

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: P591198

Luminaire Tested: **CTN-CA10-210-727-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591198
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-CA10-210-727-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15263 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

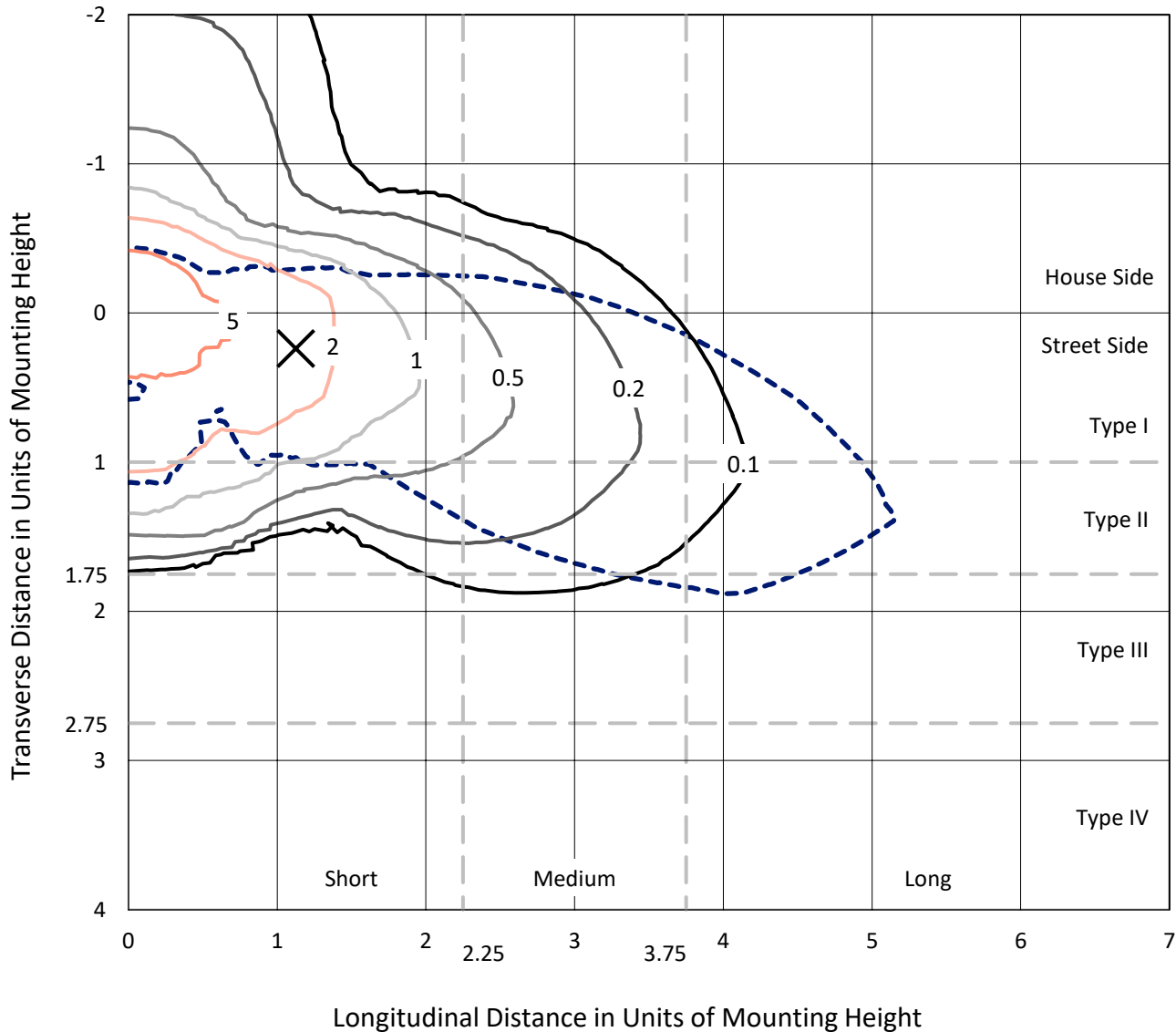
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

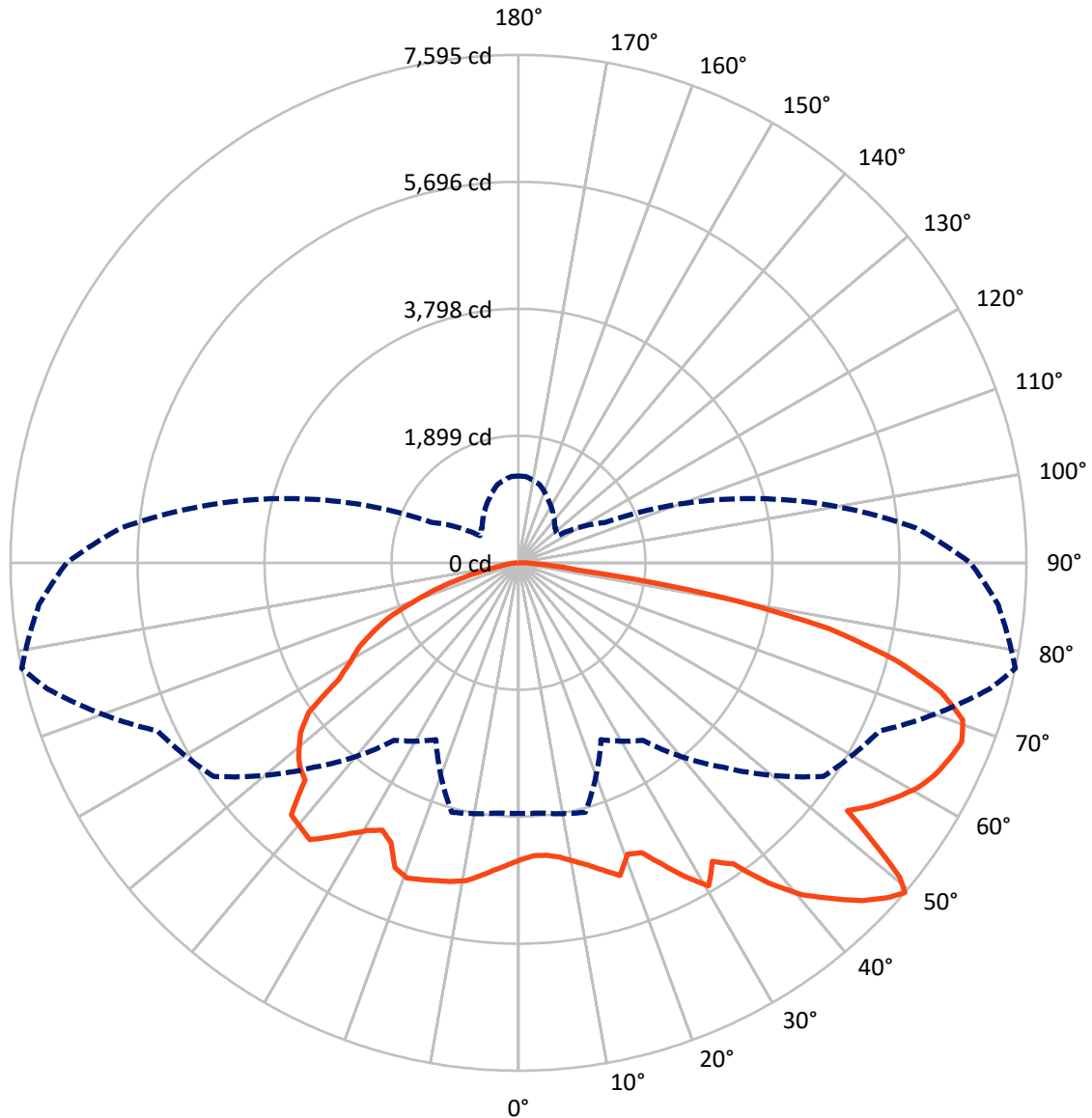
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 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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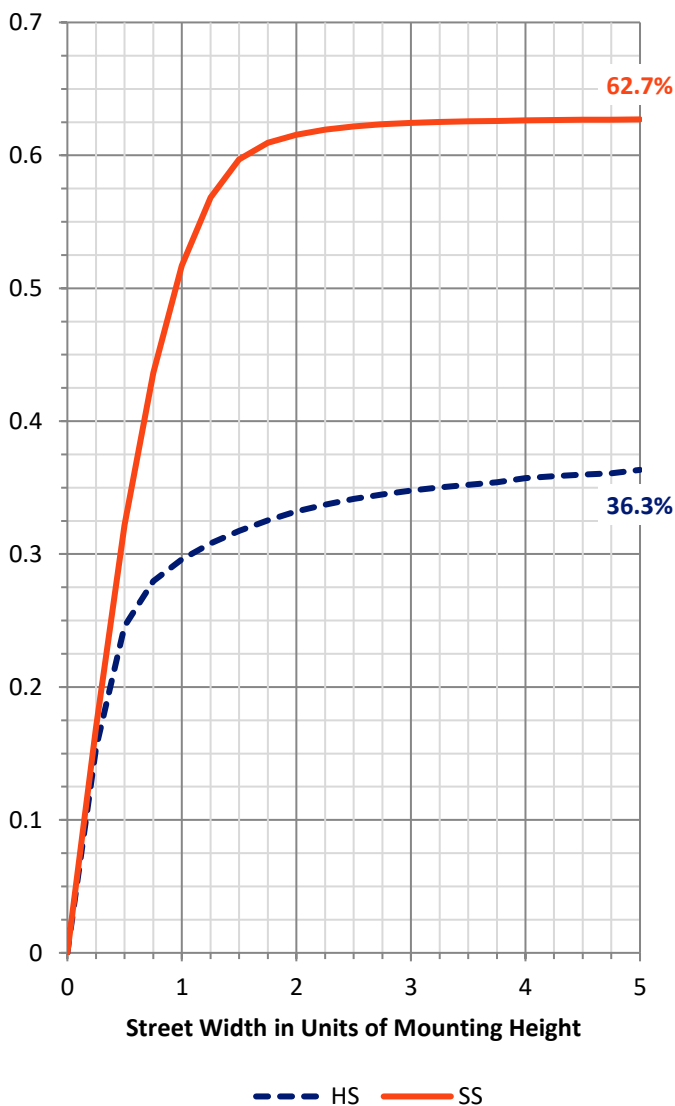
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5708.7	0.0	5708.7
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	9554.3	0.0	9554.3
	% Fixture	62.6	0.0	62.6
Total	Lumens	15263.0	0.0	15263.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	444.3	2.9
10°-20°	1363.7	8.9
20°-30°	1976.2	12.9
30°-40°	2428.3	15.9
40°-50°	2740.7	18.0
50°-60°	2604.4	17.1
60°-70°	1945.1	12.7
70°-80°	1444.6	9.5
80°-90°	315.7	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°	15263.0	100.0
0°-180°	15263.0	100.0

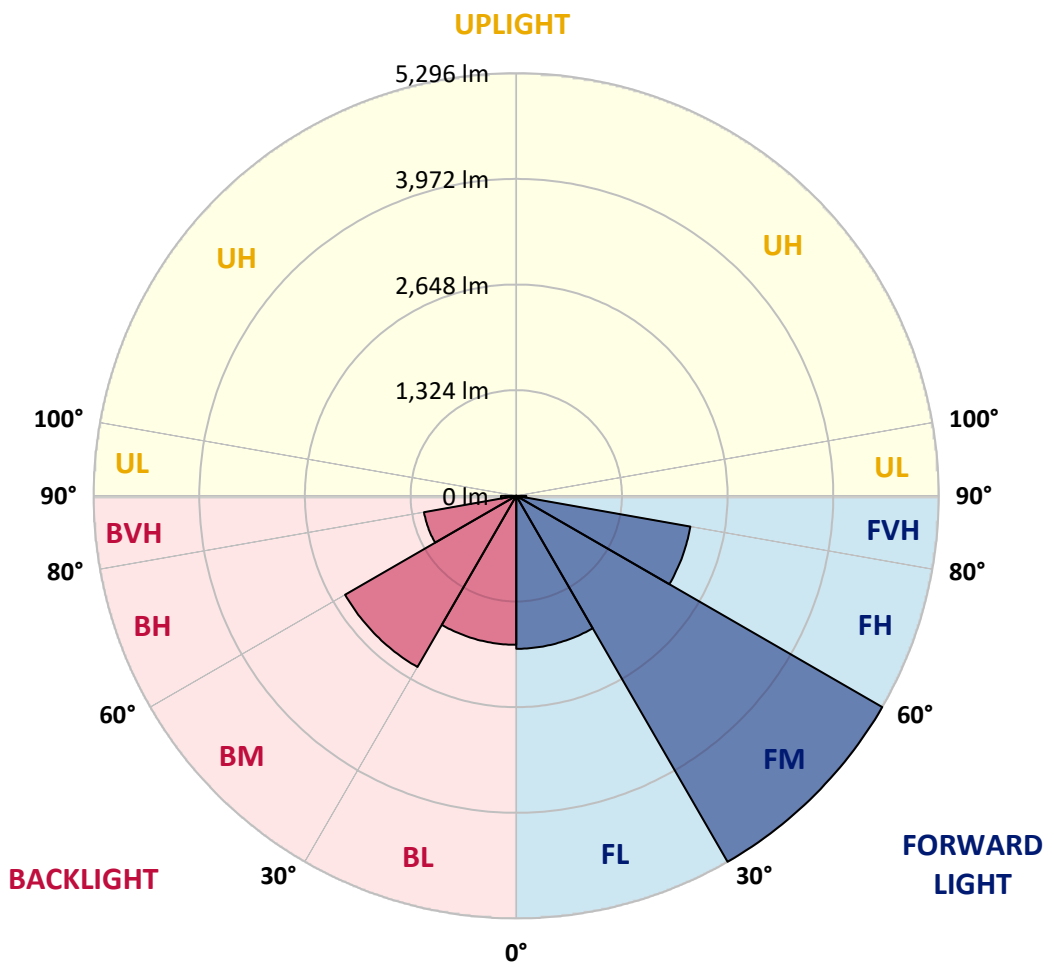


