

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: P591050

Luminaire Tested: **CTN-CA8-230-740-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P591050  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 12/14/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-230-740-U-T3-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32630 lumens  
Efficiency: N/A  
Efficacy: 142.9 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

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

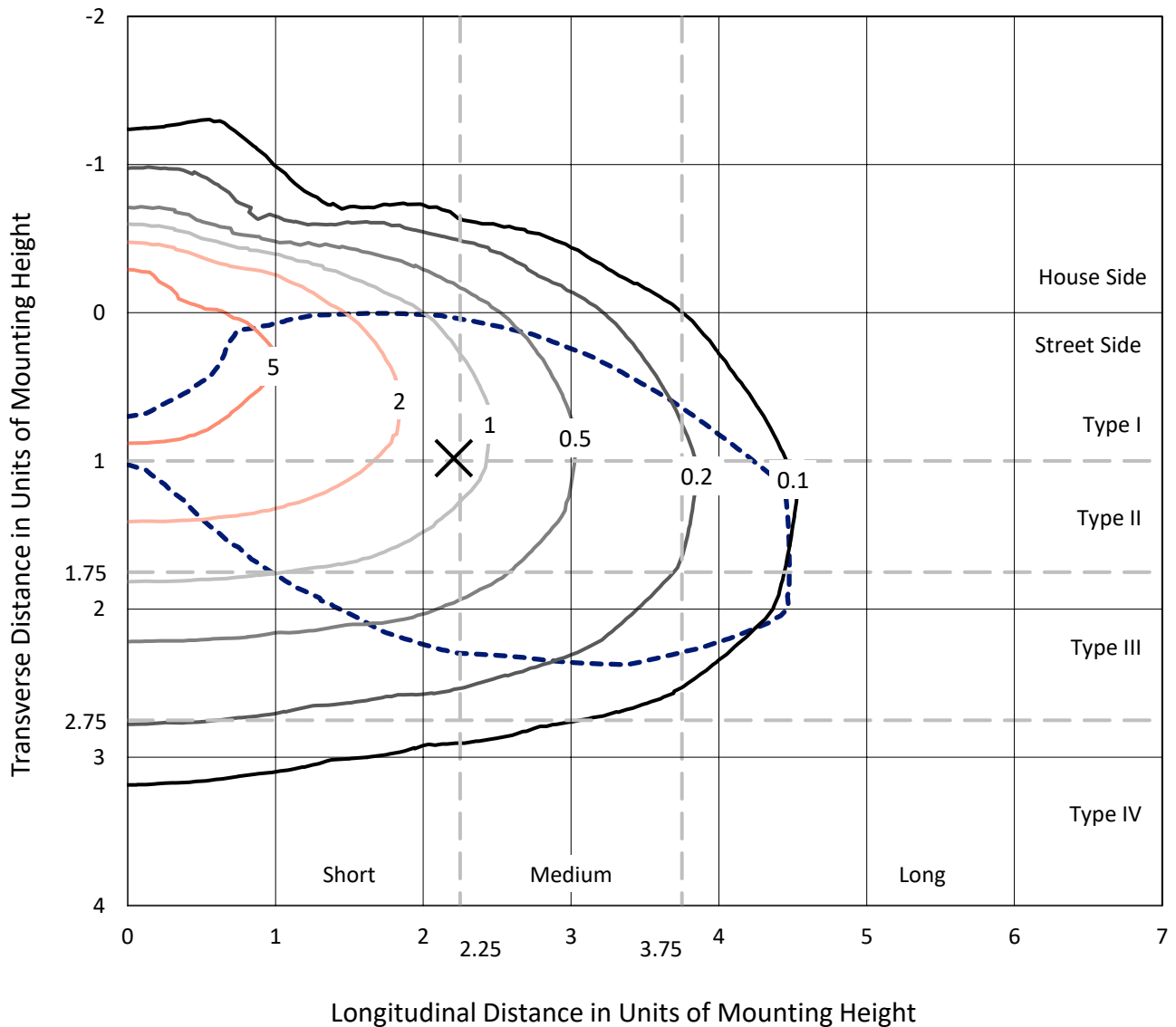




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### Iso-Footcandle Lines of Horizontal Illumination

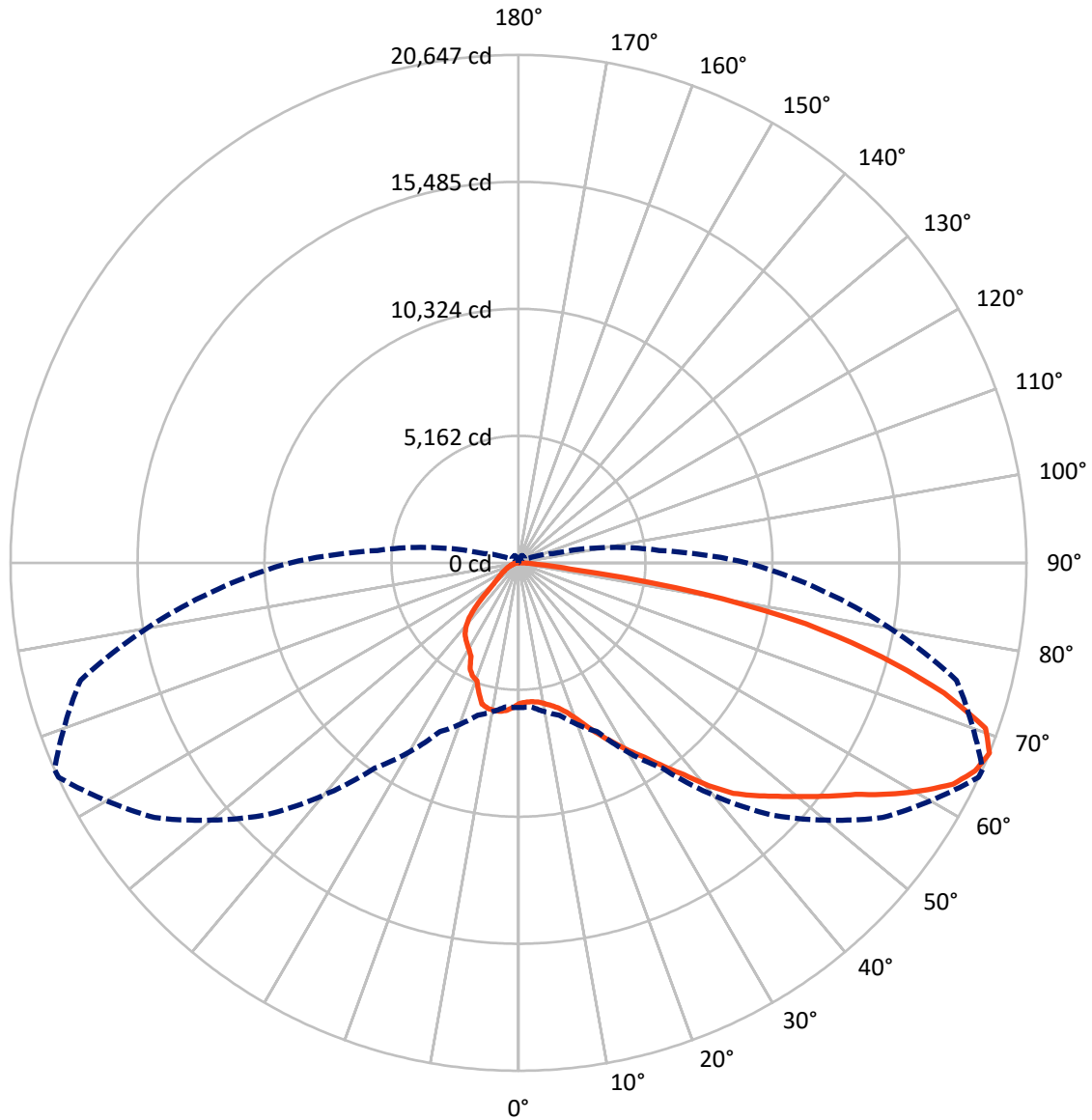
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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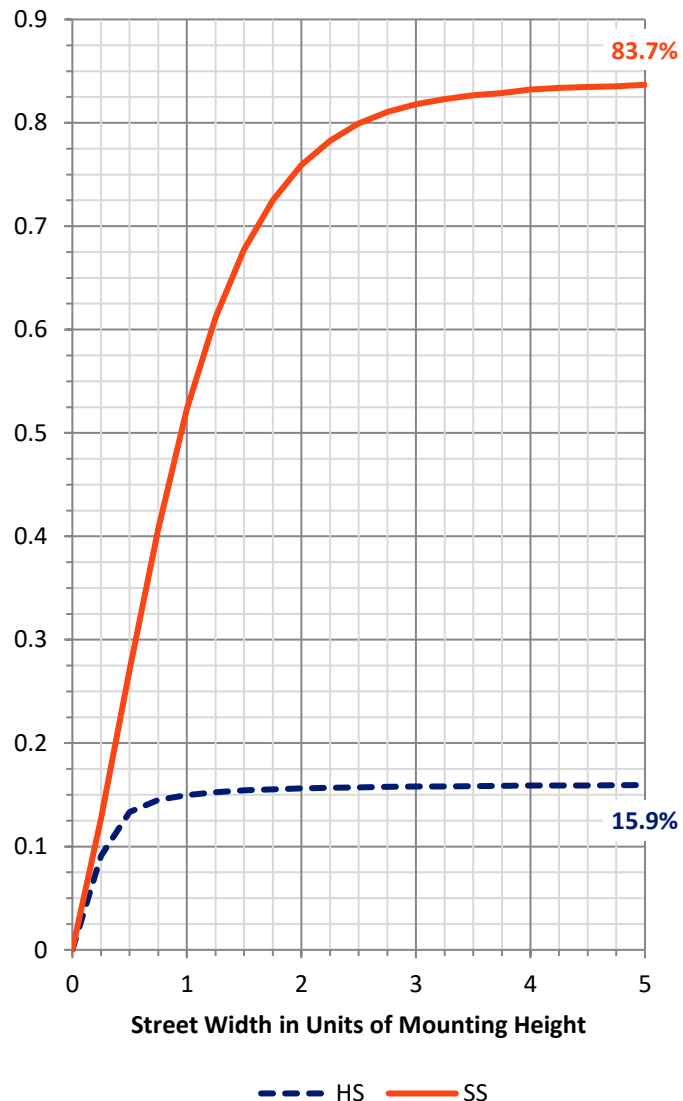
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5267.2	0.0	5267.2
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	27362.8	0.0	27362.8
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	32630.0	0.0	32630.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	566.2	1.7
10°-20°	1707.0	5.2
20°-30°	2774.9	8.5
30°-40°	4053.3	12.4
40°-50°	5398.7	16.5
50°-60°	6530.7	20.0
60°-70°	6991.8	21.4
70°-80°	4149.3	12.7
