

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: P591180

Luminaire Tested: **CTN-CA8-480-722-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-722-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 36809 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

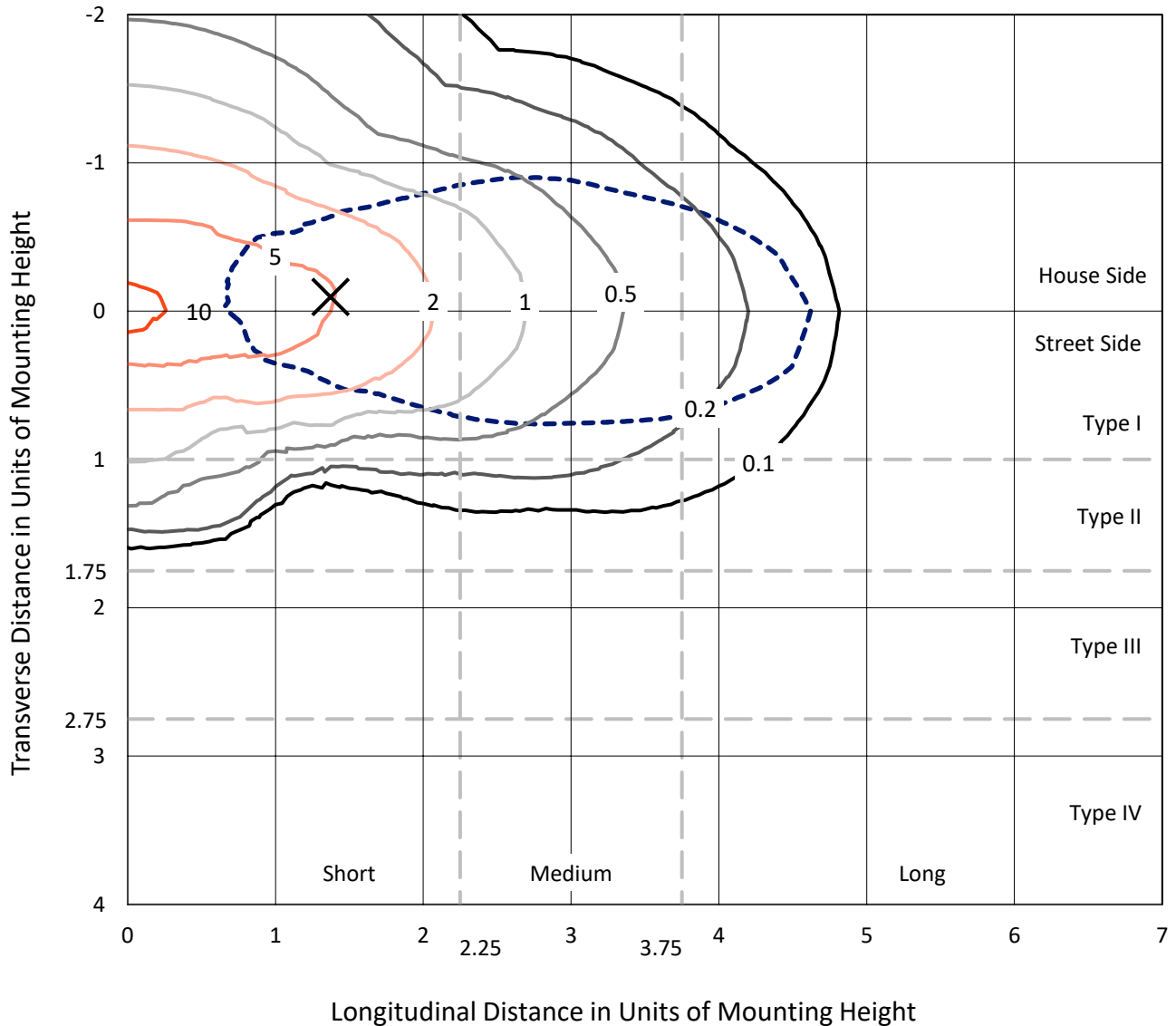
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

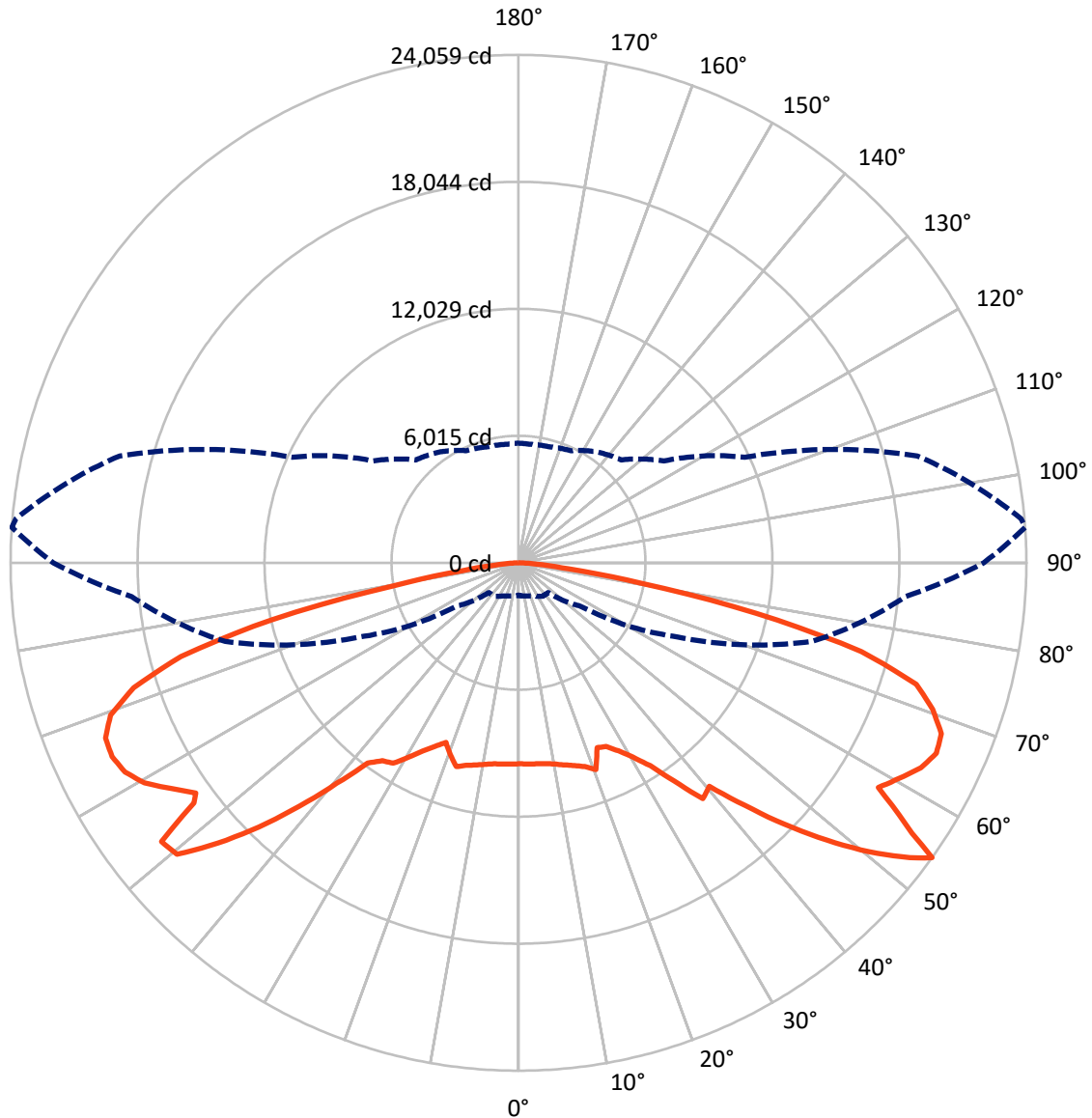
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.6 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical

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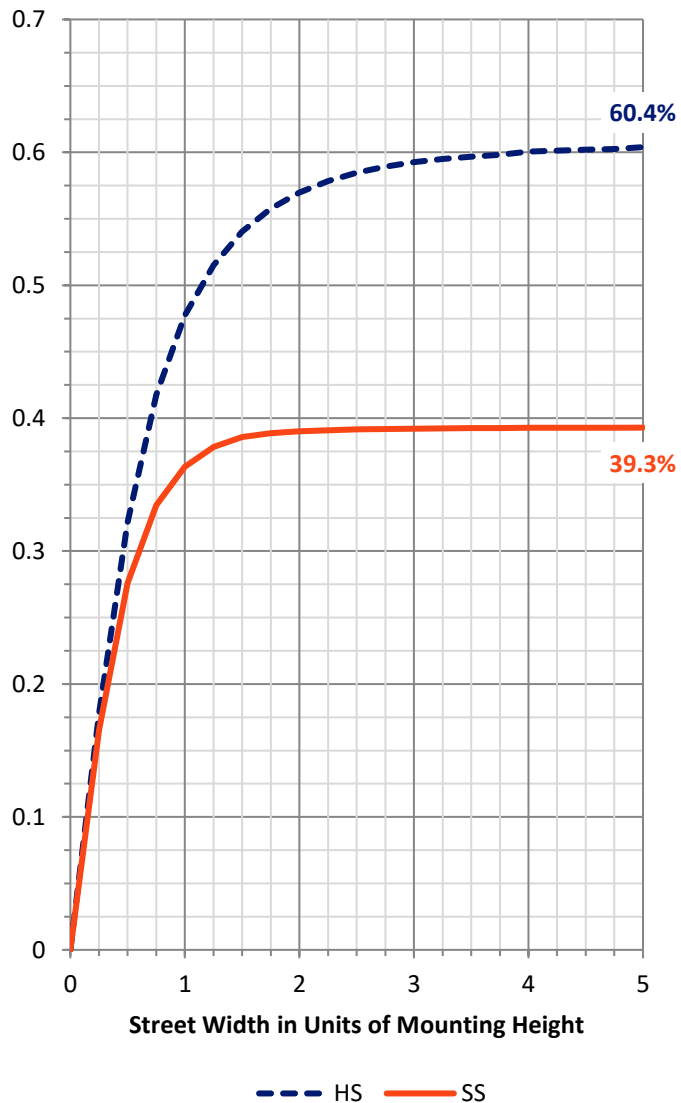
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	22419.7	0.0	22419.7
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	14389.3	0.0	14389.3
	% Fixture	39.1	0.0	39.1
Total	Lumens	36809.0	0.0	36809.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	908.3	2.5
10°-20°	2599.0	7.1
20°-30°	3712.1	10.1
30°-40°	4911.6	13.3
40°-50°	6465.7	17.6
50°-60°	7133.5	19.4
60°-70°	6427.8	17.5
70°-80°	4065.1	11.0
80°-90°	585.8	1.6
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°	36809.0	100.0
0°-180°	36809.0	100.0

Coefficient of Utilization

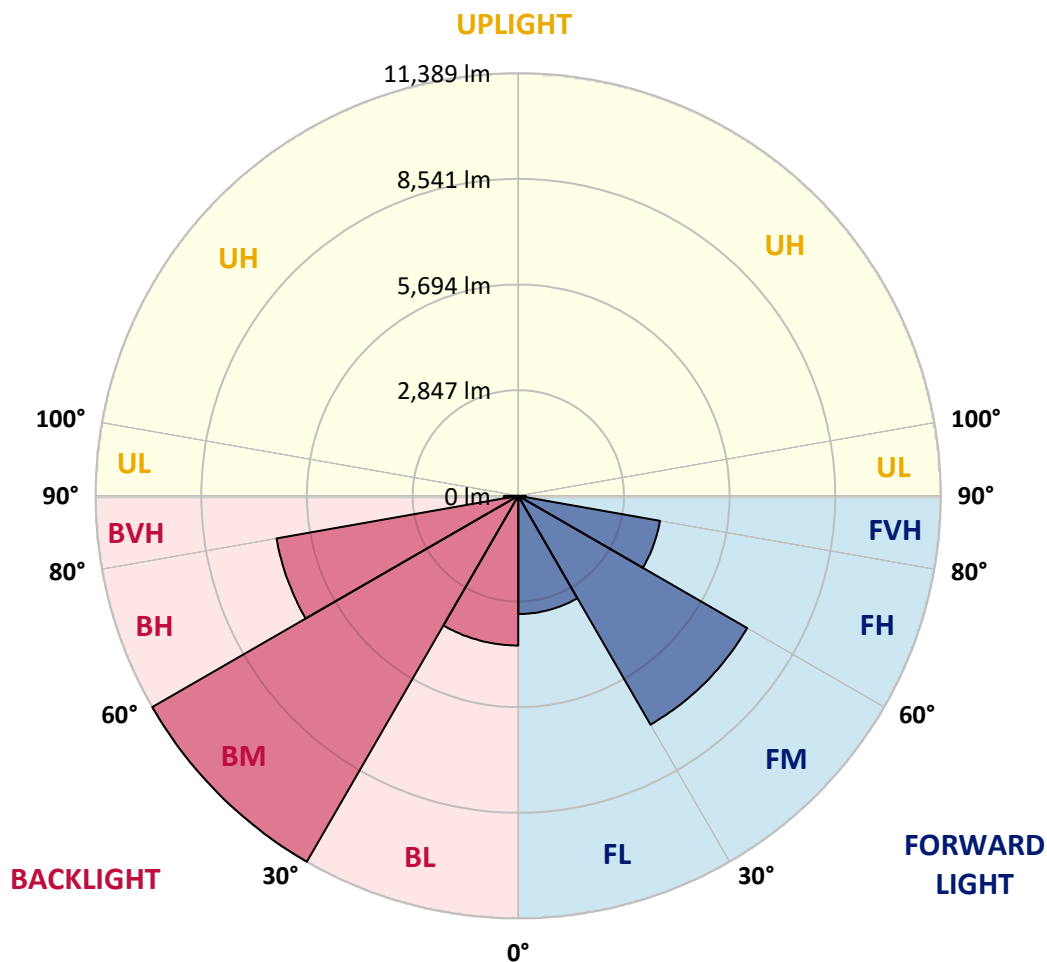


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3185.5	8.7			
