

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: P591036

Luminaire Tested: **CTN-CA8-480-727-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P591036  
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-CA8-480-727-U-T3-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 54781 lumens  
Efficiency: N/A  
Efficacy: 113.9 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G5

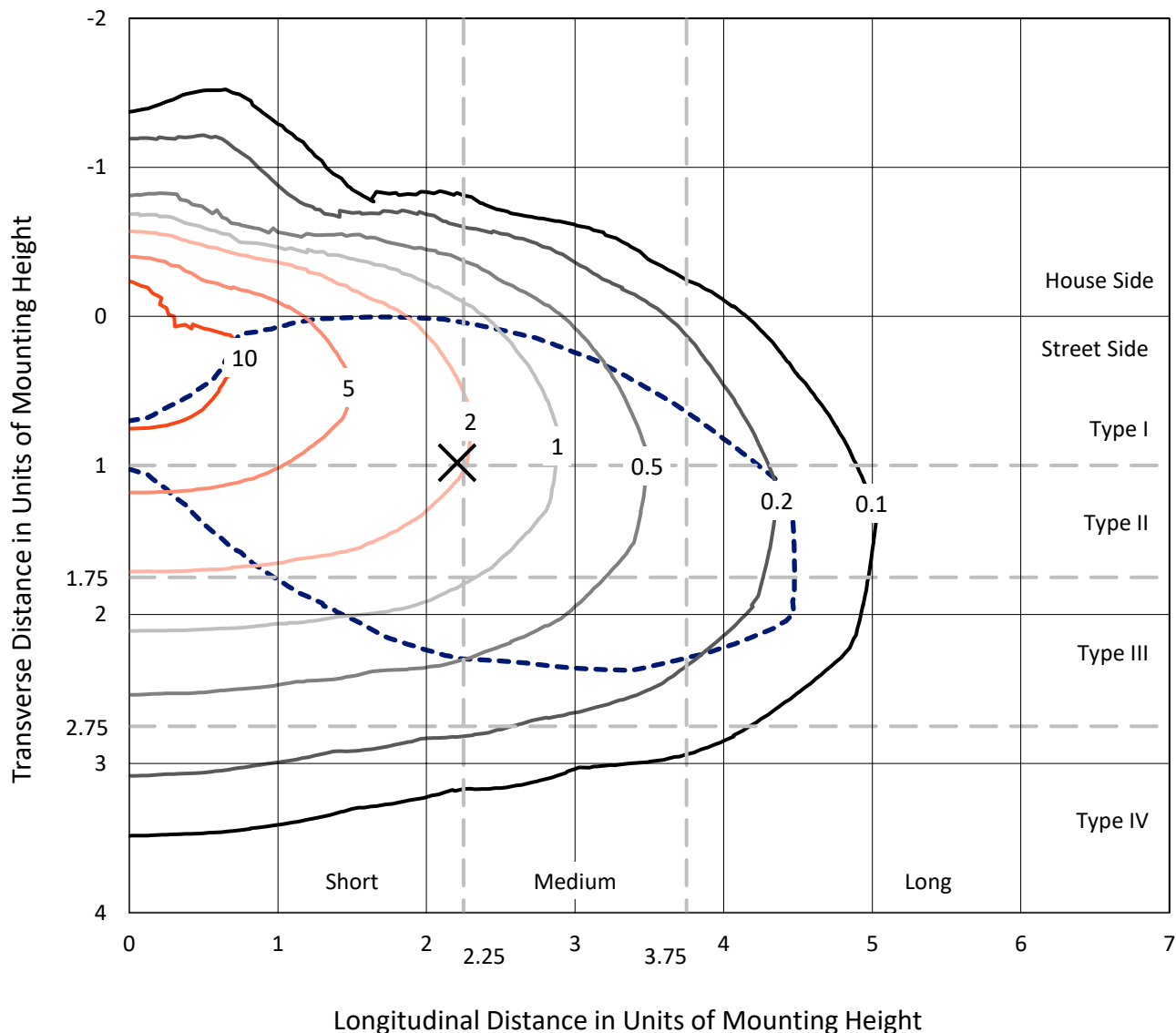
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

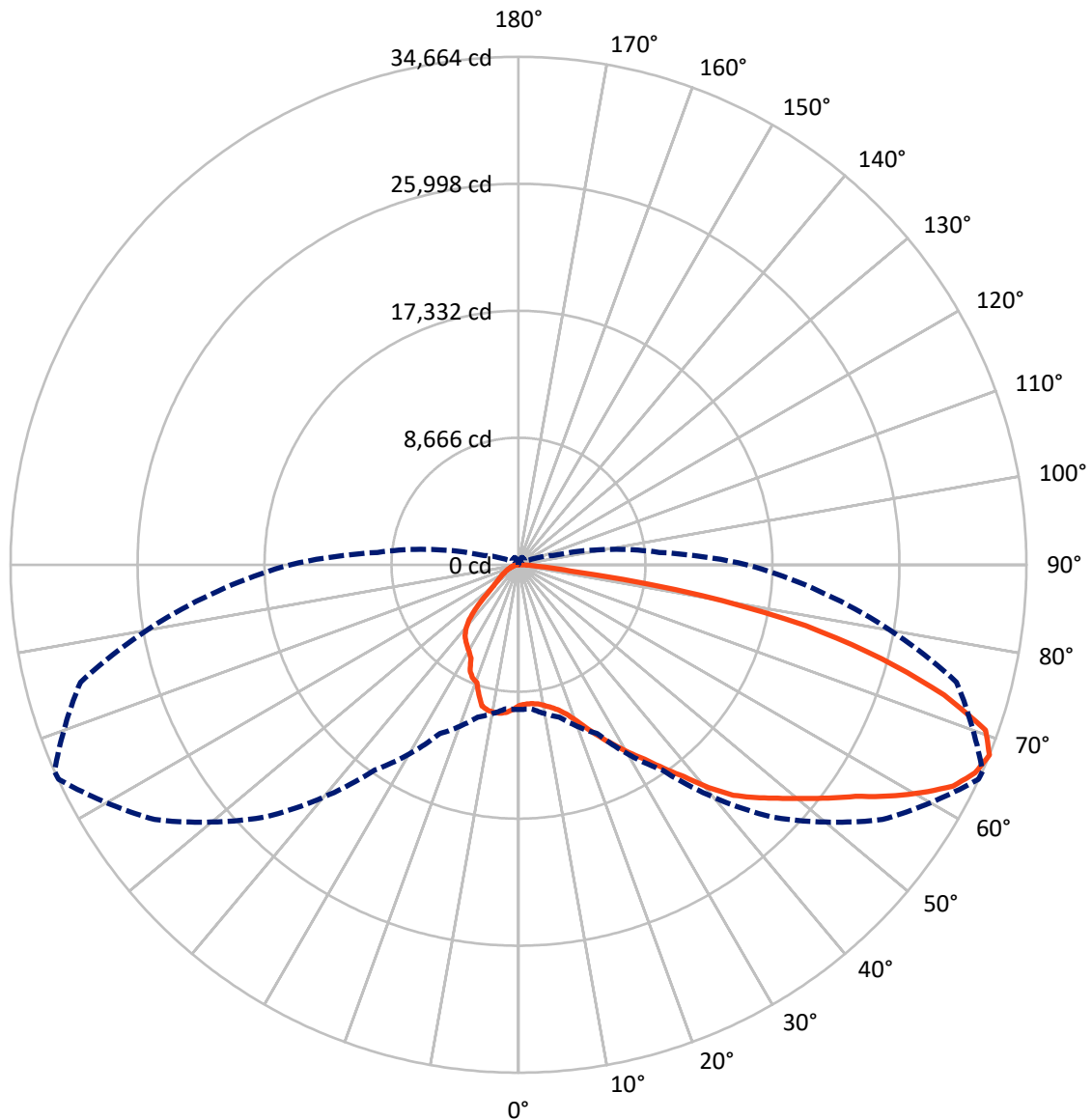
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.9 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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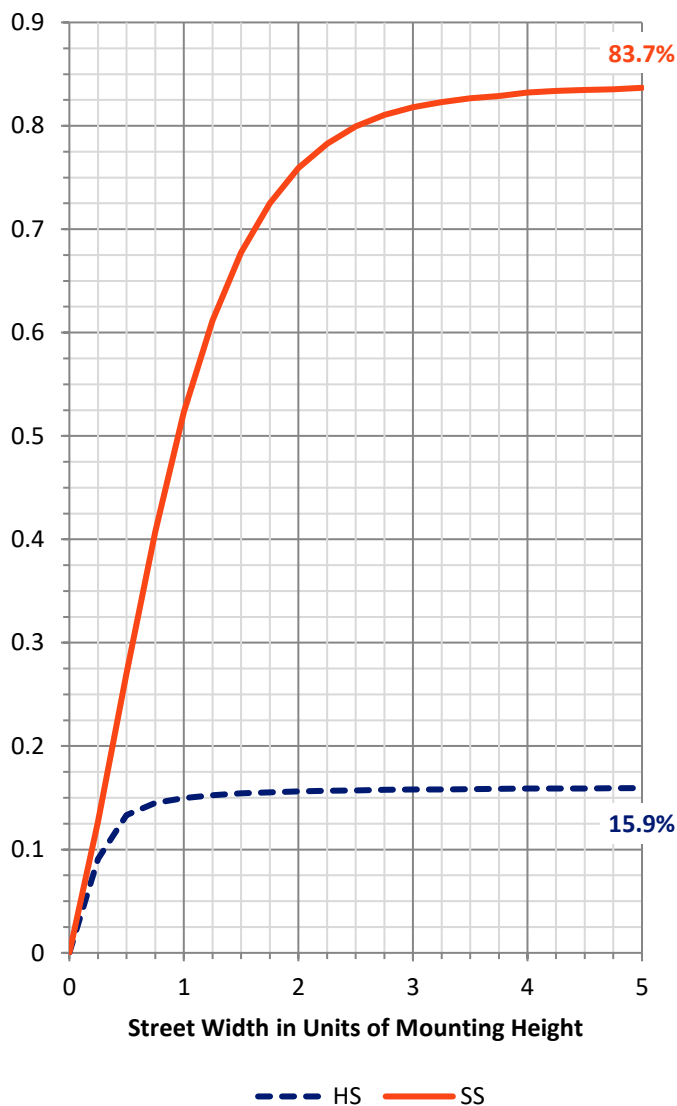
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8842.8	0.0	8842.8
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	45938.2	0.0	45938.2
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	54781.0	0.0	54781.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	950.5	1.7
10°-20°	2865.8	5.2
20°-30°	4658.6	8.5
30°-40°	6805.0	12.4
40°-50°	9063.6	16.5
50°-60°	10964.0	20.0
60°-70°	11738.2	21.4
70°-80°	6966.1	12.7
80°-90°	769.2	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°	54781.0	100.0
0°-180°	54781.0	100.0

