

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: P591112

Luminaire Tested: **CTN-CA10-310-722-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591112
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-722-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28693 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

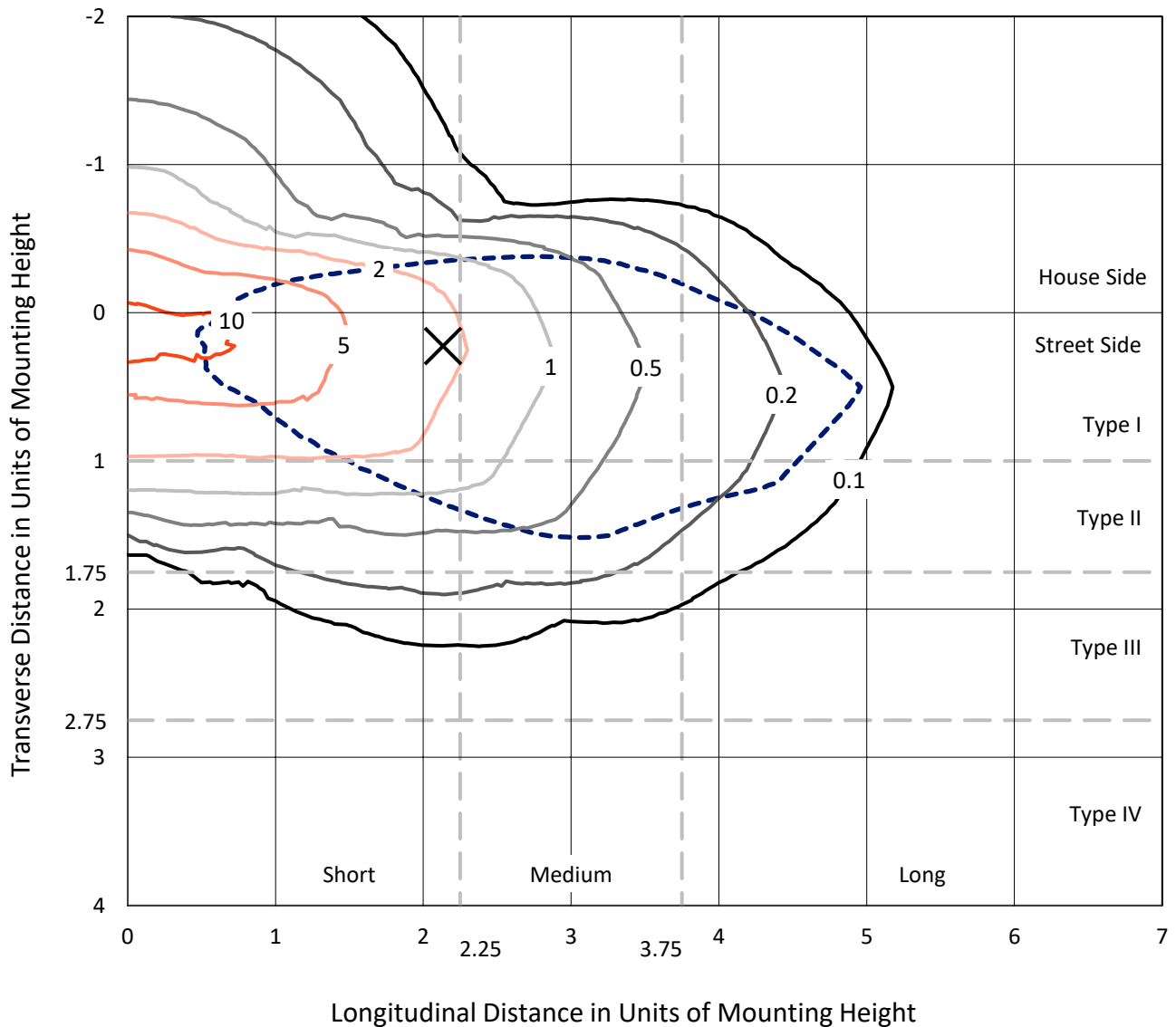
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

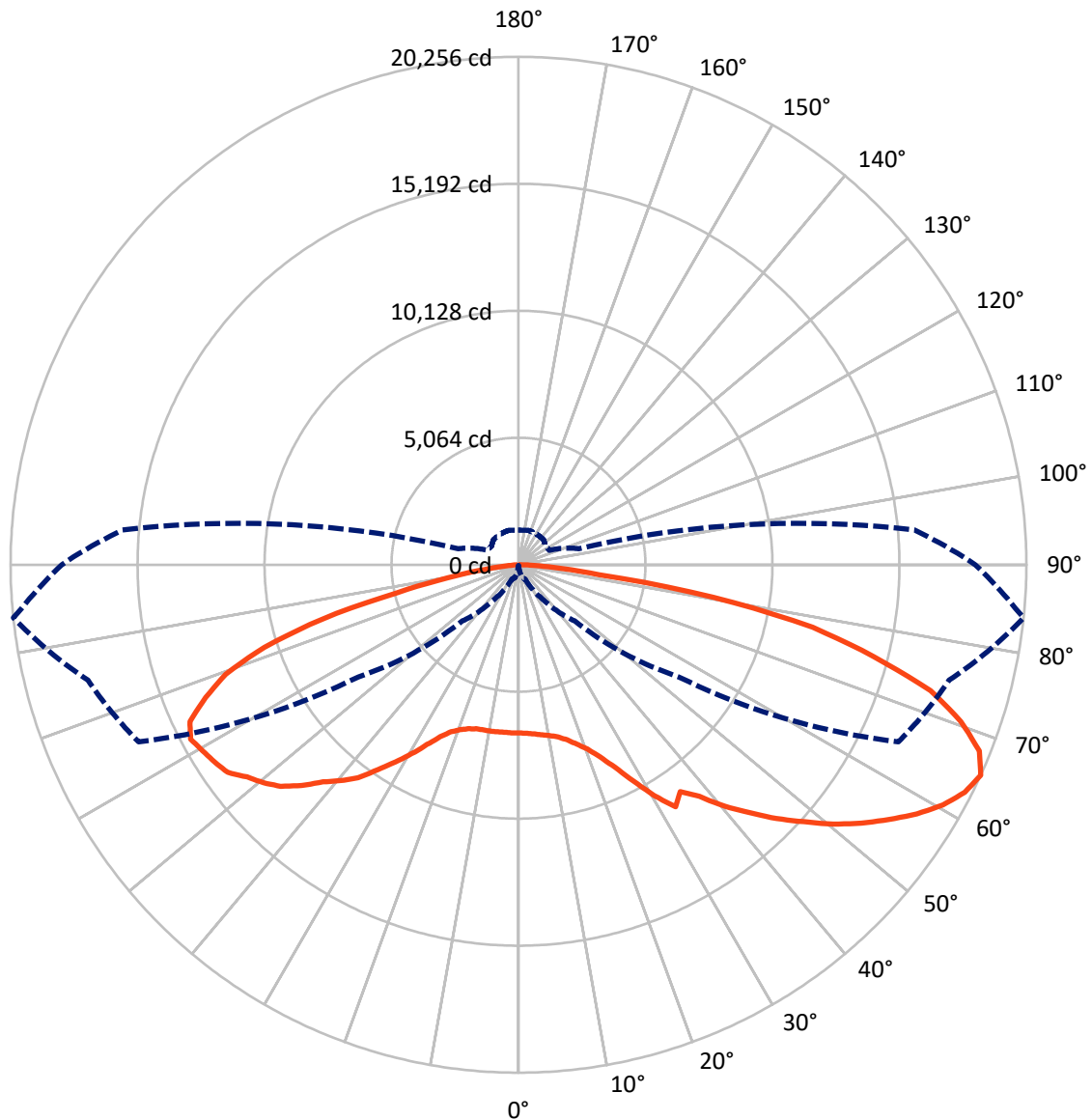
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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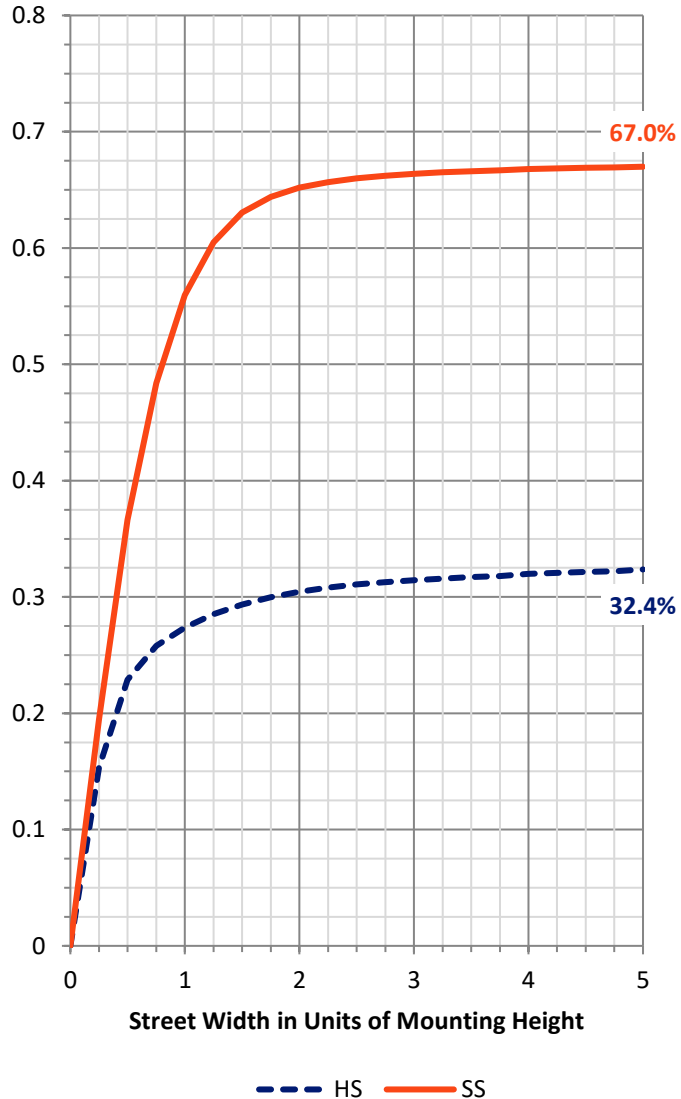
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9498.8	0.0	9498.8
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	19194.2	0.0	19194.2
	% Fixture	66.9	0.0	66.9
Total	Lumens	28693.0	0.0	28693.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	647.5	2.3
10°-20°	1927.4	6.7
20°-30°	2895.9	10.1
30°-40°	3851.0	13.4
40°-50°	4754.8	16.6
50°-60°	5343.1	18.6
60°-70°	5240.4	18.3
70°-80°	3407.5	11.9
80°-90°	625.3	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°	28693.0	100.0
0°-180°	28693.0	100.0

Coefficient of Utilization

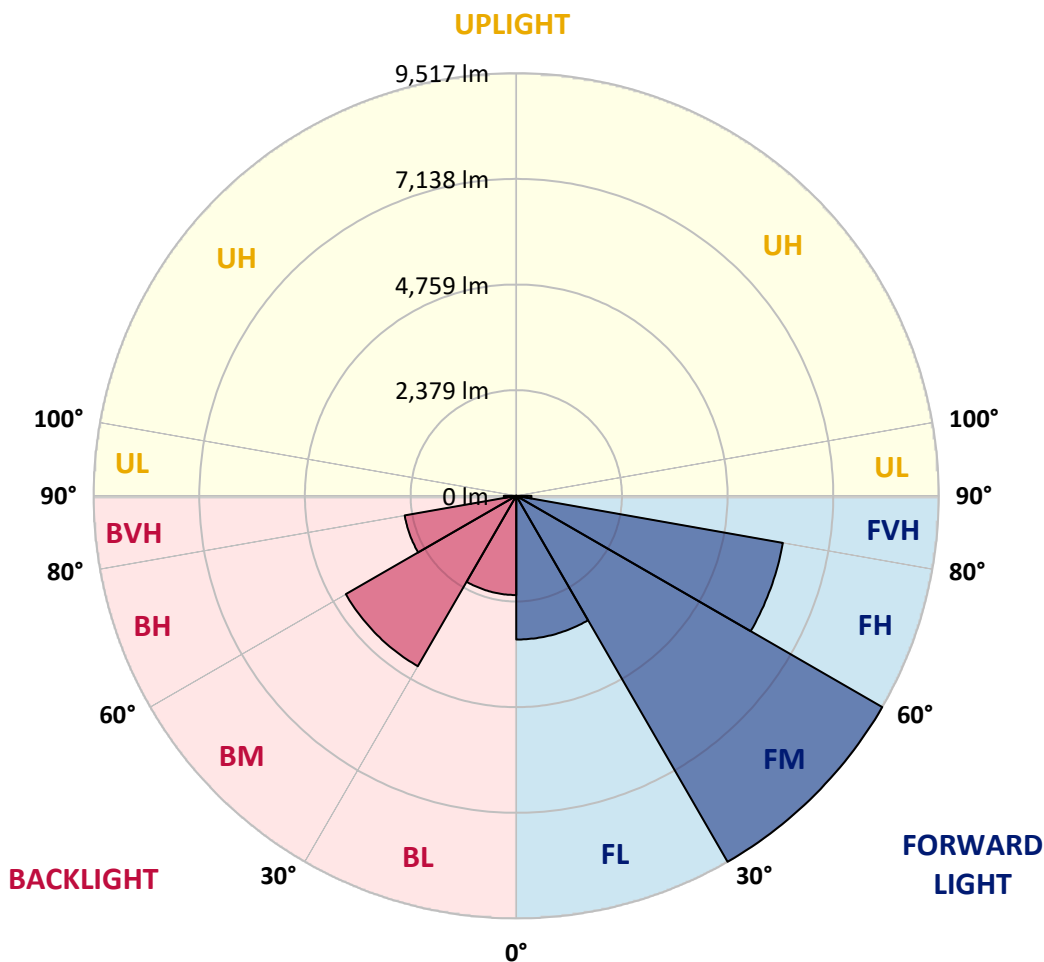


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3236.4	11.3			
