

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: P591299

Luminaire Tested: **CTN-CA10-310-730-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591299  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-730-U-T1-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27679 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B5 - U0 - G5

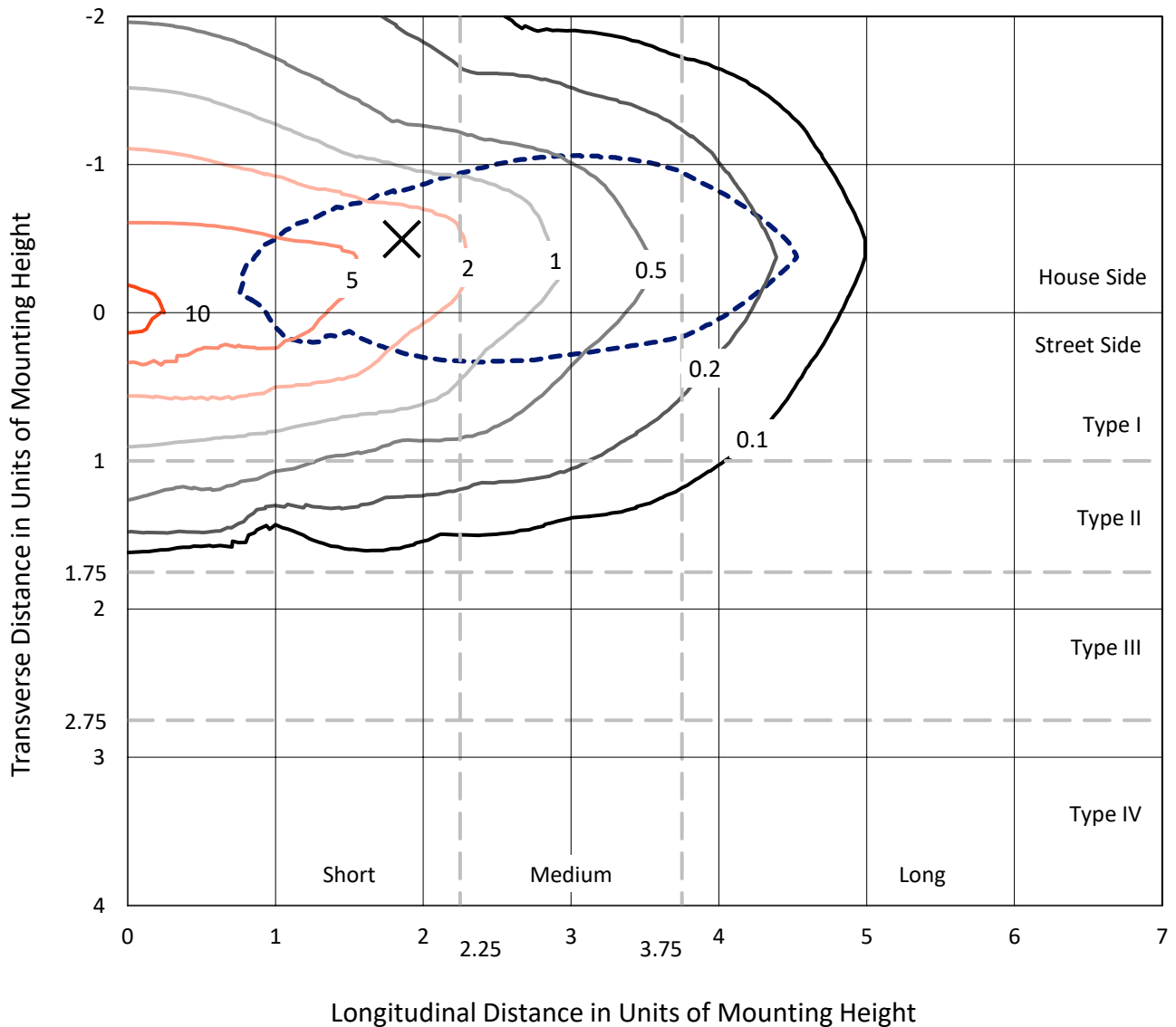
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

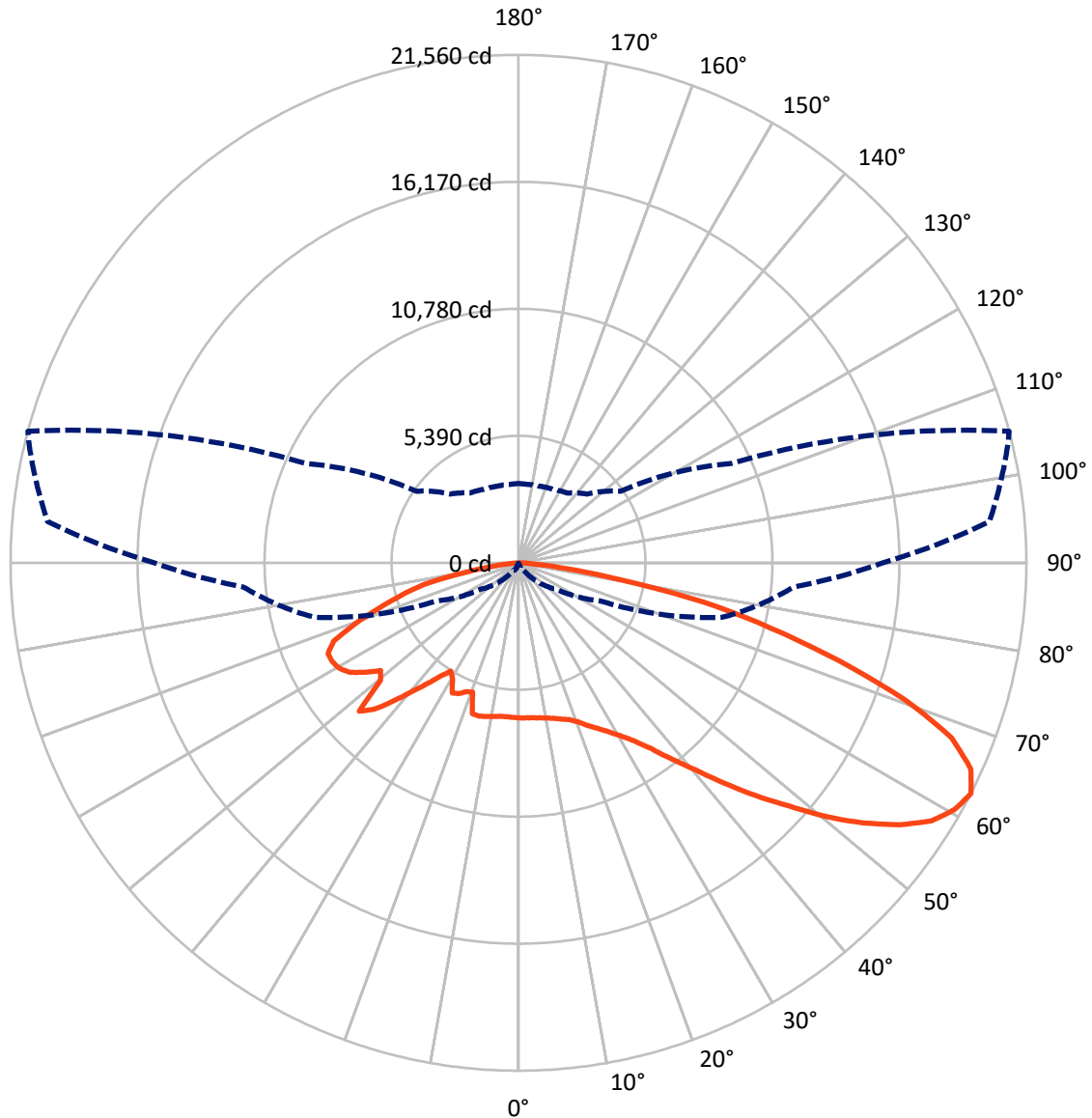
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 105-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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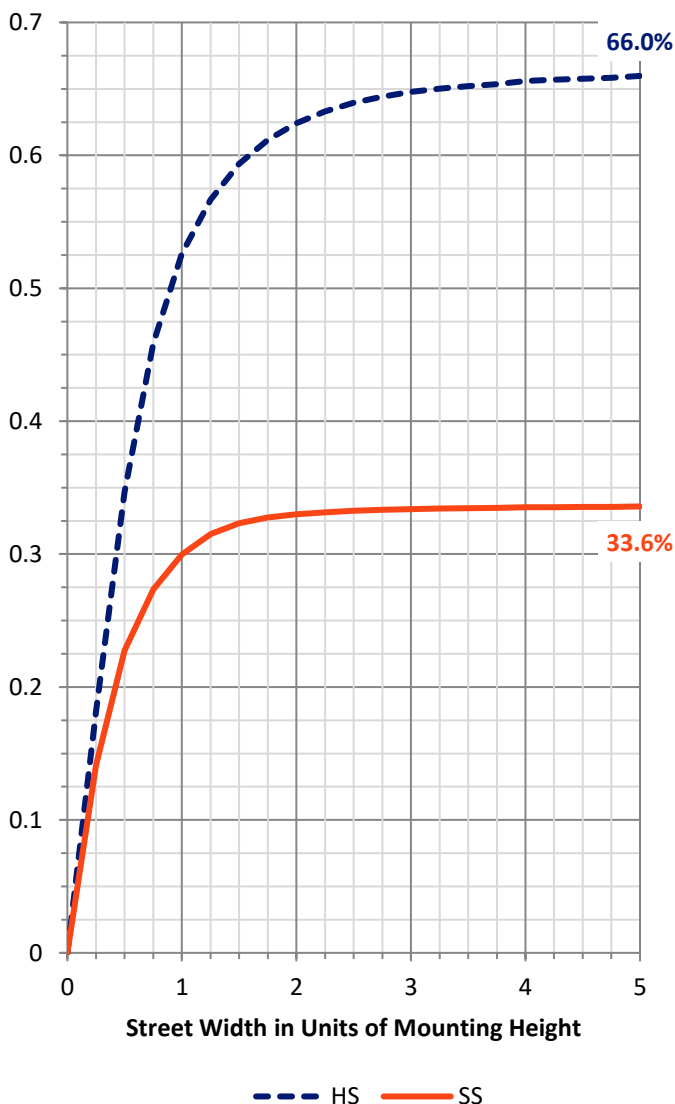
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18417.3	0.0	18417.3
	% Fixture	66.5	0.0	66.5
<b>Street Side</b>	Lumens	9261.7	0.0	9261.7
	% Fixture	33.5	0.0	33.5
<b>Total</b>	Lumens	27679.0	0.0	27679.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	628.3	2.3
10°-20°	1774.5	6.4
20°-30°	2500.9	9.0
30°-40°	3397.8	12.3
40°-50°	4622.3	16.7
50°-60°	5476.0	19.8
60°-70°	5369.9	19.4
70°-80°	3386.8	12.2
80°-90°	522.4	1.9
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°	27679.0	100.0
0°-180°	27679.0	100.0

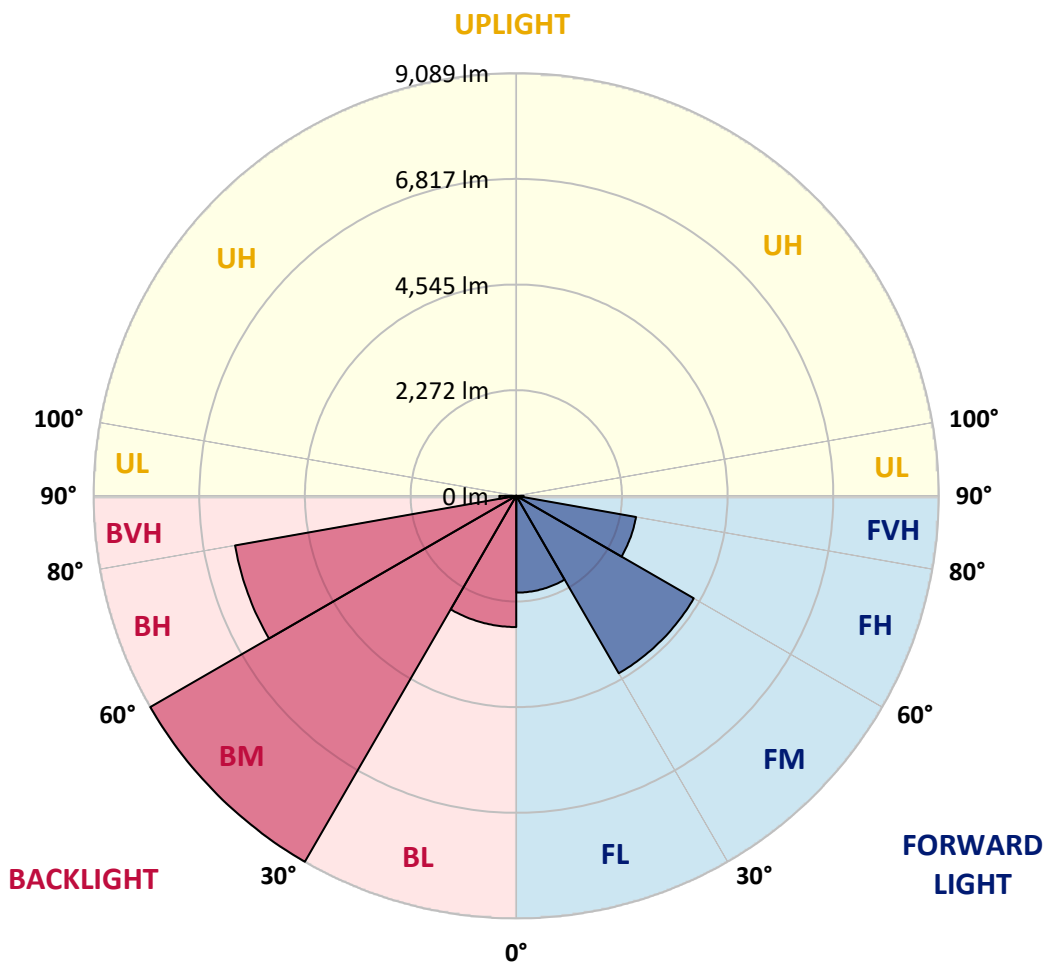


