

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: P591346

Luminaire Tested: **CTN-CA6-230-730-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591346  
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-CA6-230-730-U-T4-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21460 lumens  
Efficiency: N/A  
Efficacy: 94.2 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4

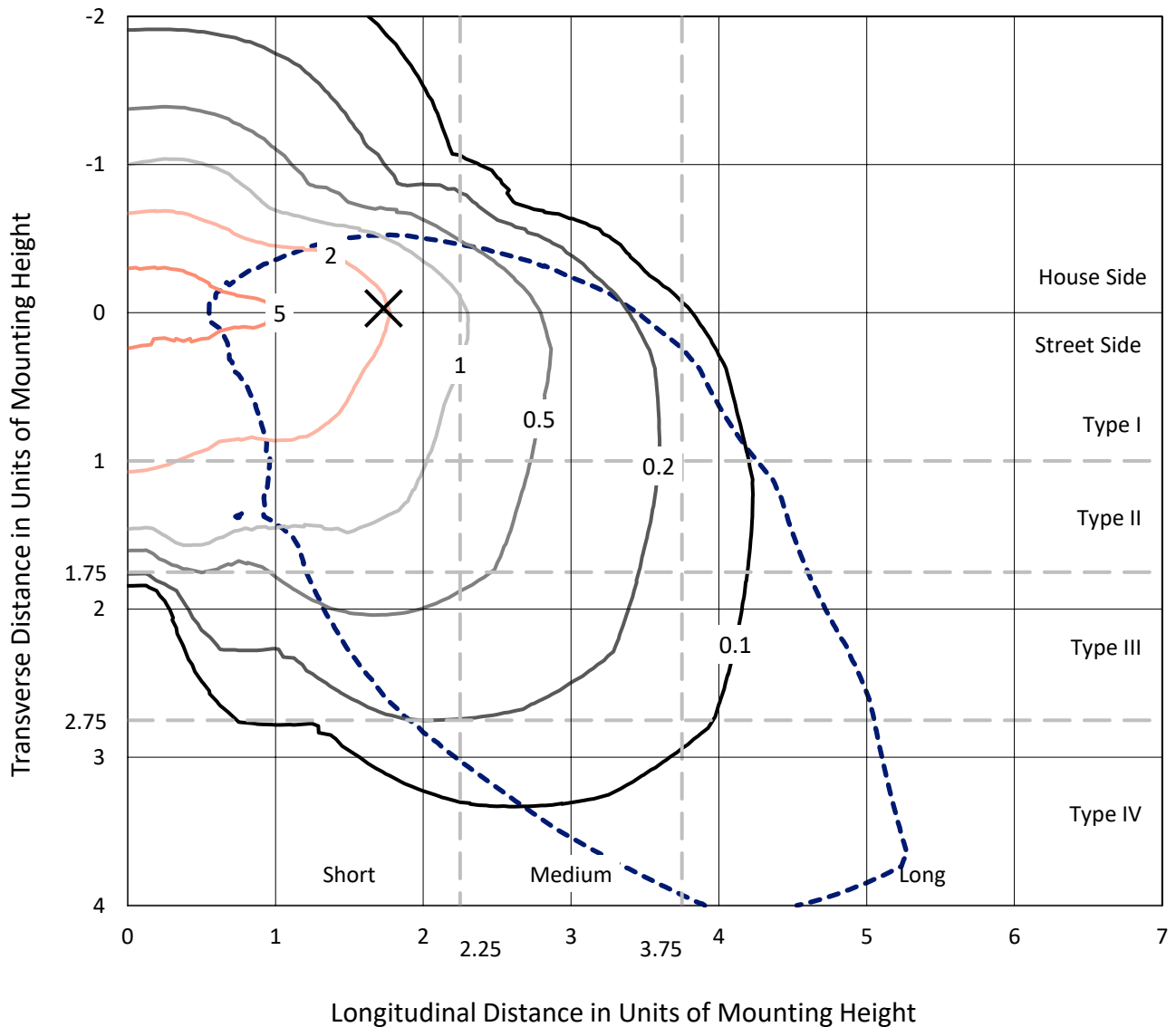
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

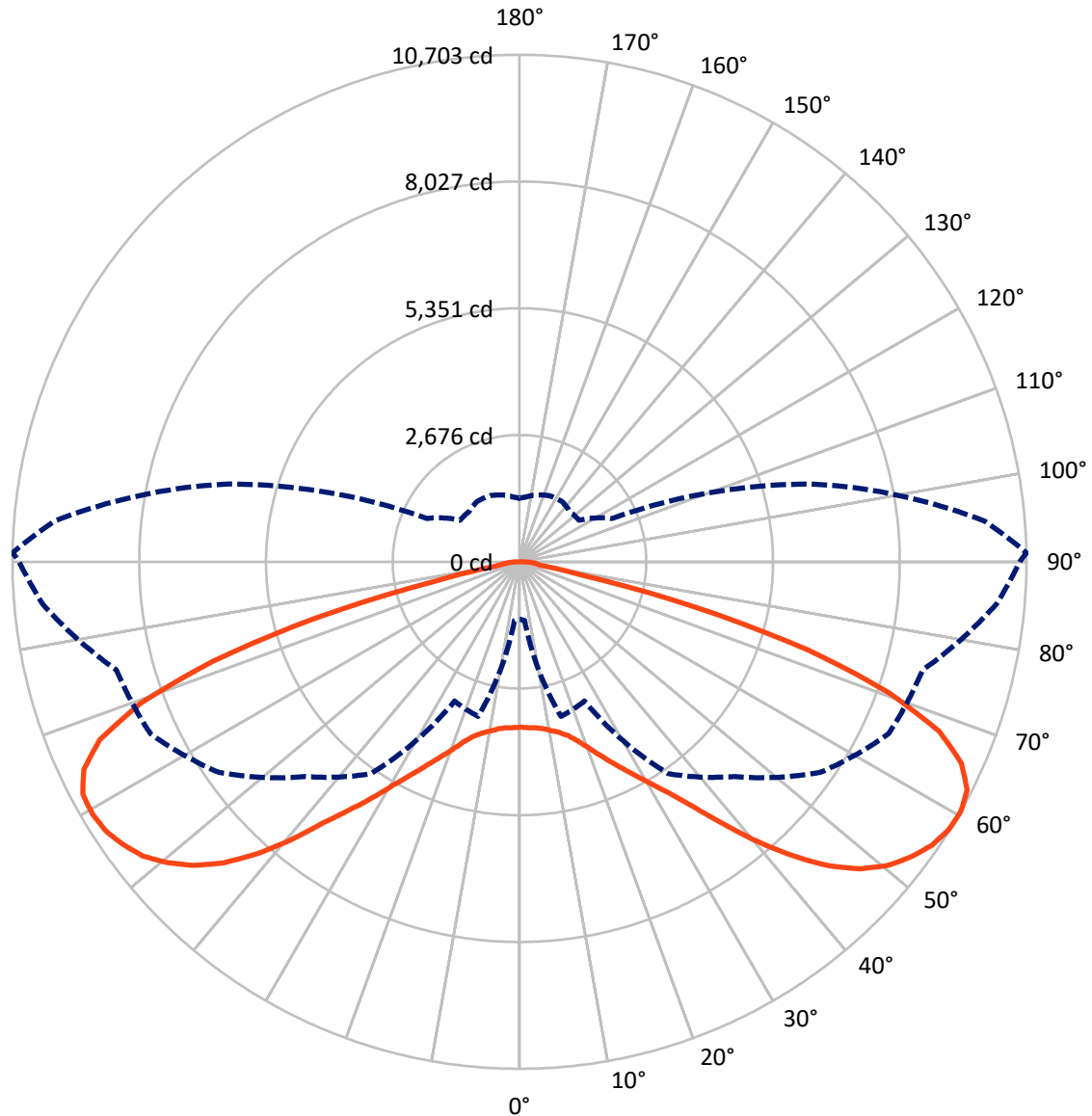
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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

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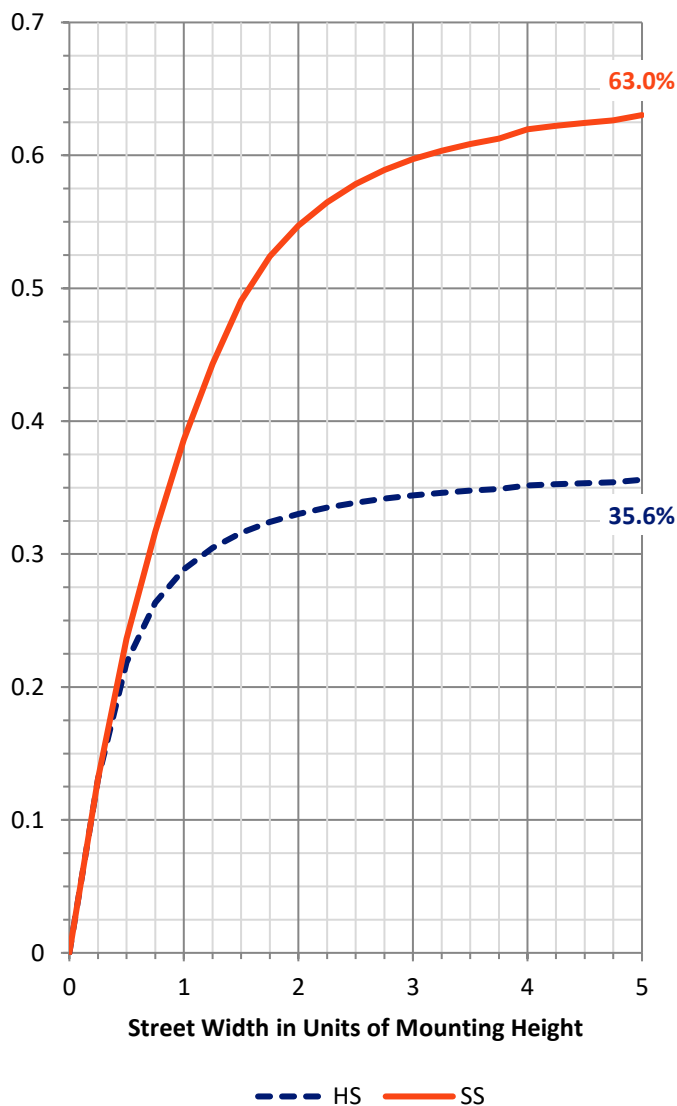
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7793.5	0.0	7793.5
	% Fixture	36.3	0.0	36.3
<b>Street Side</b>	Lumens	13666.5	0.0	13666.5
	% Fixture	63.7	0.0	63.7
<b>Total</b>	Lumens	21460.0	0.0	21460.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	340.3	1.6
10°-20°	1043.6	4.9
20°-30°	1710.8	8.0
30°-40°	2416.1	11.3
40°-50°	3401.2	15.8
50°-60°	4279.7	19.9
60°-70°	4307.9	20.1
70°-80°	3169.2	14.8
80°-90°	791.1	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°	21460.0	100.0
0°-180°	21460.0	100.0

