

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: P591270

Luminaire Tested: **CTN-CA8-330-727-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591270
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-CA8-330-727-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21405 lumens
Efficiency: N/A
Efficacy: 64.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

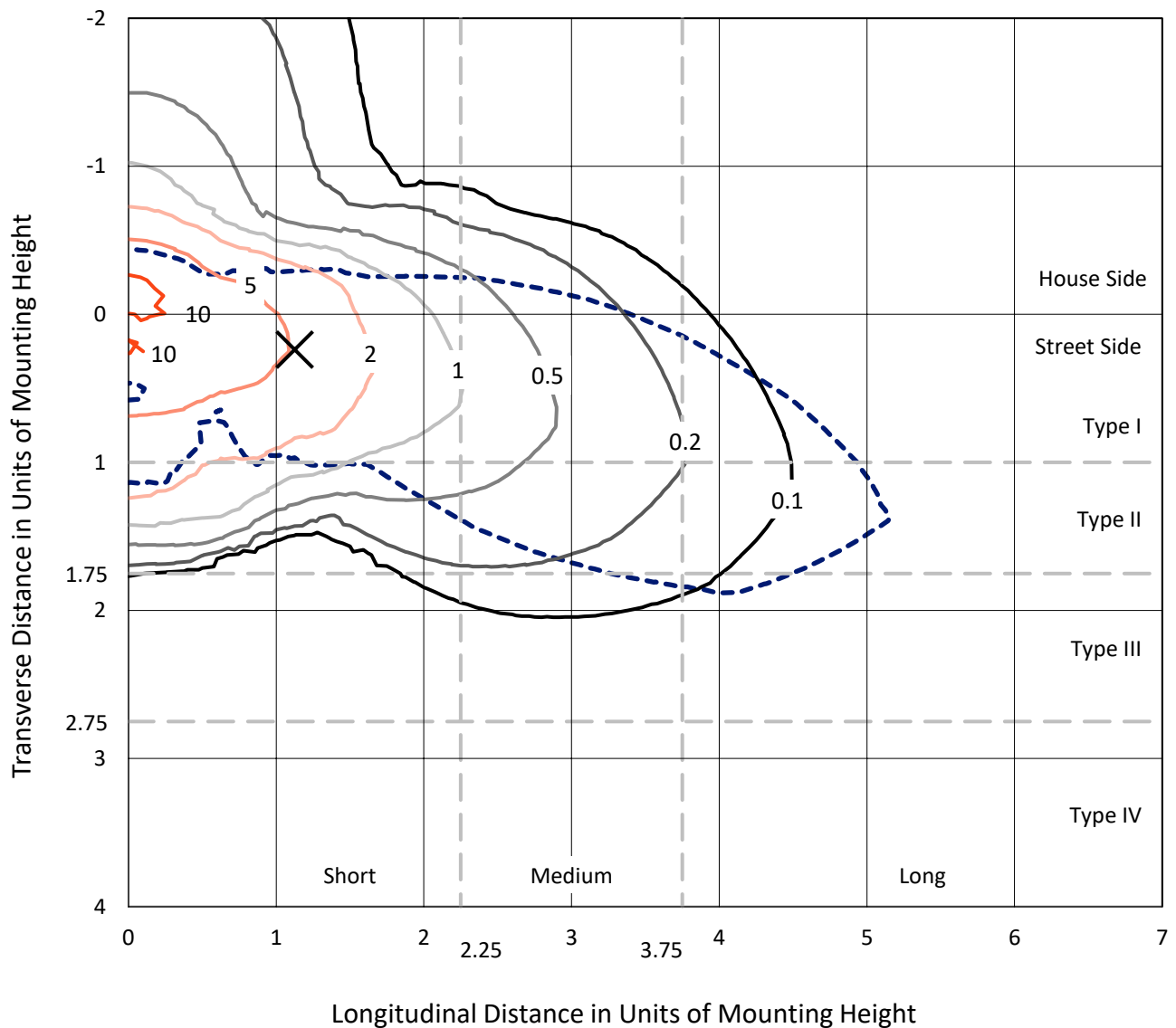
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

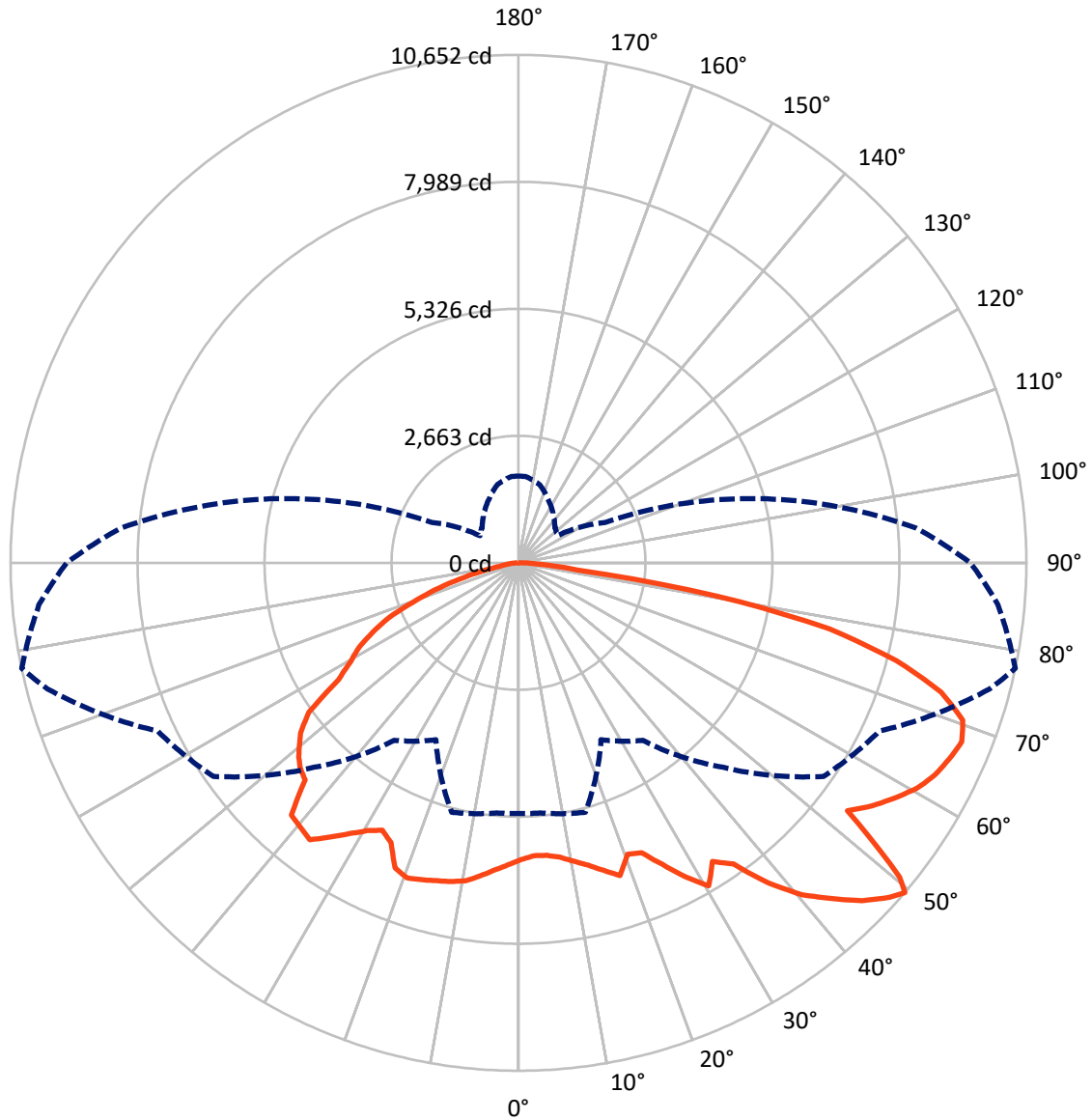
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 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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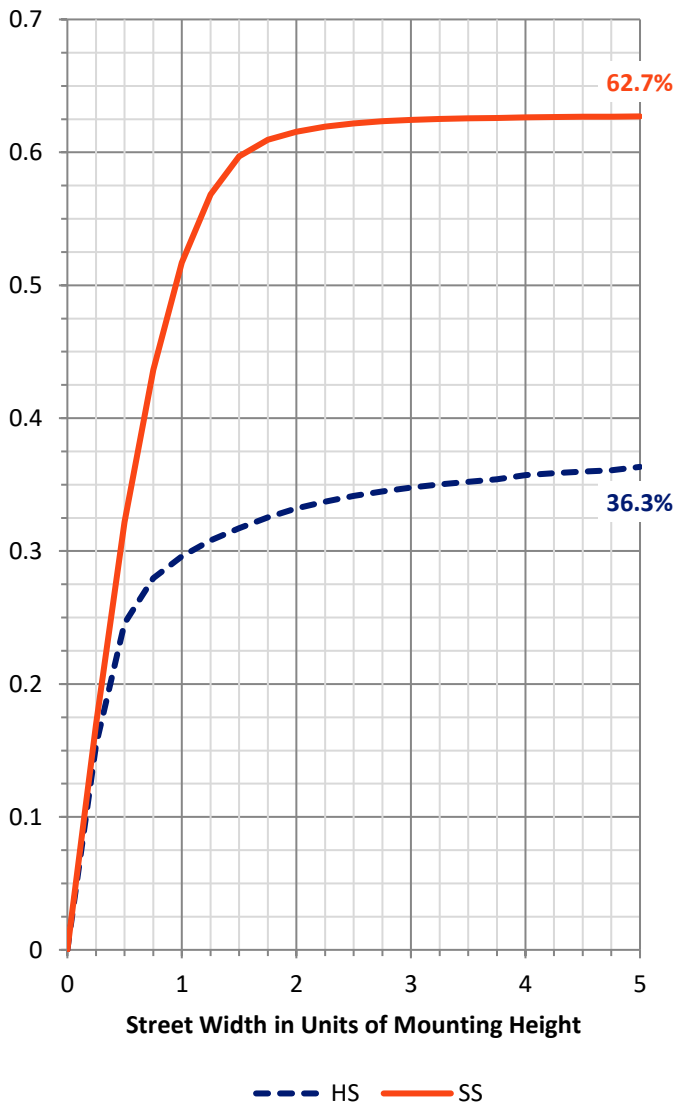
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8005.9	0.0	8005.9
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	13399.1	0.0	13399.1
	% Fixture	62.6	0.0	62.6
Total	Lumens	21405.0	0.0	21405.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	623.0	2.9
10°-20°	1912.5	8.9
20°-30°	2771.5	12.9
30°-40°	3405.5	15.9
40°-50°	3843.7	18.0
50°-60°	3652.4	17.1
60°-70°	2727.8	12.7
70°-80°	2025.9	9.5
80°-90°	442.7	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°	21405.0	100.0
0°-180°	21405.0	100.0

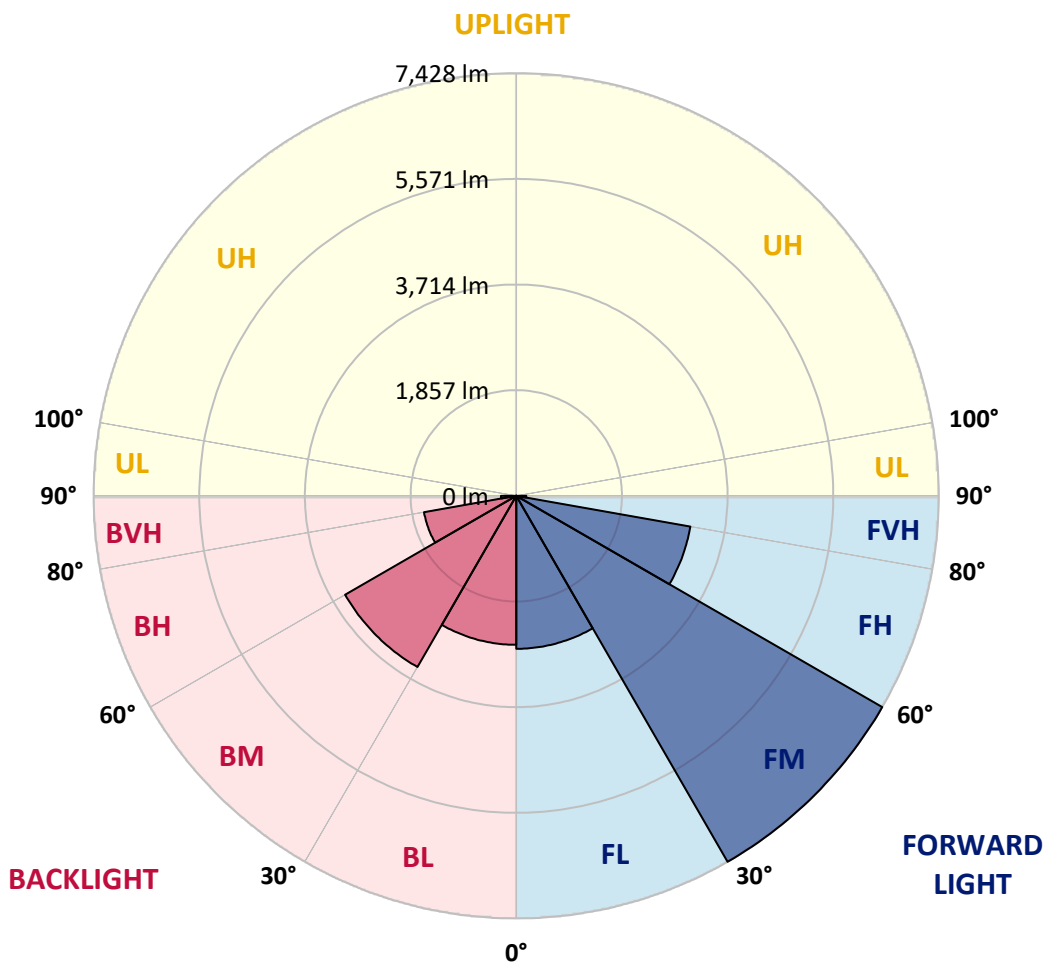