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1917.1	12.6			
FM (30°-60°)	5296.3	34.7			
FH (60°-80°)	2216.1	14.5			G2/5000
FVH (80°-90°)	124.8	0.8			G2/225
BL (0°-30°)	1867.1	12.2	B3/2500		
BM (30°-60°)	2477.2	16.2	B2/2500		
BH (60°-80°)	1173.6	7.7	B3/2500		G3/2500
BVH (80°-90°)	190.9	1.3			G2/225
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°	78°	85°
0°	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4
2.5°	4342.5	4318.7	4325.1	4361.7	4291.3	4342.5	4321.5	4370.8	4387.2	4385.4	4456.7
5°	4378.1	4347.1	4356.2	4380.9	4304.1	4343.4	4327.0	4379.9	4393.6	4394.6	4491.4
7.5°	4508.7	4473.1	4464.0	4465.8	4393.6	4422.9	4380.9	4422.0	4446.6	4443.9	4551.7
10°	4698.7	4659.5	4639.4	4633.0	4545.3	4532.5	4481.3	4495.9	4532.5	4537.1	4646.7
12.5°	4894.2	4863.1	4833.9	4819.3	4698.7	4670.4	4595.5	4608.3	4635.7	4641.2	4755.4
15°	5066.8	5037.6	5033.0	5016.6	4894.2	4839.4	4749.0	4735.3	4756.3	4773.6	4873.2
17.5°	4897.9	4860.4	4836.7	4842.1	4780.0	4641.2	4585.5	4679.5	4854.9	4916.1	5010.2
20°	4421.0	4466.7	4447.5	4373.5	4306.9	4531.6	4484.1	4464.0	4572.7	4651.2	4878.7
22.5°	3883.9	3883.9	4066.6	4194.5	4220.1	4346.1	4605.6	4696.0	4707.9	4707.9	4642.1
25°	3459.2	3579.8	3889.4	4375.4	4378.1	4352.5	4424.7	4920.7	5002.9	4993.8	4883.2