**Coefficient of Utilization**



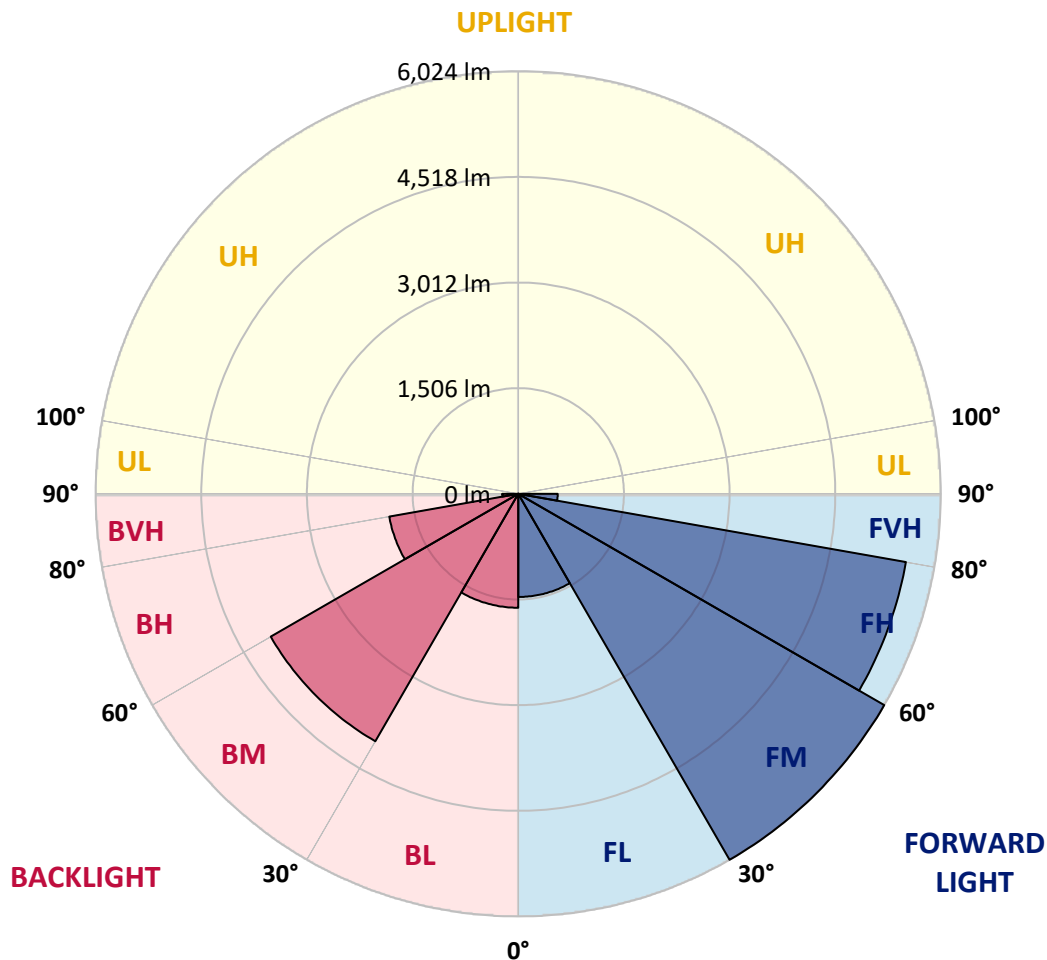
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1470.3	6.9			
FM (30°-60°)	6023.8	28.1			
FH (60°-80°)	5610.5	26.1			G3/7500
FVH (80°-90°)	561.9	2.6			G4/750
BL (0°-30°)	1624.4	7.6	B3/2500		
BM (30°-60°)	4073.3	19.0	B3/5000		
BH (60°-80°)	1866.5	8.7	B3/2500		G3/2500
BVH (80°-90°)	229.2	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2
2.5°	3455.7	3433.7	3434.8	3467.2	3418.1	3449.4	3442.1	3492.3	3482.9	3500.7	3504.8
5°	3431.6	3413.9	3413.9	3452.6	3419.1	3446.3	3423.3	3467.2	3482.9	3509.0	3514.2
7.5°	3441.1	3422.2	3429.6	3463.0	3425.4	3453.6	3451.5	3490.2	3499.6	3543.5	3549.8
10°	3457.8	3441.1	3443.1	3471.4	3446.3	3498.6	3489.2	3544.6	3543.5	3612.5	3617.8
12.5°	3428.5	3416.0	3416.0	3453.6	3468.2	3523.7	3542.5	3600.0	3606.3	3683.6	3689.9
15°	3382.5	3361.6	3393.0	3449.4	3479.7	3566.5	3598.9	3689.9	3706.6	3779.8	3795.5
17.5°	3286.3	3295.7	3383.5	3343.8	3205.8	3334.4	3691.0	3807.0	3843.6	3930.4	3968.0
20°	2988.3	2872.3	2642.2	2705.0	2989.4	3356.4	3819.6	3955.5	4036.0	4138.5	4202.2
22.5°	2257.4	2330.6	2760.4	2805.3	2817.9	3062.5	3999.4	4137.4	4244.1	4373.7	4458.4
25°	2341.1	2333.8	2481.2	2942.3	2954.9	3095.0	3765.2	4374.8	4471.0	4650.8	4735.5