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2688.6	12.6			
FM	(30°-60°)	7427.6	34.7			
FH	(60°-80°)	3107.8	14.5			G2/5000
FVH	(80°-90°)	175.0	0.8			G2/225
BL	(0°-30°)	2618.4	12.2	B4/5000		
BM	(30°-60°)	3474.0	16.2	B3/5000		
BH	(60°-80°)	1645.9	7.7	B3/2500		G3/2500
BVH	(80°-90°)	267.7	1.3			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°	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5
2.5°	6090.0	6056.6	6065.6	6116.9	6018.2	6090.0	6060.5	6129.7	6152.7	6150.2	6250.1
5°	6139.9	6096.4	6109.2	6143.8	6036.2	6091.2	6068.2	6142.5	6161.7	6163.0	6298.8
7.5°	6323.1	6273.1	6260.3	6262.9	6161.7	6202.7	6143.8	6201.4	6236.0	6232.1	6383.3
10°	6589.6	6534.5	6506.3	6497.3	6374.3	6356.4	6284.7	6305.2	6356.4	6362.8	6516.5
12.5°	6863.7	6820.1	6779.1	6758.6	6589.6	6549.8	6444.8	6462.7	6501.2	6508.8	6669.0
15°	7105.8	7064.8	7058.4	7035.3	6863.7	6786.8	6660.0	6640.8	6670.3	6694.6	6834.2
17.5°	6868.8	6816.3	6783.0	6790.7	6703.6	6508.8	6430.7	6562.6	6808.6	6894.4	7026.4
20°	6200.1	6264.2	6237.3	6133.5	6040.0	6355.1	6288.5	6260.3	6412.8	6522.9	6841.9
22.5°	5446.9	5446.9	5703.1	5882.4	5918.3	6095.1	6458.9	6585.7	6602.4	6602.4	6510.1
25°	4851.2	5020.3	5454.6	6136.1	6139.9	6104.0	6205.2	6900.8	7016.1	7003.3	6848.3
