

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: P591340

Luminaire Tested: **CTN-CA6-230-730-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591340
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA6-230-730-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24582 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

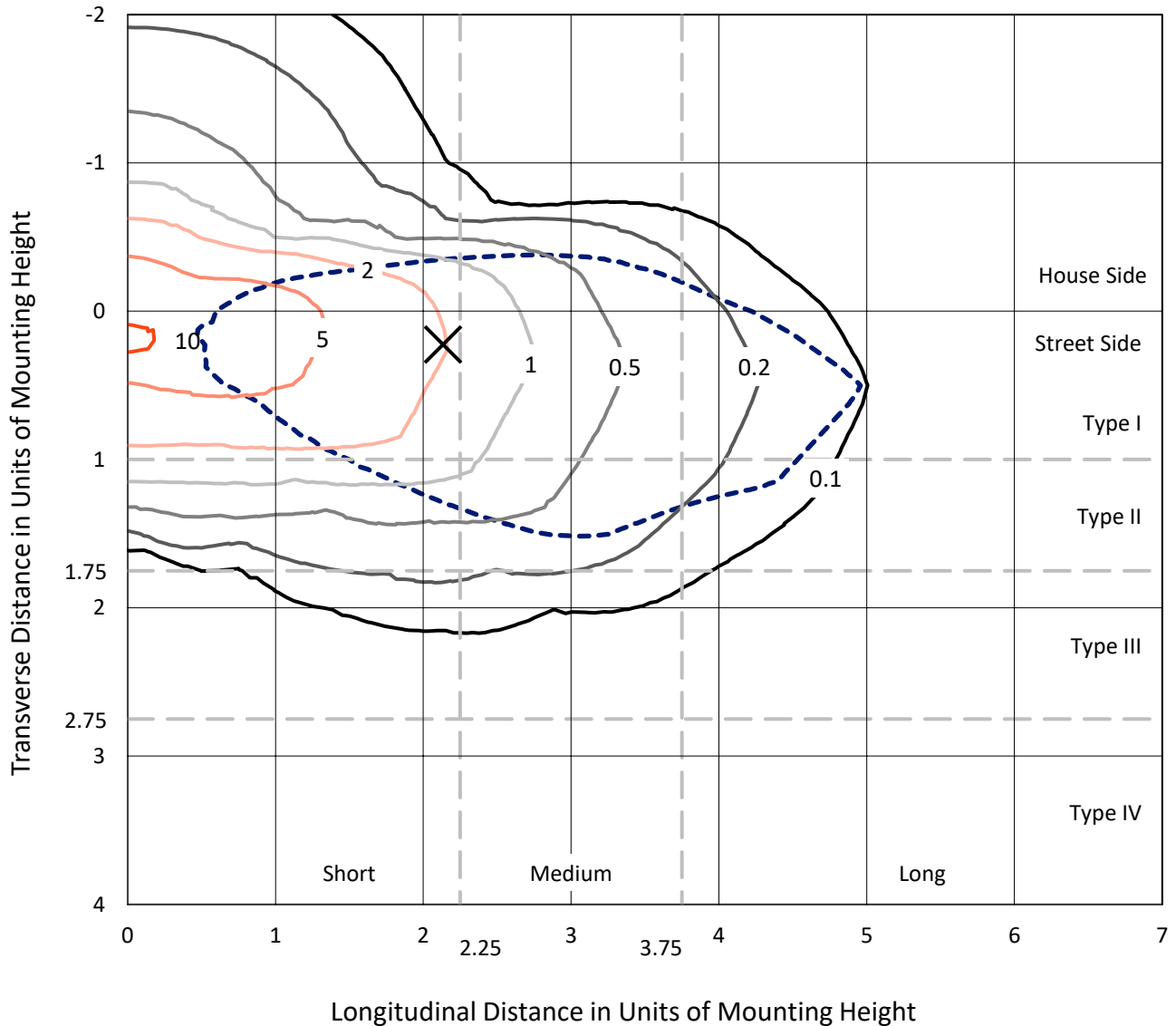
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

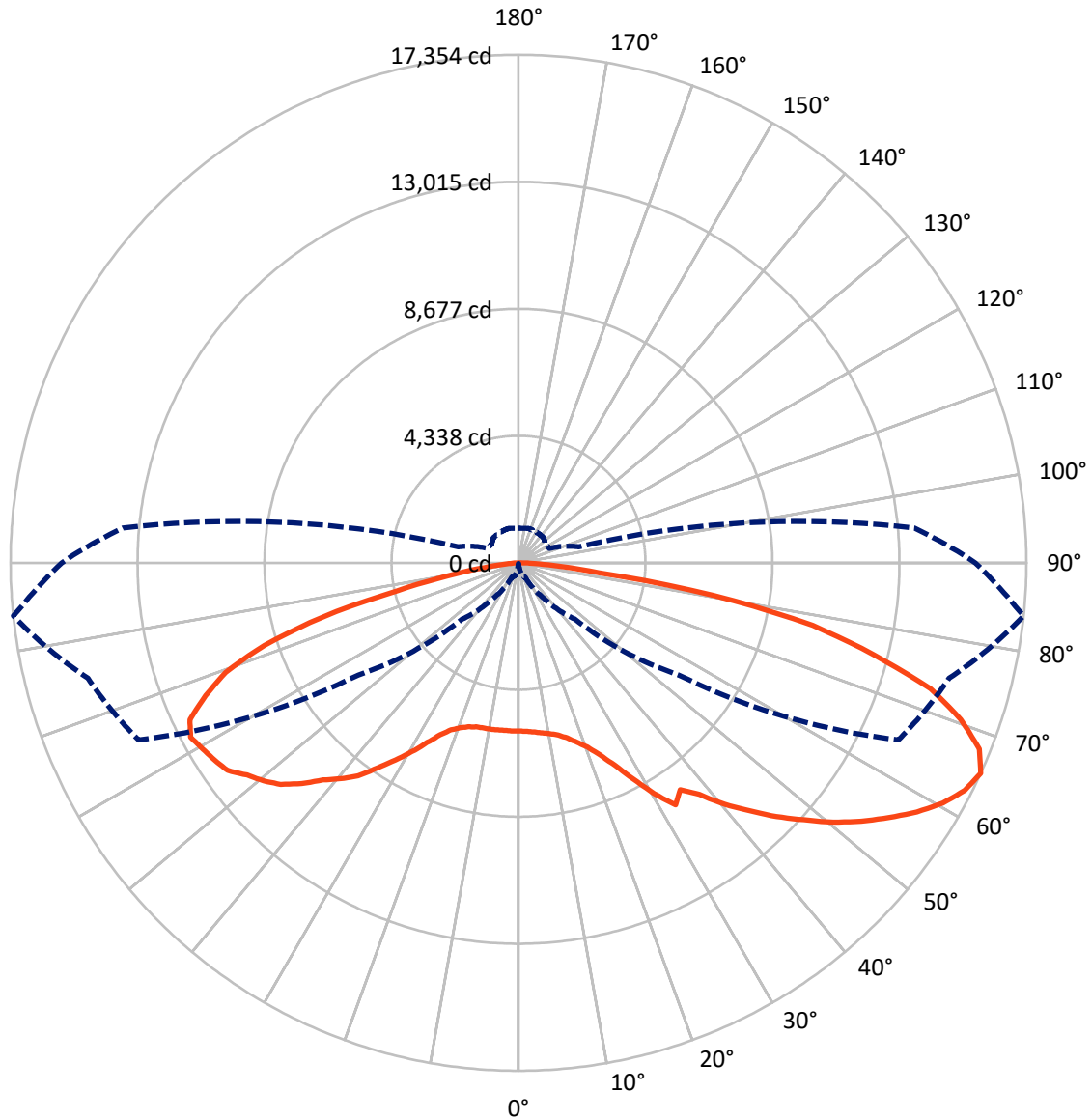
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



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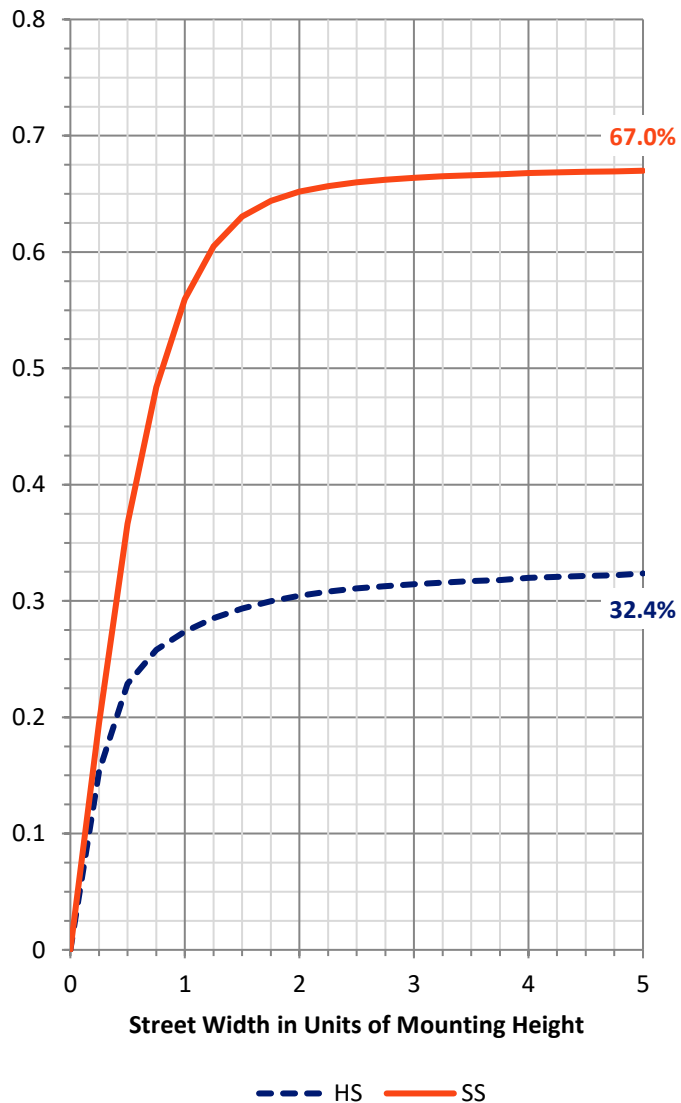
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8137.9	0.0	8137.9
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	16444.1	0.0	16444.1
	% Fixture	66.9	0.0	66.9
Total	Lumens	24582.0	0.0	24582.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	554.8	2.3
10°-20°	1651.3	6.7
20°-30°	2481.0	10.1
30°-40°	3299.3	13.4
40°-50°	4073.6	16.6
50°-60°	4577.6	18.6
60°-70°	4489.6	18.3
70°-80°	2919.3	11.9
80°-90°	535.7	2.2
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°	24582.0	100.0
0°-180°	24582.0	100.0

Coefficient of Utilization



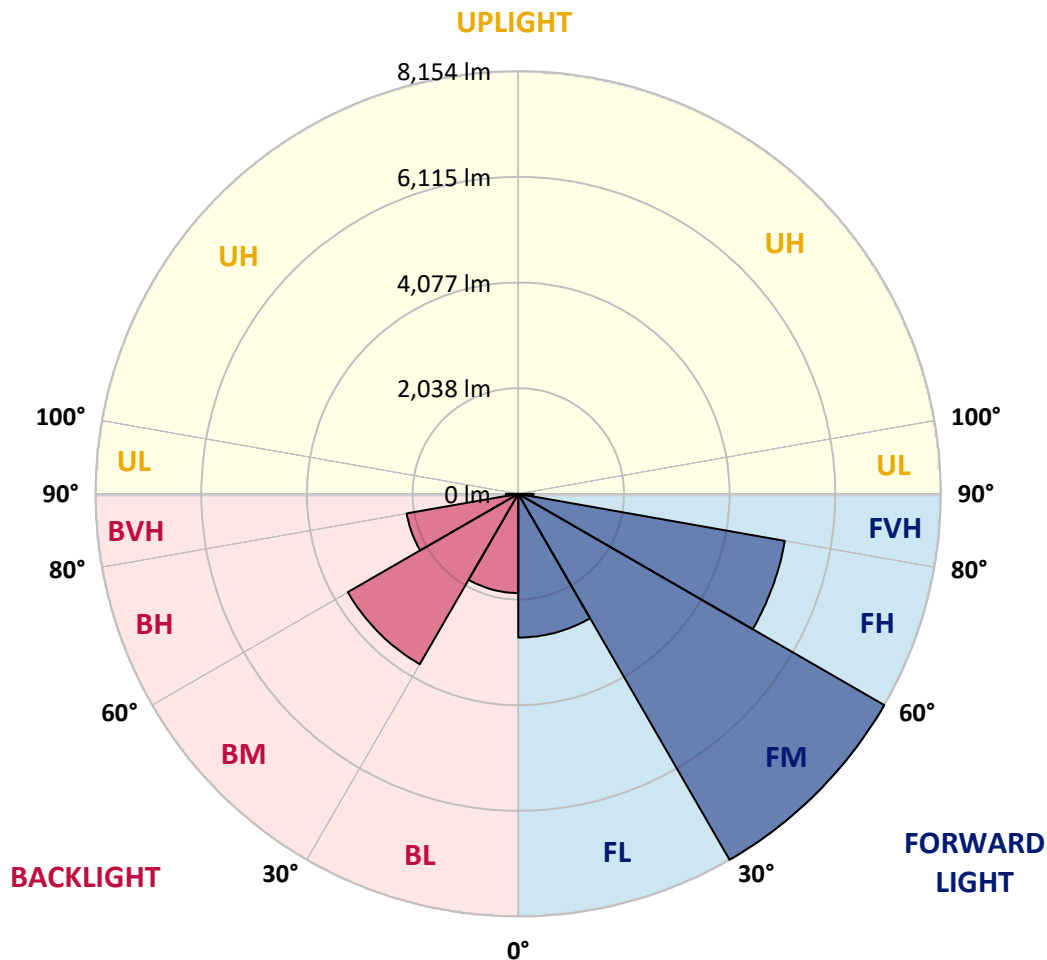
