

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: P591030

Luminaire Tested: **CTN-CA10-310-727-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591030
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-CA10-310-727-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37349 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

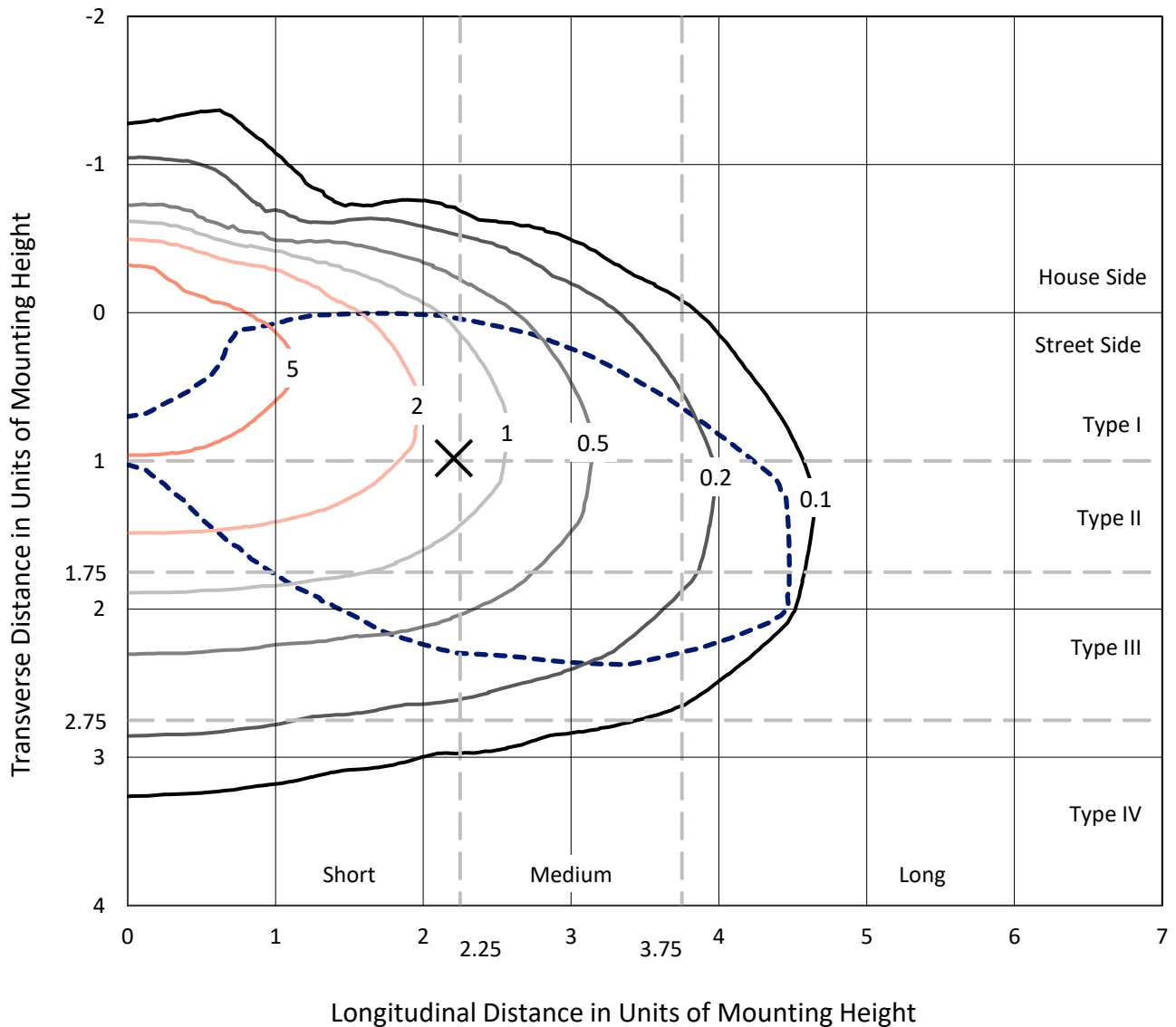
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

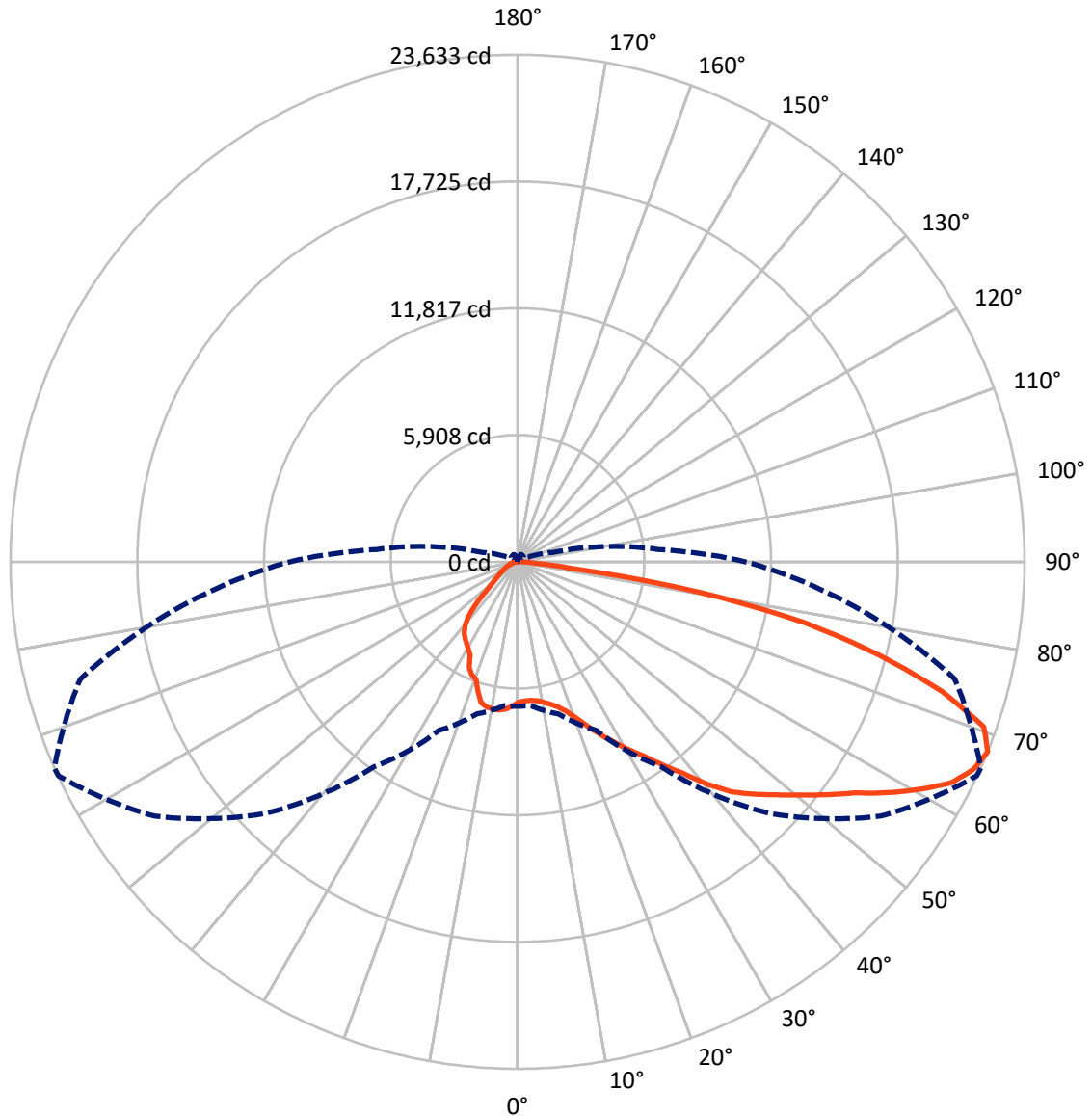
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.1 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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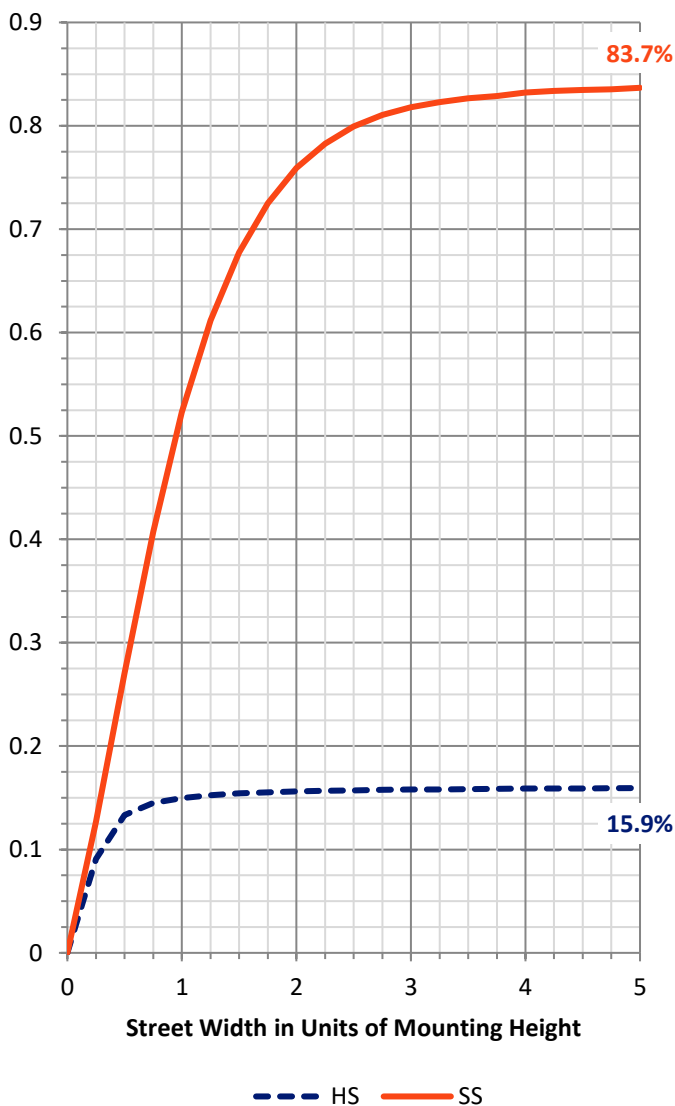
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6028.9	0.0	6028.9
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	31320.1	0.0	31320.1
	% Fixture	83.9	0.0	83.9
Total	Lumens	37349.0	0.0	37349.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	648.1	1.7
10°-20°	1953.9	5.2
20°-30°	3176.2	8.5
30°-40°	4639.5	12.4
40°-50°	6179.5	16.5
50°-60°	7475.1	20.0
60°-70°	8002.9	21.4
70°-80°	4749.4	12.7
80°-90°	524.4	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°	37349.0	100.0
0°-180°	37349.0	100.0

Coefficient of Utilization

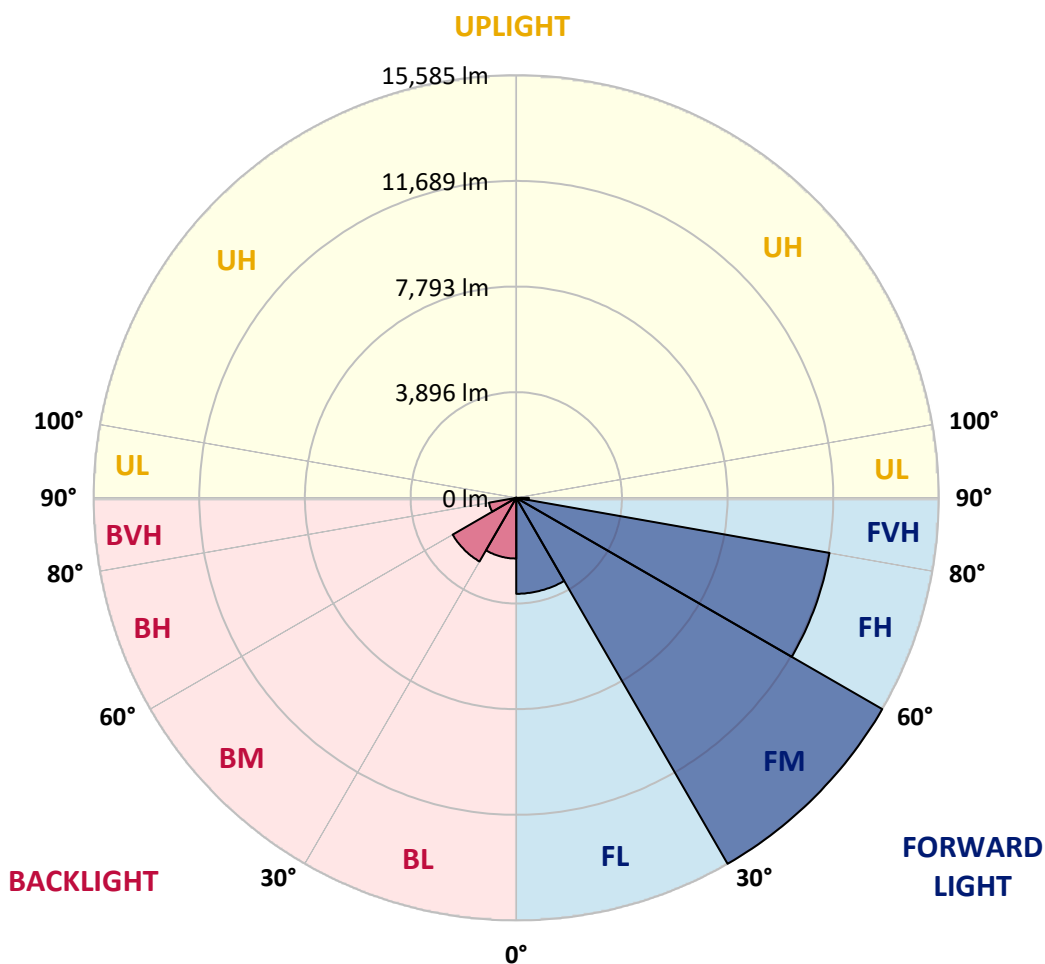


