

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: P591158

Luminaire Tested: **CTN-CA8-230-722-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591158
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-722-U-T2-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17893 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

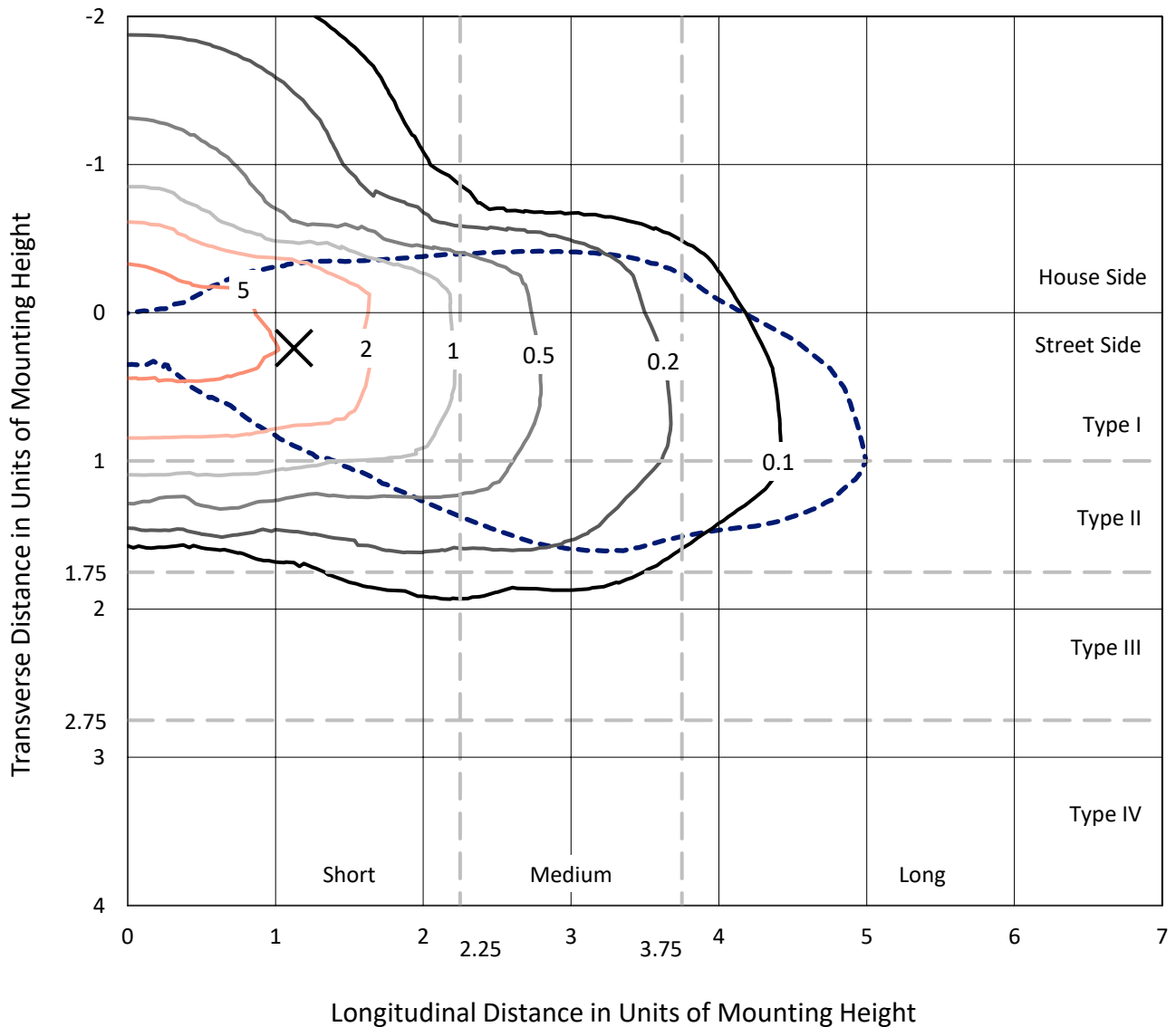
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

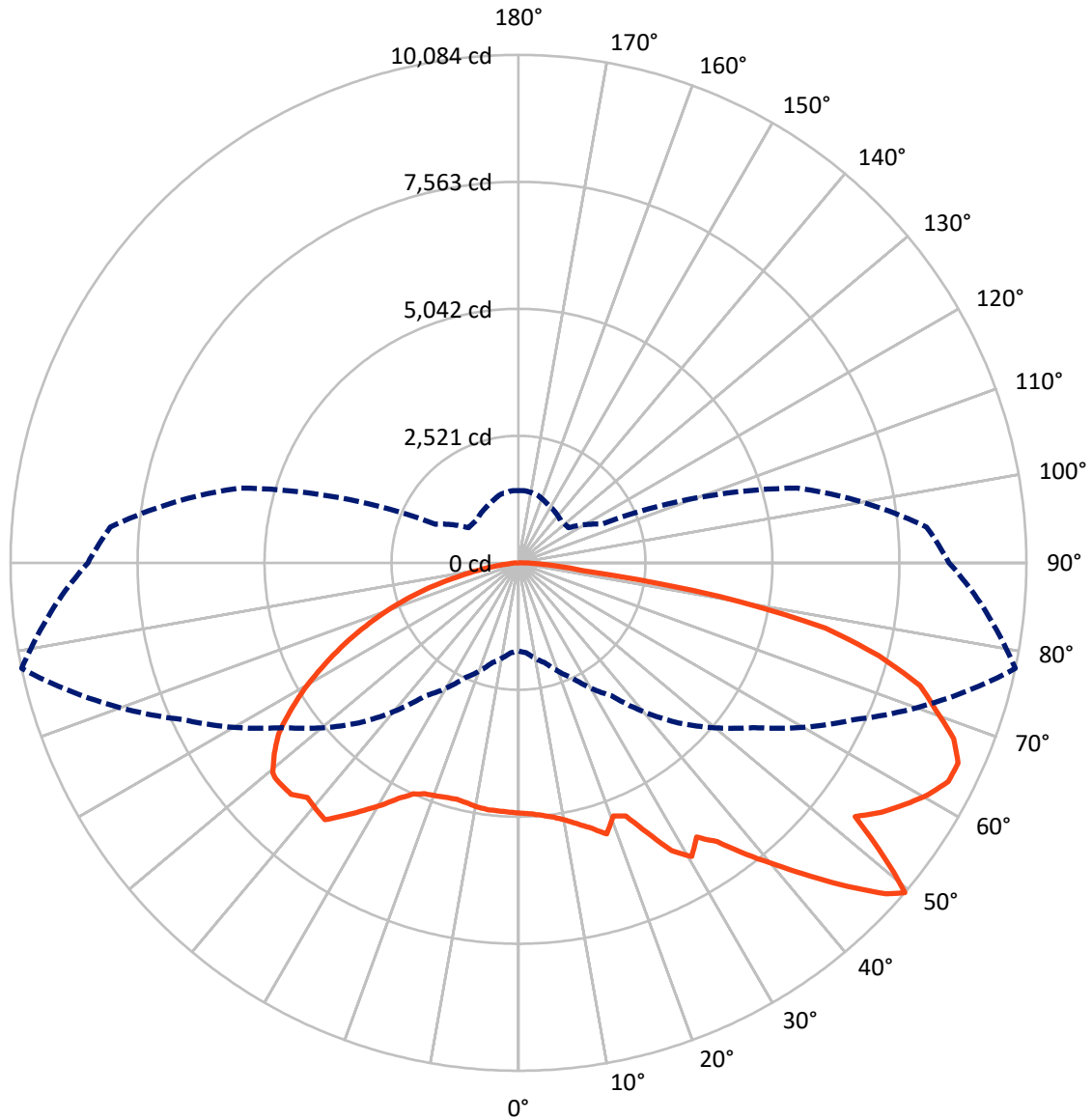
✕ Max cd
 - - - 1/2 Max cd



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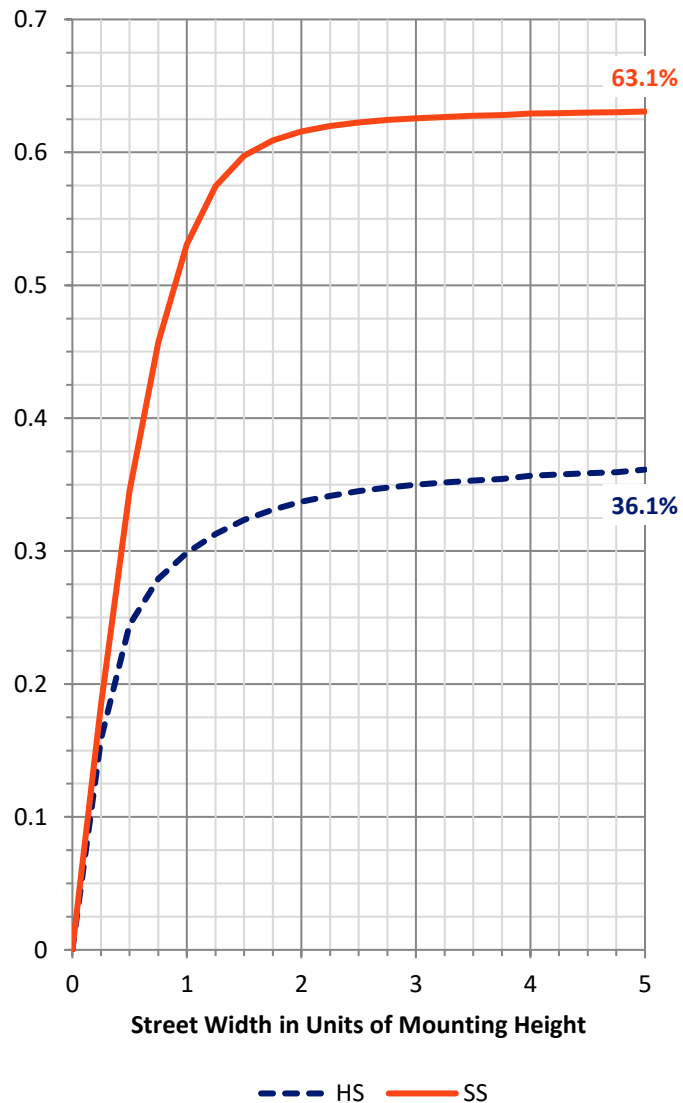
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6625.1	0.0	6625.1
	% Fixture	37.0	0.0	37.0
Street Side	Lumens	11267.9	0.0	11267.9
	% Fixture	63.0	0.0	63.0
Total	Lumens	17893.0	0.0	17893.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	481.6	2.7
10°-20°	1417.4	7.9
20°-30°	2023.3	11.3
30°-40°	2604.7	14.6
40°-50°	3055.3	17.1
50°-60°	3151.9	17.6
60°-70°	2861.9	16.0
70°-80°	1900.7	10.6
80°-90°	396.3	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°	17893.0	100.0
0°-180°	17893.0	100.0

Coefficient of Utilization



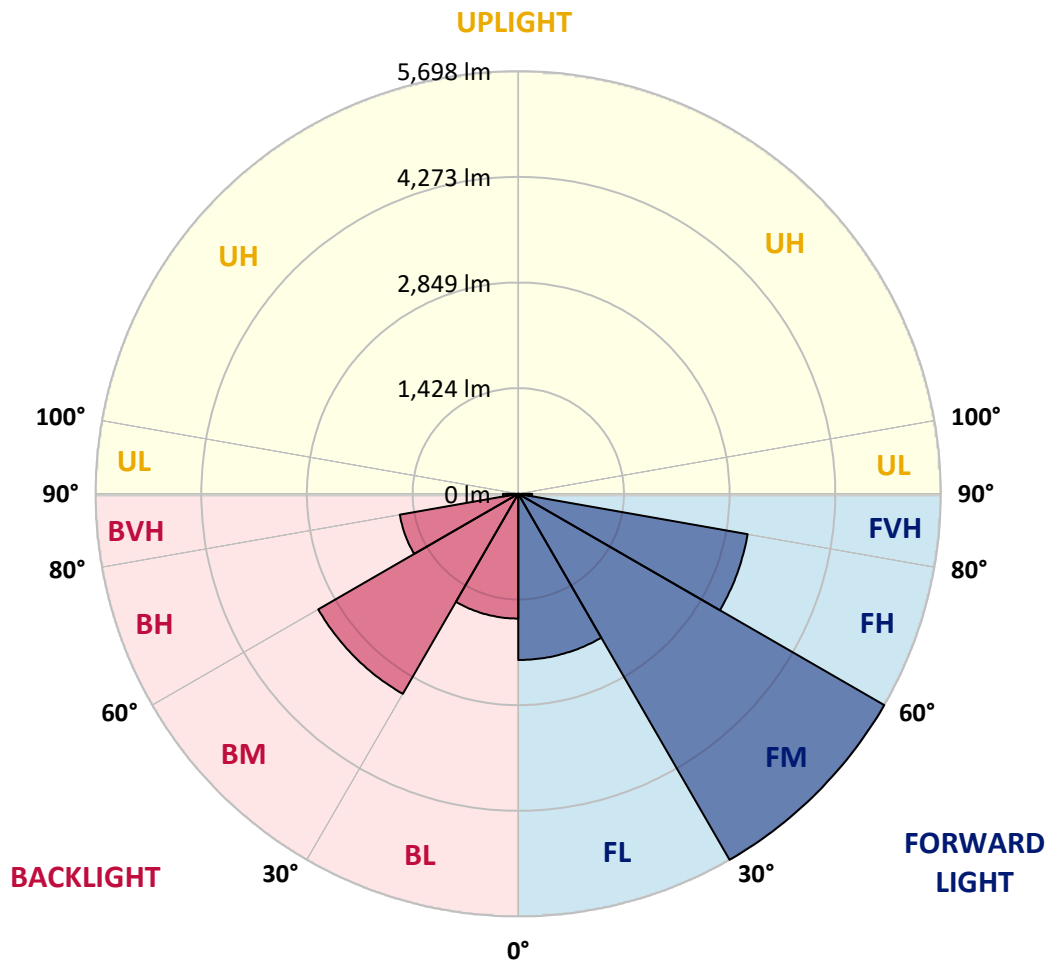
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2240.4	12.5			