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2772.7	11.3			
FM (30°-60°)	8153.8	33.2			
FH (60°-80°)	5223.4	21.2			G3/7500
FVH (80°-90°)	294.3	1.2			G3/500
BL (0°-30°)	1914.3	7.8	B3/2500		
BM (30°-60°)	3796.6	15.4	B3/5000		
BH (60°-80°)	2185.5	8.9	B3/2500		G3/2500
BVH (80°-90°)	241.4	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5
2.5°	5993.3	5936.8	5943.1	5970.3	5865.7	5900.2	5841.7	5852.1	5782.1	5769.5	5776.9
5°	6414.7	6354.0	6354.0	6370.8	6195.1	6148.0	5984.9	5957.7	5854.2	5808.2	5810.3
7.5°	6632.2	6572.6	6561.1	6576.7	6450.2	6460.7	6293.4	6133.4	5949.4	5867.8	5863.6
10°	6952.1	6885.2	6845.5	6846.5	6676.1	6611.2	6487.9	6376.0	6094.7	5935.8	5915.9
12.5°	7210.4	7159.1	7138.2	7122.5	6934.3	6891.5	6659.3	6568.4	6268.3	6039.3	6013.2
15°	7359.9	7311.8	7281.5	7245.9	7141.4	7071.3	6970.9	6763.9	6474.3	6205.6	6173.1
17.5°	6969.9	6887.3	6744.0	6681.3	6657.2	6758.7	7190.5	7084.9	6739.8	6441.9	6407.3
20°	5941.0	6016.3	6125.0	5878.3	5954.6	6708.5	7518.8	7509.4	7111.0	6725.2	6680.2
22.5°	5054.4	4855.7	5198.7	5575.1	5815.5	6526.5	7646.4	7999.8	7614.0	7123.6	7071.3
25°	4143.7	4256.6	4718.7	5476.8	5813.5	6388.5	7576.3	8376.2	8257.0	7666.2	7604.5
27.5°	4020.3	4022.4	4466.7	5047.0	5928.5	6708.5	7652.6	8390.8	8983.7	8367.8	8248.6
