

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: P591342

Luminaire Tested: **CTN-CA6-230-730-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591342
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-CA6-230-730-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 17471 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

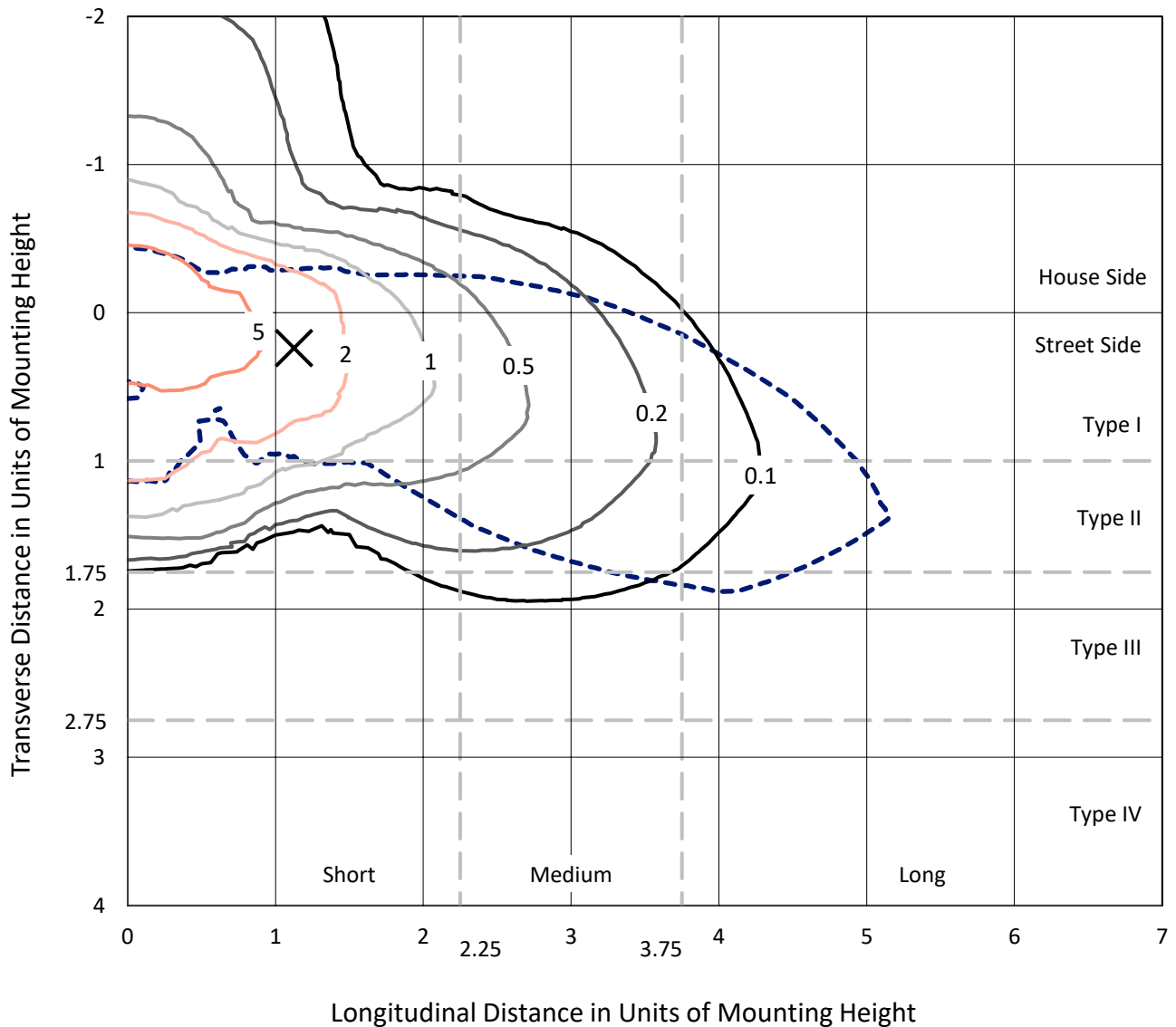
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

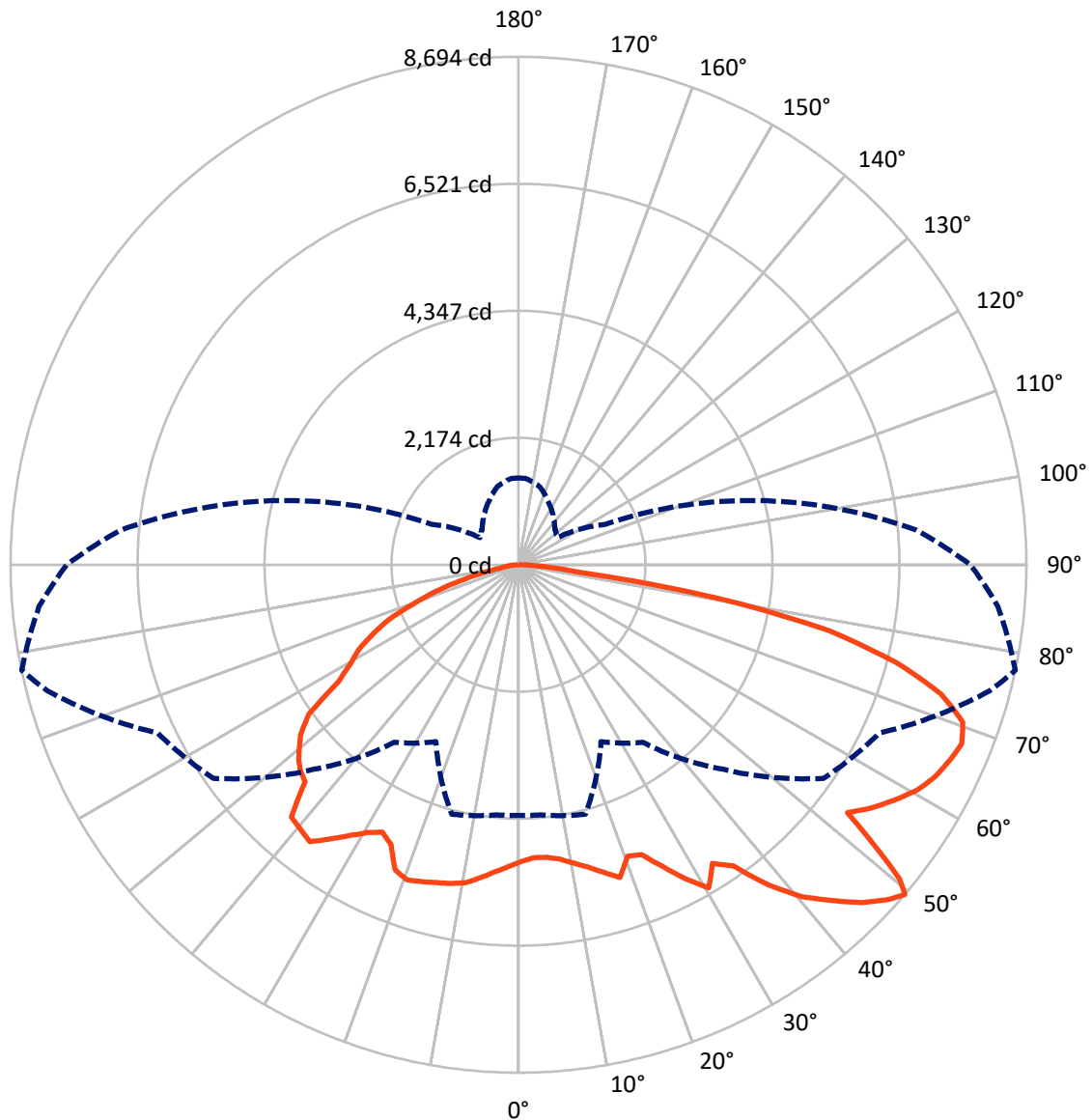
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 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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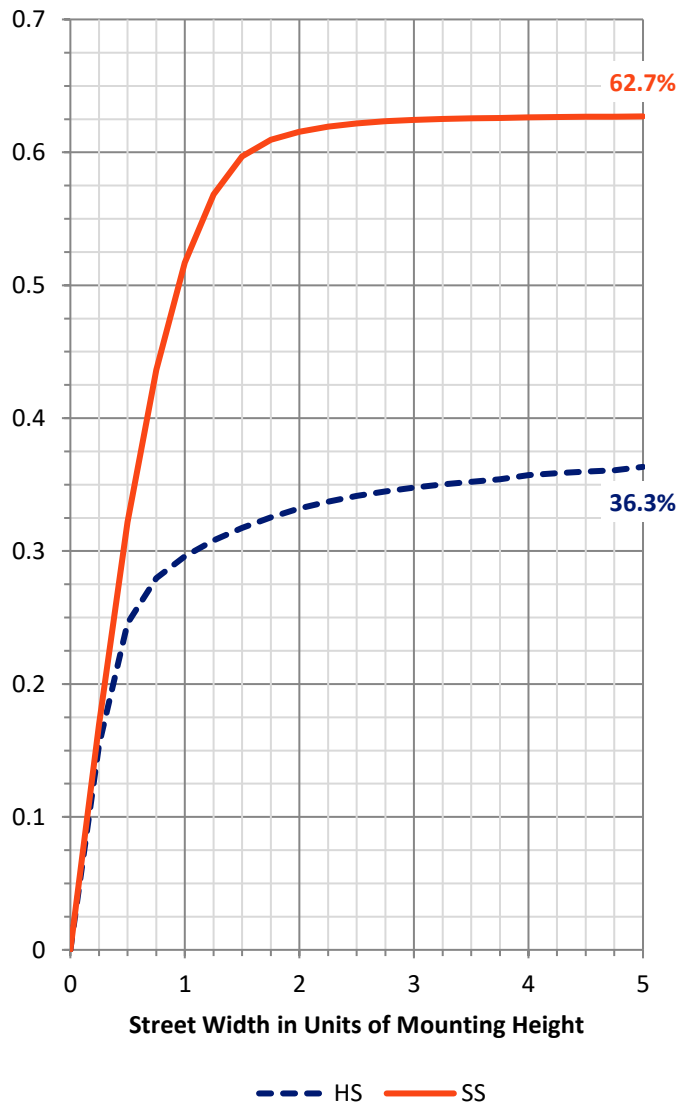
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6534.5	0.0	6534.5
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	10936.4	0.0	10936.4
	% Fixture	62.6	0.0	62.6
Total	Lumens	17471.0	0.0	17471.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	508.5	2.9
10°-20°	1561.0	8.9
20°-30°	2262.1	12.9
30°-40°	2779.6	15.9
40°-50°	3137.2	18.0
50°-60°	2981.2	17.1
60°-70°	2226.5	12.7
70°-80°	1653.5	9.5
80°-90°	361.3	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°	17471.0	100.0
0°-180°	17471.0	100.0

Coefficient of Utilization



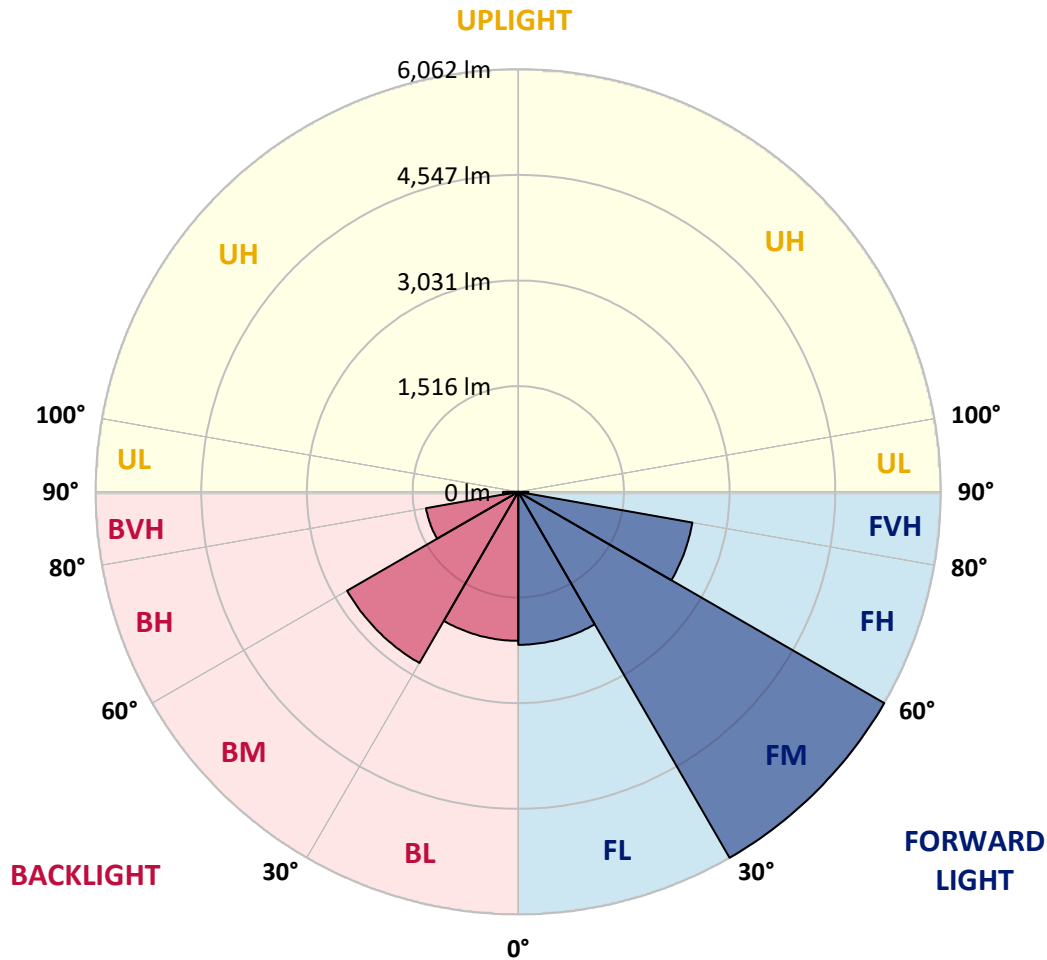