27.5°	3623.6	3603.5	3811.8	4149.8	4627.5	4598.3	4457.6	4681.4	5359.1	5317.1	5175.5
30°	3768.8	3748.8	3786.2	4205.5	4698.7	4865.0	4744.4	4677.7	5378.3	5606.7	5521.7
32.5°	3905.0	3882.1	3925.0	3989.0	4471.3	5129.9	5044.9	5001.1	5104.3	5326.3	5913.6
35°	4014.6	4018.2	4067.5	4161.6	4382.7	5040.4	5346.4	5362.8	5543.7	5530.0	5826.8
37.5°	4095.9	4103.2	4146.1	4257.5	4339.7	4163.5	5633.2	5823.2	6101.8	6074.4	5856.1
40°	4100.4	4116.9	4202.7	4339.7	4436.6	3707.6	5580.2	6331.0	6606.9	6526.5	6255.2
42.5°	4015.5	4023.7	4167.1	4399.1	3366.9	3856.5	5174.6	6837.1	6960.4	6861.8	6560.3
45°	3939.7	3937.8	4091.3	4299.6	3181.5	4031.0	5163.7	6690.0	7285.6	7208.9	6824.3
47.5°	3832.8	3831.9	3981.7	3235.4	3221.7	4219.2	5435.9	5801.3	7555.1	7472.8	7064.5
49°	3746.9	3756.1	3862.0	2918.4	3240.0	4324.2	5568.3	5952.9	7291.1	7595.2	7197.9
50°	3700.3	3709.5	3451.0	2886.5	3245.4	4384.5	5637.7	6064.3	6562.1	7387.9	7283.8
52.5°	3488.4	3408.0	2675.5	2819.8	3247.3	4455.8	4847.6	6300.9	6254.3	6158.4	6896.5
55°	2101.8	2378.6	2422.4	2744.0	3218.0	3236.3	4735.3	6575.8	6555.8	6416.0	5938.3
57.5°	1274.2	1261.5	1870.7	2533.0	2154.8	2713.8	4920.7	6939.4	6820.6	6634.3	6039.7
60°	449.4	397.3	401.0	432.1	802.0	2030.6	3925.0	5225.8	6875.5	6846.2	6131.9
