

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: P591432

Luminaire Tested: **CTN-CA6-230-740-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591432  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)  
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-T1-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 21897 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G4

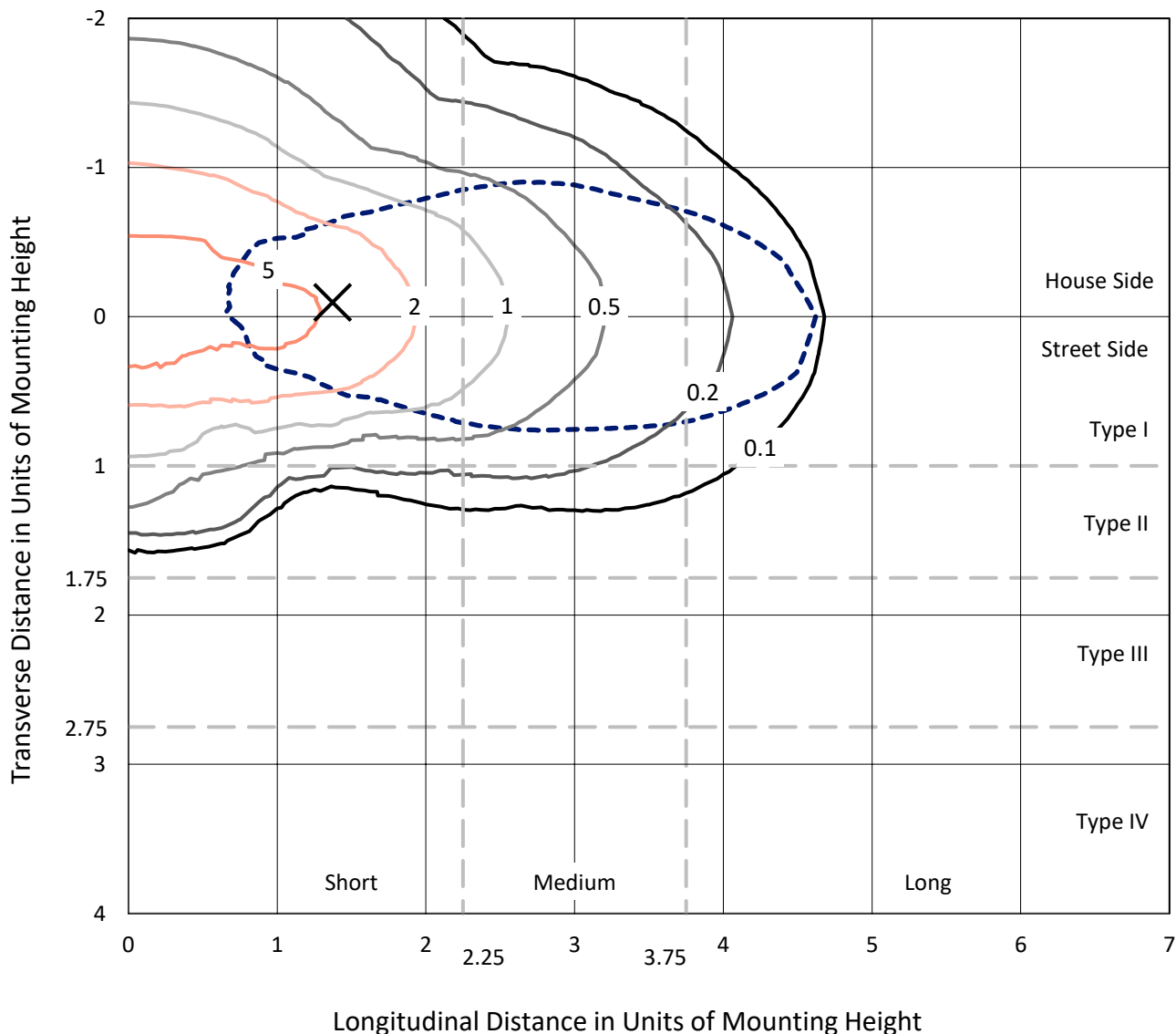
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

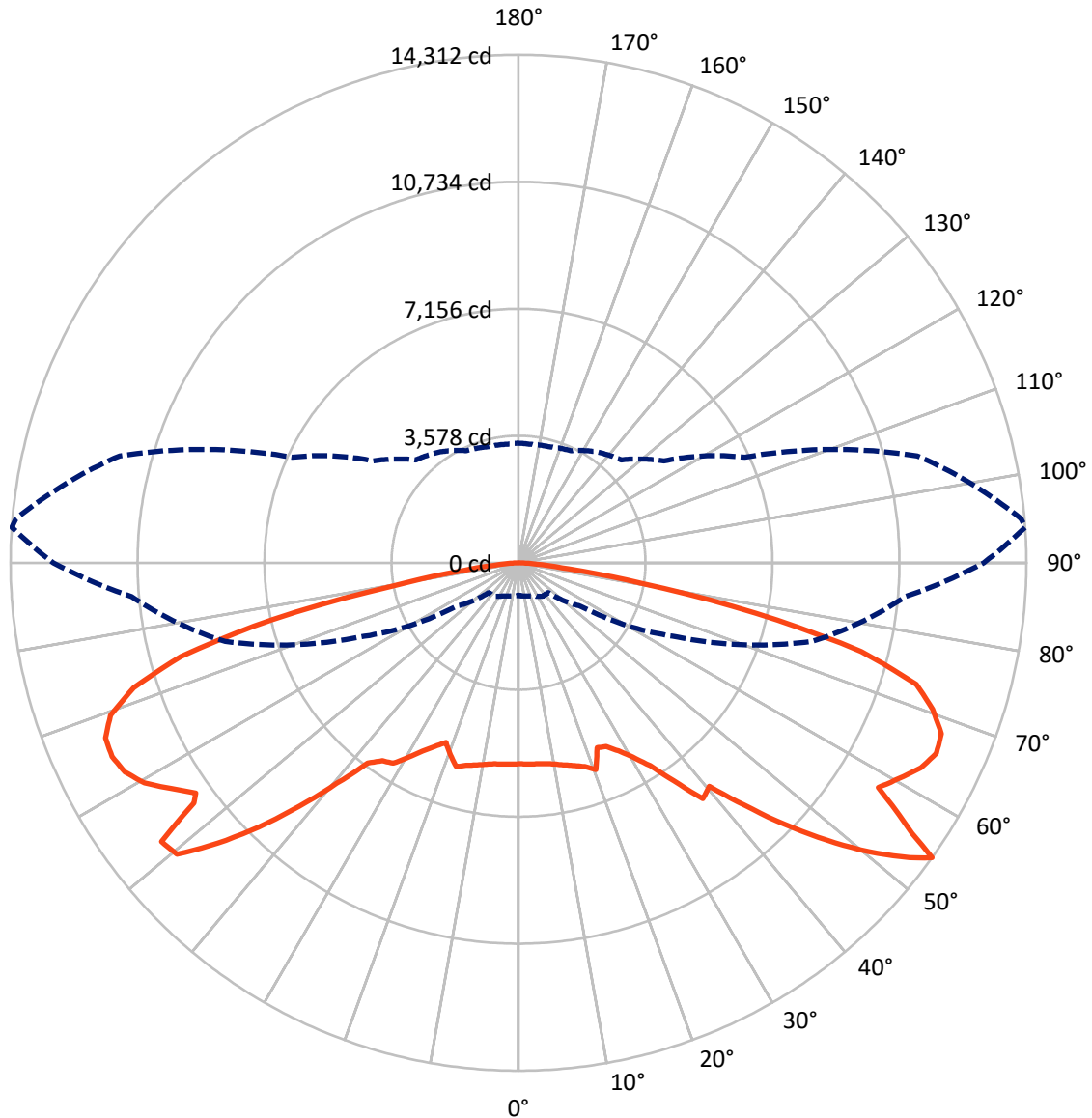
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral      - - - Horizontal Cone Through 54-Deg Vertical

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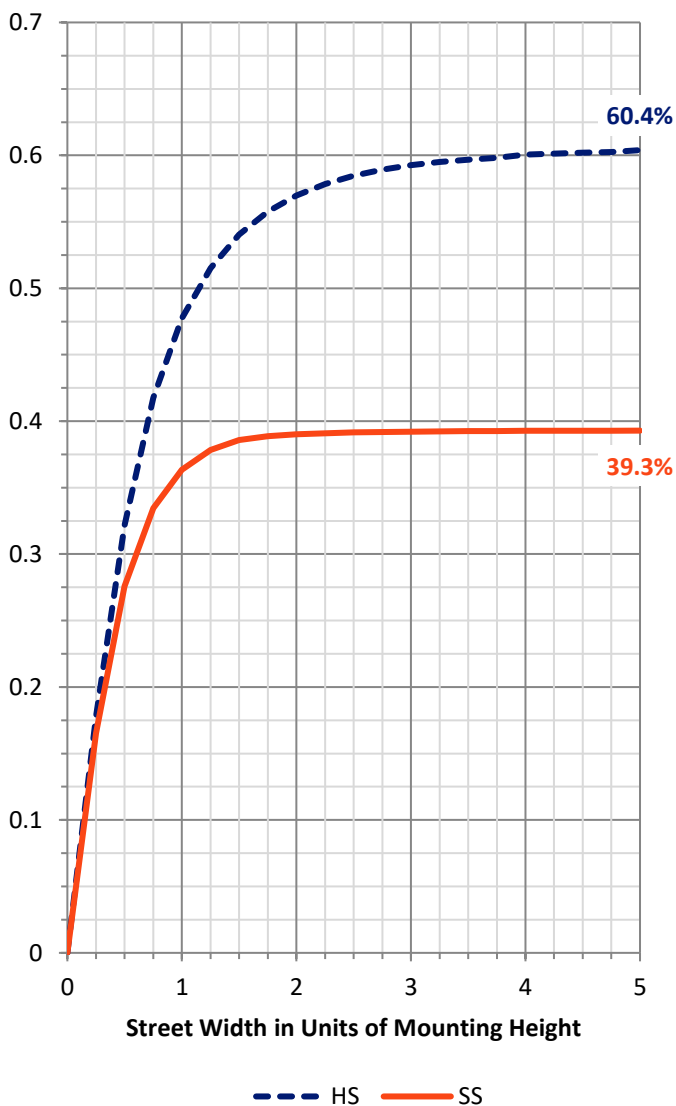
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13337.1	0.0	13337.1
	% Fixture	60.9	0.0	60.9
<b>Street Side</b>	Lumens	8559.9	0.0	8559.9
	% Fixture	39.1	0.0	39.1
<b>Total</b>	Lumens	21897.0	0.0	21897.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	540.3	2.5
10°-20°	1546.1	7.1
20°-30°	2208.3	10.1
30°-40°	2921.8	13.3
40°-50°	3846.3	17.6
50°-60°	4243.6	19.4
60°-70°	3823.8	17.5
70°-80°	2418.3	11.0
80°-90°	348.5	1.6
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°	21897.0	100.0
0°-180°	21897.0	100.0