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2194.5	12.6			
FM (30°-60°)	6062.5	34.7			
FH (60°-80°)	2536.7	14.5			G2/5000
FVH (80°-90°)	142.8	0.8			G2/225
BL (0°-30°)	2137.2	12.2	B3/2500		
BM (30°-60°)	2835.5	16.2	B3/5000		
BH (60°-80°)	1343.4	7.7	B3/2500		G3/2500
BVH (80°-90°)	218.5	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°	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5
2.5°	4970.7	4943.5	4950.8	4992.6	4912.1	4970.7	4946.6	5003.1	5021.9	5019.8	5101.4
5°	5011.5	4975.9	4986.4	5014.6	4926.8	4971.7	4952.9	5013.6	5029.2	5030.3	5141.1
7.5°	5161.0	5120.2	5109.8	5111.8	5029.2	5062.7	5014.6	5061.7	5089.9	5086.7	5210.1
10°	5378.5	5333.5	5310.5	5303.2	5202.8	5188.2	5129.6	5146.3	5188.2	5193.4	5318.9
12.5°	5602.2	5566.7	5533.2	5516.5	5378.5	5346.1	5260.3	5275.0	5306.3	5312.6	5443.3
15°	5799.8	5766.4	5761.1	5742.3	5602.2	5539.5	5436.0	5420.3	5444.3	5464.2	5578.2
17.5°	5606.4	5563.5	5536.3	5542.6	5471.5	5312.6	5248.8	5356.5	5557.3	5627.3	5735.0
20°	5060.6	5112.9	5090.9	5006.2	4929.9	5187.1	5132.8	5109.8	5234.2	5324.1	5584.4
22.5°	4445.8	4445.8	4654.9	4801.3	4830.6	4974.9	5271.8	5375.3	5388.9	5388.9	5313.6
25°	3959.6	4097.6	4452.1	5008.3	5011.5	4982.2	5064.8	5632.5	5726.6	5716.2	5589.7
