

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: P591207

Luminaire Tested: **CTN-CA10-310-727-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591207
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-CA10-310-727-U-T2-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: 22518 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

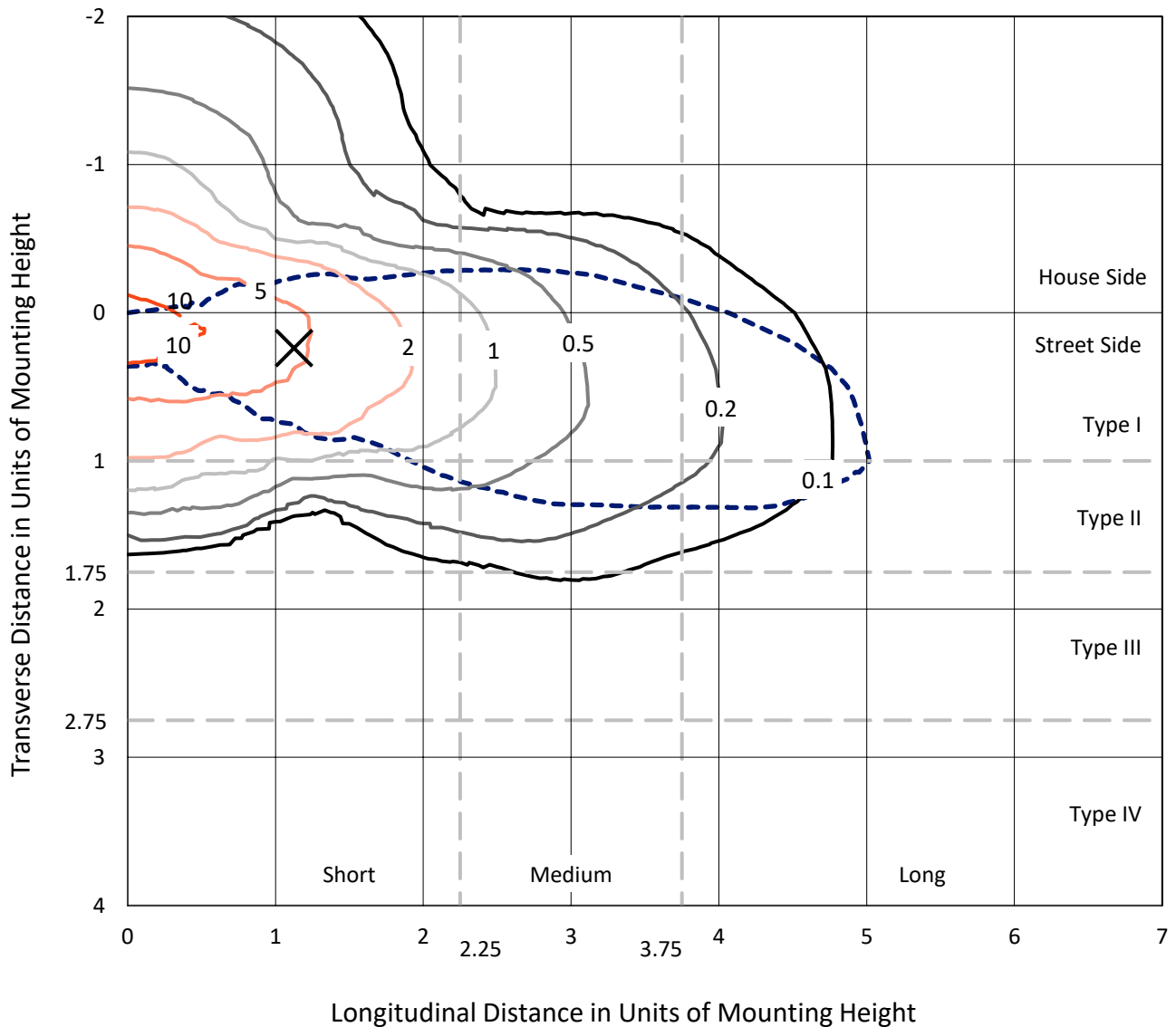
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

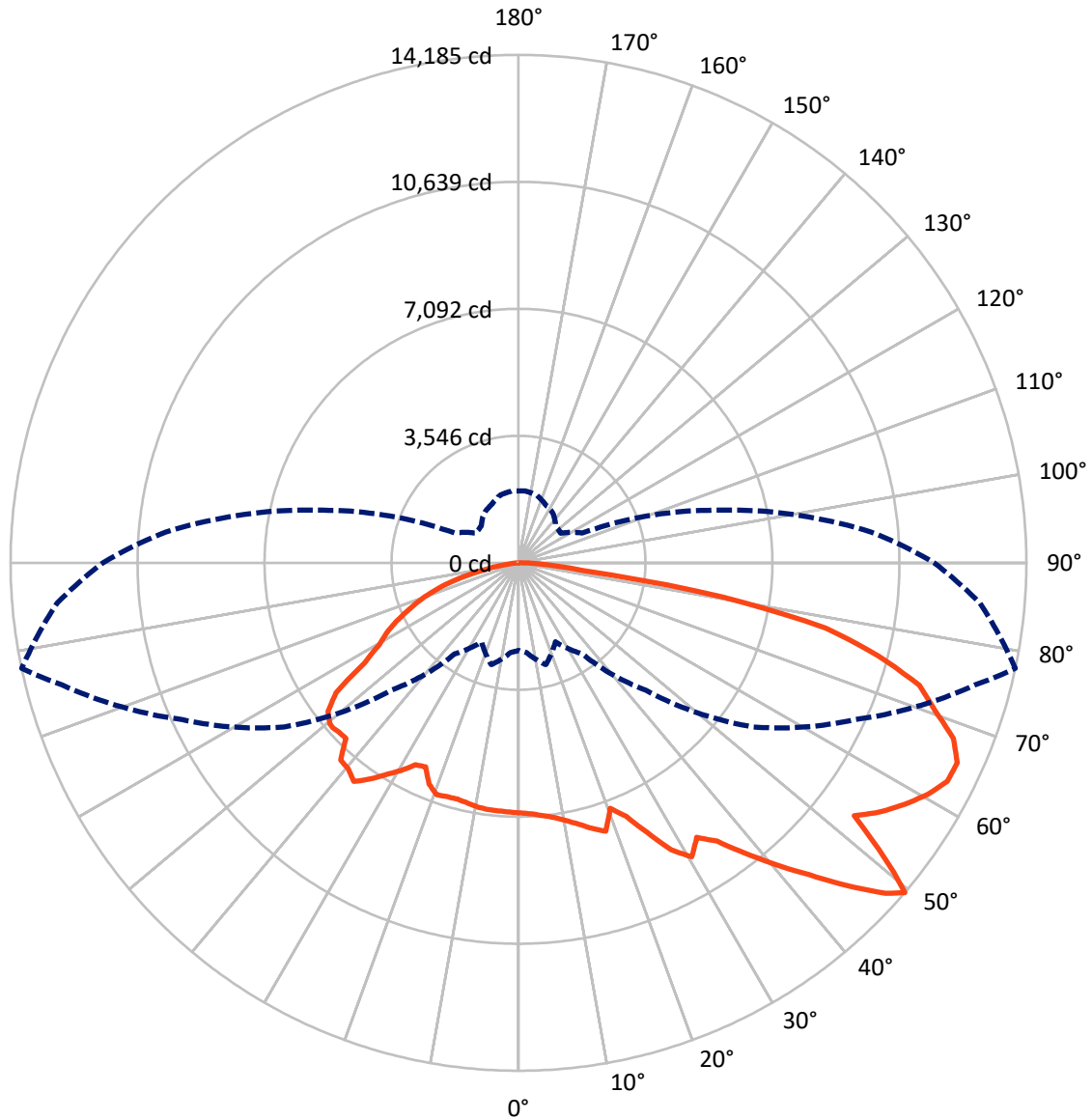
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.9 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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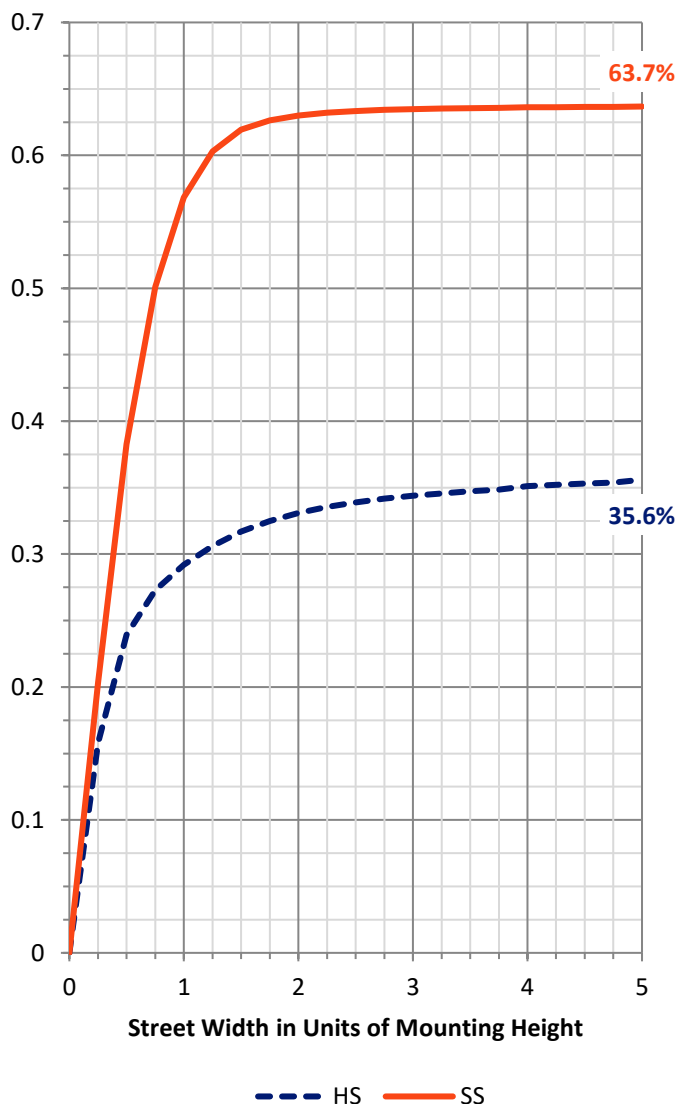
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8226.2	0.0	8226.2
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	14291.8	0.0	14291.8
	% Fixture	63.5	0.0	63.5
Total	Lumens	22518.0	0.0	22518.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	676.8	3.0
10°-20°	1990.4	8.8
20°-30°	2802.4	12.4
30°-40°	3512.9	15.6
40°-50°	3965.1	17.6
50°-60°	3809.9	16.9
60°-70°	3112.4	13.8
70°-80°	2183.5	9.7
80°-90°	464.8	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°	22518.0	100.0
0°-180°	22518.0	100.0

Coefficient of Utilization

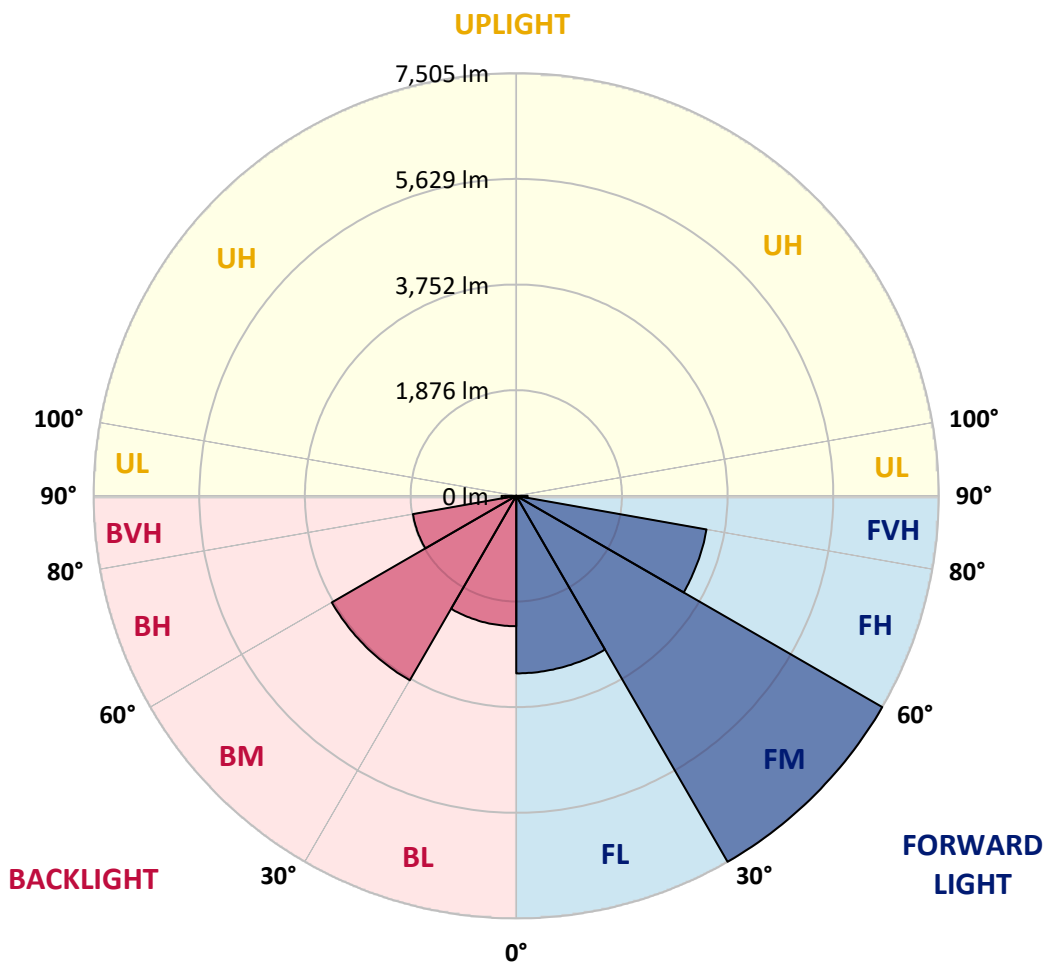