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2081.9	7.5			
FM (30°-60°)	4407.2	15.9			
FH (60°-80°)	2615.0	9.4			G2/5000
FVH (80°-90°)	157.6	0.6			G2/225
BL (0°-30°)	2821.7	10.2	B4/5000		
BM (30°-60°)	9089.0	32.8	B5		
BH (60°-80°)	6141.7	22.2	B5		G5
BVH (80°-90°)	364.8	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**  
 Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4
2.5°	6588.8	6537.3	6574.1	6630.0	6546.2	6594.7	6513.8	6580.0	6563.8	6568.2	6599.1
5°	6537.3	6482.9	6527.0	6600.6	6518.2	6572.6	6506.5	6562.3	6556.5	6577.0	6602.0
7.5°	6488.8	6437.4	6482.9	6531.5	6488.8	6541.7	6491.8	6560.9	6565.3	6610.9	6631.4
10°	6437.4	6385.9	6430.0	6485.9	6450.6	6516.8	6496.2	6580.0	6612.3	6672.6	6690.3
12.5°	6324.1	6278.6	6315.3	6380.0	6385.9	6482.9	6496.2	6625.6	6665.3	6744.7	6771.1
15°	5643.3	5693.3	5888.9	6077.1	6158.0	6337.4	6435.9	6666.7	6722.6	6835.8	6877.0
17.5°	4565.5	4471.4	4167.1	4246.5	4693.5	5296.3	5524.2	6097.7	6703.5	6950.5	7003.5
20°	2698.2	2890.8	3486.3	3668.6	3833.3	4481.7	5247.8	5588.9	5821.3	6699.1	7177.0
22.5°	2224.7	2237.9	2664.3	3505.4	3690.7	3945.0	4537.6	5661.0	5900.7	6075.6	6607.9
25°	2063.0	2076.2	2149.7	2799.6	3589.2	3883.3	4143.5	5174.3	6105.0	6321.2	6737.3