27.5°	4147.8	4124.8	4363.2	4750.1	5296.9	5263.5	5102.4	5358.6	6134.4	6086.3	5924.3
30°	4314.1	4291.1	4333.9	4813.9	5378.5	5568.8	5430.7	5354.4	6156.4	6417.8	6320.5
32.5°	4469.9	4443.7	4492.9	4566.0	5118.1	5872.0	5774.7	5724.6	5842.7	6096.8	6769.1
35°	4595.3	4599.5	4656.0	4763.7	5016.7	5769.5	6119.8	6138.6	6345.6	6329.9	6669.8
37.5°	4688.4	4696.7	4745.9	4873.4	4967.6	4765.8	6448.1	6665.6	6984.5	6953.1	6703.2
40°	4693.6	4712.4	4810.7	4967.6	5078.4	4244.0	6387.4	7246.9	7562.7	7470.7	7160.1
42.5°	4596.4	4605.8	4769.9	5035.5	3854.0	4414.4	5923.2	7826.2	7967.3	7854.4	7509.4
45°	4509.6	4507.5	4683.2	4921.5	3641.8	4614.1	5910.7	7657.8	8339.5	8251.7	7811.5
47.5°	4387.3	4386.2	4557.7	3703.4	3687.8	4829.5	6222.2	6640.5	8648.0	8553.9	8086.5
49°	4289.0	4299.4	4420.7	3340.6	3708.7	4949.8	6373.9	6814.0	8345.8	8694.0	8239.2
50°	4235.6	4246.1	3950.2	3304.0	3714.9	5018.8	6453.3	6941.6	7511.4	8456.7	8337.5
52.5°	3993.1	3901.1	3062.5	3227.7	3717.0	5100.3	5548.9	7212.4	7159.1	7049.3	7894.1
55°	2405.9	2722.7	2772.9	3140.9	3683.6	3704.5	5420.3	7527.1	7504.1	7344.2	6797.3
57.5°	1458.6	1443.9	2141.3	2899.4	2466.5	3106.4	5632.5	7943.3	7807.3	7594.0	6913.4
60°	514.4	454.8	459.0	494.6	918.0	2324.3	4492.9	5981.8	7870.1	7836.6	7019.0