30°	3994.1	3981.6	4101.8	4806.6	5725.6	7007.5	8144.1	8521.5	9160.4	9152.0	8993.1
32.5°	3871.8	3864.5	3990.0	4309.9	5291.7	7324.3	8609.4	9131.1	9096.6	9858.8	9816.0
35°	3697.2	3723.3	3879.1	4211.6	5087.8	7060.8	9087.2	9829.6	9888.1	9515.9	9686.3
37.5°	3515.3	3529.9	3680.5	4082.0	4747.0	6599.7	9451.0	10514.4	10715.2	10042.9	9906.9
40°	3267.5	3297.8	3474.5	3926.2	4678.0	6172.1	9193.8	11294.4	11607.0	10846.9	10637.8
42.5°	3005.0	3019.7	3235.0	3673.1	4562.9	6178.4	8665.8	11967.8	12428.9	11580.9	11368.7
45°	2775.0	2779.2	2981.0	3373.1	4336.0	6139.7	8332.3	11995.0	13412.8	12367.2	12100.6
47.5°	2493.7	2533.5	2733.2	3124.2	4046.4	6010.0	8488.1	11151.2	14399.8	13116.9	12873.3
50°	1912.4	1943.7	2330.6	2880.6	3729.6	5793.6	8594.7	11830.8	13299.9	13930.3	13755.7
52.5°	1644.7	1591.4	1869.5	2606.6	3440.0	5432.9	8639.7	12784.4	13297.8	14666.4	14491.8
55°	703.7	1079.0	1684.4	2140.3	3175.4	4951.9	8607.3	13717.0	13946.0	15360.7	15300.1
57.5°	556.3	582.4	1238.0	1731.5	2861.8	4383.1	8460.9	14333.9	14514.8	16056.0	15883.5
60°	102.5	116.1	608.5	731.9	2072.4	3534.1	7927.6	14421.8	14929.9	16661.4	16440.8
62.5°	47.1	55.4	489.3	609.6	1657.3	2906.7	7470.7	14393.5	15313.6	17111.0	16916.5
65°	22.0	28.2	438.1	553.1	1434.5	2712.2	6679.2	14317.2	15229.0	17353.6	17037.8
