

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: P591114

Luminaire Tested: **CTN-CA10-310-722-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591114
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-9)
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-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 20393 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

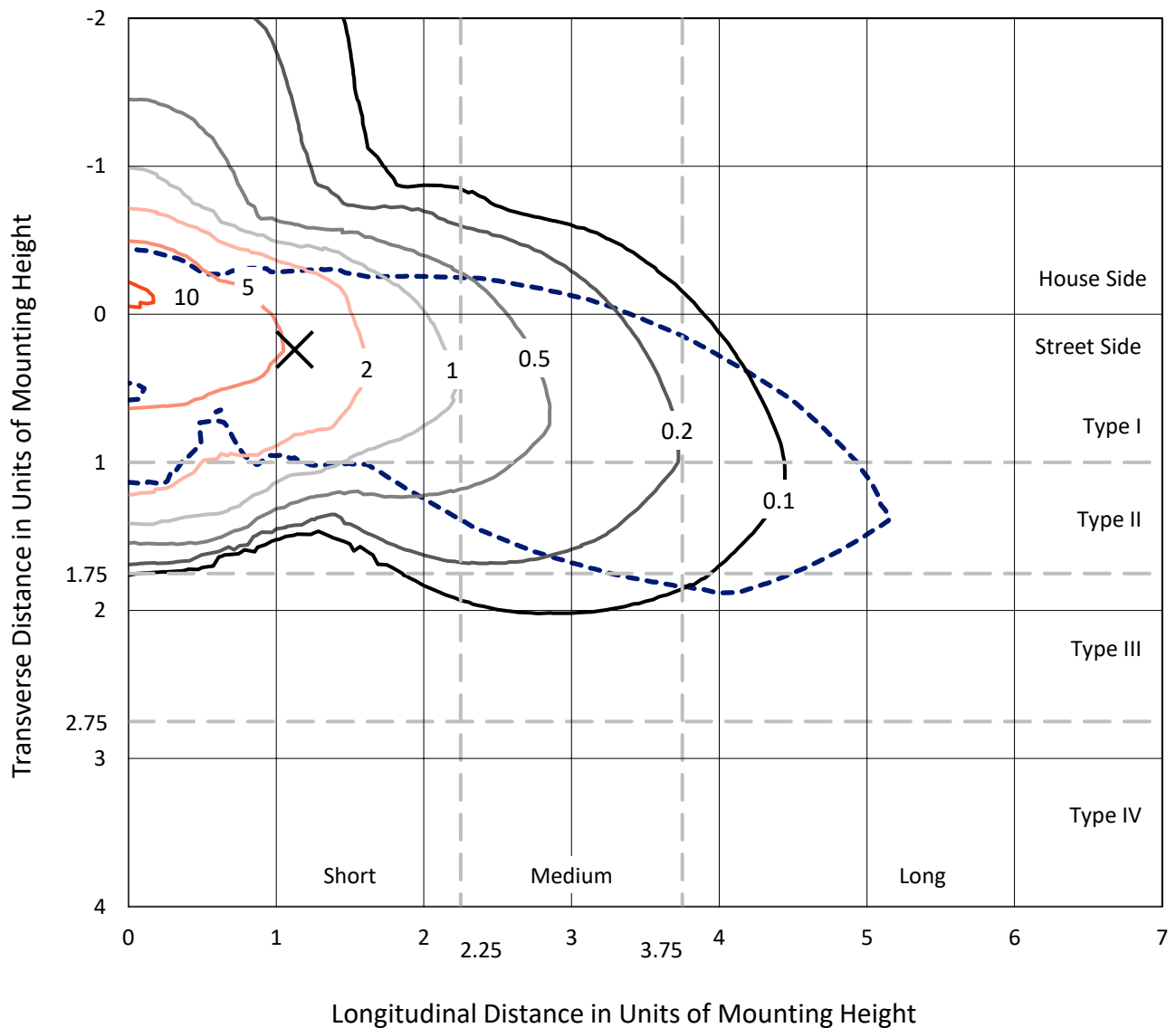
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

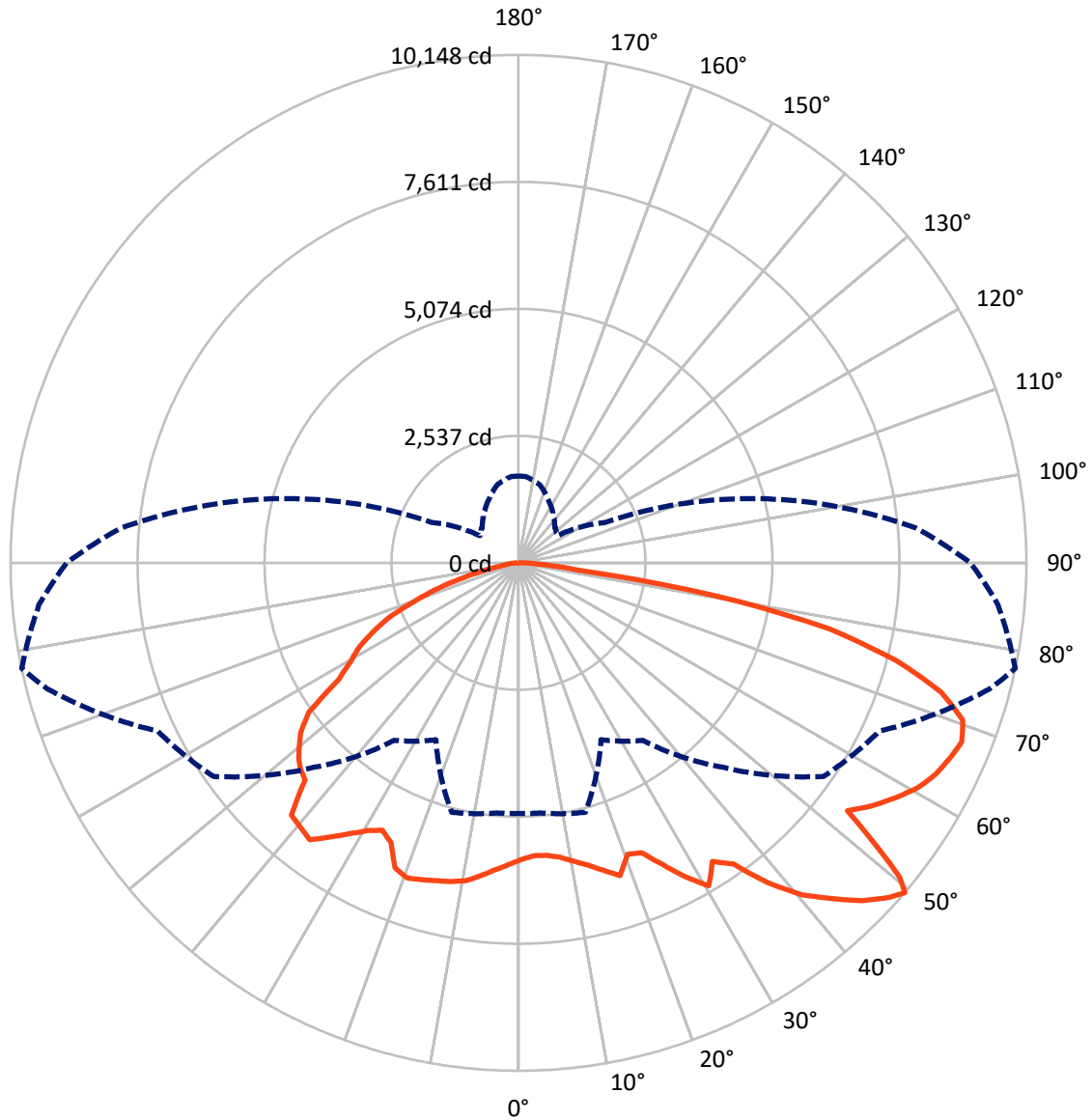
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 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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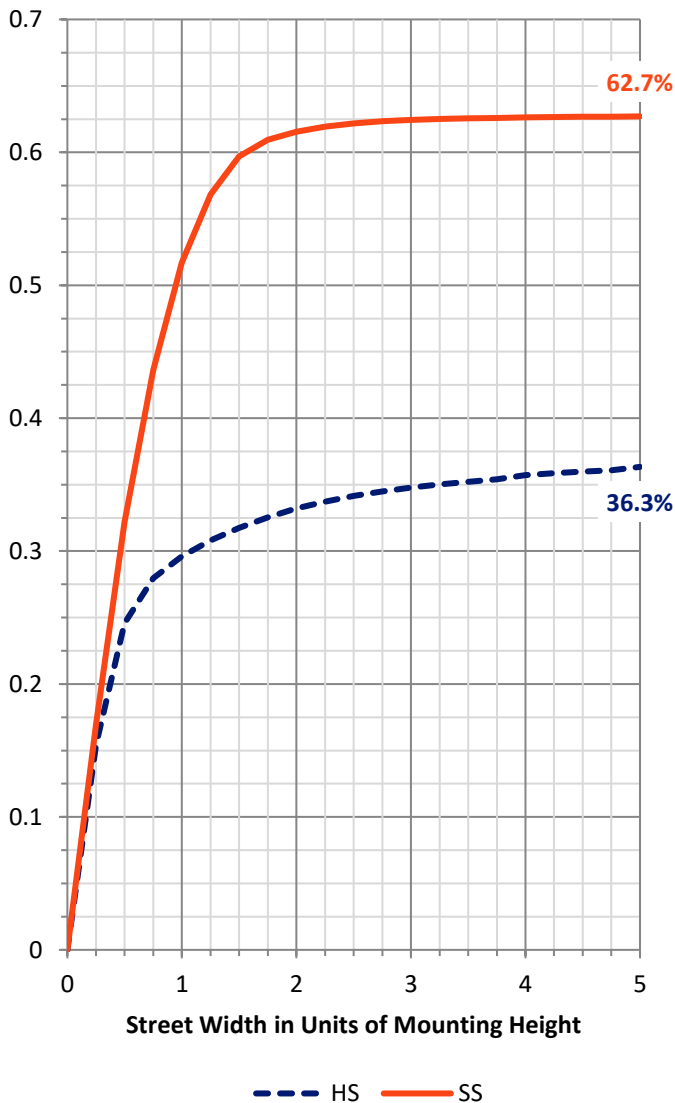
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7627.4	0.0	7627.4
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	12765.6	0.0	12765.6
	% Fixture	62.6	0.0	62.6
Total	Lumens	20393.0	0.0	20393.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	593.6	2.9
10°-20°	1822.1	8.9
20°-30°	2640.4	12.9
30°-40°	3244.5	15.9
40°-50°	3661.9	18.0
50°-60°	3479.8	17.1
60°-70°	2598.9	12.7
70°-80°	1930.1	9.5
80°-90°	421.8	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°	20393.0	100.0
0°-180°	20393.0	100.0

