

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: P591187

Luminaire Tested: **CTN-CA8-480-722-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591187
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
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-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 40117 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G4

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

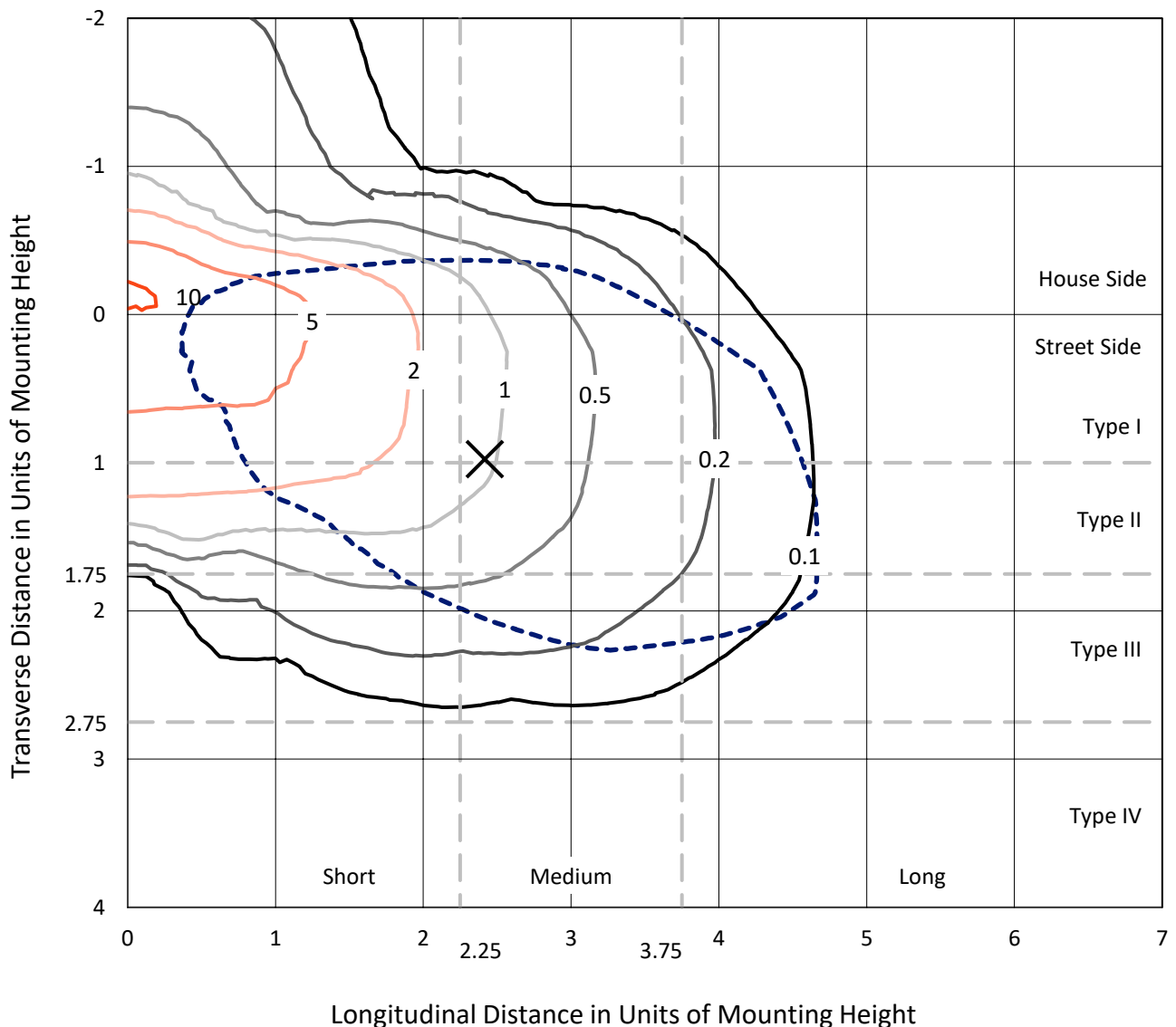




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Iso-Footcandle Lines of Horizontal Illumination

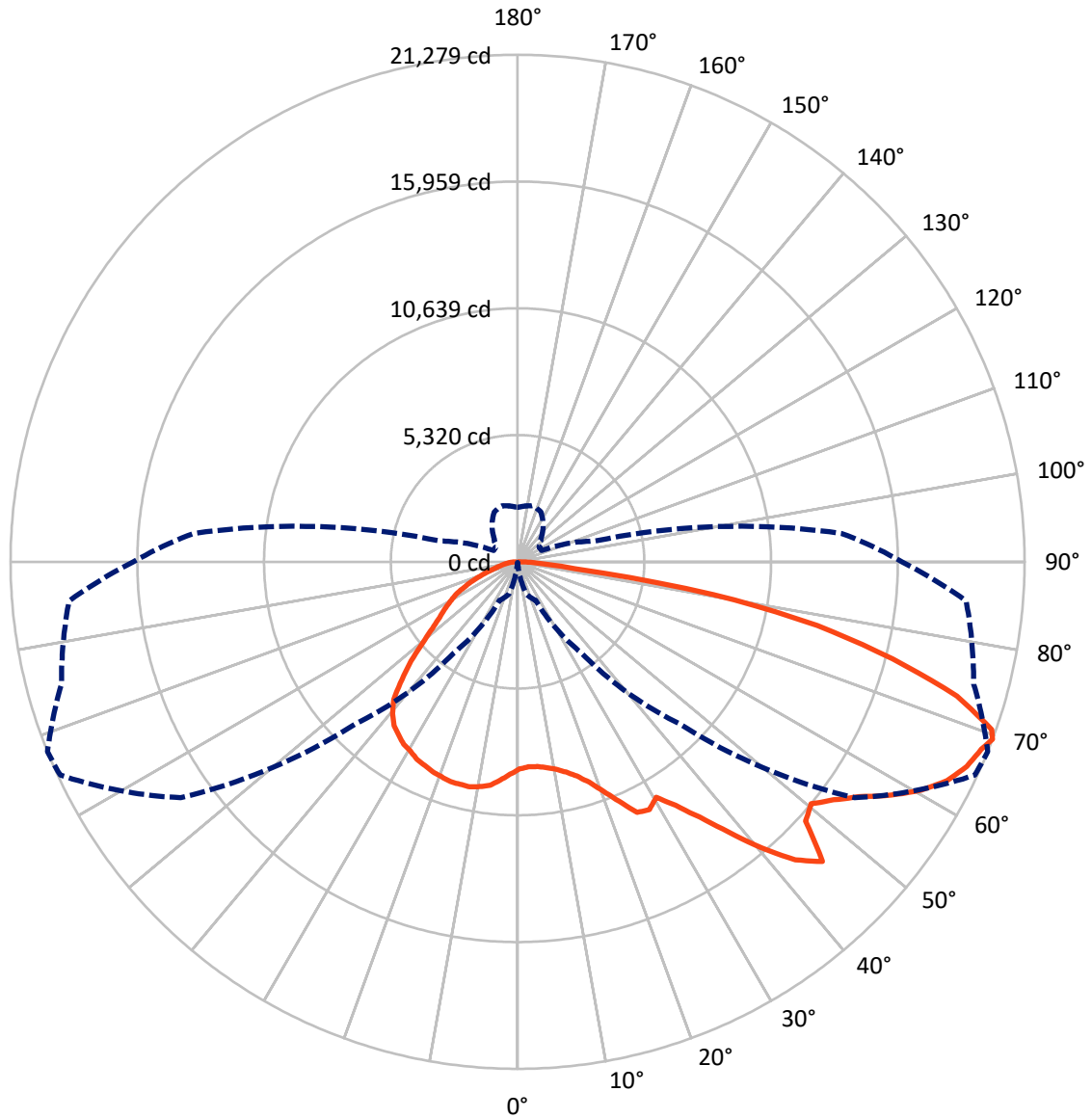
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.8 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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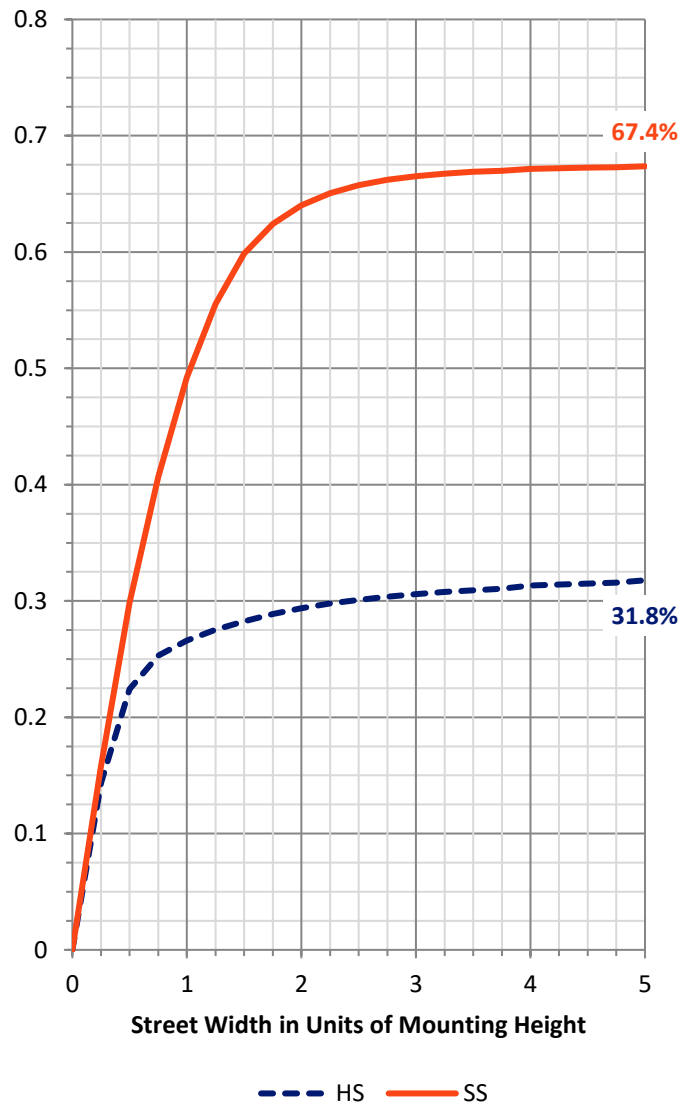
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13085.6	0.0	13085.6
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	27031.4	0.0	27031.4
	% Fixture	67.4	0.0	67.4
Total	Lumens	40117.0	0.0	40117.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	868.6	2.2
10°-20°	2687.3	6.7
20°-30°	4131.8	10.3
30°-40°	5366.3	13.4
40°-50°	6624.0	16.5
50°-60°	7439.4	18.5
60°-70°	7270.5	18.1
70°-80°	4882.3	12.2
80°-90°	846.8	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°	40117.0	100.0