FM (30°-60°)	5697.7	31.8			
FH (60°-80°)	3140.9	17.6			G2/5000
FVH (80°-90°)	188.9	1.1			G2/225
BL (0°-30°)	1681.8	9.4	B3/2500		
BM (30°-60°)	3114.2	17.4	B3/5000		
BH (60°-80°)	1621.7	9.1	B3/2500		G3/2500
BVH (80°-90°)	207.4	1.2			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°	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7
2.5°	5171.9	5132.1	5144.8	5166.4	5068.0	5089.7	5047.3	5064.4	5012.0	4992.2	5001.2
5°	5537.5	5495.1	5510.4	5517.7	5375.0	5317.2	5184.5	5156.5	5074.3	5038.2	5034.6
7.5°	5718.1	5672.1	5675.7	5680.2	5566.4	5574.6	5454.5	5310.9	5158.3	5103.2	5078.9
10°	6015.2	5951.1	5929.4	5920.4	5766.9	5702.8	5598.0	5519.5	5281.1	5198.0	5135.7
12.5°	6198.5	6151.5	6151.5	6142.5	5980.0	5930.3	5743.4	5660.3	5425.6	5327.2	5219.7
15°	6231.9	6200.3	6240.9	6232.8	6126.2	6068.4	5985.4	5812.0	5571.8	5469.8	5343.4
17.5°	5854.5	5770.5	5609.8	5634.1	5635.0	5752.4	5695.5	5814.7	5744.3	5661.2	5524.9
20°	4808.0	4836.9	5094.2	5031.9	5008.4	5257.6	5512.3	5519.5	5379.5	5366.0	5550.2
22.5°	4188.6	4085.7	4371.9	4788.1	4814.3	5147.5	5444.5	5802.1	5578.2	5458.1	5317.2
25°	3567.4	3605.3	4036.9	4575.9	4957.0	5031.0	5372.3	5942.9	6038.6	5927.6	5633.2
27.5°	3459.9	3458.1	3645.9	4243.7	5025.6	5303.7	5416.5	5863.5	6530.7	6468.4	6096.4
