

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: P591041

Luminaire Tested: **CTN-CA6-230-730-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P591041  
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-CA6-230-730-U-T3-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (6) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30796 lumens  
Efficiency: N/A  
Efficacy: 135.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - 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

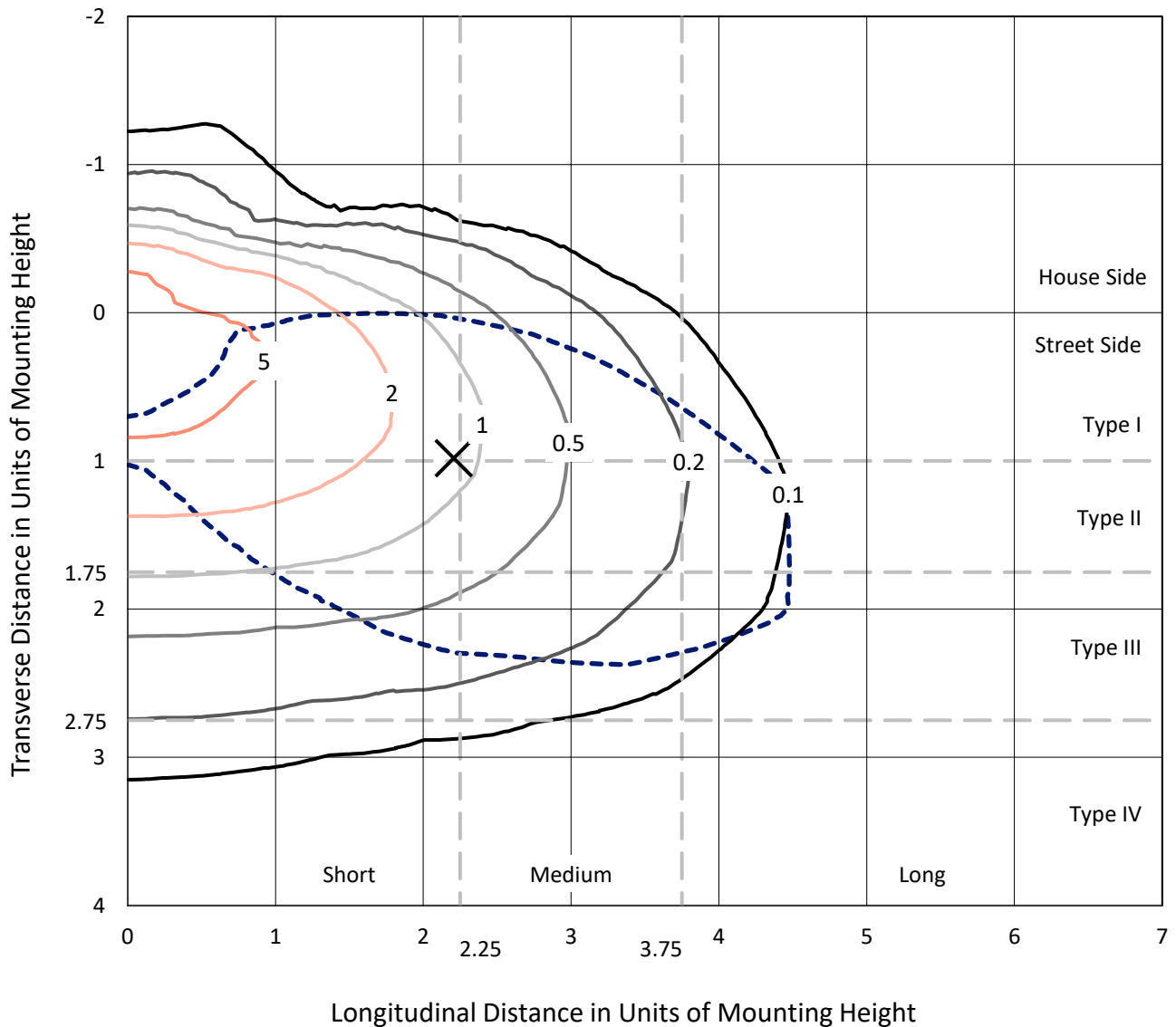




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### Iso-Footcandle Lines of Horizontal Illumination

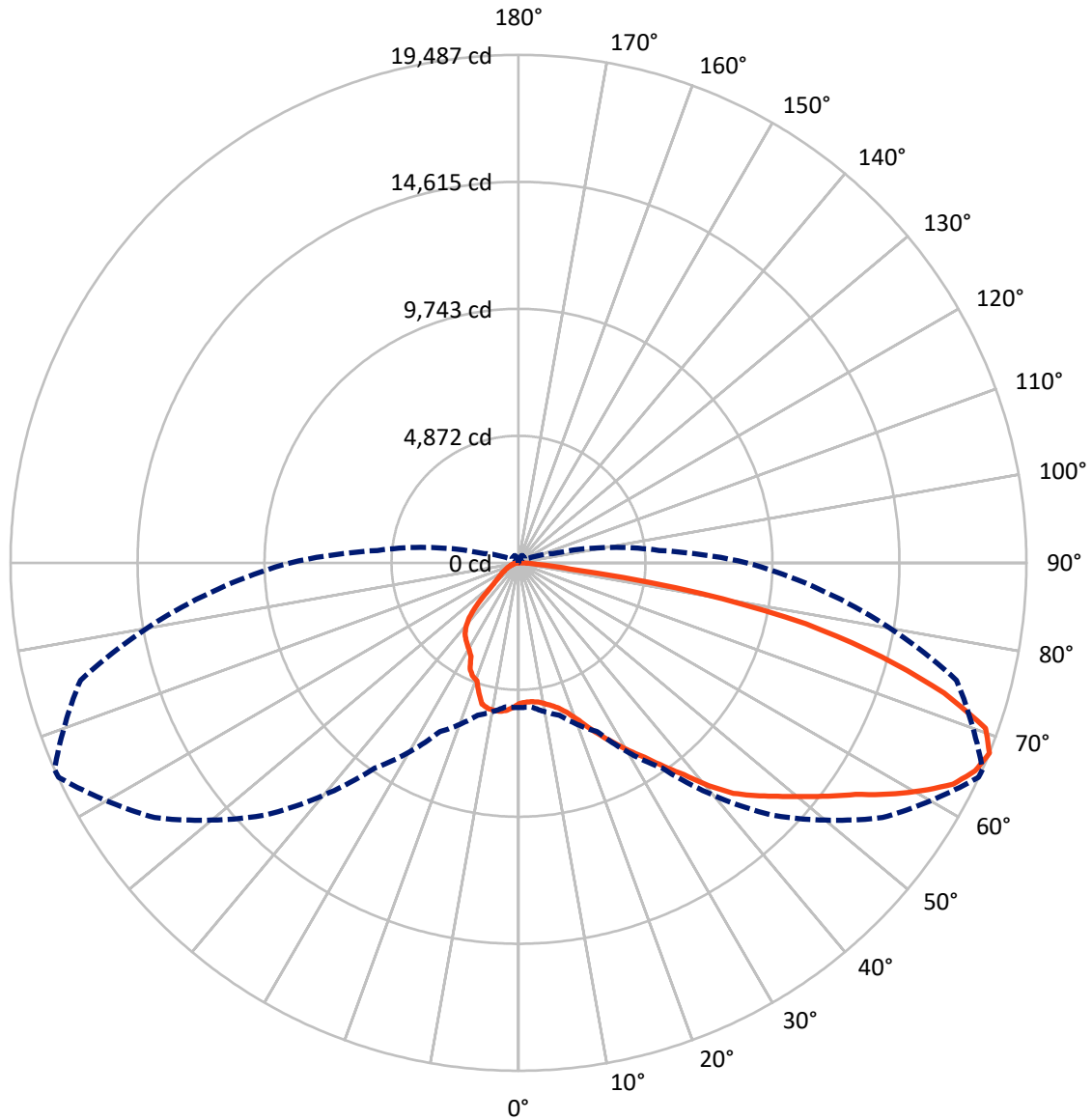
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.7 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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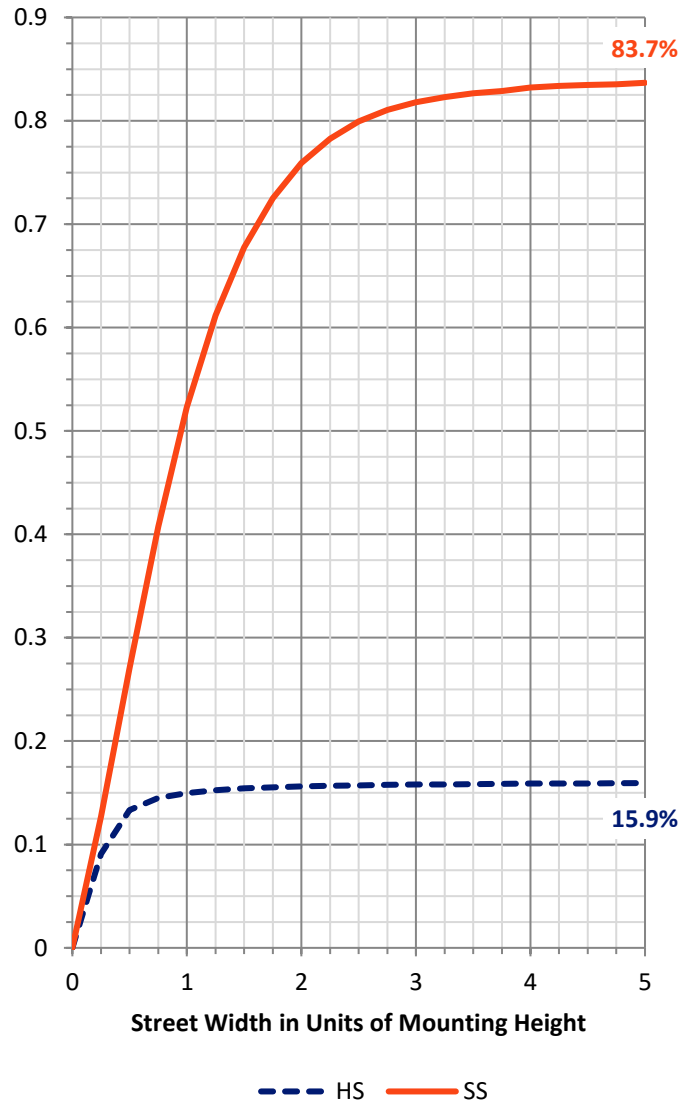
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4971.1	0.0	4971.1
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	25824.9	0.0	25824.9
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	30796.0	0.0	30796.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	534.4	1.7
10°-20°	1611.1	5.2
20°-30°	2618.9	8.5
30°-40°	3825.5	12.4
40°-50°	5095.2	16.5