0°-180°	40117.0	100.0

Coefficient of Utilization

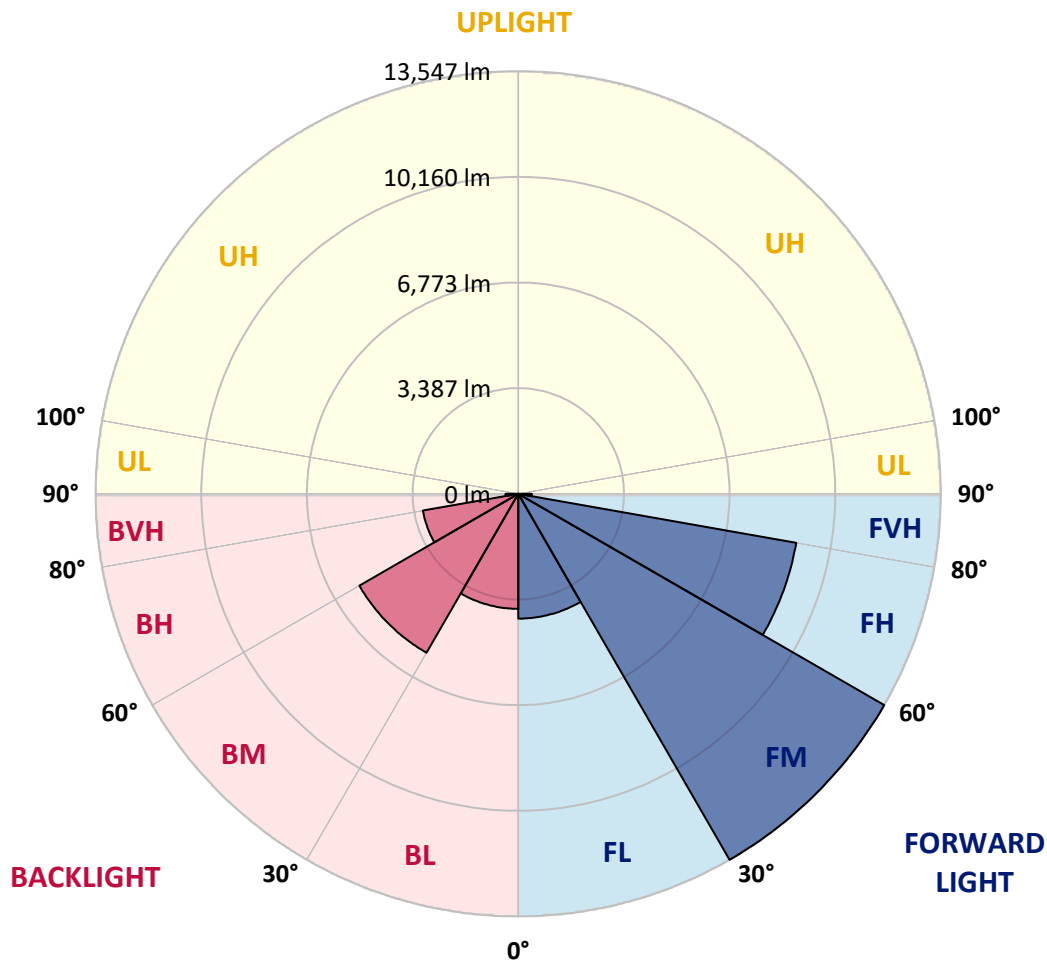


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4000.1	10.0			
FM	(30°-60°)	13546.5	33.8			
FH	(60°-80°)	9048.4	22.6			G4/12000
FVH	(80°-90°)	436.5	1.1			G3/500
BL	(0°-30°)	3687.6	9.2	B4/5000		
BM	(30°-60°)	5883.2	14.7	B4/8500		
BH	(60°-80°)	3104.4	7.7	B4/5000		G4/5000
BVH	(80°-90°)	410.3	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2
2.5°	8520.7	8468.8	8488.5	8560.1	8415.1	8510.0	8465.2	8561.9	8612.0	8590.6	8726.6
5°	8601.3	8544.0	8547.6	8597.7	8442.0	8522.5	8472.4	8576.2	8631.7	8601.3	8783.9
7.5°	8846.5	8783.9	8766.0	8762.4	8615.6	8676.5	8576.2	8660.4	8717.6	8701.5	8907.4
10°	9222.4	9147.3	9113.3	9093.6	8918.1	8900.2	8774.9	8812.5	8855.5	8873.4	9095.4
12.5°	9636.0	9533.9	9512.4	9453.4	9227.8	9188.4	9036.3	9054.2	9054.2	9095.4	9315.5
15°	9986.8	9902.7	9902.7	9841.8	9621.6	9566.1	9356.7	9335.2	9331.6	9363.9	9560.8
17.5°	9761.3	9714.7	9673.5	9643.1	9303.0	9213.5	9781.0	9743.4	9725.5	9757.7	9872.2
20°	9004.1	9129.4	8864.4	8490.3	8544.0	9621.6	10326.9	10258.9	10269.6	10301.9	10269.6
22.5°	7924.6	7615.0	8101.9	8236.1	8459.9	9256.5	10824.6	10896.2	10917.6	10919.4	10751.2
25°	6791.5	6963.4	7623.9	8647.8	8619.2	9283.3	10522.0	11540.6	11648.0	11637.3	11345.5