62.5°	40.8	38.7	38.7	40.8	58.6	873.1	3562.3	6000.6	8087.6	8000.8	7043.0
65°	5.2	5.2	5.2	11.5	30.3	789.4	3567.5	6097.8	8249.6	8101.2	6979.2
67.5°	0.0	0.0	3.1	8.4	24.0	698.4	3463.0	6155.3	8395.0	8184.8	6920.7
70°	0.0	0.0	2.1	7.3	20.9	578.2	3335.4	6205.5	8327.0	8066.7	6625.8
72.5°	0.0	0.0	2.1	6.3	17.8	381.6	2956.9	5834.3	7842.9	7560.6	6020.5
75°	0.0	0.0	2.1	5.2	16.7	217.5	2422.6	5154.7	6979.2	6680.2	5073.2
77.5°	0.0	0.0	1.0	4.2	14.6	119.2	1674.0	4267.0	5765.3	5437.0	3800.7
80°	0.0	0.0	1.0	4.2	13.6	81.6	761.2	2771.8	3842.5	3431.6	2082.8
82.5°	0.0	0.0	1.0	4.2	10.5	55.4	307.4	776.9	1188.8	1016.3	662.9
85°	0.0	0.0	1.0	3.1	7.3	35.5	151.6	318.9	479.9	461.1	335.6
87.5°	0.0	0.0	1.0	3.1	5.2	10.5	45.0	104.6	187.2	190.3	143.2
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°	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5	5080.5
2.5°	5140.1	5149.5	5180.8	5227.9	5235.2	5299.0	5288.5	5407.7	5419.2	5447.5	5478.8
5°	5194.4	5226.9	5298.0	5405.6	5484.1	5580.3	5570.9	5705.7	5719.3	5712.0	5760.1
7.5°	5273.9	5322.0	5432.8	5578.2	5604.3	5723.5	5707.8	5824.9	5827.0	5811.3	5858.4
10°	5390.0	5446.4	5548.9	5631.5	5694.2	5766.4	5755.9	5860.5	5850.0	5832.2	5881.4
12.5°	5501.8	5533.2	5595.9	5693.2	5704.7	5734.0	5716.2	5813.4	5803.0	5777.9	5823.9