50°-60°	6163.6	20.0
60°-70°	6598.8	21.4
70°-80°	3916.1	12.7
80°-90°	432.4	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°	30796.0	100.0
0°-180°	30796.0	100.0

**Coefficient of Utilization**



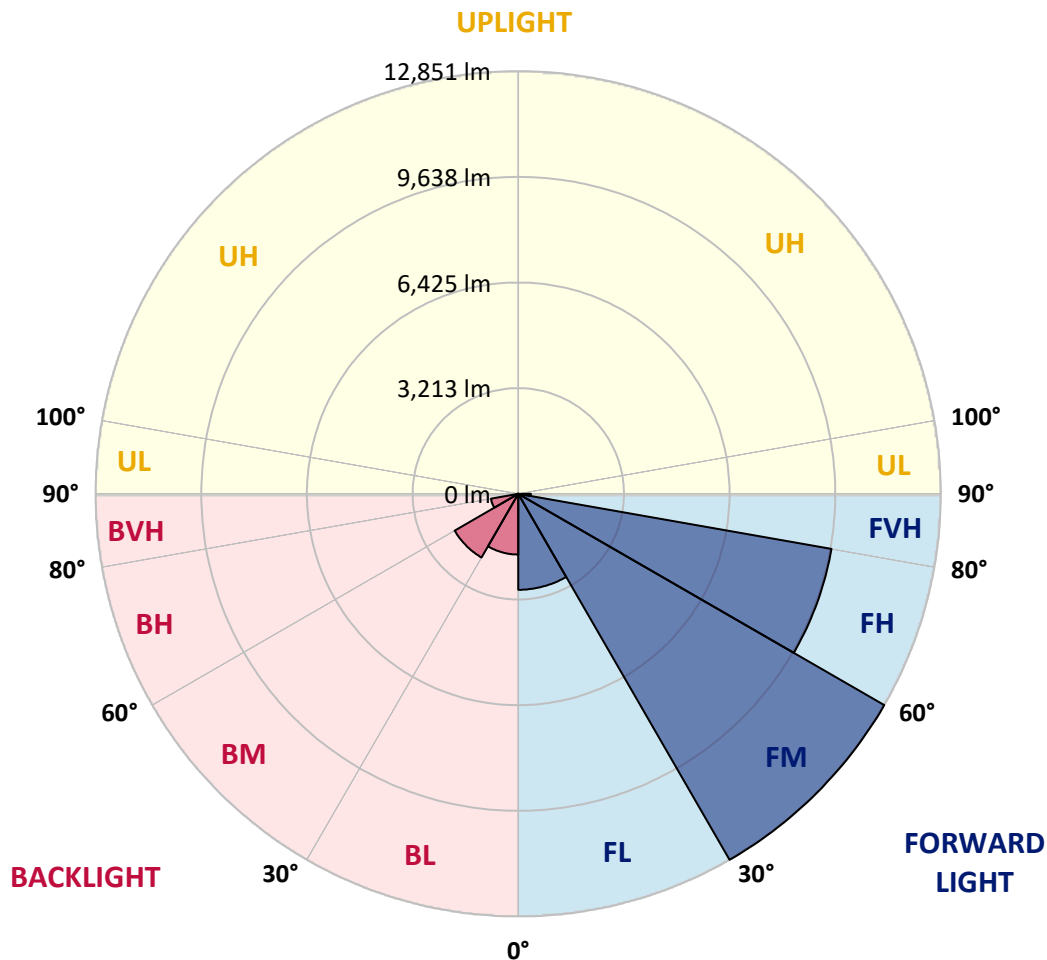
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2918.1	9.5			
FM (30°-60°)	12850.6	41.7			
FH (60°-80°)	9672.9	31.4			G4/12000
FVH (80°-90°)	383.3	1.2			G3/500
BL (0°-30°)	1846.2	6.0	B3/2500		
BM (30°-60°)	2233.8	7.3	B2/2500		
BH (60°-80°)	842.0	2.7	B2/1000		G2/1000
BVH (80°-90°)	49.1	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°	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6
2.5°	5323.3	5293.2	5306.8	5342.2	5274.3	5317.5	5286.9	5340.2	5354.8	5360.6	5382.0
5°	5427.5	5387.8	5388.7	5411.1	5333.9	5352.9	5301.0	5338.3	5349.9	5365.5	5417.4
7.5°	5610.4	5566.2	5562.4	5568.2	5472.2	5450.8	5377.6	5385.3	5394.1	5403.3	5470.7
10°	5861.6	5816.5	5808.7	5793.7	5667.1	5611.3	5502.7	5485.7	5494.0	5478.9	5559.0
12.5°	6163.2	6108.9	6080.3	6037.1	5890.7	5803.4	5659.8	5613.3	5620.5	5589.0	5644.8
15°	6480.4	6422.7	6407.1	6340.7	6160.3	6041.0	5855.3	5784.5	5786.4	5750.0	5747.6
17.5°	6818.9	6767.5	6754.8	6712.7	6512.9	6370.8	6141.4	6045.4	6038.1	6002.2	5895.5
20°	7202.9	7170.4	7163.7	7139.4	6958.5	6792.2	6531.3	6402.3	6395.0	6338.3	6110.3