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3539.0	9.5			
FM (30°-60°)	15585.0	41.7			
FH (60°-80°)	11731.1	31.4			G4/12000
FVH (80°-90°)	464.9	1.2			G3/500
BL (0°-30°)	2239.1	6.0	B3/2500		
BM (30°-60°)	2709.1	7.3	B3/5000		
BH (60°-80°)	1021.2	2.7	B3/2500		G3/2500
BVH (80°-90°)	59.5	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°	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1
2.5°	6456.0	6419.5	6436.0	6478.9	6396.6	6448.9	6411.9	6476.6	6494.2	6501.3	6527.2
5°	6582.5	6534.2	6535.4	6562.5	6468.9	6491.9	6428.9	6474.2	6488.3	6507.2	6570.1
7.5°	6804.2	6750.7	6746.0	6753.0	6636.6	6610.7	6521.9	6531.3	6541.9	6553.0	6634.8
10°	7108.8	7054.1	7044.7	7026.5	6873.0	6805.4	6673.6	6653.0	6663.0	6644.8	6741.8
12.5°	7474.7	7408.8	7374.1	7321.7	7144.1	7038.3	6864.2	6807.7	6816.5	6778.3	6845.9
15°	7859.3	7789.3	7770.5	7689.9	7471.1	7326.4	7101.2	7015.3	7017.7	6973.6	6970.6
17.5°	8269.8	8207.5	8192.2	8141.0	7898.7	7726.4	7448.2	7331.7	7322.9	7279.4	7150.0
20°	8735.6	8696.2	8688.0	8658.6	8439.2	8237.5	7921.1	7764.6	7755.8	7687.0	7410.6
22.5°	9308.5	9262.0	9237.3	9212.0	9047.9	8838.0	8498.0	8277.5	8312.2	8196.3	7748.7
25°	9878.4	9841.3	9820.2	9803.7	9668.4	9469.6	9125.6	8866.8	8901.5	8777.4	8159.8