**Coefficient of Utilization**

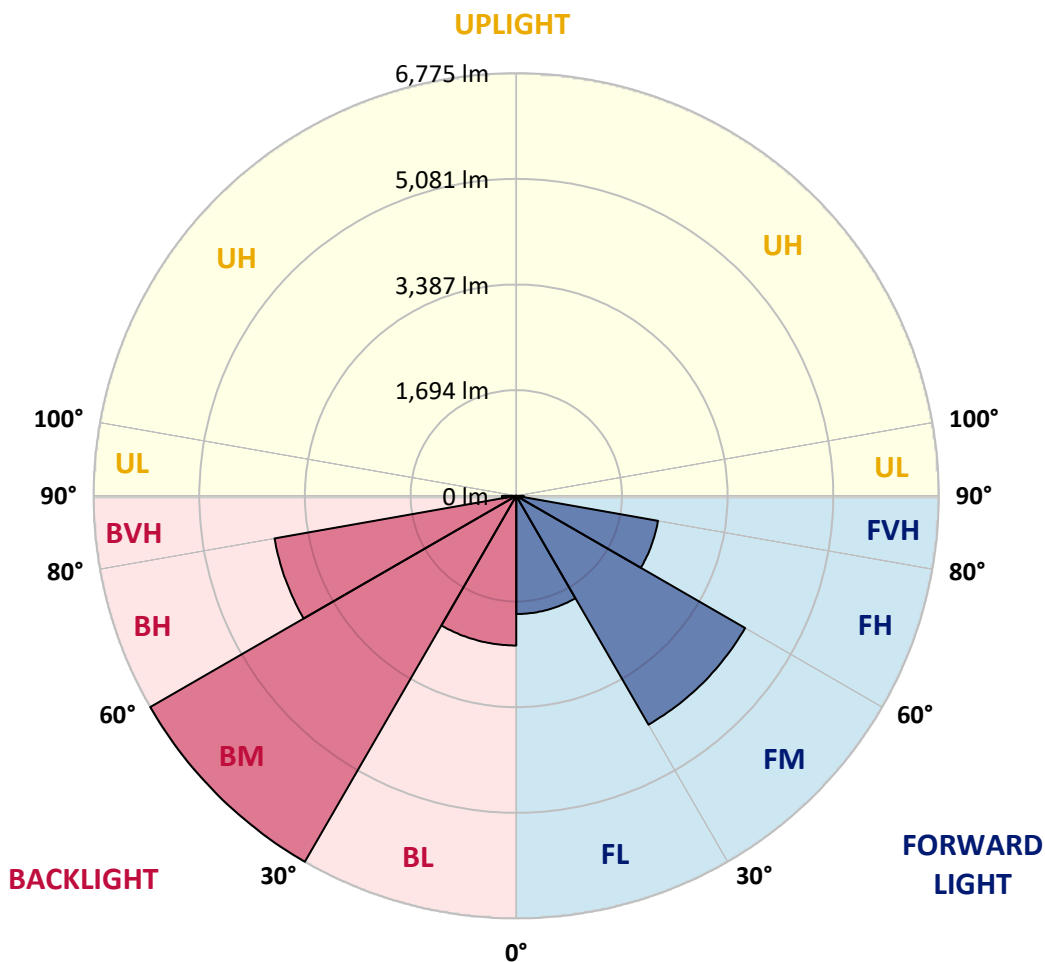


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1895.0	8.7			
FM (30°-60°)	4236.9	19.3			
FH (60°-80°)	2307.4	10.5			G2/5000
FVH (80°-90°)	120.7	0.6			G2/225
BL (0°-30°)	2399.7	11.0	B3/2500		
BM (30°-60°)	6774.9	30.9	B4/8500		
BH (60°-80°)	3934.7	18.0	B4/5000		G4/5000
BVH (80°-90°)	227.8	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0
2.5°	5672.7	5633.3	5638.6	5680.1	5591.7	5647.1	5621.5	5667.3	5649.2	5674.8	5694.0
5°	5622.6	5585.3	5594.9	5646.0	5575.7	5638.6	5602.4	5647.1	5653.5	5684.4	5702.5
7.5°	5581.1	5544.9	5551.3	5599.2	5554.5	5609.8	5588.5	5648.2	5649.2	5703.5	5717.4
10°	5539.5	5502.3	5510.8	5552.3	5523.6	5583.2	5597.0	5667.3	5683.3	5758.9	5760.0
12.5°	5451.2	5418.1	5422.4	5479.9	5481.0	5567.2	5594.9	5703.5	5736.5	5821.7	5830.3
15°	5102.9	5126.4	5215.8	5288.2	5355.3	5471.4	5566.2	5744.0	5788.7	5892.0	5916.5
17.5°	4259.5	4223.3	4028.5	4131.8	4454.4	4763.2	4927.2	5298.9	5715.2	5999.6	6031.5
20°	2987.0	3044.5	3350.1	3490.7	3720.7	4279.8	4793.1	5007.1	5142.3	5656.7	6058.1
22.5°	2369.4	2386.4	2824.1	3349.1	3521.6	3762.2	4371.4	5085.9	5297.8	5446.9	5512.9
25°	2205.4	2218.2	2288.4	2975.3	3446.0	3701.5	3968.8	4898.5	5481.0	5666.3	5745.1