22.5°	7675.3	7637.0	7616.6	7595.7	7460.4	7287.3	7007.0	6825.2	6853.8	6758.2	6389.2
25°	8145.2	8114.6	8097.2	8083.6	7972.1	7808.1	7524.5	7311.1	7339.7	7237.4	6728.2
27.5°	8611.7	8544.3	8572.4	8604.4	8492.9	8362.4	8054.0	7821.7	7830.5	7719.9	7134.1
30°	9045.3	9009.9	9058.3	9088.4	9006.9	8905.1	8581.2	8356.6	8369.7	8238.3	7599.6
32.5°	9430.3	9379.4	9487.5	9546.2	9497.7	9413.8	9101.0	8888.1	8892.0	8812.5	8155.4
35°	9713.0	9716.4	9865.8	10023.4	10022.9	9904.6	9638.8	9539.9	9585.0	9549.6	8837.2
37.5°	10001.1	9975.4	10148.0	10382.3	10458.9	10353.6	10196.0	10254.7	10315.3	10424.0	9481.2
40°	10137.4	10138.3	10347.3	10617.9	10794.9	10775.1	10719.8	11112.1	11237.7	11270.2	9223.2
42.5°	9973.0	9984.6	10357.5	10836.2	11111.1	11216.4	11337.6	12005.9	12090.7	11906.9	9527.3
45°	9757.6	9773.6	10211.6	10911.3	11391.4	11687.7	12021.9	12673.6	12739.6	12495.2	9969.6
47.5°	9555.4	9585.0	10040.9	10866.2	11613.5	12218.8	12633.9	13302.6	13383.1	13060.6	10381.8
50°	9289.7	9355.6	9820.7	10746.5	11780.8	12680.9	13199.3	14059.6	14090.7	13612.5	10753.2
52.5°	9032.6	9052.0	9571.4	10593.2	11906.9	13099.9	13873.9	14837.5	14873.4	14216.7	11096.1
55°	8680.6	8709.7	9290.2	10401.2	11984.5	13451.0	14556.7	15648.3	15680.3	14942.7	11464.7
