

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: P591349

Luminaire Tested: **CTN-CA8-230-730-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591349
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-730-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29916 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

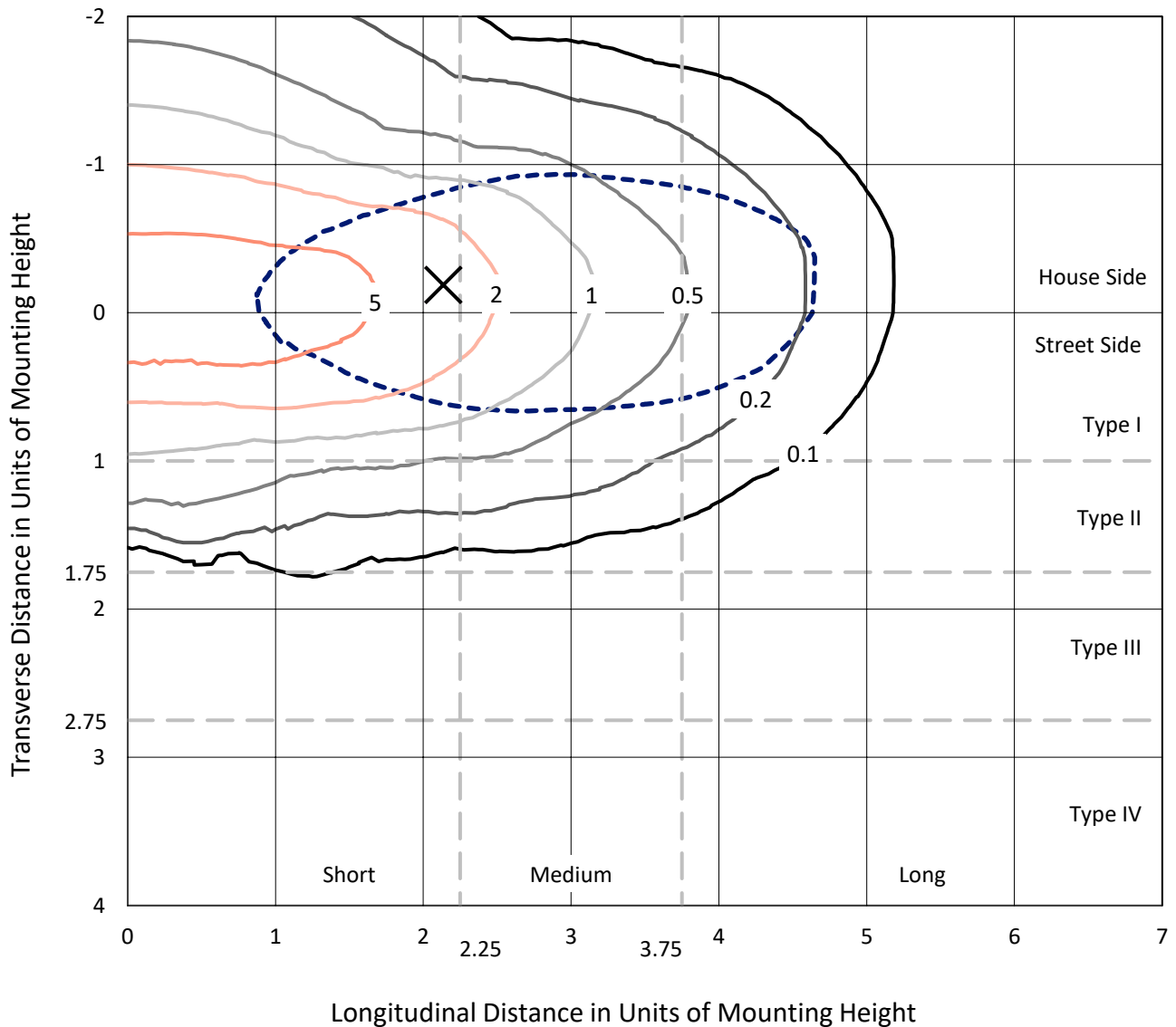
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

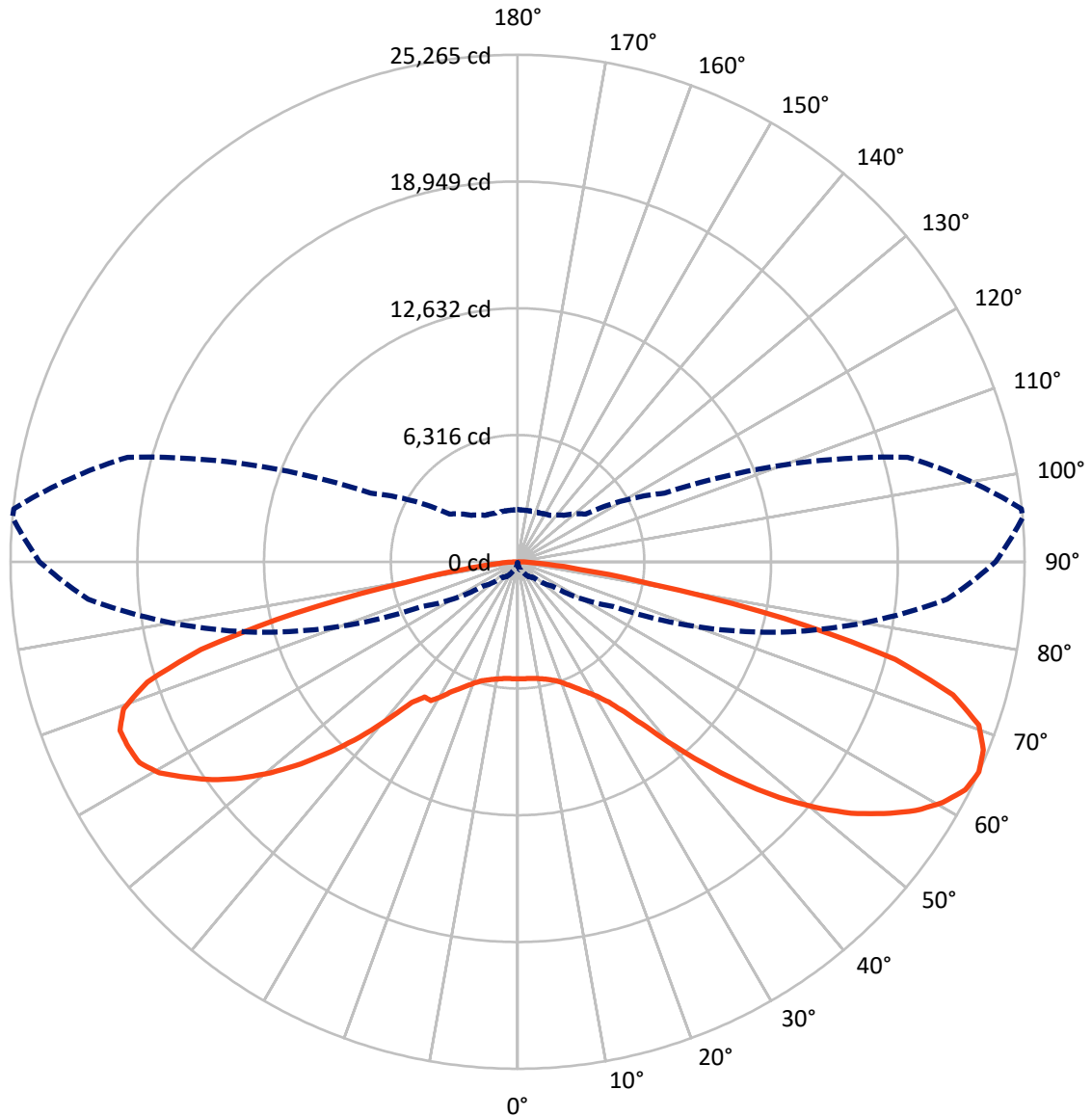
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



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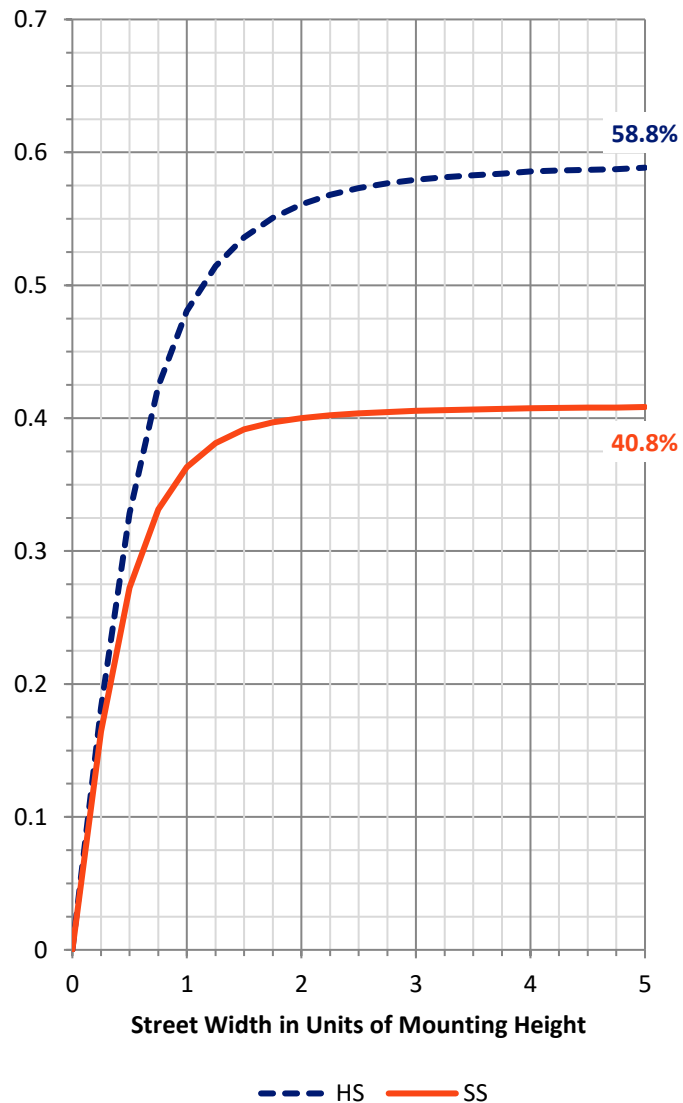
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17738.4	0.0	17738.4
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	12177.6	0.0	12177.6
	% Fixture	40.7	0.0	40.7
Total	Lumens	29916.0	0.0	29916.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	555.1	1.9
10°-20°	1598.4	5.3
20°-30°	2402.4	8.0
30°-40°	3349.5	11.2
40°-50°	4808.9	16.1
50°-60°	6130.1	20.5
60°-70°	6382.7	21.3
70°-80°	4110.1	13.7
80°-90°	578.8	1.9
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°	29916.0	100.0
0°-180°	29916.0	100.0

Coefficient of Utilization

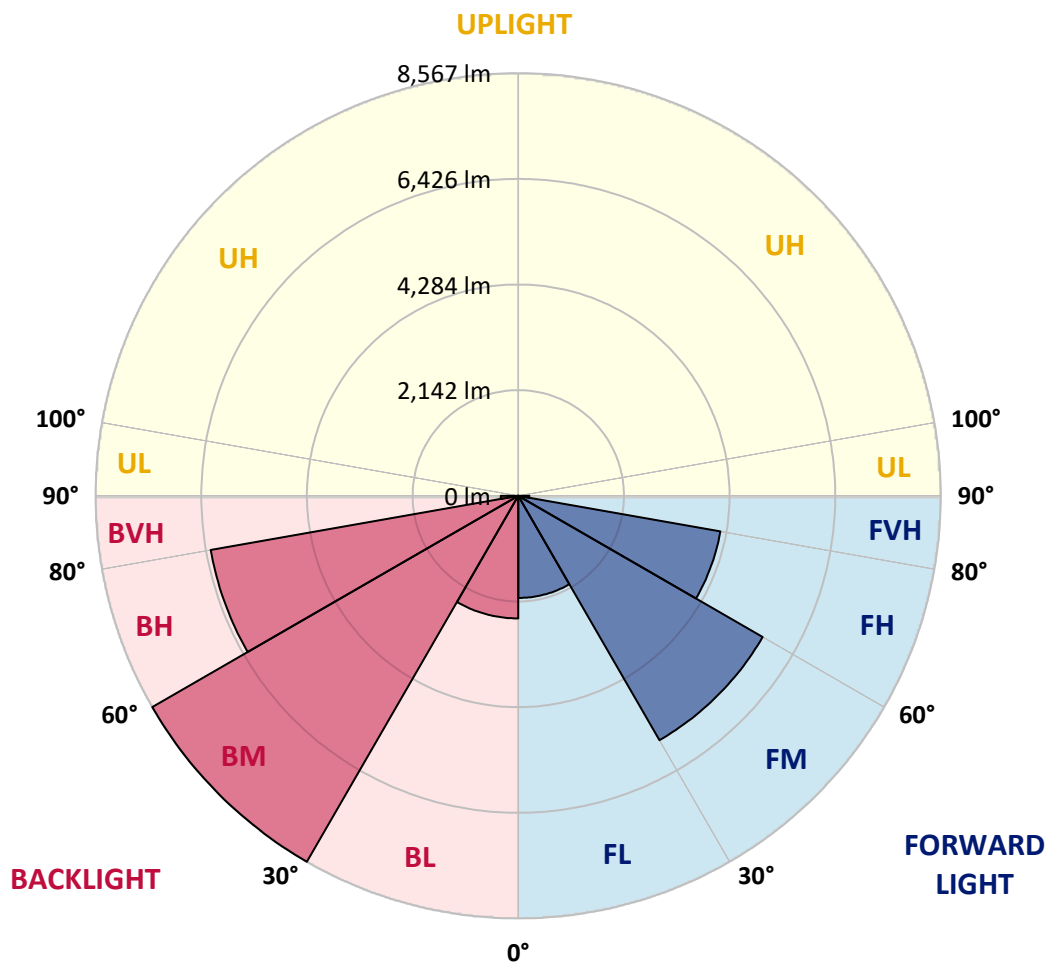


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2070.2	6.9			
