

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: P591237

Luminaire Tested: **CTN-CA10-760-727-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591237
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-760-727-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39661 lumens
Efficiency: N/A
Efficacy: 52.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

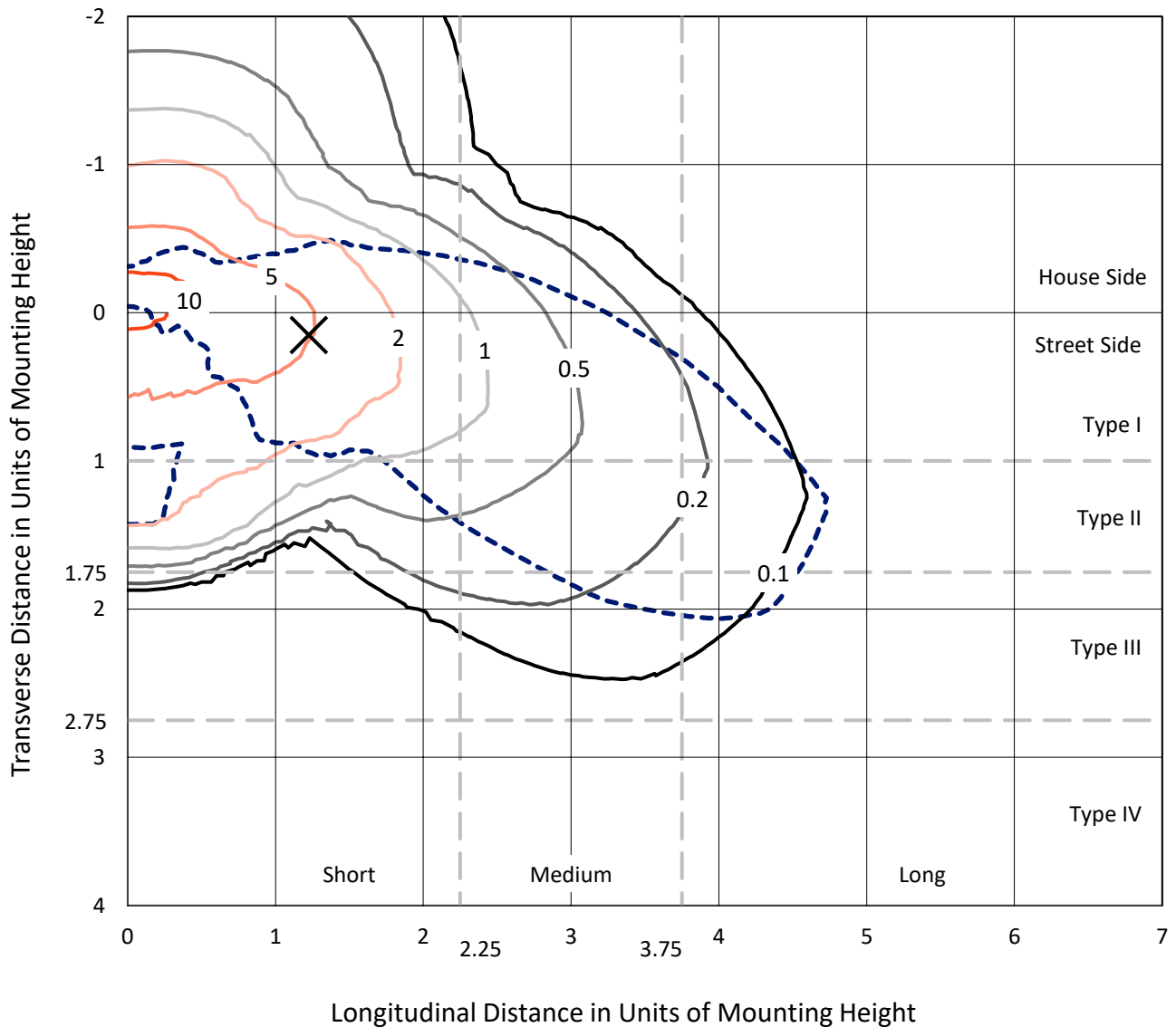
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

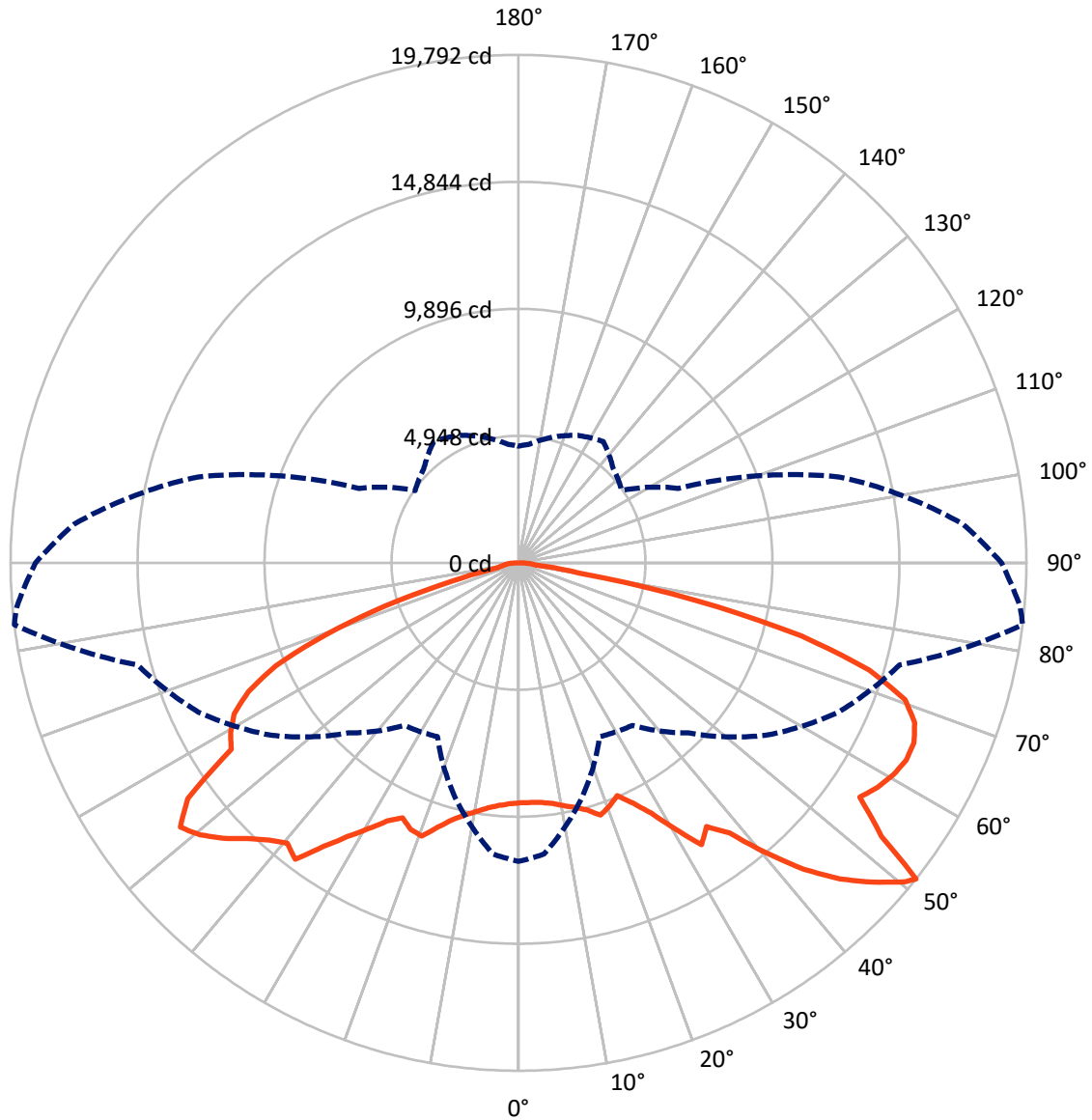
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11 fc
 Type II - Short - N/A

REPORT NUMBER: P591237
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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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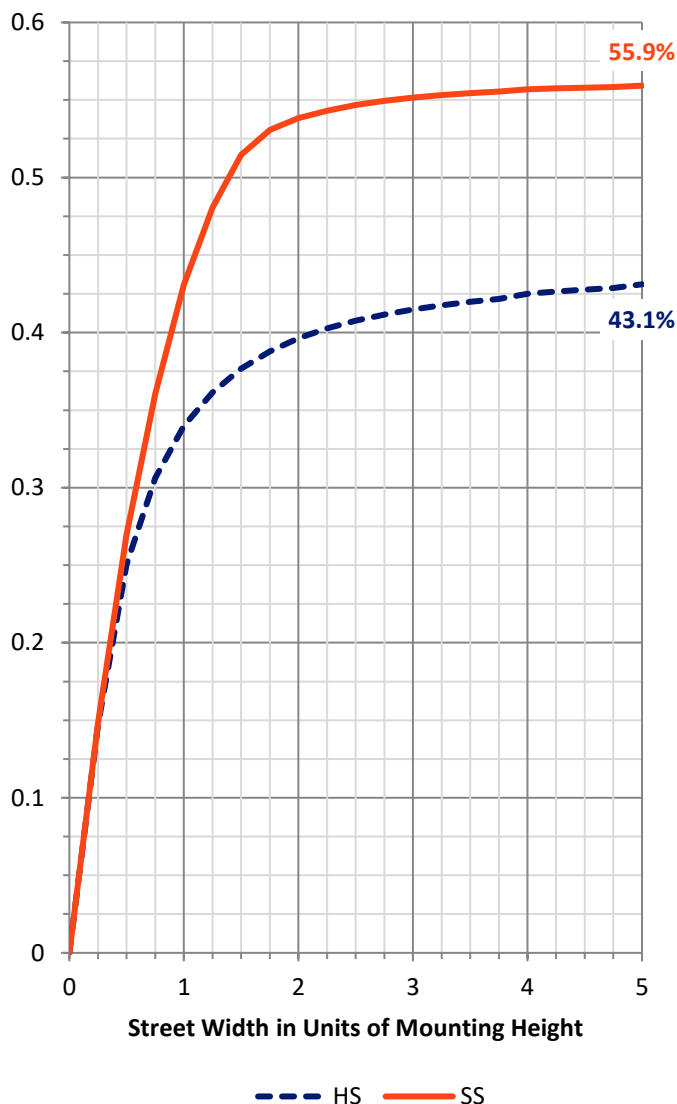
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17480.8	0.0	17480.8
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	22180.2	0.0	22180.2
	% Fixture	55.9	0.0	55.9
Total	Lumens	39661.0	0.0	39661.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	913.2	2.3
10°-20°	2779.2	7.0
20°-30°	4317.2	10.9
30°-40°	5776.5	14.6
40°-50°	7494.4	18.9
50°-60°	7981.7	20.1
60°-70°	5560.1	14.0
70°-80°	3879.1	9.8
80°-90°	959.7	2.4
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°	39661.0	100.0
0°-180°	39661.0	100.0