30°	3436.5	3422.0	3520.4	4017.0	4706.9	5549.3	5764.2	5924.0	6491.9	6769.1	6614.7
32.5°	3333.5	3320.9	3425.6	3685.7	4451.3	5729.0	6095.5	6333.9	6360.1	6491.0	7161.9
35°	3171.9	3181.8	3327.2	3609.8	4082.0	5297.4	6435.0	6795.3	6890.1	6799.8	6892.8
37.5°	3006.7	3017.5	3160.2	3480.7	4017.9	5116.8	6654.4	7241.3	7438.2	7341.5	6911.8
40°	2801.7	2818.9	2984.1	3344.4	3943.9	4709.6	6203.9	7747.9	8015.1	7888.7	7410.2
42.5°	2568.8	2576.0	2763.8	3136.7	3850.0	4733.9	5738.9	8215.6	8574.9	8505.4	7901.3
45°	2366.5	2366.5	2537.2	2869.4	3636.0	4687.9	5542.1	7867.0	9262.0	9163.6	8393.4
47.5°	2091.1	2115.5	2316.0	2645.5	3384.1	4581.4	5654.9	7084.2	9902.2	9820.0	8887.3
49°	1751.6	1793.2	2057.7	2522.7	3222.5	4492.9	5700.1	7360.5	9460.7	10083.7	9207.9
50°	1612.6	1634.3	1637.0	2435.1	3102.4	4412.5	5720.8	7572.7	8715.8	9658.4	9432.7
52.5°	1395.9	1259.6	1119.6	2192.3	2861.3	4115.5	5733.5	8148.7	8537.0	8368.2	9257.5
55°	589.6	772.0	981.5	1793.2	2601.3	3748.0	5691.9	8781.7	8929.8	8743.8	7937.5
57.5°	446.0	474.9	527.3	1391.4	1863.6	3329.0	5552.0	9182.6	9261.1	9049.8	8259.8
60°	65.0	66.8	93.9	564.3	1067.2	2376.5	5048.2	9170.8	9507.6	9345.1	8537.9
62.5°	27.1	28.0	36.1	462.3	822.5	1829.3	4608.4	9017.3	9746.9	9572.6	8798.8
