

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: P591435

Luminaire Tested: **CTN-CA6-230-740-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591435
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-CA6-230-740-U-T2-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: 18910 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

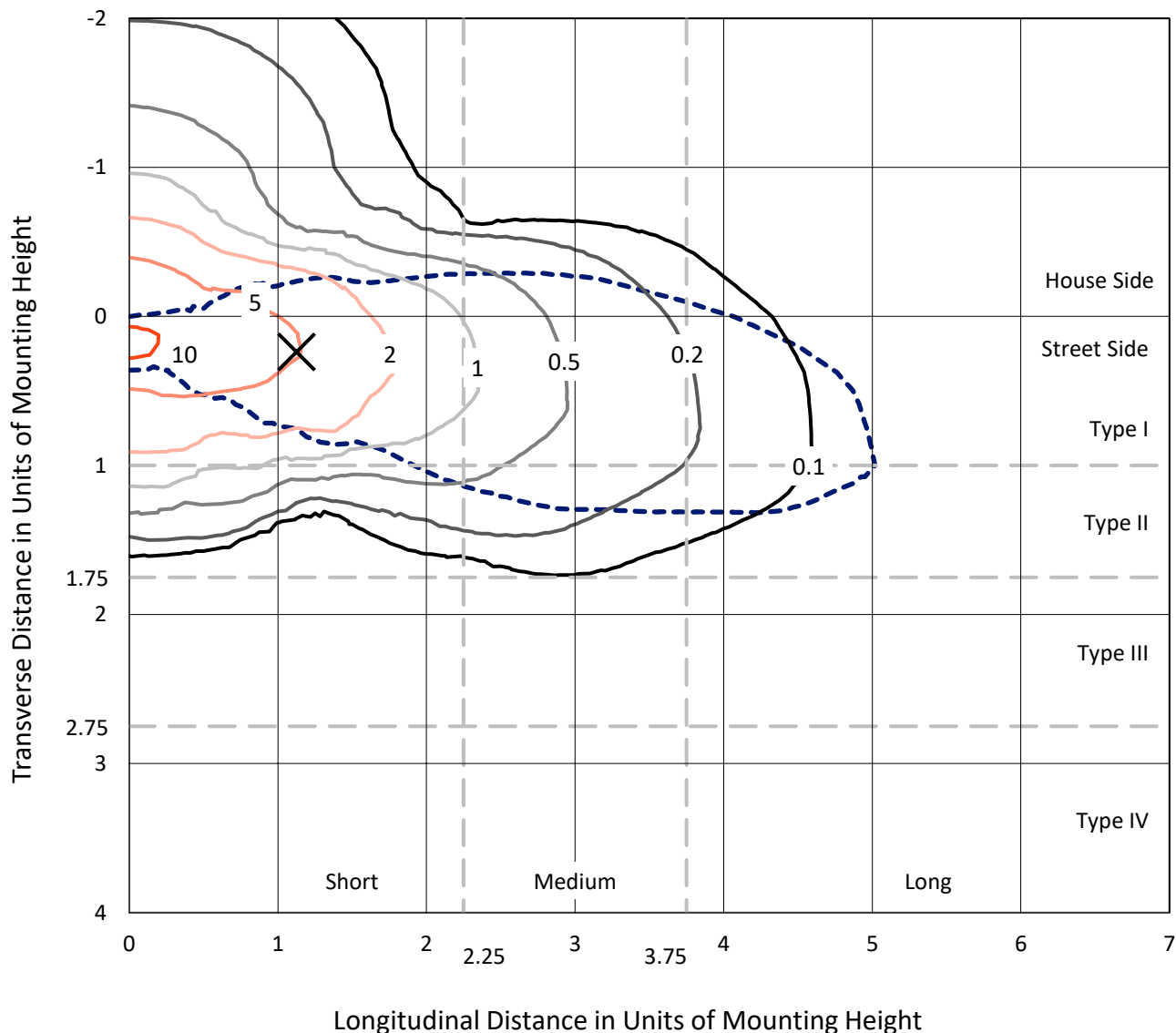
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

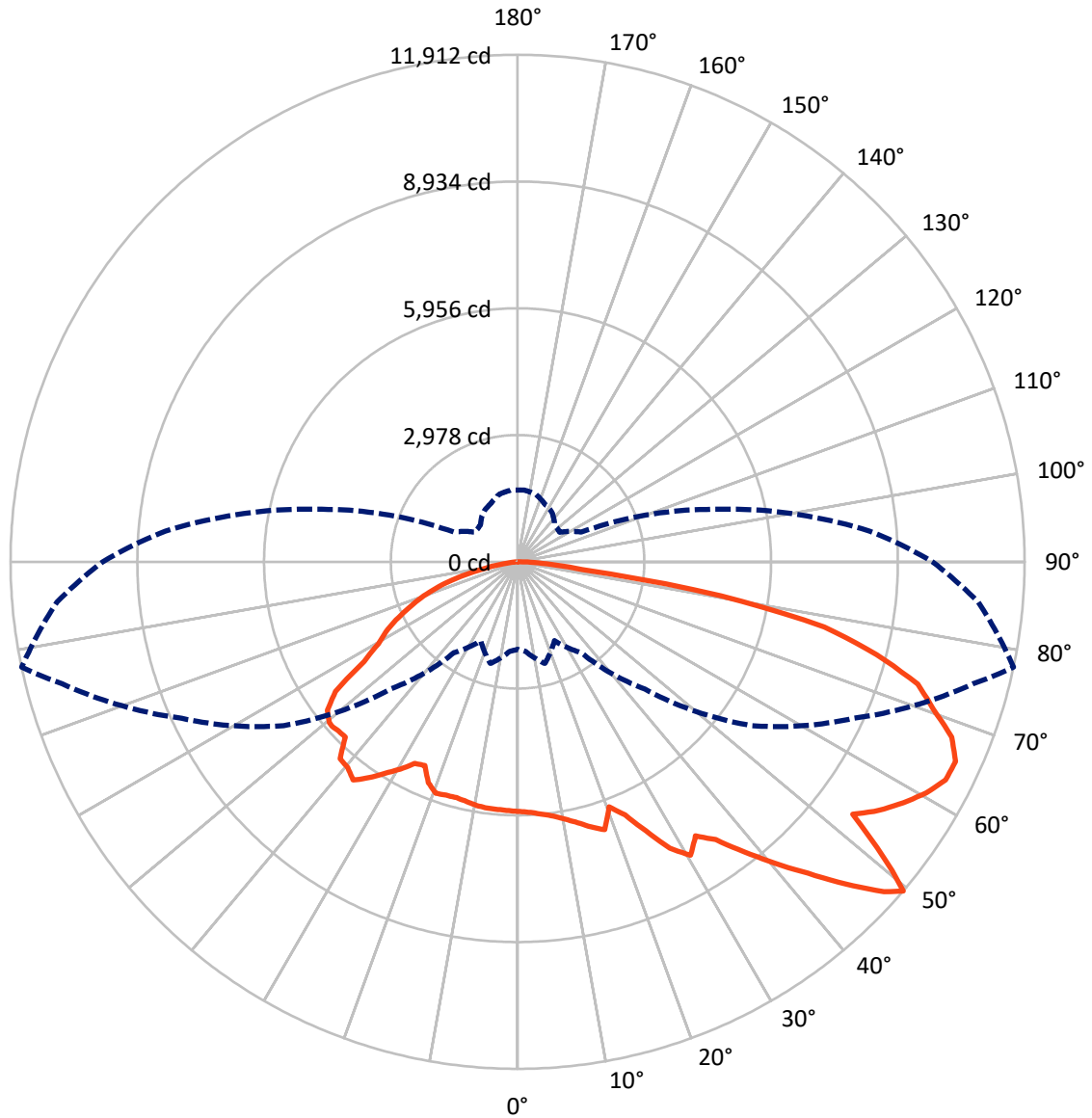
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 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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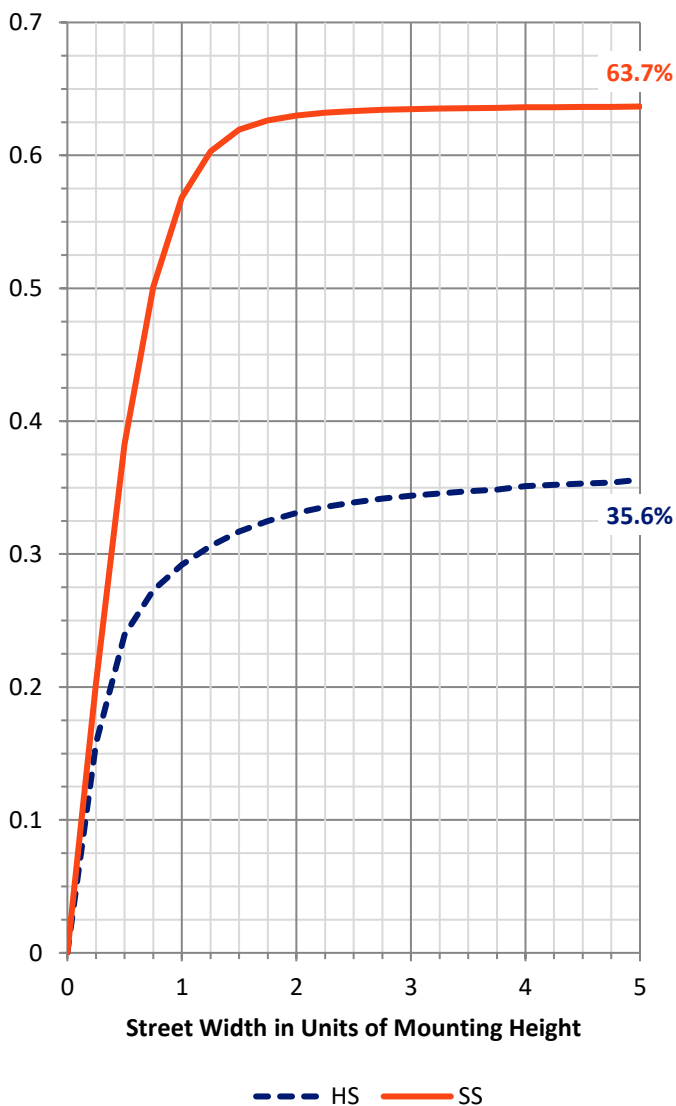
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6908.1	0.0	6908.1
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	12001.9	0.0	12001.9
	% Fixture	63.5	0.0	63.5
Total	Lumens	18910.0	0.0	18910.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	568.3	3.0
10°-20°	1671.5	8.8
20°-30°	2353.3	12.4
30°-40°	2950.0	15.6
40°-50°	3329.7	17.6
50°-60°	3199.4	16.9
60°-70°	2613.7	13.8
70°-80°	1833.6	9.7
80°-90°	390.3	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°	18910.0	100.0
0°-180°	18910.0	100.0

Coefficient of Utilization



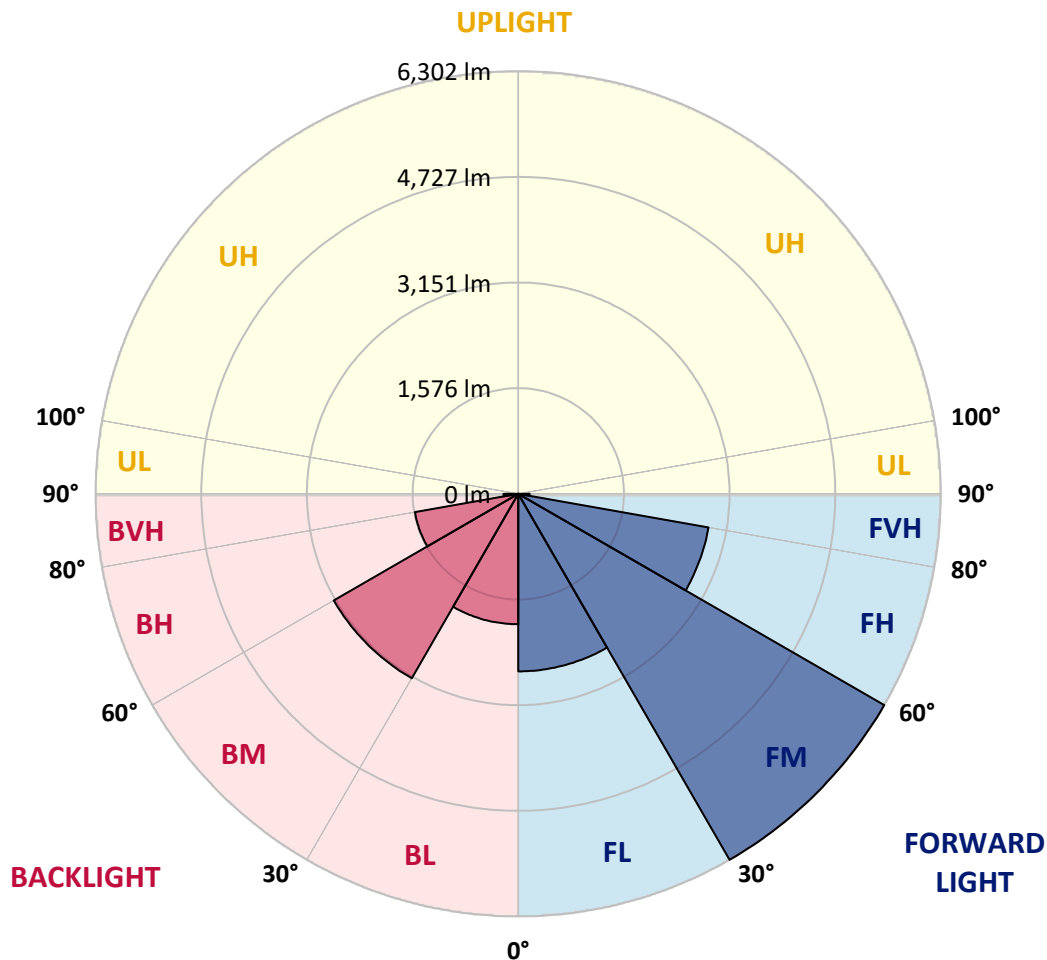
