

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: P591438

Luminaire Tested: **CTN-CA6-230-740-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591438
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-CA6-230-740-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17793 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

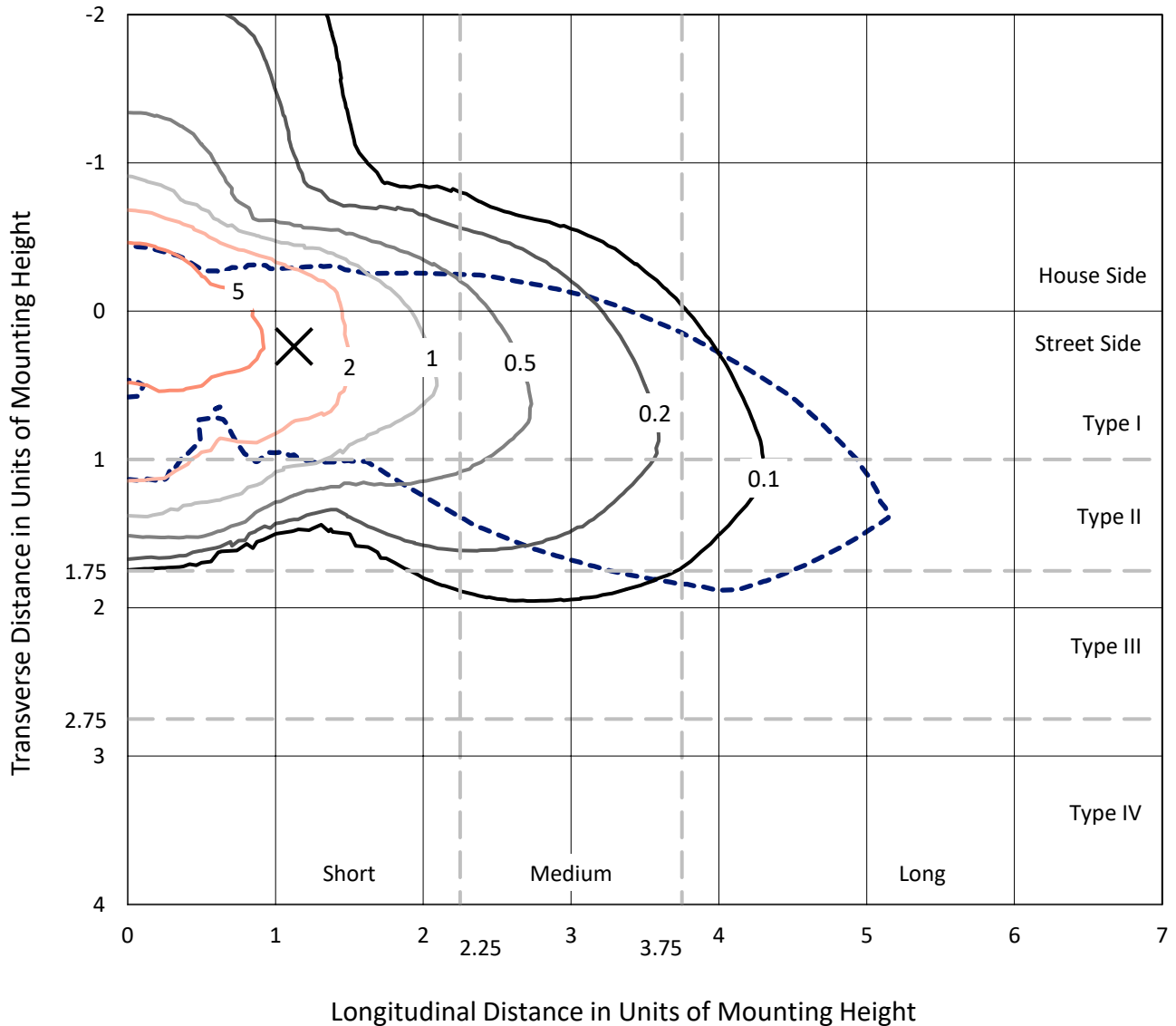
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

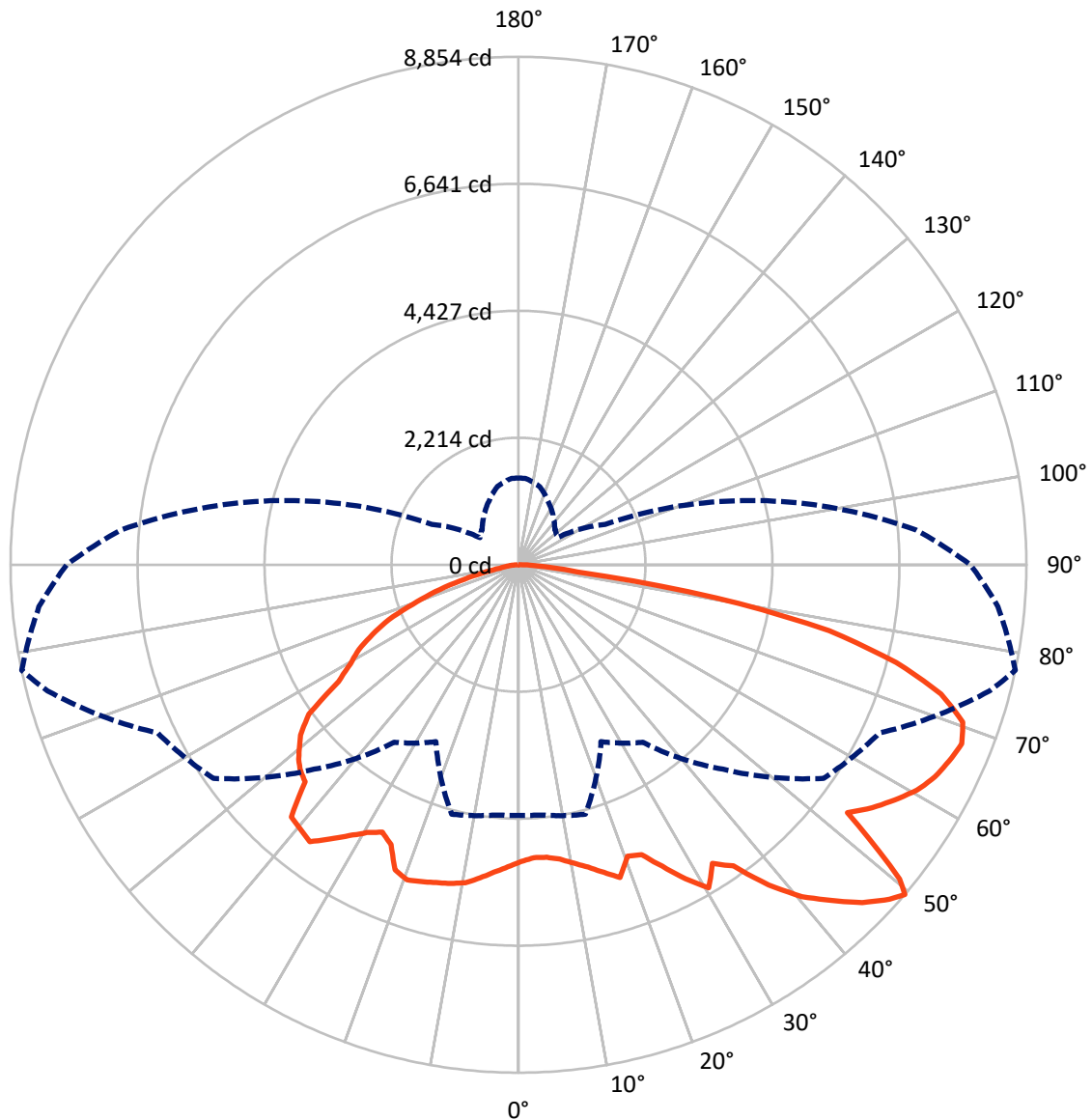
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 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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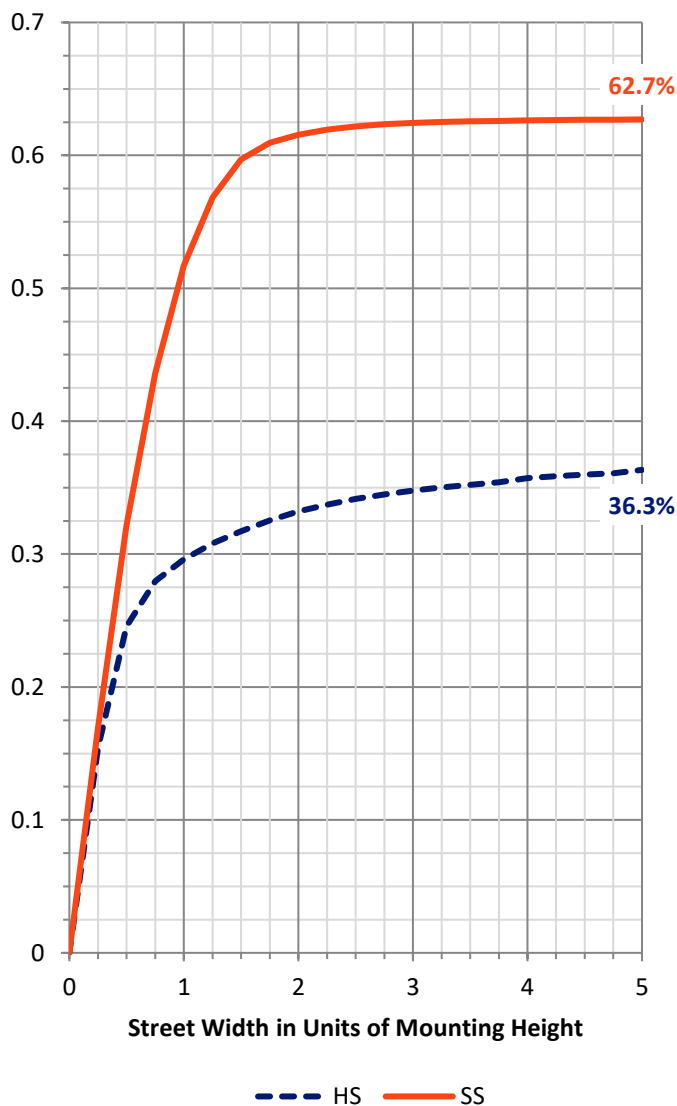
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6655.0	0.0	6655.0
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	11138.0	0.0	11138.0
	% Fixture	62.6	0.0	62.6
Total	Lumens	17793.0	0.0	17793.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	517.9	2.9
10°-20°	1589.8	8.9
20°-30°	2303.8	12.9
30°-40°	2830.8	15.9
40°-50°	3195.1	18.0
50°-60°	3036.1	17.1
60°-70°	2267.5	12.7
70°-80°	1684.0	9.5
80°-90°	368.0	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°	17793.0	100.0
0°-180°	17793.0	100.0

Coefficient of Utilization



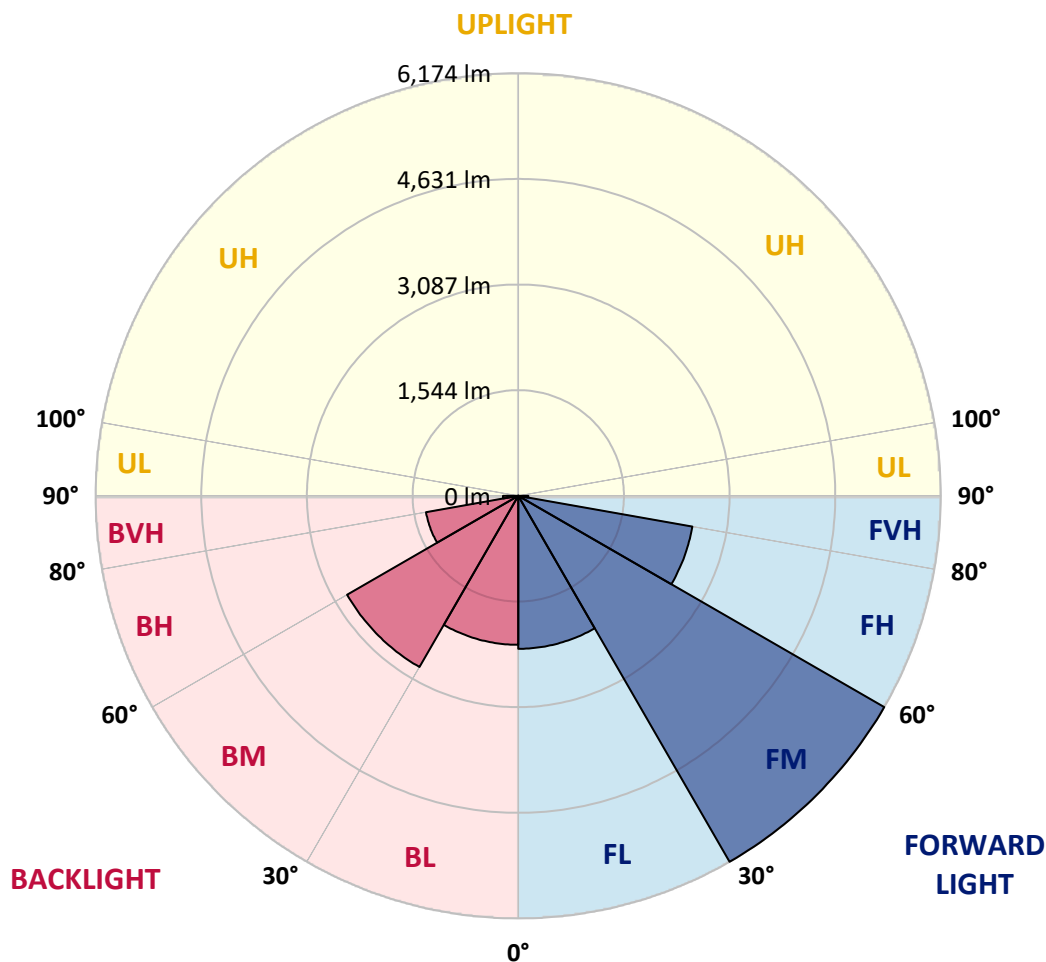