65°	4.5	5.4	15.3	409.0	679.9	1709.2	4126.3	9048.0	9662.0	9589.8	8900.0
67.5°	3.6	4.5	14.4	367.5	560.7	1564.7	3650.5	8559.6	9352.3	9320.7	8630.0
70°	3.6	4.5	15.3	332.3	484.9	1378.7	3062.7	7883.3	8784.4	8797.0	8176.7
72.5°	4.5	4.5	15.3	297.1	421.7	1178.3	2423.4	6980.4	8268.8	8338.4	7532.1
75°	4.5	4.5	14.4	258.2	362.1	982.4	1745.3	5133.0	7415.6	7394.8	6605.7
77.5°	4.5	4.5	14.4	205.0	300.7	808.1	1136.8	2891.1	6140.7	6228.3	5523.1
80°	4.5	4.5	14.4	149.9	235.7	605.9	688.9	1479.9	3278.5	4058.6	3799.4
82.5°	4.5	4.5	14.4	101.1	161.6	349.4	397.3	749.4	1177.4	1290.3	1509.7
85°	3.6	3.6	10.8	60.5	83.1	123.7	191.4	399.1	643.8	672.7	656.4
87.5°	1.8	1.8	5.4	21.7	36.1	45.1	85.8	160.7	236.6	242.0	210.4
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°	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7	4968.7
2.5°	5001.2	4972.3	4946.1	4950.6	4894.7	4878.4	4816.1	4848.6	4817.0	4789.0	4815.2
5°	5009.3	4974.1	4926.3	4880.2	4752.0	4692.4	4617.5	4636.4	4594.0	4560.6	4589.5
7.5°	5032.8	4989.5	4915.4	4784.5	4631.9	4537.1	4452.2	4535.3	4525.4	4500.1	4529.9
10°	5043.6	5006.6	4879.3	4725.8	4512.7	4453.1	4376.4	4375.5	4378.2	4382.7	4412.5
12.5°	5072.5	5016.6	4815.2	4636.4	4438.7	4317.7	4261.7	4306.9	4225.6	4177.8	4198.5