62.5°	35.6	33.8	33.8	35.6	51.2	762.7	3112.1	5242.2	7065.4	6989.6	6152.9
65°	4.6	4.6	4.6	10.0	26.5	689.6	3116.7	5327.2	7207.0	7077.3	6097.2
67.5°	0.0	0.0	2.7	7.3	21.0	610.2	3025.3	5377.4	7334.0	7150.4	6046.1
70°	0.0	0.0	1.8	6.4	18.3	505.1	2913.9	5421.3	7274.6	7047.2	5788.5
72.5°	0.0	0.0	1.8	5.5	15.5	333.4	2583.2	5097.0	6851.7	6605.1	5259.6
75°	0.0	0.0	1.8	4.6	14.6	190.0	2116.4	4503.3	6097.2	5836.0	4432.0
77.5°	0.0	0.0	0.9	3.7	12.8	104.1	1462.4	3727.7	5036.7	4749.9	3320.4
80°	0.0	0.0	0.9	3.7	11.9	71.2	665.0	2421.5	3356.9	2997.9	1819.6
82.5°	0.0	0.0	0.9	3.7	9.1	48.4	268.6	678.7	1038.6	887.9	579.1
85°	0.0	0.0	0.9	2.7	6.4	31.1	132.4	278.6	419.3	402.8	293.2
87.5°	0.0	0.0	0.9	2.7	4.6	9.1	39.3	91.3	163.5	166.2	125.1
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°	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4	4438.4
2.5°	4490.5	4498.7	4526.1	4567.2	4573.6	4629.3	4620.2	4724.3	4734.4	4759.0	4786.4
5°	4538.0	4566.3	4628.4	4722.5	4791.0	4875.0	4866.8	4984.6	4996.5	4990.1	5032.1
7.5°	4607.4	4649.4	4746.2	4873.2	4896.0	5000.2	4986.5	5088.8	5090.6	5076.9	5118.0
10°	4708.8	4758.1	4847.6	4919.8	4974.6	5037.6	5028.5	5119.8	5110.7	5095.2	5138.1
12.5°	4806.5	4833.9	4888.7	4973.7	4983.7	5009.3	4993.8	5078.7	5069.6	5047.7	5087.9
