

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: P591440

Luminaire Tested: **CTN-CA6-230-740-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591440  
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-CA6-230-740-U-T4-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18697 lumens  
Efficiency: N/A  
Efficacy: 82.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

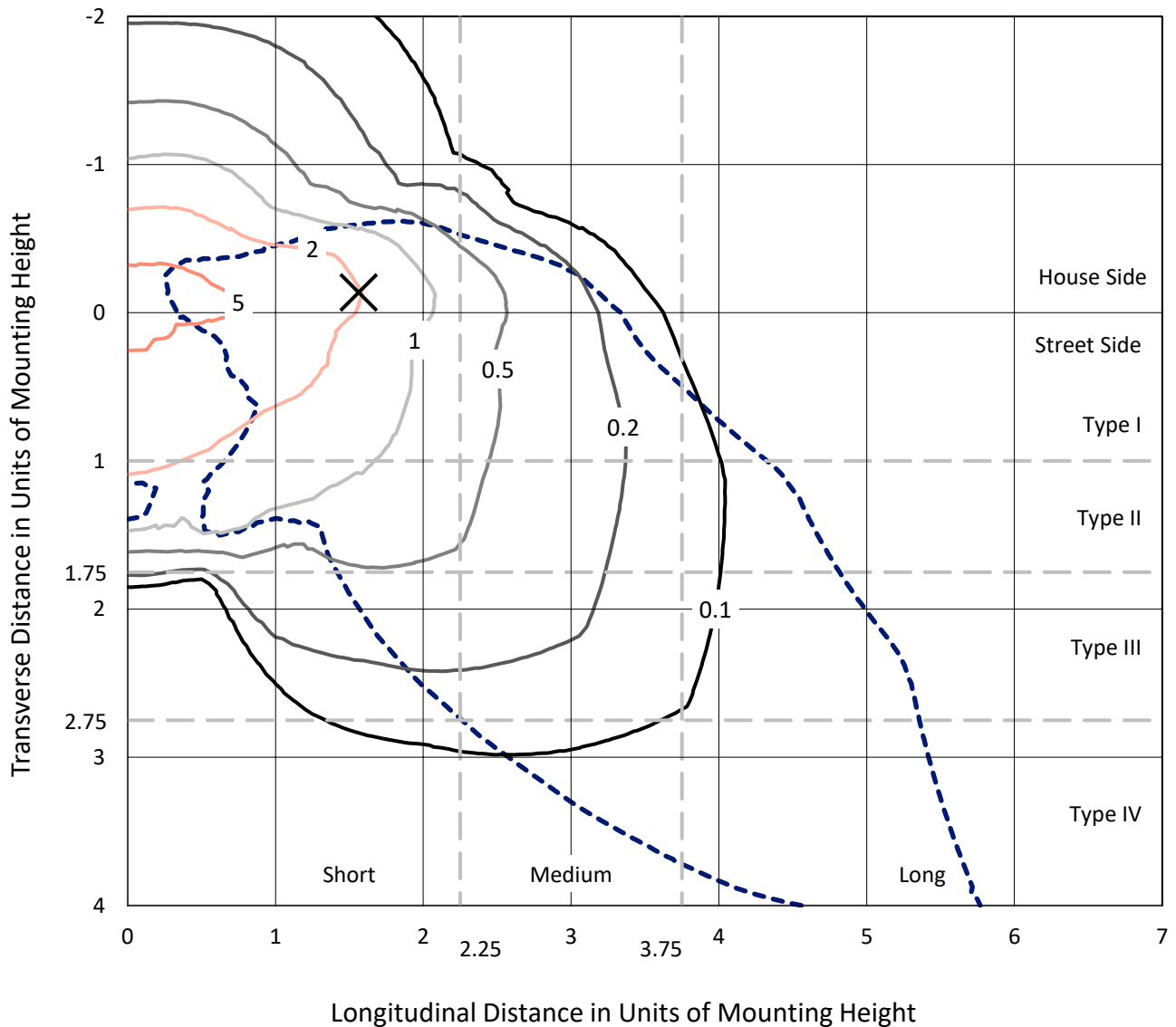
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P591440  
 CATALOG NUMBER: CTN-CA6-230-740-U-T4-SSS-HM-EX120