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2647.9	14.0			
FM (30°-60°)	6302.5	33.3			
FH (60°-80°)	2881.5	15.2			G2/5000
FVH (80°-90°)	170.0	0.9			G2/225
BL (0°-30°)	1945.2	10.3	B3/2500		
BM (30°-60°)	3176.7	16.8	B3/5000		
BH (60°-80°)	1565.8	8.3	B3/2500		G3/2500
BVH (80°-90°)	220.4	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°	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4
2.5°	6107.2	6050.7	6063.5	6093.3	5978.3	6010.3	5959.1	5981.5	5920.8	5895.3	5905.9
5°	6542.7	6476.7	6491.6	6506.5	6337.2	6264.8	6122.1	6089.1	5996.4	5953.8	5948.5
7.5°	6750.4	6682.2	6698.2	6698.2	6569.3	6581.0	6436.2	6282.9	6097.6	6030.5	6000.7
10°	7083.7	7007.0	6995.3	6975.1	6806.8	6732.3	6611.9	6522.5	6241.3	6145.5	6063.5
12.5°	7327.5	7267.9	7269.0	7246.6	7057.1	7002.7	6790.8	6685.4	6407.5	6291.4	6159.3
15°	7428.7	7386.1	7413.8	7346.7	7220.0	7139.0	7038.9	6869.6	6582.1	6462.8	6299.9
17.5°	6957.0	6880.3	6676.9	6712.0	6703.5	6728.0	6630.0	6730.1	6684.3	6619.4	6511.8
20°	5891.0	5971.9	6114.6	5987.9	5978.3	6296.7	6524.6	6493.7	6238.1	6143.4	6250.9
22.5°	5006.1	4907.0	5208.4	5658.8	5785.6	6110.4	6498.0	6866.4	6577.8	6456.5	6130.6
25°	4211.7	4311.8	4780.3	5461.8	5860.1	5956.0	6400.0	7093.3	7139.0	7007.0	6584.2