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2234.9	12.6			
FM (30°-60°)	6174.2	34.7			
FH (60°-80°)	2583.4	14.5			G2/5000
FVH (80°-90°)	145.5	0.8			G2/225
BL (0°-30°)	2176.6	12.2	B3/2500		
BM (30°-60°)	2887.8	16.2	B3/5000		
BH (60°-80°)	1368.1	7.7	B3/2500		G3/2500
BVH (80°-90°)	222.5	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°	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1
2.5°	5062.3	5034.6	5042.1	5084.7	5002.7	5062.3	5037.8	5095.3	5114.5	5112.3	5195.4
5°	5103.8	5067.6	5078.3	5107.0	5017.6	5063.4	5044.2	5106.0	5121.9	5123.0	5235.9
7.5°	5256.1	5214.6	5203.9	5206.1	5121.9	5156.0	5107.0	5154.9	5183.7	5180.5	5306.2
10°	5477.6	5431.8	5408.4	5400.9	5298.7	5283.8	5224.2	5241.2	5283.8	5289.1	5416.9
12.5°	5705.5	5669.3	5635.2	5618.2	5477.6	5444.6	5357.3	5372.2	5404.1	5410.5	5543.6
15°	5906.7	5872.7	5867.3	5848.2	5705.5	5641.6	5536.2	5520.2	5544.7	5564.9	5681.0
17.5°	5709.7	5666.1	5638.4	5644.8	5572.4	5410.5	5345.6	5455.2	5659.7	5731.0	5840.7
20°	5153.9	5207.1	5184.8	5098.5	5020.8	5282.7	5227.4	5203.9	5330.6	5422.2	5687.4
22.5°	4527.7	4527.7	4740.7	4889.8	4919.6	5066.6	5369.0	5474.4	5488.2	5488.2	5411.6
25°	4032.6	4173.2	4534.1	5100.6	5103.8	5074.0	5158.1	5736.4	5832.2	5821.5	5692.7
