

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: P591356

Luminaire Tested: **CTN-CA8-230-730-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591356  
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-CA8-230-730-U-T4-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19100 lumens  
Efficiency: N/A  
Efficacy: 83.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

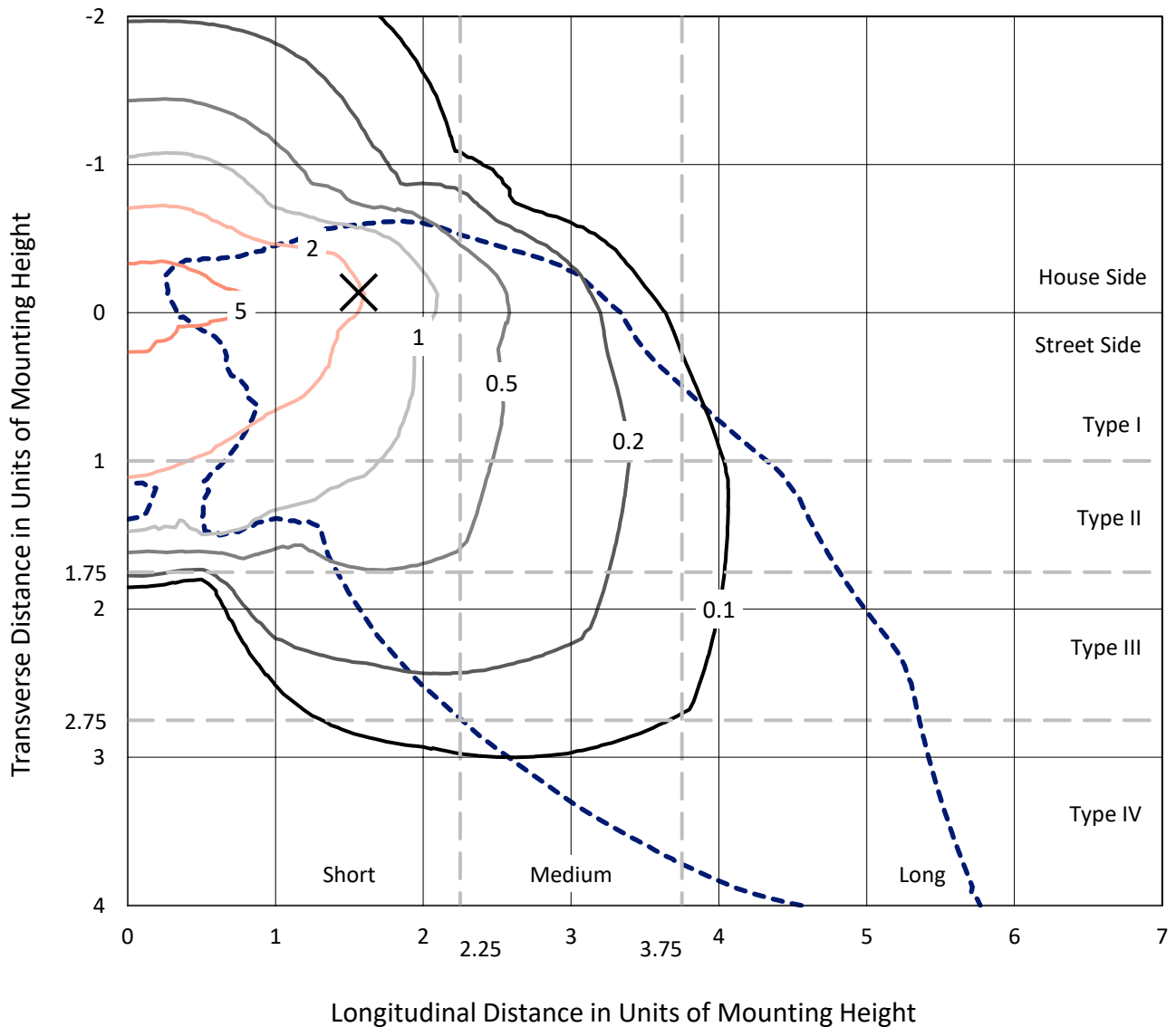
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

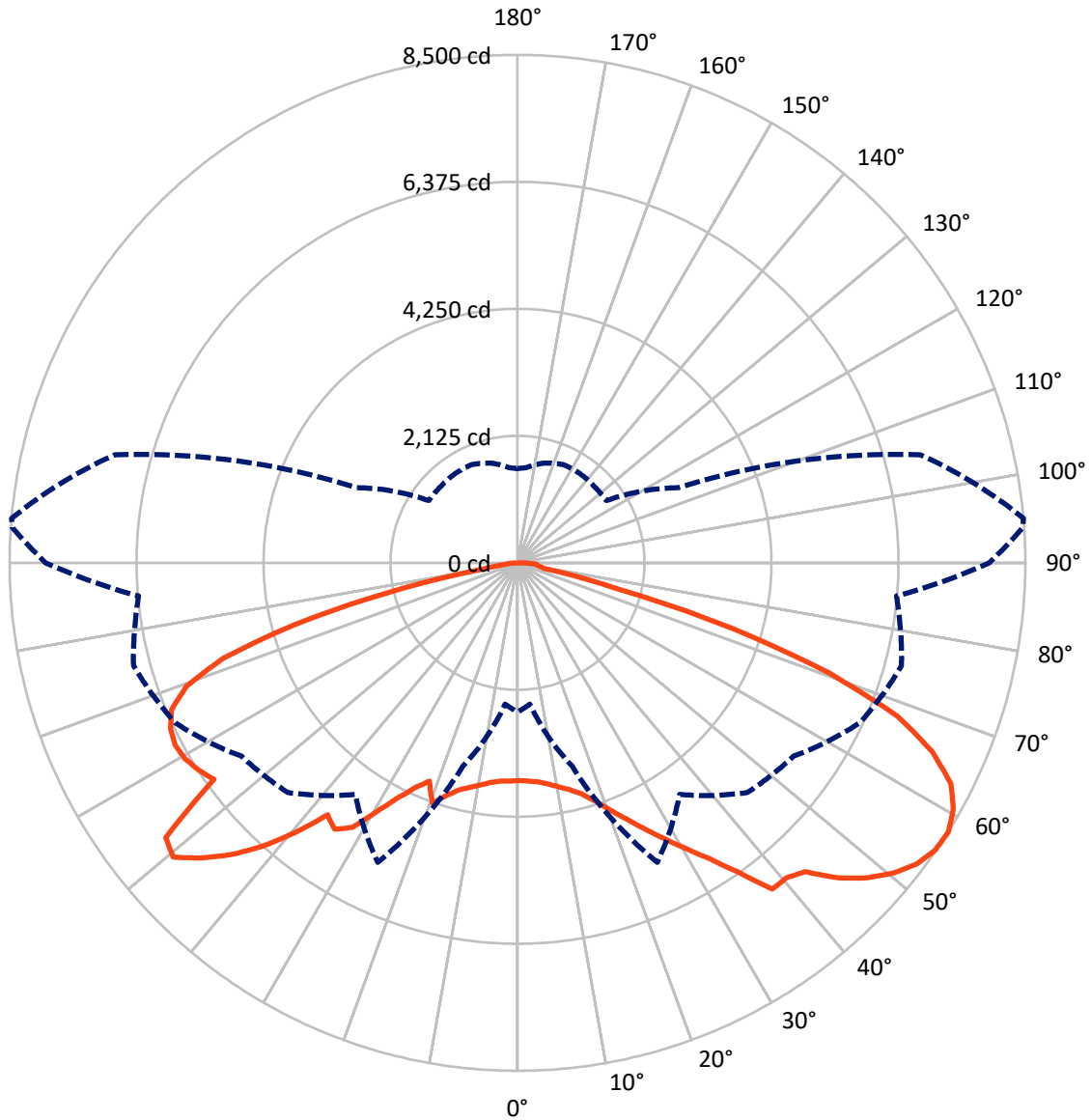
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



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

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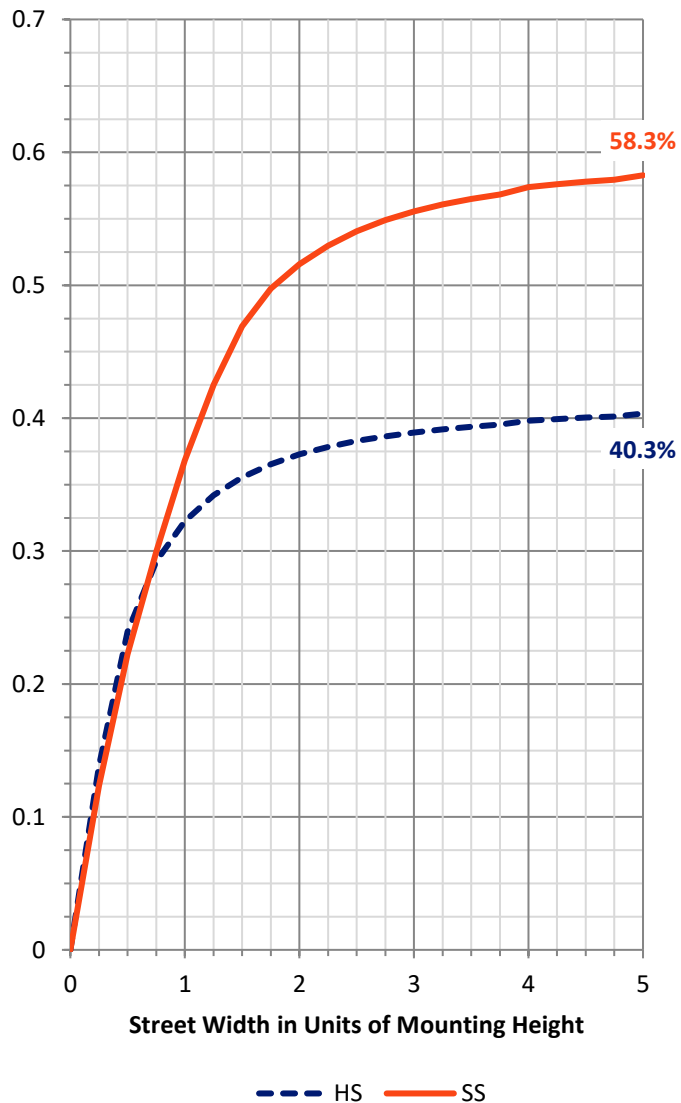
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7866.7	0.0	7866.7
	% Fixture	41.2	0.0	41.2
<b>Street Side</b>	Lumens	11233.3	0.0	11233.3
	% Fixture	58.8	0.0	58.8
<b>Total</b>	Lumens	19100.0	0.0	19100.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	355.9	1.9
10°-20°	1088.2	5.7
20°-30°	1719.6	9.0
30°-40°	2376.2	12.4
40°-50°	3203.9	16.8
50°-60°	3774.1	19.8
60°-70°	3371.7	17.7
70°-80°	2517.5	13.2
80°-90°	693.0	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°	19100.0	100.0