27.5°	10444.2	10362.4	10396.5	10435.3	10300.1	10141.9	9767.8	9486.1	9496.7	9362.6	8652.1
30°	10970.0	10927.0	10985.8	11022.3	10923.5	10800.0	10407.1	10134.8	10150.7	9991.3	9216.7
32.5°	11437.0	11375.2	11506.4	11577.5	11518.7	11417.0	11037.6	10779.4	10784.1	10687.7	9890.7
35°	11779.8	11784.0	11965.1	12156.2	12155.7	12012.1	11689.8	11569.9	11624.6	11581.6	10717.7
37.5°	12129.2	12098.0	12307.4	12591.5	12684.4	12556.8	12365.6	12436.8	12510.3	12642.0	11498.7
40°	12294.5	12295.6	12549.1	12877.3	13092.0	13067.9	13000.8	13476.6	13628.9	13668.3	11185.8
42.5°	12095.1	12109.2	12561.5	13142.0	13475.4	13603.1	13750.1	14560.6	14663.5	14440.6	11554.6
45°	11833.9	11853.4	12384.4	13233.1	13815.4	14174.7	14580.0	15370.4	15450.4	15154.0	12091.0
47.5°	11588.7	11624.6	12177.4	13178.4	14084.8	14818.7	15322.2	16133.2	16230.9	15839.8	12590.9
50°	11266.4	11346.4	11910.4	13033.2	14287.7	15379.2	16008.0	17051.3	17089.0	16509.1	13041.4
52.5°	10954.7	10978.2	11608.1	12847.3	14440.6	15887.4	16826.1	17994.7	18038.2	17241.9	13457.2
55°	10527.7	10563.0	11267.0	12614.4	14534.7	16313.2	17654.2	18978.1	19016.9	18122.3	13904.2
57.5°	10057.8	10083.6	10824.7	12256.8	14464.1	16691.4	18537.0	20216.7	20312.0	19028.1	14305.9
60°	9467.9	9502.0	10254.2	11761.0	14220.6	17132.5	19627.4	21540.6	21540.6	19859.7	14624.1
