12.5°	4003.1	3988.4	3988.4	4031.1	4045.8	4106.8	4125.1	4193.4	4208.1	4306.9	4322.8
15°	3950.6	3926.2	3961.6	4025.0	4054.3	4147.1	4181.2	4283.8	4300.8	4403.4	4437.5
17.5°	3860.3	3846.8	3977.4	3997.0	3885.9	3956.7	4101.9	4388.7	4447.3	4568.1	4631.6
20°	3590.5	3439.2	3090.2	3153.6	3495.4	3750.4	3795.6	3933.5	4184.9	4786.6	4885.4
22.5°	2639.8	2770.4	3231.7	3269.6	3258.6	3469.7	3944.5	4077.5	4197.1	4418.0	5074.6
25°	2733.8	2726.5	2952.3	3431.9	3414.8	3455.1	3654.0	4300.8	4420.4	4640.1	5323.6
27.5°	2818.0	2824.1	2807.0	3258.6	3578.3	3619.8	3680.9	4122.7	4701.2	4952.6	5595.7
30°	2985.2	2959.6	2913.2	2912.0	3721.1	3782.2	3885.9	4033.6	4959.9	5359.0	5936.2
32.5°	3267.1	3237.8	3176.8	3080.4	3215.9	3950.6	4093.4	4281.3	4576.7	5858.1	6335.3
35°	3475.8	3455.1	3413.6	3346.5	3237.8	4034.8	4296.0	4544.9	4935.5	6065.6	6858.9
37.5°	3733.3	3704.0	3656.5	3573.5	3491.7	3458.7	4491.2	4843.9	5435.9	5925.3	6972.4
40°	4025.0	4007.9	3921.3	3813.9	3723.6	3632.0	4625.5	5234.5	6079.0	6555.0	6868.7
42.5°	4244.7	4231.3	4180.0	4093.4	4005.5	3946.9	4099.5	5714.1	6779.6	7164.0	7394.7
45°	4436.3	4421.7	4421.7	4398.5	4374.1	4379.0	4444.9	6058.3	7444.7	7683.9	7892.6
47.5°	4584.0	4558.4	4455.8	4476.6	4512.0	4618.2	4818.3	5267.4	7980.5	8125.7	8311.2
50°	4944.0	4905.0	4573.0	4649.9	4764.6	4935.5	5193.0	5758.1	7452.0	8502.8	8648.1
52.5°	5276.0	5095.4	3777.3	4905.0	5034.3	5287.0	5592.1	6288.9	6858.9	8380.8	8905.6
55°	4707.3	4523.0	3796.8	5373.6	5351.6	5670.2	5968.0	6724.6	7181.1	7000.5	8840.9
57.5°	2802.1	2663.0	3950.6	6206.0	5305.3	6098.6	6328.0	7096.9	7464.2	7140.8	8858.0
60°	1451.1	1525.6	1467.0	3672.3	4568.1	6286.5	6700.2	7455.7	7655.8	7245.8	8869.0
62.5°	195.3	140.4	58.6	2686.2	3246.4	5238.1	7167.7	7797.4	7796.2	7281.2	8792.1
65°	12.2	13.4	26.8	2672.8	3580.8	6214.5	7941.4	8073.2	7865.8	7218.9	8535.8
67.5°	4.9	6.1	24.4	2654.5	3863.9	6533.0	8851.9	8161.1	7873.1	7051.7	7973.2
70°	4.9	6.1	24.4	2472.6	4056.8	6589.2	9005.7	8128.2	7782.8	6640.4	6927.2
72.5°	6.1	7.3	22.0	2148.0	3939.6	6436.6	8754.2	8061.0	7459.4	5813.0	5378.5
75°	6.1	7.3	22.0	1735.5	3485.6	6103.4	8555.3	7499.6	6539.1	4343.6	3488.0
77.5°	4.9	6.1	22.0	1354.7	2905.9	5409.0	7760.8	6520.8	5171.0	2527.5	1377.9
80°	4.9	6.1	22.0	943.4	2213.9	4433.9	6321.9	5078.3	2908.3	722.5	388.1
82.5°	4.9	6.1	20.7	588.3	1565.8	3261.0	4320.4	2340.8	623.6	281.9	302.7
85°	4.9	4.9	15.9	288.0	1000.8	2166.3	2152.9	391.8	247.8	183.1	229.4
87.5°	2.4	3.7	8.5	131.8	559.0	1142.3	858.0	150.1	106.2	74.4	128.1
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: P591116