27.5°	4086.0	4084.9	4401.2	5061.4	5967.7	6268.0	6404.3	6980.4	7706.6	7616.1	7130.5
30°	4057.2	4042.3	4162.7	4831.4	5674.8	6548.0	6813.2	7015.5	7702.4	8004.8	7754.6
32.5°	3933.7	3922.0	4045.5	4359.7	5276.5	6815.3	7205.1	7471.3	7510.7	7675.8	8388.2
35°	3735.6	3763.3	3925.2	4272.4	4949.6	6289.3	7602.3	8018.7	8113.4	8016.5	8021.8
37.5°	3546.1	3567.4	3733.5	4116.9	4711.1	5115.8	7874.9	8544.7	8755.6	8644.8	8127.3
40°	3300.1	3329.9	3526.9	3951.8	4554.6	4415.1	7479.8	9162.3	9455.2	9313.6	8726.8
42.5°	3023.2	3037.1	3270.3	3680.3	3266.0	4438.5	6920.7	9728.9	10138.9	9998.3	9290.1
45°	2786.8	2795.3	2986.0	3246.9	2944.4	4401.2	6534.2	9460.5	10937.5	10797.0	9886.5
47.5°	2454.6	2515.3	2721.9	2244.8	2734.6	4309.6	6664.1	8389.2	11686.1	11581.8	10465.8
49°	2056.3	2110.6	2473.7	2044.6	2604.7	4227.6	6708.8	8702.3	11079.2	11911.9	10863.0
50°	1890.2	1929.6	1895.5	1973.2	2510.0	4144.6	6637.5	8954.7	10182.5	11408.2	11118.6
52.5°	1643.1	1529.2	1302.4	1772.0	2291.7	3820.8	5469.3	9633.0	10088.8	9858.8	10417.9
55°	694.3	989.3	1152.2	1453.6	2071.2	2319.3	5064.6	10372.1	10541.4	10309.2	9361.5
57.5°	543.1	553.7	633.6	1081.9	1145.8	1796.5	4899.6	10689.4	10883.2	10682.0	9724.6
60°	79.9	78.8	104.4	124.6	284.3	826.4	3202.1	7608.7	10504.1	11029.1	10056.9
