

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: P591303

Luminaire Tested: **CTN-CA10-310-730-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591303
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-CA10-310-730-U-T2-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26110 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

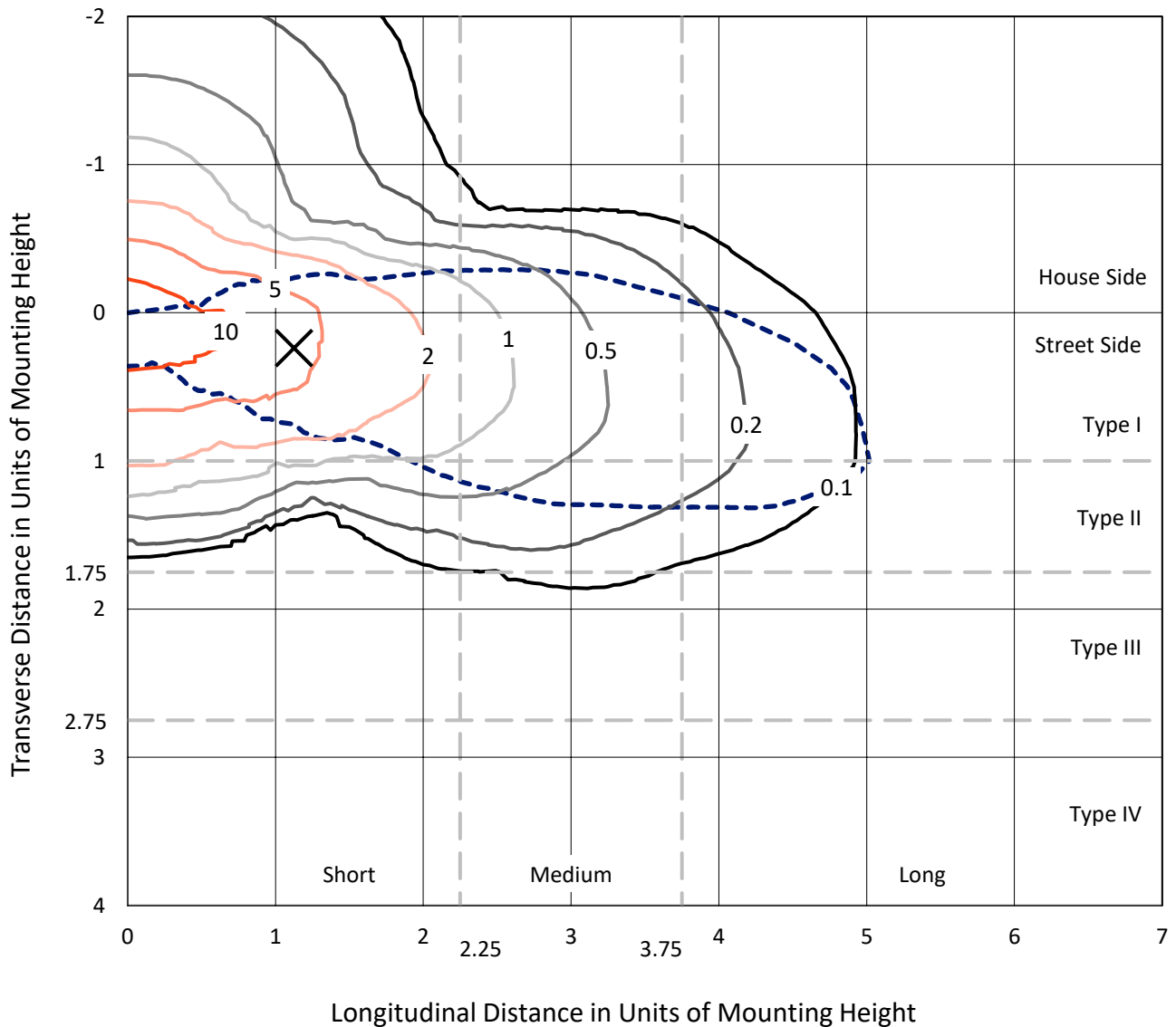
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

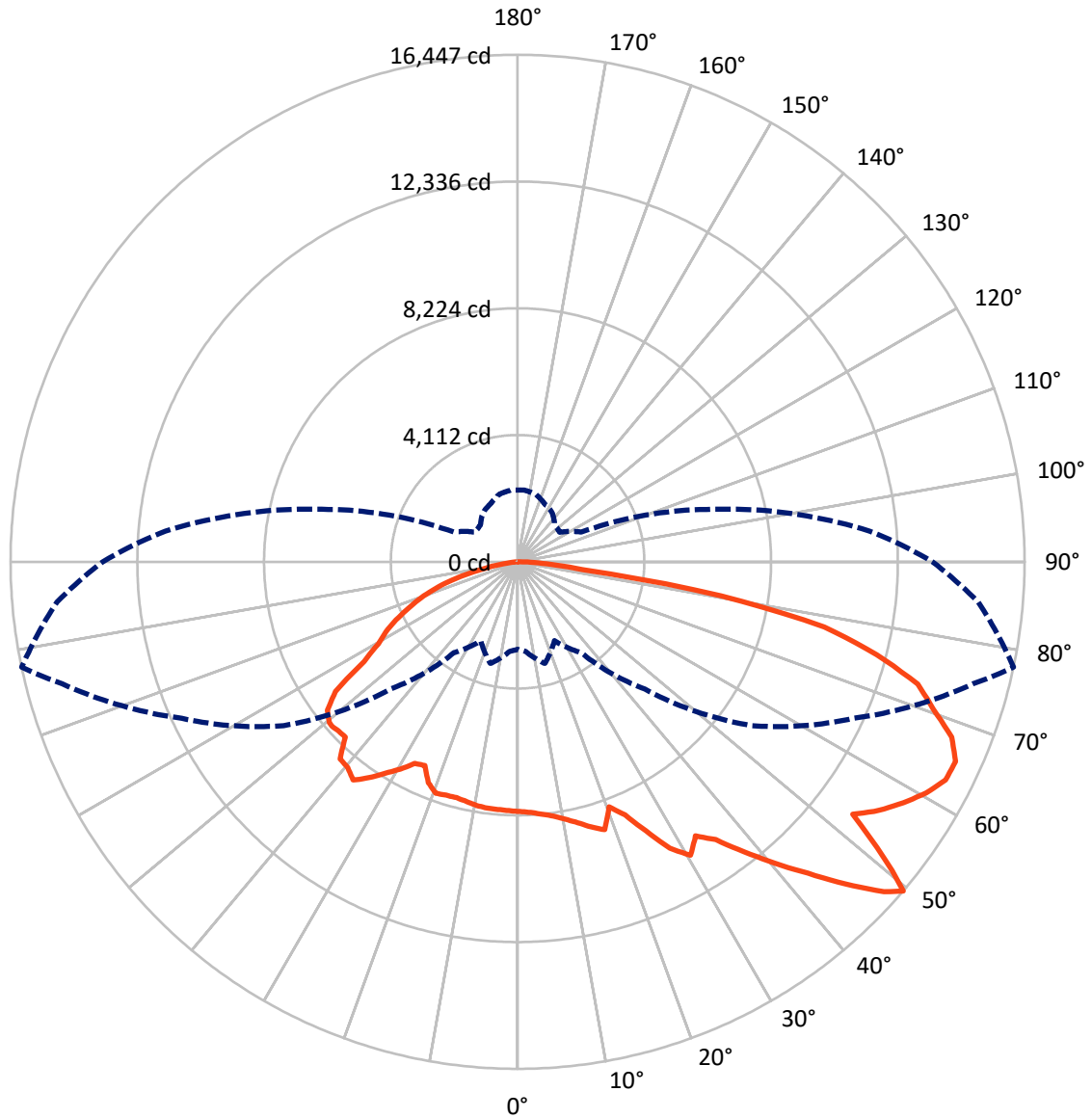
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.9 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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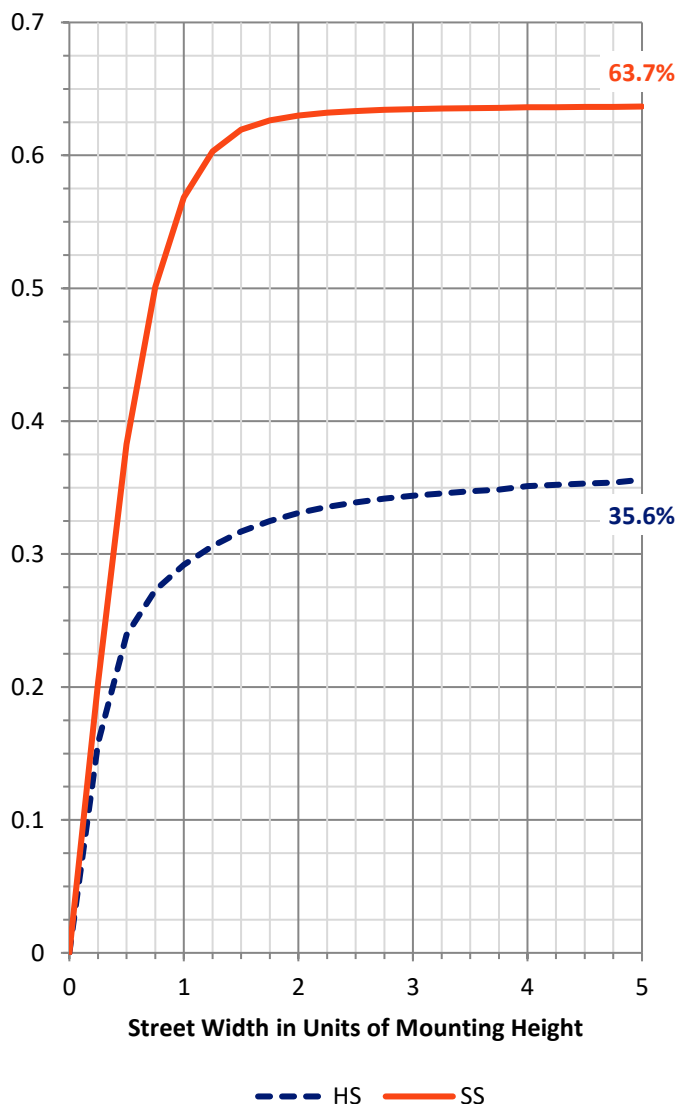
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9538.4	0.0	9538.4
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	16571.6	0.0	16571.6
	% Fixture	63.5	0.0	63.5
Total	Lumens	26110.0	0.0	26110.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	784.7	3.0
10°-20°	2307.9	8.8
20°-30°	3249.4	12.4
30°-40°	4073.2	15.6
40°-50°	4597.6	17.6
50°-60°	4417.6	16.9
60°-70°	3608.9	13.8
70°-80°	2531.7	9.7
80°-90°	539.0	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°	26110.0	100.0
0°-180°	26110.0	100.0

Coefficient of Utilization



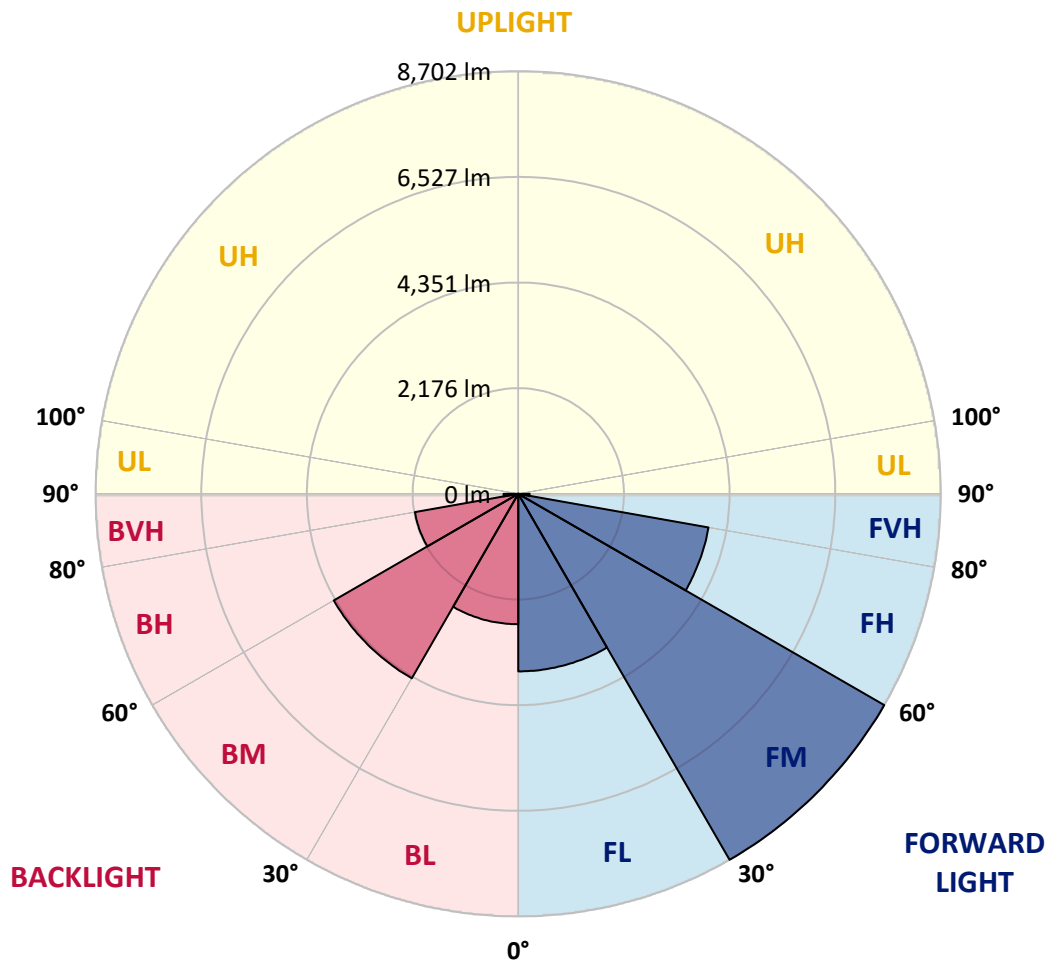