FM (30°-60°)	9517.4	33.2			
FH (60°-80°)	6096.9	21.2			G3/7500
FVH (80°-90°)	343.5	1.2			G3/500
BL (0°-30°)	2234.5	7.8	B3/2500		
BM (30°-60°)	4431.6	15.4	B3/5000		
BH (60°-80°)	2551.0	8.9	B4/5000		G4/5000
BVH (80°-90°)	281.8	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6
2.5°	6995.6	6929.7	6937.0	6968.7	6846.7	6887.0	6818.6	6830.8	6749.1	6734.4	6743.0
5°	7487.4	7416.6	7416.6	7436.2	7231.1	7176.2	6985.8	6954.1	6833.3	6779.6	6782.0
7.5°	7741.3	7671.7	7658.3	7676.6	7528.9	7541.1	7345.9	7159.1	6944.3	6849.1	6844.3
10°	8114.7	8036.6	7990.3	7991.5	7792.5	7716.9	7572.9	7442.3	7114.0	6928.5	6905.3
12.5°	8416.2	8356.4	8332.0	8313.7	8094.0	8044.0	7773.0	7666.8	7316.6	7049.3	7018.8
15°	8590.7	8534.6	8499.2	8457.7	8335.6	8253.9	8136.7	7895.1	7557.0	7243.3	7205.5
17.5°	8135.5	8039.1	7871.9	7798.6	7770.6	7889.0	8393.0	8269.7	7867.0	7519.2	7478.9
20°	6934.6	7022.4	7149.4	6861.3	6950.4	7830.4	8776.2	8765.2	8300.3	7849.9	7797.4
22.5°	5899.6	5667.7	6068.1	6507.4	6788.1	7618.0	8925.1	9337.6	8887.3	8314.9	8253.9
25°	4836.6	4968.4	5507.9	6392.7	6785.7	7456.9	8843.3	9777.0	9637.9	8948.3	8876.3
27.5°	4692.6	4695.1	5213.7	5891.1	6919.9	7830.4	8932.4	9794.1	10486.1	9767.2	9628.1