0°-180°	19100.0	100.0

**Coefficient of Utilization**



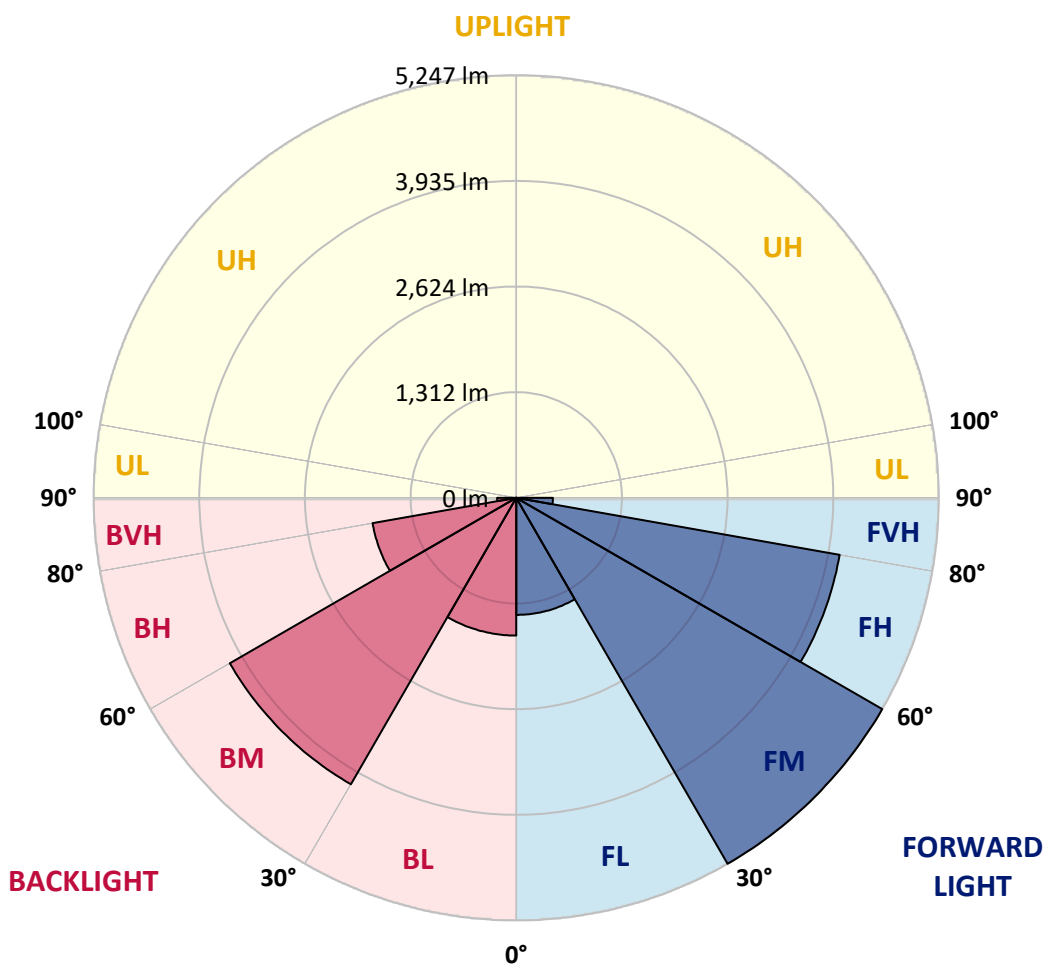
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1453.8	7.6			
FM (30°-60°)	5247.1	27.5			
FH (60°-80°)	4077.2	21.3			G2/5000
FVH (80°-90°)	455.2	2.4			G3/500
BL (0°-30°)	1709.9	9.0	B3/2500		
BM (30°-60°)	4107.0	21.5	B3/5000		
BH (60°-80°)	1812.0	9.5	B3/2500		G3/2500
BVH (80°-90°)	237.8	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1
2.5°	3596.3	3573.4	3574.5	3606.1	3559.3	3593.0	3588.7	3640.9	3633.3	3653.9	3660.4
5°	3566.9	3547.3	3548.4	3588.7	3557.1	3587.6	3566.9	3614.8	3632.2	3663.7	3670.2
7.5°	3574.5	3557.1	3563.6	3601.7	3562.5	3593.0	3595.2	3639.8	3648.5	3702.9	3711.6
10°	3594.1	3575.6	3580.0	3610.4	3585.4	3639.8	3633.3	3692.0	3694.2	3770.3	3781.2
12.5°	3568.0	3554.9	3554.9	3593.0	3606.1	3660.4	3676.8	3737.7	3750.7	3838.8	3853.0
15°	3521.2	3499.5	3531.0	3587.6	3613.7	3696.3	3726.8	3818.2	3833.4	3924.8	3955.2
17.5°	3440.7	3428.7	3545.1	3562.5	3463.6	3526.6	3656.1	3911.7	3963.9	4071.6	4128.2
20°	3200.3	3065.4	2754.3	2810.9	3115.5	3342.8	3383.1	3506.0	3730.1	4266.4	4354.5
22.5°	2352.9	2469.3	2880.5	2914.2	2904.4	3092.6	3515.8	3634.3	3740.9	3937.8	4523.1
25°	2436.7	2430.1	2631.4	3058.9	3043.7	3079.6	3256.9	3833.4	3940.0	4135.8	4745.0
