

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: P591390

Luminaire Tested: **CTN-CA10-210-740-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591390
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-CA10-210-740-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18024 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

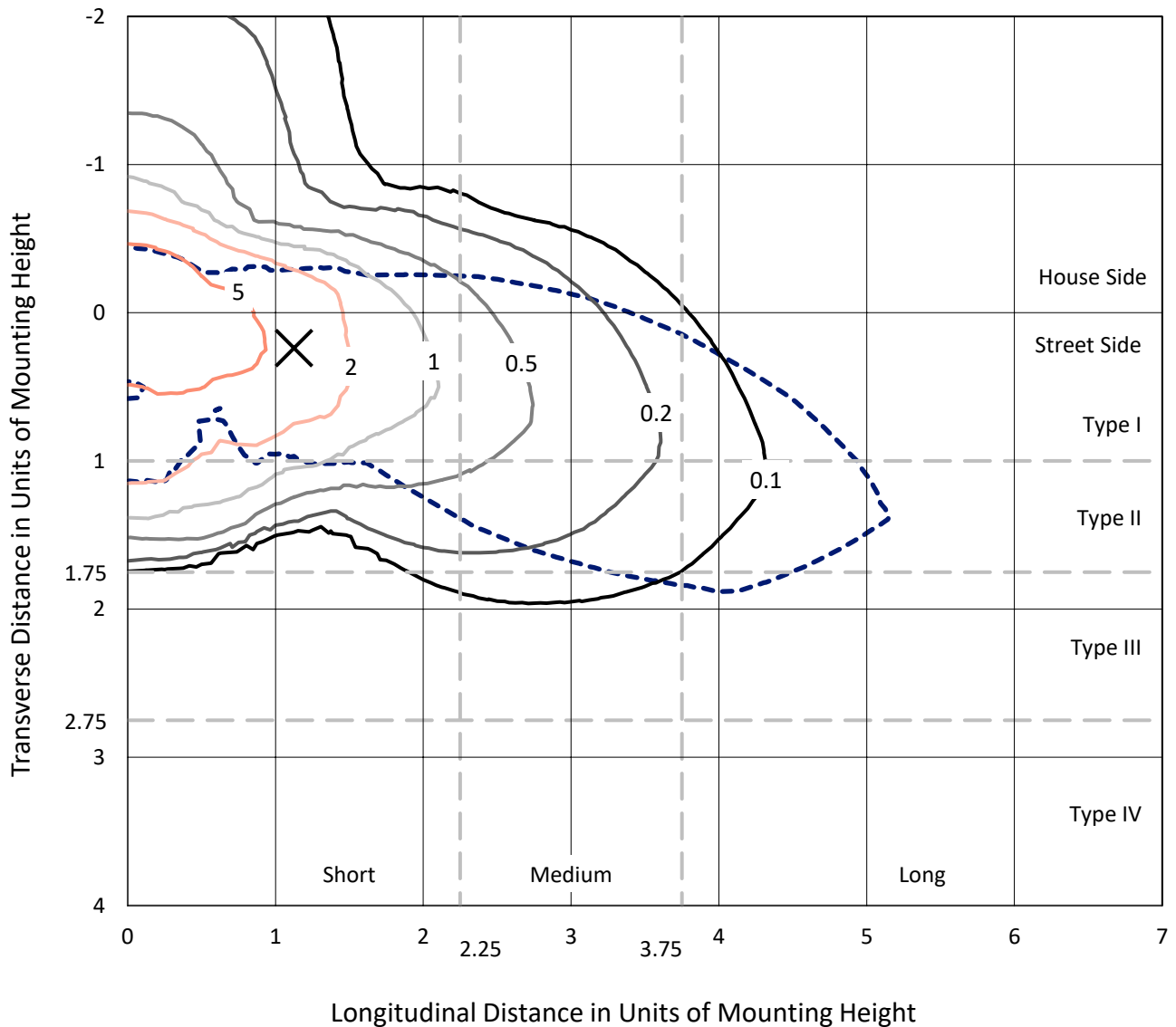
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

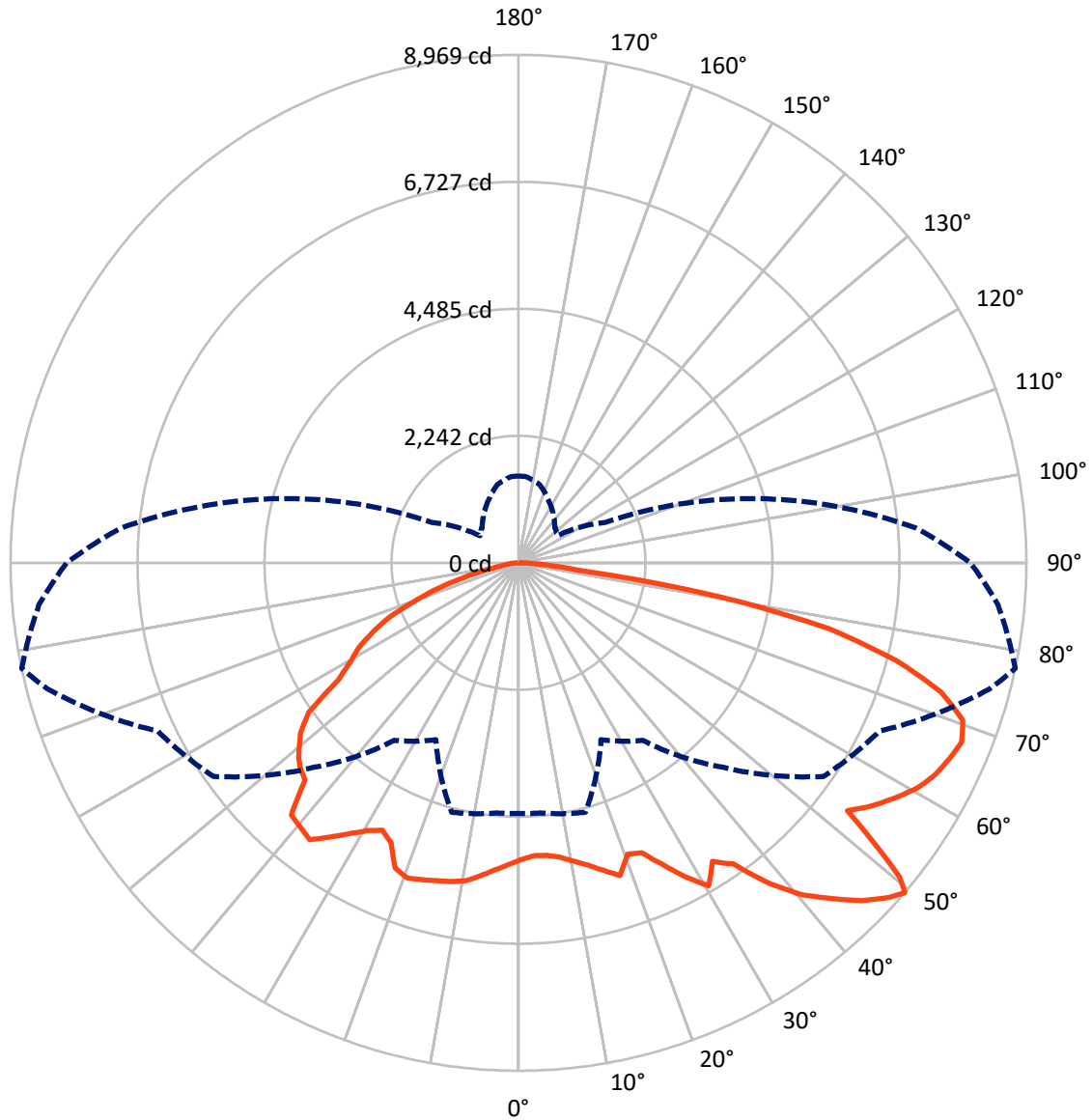
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 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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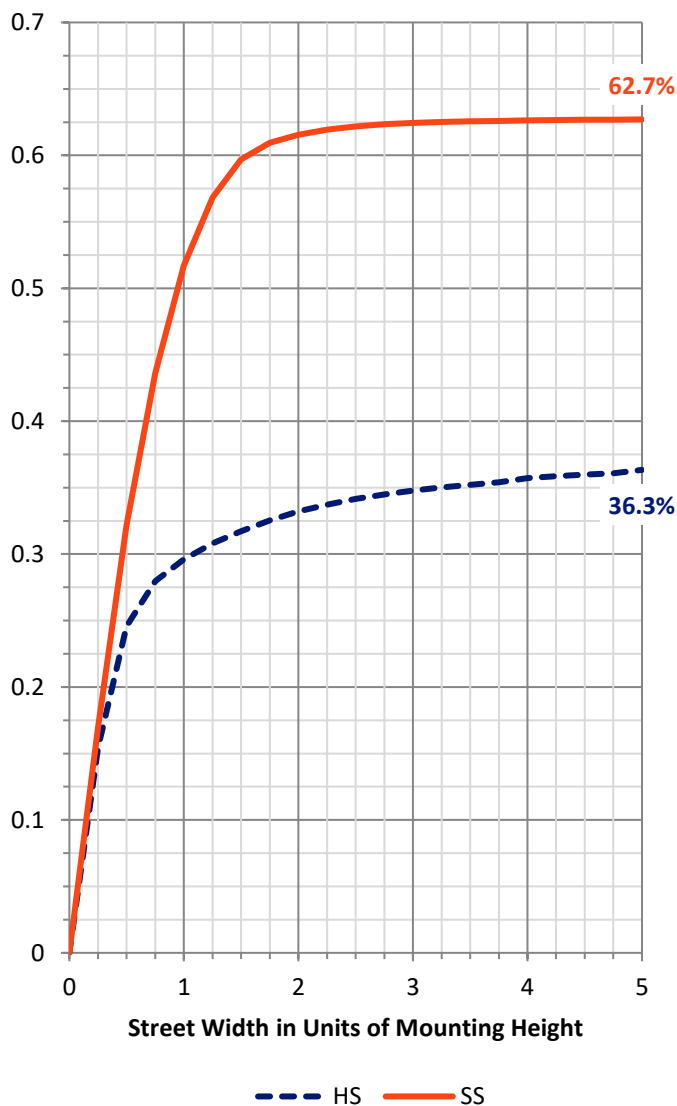
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6741.4	0.0	6741.4
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	11282.6	0.0	11282.6
	% Fixture	62.6	0.0	62.6
Total	Lumens	18024.0	0.0	18024.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	524.6	2.9
10°-20°	1610.4	8.9
20°-30°	2333.7	12.9
30°-40°	2867.6	15.9
40°-50°	3236.5	18.0
50°-60°	3075.5	17.1
60°-70°	2297.0	12.7
70°-80°	1705.9	9.5
80°-90°	372.8	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°	18024.0	100.0
0°-180°	18024.0	100.0

Coefficient of Utilization

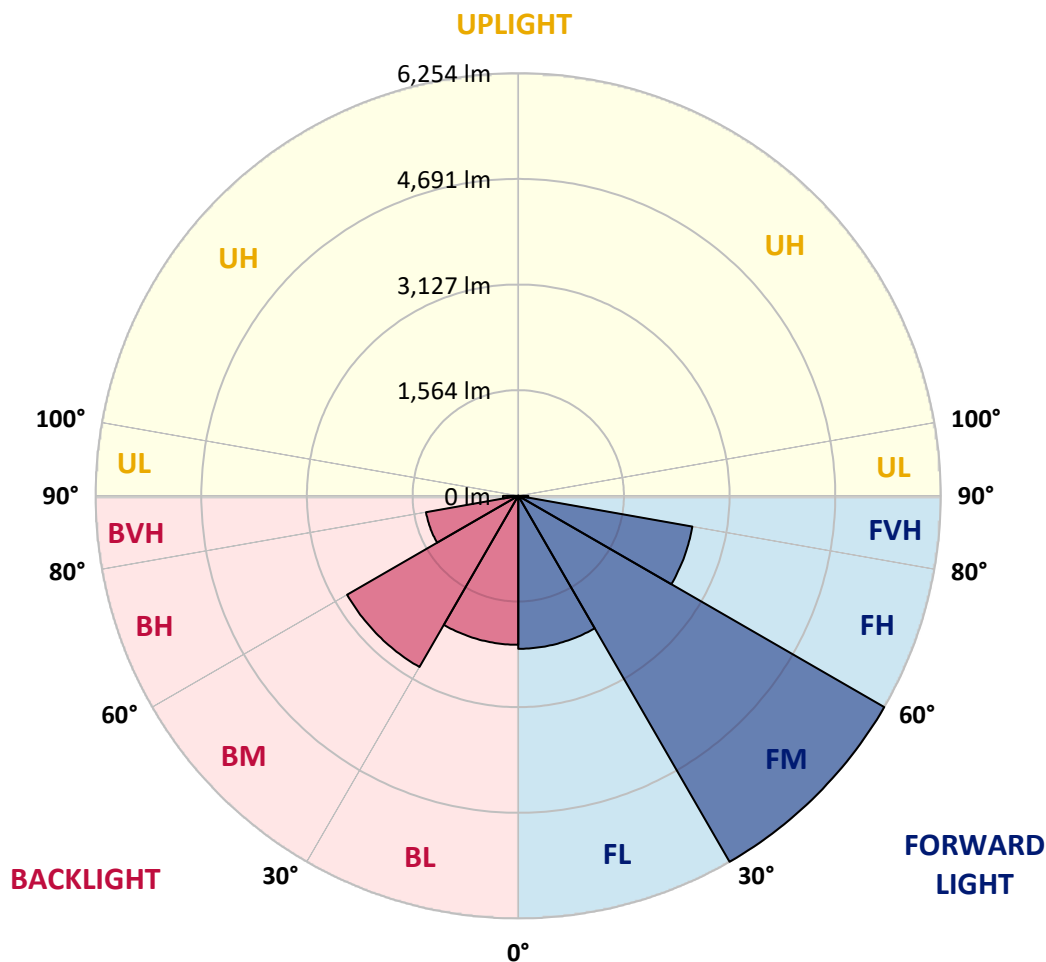