FM (30°-60°)	5721.1	19.1			
FH (60°-80°)	4161.2	13.9			G2/5000
FVH (80°-90°)	225.1	0.8			G3/500
BL (0°-30°)	2485.6	8.3	B3/2500		
BM (30°-60°)	8567.5	28.6	B5		
BH (60°-80°)	6331.6	21.2	B5		G5
BVH (80°-90°)	353.8	1.2			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°	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5
2.5°	5847.9	5800.1	5809.8	5856.6	5770.7	5817.5	5782.6	5839.2	5825.1	5829.4	5856.6
5°	5799.0	5750.0	5768.5	5826.2	5745.7	5802.2	5776.1	5822.9	5818.5	5834.9	5852.3
7.5°	5754.4	5702.2	5726.1	5768.5	5725.0	5773.9	5759.8	5818.5	5816.4	5864.2	5876.2
10°	5704.3	5656.5	5677.1	5729.3	5693.4	5752.2	5764.2	5833.8	5856.6	5921.9	5927.3
12.5°	5616.2	5569.4	5579.2	5645.6	5651.0	5740.2	5781.6	5891.4	5915.4	5990.4	5993.7
15°	5300.8	5289.9	5382.3	5488.9	5532.5	5665.2	5803.3	5953.4	5989.3	6084.0	6093.8
17.5°	4413.1	4304.4	4141.2	4270.6	4555.6	4922.2	5751.1	6045.9	6112.2	6206.9	6236.3
20°	2959.9	3058.8	3427.6	3592.9	3846.4	4464.3	5738.0	6146.0	6289.6	6403.8	6459.2
22.5°	2445.3	2439.9	2881.5	3438.5	3637.5	3921.5	5274.7	6264.5	6502.8	6651.8	6721.4
25°	2271.3	2273.5	2354.0	3057.8	3550.5	3850.7	4845.0	6109.0	6736.6	6949.8	7032.5
27.5°	2133.1	2141.8	2210.4	2448.6	3476.5	3835.5	4856.9	5664.1	6983.6	7268.6	7364.3