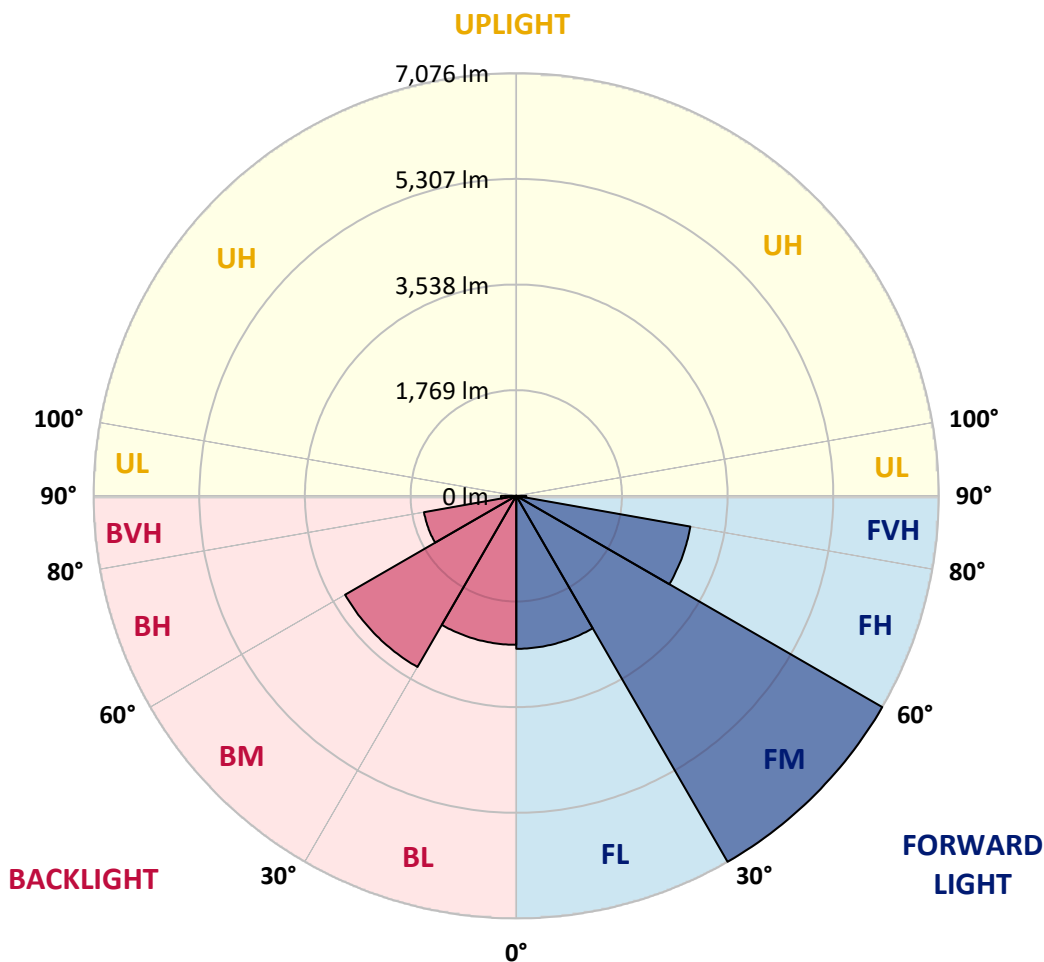


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2561.5	12.6			
FM (30°-60°)	7076.4	34.7			
FH (60°-80°)	2960.9	14.5			G2/5000
FVH (80°-90°)	166.7	0.8			G2/225
BL (0°-30°)	2494.6	12.2	B3/2500		
BM (30°-60°)	3309.7	16.2	B3/5000		
BH (60°-80°)	1568.1	7.7	B3/2500		G3/2500
BVH (80°-90°)	255.0	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2
2.5°	5802.0	5770.3	5778.8	5827.7	5733.7	5802.0	5774.0	5839.9	5861.8	5859.4	5954.6
5°	5849.6	5808.1	5820.3	5853.3	5750.8	5803.2	5781.3	5852.1	5870.4	5871.6	6001.0
7.5°	6024.2	5976.6	5964.3	5966.8	5870.4	5909.4	5853.3	5908.2	5941.2	5937.5	6081.5
10°	6278.0	6225.5	6198.7	6190.1	6073.0	6055.9	5987.5	6007.1	6055.9	6062.0	6208.4
12.5°	6539.2	6497.7	6458.6	6439.1	6278.0	6240.2	6140.1	6157.2	6193.8	6201.1	6353.7
15°	6769.8	6730.8	6724.7	6702.7	6539.2	6466.0	6345.1	6326.8	6354.9	6378.1	6511.1
17.5°	6544.1	6494.0	6462.3	6469.6	6386.6	6201.1	6126.7	6252.4	6486.7	6568.5	6694.2
20°	5907.0	5968.0	5942.4	5843.5	5754.4	6054.7	5991.2	5964.3	6109.6	6214.5	6518.4
22.5°	5189.4	5189.4	5433.5	5604.3	5638.5	5806.9	6153.5	6274.3	6290.2	6290.2	6202.3
25°	4621.9	4783.0	5196.7	5846.0	5849.6	5815.5	5911.9	6574.6	6684.4	6672.2	6524.5