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2263.9	12.6			
FM (30°-60°)	6254.4	34.7			
FH (60°-80°)	2617.0	14.5			G2/5000
FVH (80°-90°)	147.4	0.8			G2/225
BL (0°-30°)	2204.8	12.2	B3/2500		
BM (30°-60°)	2925.3	16.2	B3/5000		
BH (60°-80°)	1385.9	7.7	B3/2500		G3/2500
BVH (80°-90°)	225.4	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°	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3
2.5°	5128.0	5100.0	5107.5	5150.7	5067.6	5128.0	5103.2	5161.5	5180.9	5178.7	5262.9
5°	5170.1	5133.4	5144.2	5173.3	5082.7	5129.1	5109.7	5172.2	5188.4	5189.5	5303.8
7.5°	5324.3	5282.3	5271.5	5273.6	5188.4	5222.9	5173.3	5221.9	5251.0	5247.8	5375.0
10°	5548.7	5502.3	5478.6	5471.0	5367.5	5352.4	5292.0	5309.2	5352.4	5357.8	5487.2
12.5°	5779.5	5742.9	5708.4	5691.1	5548.7	5515.3	5426.8	5441.9	5474.3	5480.7	5615.6
15°	5983.4	5948.9	5943.5	5924.1	5779.5	5714.8	5608.0	5591.9	5616.7	5637.2	5754.7
17.5°	5783.9	5739.6	5711.6	5718.1	5644.7	5480.7	5415.0	5526.1	5733.2	5805.4	5916.5
20°	5220.8	5274.7	5252.1	5164.7	5086.0	5351.3	5295.2	5271.5	5399.8	5492.6	5761.2
22.5°	4586.5	4586.5	4802.3	4953.3	4983.5	5132.3	5438.7	5545.5	5559.5	5559.5	5481.8
25°	4084.9	4227.3	4593.0	5166.9	5170.1	5139.9	5225.1	5810.8	5907.9	5897.1	5766.6