27.5°	2068.0	2081.9	2151.1	2382.2	3376.8	3701.5	4005.0	4434.2	5658.8	5939.9	6007.0
30°	1965.8	1965.8	2037.1	2234.1	2830.5	3713.3	4080.6	4486.4	5381.9	6285.0	6344.6
32.5°	1872.1	1873.1	1950.9	2140.4	2452.4	3663.2	4187.1	4678.0	5166.8	6630.0	6784.4
35°	1787.9	1791.1	1861.4	2053.1	2356.6	2952.9	4305.3	4924.0	5580.0	6591.7	7453.1
37.5°	1716.6	1718.7	1779.4	1966.8	2275.7	2139.4	4382.0	5220.1	6134.8	6933.5	7592.6
40°	1665.5	1662.3	1705.9	1876.3	2157.5	1955.1	3709.0	5527.8	6794.0	8003.7	8248.6
42.5°	1614.4	1609.0	1652.7	1781.6	1475.9	1904.0	3436.4	5828.1	7553.2	9179.3	9397.6
45°	1554.7	1556.9	1599.5	1598.4	1397.1	1835.9	3466.2	5132.8	8365.8	10381.6	10659.5
47.5°	1522.8	1513.2	1534.5	1160.7	1332.2	1742.2	3453.4	4765.4	9082.4	11530.6	11806.4
50°	1463.2	1461.0	1075.5	1100.0	1267.2	1634.6	3253.2	4897.4	8195.4	12595.5	12874.5
52.5°	1373.7	1212.9	997.8	1057.4	1202.3	1507.9	2323.6	4951.7	8173.0	12490.1	13870.2
54°	912.6	935.0	965.9	1027.6	1155.4	1185.2	2125.5	4947.5	8561.7	10941.7	13108.8
55°	522.9	732.6	940.3	1003.1	1122.4	829.5	2048.8	4925.1	8809.8	11008.8	11817.1
57.5°	452.6	454.7	517.5	837.0	576.1	711.3	1831.6	4743.0	9274.1	11625.4	11856.5
60°	39.4	38.3	43.7	59.6	75.6	166.1	922.2	3042.4	8949.3	12154.6	12513.5
62.5°	16.0	17.0	21.3	28.8	45.8	74.5	762.5	2696.3	9086.7	12477.3	12870.2