### Iso-Footcandle Lines of Horizontal Illumination

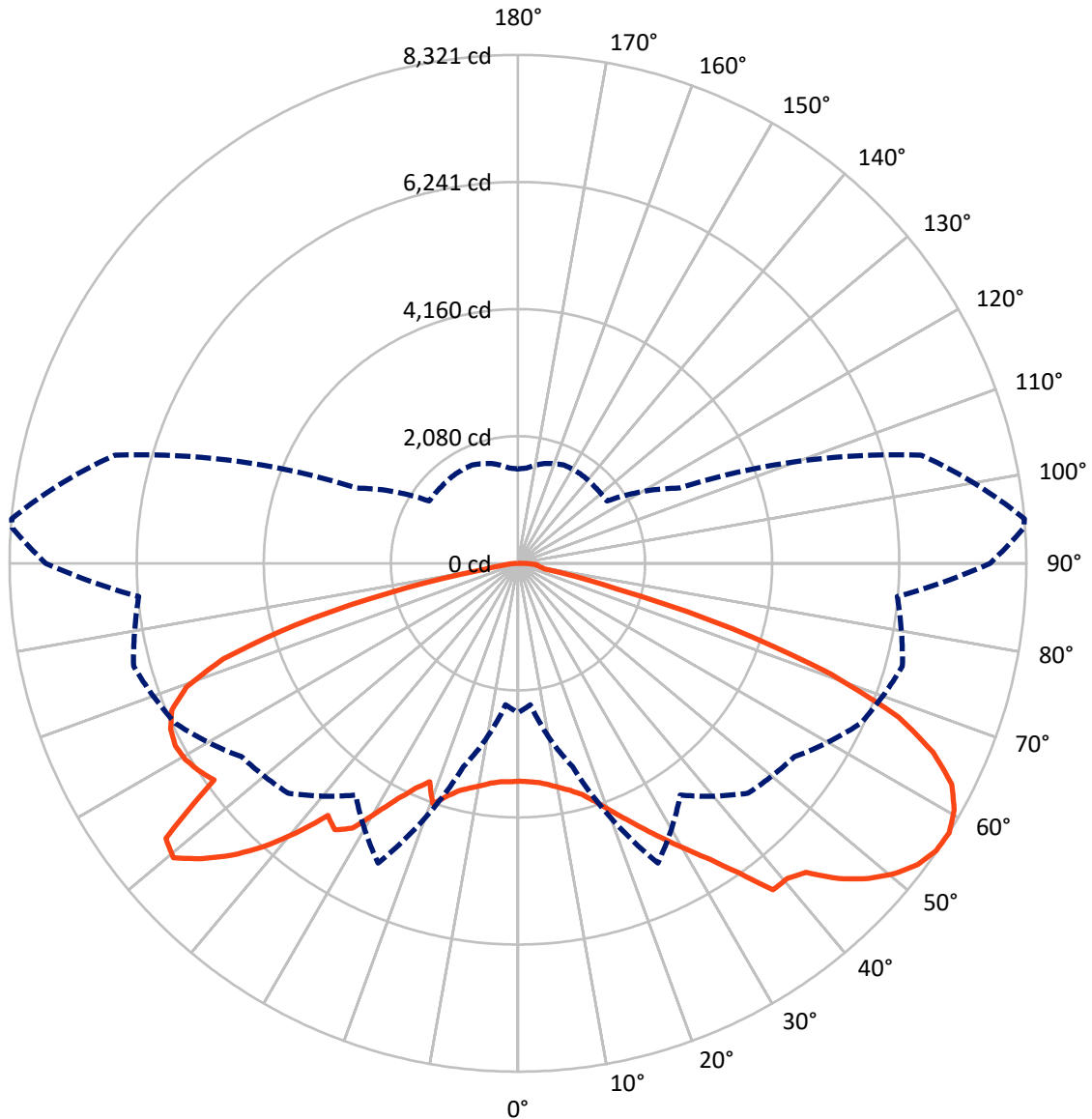
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc  
 Type III - Short - N/A

REPORT NUMBER: P591440  
CATALOG NUMBER: CTN-CA6-230-740-U-T4-SSS-HM-EX120

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P591440  
 CATALOG NUMBER: CTN-CA6-230-740-U-T4-SSS-HM-EX120