27.5°	7117.3	7085.1	7595.3	8268.3	9118.6	9852.6	10708.2	11161.1	11776.9	12458.9	12063.3
30°	7401.9	7375.1	7428.8	8370.4	9448.0	10421.8	11404.5	11331.2	11461.8	12697.0	12910.0
32.5°	7656.1	7636.4	7699.1	7802.9	8900.2	11035.8	12151.0	12136.7	12181.4	12278.1	13908.9
35°	7896.0	7897.8	7974.8	8144.8	8970.0	11162.9	12888.5	13040.7	13158.8	13371.8	13737.0
37.5°	8060.7	8064.3	8125.1	8331.0	8676.5	10534.6	13635.0	14177.4	14388.6	14771.7	14254.3
40°	8058.9	8085.8	8232.5	8501.0	8962.9	10119.3	13865.9	15466.2	15806.3	16085.6	15215.6
42.5°	7890.6	7905.0	8178.8	8663.9	9217.1	10434.3	13148.1	16722.8	17100.6	17023.6	16010.4
45°	7736.7	7733.1	8044.6	8642.5	9444.4	10867.5	13244.7	16687.0	17941.9	17848.8	16740.7
47.5°	7530.8	7536.2	7865.6	8549.4	9652.1	11331.2	13960.8	15174.4	16261.0	18557.7	17335.1
50°	7273.1	7305.3	7640.0	8408.0	9755.9	11764.3	14580.1	15838.6	15967.4	16667.4	17916.8
52.5°	6845.2	6788.0	7398.4	8245.1	9829.3	12079.4	15170.9	16475.8	16597.5	16343.4	18509.3
55°	3886.2	4822.5	7095.8	8055.3	9850.8	12269.1	15629.1	17200.8	17390.5	17150.7	18990.9
57.5°	2441.7	2516.8	6147.1	7552.3	9670.0	12387.3	16191.2	18196.1	18477.1	17906.1	19356.0
60°	864.6	932.6	2989.4	3467.4	7926.4	12061.5	17046.9	19368.6	19461.7	18616.7	19624.6
62.5°	91.3	119.9	2026.4	2545.5	6154.3	11130.7	17637.6	20311.9	20227.8	19143.0	19769.5
65°	32.2	44.8	1781.1	2277.0	5728.2	10840.7	17832.7	20714.7	20712.9	19479.6	19665.7
