

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: P591141

Luminaire Tested: **CTN-CA10-760-722-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591141
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-CA10-760-722-U-T4-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: 38172 lumens
Efficiency: N/A
Efficacy: 50.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

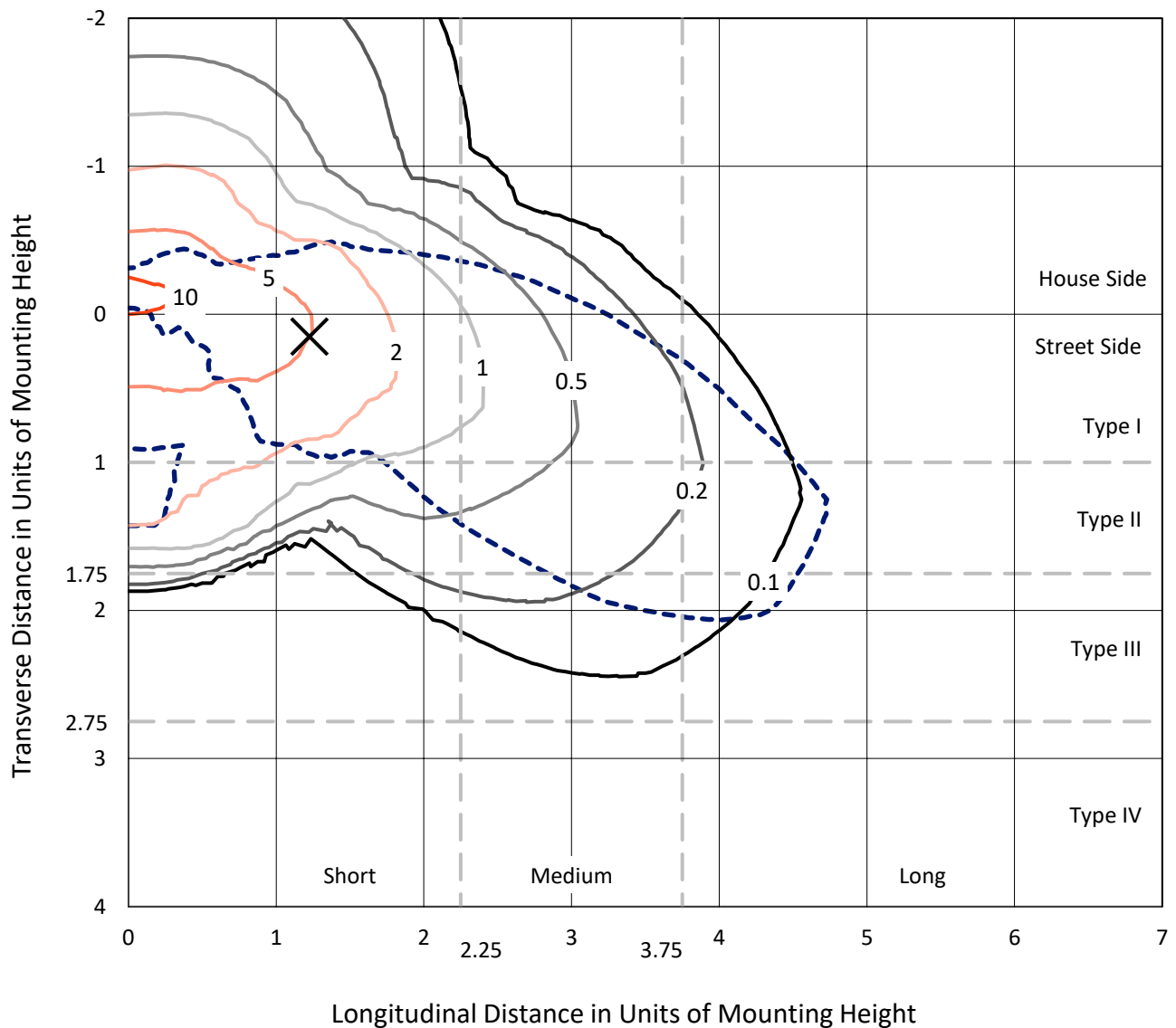
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