27.5°	2511.7	2517.2	2501.9	2904.4	3189.4	3226.4	3280.8	3674.6	4190.2	4414.3	4987.6
30°	2660.8	2637.9	2596.6	2595.5	3316.7	3371.1	3463.6	3595.2	4420.8	4776.5	5291.1
32.5°	2912.0	2885.9	2831.5	2745.6	2866.4	3521.2	3648.5	3816.0	4079.3	5221.4	5646.8
35°	3098.1	3079.6	3042.6	2982.7	2885.9	3596.3	3829.1	4051.0	4399.1	5406.4	6113.4
37.5°	3327.6	3301.5	3259.1	3185.1	3112.2	3082.8	4003.1	4317.5	4845.1	5281.3	6214.6
40°	3587.6	3572.3	3495.1	3399.4	3318.9	3237.3	4122.8	4665.6	5418.3	5842.6	6122.1
42.5°	3783.4	3771.4	3725.7	3648.5	3570.2	3517.9	3653.9	5093.1	6042.7	6385.4	6591.0
45°	3954.2	3941.1	3941.1	3920.4	3898.7	3903.0	3961.8	5399.8	6635.6	6848.8	7034.8
47.5°	4085.8	4062.9	3971.6	3990.1	4021.6	4116.2	4294.6	4694.9	7113.1	7242.6	7407.9
50°	4406.7	4371.9	4076.0	4144.5	4246.8	4399.1	4628.6	5132.2	6642.1	7578.7	7708.2
52.5°	4702.6	4541.6	3366.7	4371.9	4487.2	4712.4	4984.3	5605.4	6113.4	7469.9	7937.7
55°	4195.6	4031.4	3384.1	4789.6	4770.0	5053.9	5319.3	5993.8	6400.6	6239.6	7880.0
57.5°	2497.6	2373.6	3521.2	5531.5	4728.7	5435.7	5640.2	6325.6	6653.0	6364.7	7895.3
60°	1293.4	1359.8	1307.5	3273.2	4071.6	5603.3	5972.0	6645.4	6823.8	6458.3	7905.0
62.5°	174.0	125.1	52.2	2394.2	2893.5	4668.8	6388.7	6950.0	6948.9	6489.8	7836.5