27.5°	4224.3	4200.8	4443.6	4837.6	5394.5	5360.5	5196.5	5457.4	6247.5	6198.5	6033.4
30°	4393.6	4370.1	4413.8	4902.6	5477.6	5671.4	5530.8	5453.1	6269.8	6536.1	6437.0
32.5°	4552.2	4525.6	4575.7	4650.2	5212.4	5980.2	5881.2	5830.1	5950.4	6209.1	6893.8
35°	4680.0	4684.3	4741.8	4851.5	5109.2	5875.8	6232.6	6251.7	6462.6	6446.6	6792.7
37.5°	4774.8	4783.3	4833.4	4963.3	5059.1	4853.6	6566.9	6788.4	7113.2	7081.3	6826.8
40°	4780.1	4799.3	4899.4	5059.1	5172.0	4322.2	6505.2	7380.5	7702.1	7608.4	7292.1
42.5°	4681.1	4690.7	4857.8	5128.3	3925.0	4495.8	6032.4	7970.4	8114.2	7999.2	7647.8
45°	4592.7	4590.6	4769.5	5012.3	3708.9	4699.2	6019.6	7799.0	8493.3	8403.8	7955.5
47.5°	4468.1	4467.0	4641.7	3771.7	3755.7	4918.5	6336.9	6762.9	8807.4	8711.5	8235.6
49°	4368.0	4378.7	4502.2	3402.2	3777.0	5041.0	6491.3	6939.6	8499.6	8854.2	8391.0
50°	4313.7	4324.4	4023.0	3364.9	3783.4	5111.3	6572.3	7069.5	7649.9	8612.5	8491.1
52.5°	4066.7	3973.0	3118.9	3287.2	3785.5	5194.3	5651.2	7345.3	7291.0	7179.2	8039.6
55°	2450.2	2772.9	2824.0	3198.8	3751.5	3772.8	5520.2	7665.9	7642.4	7479.5	6922.6
57.5°	1485.5	1470.6	2180.8	2952.8	2512.0	3163.7	5736.4	8089.7	7951.2	7734.0	7040.8
60°	523.9	463.2	467.5	503.7	934.9	2367.2	4575.7	6092.0	8015.1	7981.1	7148.3