62.5°	8636.8	8684.5	9446.1	11047.0	13714.8	17387.7	20497.8	22693.3	22685.7	20514.9	14731.7
65°	7671.1	7678.7	8369.2	10042.5	12874.9	17251.9	20829.5	23366.8	23349.7	20988.9	14583.5
67.5°	6734.2	6726.0	7338.8	8668.6	11664.0	16583.2	20671.3	23612.6	23633.2	21103.0	14031.2
70°	5405.0	5394.4	5957.8	7044.7	9832.5	15142.8	19772.1	22988.6	23050.9	20451.4	13114.3
72.5°	3867.6	3851.7	4121.7	4840.4	7220.6	12456.8	17530.1	20590.2	20704.3	18364.1	11439.9
75°	2264.9	2282.0	2563.7	2977.2	4288.1	8194.5	14218.3	17291.9	17454.8	15622.1	8997.9
77.5°	1259.8	1256.3	1463.3	1774.4	2109.1	4104.0	9926.0	13617.8	13673.1	12241.5	6050.8
80°	608.1	605.2	661.1	834.0	1202.7	1843.8	4875.1	8461.0	8628.6	7440.0	2958.3
82.5°	437.6	439.9	471.1	457.6	448.8	813.4	1626.8	2664.9	2433.1	1877.9	914.6
85°	328.8	328.8	357.0	329.4	321.7	414.0	791.0	952.2	914.0	835.7	543.4
87.5°	154.7	147.0	156.4	148.2	137.6	183.5	347.0	402.3	372.3	324.7	237.6
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°	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1	6540.1
2.5°	6571.3	6584.2	6651.9	6740.1	6748.3	6824.2	6847.7	6941.8	6938.3	6912.4	6939.5
5°	6615.4	6654.8	6770.7	6894.8	6926.5	7021.8	7042.4	7134.7	7140.6	7108.8	7135.3