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3153.2	14.0			
FM (30°-60°)	7505.0	33.3			
FH (60°-80°)	3431.3	15.2			G2/5000
FVH (80°-90°)	202.4	0.9			G2/225
BL (0°-30°)	2316.3	10.3	B3/2500		
BM (30°-60°)	3782.8	16.8	B3/5000		
BH (60°-80°)	1864.6	8.3	B3/2500		G3/2500
BVH (80°-90°)	262.4	1.2			G3/500
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°	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6
2.5°	7272.4	7205.2	7220.4	7255.9	7119.0	7157.0	7096.1	7122.8	7050.5	7020.1	7032.7
5°	7791.0	7712.4	7730.2	7747.9	7546.3	7460.1	7290.2	7250.8	7140.5	7089.8	7083.5
7.5°	8038.3	7957.2	7976.2	7976.2	7822.7	7836.7	7664.2	7481.6	7261.0	7181.1	7145.6
10°	8435.2	8343.9	8330.0	8305.9	8105.5	8016.8	7873.5	7767.0	7432.2	7318.1	7220.4
12.5°	8725.6	8654.6	8655.9	8629.2	8403.5	8338.9	8086.5	7961.0	7630.0	7491.8	7334.5
15°	8846.1	8795.4	8828.3	8748.4	8597.5	8501.2	8382.0	8180.3	7838.0	7695.9	7501.9
17.5°	8284.3	8193.0	7950.8	7992.7	7982.5	8011.7	7895.0	8014.2	7959.7	7882.3	7754.3
20°	7015.0	7111.4	7281.3	7130.4	7119.0	7498.1	7769.5	7732.7	7428.4	7315.5	7443.6
22.5°	5961.2	5843.3	6202.2	6738.5	6889.4	7276.2	7737.8	8176.5	7832.9	7688.3	7300.3
25°	5015.2	5134.4	5692.4	6504.0	6978.2	7092.3	7621.1	8446.6	8501.2	8343.9	7840.5