62.5°	28.8	29.8	29.8	35.1	52.2	362.1	2327.9	7098.6	10757.6	11283.6	10334.8
65°	2.1	3.2	5.3	11.7	27.7	341.8	2064.8	7224.2	10675.6	11308.1	10470.0
67.5°	0.0	1.1	3.2	8.5	22.4	336.5	1920.0	7012.3	10331.6	10997.2	10174.0
70°	0.0	0.0	2.1	7.5	20.2	323.7	1667.6	6293.5	9716.1	10359.3	9635.2
72.5°	0.0	0.0	2.1	7.5	18.1	308.8	1370.5	5540.6	9156.0	9829.0	8853.5
75°	0.0	0.0	2.1	6.4	16.0	281.1	1002.1	4015.7	8201.8	8716.2	7743.9
77.5°	0.0	0.0	2.1	6.4	14.9	242.8	677.3	2301.2	6748.2	7370.1	6506.5
80°	0.0	0.0	2.1	5.3	13.8	184.2	383.4	1149.0	3526.9	4844.2	4650.4
82.5°	0.0	0.0	2.1	5.3	10.6	98.0	178.9	501.6	1300.2	1534.5	1791.2
85°	0.0	0.0	2.1	4.3	8.5	24.5	60.7	238.5	710.3	789.1	769.9
87.5°	0.0	0.0	2.1	4.3	6.4	9.6	20.2	68.2	263.0	293.9	251.3
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°	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4	5865.4
2.5°	5903.8	5870.8	5839.9	5844.1	5770.7	5754.7	5685.5	5728.1	5699.3	5663.1	5686.5
5°	5916.6	5874.0	5819.6	5758.9	5598.1	5540.6	5444.8	5472.5	5434.2	5391.6	5413.9
7.5°	5944.2	5894.2	5804.7	5647.1	5459.7	5358.5	5247.8	5342.6	5330.9	5306.4	5330.9
10°	5956.0	5912.3	5760.0	5576.8	5317.0	5247.8	5163.7	5147.7	5150.9	5156.2	5192.4
12.5°	5986.8	5921.9	5687.6	5470.4	5234.0	5096.6	5013.5	5062.5	4961.3	4916.6	4935.8
