

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: P591339

Luminaire Tested: **CTN-CA6-230-730-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591339
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)
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-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: 18567 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

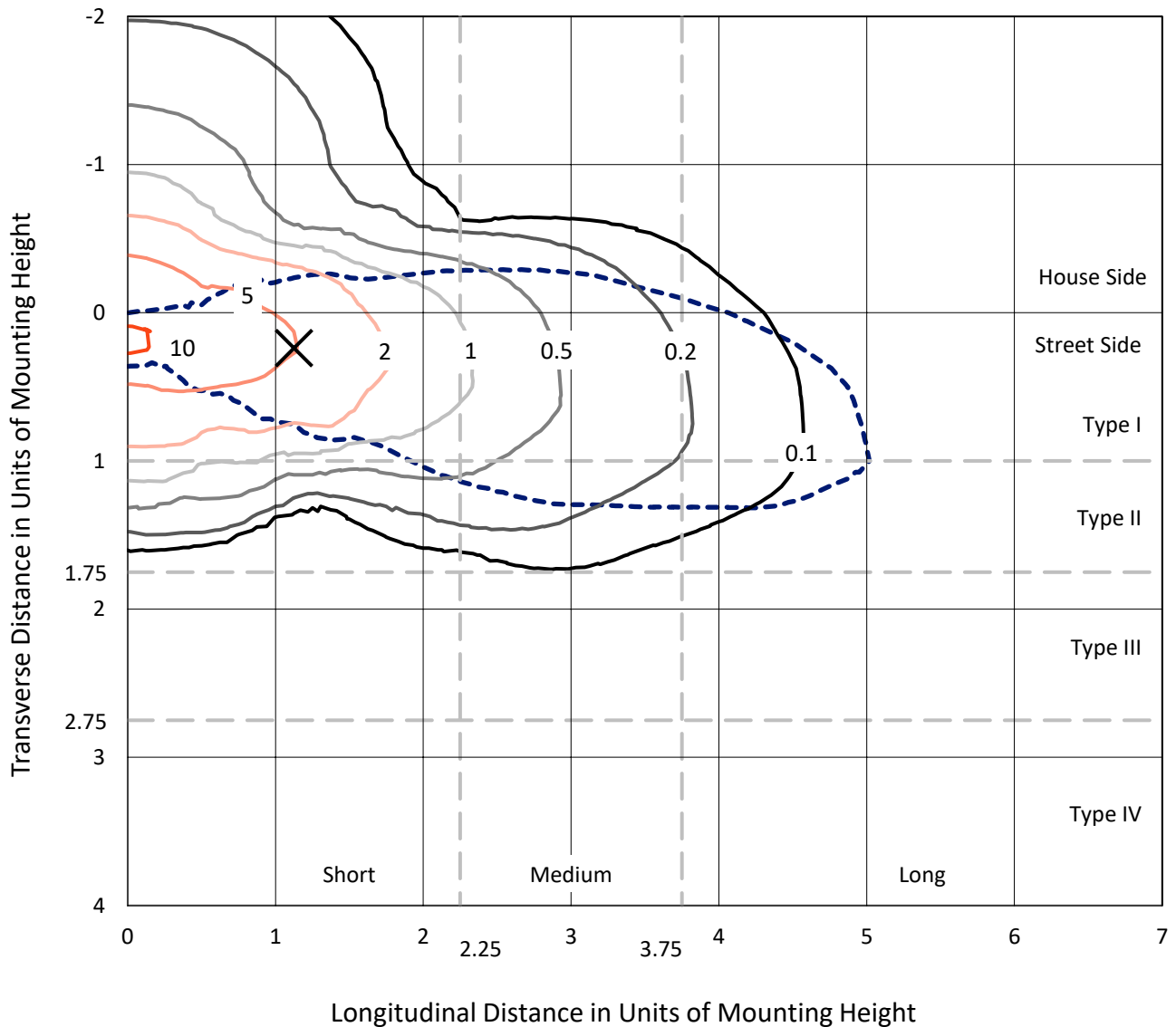
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

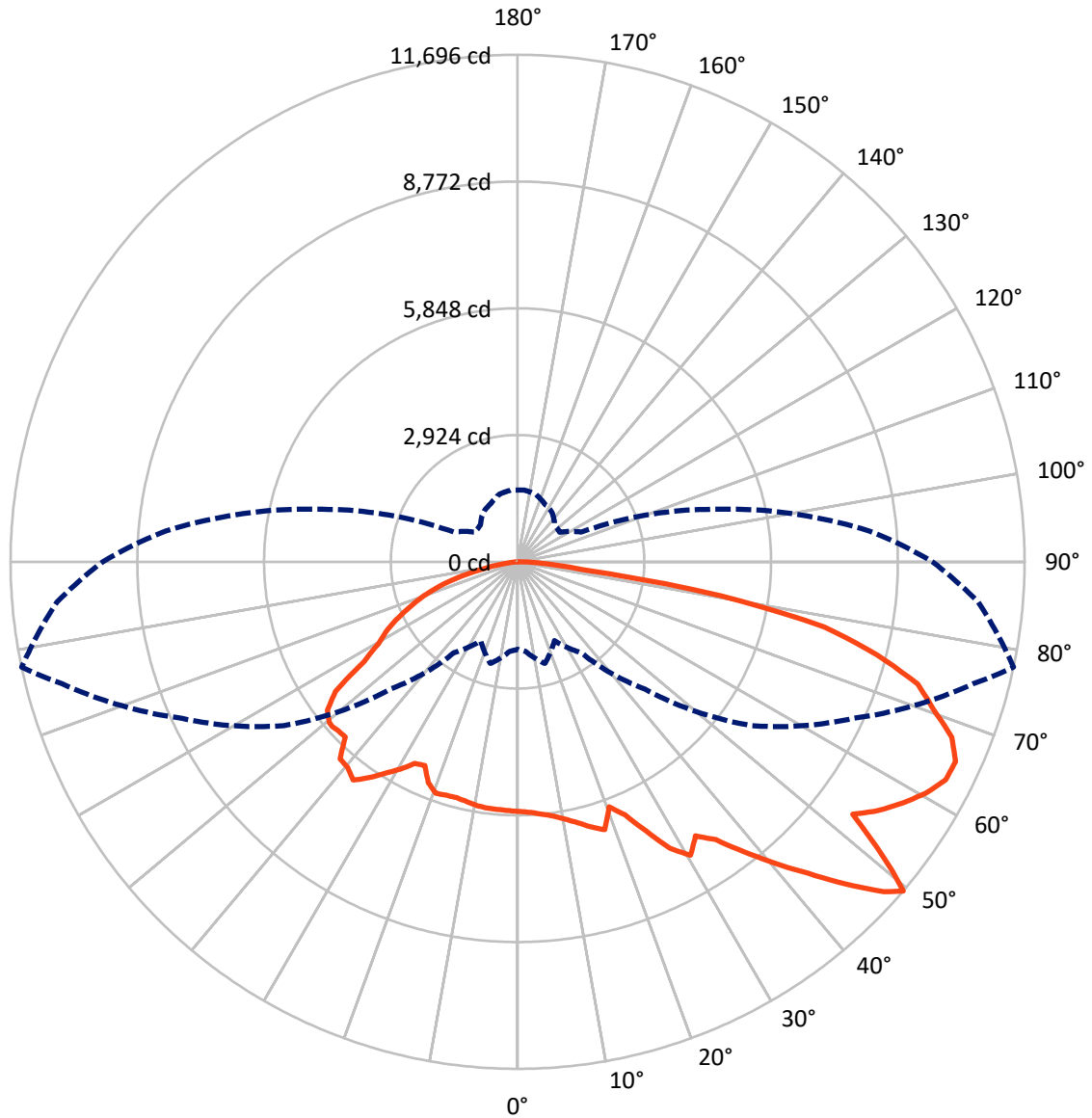
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 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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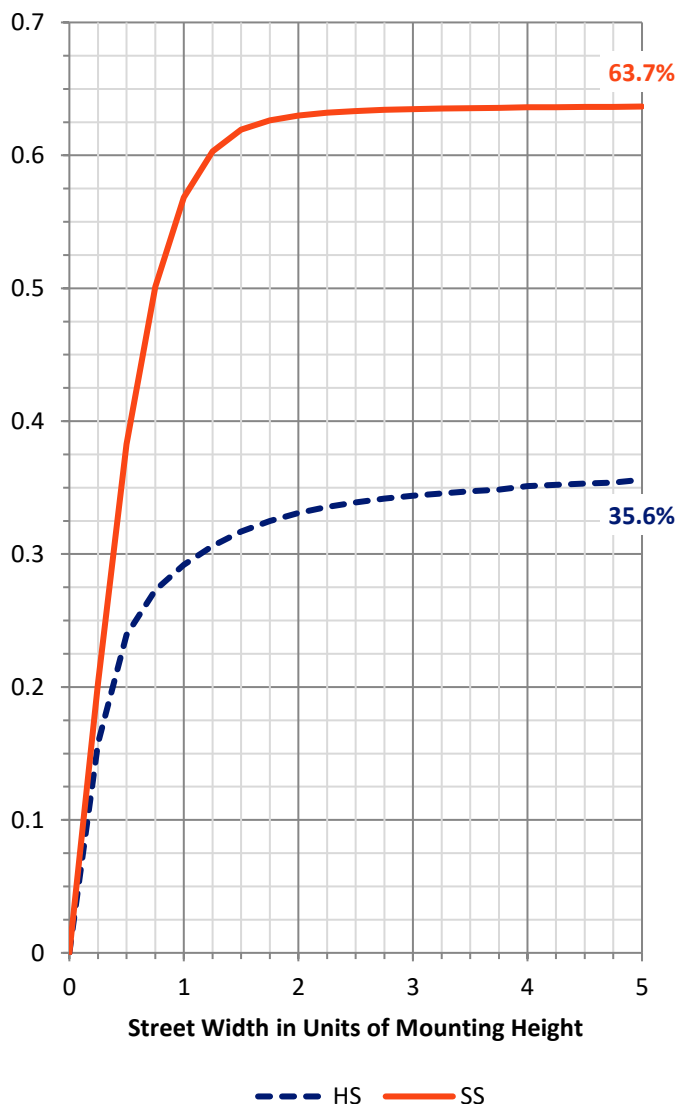
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6782.8	0.0	6782.8
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	11784.2	0.0	11784.2
	% Fixture	63.5	0.0	63.5
Total	Lumens	18567.0	0.0	18567.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	558.0	3.0
10°-20°	1641.1	8.8
20°-30°	2310.7	12.4
30°-40°	2896.5	15.6
40°-50°	3269.4	17.6
50°-60°	3141.4	16.9
60°-70°	2566.3	13.8
70°-80°	1800.3	9.7
80°-90°	383.3	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°	18567.0	100.0
0°-180°	18567.0	100.0

Coefficient of Utilization