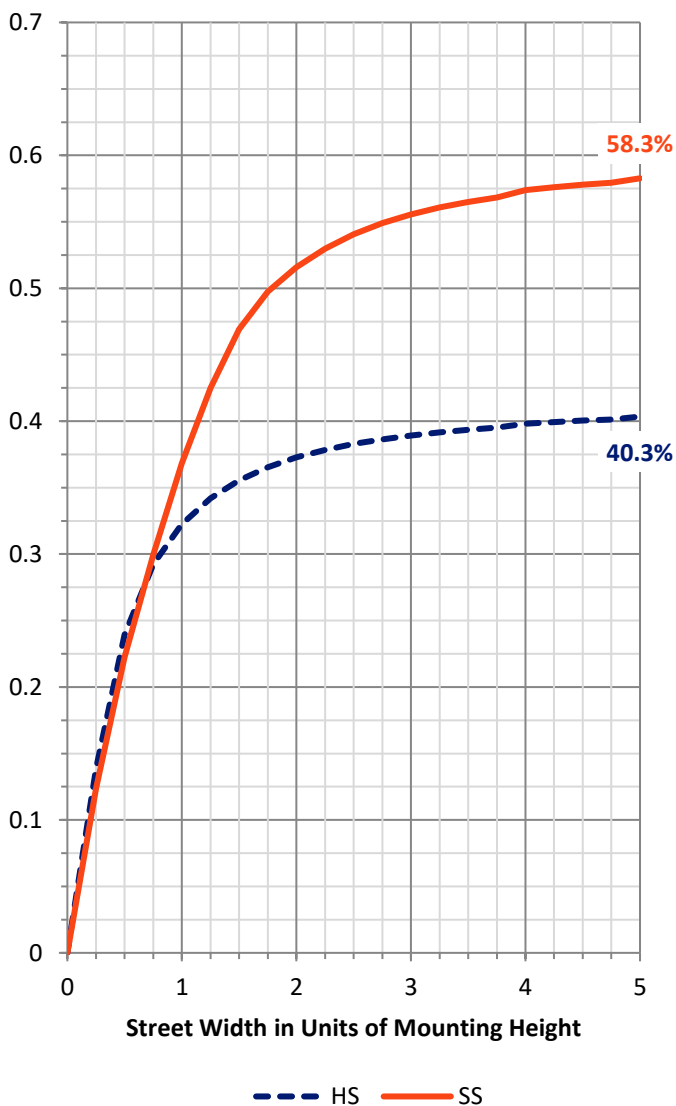
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7700.7	0.0	7700.7
	% Fixture	41.2	0.0	41.2
<b>Street Side</b>	Lumens	10996.3	0.0	10996.3
	% Fixture	58.8	0.0	58.8
<b>Total</b>	Lumens	18697.0	0.0	18697.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	348.3	1.9
10°-20°	1065.3	5.7
20°-30°	1683.3	9.0
30°-40°	2326.0	12.4
40°-50°	3136.3	16.8
50°-60°	3694.5	19.8
60°-70°	3300.5	17.7
70°-80°	2464.4	13.2
80°-90°	678.3	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°	18697.0	100.0
0°-180°	18697.0	100.0