27.5°	4279.1	4255.4	4501.3	4900.4	5464.6	5430.1	5263.9	5528.2	6328.6	6279.0	6111.8
30°	4450.6	4426.9	4471.1	4966.2	5548.7	5745.0	5602.6	5523.9	6351.2	6620.9	6520.6
32.5°	4611.3	4584.4	4635.1	4710.6	5280.1	6057.8	5957.5	5905.7	6027.6	6289.8	6983.3
35°	4740.8	4745.1	4803.3	4914.4	5175.5	5952.1	6313.5	6332.9	6546.5	6530.3	6880.9
37.5°	4836.8	4845.4	4896.1	5027.7	5124.8	4916.6	6652.2	6876.6	7205.6	7173.2	6915.4
40°	4842.2	4861.6	4963.0	5124.8	5239.1	4378.3	6589.6	7476.3	7802.1	7707.1	7386.8
42.5°	4741.9	4751.6	4920.9	5194.9	3976.0	4554.2	6110.7	8073.9	8219.5	8103.0	7747.0
45°	4652.3	4650.2	4831.4	5077.3	3757.0	4760.2	6097.8	7900.2	8603.5	8512.9	8058.8
47.5°	4526.1	4525.0	4701.9	3820.7	3804.5	4982.4	6419.2	6850.7	8921.7	8824.6	8342.5
49°	4424.7	4435.5	4560.6	3446.4	3826.1	5106.4	6575.6	7029.7	8610.0	8969.2	8500.0
50°	4369.7	4380.5	4075.2	3408.6	3832.5	5177.6	6657.6	7161.3	7749.2	8724.3	8601.4
52.5°	4119.5	4024.5	3159.4	3329.9	3834.7	5261.8	5724.5	7440.7	7385.7	7272.4	8144.0
55°	2482.0	2808.9	2860.6	3240.3	3800.2	3821.7	5591.9	7765.4	7741.7	7576.6	7012.5
57.5°	1504.8	1489.7	2209.1	2991.2	2544.6	3204.7	5810.8	8194.7	8054.5	7834.4	7132.2
60°	530.7	469.2	473.5	510.2	947.1	2397.9	4635.1	6171.1	8119.2	8084.7	7241.1