15°	5141.2	5039.1	4771.9	4510.9	4324.0	4223.8	4045.0	4060.4	4043.2	3996.3	4017.0
17.5°	5276.6	5102.3	4770.1	4431.5	4177.8	4014.3	3858.1	3784.1	3760.6	3764.2	3782.3
20°	5442.7	5214.3	4773.7	4329.4	4025.2	3835.6	3594.5	3543.0	3465.4	3467.2	3471.7
22.5°	5337.1	5343.4	4775.5	4213.0	3834.7	3597.2	3341.7	3240.5	3180.9	3165.6	3188.2
25°	5623.3	5594.4	4803.5	4150.7	3634.2	3315.5	3048.2	2919.1	2829.7	2822.5	2847.8
27.5°	6004.3	5952.0	4947.9	4016.1	3422.0	2977.8	2688.0	2590.4	2513.7	2486.6	2504.7
30°	6467.5	6406.1	5147.5	3911.4	3135.8	2614.8	2366.5	2299.7	2223.9	2174.2	2178.7
32.5°	6951.5	6820.6	5352.4	3822.9	2842.4	2297.0	2084.8	2025.2	1935.8	1871.7	1887.1
35°	7439.1	7253.1	5580.9	3666.7	2483.9	2017.1	1845.5	1765.2	1692.0	1634.3	1624.3
37.5°	7053.5	7758.7	5802.1	3521.3	2203.1	1804.0	1609.9	1553.0	1509.7	1464.5	1463.6
40°	7085.1	7246.7	5933.0	3264.0	1889.8	1585.5	1390.5	1410.3	1428.4	1394.1	1394.1
42.5°	7398.4	7168.2	5880.6	2922.7	1656.8	1367.0	1277.6	1358.0	1414.9	1390.5	1389.6
45°	7840.0	7541.1	5970.0	2538.1	1430.2	1232.5	1246.0	1344.4	1418.5	1414.0	1412.1
47.5°	8308.6	7965.5	5798.5	2081.2	1274.0	1190.9	1246.0	1324.6	1413.1	1433.8	1429.3
49°	8549.6	8133.4	5729.9	1814.8	1211.7	1185.5	1247.8	1308.3	1403.1	1434.7	1430.2
50°	8696.8	8223.7	5641.4	1663.2	1178.3	1186.4	1251.4	1298.4	1394.1	1429.3	1426.6