30°	4662.1	4647.5	4787.8	5610.4	6683.2	8179.4	9506.1	9946.6	10692.3	10682.6	10497.1
32.5°	4519.3	4510.8	4657.2	5030.7	6176.7	8549.2	10049.1	10658.2	10617.9	11507.6	11457.5
35°	4315.5	4346.0	4527.9	4916.0	5938.7	8241.7	10606.9	11473.4	11541.8	11107.3	11306.2
37.5°	4103.1	4120.2	4296.0	4764.6	5540.8	7703.5	11031.6	12272.8	12507.1	11722.4	11563.7
40°	3813.9	3849.3	4055.5	4582.8	5460.3	7204.3	10731.4	13183.3	13548.2	12660.9	12416.8
42.5°	3507.6	3524.6	3776.1	4287.4	5326.0	7211.6	10115.1	13969.2	14507.4	13517.7	13269.9
45°	3239.1	3243.9	3479.5	3937.2	5061.2	7166.5	9725.7	14001.0	15655.9	14435.4	14124.2
47.5°	2910.8	2957.1	3190.2	3646.7	4723.1	7015.1	9907.6	13016.1	16808.0	15310.5	15026.1
50°	2232.2	2268.8	2720.4	3362.3	4353.3	6762.5	10032.1	13809.3	15524.1	16260.0	16056.2
52.5°	1919.8	1857.5	2182.2	3042.6	4015.3	6341.4	10084.5	14922.4	15521.6	17119.2	16915.4
55°	821.4	1259.5	1966.1	2498.3	3706.5	5780.0	10046.7	16011.0	16278.3	17929.6	17858.8
57.5°	649.3	679.8	1445.0	2021.1	3340.4	5116.1	9875.8	16731.1	16942.2	18741.2	18539.8
60°	119.6	135.5	710.3	854.3	2418.9	4125.1	9253.4	16833.6	17426.7	19447.8	19190.3
62.5°	54.9	64.7	571.2	711.5	1934.4	3392.8	8720.1	16800.7	17874.6	19972.6	19745.6
65°	25.6	33.0	511.4	645.6	1674.5	3165.8	7796.2	16711.6	17775.8	20255.7	19887.2