CATALOG NUMBER: CTN-CA10-310-722-U-T4-SSS-HM-EX120

**CANDELA DISTRIBUTION (continued):**

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5	4088.5
2.5°	4109.2	4103.1	4120.2	4164.2	4161.7	4194.7	4169.0	4219.1	4227.6	4216.6	4233.7
5°	4131.2	4133.6	4180.0	4226.4	4209.3	4263.0	4274.0	4348.4	4350.9	4341.1	4363.1
7.5°	4186.1	4194.7	4241.0	4296.0	4320.4	4365.5	4359.4	4455.8	4447.3	4442.4	4468.0
10°	4263.0	4278.9	4328.9	4415.6	4404.6	4474.1	4442.4	4507.1	4504.7	4494.9	4523.0
12.5°	4357.0	4372.9	4436.3	4519.3	4520.5	4525.4	4499.8	4532.7	4521.7	4498.6	4520.5
15°	4483.9	4502.2	4588.9	4649.9	4597.4	4584.0	4535.2	4516.9	4475.4	4414.3	4432.7
17.5°	4684.1	4698.7	4796.3	4830.5	4740.2	4686.5	4547.4	4443.6	4326.5	4241.0	4256.9
20°	4936.7	4950.1	5029.4	5020.9	4900.1	4768.3	4552.3	4376.5	4158.1	3990.9	3986.0
22.5°	5215.0	5223.5	5299.2	5223.5	5008.7	4817.1	4542.5	4272.8	3905.4	3689.4	3666.2
25°	5521.3	5528.6	5527.4	5359.0	5070.9	4789.0	4452.2	4099.5	3628.4	3397.7	3373.3
27.5°	5864.2	5865.5	5731.2	5463.9	5044.1	4685.3	4277.7	3788.3	3374.5	3174.4	3156.1
30°	6229.1	6226.7	5917.9	5473.7	4940.4	4488.8	4007.9	3494.1	3146.3	2968.1	2942.5
32.5°	6645.3	6624.6	6083.9	5439.5	4751.2	4206.9	3660.1	3247.6	2966.9	2763.1	2725.3
35°	7178.7	7127.4	6225.5	5321.1	4470.5	3826.1	3337.9	3032.8	2793.6	2586.1	2548.3
37.5°	7838.9	7773.0	6447.6	5153.9	4147.1	3511.2	3101.1	2887.6	2669.1	2432.3	2383.5
40°	7648.5	7775.4	6712.4	4973.3	3834.6	3259.8	2962.0	2818.0	2593.4	2331.0	2284.7
42.5°	7942.6	7926.8	7074.9	4759.7	3534.4	3063.3	2905.9	2797.3	2553.2	2287.1	2233.4
45°	8443.0	8439.4	7465.5	4552.3	3241.5	2905.9	2863.2	2741.1	2495.8	2232.2	2173.6
47.5°	8849.4	8837.2	7838.9	4324.0	2970.6	2782.6	2776.5	2627.6	2393.3	2148.0	2094.3
50°	9132.6	9150.9	8046.4	4104.4	2714.3	2655.7	2632.5	2467.7	2249.3	2046.7	2005.2
52.5°	9355.9	9390.1	8136.7	4083.6	2489.7	2492.1	2451.9	2301.8	2130.9	1967.4	1923.4
55°	9465.8	9518.2	8043.9	3949.4	2270.0	2284.7	2245.6	2150.4	2049.1	1899.0	1867.3
57.5°	9510.9	9536.5	7829.1	3340.4	2034.5	2032.0	2044.2	2034.5	1939.3	1791.6	1768.4
60°	9434.0	9399.9	7361.7	2538.5	1795.3	1806.3	1884.4	1874.6	1790.4	1678.1	1646.4
62.5°	9197.3	9130.1	6506.2	1877.0	1603.7	1692.8	1775.7	1747.7	1645.2	1542.6	1518.2
65°	8745.7	8556.5	5184.4	1465.8	1512.1	1634.2	1711.1	1669.6	1552.4	1431.6	1416.9
67.5°	7935.3	7698.6	3402.6	1314.4	1473.1	1584.1	1664.7	1595.1	1481.6	1351.0	1330.3
70°	6475.7	6215.7	1611.0	1225.3	1385.2	1495.0	1553.6	1482.8	1366.9	1236.3	1221.7
72.5°	4515.6	4220.3	867.7	1128.9	1283.9	1379.1	1418.2	1331.5	1230.2	1172.8	1169.2
75°	2250.5	1923.4	787.2	1030.1	1153.3	1236.3	1302.2	1242.4	1153.3	1048.4	1021.5
77.5°	599.2	515.0	740.8	920.2	1049.6	1143.6	1181.4	1119.1	1016.6	927.5	911.7
80°	416.2	424.7	692.0	762.8	915.3	999.5	1034.9	955.6	904.3	816.5	792.1
82.5°	352.7	371.0	559.0	574.8	727.4	817.7	879.9	866.5	793.3	722.5	712.7
85°	330.7	351.5	357.6	397.9	521.1	627.3	734.7	740.8	692.0	601.7	572.4
87.5°	190.4	187.9	172.1	202.6	285.6	347.8	421.1	401.5	327.1	283.1	277.0
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)