67.5°	16.7	24.0	402.6	496.7	1193.0	2518.8	5927.4	13516.3	14821.2	16978.2	16540.1
70°	16.7	24.0	368.0	451.7	1012.1	2273.1	4811.8	12513.6	13890.6	16029.9	15665.0
72.5°	17.8	24.0	327.3	408.8	877.2	1962.6	3758.9	10912.8	12775.0	14720.8	14337.1
75°	17.8	24.0	282.3	361.8	739.2	1643.7	2516.7	7800.1	11003.7	12529.3	12102.7
77.5°	17.8	24.0	234.2	302.2	602.3	1313.3	1628.0	4205.3	8657.5	10275.0	9728.1
80°	17.8	24.0	174.6	229.0	452.7	926.4	972.4	2120.4	4658.1	6750.3	6845.5
82.5°	17.8	23.0	121.3	167.3	295.9	508.2	537.4	1023.6	1718.9	2768.7	2807.4
85°	16.7	19.9	86.8	110.8	162.1	191.3	261.4	509.2	823.9	1181.5	1172.1
87.5°	10.5	10.5	28.2	43.9	65.9	75.3	117.1	188.2	284.4	390.0	368.0
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°	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5	5746.5
2.5°	5775.8	5751.8	5721.4	5713.1	5642.0	5608.5	5540.6	5570.9	5536.4	5508.1	5540.6
5°	5784.2	5748.6	5684.8	5609.6	5458.0	5388.9	5292.8	5303.2	5253.0	5214.3	5236.3
7.5°	5805.1	5761.2	5660.8	5491.4	5310.5	5201.8	5101.4	5179.8	5145.3	5116.1	5138.0
10°	5815.5	5781.0	5603.3	5424.5	5164.1	5104.5	4979.1	4969.7	4972.8	4969.7	5004.2
12.5°	5843.8	5794.6	5536.4	5308.4	5086.8	4928.9	4851.5	4850.5	4751.1	4708.3	4727.1