65°	10.9	12.0	23.9	2382.3	3191.6	5539.1	7078.3	7195.8	7010.9	6434.3	7608.1
67.5°	4.4	5.4	21.8	2366.0	3444.0	5823.0	7889.8	7274.1	7017.4	6285.3	7106.6
70°	4.4	5.4	21.8	2203.9	3615.8	5873.0	8026.9	7244.8	6936.9	5918.7	6174.4
72.5°	5.4	6.5	19.6	1914.5	3511.4	5737.1	7802.8	7184.9	6648.6	5181.2	4793.9
75°	5.4	6.5	19.6	1546.9	3106.8	5440.1	7625.5	6684.5	5828.4	3871.5	3108.9
77.5°	4.4	5.4	19.6	1207.5	2590.1	4821.1	6917.3	5812.1	4609.0	2252.8	1228.1
80°	4.4	5.4	19.6	840.9	1973.3	3952.0	5634.8	4526.3	2592.2	644.0	345.9
82.5°	4.4	5.4	18.5	524.3	1395.6	2906.6	3850.8	2086.4	555.9	251.3	269.8
85°	4.4	4.4	14.1	256.7	892.0	1930.8	1918.9	349.2	220.8	163.2	204.5
87.5°	2.2	3.3	7.6	117.5	498.2	1018.2	764.7	133.8	94.6	66.4	114.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1	3644.1
2.5°	3662.6	3657.2	3672.4	3711.6	3709.4	3738.8	3715.9	3760.5	3768.1	3758.4	3773.6
5°	3682.2	3684.4	3725.7	3767.1	3751.8	3799.7	3809.5	3875.8	3878.0	3869.3	3888.9
7.5°	3731.2	3738.8	3780.1	3829.1	3850.8	3891.1	3885.6	3971.6	3963.9	3959.6	3982.4
10°	3799.7	3813.8	3858.4	3935.7	3925.9	3987.9	3959.6	4017.2	4015.1	4006.4	4031.4
12.5°	3883.4	3897.6	3954.2	4028.1	4029.2	4033.6	4010.7	4040.1	4030.3	4009.6	4029.2