62.5°	41.5	39.4	39.4	41.5	59.6	889.2	3627.9	6111.2	8236.6	8148.2	7172.8
65°	5.3	5.3	5.3	11.7	30.9	804.0	3633.3	6210.2	8401.7	8250.5	7107.9
67.5°	0.0	0.0	3.2	8.5	24.5	711.3	3526.8	6268.8	8549.7	8335.7	7048.2
70°	0.0	0.0	2.1	7.5	21.3	588.9	3396.9	6319.9	8480.5	8215.3	6748.0
72.5°	0.0	0.0	2.1	6.4	18.1	388.7	3011.4	5941.9	7987.4	7699.9	6131.4
75°	0.0	0.0	2.1	5.3	17.0	221.5	2467.3	5249.7	7107.9	6803.3	5166.7
77.5°	0.0	0.0	1.1	4.3	14.9	121.4	1704.8	4345.7	5871.6	5537.2	3870.7
80°	0.0	0.0	1.1	4.3	13.8	83.1	775.2	2822.9	3913.3	3494.8	2121.2
82.5°	0.0	0.0	1.1	4.3	10.6	56.4	313.1	791.2	1210.7	1035.0	675.1
85°	0.0	0.0	1.1	3.2	7.5	36.2	154.4	324.8	488.8	469.6	341.8
87.5°	0.0	0.0	1.1	3.2	5.3	10.6	45.8	106.5	190.6	193.8	145.9
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°	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1	5174.1
2.5°	5234.8	5244.4	5276.3	5324.3	5331.7	5396.7	5386.0	5507.4	5519.1	5547.9	5579.8
5°	5290.2	5323.2	5395.6	5505.3	5585.1	5683.1	5673.5	5810.9	5824.7	5817.3	5866.3
7.5°	5371.1	5420.1	5533.0	5681.0	5707.6	5829.0	5813.0	5932.3	5934.4	5918.4	5966.4
10°	5489.3	5546.8	5651.2	5735.3	5799.2	5872.7	5862.0	5968.5	5957.8	5939.7	5989.8
12.5°	5603.2	5635.2	5699.1	5798.1	5809.8	5839.6	5821.5	5920.6	5909.9	5884.4	5931.2
