

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: P591402

Luminaire Tested: **CTN-CA10-310-740-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591402
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-740-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25022 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

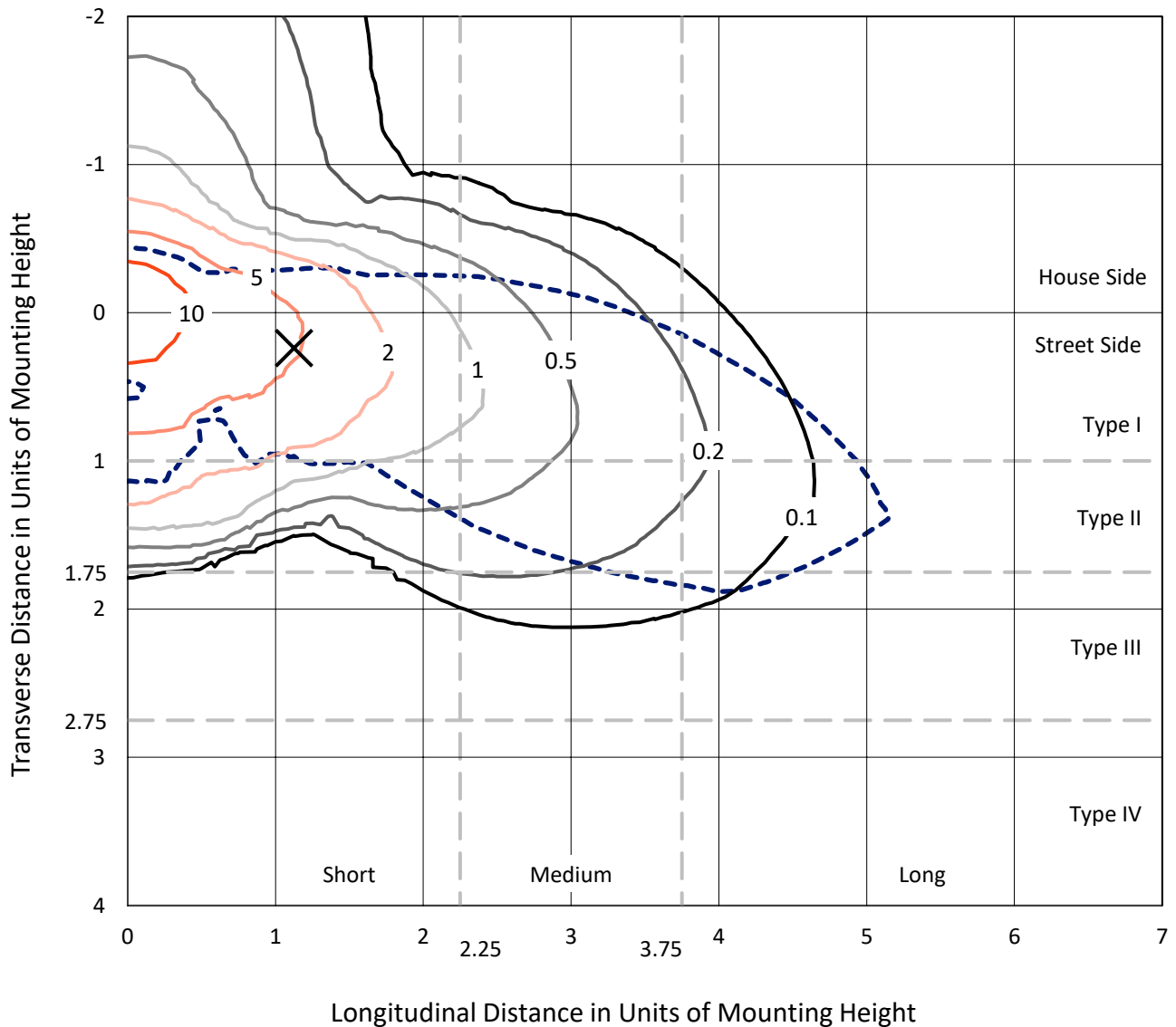
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

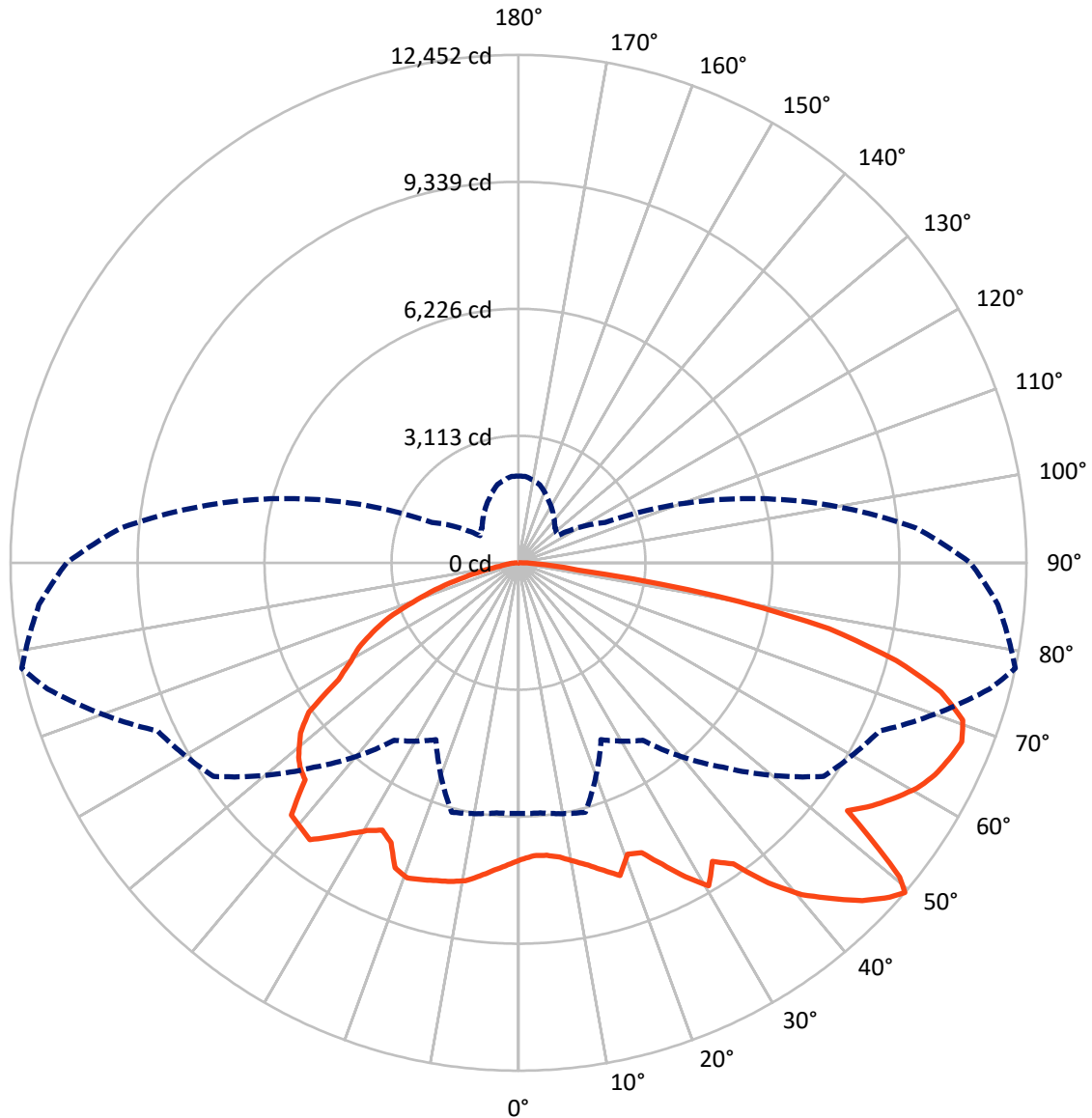
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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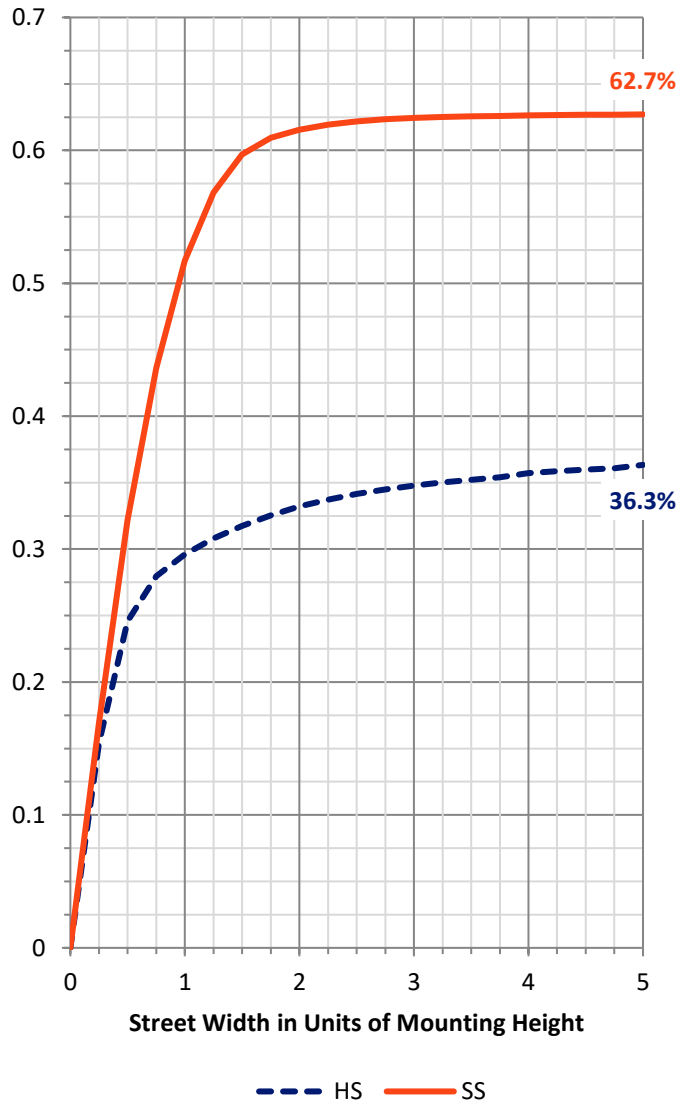
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9358.8	0.0	9358.8
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	15663.2	0.0	15663.2
	% Fixture	62.6	0.0	62.6
Total	Lumens	25022.0	0.0	25022.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	728.3	2.9
10°-20°	2235.7	8.9
20°-30°	3239.8	12.9
30°-40°	3981.0	15.9
40°-50°	4493.2	18.0
50°-60°	4269.6	17.1
60°-70°	3188.8	12.7
70°-80°	2368.2	9.5
80°-90°	517.5	2.1
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°	25022.0	100.0
0°-180°	25022.0	100.0

Coefficient of Utilization

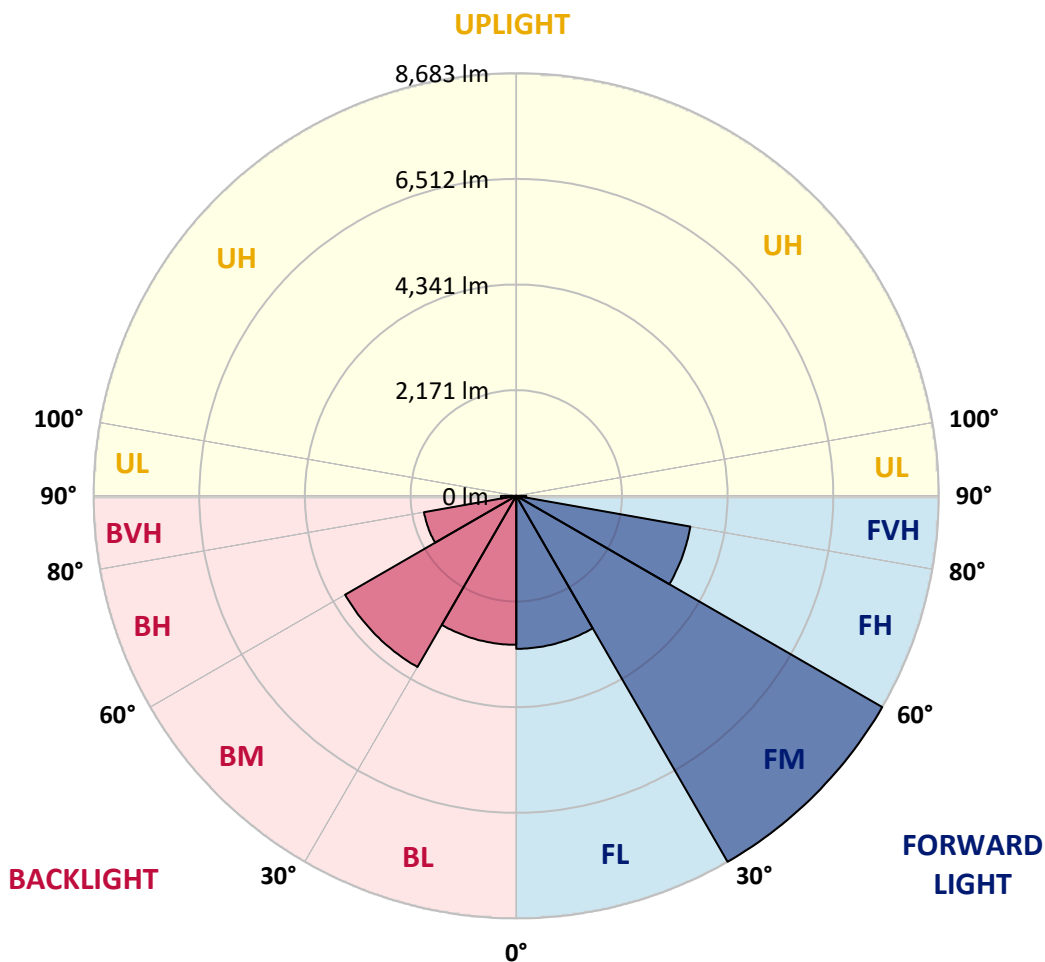


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3142.9	12.6			