27.5°	4841.5	4814.7	5092.9	5544.5	6182.8	6143.8	5955.8	6254.8	7160.4	7104.3	6915.1
30°	5035.6	5008.7	5058.8	5619.0	6278.0	6500.1	6339.0	6249.9	7186.0	7491.1	7377.6
32.5°	5217.4	5186.9	5244.3	5329.7	5974.1	6854.1	6740.6	6682.0	6819.9	7116.5	7901.2
35°	5363.9	5368.8	5434.7	5560.4	5855.7	6734.5	7143.3	7165.3	7406.9	7388.6	7785.3
37.5°	5472.5	5482.3	5539.6	5688.5	5798.4	5562.8	7526.5	7780.4	8152.6	8116.0	7824.3
40°	5478.6	5500.6	5615.3	5798.4	5927.7	4953.8	7455.7	8459.0	8827.5	8720.1	8357.7
42.5°	5365.1	5376.1	5567.7	5877.7	4498.6	5152.7	6913.9	9135.1	9299.8	9168.0	8765.3
45°	5263.8	5261.4	5466.4	5744.7	4250.8	5385.9	6899.2	8938.6	9734.3	9631.8	9118.0
47.5°	5121.0	5119.8	5320.0	4322.8	4304.5	5637.3	7262.9	7751.1	10094.4	9984.5	9439.0
49°	5006.3	5018.5	5160.1	3899.3	4328.9	5777.6	7439.9	7953.7	9741.6	10148.1	9617.2
50°	4944.1	4956.3	4610.9	3856.6	4336.3	5858.2	7532.6	8102.6	8767.7	9871.0	9731.9
52.5°	4660.9	4553.5	3574.7	3767.5	4338.7	5953.4	6476.9	8418.7	8356.4	8228.3	9214.4
55°	2808.3	3178.1	3236.6	3666.2	4299.7	4324.1	6326.8	8786.0	8759.2	8572.5	7934.2
57.5°	1702.5	1685.4	2499.5	3384.3	2879.0	3626.0	6574.6	9271.8	9113.1	8864.1	8069.6
60°	600.5	530.9	535.8	577.3	1071.6	2713.1	5244.3	6982.2	9186.3	9147.3	8192.9
62.5°	47.6	45.2	45.2	47.6	68.3	1019.1	4158.1	7004.2	9440.2	9338.9	8221.0