80°-90°	458.2	1.4
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°	32630.0	100.0
0°-180°	32630.0	100.0

**Coefficient of Utilization**



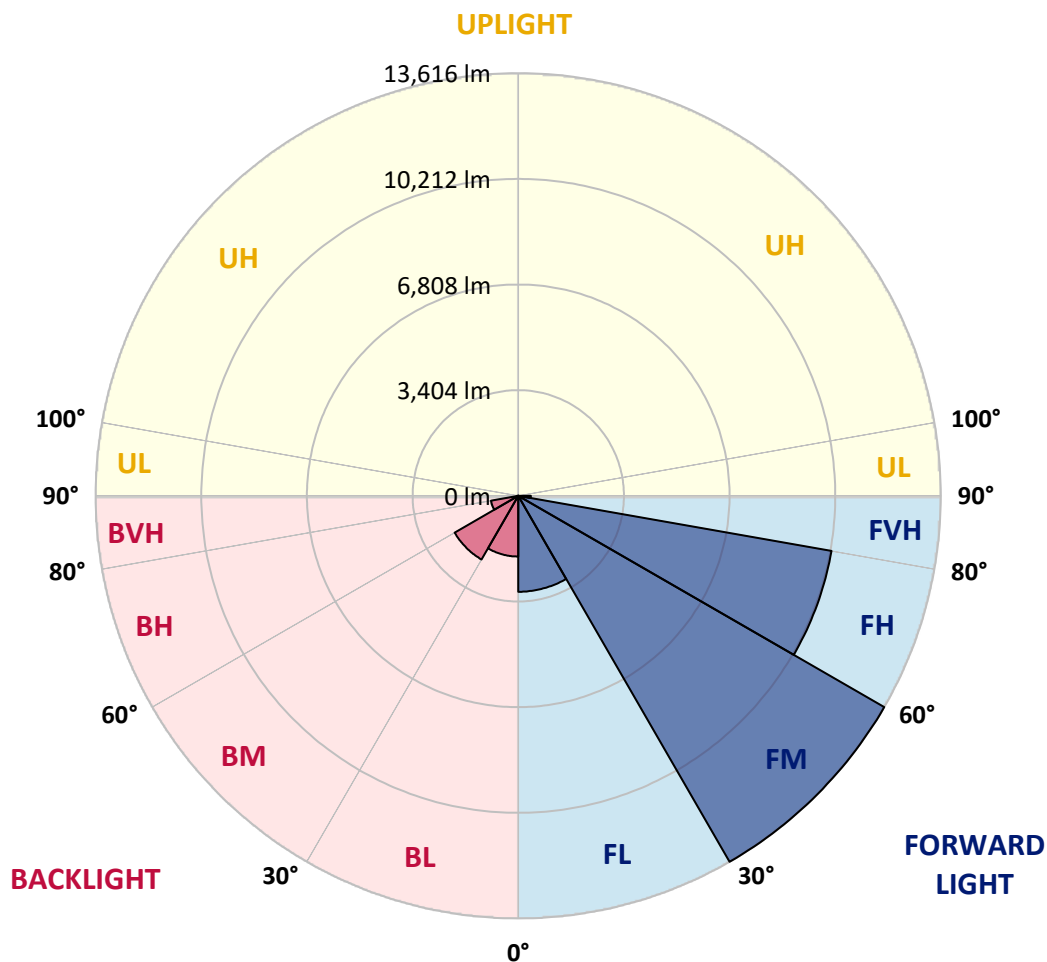
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3091.9	9.5			
FM (30°-60°)	13615.9	41.7			
FH (60°-80°)	10248.9	31.4			G4/12000
FVH (80°-90°)	406.2	1.2			G3/500
BL (0°-30°)	1956.2	6.0	B3/2500		
BM (30°-60°)	2366.8	7.3	B2/2500		
BH (60°-80°)	892.2	2.7	B2/1000		G2/1000
BVH (80°-90°)	52.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8
2.5°	5640.3	5608.4	5622.8	5660.3	5588.4	5634.1	5601.8	5658.3	5673.7	5679.9	5702.5
5°	5750.8	5708.6	5709.7	5733.3	5651.6	5671.6	5616.7	5656.2	5668.6	5685.0	5740.0
7.5°	5944.5	5897.7	5893.6	5899.8	5798.0	5775.4	5697.8	5706.1	5715.3	5725.1	5796.5
10°	6210.6	6162.9	6154.6	6138.7	6004.6	5945.5	5830.4	5812.4	5821.2	5805.2	5890.0
12.5°	6530.2	6472.7	6442.4	6396.6	6241.5	6149.0	5996.9	5947.6	5955.3	5921.9	5981.0
15°	6866.3	6805.1	6788.7	6718.3	6527.2	6400.8	6204.0	6128.9	6131.0	6092.5	6089.9
17.5°	7224.9	7170.5	7157.1	7112.4	6900.7	6750.2	6507.1	6405.4	6397.7	6359.7	6246.6
20°	7631.9	7597.5	7590.3	7564.6	7372.9	7196.7	6920.2	6783.6	6775.9	6715.7	6474.2
22.5°	8132.4	8091.8	8070.2	8048.1	7904.7	7721.3	7424.3	7231.6	7261.9	7160.7	6769.7