FM (30°-60°)	7122.2	19.3			
FH (60°-80°)	3878.7	10.5			G2/5000
FVH (80°-90°)	202.9	0.6			G2/225
BL (0°-30°)	4033.9	11.0	B4/5000		
BM (30°-60°)	11388.6	30.9	B5		
BH (60°-80°)	6614.3	18.0	B5		G5
BVH (80°-90°)	383.0	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9
2.5°	9535.8	9469.5	9478.5	9548.3	9399.7	9492.8	9449.8	9526.8	9496.4	9539.3	9571.6
5°	9451.6	9389.0	9405.1	9491.0	9372.9	9478.5	9417.6	9492.8	9503.5	9555.5	9585.9
7.5°	9381.8	9321.0	9331.7	9412.3	9337.1	9430.2	9394.4	9494.6	9496.4	9587.7	9611.0
10°	9312.0	9249.4	9263.7	9333.5	9285.2	9385.4	9408.7	9526.8	9553.7	9680.8	9682.6
12.5°	9163.4	9107.9	9115.1	9211.8	9213.6	9358.5	9405.1	9587.7	9643.2	9786.4	9800.7
15°	8578.1	8617.5	8767.8	8889.5	9002.3	9197.4	9356.8	9655.7	9730.9	9904.5	9945.7
17.5°	7160.3	7099.5	6771.9	6945.5	7487.9	8007.0	8282.7	8907.4	9607.4	10085.3	10139.0
20°	5021.2	5117.8	5631.6	5867.9	6254.5	7194.3	8057.2	8417.0	8644.3	9508.9	10183.8
22.5°	3982.9	4011.6	4747.3	5629.8	5919.8	6324.4	7348.3	8549.4	8905.7	9156.3	9267.3
25°	3707.3	3728.7	3846.9	5001.5	5792.7	6222.3	6671.6	8234.4	9213.6	9525.0	9657.5
27.5°	3476.3	3499.6	3616.0	4004.4	5676.4	6222.3	6732.5	7453.9	9512.5	9985.1	10097.9
30°	3304.5	3304.5	3424.4	3755.6	4758.0	6242.0	6859.6	7541.6	9047.1	10565.1	10665.3