57.5°	8293.1	8314.4	8925.5	10106.3	11926.3	13762.8	15284.6	16669.6	16748.2	15689.5	11795.9
60°	7806.7	7834.8	8455.1	9697.5	11725.6	14126.5	16183.7	17761.2	17761.2	16375.2	12058.2
62.5°	7121.5	7160.7	7788.8	9108.8	11308.5	14337.0	16901.4	18711.7	18705.4	16915.5	12147.0
65°	6325.2	6331.5	6900.8	8280.5	10616.0	14225.0	17174.9	19267.0	19252.9	17306.3	12024.8
67.5°	5552.7	5545.9	6051.2	7147.7	9617.5	13673.6	17044.5	19469.7	19486.7	17400.4	11569.4
70°	4456.7	4447.9	4912.5	5808.7	8107.4	12486.0	16303.0	18955.2	19006.6	16863.1	10813.4
72.5°	3189.0	3175.9	3398.5	3991.1	5953.7	10271.2	14454.4	16977.5	17071.6	15142.0	9432.7
75°	1867.5	1881.6	2113.9	2454.8	3535.8	6756.8	11723.6	14258.0	14392.3	12881.2	7419.2
77.5°	1038.8	1035.8	1206.6	1463.1	1739.0	3384.0	8184.5	11228.5	11274.1	10093.7	4989.1
80°	501.4	499.0	545.1	687.7	991.7	1520.3	4019.7	6976.5	7114.7	6134.6	2439.3
82.5°	360.8	362.7	388.4	377.3	370.0	670.7	1341.4	2197.3	2006.2	1548.4	754.1
85°	271.1	271.1	294.4	271.6	265.3	341.4	652.3	785.1	753.6	689.1	448.1
87.5°	127.5	121.2	129.0	122.2	113.5	151.3	286.1	331.7	307.0	267.7	195.9
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6	5392.6
2.5°	5418.3	5429.0	5484.8	5557.5	5564.3	5626.9	5646.3	5723.8	5720.9	5699.6	5721.9
5°	5454.7	5487.2	5582.7	5685.0	5711.2	5789.8	5806.8	5882.9	5887.8	5861.6	5883.4