27.5°	4865.6	4864.3	5241.0	6027.2	7106.3	7463.9	7626.2	8312.2	9177.1	9069.3	8491.0
30°	4831.4	4813.6	4956.9	5753.3	6757.6	7797.4	8113.1	8354.1	9172.0	9532.1	9234.1
32.5°	4684.3	4670.3	4817.4	5191.5	6283.3	8115.7	8579.8	8896.8	8943.7	9140.3	9988.6
35°	4448.4	4481.4	4674.1	5087.5	5894.0	7489.2	9052.8	9548.6	9661.5	9546.1	9552.4
37.5°	4222.7	4248.0	4445.9	4902.4	5610.0	6091.8	9377.4	10175.0	10426.1	10294.2	9677.9
40°	3929.8	3965.3	4199.9	4705.8	5423.6	5257.4	8907.0	10910.5	11259.2	11090.6	10391.9
42.5°	3600.1	3616.5	3894.3	4382.5	3889.2	5285.3	8241.2	11585.1	12073.3	11905.9	11062.7
45°	3318.5	3328.7	3555.7	3866.4	3506.2	5241.0	7780.9	11265.6	13024.4	12857.0	11772.8
47.5°	2922.9	2995.2	3241.2	2673.1	3256.4	5131.9	7935.6	9989.9	13915.8	13791.6	12462.6
49°	2448.7	2513.3	2945.7	2434.7	3101.7	5034.3	7988.9	10362.7	13193.0	14184.7	12935.6
50°	2250.8	2297.8	2257.2	2349.7	2988.9	4935.3	7903.9	10663.2	12125.3	13584.9	13240.0
52.5°	1956.6	1821.0	1550.9	2110.1	2728.9	4549.8	6512.8	11471.0	12013.7	11739.8	12405.6
55°	826.8	1178.0	1372.1	1730.9	2466.4	2761.9	6031.0	12351.0	12552.7	12276.2	11147.6
57.5°	646.7	659.4	754.5	1288.4	1364.4	2139.2	5834.4	12728.9	12959.7	12720.1	11580.1
60°	95.1	93.8	124.3	148.4	338.6	984.0	3813.1	9060.4	12508.3	13133.4	11975.7