Coefficient of Utilization



REPORT NUMBER: P591237

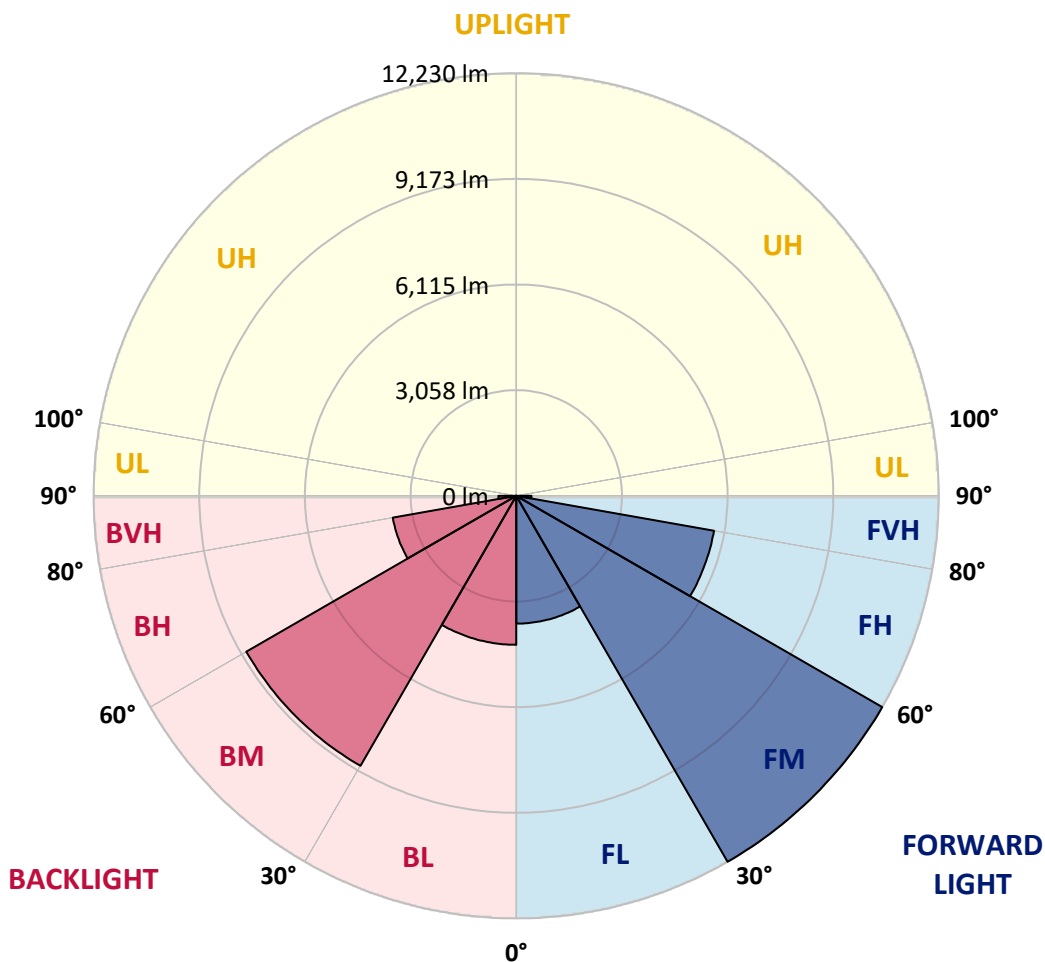
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3698.0	9.3			
FM (30°-60°)	12230.3	30.8			
FH (60°-80°)	5811.2	14.7			G3/7500
FVH (80°-90°)	440.6	1.1			G3/500
BL (0°-30°)	4311.5	10.9	B4/5000		
BM (30°-60°)	9022.3	22.7	B5		
BH (60°-80°)	3628.0	9.1	B4/5000		G4/5000
BVH (80°-90°)	519.1	1.3			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type II Short





REPORT NUMBER: P591237

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2
2.5°	9236.7	9172.6	9178.1	9264.6	9150.3	9225.5	9214.4	9348.2	9323.1	9351.0	9370.5
5°	9155.8	9105.7	9105.7	9220.0	9139.1	9220.0	9164.2	9281.3	9320.3	9381.7	9404.0
7.5°	9172.6	9119.6	9141.9	9242.3	9153.0	9236.7	9233.9	9345.4	9359.4	9468.1	9504.3
10°	9220.0	9161.4	9172.6	9253.4	9203.2	9348.2	9323.1	9476.5	9476.5	9621.4	9677.2
12.5°	9122.4	9083.3	9105.7	9214.4	9259.0	9409.5	9443.0	9599.1	9621.4	9777.6	9847.3
15°	9016.4	8960.7	9033.2	9189.3	9264.6	9482.0	9554.5	9794.3	9827.7	9989.5	10067.5
17.5°	8503.4	8467.2	8601.0	8726.5	8768.3	8980.2	9122.4	9521.1	10000.6	10338.0	10430.0
20°	7483.0	7477.5	7229.3	7176.3	7826.0	8601.0	8698.6	9038.7	9593.6	10120.5	10307.3
22.5°	6247.9	6415.2	7221.0	7477.5	7460.7	7767.4	9016.4	9337.1	9582.4	9850.1	9961.6
25°	6247.9	6234.0	6710.7	7814.8	7817.6	7948.6	8227.4	9833.3	10067.5	10374.2	10463.4