65°	3.2	3.2	5.3	9.6	17.0	44.7	649.6	2401.3	9016.4	12582.7	13107.7
67.5°	0.0	0.0	3.2	7.5	13.8	36.2	562.3	2209.6	8614.9	12546.5	13019.3
70°	0.0	0.0	3.2	7.5	12.8	35.1	481.3	2039.3	7619.3	12167.4	12691.3
72.5°	0.0	0.0	3.2	6.4	11.7	31.9	412.1	1800.7	6458.5	11254.8	11968.3
75°	0.0	0.0	3.2	6.4	10.6	28.8	347.2	1545.2	5395.8	9700.1	10557.3
77.5°	0.0	0.0	3.2	6.4	9.6	25.6	272.6	1234.2	4237.2	7033.6	7493.6
80°	0.0	0.0	3.2	6.4	8.5	20.2	201.3	779.5	2350.2	3567.4	3756.9
82.5°	0.0	0.0	2.1	5.3	7.5	12.8	95.8	295.0	1107.5	1633.5	1584.6
85°	0.0	0.0	2.1	5.3	6.4	9.6	41.5	74.5	368.5	542.0	504.8
87.5°	0.0	0.0	2.1	4.3	5.3	6.4	10.6	12.8	117.1	156.5	161.9
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°	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0	5662.0
2.5°	5681.2	5681.2	5680.1	5707.8	5672.7	5675.8	5642.8	5728.0	5718.4	5691.8	5723.8
5°	5687.6	5692.9	5691.8	5705.7	5678.0	5695.0	5649.2	5733.4	5719.5	5698.2	5731.2
7.5°	5714.2	5723.8	5716.3	5740.8	5685.4	5702.5	5655.6	5729.1	5715.2	5684.4	5719.5
10°	5771.7	5781.3	5766.4	5778.1	5719.5	5711.0	5653.5	5730.2	5700.3	5676.9	5720.6
12.5°	5846.2	5857.9	5828.1	5826.0	5751.5	5734.4	5651.4	5703.5	5659.9	5640.7	5680.1
15°	5929.3	5943.1	5908.0	5900.5	5818.5	5762.1	5642.8	5654.6	5591.7	5566.2	5607.7