62.5°	42.1	39.9	39.9	42.1	60.4	900.7	3675.0	6190.5	8343.6	8254.0	7266.0
65°	5.4	5.4	5.4	11.9	31.3	814.4	3680.4	6290.8	8510.7	8357.6	7200.2
67.5°	0.0	0.0	3.2	8.6	24.8	720.6	3572.6	6350.2	8660.7	8443.9	7139.8
70°	0.0	0.0	2.2	7.6	21.6	596.5	3441.0	6401.9	8590.6	8322.0	6835.6
72.5°	0.0	0.0	2.2	6.5	18.3	393.7	3050.5	6019.0	8091.1	7799.9	6211.0
75°	0.0	0.0	2.2	5.4	17.3	224.4	2499.3	5317.9	7200.2	6891.7	5233.7
77.5°	0.0	0.0	1.1	4.3	15.1	123.0	1727.0	4402.1	5947.8	5609.1	3921.0
80°	0.0	0.0	1.1	4.3	14.0	84.1	785.3	2859.6	3964.1	3540.2	2148.7
82.5°	0.0	0.0	1.1	4.3	10.8	57.2	317.1	801.5	1226.5	1048.5	683.9
85°	0.0	0.0	1.1	3.2	7.6	36.7	156.4	329.0	495.1	475.7	346.3
87.5°	0.0	0.0	1.1	3.2	5.4	10.8	46.4	107.9	193.1	196.3	147.8
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°	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3	5241.3
2.5°	5302.8	5312.5	5344.8	5393.4	5400.9	5466.7	5455.9	5578.9	5590.8	5619.9	5652.3
5°	5358.9	5392.3	5465.6	5576.8	5657.7	5756.9	5747.2	5886.3	5900.4	5892.8	5942.4
7.5°	5440.8	5490.5	5604.8	5754.7	5781.7	5904.7	5888.5	6009.3	6011.5	5995.3	6043.8
10°	5560.6	5618.8	5724.5	5809.7	5874.5	5948.9	5938.1	6046.0	6035.2	6016.9	6067.5
12.5°	5676.0	5708.4	5773.1	5873.4	5885.3	5915.5	5897.1	5997.4	5986.6	5960.8	6008.2