67.5°	19.5	28.1	469.9	579.7	1392.5	2940.1	6918.7	15776.7	17299.8	19817.6	19306.2
70°	19.5	28.1	429.6	527.2	1181.4	2653.2	5616.5	14606.3	16213.6	18710.7	18284.7
72.5°	20.7	28.1	382.0	477.2	1024.0	2290.8	4387.5	12737.8	14911.4	17182.7	16734.7
75°	20.7	28.1	329.5	422.3	862.9	1918.5	2937.6	9104.5	12844.0	14624.6	14126.7
77.5°	20.7	28.1	273.4	352.7	703.0	1532.9	1900.2	4908.6	10105.3	11993.3	11355.0
80°	20.7	28.1	203.8	267.3	528.5	1081.3	1135.0	2475.1	5437.1	7879.2	7990.3
82.5°	20.7	26.8	141.6	195.3	345.4	593.1	627.3	1194.8	2006.4	3231.7	3276.9
85°	19.5	23.2	101.3	129.4	189.2	223.3	305.1	594.4	961.7	1379.1	1368.1
87.5°	12.2	12.2	33.0	51.3	76.9	87.9	136.7	219.7	332.0	455.2	429.6
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°	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6	6707.6
2.5°	6741.7	6713.7	6678.3	6668.5	6585.5	6546.5	6467.1	6502.5	6462.3	6429.3	6467.1
5°	6751.5	6710.0	6635.6	6547.7	6370.7	6290.2	6177.9	6190.1	6131.5	6086.4	6112.0
7.5°	6775.9	6724.7	6607.5	6409.8	6198.6	6071.7	5954.6	6046.1	6005.8	5971.6	5997.3
10°	6788.1	6747.8	6540.4	6331.7	6027.8	5958.2	5811.8	5800.8	5804.4	5800.8	5841.1
12.5°	6821.1	6763.7	6462.3	6196.2	5937.5	5753.2	5662.9	5661.6	5545.7	5495.7	5517.6