**Coefficient of Utilization**

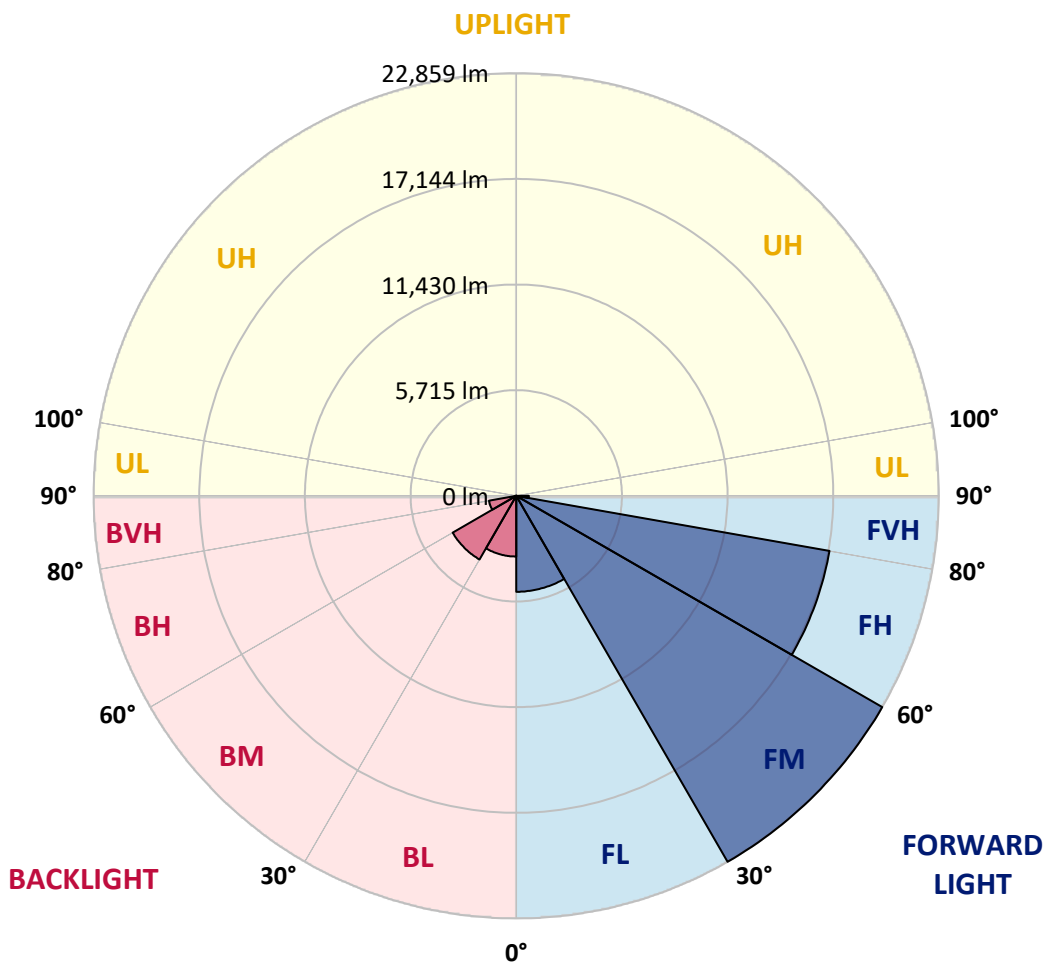


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5190.8	9.5			
FM	(30°-60°)	22859.1	41.7			
FH	(60°-80°)	17206.4	31.4			G5
FVH	(80°-90°)	681.9	1.2			G4/750
BL	(0°-30°)	3284.1	6.0	B4/5000		
BM	(30°-60°)	3973.5	7.3	B3/5000		
BH	(60°-80°)	1497.9	2.7	B3/2500		G3/2500
BVH	(80°-90°)	87.3	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6
2.5°	9469.2	9415.7	9439.9	9502.9	9382.1	9458.9	9404.5	9499.4	9525.3	9535.7	9573.6
5°	9654.7	9584.0	9585.7	9625.4	9488.2	9521.8	9429.5	9496.0	9516.7	9544.3	9636.6
7.5°	9979.9	9901.4	9894.5	9904.9	9734.1	9696.1	9565.8	9579.6	9595.2	9611.6	9731.5
10°	10426.8	10346.5	10332.7	10306.0	10080.8	9981.6	9788.4	9758.2	9772.9	9746.1	9888.5
12.5°	10963.3	10866.7	10815.8	10739.0	10478.5	10323.2	10067.9	9985.1	9998.0	9942.0	10041.2
15°	11527.5	11424.8	11397.2	11279.1	10958.1	10745.9	10415.5	10289.6	10293.1	10228.4	10224.0
17.5°	12129.6	12038.2	12015.7	11940.7	11585.3	11332.5	10924.5	10753.7	10740.8	10676.9	10487.1
20°	12812.8	12755.0	12743.0	12699.8	12378.1	12082.2	11618.1	11388.6	11375.7	11274.7	10869.3
22.5°	13653.0	13584.9	13548.7	13511.6	13270.9	12962.9	12464.3	12140.8	12191.7	12021.8	11365.3
25°	14488.9	14434.6	14403.5	14379.4	14181.0	13889.4	13384.8	13005.2	13056.1	12874.1	11968.3