17.5°	6037.9	6050.7	6024.1	6019.8	5913.3	5817.5	5631.1	5592.8	5504.4	5483.1	5505.5
20°	6220.0	6228.5	6193.4	6161.4	6004.9	5847.3	5612.0	5511.9	5376.6	5331.9	5357.4
22.5°	5660.9	5729.1	6420.2	6300.9	6073.1	5878.2	5564.0	5396.8	5207.3	5123.2	5140.2
25°	5734.4	5740.8	6002.8	6466.0	6147.6	5898.4	5507.6	5254.2	4993.3	4870.8	4892.1
27.5°	6000.6	5993.2	5889.9	6484.1	6236.0	5910.1	5437.3	5104.0	4781.3	4634.4	4639.7
30°	6345.7	6333.9	6177.4	5862.2	6362.7	5914.4	5375.5	4931.5	4592.9	4436.3	4432.1
32.5°	6817.4	6784.4	6541.6	6106.1	5827.1	5943.1	5288.2	4767.5	4412.9	4258.5	4246.8
35°	7541.5	7480.8	7038.9	6415.9	5734.4	5943.1	5169.0	4590.7	4246.8	4099.8	4091.3
37.5°	8439.2	8455.2	7674.6	6763.1	5877.1	5386.2	5026.3	4425.7	4103.0	3973.1	3973.1
40°	8278.4	8490.3	8412.6	7118.8	6024.1	5296.7	4872.9	4267.0	3983.7	3884.7	3897.5
42.5°	9340.1	9258.1	9268.8	7475.5	6127.4	5205.2	4706.8	4120.0	3878.3	3794.2	3803.8
45°	10517.9	10425.2	8485.0	7795.0	6175.3	5068.9	4538.5	3968.8	3762.2	3692.0	3717.5
47.5°	11680.7	11597.7	9317.8	7717.2	6130.6	4860.1	4330.9	3837.9	3639.8	3589.7	3628.1
50°	12806.3	12689.2	10215.5	6898.3	5971.9	4571.6	4119.0	3700.5	3533.3	3503.5	3532.2
52.5°	13810.5	13655.0	11124.9	7021.9	5216.9	4279.8	3930.5	3568.4	3436.4	3403.4	3432.1