7.5°	6686.0	6743.6	6853.0	6975.9	6990.0	7074.7	7071.2	7158.8	7143.5	7115.9	7151.2
10°	6772.4	6817.1	6890.0	6971.2	6964.7	7032.4	7011.2	7074.1	7042.4	7020.0	7060.6
12.5°	6859.5	6861.2	6867.1	6918.3	6878.3	6893.6	6851.8	6898.3	6849.5	6811.8	6836.5
15°	6946.5	6897.1	6814.2	6782.4	6671.3	6614.2	6554.2	6610.1	6496.0	6436.0	6451.3
17.5°	7069.4	6950.6	6671.8	6268.4	5926.1	5737.3	5595.6	5486.2	5488.5	5542.6	5575.0
20°	7167.6	6716.0	6034.9	5785.5	5529.7	5184.4	4648.7	4501.6	4404.6	4402.8	4418.7
22.5°	7132.9	6467.8	6035.5	5645.5	5089.2	4399.3	4167.6	4032.9	3806.4	3322.4	3283.0
25°	7452.3	6687.7	6070.2	5356.2	4387.5	4037.6	3719.4	3457.7	2886.0	2796.0	2792.5
27.5°	7835.2	6984.7	6117.2	4731.6	4107.0	3634.7	3230.1	2597.8	2323.7	2284.9	2271.4
30°	8278.1	7334.7	5830.2	4531.6	3808.2	3166.0	2629.6	1995.0	1772.1	1758.5	1762.1
32.5°	8833.3	7734.0	5530.9	4366.9	3446.5	2623.1	1793.2	1521.5	1393.9	1254.5	1299.2
35°	9424.9	7504.1	5709.7	4163.4	2993.6	1972.6	1362.1	1208.6	1105.1	924.6	851.0
37.5°	9192.0	7662.3	5917.3	3939.9	2427.8	1337.4	1053.9	921.0	824.0	673.4	670.5
40°	9479.0	8115.1	6065.5	3580.0	1755.6	948.7	768.1	712.8	668.1	584.6	572.8
42.5°	9986.0	8510.4	6166.0	3118.3	1049.2	705.8	655.8	664.0	625.2	561.1	553.4
45°	10485.3	8856.2	6071.4	2414.3	746.3	636.4	639.3	635.8	588.7	565.2	557.0