15°	4894.2	4907.9	4908.8	4950.8	4928.0	4947.2	4906.1	4967.3	4946.3	4938.1	4966.4
17.5°	5006.6	4981.0	4943.5	4940.8	4863.1	4836.7	4770.9	4787.3	4743.5	4739.8	4755.4
20°	5021.2	5074.2	4966.4	4854.9	4724.3	4657.6	4533.4	4534.3	4485.0	4465.8	4474.9
22.5°	4621.1	4751.7	4992.9	4780.0	4558.1	4408.3	4248.4	4200.0	4106.8	4067.5	4052.0
25°	4777.3	4607.4	4589.1	4654.0	4342.5	4114.1	3882.1	3739.6	3629.1	3539.6	3546.0
27.5°	5019.3	4798.3	4351.6	4378.1	4071.2	3750.6	3400.7	3199.8	3087.4	3000.6	2990.6
30°	5340.0	5062.3	4402.8	3794.4	3759.7	3293.9	2864.5	2642.6	2528.4	2497.3	2478.2
32.5°	5738.2	5376.5	4517.9	3661.1	3111.2	2799.7	2318.3	2139.3	2085.4	2082.6	2060.7
35°	6211.4	5792.1	4623.8	3483.9	2682.8	2279.9	1852.5	1734.6	1742.8	1743.8	1762.0
37.5°	5909.0	6184.9	4756.3	3315.8	2265.3	1694.4	1489.8	1415.8	1439.6	1477.9	1496.2
40°	5913.6	5630.4	4910.6	3035.4	1760.2	1292.5	1165.5	1149.1	1250.5	1328.1	1347.3
42.5°	6151.1	5593.9	4854.0	2715.7	1288.9	982.9	971.0	1059.6	1205.7	1292.5	1308.0
45°	6405.9	5767.5	4031.9	2262.6	934.4	831.2	922.6	1045.9	1204.8	1297.1	1306.2
47.5°	6648.0	5877.1	3864.8	1768.4	750.8	783.7	908.0	1045.9	1211.2	1305.3	1310.8
49°	6755.8	5965.7	3709.5	1430.4	704.3	765.5	899.7	1047.7	1213.0	1293.4	1296.2