27.5°	1933.6	1951.2	2018.8	2201.2	3346.6	3865.6	4195.0	4589.1	6196.2	6612.3	7002.0
30°	1836.5	1843.9	1913.0	2089.4	2530.5	3870.1	4270.0	4690.5	5675.7	6981.4	7372.5
32.5°	1748.3	1752.7	1824.7	1996.8	2262.9	3584.8	4383.2	4902.3	5419.8	7284.3	7881.3
35°	1680.7	1677.7	1742.4	1911.5	2176.2	2745.2	4509.7	5156.6	5828.6	6997.6	8640.0
37.5°	1616.0	1611.5	1667.4	1823.3	2099.7	2570.2	4362.6	5462.5	6415.3	7215.2	8578.2
40°	1566.0	1557.1	1604.2	1743.9	2020.3	2526.1	3436.3	5786.0	7059.3	8337.1	9097.3
42.5°	1521.8	1516.0	1555.7	1667.4	1939.4	2473.2	3202.5	5960.9	7860.7	9634.0	10439.7
45°	1455.7	1464.5	1508.6	1616.0	1852.7	2398.2	3226.0	4787.6	8709.1	10758.8	11777.8
47.5°	1427.7	1426.3	1454.2	1555.7	1777.7	2293.8	3209.9	4390.6	9242.8	11936.6	13087.9
50°	1383.6	1376.3	1199.8	1485.1	1701.2	2164.4	3142.2	4505.3	7691.6	13092.3	14290.7
52.5°	1301.3	1157.2	1049.9	1435.1	1623.3	2023.3	2990.8	4555.3	7426.9	12886.5	15324.4
55°	691.1	770.5	994.0	1364.5	1532.1	1896.8	2768.7	4520.0	7998.9	10304.5	14226.0
57.5°	613.2	610.2	632.3	1077.8	798.4	1758.6	2501.1	4358.2	8540.0	10775.0	14492.1
60°	48.5	50.0	58.8	358.8	423.5	1238.1	2212.9	4158.3	8826.7	11330.8	15137.6
62.5°	23.5	26.5	35.3	320.5	386.7	1126.3	1952.7	3817.1	8947.3	11732.2	15456.7
65°	5.9	7.4	16.2	282.3	336.7	1002.8	1690.9	3417.2	8957.6	11748.4	15714.0