27.5°	15318.8	15198.9	15248.9	15305.9	15107.5	14875.4	14326.8	13913.6	13929.1	13732.4	12690.3
30°	16090.0	16027.0	16113.3	16166.8	16021.9	15840.7	15264.5	14865.1	14888.3	14654.6	13518.5
32.5°	16774.9	16684.4	16876.7	16981.1	16894.9	16745.6	16189.2	15810.5	15817.4	15675.9	14507.1
35°	17277.9	17283.9	17549.6	17830.0	17829.1	17618.6	17145.9	16969.9	17050.1	16987.2	15719.9
37.5°	17790.3	17744.6	18051.7	18468.3	18604.6	18417.4	18137.1	18241.4	18349.3	18542.5	16865.5
40°	18032.7	18034.4	18406.2	18887.6	19202.4	19167.1	19068.7	19766.6	19990.0	20047.8	16406.6
42.5°	17740.2	17760.9	18424.3	19275.7	19764.9	19952.1	20167.7	21356.4	21507.4	21180.5	16947.5
45°	17357.2	17385.7	18164.7	19409.5	20263.5	20790.6	21384.9	22544.3	22661.6	22226.9	17734.2
47.5°	16997.5	17050.1	17861.0	19329.2	20658.6	21735.1	22473.6	23663.2	23806.3	23232.7	18467.5
50°	16524.8	16642.1	17469.4	19116.2	20956.2	22557.2	23479.4	25009.7	25064.9	24214.4	19128.2
52.5°	16067.6	16102.1	17026.0	18843.6	21180.5	23302.6	24679.3	26393.4	26457.2	25289.2	19738.1
55°	15441.3	15493.1	16525.6	18502.0	21318.5	23927.1	25893.9	27835.8	27892.7	26580.6	20393.7
57.5°	14752.1	14790.0	15876.9	17977.5	21215.0	24481.8	27188.8	29652.5	29792.2	27909.1	20982.9
60°	13886.8	13936.9	15040.2	17250.3	20857.8	25128.8	28788.1	31594.3	31594.3	29128.9	21449.6