15°	5779.5	5795.7	5796.8	5846.4	5819.5	5842.1	5793.6	5865.8	5841.0	5831.3	5864.8
17.5°	5912.2	5882.0	5837.8	5834.6	5742.9	5711.6	5633.9	5653.3	5601.6	5597.2	5615.6
20°	5929.5	5992.0	5864.8	5733.2	5578.9	5500.2	5353.5	5354.5	5296.3	5273.6	5284.4
22.5°	5457.0	5611.3	5896.0	5644.7	5382.6	5205.7	5016.9	4959.7	4849.7	4803.3	4785.0
25°	5641.5	5440.8	5419.3	5495.9	5128.0	4858.4	4584.4	4416.1	4285.6	4179.9	4187.4
27.5°	5927.3	5666.3	5138.8	5170.1	4807.7	4429.0	4015.9	3778.6	3645.9	3543.4	3531.6
30°	6305.9	5978.0	5199.2	4480.8	4439.8	3889.7	3382.7	3120.6	2985.8	2949.1	2926.4
32.5°	6776.2	6349.1	5335.1	4323.3	3674.0	3306.1	2737.7	2526.3	2462.6	2459.4	2433.5
35°	7335.0	6839.9	5460.3	4114.1	3168.1	2692.4	2187.6	2048.4	2058.1	2059.2	2080.8
37.5°	6978.0	7303.7	5616.7	3915.6	2675.1	2000.9	1759.3	1671.9	1700.0	1745.3	1766.9
40°	6983.3	6649.0	5799.0	3584.4	2078.6	1526.3	1376.4	1357.0	1476.7	1568.4	1591.0
42.5°	7263.8	6605.8	5732.1	3206.9	1522.0	1160.7	1146.6	1251.3	1423.9	1526.3	1544.7
45°	7564.8	6810.8	4761.3	2671.9	1103.5	981.6	1089.5	1235.1	1422.8	1531.7	1542.5
47.5°	7850.6	6940.2	4563.9	2088.3	886.7	925.5	1072.2	1235.1	1430.3	1541.4	1547.9
49°	7977.9	7044.8	4380.5	1689.2	831.7	903.9	1062.5	1237.2	1432.5	1527.4	1530.6
50°	8053.4	7104.2	4232.7	1566.2	804.7	889.9	1058.2	1240.5	1429.2	1511.2	1514.5