67.5°	4.4	7.4	16.2	255.8	307.3	894.0	1461.6	3137.8	8519.4	11688.1	15584.6
70°	4.4	7.4	16.2	229.4	277.9	774.9	1258.7	2864.3	7400.5	11463.1	15145.0
72.5°	4.4	8.8	16.2	201.4	244.1	657.3	1069.0	2562.9	6210.9	10523.6	14165.7
75°	4.4	8.8	17.6	163.2	208.8	523.5	877.8	2195.3	5165.5	9125.2	12542.4
77.5°	4.4	8.8	17.6	126.5	169.1	391.1	664.6	1739.5	4121.5	6730.0	8812.0
80°	4.4	8.8	17.6	89.7	138.2	275.0	483.8	1186.6	2458.5	3537.7	4487.6
82.5°	4.4	8.8	17.6	64.7	100.0	198.5	298.5	585.2	1173.4	1698.3	2130.6
85°	2.9	7.4	16.2	42.6	52.9	120.6	177.9	260.3	351.4	464.6	627.9
87.5°	2.9	4.4	10.3	16.2	22.1	42.6	66.2	58.8	66.2	138.2	198.5
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):**

	95°	104°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4	6584.4
2.5°	6594.7	6588.8	6590.3	6622.6	6594.7	6600.6	6552.0	6649.1	6640.3	6627.0	6665.3
5°	6602.0	6599.1	6610.9	6638.8	6596.2	6603.5	6557.9	6671.1	6643.2	6638.8	6684.4
7.5°	6638.8	6634.4	6646.1	6659.4	6612.3	6612.3	6572.6	6662.3	6646.1	6616.7	6668.2
10°	6705.0	6688.8	6700.6	6707.9	6635.9	6632.9	6559.4	6665.3	6624.1	6609.4	6675.6
12.5°	6797.6	6760.8	6778.5	6766.7	6671.1	6653.5	6555.0	6624.1	6572.6	6563.8	6624.1
15°	6922.6	6874.1	6887.3	6865.2	6744.7	6693.2	6534.4	6563.8	6481.5	6474.1	6518.2