62.5°	34.2	35.5	35.5	41.8	62.1	431.1	2772.0	8453.0	12810.1	13436.5	12306.7
65°	2.5	3.8	6.3	13.9	33.0	407.1	2458.8	8602.6	12712.4	13465.7	12467.7
67.5°	0.0	1.3	3.8	10.1	26.6	400.7	2286.3	8350.3	12302.9	13095.4	12115.2
70°	0.0	0.0	2.5	8.9	24.1	385.5	1985.8	7494.3	11569.9	12335.8	11473.5
72.5°	0.0	0.0	2.5	8.9	21.6	367.7	1632.0	6597.8	10902.9	11704.3	10542.8
75°	0.0	0.0	2.5	7.6	19.0	334.8	1193.3	4781.9	9766.7	10379.2	9221.4
77.5°	0.0	0.0	2.5	7.6	17.8	289.1	806.5	2740.3	8035.8	8776.3	7747.9
80°	0.0	0.0	2.5	6.3	16.5	219.4	456.5	1368.3	4199.9	5768.5	5537.7
82.5°	0.0	0.0	2.5	6.3	12.7	116.7	213.0	597.3	1548.3	1827.3	2132.9
85°	0.0	0.0	2.5	5.1	10.1	29.2	72.3	284.0	845.8	939.6	916.8
87.5°	0.0	0.0	2.5	5.1	7.6	11.4	24.1	81.2	313.2	350.0	299.3
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°	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6	6984.6
2.5°	7030.2	6990.9	6954.1	6959.2	6871.7	6852.7	6770.2	6821.0	6786.7	6743.6	6771.5
5°	7045.4	6994.7	6930.0	6857.7	6666.3	6597.8	6483.7	6516.6	6471.0	6420.3	6446.9
7.5°	7078.4	7018.8	6912.3	6724.6	6501.4	6380.9	6249.1	6361.9	6348.0	6318.8	6348.0
10°	7092.3	7040.3	6859.0	6640.9	6331.5	6249.1	6148.9	6129.9	6133.7	6140.0	6183.1
12.5°	7129.1	7051.8	6772.8	6514.1	6232.6	6069.0	5970.1	6028.4	5908.0	5854.7	5877.5