FM (30°-60°)	8682.7	34.7			
FH (60°-80°)	3633.0	14.5			G2/5000
FVH (80°-90°)	204.6	0.8			G2/225
BL (0°-30°)	3060.9	12.2	B4/5000		
BM (30°-60°)	4061.0	16.2	B3/5000		
BH (60°-80°)	1924.0	7.7	B3/2500		G3/2500
BVH (80°-90°)	312.9	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3
2.5°	7119.0	7080.1	7090.6	7150.5	7035.2	7119.0	7084.6	7165.5	7192.4	7189.4	7306.2
5°	7177.4	7126.5	7141.5	7181.9	7056.1	7120.5	7093.6	7180.4	7202.9	7204.4	7363.1
7.5°	7391.6	7333.2	7318.2	7321.2	7202.9	7250.8	7181.9	7249.3	7289.7	7285.2	7462.0
10°	7703.0	7638.7	7605.7	7595.2	7451.5	7430.5	7346.6	7370.6	7430.5	7438.0	7617.7
12.5°	8023.5	7972.6	7924.7	7900.7	7703.0	7656.6	7533.8	7554.8	7599.7	7608.7	7795.9
15°	8306.5	8258.6	8251.1	8224.2	8023.5	7933.7	7785.4	7762.9	7797.4	7825.8	7989.1
17.5°	8029.5	7968.1	7929.2	7938.2	7836.3	7608.7	7517.4	7671.6	7959.1	8059.4	8213.7
20°	7247.8	7322.7	7291.2	7169.9	7060.6	7429.0	7351.1	7318.2	7496.4	7625.2	7998.1
22.5°	6367.3	6367.3	6666.8	6876.4	6918.4	7125.0	7550.3	7698.6	7718.0	7718.0	7610.2
25°	5671.0	5868.6	6376.3	7172.9	7177.4	7135.5	7253.8	8066.9	8201.7	8186.7	8005.5
27.5°	5940.5	5907.6	6249.0	6803.1	7586.2	7538.3	7307.7	7674.6	8785.7	8716.8	8484.7