27.5°	5081.8	5053.6	5345.7	5819.7	6489.6	6448.6	6251.4	6565.2	7515.7	7456.8	7258.2
30°	5285.5	5257.3	5309.8	5897.8	6589.6	6822.7	6653.6	6560.1	7542.6	7862.9	7743.7
32.5°	5476.3	5444.3	5504.5	5594.2	6270.6	7194.2	7075.1	7013.6	7158.3	7469.6	8293.3
35°	5630.1	5635.2	5704.4	5836.3	6146.3	7068.7	7497.8	7520.8	7774.5	7755.3	8171.6
37.5°	5744.1	5754.3	5814.5	5970.8	6086.1	5838.9	7900.0	8166.5	8557.2	8518.8	8212.6
40°	5750.5	5773.5	5894.0	6086.1	6221.9	5199.6	7825.7	8878.7	9265.6	9152.9	8772.4
42.5°	5631.3	5642.9	5844.0	6169.4	4721.8	5408.5	7257.0	9588.4	9761.3	9623.0	9200.3
45°	5525.0	5522.5	5737.7	6029.7	4461.8	5653.1	7241.6	9382.2	10217.4	10109.8	9570.5
47.5°	5375.1	5373.9	5584.0	4537.4	4518.1	5917.0	7623.3	8135.7	10595.3	10480.0	9907.4
49°	5254.7	5267.5	5416.1	4092.8	4543.8	6064.3	7809.1	8348.4	10225.1	10651.7	10094.4
50°	5189.4	5202.2	4839.7	4048.0	4551.5	6148.9	7906.4	8504.7	9202.8	10360.9	10214.8
52.5°	4892.2	4779.5	3752.1	3954.5	4554.0	6248.8	6798.4	8836.5	8771.1	8636.6	9671.7
55°	2947.6	3335.8	3397.3	3848.2	4513.0	4538.6	6640.8	9222.0	9193.9	8997.9	8327.9
57.5°	1787.0	1769.1	2623.5	3552.3	3021.9	3805.9	6900.8	9731.9	9565.4	9304.0	8470.1
60°	630.3	557.2	562.4	605.9	1124.7	2847.7	5504.5	7328.7	9642.2	9601.2	8599.5