65°	6.1	6.1	6.1	13.4	35.4	921.4	4164.2	7117.7	9629.4	9456.1	8146.5
67.5°	0.0	0.0	3.7	9.8	28.1	815.3	4042.1	7184.8	9799.0	9553.7	8078.2
70°	0.0	0.0	2.4	8.5	24.4	674.9	3893.2	7243.4	9719.7	9415.8	7734.0
72.5°	0.0	0.0	2.4	7.3	20.7	445.5	3451.4	6810.1	9154.6	8825.1	7027.4
75°	0.0	0.0	2.4	6.1	19.5	253.9	2827.8	6016.8	8146.5	7797.5	5921.6
77.5°	0.0	0.0	1.2	4.9	17.1	139.1	1953.9	4980.7	6729.6	6346.4	4436.3
80°	0.0	0.0	1.2	4.9	15.9	95.2	888.5	3235.4	4485.2	4005.5	2431.1
82.5°	0.0	0.0	1.2	4.9	12.2	64.7	358.8	906.8	1387.7	1186.3	773.8
85°	0.0	0.0	1.2	3.7	8.5	41.5	177.0	372.2	560.2	538.2	391.8
87.5°	0.0	0.0	1.2	3.7	6.1	12.2	52.5	122.0	218.5	222.1	167.2
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°	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2	5930.2
2.5°	5999.7	6010.7	6047.3	6102.3	6110.8	6185.3	6173.0	6312.2	6325.6	6358.6	6395.2
5°	6063.2	6101.0	6184.0	6309.7	6401.3	6513.6	6502.6	6660.0	6675.9	6667.3	6723.5
7.5°	6156.0	6212.1	6341.5	6511.1	6541.6	6680.8	6662.4	6799.1	6801.6	6783.3	6838.2
10°	6291.4	6357.3	6476.9	6573.4	6646.6	6730.8	6718.6	6840.6	6828.4	6807.7	6865.0
12.5°	6422.0	6458.6	6531.9	6645.4	6658.8	6693.0	6672.2	6785.7	6773.5	6744.2	6797.9
15°	6539.2	6557.5	6558.7	6614.8	6584.3	6610.0	6555.0	6636.8	6608.7	6597.8	6635.6