**Coefficient of Utilization**



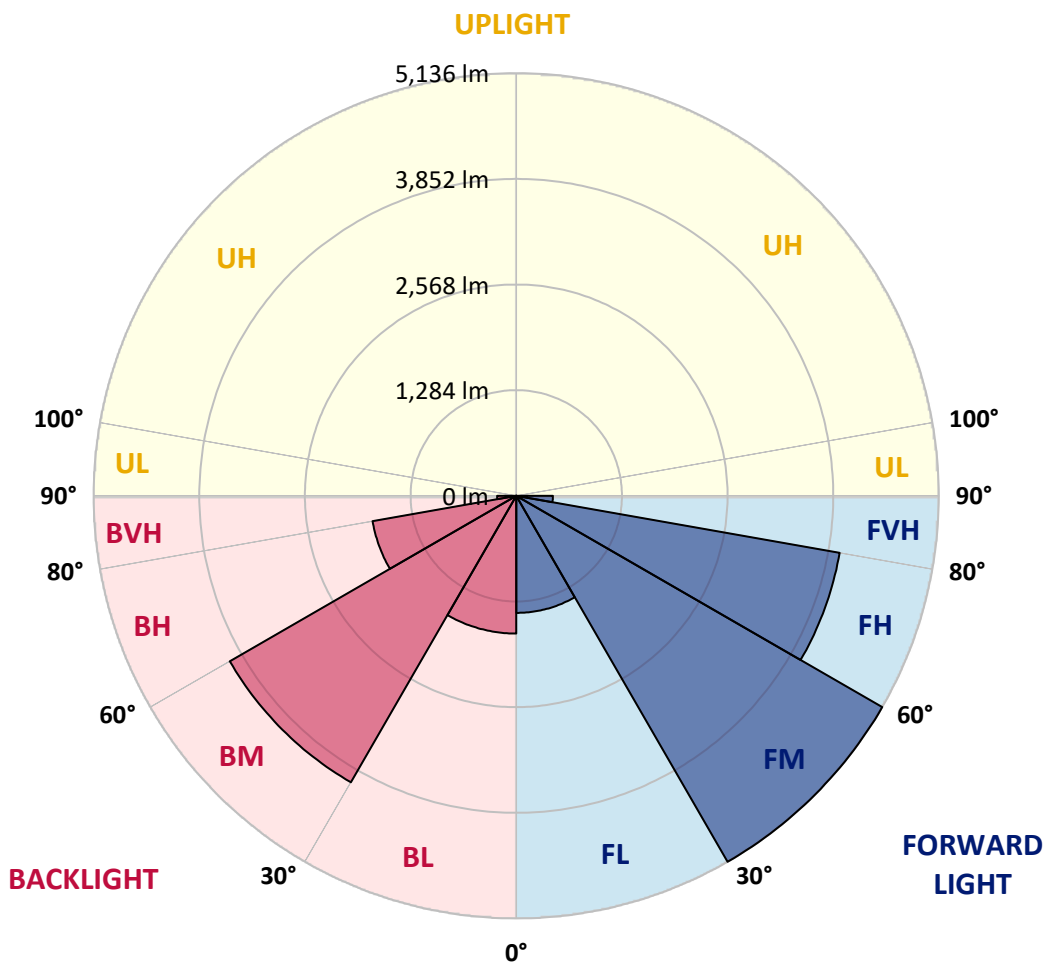
REPORT NUMBER: P591440  
 CATALOG NUMBER: CTN-CA6-230-740-U-T4-SSS-HM-EX120

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1423.1	7.6			
FM	(30°-60°)	5136.4	27.5			
FH	(60°-80°)	3991.2	21.3			G2/5000
FVH	(80°-90°)	445.6	2.4			G3/500
BL	(0°-30°)	1673.8	9.0	B3/2500		
BM	(30°-60°)	4020.4	21.5	B3/5000		
BH	(60°-80°)	1773.7	9.5	B3/2500		G3/2500
BVH	(80°-90°)	232.8	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-G3**