62.5°	12667.9	12737.8	13854.9	16203.0	20116.0	25503.2	30064.8	33285.1	33273.9	30089.8	21607.5
65°	11251.4	11262.7	12275.4	14729.6	18884.1	25303.9	30551.4	34272.8	34247.8	30785.1	21390.1
67.5°	9877.3	9865.2	10764.1	12714.5	17107.9	24323.1	30319.3	34633.4	34663.6	30952.5	20580.1
70°	7927.7	7912.2	8738.6	10332.7	14421.7	22210.5	29000.3	33718.1	33809.6	29996.7	19235.2
72.5°	5672.7	5649.4	6045.4	7099.5	10590.7	18270.8	25711.9	30200.3	30367.6	26935.2	16779.3
75°	3322.0	3347.1	3760.3	4366.7	6289.5	12019.2	20854.4	25362.6	25601.5	22913.5	13197.6
77.5°	1847.8	1842.6	2146.3	2602.6	3093.4	6019.5	14558.8	19973.6	20054.7	17955.0	8874.9
80°	892.0	887.7	969.6	1223.2	1764.1	2704.4	7150.4	12410.0	12655.8	10912.4	4339.1
82.5°	641.8	645.3	691.0	671.1	658.2	1193.0	2386.1	3908.6	3568.8	2754.4	1341.4
85°	482.2	482.2	523.6	483.1	471.9	607.3	1160.3	1396.6	1340.5	1225.8	797.1
87.5°	226.9	215.7	229.5	217.4	201.9	269.1	509.0	590.0	546.1	476.2	348.5
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6	9592.6
2.5°	9638.3	9657.3	9756.5	9885.9	9898.0	10009.2	10043.7	10181.8	10176.6	10138.6	10178.3
5°	9703.0	9760.8	9930.7	10112.8	10159.3	10299.1	10329.3	10464.7	10473.3	10426.8	10465.6
7.5°	9806.5	9891.1	10051.5	10231.8	10252.5	10376.7	10371.6	10500.1	10477.7	10437.1	10488.9