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3656.1	14.0			
FM (30°-60°)	8702.1	33.3			
FH (60°-80°)	3978.6	15.2			G2/5000
FVH (80°-90°)	234.7	0.9			G3/500
BL (0°-30°)	2685.8	10.3	B4/5000		
BM (30°-60°)	4386.3	16.8	B3/5000		
BH (60°-80°)	2162.0	8.3	B3/2500		G3/2500
BVH (80°-90°)	304.3	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7
2.5°	8432.5	8354.5	8372.2	8413.4	8254.6	8298.7	8228.1	8259.0	8175.2	8139.9	8154.6
5°	9033.9	8942.7	8963.3	8983.9	8750.1	8650.1	8453.1	8407.5	8279.6	8220.7	8213.4
7.5°	9320.6	9226.5	9248.5	9248.5	9070.6	9086.8	8886.8	8675.1	8419.2	8326.6	8285.4
10°	9780.8	9674.9	9658.8	9630.8	9398.5	9295.6	9129.4	9005.9	8617.7	8485.4	8372.2
12.5°	10117.5	10035.2	10036.6	10005.8	9744.0	9669.0	9376.4	9230.9	8847.1	8686.8	8504.5
15°	10257.2	10198.4	10236.6	10144.0	9969.0	9857.2	9719.0	9485.2	9088.3	8923.6	8698.6
17.5°	9605.8	9500.0	9219.1	9267.6	9255.9	9289.7	9154.4	9292.6	9229.4	9139.7	8991.2
20°	8134.0	8245.7	8442.8	8267.8	8254.6	8694.2	9008.9	8966.2	8613.3	8482.5	8631.0
22.5°	6912.1	6775.4	7191.5	7813.5	7988.4	8436.9	8972.1	9480.8	9082.4	8914.8	8464.8
25°	5815.2	5953.5	6600.4	7541.4	8091.4	8223.7	8836.8	9794.0	9857.2	9674.9	9091.2
27.5°	5641.7	5640.3	6077.0	6988.6	8239.9	8654.5	8842.7	9638.2	10640.9	10516.0	9845.5