7.5°	5512.9	5560.4	5650.6	5752.0	5763.6	5833.4	5830.5	5902.8	5890.2	5867.4	5896.5
10°	5584.2	5621.0	5681.2	5748.1	5742.8	5798.5	5781.1	5833.0	5806.8	5788.3	5821.8
12.5°	5655.9	5657.4	5662.3	5704.4	5671.5	5684.1	5649.6	5688.0	5647.7	5616.7	5637.0
15°	5727.7	5687.0	5618.6	5592.4	5500.8	5453.7	5404.3	5450.3	5356.3	5306.8	5319.4
17.5°	5829.1	5731.1	5501.3	5168.6	4886.3	4730.7	4613.8	4523.6	4525.5	4570.2	4596.8
20°	5910.1	5537.6	4976.1	4770.4	4559.5	4274.8	3833.0	3711.8	3631.8	3630.3	3643.4
22.5°	5881.5	5333.0	4976.5	4655.0	4196.3	3627.4	3436.3	3325.3	3138.6	2739.5	2707.0
25°	6144.8	5514.3	5005.1	4416.4	3617.7	3329.2	3066.8	2851.0	2379.6	2305.4	2302.5
27.5°	6460.5	5759.2	5043.9	3901.4	3386.4	2997.0	2663.3	2142.0	1916.0	1884.0	1872.9
30°	6825.6	6047.8	4807.3	3736.5	3140.0	2610.5	2168.2	1644.9	1461.1	1450.0	1452.9
32.5°	7283.4	6377.1	4560.5	3600.7	2841.8	2162.9	1478.6	1254.6	1149.3	1034.4	1071.3
35°	7771.3	6187.5	4707.9	3432.9	2468.4	1626.5	1123.1	996.6	911.2	762.3	701.7
37.5°	7579.3	6317.9	4879.1	3248.7	2001.9	1102.8	869.0	759.4	679.4	555.3	552.8
40°	7815.9	6691.3	5001.3	2951.9	1447.6	782.2	633.3	587.8	550.9	482.0	472.3
42.5°	8233.9	7017.2	5084.2	2571.2	865.1	581.9	540.7	547.5	515.5	462.6	456.3
45°	8645.7	7302.3	5006.1	1990.7	615.4	524.7	527.1	524.2	485.4	466.0	459.2