15°	5602.2	5617.9	5618.9	5667.0	5640.9	5662.9	5615.8	5685.9	5661.8	5652.4	5684.8
17.5°	5730.8	5701.5	5658.7	5655.5	5566.7	5536.3	5461.1	5479.9	5429.7	5425.5	5443.3
20°	5747.6	5808.2	5684.8	5557.3	5407.7	5331.4	5189.2	5190.3	5133.8	5111.8	5122.3
22.5°	5289.6	5439.1	5715.1	5471.5	5217.4	5046.0	4863.0	4807.6	4700.9	4656.0	4638.2
25°	5468.4	5273.9	5253.0	5327.2	4970.7	4709.3	4443.7	4280.6	4154.1	4051.6	4058.9
27.5°	5745.5	5492.4	4981.1	5011.5	4660.2	4293.2	3892.7	3662.7	3534.1	3434.7	3423.2
30°	6112.5	5794.6	5039.7	4343.3	4303.6	3770.4	3278.9	3024.9	2894.2	2858.6	2836.7
32.5°	6568.3	6154.3	5171.4	4190.7	3561.2	3204.7	2653.7	2448.7	2387.1	2383.9	2358.8
35°	7109.9	6630.0	5292.7	3987.8	3070.9	2609.8	2120.4	1985.6	1995.0	1996.0	2016.9
37.5°	6763.9	7079.6	5444.3	3795.5	2593.0	1939.6	1705.3	1620.6	1647.8	1691.7	1712.7
40°	6769.1	6445.0	5621.0	3474.5	2014.8	1479.5	1334.2	1315.3	1431.4	1520.3	1542.2
42.5°	7040.9	6403.1	5556.2	3108.5	1475.3	1125.0	1111.5	1212.9	1380.2	1479.5	1497.3
45°	7332.7	6601.8	4615.2	2589.9	1069.6	951.5	1056.0	1197.2	1379.1	1484.7	1495.2
47.5°	7609.7	6727.3	4423.8	2024.2	859.5	897.1	1039.3	1197.2	1386.4	1494.1	1500.4
49°	7733.1	6828.7	4246.1	1637.4	806.1	876.2	1029.9	1199.3	1388.5	1480.5	1483.7
50°	7806.3	6886.2	4102.9	1518.2	780.0	862.6	1025.7	1202.4	1385.4	1464.9	1468.0