25°	8630.3	8597.9	8579.4	8565.0	8446.8	8273.1	7972.6	7746.5	7776.8	7668.4	7128.9
27.5°	9124.6	9053.1	9082.9	9116.9	8998.7	8860.5	8533.7	8287.5	8296.8	8179.6	7558.9
30°	9583.9	9546.4	9597.8	9629.7	9543.3	9435.4	9092.2	8854.3	8868.2	8728.9	8052.2
32.5°	9991.9	9938.0	10052.5	10114.7	10063.3	9974.4	9643.0	9417.4	9421.6	9337.3	8641.1
35°	10291.5	10295.1	10453.3	10620.3	10619.8	10494.4	10212.9	10108.0	10155.8	10118.3	9363.5
37.5°	10596.7	10569.4	10752.4	11000.6	11081.7	10970.2	10803.2	10865.4	10929.6	11044.7	10045.9
40°	10741.1	10742.1	10963.6	11250.3	11437.8	11416.8	11358.2	11773.9	11906.9	11941.4	9772.5
42.5°	10566.9	10579.2	10974.3	11481.5	11772.8	11884.3	12012.8	12720.8	12810.8	12616.0	10094.7
45°	10338.7	10355.7	10819.7	11561.1	12069.8	12383.8	12737.8	13428.4	13498.3	13239.3	10563.3
47.5°	10124.5	10155.8	10638.8	11513.4	12305.2	12946.4	13386.3	14094.8	14180.1	13838.4	11000.0
50°	9842.9	9912.8	10405.5	11386.4	12482.4	13436.1	13985.4	14896.9	14929.8	14423.2	11393.6
52.5°	9570.6	9591.1	10141.4	11224.1	12616.0	13880.0	14700.1	15721.1	15759.1	15063.4	11756.9
55°	9197.5	9228.4	9843.4	11020.6	12698.2	14252.1	15423.6	16580.2	16614.1	15832.6	12147.4
57.5°	8787.0	8809.6	9457.0	10708.2	12636.6	14582.4	16194.8	17662.3	17745.6	16623.9	12498.4