27.5°	6445.9	6459.8	6429.2	7234.9	8202.3	8325.0	8444.9	9275.7	10711.5	11051.7	11199.5
30°	6780.4	6802.8	6680.1	6682.9	8330.6	8698.6	8927.2	9253.4	11160.4	12033.1	12100.0
32.5°	7441.2	7432.8	7279.5	7081.6	7310.2	9063.8	9398.4	9822.2	10452.3	13092.5	13248.6
35°	7968.1	7931.9	7826.0	7689.3	7388.2	8960.7	9847.3	10432.7	11235.7	12621.3	13446.6
37.5°	8553.6	8500.7	8380.8	8213.5	7940.3	6253.5	10290.6	11129.8	12376.0	13360.2	13413.1
40°	9214.4	9155.8	8991.3	8746.0	8397.5	6406.9	10488.5	11991.2	13862.0	14851.7	14843.4
42.5°	9721.8	9663.3	9576.8	9317.5	7382.7	7067.6	9147.5	13201.2	15470.7	16329.4	16256.9
45°	10151.2	10101.0	10109.3	9836.1	6925.4	7878.9	10190.2	13834.1	16987.4	17572.9	17478.1
47.5°	10485.7	10407.7	10195.8	8274.8	7103.9	8439.3	11037.7	12066.5	18267.1	18598.8	18492.9
50°	11299.8	11168.8	9908.6	7346.4	7555.5	9125.2	11843.5	13310.0	16638.9	19532.8	19346.0
51°	11631.6	11394.6	9496.0	7474.7	7734.0	9373.3	11723.6	13761.6	15370.3	19792.1	19624.8
52.5°	11980.1	11511.7	8364.0	7669.8	7951.4	9716.2	9958.8	14455.9	15724.4	17712.3	18699.2
55°	10106.5	10290.6	8637.3	8383.6	8364.0	8397.5	10170.7	15490.2	16463.2	16128.7	15933.5
57.5°	5944.0	6052.8	8773.9	9387.2	7237.7	6668.9	10731.1	16270.8	17101.7	16499.5	16282.0
60°	2988.8	3128.2	3195.1	2913.5	3903.2	6083.4	9038.7	11793.3	17492.0	16778.3	16516.2