15°	7219.1	7072.0	6705.6	6337.8	6057.6	5928.2	5684.8	5684.8	5654.3	5602.4	5617.6
17.5°	7400.5	7153.2	6687.8	6221.2	5862.3	5639.1	5415.9	5298.0	5265.0	5281.5	5291.7
20°	7498.1	7302.8	6678.9	6067.7	5642.9	5384.2	5045.7	4962.0	4851.7	4866.9	4884.6
22.5°	6911.0	6656.1	6665.0	5880.1	5371.6	5043.1	4672.9	4527.0	4459.8	4447.1	4481.4
25°	7329.5	6815.9	6023.4	5777.3	5073.6	4655.1	4279.8	4079.4	3976.7	3970.3	3991.9
27.5°	7884.9	7255.9	5934.6	5295.5	4756.5	4184.6	3770.0	3626.7	3525.2	3520.2	3524.0
30°	8531.6	7843.0	6155.2	4702.0	4326.7	3641.9	3312.2	3210.8	3118.2	3077.6	3078.9
32.5°	9250.6	8374.4	6368.3	4587.9	3468.2	3168.9	2912.8	2834.1	2707.3	2649.0	2632.5
35°	9923.9	8938.7	6634.6	4396.4	3009.1	2747.9	2567.9	2462.6	2363.7	2314.2	2297.8
37.5°	9330.5	9458.6	6870.4	4239.2	2659.2	2277.5	2228.0	2158.3	2107.5	2069.5	2063.2
40°	9466.2	8520.2	7009.9	3942.4	2297.8	1989.6	1909.7	1944.0	1995.9	1964.2	1963.0
42.5°	9918.9	8666.0	6883.1	3531.6	2011.2	1715.7	1738.5	1866.6	1975.7	1955.4	1957.9
45°	10566.9	9121.3	5906.7	3040.8	1733.5	1545.8	1694.1	1843.8	1980.7	1987.1	1987.1
47.5°	11237.7	9633.6	5725.4	2386.5	1529.3	1479.8	1686.5	1815.9	1973.1	2013.7	2008.6
49°	11609.2	9882.1	5674.6	1964.2	1438.0	1465.9	1685.3	1789.3	1957.9	2015.0	2008.6
50°	11826.1	10052.0	5579.5	1795.6	1384.7	1463.4	1686.5	1772.8	1942.7	2006.1	2003.6