60°	8271.6	8301.4	8958.6	10275.0	12423.9	14967.8	17147.5	18819.0	18819.0	17350.4	12776.3
62.5°	7545.6	7587.2	8252.6	9651.2	11982.0	15190.8	17907.9	19826.1	19819.4	17922.8	12870.4
65°	6701.9	6708.5	7311.8	8773.6	11248.2	15072.1	18197.7	20414.4	20399.5	18337.0	12740.9
67.5°	5883.3	5876.1	6411.5	7573.3	10190.2	14487.9	18059.5	20629.2	20647.2	18436.7	12258.4
70°	4722.1	4712.8	5205.1	6154.6	8590.2	13229.5	17273.9	20084.0	20138.5	17867.4	11457.3
72.5°	3378.9	3365.1	3600.9	4228.8	6308.3	10882.9	15315.2	17988.6	18088.3	16043.8	9994.5
75°	1978.8	1993.7	2239.8	2601.0	3746.3	7159.2	12421.8	15107.1	15249.4	13648.3	7861.1
77.5°	1100.6	1097.5	1278.4	1550.2	1842.6	3585.5	8671.9	11897.2	11945.5	10694.8	5286.3
80°	531.3	528.7	577.5	728.6	1050.8	1610.9	4259.1	7391.9	7538.4	6499.9	2584.6
82.5°	382.3	384.3	411.6	399.8	392.1	710.6	1421.2	2328.2	2125.7	1640.7	799.0
85°	287.2	287.2	311.9	287.7	281.1	361.7	691.1	831.9	798.5	730.2	474.8
87.5°	135.1	128.5	136.7	129.5	120.2	160.3	303.2	351.5	325.3	283.6	207.6
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8	5713.8
2.5°	5741.0	5752.3	5811.4	5888.5	5895.7	5961.9	5982.5	6064.7	6061.6	6039.0	6062.7
5°	5779.5	5814.0	5915.2	6023.6	6051.4	6134.6	6152.6	6233.3	6238.4	6210.6	6233.8