67.5°	25.1	34.0	1548.4	1978.0	5112.4	10219.5	17508.7	21017.2	20988.6	19812.5	19391.8
69°	25.1	35.8	1394.5	1782.9	4666.7	9625.2	17258.1	21176.5	21278.6	19817.9	18896.0
70°	25.1	35.8	1296.0	1646.9	4303.3	9081.0	16898.3	21054.8	21106.7	19646.0	18382.2
72.5°	25.1	35.8	1004.2	1274.5	3272.3	6990.2	14803.9	19186.0	19284.4	18137.0	16520.6
75°	25.1	35.8	707.1	927.3	2148.1	4690.0	11787.6	15980.0	16246.7	15328.4	13536.5
77.5°	25.1	35.8	422.5	633.7	1347.9	2574.1	8110.8	12247.7	12850.9	11995.3	9675.3
80°	25.1	34.0	198.7	345.5	767.9	1364.0	3716.2	7539.8	8325.6	7504.0	5060.5
82.5°	25.1	34.0	162.9	248.8	388.4	678.4	1451.7	2470.3	2425.5	2178.5	1630.8
85°	23.3	30.4	134.3	182.6	279.3	429.6	809.1	1006.0	959.5	848.5	853.9
87.5°	16.1	17.9	46.5	82.3	112.8	213.0	392.0	426.0	435.0	363.4	381.3
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°	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2	8696.2
2.5°	8791.0	8801.8	8853.7	8946.8	8945.0	9045.2	9018.4	9251.1	9260.0	9256.5	9274.4
5°	8871.6	8932.5	9047.0	9245.7	9360.3	9510.6	9482.0	9716.5	9730.8	9711.1	9761.3
7.5°	9011.2	9086.4	9274.4	9519.6	9550.0	9739.8	9700.4	9890.1	9881.2	9845.4	9931.3
10°	9208.1	9297.6	9467.7	9607.3	9695.0	9806.0	9763.0	9924.2	9893.7	9854.3	9936.7
12.5°	9408.6	9451.6	9546.5	9704.0	9711.1	9736.2	9686.1	9816.8	9782.7	9723.7	9809.6