15°	6062.4	5938.9	5631.2	5322.3	5087.0	4978.4	4773.9	4773.9	4748.4	4704.7	4717.5
17.5°	6214.7	6007.1	5616.3	5224.4	4923.0	4735.6	4548.2	4449.1	4421.4	4435.3	4443.8
20°	6296.7	6132.7	5608.8	5095.5	4738.8	4521.5	4237.2	4166.9	4074.3	4087.1	4102.0
22.5°	5803.7	5589.6	5597.1	4937.9	4510.9	4235.1	3924.1	3801.7	3745.2	3734.6	3763.3
25°	6155.1	5723.8	5058.2	4851.7	4260.6	3909.2	3594.0	3425.8	3339.5	3334.2	3352.3
27.5°	6621.5	6093.3	4983.7	4447.0	3994.4	3514.1	3165.9	3045.6	2960.4	2956.1	2959.3
30°	7164.6	6586.4	5169.0	3948.6	3633.4	3058.4	2781.5	2696.3	2618.6	2584.5	2585.6
32.5°	7768.4	7032.6	5347.9	3852.8	2912.5	2661.2	2446.1	2380.0	2273.5	2224.6	2210.7
35°	8333.9	7506.4	5571.5	3692.0	2527.0	2307.6	2156.4	2068.0	1985.0	1943.4	1929.6
37.5°	7835.5	7943.0	5769.6	3559.9	2233.1	1912.5	1871.0	1812.4	1769.9	1737.9	1732.6
40°	7949.4	7155.0	5886.7	3310.8	1929.6	1670.8	1603.7	1632.5	1676.1	1649.5	1648.5
42.5°	8329.6	7277.5	5780.2	2965.7	1688.9	1440.8	1460.0	1567.5	1659.1	1642.1	1644.2
45°	8873.8	7659.8	4960.3	2553.6	1455.7	1298.1	1422.7	1548.4	1663.4	1668.7	1668.7
47.5°	9437.1	8090.0	4808.0	2004.1	1284.3	1242.7	1416.3	1524.9	1657.0	1691.1	1686.8
49°	9749.1	8298.7	4765.4	1649.5	1207.6	1231.0	1415.2	1502.6	1644.2	1692.1	1686.8
50°	9931.2	8441.4	4685.5	1507.9	1162.9	1228.9	1416.3	1488.7	1631.4	1684.7	1682.5