Type III Short





REPORT NUMBER: P591440

CATALOG NUMBER: CTN-CA6-230-740-U-T4-SSS-HM-EX120

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2
2.5°	3520.4	3498.0	3499.1	3530.0	3484.2	3517.2	3512.9	3564.0	3556.6	3576.8	3583.2
5°	3491.6	3472.5	3473.5	3512.9	3482.1	3511.9	3491.6	3538.5	3555.5	3586.4	3592.8
7.5°	3499.1	3482.1	3488.4	3525.7	3487.4	3517.2	3519.3	3563.0	3571.5	3624.7	3633.3
10°	3518.3	3500.2	3504.4	3534.2	3509.7	3563.0	3556.6	3614.1	3616.2	3690.8	3701.4
12.5°	3492.7	3479.9	3479.9	3517.2	3530.0	3583.2	3599.2	3658.8	3671.6	3757.9	3771.7
15°	3446.9	3425.6	3456.5	3511.9	3537.4	3618.4	3648.2	3737.6	3752.5	3842.0	3871.8
17.5°	3368.1	3356.4	3470.3	3487.4	3390.5	3452.2	3579.0	3829.2	3880.3	3985.7	4041.1
20°	3132.8	3000.7	2696.2	2751.6	3049.7	3272.3	3311.7	3432.0	3651.4	4176.3	4262.6
22.5°	2303.3	2417.2	2819.7	2852.7	2843.1	3027.4	3441.6	3557.7	3662.0	3854.8	4427.6
25°	2385.3	2378.9	2575.9	2994.4	2979.4	3014.6	3188.2	3752.5	3856.9	4048.6	4644.9
27.5°	2458.7	2464.1	2449.2	2843.1	3122.1	3158.3	3211.6	3597.1	4101.8	4321.2	4882.3
30°	2604.6	2582.3	2541.8	2540.7	3246.7	3300.0	3390.5	3519.3	4327.5	4675.8	5179.4
32.5°	2850.6	2825.0	2771.8	2687.7	2805.9	3446.9	3571.5	3735.5	3993.2	5111.3	5527.6
35°	3032.7	3014.6	2978.4	2919.8	2825.0	3520.4	3748.3	3965.5	4306.2	5292.3	5984.4
37.5°	3257.4	3231.8	3190.3	3117.9	3046.5	3017.8	3918.6	4226.4	4742.8	5169.8	6083.5
40°	3511.9	3497.0	3421.4	3327.7	3248.9	3169.0	4035.8	4567.1	5304.0	5719.3	5993.0
42.5°	3703.5	3691.8	3647.1	3571.5	3494.8	3443.7	3576.8	4985.6	5915.2	6250.7	6451.9
45°	3870.7	3857.9	3857.9	3837.7	3816.4	3820.7	3878.2	5285.9	6495.6	6704.3	6886.4
47.5°	3999.6	3977.2	3887.8	3905.9	3936.7	4029.4	4204.0	4595.9	6963.0	7089.8	7251.6
50°	4313.7	4279.6	3990.0	4057.1	4157.2	4306.2	4530.9	5024.0	6502.0	7418.8	7545.5
52.5°	4603.3	4445.7	3295.7	4279.6	4392.5	4612.9	4879.1	5487.2	5984.4	7312.3	7770.2
55°	4107.1	3946.3	3312.7	4688.5	4669.4	4947.3	5207.1	5867.3	6265.6	6108.0	7713.8
57.5°	2444.9	2323.5	3446.9	5414.8	4628.9	5321.0	5521.2	6192.1	6512.6	6230.4	7728.7
60°	1266.1	1331.1	1279.9	3204.1	3985.7	5485.0	5846.0	6505.2	6679.8	6322.0	7738.3
62.5°	170.4	122.5	51.1	2343.7	2832.5	4570.3	6253.9	6803.3	6802.3	6352.9	7671.2
65°	10.6	11.7	23.4	2332.0	3124.3	5422.2	6929.0	7044.0	6862.9	6298.6	7447.6
67.5°	4.3	5.3	21.3	2316.0	3371.3	5700.1	7723.3	7120.6	6869.3	6152.7	6956.7
70°	4.3	5.3	21.3	2157.4	3539.6	5749.1	7857.5	7091.9	6790.5	5793.8	6044.1
72.5°	5.3	6.4	19.2	1874.1	3437.3	5616.0	7638.2	7033.3	6508.4	5071.9	4692.8
75°	5.3	6.4	19.2	1514.2	3041.2	5325.3	7464.6	6543.5	5705.5	3789.8	3043.3
77.5°	4.3	5.3	19.2	1182.0	2535.4	4719.4	6771.4	5689.5	4511.8	2205.3	1202.2
80°	4.3	5.3	19.2	823.1	1931.6	3868.6	5515.9	4430.8	2537.5	630.4	338.6
82.5°	4.3	5.3	18.1	513.3	1366.2	2845.3	3769.6	2042.4	544.1	246.0	264.1
85°	4.3	4.3	13.8	251.3	873.2	1890.1	1878.4	341.8	216.2	159.7	200.2
87.5°	2.1	3.2	7.5	115.0	487.7	996.7	748.6	131.0	92.6	65.0	111.8
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: P591440