62.5°	131.0	217.5	86.4	94.8	158.9	2121.7	6641.0	12113.9	17821.0	16948.3	16602.6
65°	11.2	11.2	13.9	27.9	69.7	2227.6	7391.0	12557.2	17954.8	16931.6	16468.8
67.5°	2.8	2.8	5.6	19.5	50.2	2411.6	8272.0	12738.4	17960.4	16647.2	16081.3
70°	0.0	2.8	5.6	16.7	44.6	2523.2	8464.4	12702.2	17731.8	15978.1	15200.3
72.5°	0.0	0.0	2.8	13.9	39.0	2381.0	8241.4	12629.7	16951.1	14294.1	13190.1
75°	0.0	0.0	2.8	11.2	33.5	2422.8	8263.7	11815.6	14801.6	11380.7	10039.6
77.5°	0.0	0.0	2.8	11.2	30.7	2236.0	7566.7	10232.0	11698.5	7084.3	5617.8
80°	0.0	0.0	2.8	11.2	27.9	1918.2	6222.8	7987.7	6546.3	2403.3	1550.1
82.5°	0.0	0.0	2.8	11.2	22.3	1299.2	4134.6	3992.4	1318.7	688.6	618.9
85°	0.0	0.0	2.8	8.4	16.7	775.1	2071.5	543.7	510.2	437.7	395.9
87.5°	0.0	0.0	2.8	5.6	11.2	329.0	638.5	167.3	211.9	178.4	158.9
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°	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2	9348.2
2.5°	9387.2	9387.2	9417.9	9521.1	9509.9	9593.6	9546.2	9649.3	9657.7	9638.2	9685.6
5°	9423.5	9456.9	9560.1	9668.8	9624.2	9746.9	9805.4	9942.1	9936.5	9919.8	9975.5
7.5°	9526.6	9596.3	9699.5	9830.5	9877.9	9978.3	9983.9	10170.7	10159.5	10151.2	10206.9
10°	9699.5	9791.5	9905.8	10103.8	10075.9	10220.9	10159.5	10296.1	10293.3	10287.8	10343.5
12.5°	9877.9	10011.8	10151.2	10343.5	10340.7	10346.3	10293.3	10363.0	10349.1	10310.1	10351.9