52.5°	7920.3	6979.2	3773.5	1209.7	730.9	831.2	1019.4	1215.0	1373.9	1420.9	1418.9
55°	6531.7	6523.4	3498.5	1015.3	693.2	803.0	1017.3	1225.4	1379.1	1427.2	1425.1
57.5°	6259.9	5356.5	2947.5	830.2	661.9	779.0	1019.4	1241.1	1473.2	1556.9	1546.4
60°	6279.8	5275.0	2508.3	720.4	625.3	759.1	1025.7	1311.2	1702.2	1786.9	1760.8
62.5°	6210.7	5075.2	2244.9	647.2	586.6	741.3	1029.9	1408.4	1731.5	1738.8	1693.8
65°	6046.6	4824.3	1890.4	566.7	545.8	724.6	1028.9	1443.9	1597.6	1538.0	1523.4
67.5°	5742.3	4557.7	1496.2	496.7	501.9	699.5	1052.9	1382.3	1511.9	1463.8	1441.9
70°	5381.6	3988.9	1055.0	431.8	462.1	671.3	1049.8	1367.6	1466.9	1395.8	1365.5
72.5°	4739.6	3353.2	709.9	372.2	412.0	638.8	996.4	1323.7	1437.7	1390.6	1348.8
75°	3767.2	2509.4	412.0	321.0	362.8	591.8	944.2	1296.5	1453.4	1363.4	1276.7
77.5°	2575.3	1429.3	307.4	268.7	312.6	531.2	856.3	1205.6	1405.3	1327.9	1211.8
80°	1154.3	516.5	235.3	218.5	262.4	430.8	738.2	1066.5	1331.0	1331.0	1249.5
82.5°	459.0	325.2	163.1	171.5	214.3	328.3	584.5	920.1	1173.1	1226.5	1311.2
85°	259.3	190.3	104.6	124.4	164.2	254.1	425.6	715.2	955.7	1059.2	1148.0
87.5°	102.5	72.1	41.8	70.1	95.1	130.7	186.1	350.3	514.4	633.6	700.5
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)