CATALOG NUMBER: CTN-CA6-230-740-U-T4-SSS-HM-EX120

**CANDELA DISTRIBUTION (continued):**

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2	3567.2
2.5°	3585.3	3580.0	3594.9	3633.3	3631.1	3659.9	3637.5	3681.2	3688.6	3679.1	3694.0
5°	3604.5	3606.6	3647.1	3687.6	3672.7	3719.5	3729.1	3794.1	3796.2	3787.7	3806.8
7.5°	3652.4	3659.9	3700.3	3748.3	3769.6	3809.0	3803.6	3887.8	3880.3	3876.0	3898.4
10°	3719.5	3733.4	3777.0	3852.6	3843.0	3903.7	3876.0	3932.5	3930.4	3921.8	3946.3
12.5°	3801.5	3815.4	3870.7	3943.1	3944.2	3948.5	3926.1	3954.8	3945.3	3925.0	3944.2
15°	3912.3	3928.2	4003.8	4057.1	4011.3	3999.6	3957.0	3941.0	3904.8	3851.6	3867.5
17.5°	4086.9	4099.7	4184.9	4214.7	4135.9	4089.0	3967.6	3877.1	3774.9	3700.3	3714.2
20°	4307.3	4319.0	4388.2	4380.8	4275.4	4160.4	3971.9	3818.5	3627.9	3482.1	3477.8
22.5°	4550.1	4557.6	4623.6	4557.6	4370.1	4203.0	3963.4	3728.0	3407.5	3219.0	3198.8
25°	4817.4	4823.8	4822.7	4675.8	4424.4	4178.5	3884.6	3576.8	3165.8	2964.5	2943.2
27.5°	5116.6	5117.7	5000.5	4767.3	4401.0	4088.0	3732.3	3305.3	2944.3	2769.7	2753.7
30°	5435.0	5432.9	5163.5	4775.8	4310.5	3916.5	3497.0	3048.7	2745.2	2589.7	2567.4
32.5°	5798.1	5780.0	5308.3	4746.0	4145.5	3670.5	3193.5	2833.6	2588.6	2410.8	2377.8
35°	6263.4	6218.7	5431.8	4642.7	3900.5	3338.3	2912.4	2646.1	2437.4	2256.4	2223.4
37.5°	6839.5	6782.0	5625.6	4496.9	3618.4	3063.6	2705.8	2519.4	2328.8	2122.2	2079.6
40°	6673.4	6784.2	5856.7	4339.3	3345.8	2844.2	2584.4	2458.7	2262.8	2033.9	1993.4
42.5°	6930.0	6916.2	6172.9	4152.9	3083.8	2672.8	2535.4	2440.6	2227.7	1995.5	1948.7
45°	7366.6	7363.4	6513.7	3971.9	2828.2	2535.4	2498.1	2391.7	2177.6	1947.6	1896.5
47.5°	7721.2	7710.6	6839.5	3772.8	2591.8	2427.9	2422.5	2292.6	2088.2	1874.1	1827.3
50°	7968.3	7984.2	7020.5	3581.1	2368.2	2317.1	2296.9	2153.1	1962.5	1785.8	1749.5
52.5°	8163.1	8192.9	7099.3	3563.0	2172.3	2174.4	2139.3	2008.3	1859.2	1716.5	1678.2
55°	8259.0	8304.8	7018.4	3445.9	1980.6	1993.4	1959.3	1876.3	1787.9	1656.9	1629.2
57.5°	8298.4	8320.7	6831.0	2914.5	1775.1	1773.0	1783.6	1775.1	1692.0	1563.2	1543.0
60°	8231.3	8201.5	6423.2	2214.9	1566.4	1576.0	1644.1	1635.6	1562.1	1464.2	1436.5
62.5°	8024.7	7966.1	5676.7	1637.7	1399.2	1476.9	1549.4	1524.9	1435.4	1346.0	1324.7
65°	7630.7	7465.7	4523.5	1278.9	1319.3	1425.8	1492.9	1456.7	1354.5	1249.1	1236.3
67.5°	6923.6	6717.1	2968.8	1146.8	1285.3	1382.2	1452.5	1391.8	1292.7	1178.8	1160.7
70°	5650.1	5423.3	1405.6	1069.1	1208.6	1304.4	1355.6	1293.8	1192.6	1078.7	1065.9
72.5°	3939.9	3682.2	757.1	985.0	1120.2	1203.3	1237.4	1161.7	1073.4	1023.3	1020.1
75°	1963.6	1678.2	686.8	898.7	1006.3	1078.7	1136.2	1084.0	1006.3	914.7	891.3
77.5°	522.8	449.4	646.4	802.9	915.8	997.8	1030.8	976.5	887.0	809.3	795.4
80°	363.1	370.6	603.8	665.5	798.6	872.1	903.0	833.8	789.1	712.4	691.1
82.5°	307.7	323.7	487.7	501.5	634.6	713.4	767.8	756.0	692.2	630.4	621.9
85°	288.6	306.7	312.0	347.1	454.7	547.3	641.0	646.4	603.8	525.0	499.4
87.5°	166.1	164.0	150.1	176.8	249.2	303.5	367.4	350.3	285.4	247.0	241.7
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)