30°	5602.0	5581.5	5747.6	6671.0	7835.5	9041.2	9407.3	9686.7	10635.1	11052.6	10707.1
32.5°	5431.5	5415.3	5585.9	6019.6	7285.6	9410.3	9948.4	10316.0	10370.4	10598.3	11582.0
35°	5158.0	5196.2	5419.7	5899.1	6834.2	8683.9	10496.9	11071.8	11202.6	11068.8	11076.2
37.5°	4896.3	4925.7	5155.1	5684.4	6504.8	7063.6	10873.3	11798.1	12089.2	11936.3	11221.7
40°	4556.6	4597.8	4869.8	5456.5	6288.7	6096.1	10327.8	12650.9	13055.3	12859.7	12049.5
42.5°	4174.3	4193.4	4515.5	5081.5	4509.6	6128.4	9555.8	13433.1	13999.2	13805.1	12827.4
45°	3847.9	3859.7	4122.9	4483.1	4065.5	6077.0	9022.1	13062.6	15102.0	14907.9	13650.8
47.5°	3389.2	3473.0	3758.2	3099.5	3775.9	5950.5	9201.5	11583.4	16135.7	15991.6	14450.6
49°	2839.3	2914.2	3415.6	2823.1	3596.5	5837.3	9263.2	12015.7	15297.6	16447.4	14999.1
50°	2609.9	2664.3	2617.2	2724.6	3465.6	5722.6	9164.7	12364.2	14059.5	15751.9	15352.0
52.5°	2268.8	2111.4	1798.2	2446.7	3164.2	5275.6	7551.7	13300.8	13930.1	13612.5	14384.5
55°	958.7	1366.0	1590.9	2007.0	2859.8	3202.4	6993.0	14321.2	14555.0	14234.5	12925.9
57.5°	749.9	764.6	874.9	1493.9	1582.1	2480.5	6765.1	14759.4	15027.0	14749.1	13427.3
60°	110.3	108.8	144.1	172.0	392.6	1141.0	4421.4	10505.7	14503.6	15228.4	13886.0
62.5°	39.7	41.2	41.2	48.5	72.0	499.9	3214.2	9801.4	14853.5	15579.9	14269.8