15°	5927.4	5820.8	5491.4	5170.4	4925.8	4821.2	4576.5	4577.6	4535.8	4486.6	4485.6
17.5°	6094.7	5899.2	5491.4	5077.4	4777.3	4566.1	4352.8	4236.7	4208.5	4214.8	4210.6
20°	6315.3	6030.9	5489.3	4940.4	4568.2	4349.6	4042.2	3943.9	3855.1	3861.3	3861.3
22.5°	6632.2	6225.4	5493.5	4814.9	4368.5	4071.5	3725.4	3601.0	3505.8	3509.0	3509.0
25°	7087.0	6559.0	5542.7	4738.6	4100.8	3744.2	3395.0	3201.6	3104.3	3105.4	3107.5
27.5°	7666.2	7024.2	5713.1	4576.5	3878.1	3357.4	2974.7	2832.5	2735.3	2710.2	2710.2
30°	8321.8	7582.6	5933.7	4470.9	3533.0	2921.4	2603.5	2497.9	2380.8	2346.3	2346.3
32.5°	9048.5	8143.0	6161.6	4341.3	3207.9	2547.0	2282.5	2185.3	2038.9	1996.0	1981.4
35°	9804.5	8722.3	6438.7	4159.3	2799.0	2238.6	2004.4	1886.2	1780.6	1724.2	1710.6
37.5°	10212.2	9382.0	6688.6	3975.3	2483.3	1995.0	1733.6	1641.6	1571.5	1531.8	1524.5
40°	10772.7	9862.0	6818.3	3671.1	2143.5	1747.2	1483.7	1479.5	1488.9	1453.4	1451.3
42.5°	11343.6	10335.6	6782.7	3263.3	1878.9	1494.1	1358.2	1430.4	1482.6	1451.3	1453.4
45°	12057.7	10973.4	6912.4	2834.6	1617.5	1354.0	1332.1	1416.8	1488.9	1481.6	1481.6
47.5°	12780.2	11590.3	6672.9	2309.7	1441.9	1313.3	1335.2	1394.8	1484.7	1508.8	1503.6
50°	13368.9	12012.7	6525.5	1864.3	1342.5	1314.3	1345.7	1367.6	1465.9	1504.6	1503.6