17.5°	6689.3	6655.1	6605.1	6601.4	6497.7	6462.3	6374.4	6396.4	6337.8	6332.9	6353.7
20°	6708.8	6779.6	6635.6	6486.7	6312.2	6223.1	6057.1	6058.3	5992.4	5966.8	5979.0
22.5°	6174.3	6348.8	6671.0	6386.6	6090.1	5889.9	5676.3	5611.6	5487.2	5434.7	5413.9
25°	6383.0	6156.0	6131.6	6218.2	5802.0	5496.9	5186.9	4996.5	4848.9	4729.3	4737.8
27.5°	6706.4	6411.0	5814.2	5849.6	5439.6	5011.2	4543.7	4275.2	4125.1	4009.2	3995.8
30°	7134.8	6763.7	5882.6	5069.8	5023.4	4401.0	3827.3	3530.8	3378.2	3336.7	3311.1
32.5°	7666.9	7183.6	6036.4	4891.6	4156.9	3740.7	3097.5	2858.3	2786.3	2782.6	2753.3
35°	8299.1	7738.9	6177.9	4654.8	3584.5	3046.2	2475.1	2317.6	2328.6	2329.8	2354.3
37.5°	7895.1	8263.7	6354.9	4430.2	3026.7	2263.9	1990.6	1891.7	1923.4	1974.7	1999.1
40°	7901.2	7522.9	6561.2	4055.6	2351.8	1726.9	1557.3	1535.3	1670.8	1774.5	1800.2
42.5°	8218.5	7474.0	6485.5	3628.4	1722.1	1313.2	1297.3	1415.7	1611.0	1726.9	1747.7
45°	8559.0	7705.9	5387.1	3023.1	1248.5	1110.6	1232.7	1397.4	1609.8	1733.0	1745.2
47.5°	8882.4	7852.4	5163.7	2362.8	1003.2	1047.1	1213.1	1397.4	1618.3	1744.0	1751.3
49°	9026.5	7970.8	4956.3	1911.2	941.0	1022.7	1202.1	1399.9	1620.8	1728.2	1731.8
50°	9111.9	8037.9	4789.1	1772.1	910.5	1006.9	1197.3	1403.5	1617.1	1709.9	1713.5