30°	6178.6	6145.7	6207.1	6894.4	7703.0	7975.6	7777.9	7668.6	8817.2	9191.5	9052.3
32.5°	6401.7	6364.3	6434.7	6539.5	7330.2	8409.9	8270.6	8198.7	8367.9	8731.8	9694.7
35°	6581.4	6587.4	6668.3	6822.5	7184.9	8263.1	8764.8	8791.7	9088.2	9065.8	9552.4
37.5°	6714.7	6726.7	6797.1	6979.8	7114.5	6825.5	9235.0	9546.4	10003.2	9958.3	9600.4
40°	6722.2	6749.2	6889.9	7114.5	7273.3	6078.3	9148.1	10379.0	10831.3	10699.5	10254.8
42.5°	6582.9	6596.4	6831.5	7211.9	5519.7	6322.4	8483.2	11208.7	11410.8	11249.1	10754.9
45°	6458.6	6455.6	6707.2	7048.6	5215.7	6608.4	8465.3	10967.6	11943.9	11818.1	11187.7
47.5°	6283.4	6281.9	6527.5	5304.1	5281.6	6916.9	8911.5	9510.5	12385.7	12250.9	11581.5
49°	6142.7	6157.6	6331.4	4784.5	5311.6	7089.1	9128.7	9759.1	11952.9	12451.6	11800.2
50°	6066.3	6081.3	5657.5	4732.0	5320.6	7187.9	9242.5	9941.8	10757.9	12111.6	11940.9
52.5°	5718.9	5587.1	4386.1	4622.7	5323.5	7304.7	7947.1	10329.6	10253.3	10096.0	11306.0
55°	3445.7	3899.4	3971.3	4498.4	5275.6	5305.6	7762.9	10780.4	10747.4	10518.3	9735.1
57.5°	2089.0	2068.0	3066.8	4152.5	3532.6	4449.0	8066.9	11376.4	11181.7	10876.2	9901.4
60°	736.8	651.4	657.4	708.3	1314.8	3328.9	6434.7	8567.1	11271.5	11223.6	10052.6
62.5°	58.4	55.4	55.4	58.4	83.9	1250.4	5101.9	8594.0	11583.0	11458.7	10087.0