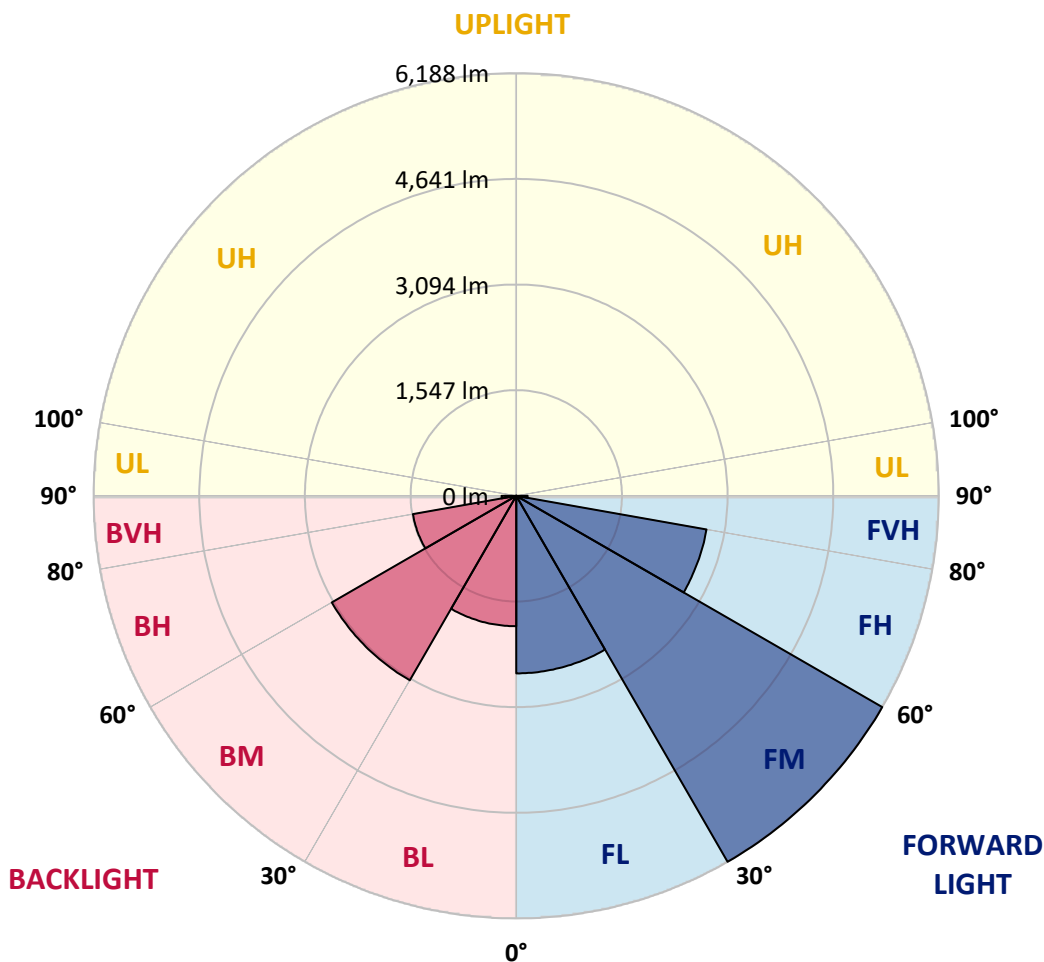


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2599.9	14.0			
FM (30°-60°)	6188.1	33.3			
FH (60°-80°)	2829.2	15.2			G2/5000
FVH (80°-90°)	166.9	0.9			G2/225
BL (0°-30°)	1909.9	10.3	B3/2500		
BM (30°-60°)	3119.1	16.8	B3/5000		
BH (60°-80°)	1537.4	8.3	B3/2500		G3/2500
BVH (80°-90°)	216.4	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°	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0
2.5°	5996.4	5941.0	5953.5	5982.8	5869.9	5901.2	5851.1	5873.0	5813.4	5788.3	5798.8
5°	6424.0	6359.2	6373.8	6388.5	6222.2	6151.1	6011.0	5978.6	5887.7	5845.8	5840.6
7.5°	6627.9	6561.0	6576.7	6576.7	6450.2	6461.7	6319.5	6168.9	5987.0	5921.1	5891.8
10°	6955.2	6879.9	6868.4	6848.5	6683.3	6610.1	6492.0	6404.2	6128.1	6034.0	5953.5
12.5°	7194.6	7136.1	7137.1	7115.2	6929.0	6875.7	6667.7	6564.1	6291.2	6177.3	6047.6
15°	7294.0	7252.1	7279.3	7213.4	7089.0	7009.6	6911.3	6745.0	6462.7	6345.6	6185.6
17.5°	6830.8	6755.5	6555.8	6590.3	6581.9	6606.0	6509.8	6608.1	6563.1	6499.3	6393.7
20°	5784.1	5863.6	6003.7	5879.3	5869.9	6182.5	6406.3	6375.9	6125.0	6031.9	6137.5
22.5°	4915.3	4818.0	5113.9	5556.2	5680.6	5999.5	6380.1	6741.9	6458.5	6339.3	6019.4
25°	4135.3	4233.5	4693.6	5362.8	5753.8	5847.9	6283.9	6964.6	7009.6	6879.9	6464.8