52.5°	13844.6	12415.3	5975.5	1573.6	1286.1	1318.5	1379.1	1363.4	1432.5	1473.2	1497.3
55°	14518.0	12972.6	5349.2	1461.7	1256.8	1314.3	1390.6	1378.1	1406.3	1425.1	1442.9
57.5°	15038.7	13249.7	4510.7	1389.6	1230.7	1308.0	1381.2	1382.3	1395.9	1388.5	1381.2
60°	15475.7	13502.7	3689.9	1319.5	1197.2	1294.4	1341.5	1356.1	1351.9	1342.5	1323.7
62.5°	15689.0	13776.6	2866.0	1245.3	1161.6	1254.7	1276.7	1293.4	1284.0	1252.6	1250.5
65°	15608.5	13580.1	2124.6	1164.8	1118.8	1210.8	1209.7	1217.1	1221.2	1181.5	1185.7
67.5°	15156.8	12716.4	1618.6	1062.3	1069.6	1148.1	1142.8	1147.0	1135.5	1108.3	1112.5
70°	13843.6	11735.7	1148.1	889.8	969.3	1049.8	1057.1	1074.9	1048.7	1000.6	1003.8
72.5°	11901.9	10050.2	805.1	708.9	851.1	953.6	949.4	948.3	912.8	931.6	954.6
75°	10151.6	7696.6	611.7	570.9	672.3	820.8	867.8	871.0	876.2	1064.4	1078.0
77.5°	7814.7	4656.0	520.7	450.6	521.7	680.7	768.5	804.1	1104.1	1143.9	1123.0
80°	4657.0	2689.2	402.6	351.3	421.4	519.7	656.6	849.0	1109.4	991.2	948.3
82.5°	2266.8	1247.4	292.8	267.7	310.5	377.5	515.5	989.1	938.9	766.4	756.0
85°	845.9	421.4	175.7	183.0	207.0	247.8	392.1	944.2	720.4	624.2	589.7
87.5°	211.2	77.4	71.1	73.2	93.1	124.4	200.8	454.8	349.2	289.6	283.4
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)