50°	6819.7	6015.9	3584.3	1326.3	681.4	753.6	896.1	1050.5	1210.3	1279.7	1282.5
52.5°	6919.3	6097.2	3296.6	1056.8	638.5	726.2	890.6	1061.4	1200.3	1241.4	1239.5
55°	5706.3	5698.9	3056.4	886.9	605.6	701.5	888.8	1070.6	1204.8	1246.8	1245.0
57.5°	5468.8	4679.5	2575.0	725.3	578.2	680.5	890.6	1084.3	1287.0	1360.1	1351.0
60°	5486.1	4608.3	2191.3	629.4	546.2	663.2	896.1	1145.5	1487.1	1561.1	1538.2
62.5°	5425.8	4433.8	1961.2	565.4	512.4	647.6	899.7	1230.4	1512.7	1519.0	1479.8
65°	5282.4	4214.6	1651.5	495.1	476.8	633.0	898.8	1261.5	1395.7	1343.7	1330.9
67.5°	5016.6	3981.7	1307.1	433.9	438.5	611.1	919.8	1207.6	1320.8	1278.8	1259.6
70°	4701.5	3484.8	921.7	377.3	403.7	586.4	917.1	1194.8	1281.6	1219.4	1193.0
72.5°	4140.6	2929.4	620.2	325.2	359.9	558.1	870.5	1156.4	1256.0	1214.9	1178.3
75°	3291.1	2192.3	359.9	280.4	317.0	517.0	824.8	1132.7	1269.7	1191.1	1115.3
77.5°	2249.8	1248.7	268.6	234.8	273.1	464.0	748.1	1053.2	1227.7	1160.1	1058.7
80°	1008.4	451.2	205.5	190.9	229.3	376.3	644.9	931.7	1162.8	1162.8	1091.6
82.5°	401.0	284.1	142.5	149.8	187.3	286.8	510.6	803.8	1024.9	1071.5	1145.5
85°	226.5	166.2	91.3	108.7	143.4	222.0	371.8	624.8	834.9	925.3	1003.0
87.5°	89.5	63.0	36.5	61.2	83.1	114.2	162.6	306.0	449.4	553.5	612.0
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)