27.5°	2418.5	2418.5	2410.1	2778.1	3097.1	3235.1	3887.5	4200.2	4769.0	4964.5	5063.8
30°	2547.1	2551.3	2504.2	2503.2	3214.2	3363.7	4123.8	4278.6	5032.5	5402.6	5425.6
32.5°	2802.2	2787.6	2729.0	2639.1	2780.2	3513.2	4354.9	4561.9	4778.4	5895.1	5874.2
35°	2986.2	2974.7	2932.9	2870.2	2805.3	3581.2	4571.3	4858.9	5213.3	6040.4	6441.9
37.5°	3208.9	3190.1	3143.1	3068.8	3027.0	3091.8	4794.1	5194.5	5757.1	6212.9	7082.9
40°	3452.6	3447.3	3375.2	3279.0	3221.5	3269.6	4964.5	5612.8	6431.5	6945.9	7789.7
42.5°	3639.7	3635.5	3575.9	3520.5	3493.3	3590.6	4541.0	6166.9	7203.1	7611.9	8470.4
45°	3808.1	3801.8	3799.7	3780.9	3802.8	4039.1	5005.3	6508.8	7961.2	8184.9	9089.4
47.5°	3935.6	3916.8	3863.5	3868.7	3930.4	4328.8	5488.3	5993.4	8576.0	8689.9	9572.4
50°	4238.8	4220.0	4036.0	4042.3	4161.5	4688.5	5904.5	6590.4	8004.0	9127.0	9942.6
52.5°	4509.7	4353.9	4253.5	4257.7	4420.8	5071.1	6377.1	7208.3	7868.1	9473.1	10241.6
55°	3894.8	3794.5	4771.1	4635.1	4725.0	5488.3	6836.1	7743.7	8241.4	9737.6	10413.1
57.5°	2285.7	2273.1	5251.0	5369.1	5264.6	5939.0	7300.3	8189.1	8568.7	9984.4	10528.1
60°	1212.9	1242.2	3377.3	3245.5	5457.0	6409.5	7750.0	8593.8	8811.2	10112.0	10559.5
62.5°	111.9	99.3	2219.8	2522.0	4891.3	7024.3	8283.2	9005.7	8975.4	10179.9	10504.1