15°	6918.7	6794.2	6409.8	6035.1	5749.5	5627.5	5341.9	5343.1	5294.3	5236.9	5235.7
17.5°	7114.0	6885.8	6409.8	5926.5	5576.2	5329.7	5080.7	4945.2	4912.3	4919.6	4914.7
20°	7371.5	7039.5	6407.3	5766.6	5332.1	5077.1	4718.2	4603.5	4499.8	4507.1	4507.1
22.5°	7741.3	7266.5	6412.2	5620.2	5099.0	4752.4	4348.4	4203.2	4092.2	4095.8	4095.8
25°	8272.2	7655.9	6469.6	5531.1	4786.6	4370.4	3962.8	3737.0	3623.5	3624.7	3627.2
27.5°	8948.3	8199.0	6668.5	5341.9	4526.6	3918.9	3472.2	3306.2	3192.7	3163.4	3163.4
30°	9713.5	8850.7	6926.0	5218.6	4123.9	3409.9	3038.9	2915.6	2779.0	2738.7	2738.7
32.5°	10561.7	9504.8	7192.1	5067.3	3744.3	2973.0	2664.2	2550.7	2379.9	2329.8	2312.7
35°	11444.1	10181.0	7515.5	4854.9	3267.1	2613.0	2339.6	2201.7	2078.4	2012.5	1996.6
37.5°	11920.1	10951.1	7807.2	4640.1	2898.6	2328.6	2023.5	1916.1	1834.3	1788.0	1779.4
40°	12574.3	11511.2	7958.5	4285.0	2501.9	2039.4	1731.8	1726.9	1737.9	1696.4	1694.0
42.5°	13240.6	12064.1	7917.0	3809.0	2193.1	1744.0	1585.4	1669.6	1730.6	1694.0	1696.4
45°	14074.2	12808.6	8068.4	3308.6	1888.0	1580.5	1554.8	1653.7	1737.9	1729.4	1729.4
47.5°	14917.5	13528.6	7788.9	2696.0	1683.0	1532.9	1558.5	1628.1	1733.0	1761.1	1755.0
50°	15604.6	14021.7	7616.8	2176.1	1567.1	1534.1	1570.7	1596.3	1711.1	1756.2	1755.0