52.5°	8171.0	7200.2	3892.9	1248.0	754.0	857.5	1051.7	1253.4	1417.4	1465.9	1463.8
55°	6738.5	6729.9	3609.2	1047.4	715.2	828.4	1049.6	1264.2	1422.8	1472.4	1470.2
57.5°	6458.0	5526.1	3040.8	856.5	682.8	803.6	1051.7	1280.4	1519.9	1606.1	1595.4
60°	6478.5	5441.9	2587.7	743.2	645.0	783.1	1058.2	1352.7	1756.1	1843.5	1816.5
62.5°	6407.3	5235.9	2315.9	667.7	605.1	764.8	1062.5	1453.0	1786.3	1793.8	1747.5
65°	6238.0	4977.0	1950.2	584.6	563.1	747.5	1061.4	1489.7	1648.2	1586.7	1571.6
67.5°	5924.1	4701.9	1543.6	512.4	517.8	721.6	1086.2	1426.0	1559.8	1510.1	1487.5
70°	5551.9	4115.1	1088.4	445.5	476.8	692.5	1083.0	1410.9	1513.4	1440.0	1408.8
72.5°	4889.6	3459.3	732.4	384.0	425.0	659.1	1028.0	1365.6	1483.2	1434.6	1391.5
75°	3886.5	2588.8	425.0	331.2	374.3	610.5	974.0	1337.6	1499.4	1406.6	1317.1
77.5°	2656.8	1474.5	317.1	277.2	322.5	548.0	883.4	1243.7	1449.7	1369.9	1250.2
80°	1190.9	532.9	242.7	225.4	270.7	444.4	761.5	1100.2	1373.2	1373.2	1289.0
82.5°	473.5	335.5	168.3	176.9	221.1	338.7	603.0	949.2	1210.3	1265.3	1352.7
85°	267.5	196.3	107.9	128.4	169.4	262.1	439.0	737.8	985.9	1092.7	1184.4
87.5°	105.7	74.4	43.1	72.3	98.2	134.8	192.0	361.4	530.7	653.7	722.7
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)