32.5°	3147.0	3148.8	3279.4	3598.1	4122.6	6157.9	7038.6	7863.8	8685.5	11145.1	11404.6
35°	3005.5	3010.9	3129.1	3451.3	3961.5	4963.9	7237.3	8277.3	9380.0	11080.6	12528.8
37.5°	2885.6	2889.2	2991.2	3306.3	3825.4	3596.3	7366.2	8775.0	10312.7	11655.2	12763.3
40°	2799.7	2794.3	2867.7	3154.1	3626.7	3286.6	6234.9	9292.3	11420.7	13454.3	13866.0
42.5°	2713.8	2704.8	2778.2	2994.8	2481.1	3200.7	5776.6	9797.1	12697.1	15430.5	15797.5
45°	2613.5	2617.1	2688.7	2686.9	2348.6	3086.1	5826.7	8628.2	14062.9	17451.5	17918.7
47.5°	2559.8	2543.7	2579.5	1951.2	2239.4	2928.6	5805.2	8010.6	15267.6	19383.0	19846.6
50°	2459.6	2456.0	1808.0	1849.2	2130.2	2747.8	5468.7	8232.6	13776.5	21173.1	21642.1
52.5°	2309.2	2038.9	1677.3	1777.6	2021.0	2534.8	3906.0	8323.9	13738.9	20995.9	23315.8
54°	1534.1	1571.7	1623.6	1727.4	1942.2	1992.4	3573.0	8316.7	14392.3	18393.1	22035.9
55°	878.9	1231.6	1580.6	1686.3	1886.7	1394.5	3444.1	8279.1	14809.3	18505.9	19864.5
57.5°	760.8	764.4	870.0	1407.0	968.4	1195.8	3078.9	7973.0	15589.8	19542.3	19930.8
60°	66.2	64.4	73.4	100.2	127.1	279.3	1550.2	5114.3	15043.8	20432.0	21035.3
62.5°	26.9	28.6	35.8	48.3	77.0	125.3	1281.7	4532.5	15274.8	20974.4	21634.9
65°	5.4	5.4	9.0	16.1	28.6	75.2	1092.0	4036.6	15156.6	21151.6	22034.1