7.5°	5841.2	5891.6	5987.1	6094.5	6106.8	6180.8	6177.8	6254.3	6241.0	6216.8	6247.6
10°	5916.7	5955.8	6019.5	6090.4	6084.8	6143.8	6125.3	6180.3	6152.6	6133.1	6168.5
12.5°	5992.8	5994.3	5999.5	6044.2	6009.2	6022.6	5986.1	6026.7	5984.0	5951.2	5972.7
15°	6068.8	6025.7	5953.2	5925.5	5828.4	5778.5	5726.1	5774.9	5675.2	5622.8	5636.2
17.5°	6176.2	6072.4	5828.9	5476.4	5177.3	5012.4	4888.6	4793.0	4795.0	4842.3	4870.6
20°	6262.0	5867.4	5272.4	5054.5	4831.0	4529.4	4061.3	3932.8	3848.1	3846.5	3860.4
22.5°	6231.7	5650.6	5272.9	4932.2	4446.2	3843.4	3641.0	3523.3	3325.5	2902.6	2868.2
25°	6510.7	5842.7	5303.2	4679.4	3833.2	3527.4	3249.5	3020.8	2521.4	2442.7	2439.7
27.5°	6845.2	6102.2	5344.3	4133.7	3588.1	3175.5	2821.9	2269.6	2030.1	1996.2	1984.4
30°	7232.1	6408.0	5093.6	3959.0	3327.0	2765.9	2297.3	1742.9	1548.2	1536.3	1539.4
32.5°	7717.2	6756.8	4832.0	3815.2	3011.0	2291.7	1566.7	1329.3	1217.8	1096.0	1135.0
35°	8234.1	6555.9	4988.2	3637.4	2615.4	1723.4	1190.0	1055.9	965.5	807.7	743.5
37.5°	8030.6	6694.2	5169.6	3442.1	2121.1	1168.4	920.8	804.7	719.9	588.3	585.8
40°	8281.4	7089.8	5299.1	3127.7	1533.8	828.8	671.1	622.8	583.7	510.7	500.5
42.5°	8724.3	7435.1	5387.0	2724.3	916.7	616.6	572.9	580.1	546.2	490.2	483.5
45°	9160.5	7737.2	5304.2	2109.3	652.0	556.0	558.5	555.4	514.3	493.8	486.6