30°	2023.3	2018.9	2101.6	2300.7	2893.5	3841.0	4913.5	5753.3	6754.0	7721.1	7774.4
32.5°	1931.9	1919.9	2003.7	2203.8	2526.9	3798.5	4998.4	6003.5	6592.0	8156.2	8364.0
35°	1843.8	1839.4	1913.4	2110.3	2439.9	3154.6	5097.3	6313.5	7118.4	8170.3	9173.3
37.5°	1775.3	1772.0	1830.7	2016.7	2361.6	2873.9	5178.9	6704.0	7803.7	8774.0	9843.3
40°	1719.8	1711.1	1757.9	1934.1	2272.4	2827.1	4511.0	7111.9	8640.2	10182.7	11466.3
42.5°	1673.0	1661.0	1706.7	1852.5	2186.4	2774.9	4189.0	7523.1	9623.6	11751.3	13044.7
45°	1608.8	1607.7	1654.5	1790.5	2095.1	2698.8	4219.5	6836.7	10728.8	13252.4	14702.5
47.5°	1576.2	1568.6	1603.4	1732.8	2009.1	2583.5	4190.1	6543.0	11575.1	14759.0	16317.8
50°	1525.1	1518.5	1552.3	1666.5	1924.3	2437.7	4083.5	6723.6	10877.8	16186.2	17836.4
52.5°	1433.7	1180.2	1502.2	1611.0	1832.9	2280.0	3881.2	6823.7	11148.7	17508.9	19250.5
55°	563.5	756.0	1438.0	1541.4	1739.4	2132.1	3574.4	6795.4	12045.0	18693.5	20468.8
57.5°	490.6	492.8	955.1	1286.8	1628.4	1977.6	3200.3	6634.4	12835.8	19707.3	21655.6
60°	69.6	70.7	484.1	541.7	1068.2	1405.4	2819.5	6346.1	13304.7	20721.1	22679.2
62.5°	46.8	49.0	440.6	491.7	974.7	1246.6	2466.0	5833.8	13530.9	21336.8	23416.7
65°	33.7	34.8	399.2	444.9	868.0	1106.3	2137.5	5276.8	13551.6	21479.3	23821.3