52.5°	10313.5	8622.4	4406.5	1241.7	1054.2	1221.4	1433.3	1475.9	1592.0	1648.5	1669.8
55°	8522.3	8316.8	3938.0	1114.9	1005.3	1206.5	1433.3	1483.4	1557.9	1591.0	1611.2
57.5°	8627.8	7111.4	3096.7	1052.1	972.2	1190.6	1411.0	1482.3	1539.8	1545.2	1538.8
60°	8949.4	7276.4	2308.7	988.2	933.9	1170.3	1363.1	1448.3	1491.9	1491.9	1472.7
62.5°	9142.1	7354.2	1846.5	917.9	893.4	1128.8	1291.7	1382.2	1415.2	1397.1	1393.9
65°	9190.0	7417.0	1339.6	842.3	847.7	1084.1	1218.2	1297.0	1342.8	1311.9	1318.3
67.5°	9025.0	6968.7	978.6	764.6	795.5	1023.4	1145.8	1216.1	1249.1	1233.1	1236.3
70°	8414.8	6480.9	689.0	631.5	711.3	929.7	1054.2	1135.2	1152.2	1124.5	1128.8
72.5°	7434.0	5728.1	434.5	494.1	626.2	843.4	946.7	997.8	1001.0	1035.1	1053.2
75°	6474.6	4596.1	314.1	389.8	497.3	720.9	864.7	912.6	947.8	1118.1	1145.8
77.5°	5189.2	2908.2	267.3	307.8	390.8	598.5	771.0	844.5	1160.7	1244.9	1223.6
80°	3144.6	1806.1	201.3	242.8	325.9	460.0	660.2	870.0	1174.6	1095.8	1051.1
82.5°	1451.5	784.8	136.3	198.1	258.8	342.9	520.7	1015.9	1006.3	839.1	830.6
85°	521.8	232.1	74.5	141.6	181.0	236.4	400.4	1006.3	789.1	705.0	660.2
87.5°	133.1	41.5	30.9	69.2	91.6	125.7	218.3	532.4	410.0	361.0	348.2
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)