27.5°	4011.9	4010.8	4321.4	4969.6	5859.4	6154.3	6288.1	6853.8	7566.8	7478.0	7001.2
30°	3983.7	3969.0	4087.2	4743.8	5571.9	6429.3	6689.6	6888.3	7562.7	7859.6	7613.9
32.5°	3862.4	3850.9	3972.2	4280.6	5180.8	6691.7	7074.4	7335.8	7374.5	7536.5	8236.0
35°	3667.9	3695.1	3854.0	4194.9	4859.8	6175.2	7464.4	7873.2	7966.3	7871.1	7876.3
37.5°	3481.8	3502.7	3665.8	4042.2	4625.6	5023.0	7732.1	8389.7	8596.7	8488.0	7979.9
40°	3240.2	3269.5	3463.0	3880.1	4471.9	4335.0	7344.1	8996.2	9283.7	9144.6	8568.5
42.5°	2968.4	2982.0	3211.0	3613.5	3206.8	4358.0	6795.2	9552.4	9955.0	9816.9	9121.6
45°	2736.3	2744.6	2931.8	3188.0	2891.0	4321.4	6415.7	9288.9	10739.1	10601.1	9707.1
47.5°	2410.1	2469.7	2672.5	2204.1	2685.0	4231.5	6543.2	8237.1	11474.2	11371.7	10275.9
49°	2019.0	2072.3	2428.9	2007.5	2557.5	4150.9	6587.1	8544.5	10878.2	11695.8	10665.9
50°	1855.9	1894.6	1861.1	1937.5	2464.4	4069.4	6517.1	8792.3	9997.8	11201.3	10916.9
52.5°	1613.3	1501.5	1278.7	1739.8	2250.1	3751.5	5370.1	9458.3	9905.8	9680.0	10228.9
55°	681.7	971.3	1131.3	1427.2	2033.6	2277.3	4972.8	10183.9	10350.2	10122.2	9191.7
57.5°	533.2	543.7	622.1	1062.3	1125.0	1763.9	4810.7	10495.5	10685.8	10488.2	9548.2
60°	78.4	77.4	102.5	122.3	279.2	811.4	3144.1	7470.7	10313.6	10829.1	9874.4