67.5°	31.5	32.6	367.7	410.1	789.7	982.3	1853.6	4786.2	12980.5	21521.8	23805.0
70°	32.6	32.6	335.0	370.9	700.5	851.7	1538.1	4297.8	11540.3	20967.0	23269.8
72.5°	32.6	33.7	292.6	326.3	603.7	721.2	1260.7	3494.0	9346.2	19396.2	21977.5
75°	32.6	33.7	230.6	269.8	501.5	578.7	1034.5	2817.4	7197.8	16368.9	19228.7
77.5°	33.7	33.7	169.7	206.7	387.3	435.1	785.4	2164.7	5304.0	11346.6	13387.3
80°	33.7	35.9	119.7	152.3	286.1	314.4	570.0	1381.5	2856.5	5754.4	6646.3
82.5°	34.8	35.9	89.2	114.2	198.0	226.3	348.1	679.9	1320.6	2662.9	3016.4
85°	32.6	33.7	72.9	79.4	113.1	136.0	216.5	337.2	464.5	1047.5	1088.9
87.5°	22.8	21.8	22.8	26.1	37.0	59.8	102.3	114.2	112.0	281.7	327.4
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):

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5	5830.5
2.5°	5840.3	5842.5	5833.8	5867.5	5833.8	5852.3	5803.3	5879.5	5871.8	5851.2	5877.3
5°	5839.2	5844.6	5842.5	5872.9	5830.5	5845.7	5796.8	5877.3	5850.1	5831.6	5863.1
7.5°	5865.3	5872.9	5869.7	5890.3	5841.4	5840.3	5792.4	5852.3	5826.2	5787.0	5826.2
10°	5923.0	5923.0	5913.2	5925.1	5854.4	5846.8	5766.3	5834.9	5790.3	5755.5	5803.3
12.5°	5996.9	6003.5	5978.4	5976.3	5878.4	5855.5	5754.4	5788.1	5723.9	5691.3	5738.0
15°	6105.7	6110.1	6077.4	6056.8	5937.1	5887.1	5723.9	5717.4	5628.2	5596.6	5630.4