62.5°	50.0	47.4	47.4	50.0	71.7	1069.6	4364.4	7351.8	9908.7	9802.3	8628.9
65°	6.4	6.4	6.4	14.1	37.1	967.2	4370.8	7470.9	10107.2	9925.3	8550.8
67.5°	0.0	0.0	3.8	10.2	29.5	855.7	4242.7	7541.3	10285.3	10027.8	8479.1
70°	0.0	0.0	2.6	9.0	25.6	708.4	4086.4	7602.8	10202.0	9883.0	8117.8
72.5°	0.0	0.0	2.6	7.7	21.8	467.6	3622.7	7148.1	9608.9	9263.0	7376.1
75°	0.0	0.0	2.6	6.4	20.5	266.5	2968.1	6315.4	8550.8	8184.4	6215.5
77.5°	0.0	0.0	1.3	5.1	17.9	146.0	2050.9	5227.8	7063.5	6661.3	4656.5
80°	0.0	0.0	1.3	5.1	16.7	99.9	932.6	3396.0	4707.7	4204.3	2551.8
82.5°	0.0	0.0	1.3	5.1	12.8	67.9	376.6	951.8	1456.5	1245.1	812.2
85°	0.0	0.0	1.3	3.8	9.0	43.6	185.7	390.7	588.0	564.9	411.2
87.5°	0.0	0.0	1.3	3.8	6.4	12.8	55.1	128.1	229.3	233.1	175.5
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°	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5	6224.5
2.5°	6297.5	6309.0	6347.4	6405.1	6414.1	6492.2	6479.4	6625.4	6639.5	6674.1	6712.5
5°	6364.1	6403.8	6490.9	6622.9	6718.9	6836.8	6825.3	6990.5	7007.2	6998.2	7057.1
7.5°	6461.4	6520.4	6656.2	6834.2	6866.3	7012.3	6993.1	7136.5	7139.1	7119.9	7177.5
10°	6603.6	6672.8	6798.4	6899.6	6976.4	7064.8	7052.0	7180.1	7167.3	7145.5	7205.7
12.5°	6740.7	6779.1	6856.0	6975.1	6989.2	7025.1	7003.3	7122.5	7109.6	7078.9	7135.3