67.5°	0.0	0.0	5.4	12.5	23.3	60.9	945.2	3714.4	14481.8	21090.7	21885.5
70°	0.0	0.0	5.4	12.5	21.5	59.1	809.1	3428.0	12808.0	20453.5	21334.2
72.5°	0.0	0.0	5.4	10.7	19.7	53.7	692.8	3027.0	10856.8	18919.4	20118.7
75°	0.0	0.0	5.4	10.7	17.9	48.3	583.6	2597.4	9070.3	16305.9	17746.9
77.5°	0.0	0.0	5.4	10.7	16.1	43.0	458.3	2074.7	7122.7	11823.5	12596.8
80°	0.0	0.0	5.4	10.7	14.3	34.0	338.3	1310.3	3950.7	5996.8	6315.4
82.5°	0.0	0.0	3.6	9.0	12.5	21.5	161.1	495.9	1861.7	2746.0	2663.6
85°	0.0	0.0	3.6	9.0	10.7	16.1	69.8	125.3	619.4	911.2	848.5
87.5°	0.0	0.0	3.6	7.2	9.0	10.7	17.9	21.5	196.9	263.1	272.1
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):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9	9517.9
2.5°	9550.1	9550.1	9548.3	9594.8	9535.8	9541.1	9485.6	9628.9	9612.7	9568.0	9621.7
5°	9560.8	9569.8	9568.0	9591.3	9544.7	9573.4	9496.4	9637.8	9614.5	9578.7	9634.2
7.5°	9605.6	9621.7	9609.2	9650.3	9557.2	9585.9	9507.1	9630.6	9607.4	9555.5	9614.5
10°	9702.2	9718.4	9693.3	9713.0	9614.5	9600.2	9503.5	9632.4	9582.3	9542.9	9616.3
12.5°	9827.6	9847.2	9797.1	9793.5	9668.2	9639.6	9500.0	9587.7	9514.3	9482.1	9548.3
15°	9967.2	9990.4	9931.4	9918.8	9781.0	9686.1	9485.6	9505.3	9399.7	9356.8	9426.6
17.5°	10149.8	10171.2	10126.5	10119.3	9940.3	9779.2	9466.0	9401.5	9252.9	9217.1	9254.7