17.5°	7038.7	7009.3	7002.0	7002.0	6860.8	6732.9	6515.3	6474.1	6365.3	6358.0	6380.0
20°	7249.0	7209.3	7204.9	7169.6	6960.8	6765.2	6484.4	6358.0	6196.2	6159.4	6200.6
22.5°	7316.6	7509.3	7496.0	7340.2	7044.6	6791.7	6421.2	6212.4	5990.4	5919.8	5940.4
25°	7518.1	7807.8	7784.2	7557.8	7129.9	6806.4	6344.7	6052.1	5746.3	5622.8	5627.2
27.5°	7837.2	8132.7	8116.5	7790.1	7235.8	6810.8	6259.4	5883.0	5503.7	5341.9	5355.1
30°	8243.0	8541.5	8517.9	8048.9	7396.0	6819.7	6194.7	5680.1	5281.6	5106.7	5103.7
32.5°	8807.6	9078.2	9009.1	8394.4	7588.7	6856.4	6109.5	5487.5	5078.7	4894.9	4880.2
35°	9660.4	9760.4	9675.1	8806.1	7793.0	6879.9	5972.7	5299.3	4890.5	4709.6	4696.4
37.5°	10813.2	10689.7	10575.0	9269.3	8004.8	6874.1	5799.2	5116.9	4728.8	4556.7	4556.7
40°	10926.4	11757.2	11545.5	9757.5	8195.9	6841.7	5634.5	4939.0	4597.9	4458.2	4480.3
42.5°	11457.3	13064.4	12767.4	10229.5	8334.2	6747.6	5458.1	4777.3	4475.9	4362.6	4371.5
45°	12761.5	14253.9	14080.4	10685.3	8409.1	6581.4	5253.7	4618.5	4339.1	4249.4	4267.1
47.5°	14164.2	15668.4	15414.1	11105.8	8368.0	6335.9	5036.1	4472.9	4196.5	4139.1	4171.5
50°	15490.5	17156.5	16944.7	11401.4	8185.6	5991.8	4803.8	4318.5	4084.7	4039.2	4055.3