17.5°	6231.9	6230.8	6185.1	6176.4	6036.1	5919.7	5698.9	5631.4	5517.2	5481.3	5510.7
20°	6434.2	6422.3	6372.2	6322.2	6117.7	5940.4	5663.0	5521.6	5362.8	5311.6	5335.6
22.5°	6706.2	6701.8	6623.5	6478.8	6204.7	5960.0	5602.1	5387.8	5176.8	5084.3	5099.5
25°	7004.2	7001.0	6888.9	6672.5	6280.9	5974.1	5531.4	5237.7	4952.7	4812.3	4809.1
27.5°	7350.1	7341.4	7190.2	6881.3	6386.4	5978.4	5455.2	5078.9	4730.8	4555.6	4563.2
30°	7771.1	7755.9	7549.2	7113.0	6520.2	5991.5	5390.0	4900.5	4524.1	4338.1	4333.7
32.5°	8329.1	8307.4	7986.5	7417.6	6693.1	6024.1	5311.6	4724.2	4331.5	4144.4	4128.1
35°	9178.7	9134.1	8603.3	7807.0	6885.7	6045.9	5186.5	4556.7	4145.5	3969.3	3956.3
37.5°	10436.2	10361.1	9379.9	8216.0	7077.1	6041.5	5044.0	4376.1	3994.3	3823.6	3820.3
40°	12094.0	11976.5	10312.2	8654.4	7260.9	6017.6	4890.7	4215.2	3868.2	3721.3	3732.2
42.5°	13907.3	13783.3	11417.4	9100.4	7399.1	5943.6	4726.4	4062.9	3751.8	3634.3	3635.4
45°	15734.8	15619.5	12689.0	9520.3	7467.6	5804.4	4555.6	3918.2	3628.8	3526.6	3538.6
47.5°	17554.6	17469.8	13948.6	9874.9	7433.9	5585.8	4350.0	3781.1	3507.0	3423.2	3450.4
50°	19247.2	19156.9	15290.9	10168.6	7264.2	5281.2	4139.0	3646.2	3408.0	3335.1	3358.0