65°	22.0	29.3	2178.0	2491.7	5435.0	8043.8	9154.2	9322.5	9064.3	10098.4	10213.4
67.5°	16.7	25.1	2057.7	2464.5	5768.6	8435.9	10156.9	9434.4	9069.5	9838.0	9573.5
70°	16.7	26.1	1816.2	2303.4	5926.4	8452.6	10394.3	9390.5	8952.4	9248.3	8367.9
72.5°	16.7	26.1	1525.5	1996.0	5657.7	8089.8	9978.1	9146.9	8516.4	7963.3	6526.6
75°	16.7	24.0	1197.2	1621.7	4890.3	7530.4	9264.0	8086.6	7168.6	5827.1	4187.6
77.5°	16.7	23.0	882.5	1269.4	4081.0	6641.6	8056.3	6646.9	5403.6	3051.0	1541.2
80°	15.7	23.0	537.4	895.0	3144.1	5357.6	6331.1	4911.2	2839.8	767.5	445.4
82.5°	15.7	22.0	256.2	573.0	2209.3	3827.9	4131.1	2103.7	604.4	354.5	354.5
85°	13.6	19.9	137.0	311.6	1444.0	2509.4	1992.9	356.5	236.3	239.4	272.9
87.5°	8.4	10.5	64.8	140.1	832.3	1341.5	767.5	130.7	98.3	103.5	154.7
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):**

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2	3490.2
2.5°	3508.0	3502.7	3514.2	3550.8	3544.6	3570.7	3549.8	3586.4	3593.7	3583.3	3600.0
5°	3519.5	3526.8	3565.5	3600.0	3581.2	3623.0	3634.5	3685.7	3684.7	3675.3	3696.2
7.5°	3557.1	3577.0	3615.7	3658.5	3667.9	3701.4	3697.2	3762.1	3754.7	3750.6	3771.5
10°	3621.9	3652.3	3688.9	3760.0	3737.0	3793.4	3754.7	3798.6	3794.5	3784.0	3802.8
12.5°	3694.1	3735.9	3779.8	3844.7	3835.2	3834.2	3799.7	3813.3	3801.8	3776.7	3792.4