52.5°	16791.8	18507.8	18349.0	11561.6	7821.0	5631.6	4589.1	4171.5	3980.3	3923.0	3945.0
55°	17865.2	19788.5	19634.1	11545.5	7272.5	5255.2	4375.9	4012.7	3874.5	3823.0	3840.6
57.5°	18703.3	20785.4	20675.1	11299.9	6634.4	4909.6	4134.7	3856.8	3734.8	3689.2	3703.9
60°	19453.2	21417.6	21275.0	10757.3	5958.0	4528.8	3886.2	3671.6	3570.1	3533.3	3556.9
62.5°	20067.8	21430.9	21560.3	9972.2	5294.9	4125.9	3609.8	3443.6	3370.1	3348.1	3362.8
65°	20225.2	21036.8	21100.0	9001.7	4622.9	3726.0	3277.5	3168.7	3137.8	3124.6	3154.0
67.5°	20007.5	20206.1	19829.6	8181.2	4009.7	3273.1	2918.7	2851.1	2870.2	2873.1	2911.4
70°	19445.9	17982.8	17402.0	7494.6	3437.8	2771.7	2524.7	2502.6	2554.1	2596.7	2624.6
72.5°	18013.7	14764.2	14211.3	6524.1	2709.9	2121.8	1988.0	2058.5	2040.9	2060.0	2110.0
75°	15508.2	11395.5	11052.9	5309.6	2064.4	1542.4	1363.0	1370.4	1392.5	1489.5	1542.4
77.5°	11047.0	8195.9	8043.0	4073.0	1367.5	907.2	938.1	1042.5	1073.4	1076.3	1113.1
80°	5853.6	4568.5	4361.2	2399.7	904.3	648.4	705.8	751.4	792.5	835.2	845.5
82.5°	2637.9	2065.9	2008.5	1192.5	573.5	499.9	513.2	591.1	624.9	632.3	639.6
85°	1024.9	713.1	679.3	495.5	376.4	338.2	374.9	454.3	486.7	472.0	467.6
87.5°	273.5	167.6	152.9	166.2	176.4	186.7	213.2	242.6	277.9	267.6	258.8
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)