52.5°	9244.9	8146.5	4404.6	1412.1	853.1	970.3	1189.9	1418.2	1603.7	1658.6	1656.2
55°	7624.2	7614.4	4083.6	1185.1	809.2	937.3	1187.5	1430.4	1609.8	1665.9	1663.5
57.5°	7306.8	6252.4	3440.5	969.0	772.5	909.2	1189.9	1448.7	1719.6	1817.3	1805.0
60°	7330.0	6157.2	2927.9	840.9	729.8	886.0	1197.3	1530.4	1986.9	2085.8	2055.2
62.5°	7249.5	5924.1	2620.3	755.5	684.7	865.3	1202.1	1643.9	2021.1	2029.6	1977.1
65°	7057.9	5631.2	2206.6	661.5	637.1	845.8	1200.9	1685.4	1864.9	1795.3	1778.2
67.5°	6702.7	5320.0	1746.5	579.7	585.8	816.5	1229.0	1613.4	1764.8	1708.6	1683.0
70°	6281.7	4656.0	1231.4	504.0	539.4	783.5	1225.3	1596.4	1712.3	1629.3	1593.9
72.5°	5532.3	3914.0	828.7	434.5	480.9	745.7	1163.1	1545.1	1678.1	1623.2	1574.4
75°	4397.3	2929.1	480.9	374.7	423.5	690.8	1102.1	1513.4	1696.4	1591.5	1490.2
77.5°	3006.0	1668.4	358.8	313.7	364.9	620.0	999.6	1407.2	1640.3	1550.0	1414.5
80°	1347.4	602.9	274.6	255.1	306.3	502.8	861.6	1244.9	1553.6	1553.6	1458.4
82.5°	535.8	379.6	190.4	200.2	250.2	383.2	682.2	1074.0	1369.3	1431.6	1530.4
85°	302.7	222.1	122.0	145.2	191.6	296.6	496.7	834.8	1115.5	1236.3	1340.1
87.5°	119.6	84.2	48.8	81.8	111.1	152.6	217.2	408.9	600.5	739.6	817.7
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)