65°	7.5	7.5	7.5	16.5	43.4	1130.6	5109.4	8733.3	11815.1	11602.5	9995.7
67.5°	0.0	0.0	4.5	12.0	34.4	1000.3	4959.7	8815.7	12023.3	11722.3	9911.8
70°	0.0	0.0	3.0	10.5	29.9	828.1	4777.0	8887.6	11925.9	11553.1	9489.5
72.5°	0.0	0.0	3.0	9.0	25.5	546.6	4234.9	8355.9	11232.6	10828.3	8622.5
75°	0.0	0.0	3.0	7.5	24.0	311.5	3469.7	7382.6	9995.7	9567.4	7265.8
77.5°	0.0	0.0	1.5	6.0	21.0	170.7	2397.5	6111.2	8257.1	7786.9	5443.3
80°	0.0	0.0	1.5	6.0	19.5	116.8	1090.2	3969.8	5503.2	4914.7	2983.0
82.5°	0.0	0.0	1.5	6.0	15.0	79.4	440.3	1112.6	1702.6	1455.6	949.4
85°	0.0	0.0	1.5	4.5	10.5	50.9	217.1	456.7	687.3	660.4	480.7
87.5°	0.0	0.0	1.5	4.5	7.5	15.0	64.4	149.7	268.0	272.5	205.2
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°	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3	7276.3
2.5°	7361.6	7375.1	7420.0	7487.4	7497.9	7589.2	7574.3	7745.0	7761.4	7801.9	7846.8
5°	7439.5	7485.9	7587.7	7742.0	7854.3	7992.1	7978.6	8171.8	8191.2	8180.7	8249.6
7.5°	7553.3	7622.2	7780.9	7989.1	8026.5	8197.2	8174.8	8342.5	8345.5	8323.0	8390.4
10°	7719.5	7800.4	7947.1	8065.4	8155.3	8258.6	8243.6	8393.4	8378.4	8353.0	8423.3
12.5°	7879.8	7924.7	8014.5	8153.8	8170.3	8212.2	8186.7	8326.0	8311.0	8275.1	8341.0
15°	8023.5	8046.0	8047.5	8116.4	8078.9	8110.4	8043.0	8143.3	8108.9	8095.4	8141.8