15°	9600.2	9605.5	9589.4	9661.0	9585.8	9601.9	9492.7	9575.1	9516.0	9489.2	9544.7
17.5°	9849.0	9784.5	9670.0	9639.5	9462.3	9387.1	9226.0	9222.4	9118.6	9081.0	9118.6
20°	10147.9	10008.3	9743.4	9491.0	9184.9	9030.9	8757.0	8683.6	8599.5	8519.0	8563.7
22.5°	10561.4	10291.1	9834.7	9363.9	8857.3	8554.8	8218.2	8010.6	7853.0	7697.3	7743.8
25°	11032.2	10654.5	9963.5	9147.3	8465.2	7930.0	7493.2	7138.8	6913.3	6685.9	6788.0
27.5°	11669.5	11148.6	10042.3	8986.2	7955.1	7237.3	6540.9	6079.1	5844.6	5681.7	5629.8
30°	12412.4	11787.6	10183.7	8669.3	7355.4	6385.2	5500.9	4985.3	4736.5	4659.6	4691.8
32.5°	13318.1	12564.5	10471.9	8404.4	6746.8	5481.2	4450.1	4047.4	3868.3	3855.8	3852.2
35°	14530.0	13556.2	10718.9	7992.7	5941.2	4426.8	3540.8	3207.8	3200.6	3195.3	3207.8
37.5°	15460.8	14565.8	10982.1	7589.9	4985.3	3456.6	2831.9	2629.6	2608.1	2670.8	2686.9
40°	16194.8	15289.0	11375.9	6909.7	3864.8	2581.3	2174.9	2099.8	2251.9	2389.7	2418.4
42.5°	16857.1	15897.6	11461.8	6184.7	2815.8	1981.6	1802.6	1927.9	2162.4	2319.9	2350.4
45°	17478.3	16536.7	11134.2	5107.1	2013.8	1679.1	1714.9	1902.8	2166.0	2334.3	2352.2
47.5°	18156.7	16964.5	10779.8	4106.4	1655.8	1609.3	1697.0	1911.8	2187.5	2357.5	2366.5
50°	18604.2	17270.6	9893.7	3211.4	1552.0	1566.3	1689.8	1931.5	2191.0	2312.8	2319.9