15°	3996.6	4012.9	4090.1	4144.5	4097.7	4085.8	4042.3	4026.0	3989.0	3934.6	3950.9
17.5°	4175.0	4188.0	4275.1	4305.5	4225.0	4177.2	4053.1	3960.7	3856.3	3780.1	3794.2
20°	4400.2	4412.1	4482.8	4475.2	4367.5	4250.0	4057.5	3900.9	3706.1	3557.1	3552.8
22.5°	4648.2	4655.8	4723.2	4655.8	4464.3	4293.5	4048.8	3808.4	3481.0	3288.4	3267.8
25°	4921.2	4927.7	4926.6	4776.5	4519.8	4268.5	3968.3	3653.9	3234.0	3028.4	3006.7
27.5°	5226.9	5228.0	5108.3	4870.1	4495.9	4176.1	3812.7	3376.5	3007.8	2829.4	2813.1
30°	5552.1	5550.0	5274.7	4878.8	4403.4	4000.9	3572.3	3114.4	2804.4	2645.5	2622.7
32.5°	5923.1	5904.6	5422.7	4848.3	4234.8	3749.6	3262.3	2894.6	2644.4	2462.8	2429.1
35°	6398.4	6352.8	5548.9	4742.8	3984.6	3410.3	2975.1	2703.2	2490.0	2305.0	2271.3
37.5°	6986.9	6928.2	5746.9	4593.8	3696.3	3129.6	2764.1	2573.7	2379.0	2168.0	2124.5
40°	6817.2	6930.4	5982.9	4432.8	3417.9	2905.5	2640.1	2511.7	2311.6	2077.7	2036.4
42.5°	7079.4	7065.3	6306.0	4242.4	3150.3	2730.4	2590.1	2493.2	2275.7	2038.5	1990.7
45°	7525.4	7522.1	6654.1	4057.5	2889.2	2590.1	2552.0	2443.2	2224.6	1989.6	1937.4
47.5°	7887.6	7876.8	6986.9	3854.1	2647.7	2480.2	2474.7	2342.0	2133.2	1914.5	1866.7
50°	8140.0	8156.3	7171.9	3658.3	2419.3	2367.1	2346.4	2199.5	2004.8	1824.2	1787.3