47.5°	9557.7	7992.6	5071.5	1391.4	565.7	542.1	547.7	533.9	487.6	475.8	474.8
50°	9898.9	8262.4	4015.6	1066.2	544.1	523.6	535.9	513.3	433.7	420.8	407.5
52.5°	10109.1	7813.8	3567.5	819.0	521.5	494.8	498.4	516.9	408.5	325.3	304.7
55°	10077.2	7038.9	3316.8	681.9	485.6	454.7	461.9	491.7	369.4	254.3	230.2
57.5°	10228.8	6975.2	3056.8	580.1	418.8	412.1	397.7	448.1	336.0	168.5	159.8
60°	10204.1	6967.5	2727.9	456.3	370.0	346.3	328.3	364.8	241.0	62.7	57.0
62.5°	10164.0	6769.7	2354.4	409.0	340.7	331.4	316.0	357.1	205.0	43.7	32.4
65°	9963.1	6448.5	1931.0	358.1	318.1	299.0	298.0	338.1	169.0	24.1	10.8
67.5°	9277.2	5749.2	1436.7	329.9	304.7	294.9	312.9	325.8	162.4	24.7	9.8
70°	8424.2	4826.9	926.9	297.5	285.7	290.8	305.7	329.4	157.7	22.6	8.7
72.5°	7044.1	3734.0	562.1	265.6	258.5	273.9	301.6	329.4	145.9	19.0	7.2
75°	5358.7	2490.5	418.3	234.8	226.6	246.1	274.9	316.5	143.4	16.4	4.6
77.5°	3327.0	1176.2	329.9	197.3	188.6	208.6	230.7	261.0	145.4	15.9	2.6
80°	1345.7	491.2	259.0	158.8	148.0	158.8	187.0	222.5	115.6	22.6	0.0
82.5°	566.2	345.8	211.7	126.4	118.2	104.3	127.4	164.9	90.9	18.0	0.0
85°	374.6	240.0	151.6	85.8	75.5	50.9	62.2	74.5	51.9	0.0	0.0
87.5°	169.6	106.4	66.3	29.3	24.7	13.9	8.2	7.2	0.0	0.0	0.0
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)