15°	5705.5	5721.4	5722.5	5771.5	5744.9	5767.2	5719.3	5790.7	5766.2	5756.6	5789.6
17.5°	5836.4	5806.6	5763.0	5759.8	5669.3	5638.4	5561.7	5580.9	5529.8	5525.5	5543.6
20°	5853.5	5915.2	5789.6	5659.7	5507.4	5429.7	5284.9	5285.9	5228.4	5206.1	5216.7
22.5°	5387.1	5539.4	5820.5	5572.4	5313.6	5139.0	4952.6	4896.2	4787.6	4741.8	4723.7
25°	5569.2	5371.1	5349.8	5425.4	5062.3	4796.1	4525.6	4359.5	4230.7	4126.3	4133.8
27.5°	5851.4	5593.7	5072.9	5103.8	4746.0	4372.3	3964.4	3730.2	3599.2	3498.0	3486.3
30°	6225.1	5901.4	5132.6	4423.4	4382.9	3839.9	3339.4	3080.6	2947.5	2911.3	2888.9
32.5°	6689.4	6267.7	5266.8	4267.9	3626.9	3263.8	2702.6	2493.9	2431.1	2427.9	2402.3
35°	7241.0	6752.2	5390.3	4061.3	3127.5	2657.9	2159.5	2022.2	2031.7	2032.8	2054.1
37.5°	6888.5	7210.1	5544.7	3865.4	2640.8	1975.3	1736.8	1650.5	1678.2	1722.9	1744.2
40°	6893.8	6563.7	5724.6	3538.5	2052.0	1506.8	1358.7	1339.6	1457.8	1548.3	1570.7
42.5°	7170.7	6521.1	5658.6	3165.8	1502.5	1145.8	1131.9	1235.2	1405.6	1506.8	1524.9
45°	7467.8	6723.5	4700.3	2637.6	1089.3	969.0	1075.5	1219.3	1404.5	1512.1	1522.7
47.5°	7750.0	6851.3	4505.4	2061.6	875.3	913.6	1058.5	1219.3	1412.0	1521.7	1528.1
49°	7875.6	6954.5	4324.4	1667.6	821.0	892.3	1048.9	1221.4	1414.1	1507.8	1511.0
50°	7950.2	7013.1	4178.5	1546.2	794.4	878.5	1044.6	1224.6	1410.9	1491.9	1495.1