52.5°	8339.1	8369.5	7252.4	3639.8	2219.1	2221.3	2185.4	2051.6	1899.3	1753.5	1714.4
55°	8437.0	8483.8	7169.7	3520.1	2023.3	2036.4	2001.6	1916.7	1826.4	1692.6	1664.3
57.5°	8477.2	8500.1	6978.2	2977.3	1813.4	1811.2	1822.1	1813.4	1728.5	1596.9	1576.2
60°	8408.7	8378.2	6561.6	2262.6	1600.2	1609.9	1679.6	1670.9	1595.8	1495.7	1467.4
62.5°	8197.7	8137.8	5799.1	1673.0	1429.4	1508.8	1582.8	1557.7	1466.4	1375.0	1353.2
65°	7795.2	7626.6	4621.0	1306.4	1347.8	1456.6	1525.1	1488.1	1383.7	1276.0	1262.9
67.5°	7072.9	6861.8	3032.8	1171.6	1313.0	1412.0	1483.8	1421.8	1320.6	1204.2	1185.7
70°	5771.9	5540.2	1435.9	1092.2	1234.7	1332.6	1384.8	1321.7	1218.3	1101.9	1088.9
72.5°	4024.9	3761.6	773.4	1006.2	1144.4	1229.2	1264.0	1186.8	1096.5	1045.4	1042.1
75°	2005.9	1714.4	701.6	918.1	1028.0	1101.9	1160.7	1107.4	1028.0	934.4	910.5
77.5°	534.1	459.1	660.3	820.2	935.5	1019.3	1053.0	997.5	906.1	826.7	812.6
80°	370.9	378.6	616.8	679.9	815.9	890.9	922.5	851.7	806.1	727.7	706.0
82.5°	314.4	330.7	498.2	512.4	648.3	728.8	784.3	772.3	707.1	644.0	635.3
85°	294.8	313.3	318.7	354.6	464.5	559.1	654.9	660.3	616.8	536.3	510.2
87.5°	169.7	167.5	153.4	180.6	254.5	310.0	375.3	357.9	291.5	252.4	246.9
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)