15°	6863.7	6882.9	6884.2	6943.1	6911.1	6938.0	6880.3	6966.2	6936.7	6925.2	6964.9
17.5°	7021.3	6985.4	6932.9	6929.0	6820.1	6783.0	6690.8	6713.8	6652.3	6647.2	6669.0
20°	7041.7	7116.0	6964.9	6808.6	6625.4	6531.9	6357.7	6359.0	6289.8	6262.9	6275.7
22.5°	6480.7	6663.8	7002.0	6703.6	6392.3	6182.2	5958.0	5890.1	5759.5	5704.4	5682.6
25°	6699.7	6461.4	6435.8	6526.8	6090.0	5769.7	5444.3	5244.5	5089.5	4963.9	4972.9
27.5°	7039.2	6729.2	6102.8	6139.9	5709.5	5259.9	4769.2	4487.4	4329.8	4208.1	4194.0
30°	7488.8	7099.4	6174.5	5321.3	5272.7	4619.3	4017.3	3706.0	3545.9	3502.3	3475.4
32.5°	8047.3	7540.1	6335.9	5134.3	4363.1	3926.3	3251.2	3000.1	2924.6	2920.7	2890.0
35°	8710.9	8122.9	6484.5	4885.8	3762.3	3197.4	2597.9	2432.7	2444.2	2445.5	2471.1
37.5°	8286.9	8673.8	6670.3	4650.1	3176.9	2376.3	2089.3	1985.6	2018.9	2072.7	2098.3
40°	8293.3	7896.2	6886.7	4256.8	2468.5	1812.6	1634.6	1611.5	1753.7	1862.6	1889.5
42.5°	8626.4	7844.9	6807.3	3808.5	1807.5	1378.4	1361.7	1486.0	1690.9	1812.6	1834.4
45°	8983.8	8088.3	5654.4	3173.1	1310.5	1165.7	1293.8	1466.8	1689.7	1819.0	1831.9
47.5°	9323.2	8242.1	5420.0	2480.0	1053.0	1099.1	1273.3	1466.8	1698.6	1830.6	1838.3
49°	9474.4	8366.3	5202.2	2006.1	987.7	1073.5	1261.8	1469.3	1701.2	1813.9	1817.8
50°	9564.1	8436.8	5026.7	1860.0	955.6	1056.8	1256.7	1473.2	1697.3	1794.7	1798.5