10°	9933.3	9998.9	10105.9	10224.9	10215.4	10314.6	10283.6	10375.9	10329.3	10296.5	10356.0
12.5°	10061.0	10063.6	10072.2	10147.3	10088.6	10111.0	10049.8	10117.9	10046.3	9991.1	10027.4
15°	10188.7	10116.2	9994.6	9948.0	9785.0	9701.3	9613.3	9695.2	9527.9	9439.9	9462.3
17.5°	10369.0	10194.7	9785.8	9194.0	8692.0	8415.1	8207.2	8046.7	8050.2	8129.5	8177.0
20°	10513.0	9850.5	8851.6	8485.8	8110.6	7604.2	6818.3	6602.7	6460.3	6457.7	6481.0
22.5°	10462.1	9486.5	8852.4	8280.5	7464.4	6452.6	6112.7	5915.1	5583.0	4873.1	4815.3
25°	10930.5	9809.1	8903.3	7856.1	6435.3	5922.0	5455.4	5071.5	4233.0	4101.0	4095.8
27.5°	11492.1	10244.7	8972.3	6940.0	6023.8	5331.1	4737.6	3810.3	3408.3	3351.4	3331.5
30°	12141.7	10758.0	8551.4	6646.7	5585.6	4643.6	3856.9	2926.1	2599.1	2579.3	2584.5
32.5°	12956.0	11343.8	8112.3	6405.1	5055.1	3847.4	2630.2	2231.7	2044.5	1840.0	1905.6
35°	13823.8	11006.5	8374.5	6106.6	4390.9	2893.3	1997.9	1772.7	1620.9	1356.1	1248.2
37.5°	13482.2	11238.5	8679.0	5778.8	3561.0	1961.6	1545.9	1350.9	1208.6	987.7	983.4
40°	13903.2	11902.7	8896.4	5250.9	2575.0	1391.4	1126.6	1045.5	980.0	857.5	840.2
42.5°	14646.8	12482.4	9043.9	4573.7	1539.0	1035.2	961.8	973.9	917.0	823.0	811.7
45°	15379.2	12989.7	8905.1	3541.1	1094.7	933.4	937.7	932.5	863.5	829.0	816.9