47.5°	10940.0	9148.5	5804.9	1592.7	647.5	620.5	627.0	611.1	558.1	544.6	543.4
50°	11330.5	9457.3	4596.3	1220.4	622.8	599.3	613.4	587.6	496.4	481.7	466.4
52.5°	11571.0	8943.8	4083.4	937.5	597.0	566.4	570.5	591.7	467.6	372.3	348.8
55°	11534.6	8056.9	3796.4	780.5	555.8	520.5	528.7	562.8	422.9	291.1	263.5
57.5°	11708.1	7984.0	3498.8	664.0	479.3	471.7	455.2	512.9	384.6	192.9	182.9
60°	11679.9	7975.2	3122.4	522.3	423.5	396.4	375.8	417.6	275.8	71.8	65.3
62.5°	11634.0	7748.7	2694.9	468.2	389.9	379.3	361.7	408.8	234.7	50.0	37.1
65°	11404.0	7381.1	2210.2	409.9	364.1	342.3	341.1	387.0	193.5	27.6	12.4
67.5°	10618.8	6580.7	1644.4	377.6	348.8	337.6	358.2	372.9	185.9	28.2	11.2
70°	9642.5	5525.0	1061.0	340.5	327.0	332.9	349.9	377.0	180.6	25.9	10.0
72.5°	8062.8	4274.0	643.4	304.1	295.8	313.5	345.2	377.0	167.0	21.8	8.2
75°	6133.7	2850.7	478.7	268.8	259.4	281.7	314.7	362.3	164.1	18.8	5.3
77.5°	3808.2	1346.3	377.6	225.8	215.8	238.8	264.1	298.8	166.4	18.2	2.9
80°	1540.3	562.3	296.4	181.7	169.4	181.7	214.1	254.7	132.3	25.9	0.0
82.5°	648.1	395.8	242.3	144.7	135.3	119.4	145.9	188.8	104.1	20.6	0.0
85°	428.8	274.7	173.5	98.2	86.5	58.2	71.2	85.3	59.4	0.0	0.0
87.5°	194.1	121.7	75.9	33.5	28.2	15.9	9.4	8.2	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)