52.5°	12281.3	10267.6	5247.3	1478.6	1255.4	1454.5	1706.8	1757.6	1895.8	1963.0	1988.3
55°	10148.4	9903.7	4689.3	1327.7	1197.1	1436.7	1706.8	1766.4	1855.2	1894.5	1918.6
57.5°	10273.9	8468.2	3687.6	1252.9	1157.8	1417.7	1680.2	1765.2	1833.6	1840.0	1832.4
60°	10656.9	8664.8	2749.2	1176.8	1112.1	1393.6	1623.1	1724.6	1776.6	1776.6	1753.7
62.5°	10886.4	8757.3	2198.8	1093.1	1063.9	1344.2	1538.2	1646.0	1685.3	1663.7	1659.9
65°	10943.5	8832.1	1595.2	1003.0	1009.4	1290.9	1450.7	1544.5	1599.0	1562.3	1569.9
67.5°	10746.9	8298.3	1165.4	910.5	947.3	1218.6	1364.4	1448.1	1487.5	1468.4	1472.2
70°	10020.3	7717.5	820.4	752.0	847.1	1107.0	1255.4	1351.8	1372.1	1339.1	1344.2
72.5°	8852.4	6821.0	517.4	588.4	745.6	1004.3	1127.3	1188.2	1192.0	1232.6	1254.1
75°	7709.9	5473.0	374.1	464.1	592.2	858.5	1029.7	1086.7	1128.6	1331.5	1364.4
77.5°	6179.3	3463.1	318.3	366.5	465.4	712.7	918.1	1005.6	1382.2	1482.4	1457.0
80°	3744.6	2150.7	239.7	289.1	388.0	547.8	786.2	1036.0	1398.7	1304.8	1251.6
82.5°	1728.4	934.6	162.3	235.9	308.1	408.3	620.1	1209.7	1198.3	999.2	989.1
85°	621.4	276.4	88.8	168.7	215.6	281.5	476.8	1198.3	939.6	839.5	786.2
87.5°	158.5	49.5	36.8	82.4	109.1	149.6	260.0	634.0	488.2	429.9	414.7
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)