20°	10455.9	10470.2	10411.1	10357.4	10094.3	9829.3	9433.7	9265.5	9038.1	8962.9	9005.9
22.5°	9516.1	9630.6	10792.4	10591.9	10208.8	9881.3	9353.2	9072.1	8753.5	8612.1	8640.7
25°	9639.6	9650.3	10090.7	10869.4	10334.1	9915.3	9258.3	8832.3	8393.7	8187.8	8223.6
27.5°	10087.1	10074.6	9900.9	10899.8	10482.7	9935.0	9140.2	8579.9	8037.5	7790.4	7799.4
30°	10667.1	10647.4	10384.3	9854.4	10695.7	9942.1	9036.3	8289.9	7720.6	7457.5	7450.3
32.5°	11460.1	11404.6	10996.5	10264.3	9795.3	9990.4	8889.5	8014.2	7418.1	7158.5	7138.8
35°	12677.4	12575.3	11832.4	10785.2	9639.6	9990.4	8689.1	7717.0	7138.8	6891.8	6877.5
37.5°	14186.4	14213.3	12901.1	11368.8	9879.5	9054.2	8449.2	7439.6	6897.2	6678.8	6678.8
40°	13916.1	14272.3	14141.6	11966.7	10126.5	8903.9	8191.4	7172.9	6696.7	6530.2	6551.7
42.5°	15700.8	15563.0	15580.9	12566.4	10300.1	8749.9	7912.2	6925.8	6519.5	6378.1	6394.2
45°	17680.6	17524.9	14263.4	13103.4	10380.7	8520.8	7629.3	6671.6	6324.4	6206.2	6249.2
47.5°	19635.4	19495.8	15663.2	12972.7	10305.5	8169.9	7280.3	6451.5	6118.5	6034.4	6098.8
50°	21527.5	21330.6	17172.3	11596.2	10038.8	7684.8	6924.0	6220.5	5939.5	5889.4	5937.7
52.5°	23215.6	22954.2	18701.0	11803.8	8769.6	7194.3	6607.2	5998.6	5776.6	5721.1	5769.4