52.5°	8066.2	7107.9	3843.0	1232.0	744.3	846.6	1038.2	1237.4	1399.2	1447.1	1445.0
55°	6652.1	6643.6	3563.0	1034.0	706.0	817.8	1036.1	1248.0	1404.5	1453.5	1451.4
57.5°	6375.3	5455.2	3001.8	845.5	674.1	793.3	1038.2	1264.0	1500.4	1585.6	1574.9
60°	6395.5	5372.2	2554.6	733.7	636.8	773.1	1044.6	1335.3	1733.6	1819.8	1793.2
62.5°	6325.2	5168.8	2286.2	659.1	597.4	755.0	1048.9	1434.4	1763.4	1770.8	1725.1
65°	6158.0	4913.2	1925.3	577.1	555.9	737.9	1047.8	1470.6	1627.1	1566.4	1551.5
67.5°	5848.2	4641.7	1523.8	505.8	511.1	712.4	1072.3	1407.7	1539.8	1490.8	1468.4
70°	5480.8	4062.4	1074.4	439.8	470.7	683.6	1069.1	1392.8	1494.0	1421.6	1390.7
72.5°	4827.0	3415.0	723.0	379.1	419.6	650.6	1014.8	1348.1	1464.2	1416.3	1373.7
75°	3836.7	2555.6	419.6	326.9	369.5	602.7	961.6	1320.4	1480.1	1388.6	1300.2
77.5°	2622.7	1455.7	313.1	273.7	318.4	540.9	872.1	1227.8	1431.2	1352.4	1234.2
80°	1175.6	526.0	239.6	222.6	267.3	438.7	751.8	1086.1	1355.6	1355.6	1272.5
82.5°	467.5	331.2	166.1	174.6	218.3	334.4	595.3	937.1	1194.8	1249.1	1335.3
85°	264.1	193.8	106.5	126.7	167.2	258.8	433.4	728.4	973.3	1078.7	1169.2
87.5°	104.4	73.5	42.6	71.3	96.9	133.1	189.5	356.7	523.9	645.3	713.5
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)