15°	10128.9	10307.3	10499.7	10639.1	10516.4	10491.3	10374.2	10332.4	10251.5	10140.0	10173.5
17.5°	10544.3	10719.9	10965.3	11040.5	10839.8	10725.5	10407.7	10176.3	9925.3	9755.3	9791.5
20°	10917.9	11244.1	11478.3	11472.7	11216.2	10915.1	10421.6	10031.3	9546.2	9217.2	9189.3
22.5°	10452.3	11001.5	12021.9	11902.0	11453.2	11026.6	10404.9	9799.9	8994.1	8483.9	8464.4
25°	10719.9	10731.1	11645.5	12141.8	11559.1	10979.2	10204.1	9395.6	8364.0	7834.3	7803.7
27.5°	11403.0	11341.6	11087.9	11885.3	11461.5	10736.6	9799.9	8707.0	7789.7	7329.7	7307.4
30°	12214.3	12024.7	11428.1	10641.8	11060.1	10265.5	9178.1	8001.6	7271.1	6852.9	6819.5
32.5°	13184.5	12785.8	11737.5	10505.2	9744.1	9554.5	8375.2	7444.0	6841.8	6406.9	6320.4
35°	14336.0	13739.3	12035.9	10273.8	8718.1	8500.7	7619.6	6942.2	6437.5	5997.0	5910.6
37.5°	14333.2	14954.9	12476.4	9956.0	8082.5	7318.5	7070.4	6607.6	6155.9	5623.4	5525.8
40°	14439.1	14458.6	12961.5	9646.5	7488.6	6710.7	6744.2	6443.1	5977.5	5392.0	5291.7
42.5°	15727.2	14779.3	13555.3	9231.1	6928.2	6261.9	6604.8	6384.6	5882.7	5283.3	5171.8
45°	16848.0	15755.1	12253.3	8776.7	6339.9	5913.4	6493.3	6247.9	5748.9	5152.2	5026.8
47.5°	17823.8	16530.1	12585.1	7982.1	5765.6	5629.0	6278.6	5985.9	5509.1	4954.3	4842.8
50°	18565.4	17171.4	12875.0	6914.3	5208.0	5344.6	5930.1	5631.8	5171.8	4722.9	4628.1