52.5°	16159.9	14491.6	6974.8	1836.8	1501.1	1539.0	1609.8	1591.5	1672.0	1719.6	1747.7
55°	16945.9	15142.1	6243.8	1706.2	1467.0	1534.1	1623.2	1608.5	1641.5	1663.5	1684.2
57.5°	17553.7	15465.5	5265.0	1622.0	1436.5	1526.8	1612.2	1613.4	1629.3	1620.8	1612.2
60°	18063.8	15760.8	4307.0	1540.2	1397.4	1510.9	1565.8	1582.9	1578.0	1567.1	1545.1
62.5°	18312.8	16080.6	3345.2	1453.6	1355.9	1464.5	1490.2	1509.7	1498.7	1462.1	1459.7
65°	18218.8	15851.1	2479.9	1359.6	1305.9	1413.3	1412.1	1420.6	1425.5	1379.1	1384.0
67.5°	17691.6	14843.1	1889.2	1240.0	1248.5	1340.0	1333.9	1338.8	1325.4	1293.7	1298.6
70°	16158.7	13698.3	1340.0	1038.6	1131.4	1225.3	1233.9	1254.6	1224.1	1168.0	1171.6
72.5°	13892.3	11730.9	939.7	827.5	993.4	1113.0	1108.2	1106.9	1065.4	1087.4	1114.3
75°	11849.3	8983.7	714.0	666.4	784.7	958.0	1013.0	1016.6	1022.7	1242.4	1258.3
77.5°	9121.6	5434.6	607.8	526.0	609.0	794.5	897.0	938.5	1288.8	1335.2	1310.8
80°	5435.9	3139.0	469.9	410.1	491.8	606.6	766.4	991.0	1294.9	1157.0	1106.9
82.5°	2645.9	1456.0	341.7	312.4	362.5	440.6	601.7	1154.5	1096.0	894.6	882.4
85°	987.3	491.8	205.0	213.6	241.6	289.2	457.7	1102.1	840.9	728.6	688.3
87.5°	246.5	90.3	83.0	85.4	108.6	145.2	234.3	530.9	407.6	338.1	330.7
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)