52.5°	18786.8	17515.8	9091.8	2570.5	1500.1	1534.1	1698.8	1965.5	2182.1	2250.1	2246.5
55°	18901.4	17628.6	8402.6	2139.1	1453.5	1509.0	1714.9	1990.6	2201.8	2271.6	2271.6
57.5°	18828.0	17376.2	7890.6	1822.3	1407.0	1491.1	1734.6	2028.2	2388.0	2511.5	2498.9
60°	18774.3	16903.6	7163.9	1609.3	1351.5	1471.4	1759.6	2158.8	2785.4	2910.7	2869.5
62.5°	18496.8	16504.5	6376.2	1473.2	1288.9	1460.7	1781.1	2334.3	2840.8	2833.7	2753.1
65°	17789.7	15691.8	5133.9	1335.4	1224.4	1446.4	1788.3	2411.2	2613.5	2500.7	2477.5
67.5°	16787.3	14519.3	4050.9	1197.6	1152.8	1415.9	1847.4	2319.9	2486.4	2389.7	2353.9
69°	16132.1	13651.1	3365.3	1111.6	1106.3	1390.9	1870.6	2311.0	2439.9	2330.7	2284.1
70°	15604.1	12899.3	2905.3	1056.1	1070.5	1371.2	1847.4	2309.2	2420.2	2284.1	2232.2
72.5°	13337.8	10450.4	1876.0	923.7	964.8	1319.3	1759.6	2250.1	2379.0	2289.5	2217.9
75°	10335.9	7607.8	1213.7	798.4	853.9	1231.6	1671.9	2212.5	2416.6	2253.7	2099.8
77.5°	6632.2	4070.6	939.8	671.3	733.9	1108.1	1514.4	2060.4	2346.8	2200.0	2001.3
80°	2889.2	1510.8	725.0	544.2	594.3	900.4	1299.6	1831.2	2225.1	2208.9	2074.7
82.5°	1226.2	973.8	558.5	417.1	472.6	665.9	1018.6	1569.9	1965.5	2042.5	2189.3
85°	694.5	583.6	372.3	286.4	350.9	490.5	725.0	1204.7	1600.3	1774.0	1897.5
87.5°	298.9	243.4	171.8	153.9	198.7	254.2	311.5	565.7	853.9	1041.8	1120.6
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)