52.5°	20815.8	20695.0	16729.0	10338.3	6958.5	4960.3	3953.0	3527.7	3312.3	3239.4	3263.3
55°	22148.3	22142.9	18045.2	10352.4	6481.0	4631.8	3773.5	3390.6	3218.7	3158.9	3164.4
57.5°	23396.0	23445.0	19177.6	10180.5	5915.4	4327.2	3567.9	3249.2	3111.1	3049.1	3054.5
60°	24348.9	24409.8	19945.6	9680.2	5312.7	3991.1	3347.1	3099.1	2977.3	2918.5	2935.9
62.5°	25033.1	24954.8	20352.4	8962.2	4709.0	3629.9	3107.8	2907.6	2810.8	2774.9	2776.0
65°	25264.8	25239.8	20114.2	8077.9	4139.0	3274.2	2825.0	2669.4	2609.6	2584.6	2603.1
67.5°	25027.7	25042.9	19186.3	7326.2	3597.3	2872.8	2507.3	2407.3	2376.8	2375.7	2395.3
70°	24378.3	24258.6	17262.0	6725.8	3089.3	2426.8	2165.8	2117.9	2108.1	2132.1	2148.4
72.5°	22681.3	22507.3	14315.2	5769.6	2371.4	1785.0	1640.4	1705.6	1703.5	1716.5	1731.7
75°	19431.0	18973.1	11212.9	4593.7	1756.8	1262.9	1094.3	1092.1	1088.9	1199.8	1240.1
77.5°	13619.0	13313.4	8278.0	3498.3	1168.3	756.0	750.6	809.3	819.1	746.2	760.4
80°	6832.4	6966.2	4777.5	2161.4	776.7	533.0	559.1	550.4	558.0	566.7	572.2
82.5°	3149.1	3216.6	2286.5	1053.0	500.4	404.7	382.9	416.6	431.8	430.8	427.5
85°	1117.2	1123.7	723.4	451.4	306.8	263.2	267.6	311.1	328.5	313.3	305.7
87.5°	324.2	307.8	147.9	133.8	141.4	140.3	144.7	153.4	165.3	163.2	151.2
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)