65°	2.9	4.4	7.4	16.2	38.2	472.0	2851.0	9974.9	14740.3	15613.7	14456.5
67.5°	0.0	1.5	4.4	11.8	30.9	464.6	2651.0	9682.3	14265.4	15184.3	14047.8
70°	0.0	0.0	2.9	10.3	27.9	447.0	2302.6	8689.8	13415.5	14303.6	13303.8
72.5°	0.0	0.0	2.9	10.3	25.0	426.4	1892.3	7650.2	12642.1	13571.4	12224.5
75°	0.0	0.0	2.9	8.8	22.1	388.2	1383.6	5544.7	11324.7	12034.8	10692.4
77.5°	0.0	0.0	2.9	8.8	20.6	335.2	935.1	3177.4	9317.6	10176.3	8983.9
80°	0.0	0.0	2.9	7.4	19.1	254.4	529.3	1586.5	4869.8	6688.6	6421.0
82.5°	0.0	0.0	2.9	7.4	14.7	135.3	247.0	692.5	1795.3	2118.8	2473.1
85°	0.0	0.0	2.9	5.9	11.8	33.8	83.8	329.4	980.7	1089.5	1063.1
87.5°	0.0	0.0	2.9	5.9	8.8	13.2	27.9	94.1	363.2	405.8	347.0
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°	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7	8098.7
2.5°	8151.6	8106.1	8063.4	8069.3	7967.8	7945.8	7850.2	7909.0	7869.3	7819.3	7851.7
5°	8169.3	8110.5	8035.5	7951.7	7729.6	7650.2	7517.9	7556.1	7503.2	7444.4	7475.3
7.5°	8207.5	8138.4	8014.9	7797.3	7538.5	7398.8	7245.9	7376.8	7360.6	7326.8	7360.6
10°	8223.7	8163.4	7953.1	7700.2	7341.5	7245.9	7129.7	7107.7	7112.1	7119.5	7169.4
12.5°	8266.3	8176.6	7853.2	7553.2	7226.8	7037.1	6922.4	6990.1	6850.4	6788.6	6815.1
15°	8370.7	8200.2	7775.2	7348.8	7023.9	6873.9	6591.6	6591.6	6556.3	6496.0	6513.7