54°	24058.7	23899.4	19554.9	11827.1	8406.2	6890.0	6417.4	5857.1	5685.3	5638.8	5665.6
55°	22623.1	22941.7	20061.4	11807.4	8143.1	6705.6	6292.1	5764.1	5620.9	5570.7	5597.6
57.5°	20090.1	19746.4	18756.5	11565.7	7427.1	6243.8	5925.2	5527.8	5429.3	5364.9	5402.5
60°	20727.4	20664.7	17122.1	11034.1	6644.8	5726.5	5563.6	5252.1	5185.9	5132.2	5182.3
62.5°	21393.3	21352.1	17383.5	10208.8	5866.1	5218.1	5148.3	4929.9	4890.5	4867.2	4879.8
65°	21753.1	21489.9	17376.3	9104.4	5151.9	4697.2	4686.4	4523.5	4541.4	4530.7	4582.6
67.5°	21600.9	21319.9	16608.4	8307.8	4480.6	4102.9	4136.9	4068.9	4135.1	4154.8	4194.2
70°	20806.1	20897.4	14934.7	7539.8	3812.9	3454.9	3562.3	3553.3	3650.0	3725.2	3787.8
72.5°	19707.0	19356.2	12518.0	6408.5	2790.7	2457.8	2644.0	2769.3	2876.7	2966.2	3025.2
75°	16773.1	16361.3	9242.2	4996.1	2021.0	1695.2	1745.3	1800.8	1870.6	2076.5	2198.2
77.5°	11499.5	11327.6	6646.6	3768.1	1287.1	1022.1	1217.3	1328.2	1387.3	1378.4	1399.8
80°	5896.5	5866.1	3934.6	2253.7	868.2	748.3	886.1	896.8	991.7	1065.1	1068.7
82.5°	2377.2	2495.4	1571.7	1235.2	603.3	565.7	624.7	703.5	784.1	827.0	837.8
85°	841.3	821.6	478.0	580.0	383.1	395.6	442.2	531.7	615.8	626.5	603.3
87.5°	225.6	234.5	102.0	213.0	209.4	229.1	254.2	290.0	350.9	368.8	350.9
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)