52.5°	9028.2	8360.9	5202.6	1399.5	1124.1	1189.1	1274.9	1288.4	1360.7	1398.6	1418.5
55°	8690.5	8674.2	4642.8	1278.5	1095.2	1182.8	1284.8	1297.5	1332.7	1353.5	1368.8
57.5°	8638.1	8810.6	3937.6	1213.5	1069.9	1173.8	1273.1	1296.6	1317.3	1313.7	1307.4
60°	8804.3	8929.8	3210.7	1149.4	1041.1	1159.3	1234.3	1268.6	1274.9	1265.9	1251.4
62.5°	8830.4	8962.3	2467.6	1084.4	1009.5	1124.1	1177.4	1211.7	1211.7	1189.1	1183.7
65°	8708.5	8759.1	1818.5	1009.5	971.5	1083.5	1110.6	1135.9	1147.6	1117.8	1119.6
67.5°	8359.1	8066.6	1380.5	920.1	925.5	1027.5	1046.5	1063.6	1066.3	1049.2	1047.4
70°	7656.7	7291.9	986.9	784.6	841.5	939.0	967.9	994.1	985.1	955.3	950.8
72.5°	6597.6	6273.4	670.9	628.4	740.4	854.2	872.2	873.1	855.1	876.7	892.1
75°	5675.7	4900.1	500.2	501.1	593.2	736.8	792.8	797.3	805.4	924.6	949.0
77.5°	4510.0	3192.7	426.2	395.5	455.1	613.1	701.6	734.1	974.2	1056.4	1045.6
80°	2770.1	1916.9	330.5	313.3	370.2	471.3	603.1	750.3	994.1	934.5	902.9
82.5°	1297.5	874.9	238.4	240.2	275.4	344.0	476.7	873.1	858.7	708.8	699.8
85°	502.0	302.5	144.5	163.4	185.1	233.0	365.7	861.4	667.2	600.4	556.2
87.5°	129.1	58.7	63.2	66.8	82.2	122.8	199.5	451.5	351.2	307.9	302.5
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)