17.5°	8581.0	8294.3	7754.6	7213.6	6797.4	6538.7	6279.9	6143.1	6104.9	6124.0	6135.8
20°	8694.2	8467.8	7744.4	7035.6	6543.1	6243.1	5850.5	5753.5	5625.6	5643.2	5663.8
22.5°	8013.4	7717.9	7728.2	6818.0	6228.4	5847.6	5418.3	5249.2	5171.2	5156.5	5196.2
25°	8498.6	7903.1	6984.2	6698.9	5882.9	5397.7	4962.4	4730.1	4611.0	4603.7	4628.7
27.5°	9142.7	8413.4	6881.3	6140.2	5515.3	4852.2	4371.4	4205.2	4087.6	4081.7	4086.1
30°	9892.5	9094.1	7137.1	5452.1	5016.8	4222.9	3840.6	3722.9	3615.6	3568.5	3570.0
32.5°	10726.2	9710.2	7384.1	5319.7	4021.4	3674.4	3377.4	3286.2	3139.2	3071.6	3052.5
35°	11507.0	10364.5	7692.9	5097.7	3489.1	3186.3	2977.5	2855.4	2740.7	2683.4	2664.3
37.5°	10818.9	10967.4	7966.4	4915.4	3083.3	2640.8	2583.4	2502.5	2443.7	2399.6	2392.3
40°	10976.2	9879.3	8128.1	4571.3	2664.3	2307.0	2214.4	2254.1	2314.3	2277.6	2276.1
42.5°	11501.1	10048.4	7981.1	4094.9	2332.0	1989.4	2015.9	2164.4	2290.8	2267.3	2270.2
45°	12252.5	10576.3	6848.9	3525.9	2010.0	1792.4	1964.4	2137.9	2296.7	2304.0	2304.0
47.5°	13030.3	11170.3	6638.6	2767.2	1773.2	1715.9	1955.6	2105.5	2287.9	2334.9	2329.0
49°	13461.1	11458.5	6579.8	2277.6	1667.4	1699.7	1954.1	2074.7	2270.2	2336.4	2329.0
50°	13712.5	11655.5	6469.6	2082.0	1605.6	1696.8	1955.6	2055.6	2252.6	2326.1	2323.2