15°	3802.8	3854.1	3914.7	3956.5	3901.1	3880.2	3825.8	3796.6	3756.8	3698.3	3707.7
17.5°	3972.2	4032.9	4097.7	4105.0	4019.3	3964.9	3833.2	3728.6	3625.1	3546.7	3554.0
20°	4200.2	4255.6	4303.7	4269.2	4153.1	4031.8	3833.2	3667.9	3474.5	3330.2	3319.8
22.5°	4466.8	4483.5	4529.5	4444.8	4245.1	4075.7	3822.7	3577.0	3262.3	3069.9	3046.9
25°	4754.3	4752.2	4732.4	4556.7	4302.6	4051.7	3743.2	3421.2	3019.7	2818.9	2802.2
27.5°	5067.0	5040.8	4904.9	4650.8	4278.6	3964.9	3592.7	3158.7	2799.1	2626.5	2621.3
30°	5419.3	5350.3	5075.3	4660.2	4188.7	3793.4	3348.0	2894.2	2602.5	2448.8	2434.1
32.5°	5830.2	5695.4	5211.2	4629.9	4026.6	3532.0	3050.0	2686.1	2441.5	2273.1	2240.7
35°	6366.6	6130.3	5336.7	4530.6	3786.1	3221.5	2775.0	2501.1	2291.9	2119.4	2084.9
37.5°	7041.0	6693.9	5526.0	4385.2	3511.1	2944.4	2584.7	2378.7	2188.4	1984.5	1942.7
40°	7789.7	7356.8	5747.6	4244.1	3249.7	2738.4	2460.3	2321.2	2121.5	1897.8	1858.0
42.5°	8498.6	8023.9	6080.1	4061.1	3000.9	2573.2	2415.3	2304.5	2090.1	1860.1	1817.2
45°	9153.1	8610.5	6423.1	3877.1	2747.8	2438.3	2377.7	2255.3	2042.0	1816.2	1767.1
47.5°	9687.4	9072.6	6726.3	3686.8	2525.1	2332.7	2305.5	2161.2	1957.4	1745.1	1699.1
50°	10075.4	9427.1	6904.1	3510.1	2310.8	2227.1	2179.0	2027.4	1838.2	1661.5	1628.0