47.5°	16046.0	13418.4	8514.3	2336.0	949.8	910.1	919.6	896.3	818.6	798.8	797.1
50°	16618.8	13871.3	6741.6	1790.0	913.5	879.0	899.7	861.8	728.1	706.5	684.1
52.5°	16971.6	13118.2	5989.3	1375.1	875.6	830.7	836.8	867.8	685.8	546.1	511.5
55°	16918.1	11817.3	5568.4	1144.7	815.2	763.4	775.5	825.5	620.2	427.0	386.5
57.5°	17172.6	11710.4	5131.9	973.9	703.1	691.8	667.7	752.2	564.2	282.9	268.3
60°	17131.2	11697.4	4579.8	766.0	621.1	581.4	551.2	612.5	404.6	105.2	95.8
62.5°	17063.9	11365.3	3952.6	686.7	571.9	556.4	530.5	599.5	344.2	73.3	54.3
65°	16726.6	10826.2	3241.8	601.3	534.0	502.1	500.3	567.6	283.8	40.5	18.1
67.5°	15575.0	9652.1	2411.9	553.8	511.5	495.2	525.3	546.9	272.6	41.4	16.4
70°	14143.0	8103.7	1556.2	499.5	479.6	488.3	513.3	553.0	264.8	38.0	14.7
72.5°	11826.0	6268.8	943.7	446.0	433.9	459.8	506.4	553.0	245.0	31.9	12.1
75°	8996.5	4181.2	702.2	394.2	380.4	413.2	461.5	531.4	240.7	27.6	7.8
77.5°	5585.6	1974.6	553.8	331.3	316.6	350.2	387.3	438.2	244.1	26.7	4.3
80°	2259.3	824.7	434.8	266.6	248.4	266.6	314.0	373.5	194.1	38.0	0.0
82.5°	950.6	580.6	355.4	212.2	198.4	175.1	213.9	276.9	152.7	30.2	0.0
85°	628.9	402.9	254.5	144.1	126.8	85.4	104.4	125.1	87.1	0.0	0.0
87.5°	284.7	178.6	111.3	49.2	41.4	23.3	13.8	12.1	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)