62.5°	28.2	29.3	29.3	34.5	51.2	355.5	2285.6	6969.8	10562.4	11078.9	10147.3
65°	2.1	3.1	5.2	11.5	27.2	335.6	2027.4	7093.2	10481.9	11103.0	10280.1
67.5°	0.0	1.0	3.1	8.4	22.0	330.4	1885.2	6885.1	10144.2	10797.7	9989.5
70°	0.0	0.0	2.1	7.3	19.9	317.9	1637.4	6179.4	9539.9	10171.4	9460.4
72.5°	0.0	0.0	2.1	7.3	17.8	303.2	1345.7	5440.1	8989.9	9650.7	8692.9
75°	0.0	0.0	2.1	6.3	15.7	276.0	983.9	3942.9	8053.0	8558.1	7603.4
77.5°	0.0	0.0	2.1	6.3	14.6	238.4	665.0	2259.5	6625.8	7236.4	6388.5
80°	0.0	0.0	2.1	5.2	13.6	180.9	376.4	1128.2	3463.0	4756.3	4566.0
82.5°	0.0	0.0	2.1	5.2	10.5	96.2	175.7	492.5	1276.7	1506.7	1758.7
85°	0.0	0.0	2.1	4.2	8.4	24.0	59.6	234.2	697.4	774.8	756.0
87.5°	0.0	0.0	2.1	4.2	6.3	9.4	19.9	66.9	258.3	288.6	246.8
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°	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0	5759.0
2.5°	5796.7	5764.3	5734.0	5738.1	5666.0	5650.3	5582.3	5624.2	5595.9	5560.4	5583.4
5°	5809.2	5767.4	5714.1	5654.5	5496.6	5440.1	5346.0	5373.2	5335.6	5293.8	5315.7
7.5°	5836.4	5787.3	5699.4	5544.7	5360.7	5261.3	5152.6	5245.7	5234.2	5210.1	5234.2
10°	5847.9	5805.1	5655.5	5475.7	5220.6	5152.6	5070.0	5054.3	5057.5	5062.7	5098.2
12.5°	5878.2	5814.5	5584.4	5371.1	5139.0	5004.1	4922.6	4970.7	4871.3	4827.4	4846.3