52.5°	10350.4	9733.5	6992.9	3490.2	2116.3	2084.9	2031.6	1889.4	1737.8	1600.8	1561.1
55°	10562.6	9900.7	6916.6	3374.1	1932.3	1906.1	1850.7	1762.9	1671.9	1544.3	1518.2
57.5°	10677.6	9977.1	6742.0	2846.1	1736.7	1691.8	1684.5	1665.6	1586.2	1459.7	1439.8
60°	10702.7	9855.8	6346.8	2164.4	1531.8	1502.5	1557.9	1533.9	1462.8	1368.7	1340.5
62.5°	10604.4	9596.5	5597.1	1618.6	1361.4	1409.5	1465.9	1429.3	1346.7	1254.7	1236.9
65°	10250.0	9001.5	4510.7	1259.9	1282.9	1365.5	1415.7	1371.8	1271.4	1166.9	1155.4
67.5°	9556.7	8075.1	2969.5	1133.4	1246.4	1329.0	1385.4	1315.4	1213.9	1101.0	1087.4
70°	8257.1	6383.4	1414.7	1057.1	1176.3	1257.9	1302.8	1223.3	1125.1	1014.2	999.6
72.5°	6377.1	4338.2	781.1	973.4	1089.5	1164.8	1197.2	1103.1	1012.1	966.1	961.9
75°	3838.4	1864.3	705.8	890.8	977.6	1047.7	1105.2	1034.1	954.6	864.7	841.7
77.5°	1267.3	541.6	664.0	792.6	890.8	975.5	1002.7	933.7	834.4	758.1	751.8
80°	444.4	453.8	619.0	659.8	775.8	846.9	877.3	797.8	750.7	671.3	655.6
82.5°	361.8	406.7	499.8	497.7	612.7	696.4	742.4	722.5	660.8	597.0	590.8
85°	295.9	372.2	316.8	348.2	439.2	530.1	617.9	620.0	573.0	508.2	465.3
87.5°	175.7	190.3	157.9	177.8	232.1	298.0	345.0	329.4	269.8	227.9	222.7
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)