17.5°	8207.7	8165.8	8104.4	8099.9	7972.6	7929.2	7821.3	7848.3	7776.4	7770.4	7795.9
20°	8231.7	8318.5	8141.8	7959.1	7745.0	7635.7	7432.0	7433.5	7352.6	7321.2	7336.2
22.5°	7575.8	7789.9	8185.2	7836.3	7472.4	7226.8	6964.8	6885.4	6732.7	6668.3	6642.8
25°	7831.8	7553.3	7523.3	7629.7	7119.0	6744.7	6364.3	6130.7	5949.5	5802.7	5813.2
27.5°	8228.7	7866.3	7134.0	7177.4	6674.3	6148.7	5575.1	5245.7	5061.5	4919.2	4902.8
30°	8754.3	8299.0	7217.9	6220.5	6163.6	5399.9	4696.1	4332.2	4145.0	4094.1	4062.7
32.5°	9407.2	8814.2	7406.5	6001.9	5100.4	4589.8	3800.6	3507.1	3418.8	3414.3	3378.3
35°	10182.9	9495.5	7580.3	5711.4	4398.1	3737.7	3036.9	2843.7	2857.2	2858.7	2888.6
37.5°	9687.2	10139.5	7797.4	5435.9	3713.8	2777.8	2442.4	2321.1	2360.0	2422.9	2452.9
40°	9694.7	9230.5	8050.5	4976.1	2885.6	2118.9	1910.8	1883.8	2050.1	2177.3	2208.8
42.5°	10084.0	9170.6	7957.6	4452.0	2112.9	1611.3	1591.8	1737.1	1976.7	2118.9	2144.4
45°	10501.8	9455.1	6609.9	3709.3	1531.9	1362.7	1512.5	1714.6	1975.2	2126.4	2141.4
47.5°	10898.7	9634.8	6335.8	2899.1	1230.9	1284.8	1488.5	1714.6	1985.7	2139.9	2148.9
49°	11075.4	9780.1	6081.3	2345.1	1154.6	1254.9	1475.0	1717.6	1988.7	2120.4	2124.9
50°	11180.2	9862.4	5876.1	2174.3	1117.1	1235.4	1469.0	1722.1	1984.2	2098.0	2102.5