15°	5952.5	5831.2	5529.0	5225.8	4994.7	4888.1	4687.3	4687.3	4662.2	4619.4	4631.9
17.5°	6102.0	5898.1	5514.4	5129.6	4833.7	4649.7	4465.7	4368.4	4341.2	4354.8	4363.2
20°	6182.5	6021.5	5507.1	5003.1	4652.8	4439.5	4160.4	4091.3	4000.4	4012.9	4027.6
22.5°	5698.4	5488.2	5495.6	4848.3	4429.1	4158.3	3853.0	3732.7	3677.3	3666.8	3695.1
25°	6043.4	5620.0	4966.5	4763.7	4183.4	3838.3	3528.8	3363.6	3278.9	3273.7	3291.5
27.5°	6501.4	5982.8	4893.3	4366.3	3922.0	3450.4	3108.5	2990.4	2906.7	2902.5	2905.7
30°	7034.7	6466.9	5075.2	3877.0	3567.5	3002.9	2731.1	2647.4	2571.1	2537.6	2538.7
32.5°	7627.5	6905.0	5250.9	3782.9	2859.7	2612.9	2401.7	2336.9	2232.3	2184.2	2170.6
35°	8182.7	7370.3	5470.5	3625.0	2481.2	2265.8	2117.3	2030.5	1949.0	1908.2	1894.6
37.5°	7693.4	7799.0	5664.9	3495.4	2192.6	1877.9	1837.1	1779.6	1737.8	1706.4	1701.2
40°	7805.2	7025.2	5780.0	3250.7	1894.6	1640.5	1574.6	1602.9	1645.7	1619.6	1618.6
42.5°	8178.5	7145.5	5675.4	2911.9	1658.3	1414.7	1433.5	1539.1	1629.0	1612.3	1614.4
45°	8712.8	7520.8	4870.3	2507.3	1429.3	1274.6	1396.9	1520.3	1633.2	1638.4	1638.4
47.5°	9265.9	7943.3	4720.8	1967.8	1261.0	1220.2	1390.6	1497.3	1626.9	1660.4	1656.2
49°	9572.3	8148.2	4679.0	1619.6	1185.7	1208.7	1389.6	1475.3	1614.4	1661.4	1656.2