52.5°	14240.4	11905.5	6084.3	1714.4	1455.6	1686.5	1979.1	2037.9	2198.2	2276.1	2305.5
55°	11767.2	11483.5	5437.4	1539.5	1388.0	1665.9	1979.1	2048.2	2151.1	2196.7	2224.6
57.5°	11912.8	9819.0	4275.8	1452.7	1342.4	1643.9	1948.2	2046.7	2126.1	2133.5	2124.7
60°	12356.8	10046.9	3187.7	1364.5	1289.5	1615.9	1882.1	1999.7	2060.0	2060.0	2033.5
62.5°	12623.0	10154.3	2549.6	1267.4	1233.6	1558.6	1783.5	1908.5	1954.1	1929.1	1924.7
65°	12689.1	10241.0	1849.7	1163.0	1170.4	1496.8	1682.1	1790.9	1854.1	1811.5	1820.3
67.5°	12461.2	9622.0	1351.3	1055.7	1098.4	1413.0	1582.1	1679.1	1724.7	1702.7	1707.1
70°	11618.7	8948.6	951.3	871.9	982.2	1283.6	1455.6	1567.4	1590.9	1552.7	1558.6
72.5°	10264.5	7909.0	599.9	682.2	864.6	1164.5	1307.1	1377.7	1382.1	1429.2	1454.2
75°	8939.7	6346.0	433.8	538.1	686.7	995.4	1193.9	1260.1	1308.6	1543.9	1582.1
77.5°	7165.0	4015.5	369.1	424.9	539.6	826.3	1064.5	1166.0	1602.7	1718.8	1689.4
80°	4342.0	2493.7	277.9	335.2	449.9	635.2	911.6	1201.3	1621.8	1513.0	1451.2
82.5°	2004.1	1083.7	188.2	273.5	357.3	473.5	719.0	1402.7	1389.5	1158.6	1146.9
85°	720.5	320.5	102.9	195.6	250.0	326.4	552.9	1389.5	1089.5	973.4	911.6
87.5°	183.8	57.3	42.6	95.6	126.5	173.5	301.4	735.2	566.1	498.4	480.8
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)