52.5°	11343.4	9995.7	5404.4	1732.6	1046.7	1190.5	1460.0	1740.1	1967.7	2035.1	2032.1
55°	9354.8	9342.8	5010.6	1454.1	992.8	1150.1	1457.0	1755.0	1975.2	2044.1	2041.1
57.5°	8965.4	7671.6	4221.4	1189.0	947.9	1115.6	1460.0	1777.5	2110.0	2229.8	2214.8
60°	8993.9	7554.8	3592.5	1031.8	895.5	1087.2	1469.0	1877.8	2437.9	2559.2	2521.8
62.5°	8895.0	7268.8	3215.1	926.9	840.1	1061.7	1475.0	2017.1	2479.8	2490.3	2425.9
65°	8659.9	6909.4	2707.4	811.6	781.7	1037.8	1473.5	2068.0	2288.2	2202.8	2181.8
67.5°	8224.2	6527.5	2142.9	711.3	718.8	1001.8	1508.0	1979.7	2165.4	2096.5	2065.0
70°	7707.5	5712.9	1511.0	618.5	661.9	961.4	1503.5	1958.7	2101.0	1999.1	1955.7
72.5°	6788.1	4802.4	1016.8	533.1	590.0	915.0	1427.1	1895.8	2059.0	1991.7	1931.8
75°	5395.4	3594.0	590.0	459.7	519.6	847.6	1352.2	1856.9	2081.5	1952.7	1828.4
77.5°	3688.3	2047.1	440.3	384.9	447.7	760.7	1226.4	1726.6	2012.6	1901.8	1735.6
80°	1653.2	739.8	336.9	313.0	375.9	617.0	1057.2	1527.4	1906.3	1906.3	1789.5
82.5°	657.4	465.7	233.6	245.6	307.0	470.2	837.1	1317.8	1680.2	1756.5	1877.8
85°	371.4	272.5	149.7	178.2	235.1	363.9	609.5	1024.3	1368.7	1516.9	1644.2
87.5°	146.8	103.3	59.9	100.3	136.3	187.2	266.6	501.7	736.8	907.5	1003.3
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)