50°	9751.1	8288.3	4600.5	1480.5	1141.8	1206.6	1390.6	1461.7	1601.8	1654.1	1652.0
52.5°	10126.4	8466.0	4326.6	1219.1	1035.1	1199.3	1407.3	1449.2	1563.1	1618.6	1639.5
55°	8367.8	8166.0	3866.5	1094.7	987.0	1184.6	1407.3	1456.5	1529.7	1562.1	1582.0
57.5°	8471.3	6982.4	3040.5	1033.0	954.6	1169.0	1385.4	1455.4	1511.9	1517.1	1510.9
60°	8787.0	7144.4	2266.8	970.3	917.0	1149.1	1338.3	1422.0	1464.9	1464.9	1446.0
62.5°	8976.3	7220.8	1813.0	901.3	877.2	1108.3	1268.3	1357.2	1389.6	1371.8	1368.7
65°	9023.3	7282.5	1315.3	827.1	832.3	1064.4	1196.1	1273.5	1318.5	1288.2	1294.4
67.5°	8861.3	6842.3	960.9	750.7	781.0	1004.8	1125.0	1194.1	1226.5	1210.8	1213.9
70°	8262.2	6363.4	676.5	620.0	698.4	912.8	1035.1	1114.6	1131.3	1104.1	1108.3
72.5°	7299.2	5624.2	426.6	485.1	614.8	828.1	929.5	979.7	982.8	1016.3	1034.1
75°	6357.1	4512.7	308.4	382.7	488.3	707.9	849.0	896.1	930.6	1097.9	1125.0
77.5°	5095.1	2855.5	262.4	302.2	383.7	587.6	757.0	829.1	1139.7	1222.3	1201.4
80°	3087.6	1773.3	197.6	238.4	319.9	451.7	648.3	854.2	1153.3	1075.9	1032.0
82.5°	1425.1	770.6	133.8	194.5	254.1	336.7	511.3	997.5	988.1	823.9	815.6
85°	512.3	227.9	73.2	139.1	177.7	232.1	393.1	988.1	774.8	692.2	648.3
87.5°	130.7	40.8	30.3	68.0	89.9	123.4	214.3	522.8	402.5	354.5	341.9
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)