47.5°	9020.5	7543.4	4786.4	1313.2	533.9	511.6	517.0	503.9	460.2	449.1	448.1
50°	9342.5	7798.0	3789.9	1006.3	513.6	494.2	505.8	484.5	409.3	397.2	384.6
52.5°	9540.9	7374.6	3367.0	773.0	492.2	467.0	470.4	487.9	385.5	307.0	287.6
55°	9510.8	6643.3	3130.3	643.5	458.3	429.2	436.0	464.1	348.7	240.0	217.3
57.5°	9653.9	6583.2	2885.0	547.5	395.2	388.9	375.3	422.9	317.2	159.1	150.8
60°	9630.6	6575.9	2574.6	430.6	349.2	326.9	309.9	344.3	227.4	59.2	53.8
62.5°	9592.8	6389.2	2222.0	386.0	321.5	312.8	298.2	337.0	193.5	41.2	30.6
65°	9403.1	6086.1	1822.4	338.0	300.2	282.2	281.3	319.1	159.5	22.8	10.2
67.5°	8755.7	5426.1	1355.9	311.3	287.6	278.4	295.3	307.5	153.2	23.3	9.2
70°	7950.7	4555.6	874.8	280.8	269.6	274.5	288.5	310.9	148.9	21.3	8.2
72.5°	6648.2	3524.1	530.5	250.7	243.9	258.5	284.7	310.9	137.7	17.9	6.8
75°	5057.5	2350.5	394.7	221.6	213.9	232.3	259.4	298.7	135.3	15.5	4.4
77.5°	3140.0	1110.0	311.3	186.2	178.0	196.9	217.7	246.4	137.2	15.0	2.4
80°	1270.1	463.6	244.4	149.8	139.7	149.8	176.5	210.0	109.1	21.3	0.0
82.5°	534.4	326.4	199.8	119.3	111.5	98.4	120.3	155.7	85.8	17.0	0.0
85°	353.5	226.5	143.1	81.0	71.3	48.0	58.7	70.3	49.0	0.0	0.0
87.5°	160.0	100.4	62.6	27.6	23.3	13.1	7.8	6.8	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)