52.5°	9703.7	8550.8	4623.2	1482.1	895.4	1018.4	1249.0	1488.5	1683.3	1740.9	1738.3
55°	8002.5	7992.3	4286.3	1243.9	849.3	983.8	1246.4	1501.4	1689.7	1748.6	1746.0
57.5°	7669.4	6562.6	3611.2	1017.1	810.9	954.4	1249.0	1520.6	1805.0	1907.4	1894.6
60°	7693.8	6462.7	3073.2	882.6	766.0	930.0	1256.7	1606.4	2085.5	2189.3	2157.2
62.5°	7609.2	6218.1	2750.3	792.9	718.7	908.2	1261.8	1725.5	2121.4	2130.3	2075.2
65°	7408.1	5910.6	2316.1	694.3	668.7	887.7	1260.5	1769.1	1957.4	1884.4	1866.4
67.5°	7035.3	5584.0	1833.1	608.5	614.9	857.0	1290.0	1693.5	1852.4	1793.4	1766.5
70°	6593.4	4887.1	1292.5	529.1	566.2	822.4	1286.1	1675.6	1797.3	1710.2	1673.0
72.5°	5806.8	4108.2	869.8	456.0	504.7	782.7	1220.8	1621.8	1761.4	1703.8	1652.5
75°	4615.5	3074.4	504.7	393.3	444.5	725.1	1156.8	1588.5	1780.6	1670.4	1564.1
77.5°	3155.1	1751.1	376.6	329.2	383.0	650.8	1049.2	1477.0	1721.7	1626.9	1484.7
80°	1414.2	632.8	288.2	267.7	321.5	527.8	904.4	1306.6	1630.7	1630.7	1530.8
82.5°	562.4	398.4	199.8	210.1	262.6	402.2	716.1	1127.3	1437.3	1502.6	1606.4
85°	317.7	233.1	128.1	152.4	201.1	311.3	521.4	876.2	1170.8	1297.7	1406.6
87.5°	125.5	88.4	51.2	85.8	116.6	160.1	228.0	429.1	630.3	776.3	858.3
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)