51°	18819.1	17377.7	12933.6	6866.9	4912.5	5210.8	5765.6	5475.7	5063.0	4633.7	4547.3
52.5°	19092.3	17645.3	13020.0	6972.8	4494.3	4990.5	5498.0	5244.3	4901.3	4533.3	4435.7
55°	15875.0	16580.3	12799.8	6749.8	4009.2	4552.8	5007.3	4893.0	4703.4	4377.2	4307.5
57.5°	15295.0	14029.3	10616.8	5715.4	3582.6	4031.5	4530.5	4605.8	4460.8	4129.0	4078.9
60°	15420.5	13901.0	9454.2	4262.9	3158.8	3565.9	4173.7	4240.6	4115.1	3864.2	3794.5
62.5°	15398.2	13572.1	8431.0	3002.7	2790.8	3323.3	3917.2	3945.0	3772.2	3563.1	3499.0
65°	15030.2	12816.5	7034.2	2272.2	2587.3	3189.5	3766.6	3780.5	3565.9	3298.2	3264.8
67.5°	14210.5	11620.4	4893.0	1996.2	2473.0	3086.3	3666.2	3604.9	3398.6	3117.0	3066.8
70°	12640.9	9468.1	2286.2	1837.3	2300.1	2896.7	3420.9	3348.4	3122.6	2860.5	2815.9
72.5°	10134.4	6579.7	1084.5	1681.2	2118.9	2659.8	3119.8	3005.5	2818.7	2721.1	2696.0
75°	6632.7	3089.1	906.1	1513.9	1879.1	2372.6	2860.5	2818.7	2645.8	2450.7	2355.9
77.5°	2690.4	814.1	819.7	1343.8	1686.7	2185.8	2584.5	2551.0	2322.4	2146.8	2107.7
80°	677.5	610.6	750.0	1109.6	1469.3	1904.2	2266.7	2171.9	2088.2	1898.6	1837.3
82.5°	515.8	490.7	588.3	858.7	1207.2	1569.7	1934.9	1973.9	1834.5	1689.5	1658.9
85°	359.7	446.1	356.9	610.6	895.0	1237.9	1622.6	1692.3	1597.5	1433.0	1321.5
87.5°	197.9	234.2	147.8	320.6	474.0	677.5	931.2	939.6	777.9	713.7	671.9
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)