54°	14312.1	14217.3	11632.8	7035.7	5000.7	4098.8	3817.6	3484.3	3382.1	3354.4	3370.4
55°	13458.0	13647.6	11934.2	7024.0	4844.2	3989.1	3743.1	3428.9	3343.7	3313.9	3329.9
57.5°	11951.2	11746.8	11157.9	6880.2	4418.2	3714.3	3524.8	3288.4	3229.8	3191.5	3213.8
60°	12330.3	12293.1	10185.6	6564.0	3952.9	3406.6	3309.7	3124.4	3085.0	3053.0	3082.8
62.5°	12726.5	12702.0	10341.1	6073.1	3489.6	3104.1	3062.6	2932.7	2909.3	2895.4	2902.9
65°	12940.5	12784.0	10336.9	5416.0	3064.7	2794.3	2787.9	2691.0	2701.6	2695.2	2726.1
67.5°	12850.0	12682.8	9880.0	4942.1	2665.4	2440.7	2461.0	2420.5	2459.9	2471.6	2495.0
70°	12377.2	12431.5	8884.4	4485.3	2268.2	2055.2	2119.1	2113.8	2171.3	2216.0	2253.3
72.5°	11723.3	11514.6	7446.8	3812.3	1660.2	1462.1	1572.8	1647.4	1711.3	1764.5	1799.7
75°	9978.0	9733.1	5498.0	2972.1	1202.3	1008.4	1038.3	1071.3	1112.8	1235.3	1307.7
77.5°	6840.8	6738.6	3953.9	2241.6	765.7	608.1	724.1	790.1	825.3	820.0	832.7
80°	3507.7	3489.6	2340.6	1340.7	516.5	445.1	527.1	533.5	589.9	633.6	635.7
82.5°	1414.2	1484.5	935.0	734.8	358.9	336.5	371.6	418.5	466.4	492.0	498.4
85°	500.5	488.8	284.3	345.0	227.9	235.3	263.0	316.3	366.3	372.7	358.9
87.5°	134.2	139.5	60.7	126.7	124.6	136.3	151.2	172.5	208.7	219.4	208.7
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)