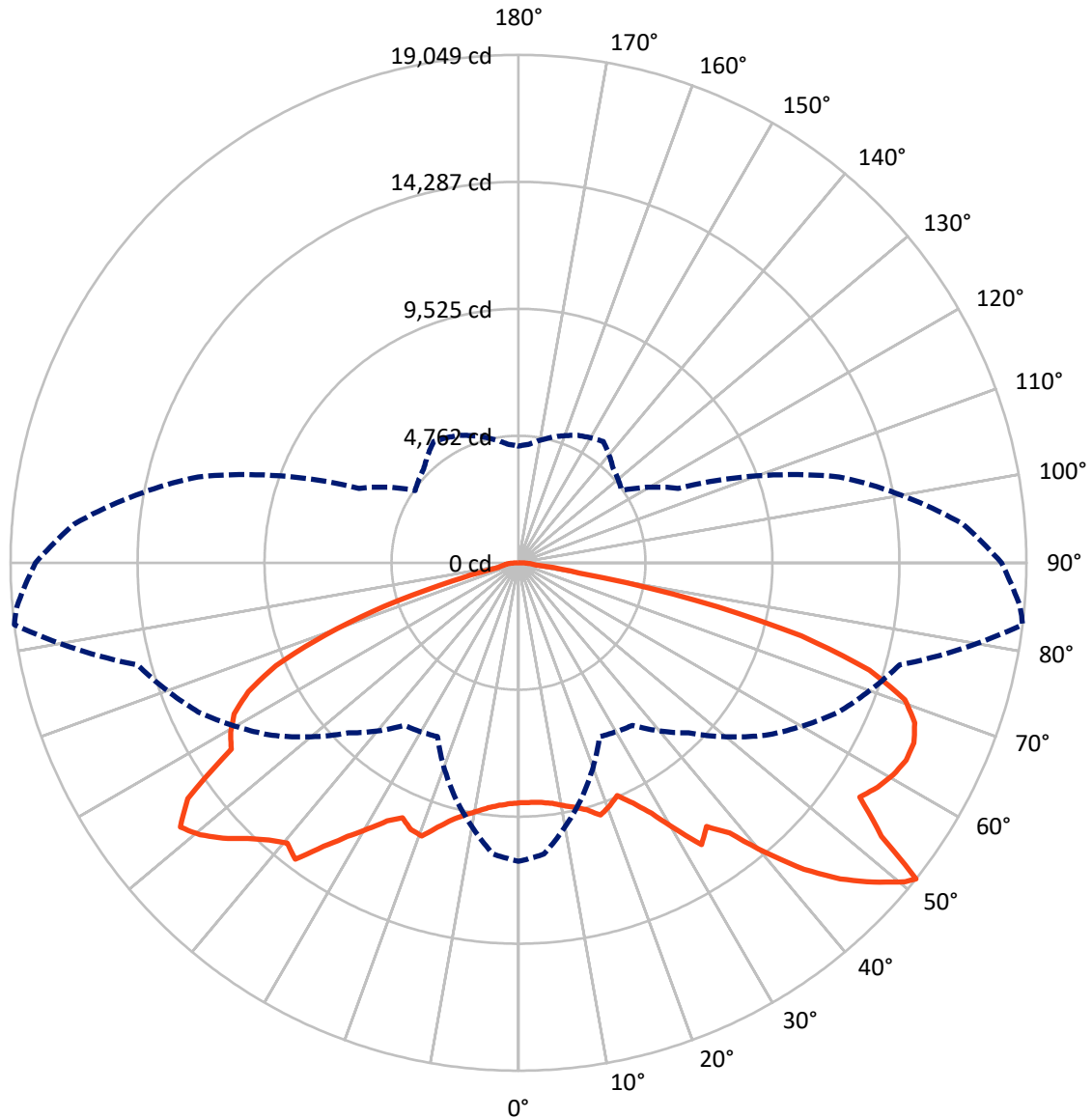
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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

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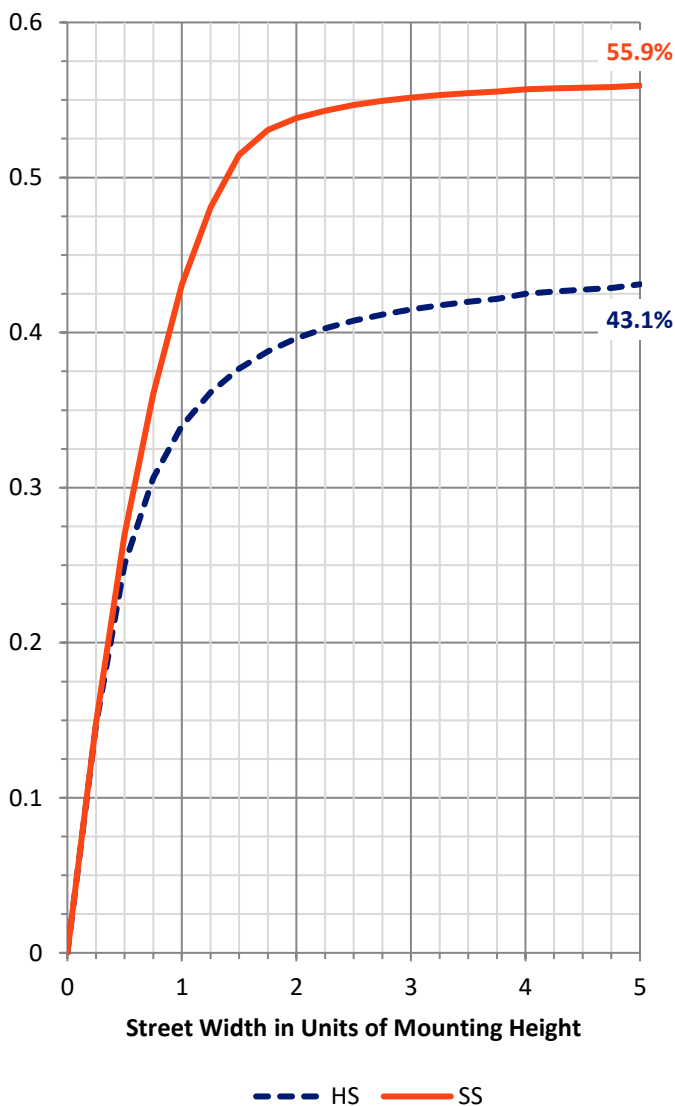
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	16824.6	0.0	16824.6
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	21347.4	0.0	21347.4
	% Fixture	55.9	0.0	55.9
Total	Lumens	38172.0	0.0	38172.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	878.9	2.3
10°-20°	2674.8	7.0
20°-30°	4155.1	10.9
30°-40°	5559.7	14.6
40°-50°	7213.0	18.9
50°-60°	7682.0	20.1
60°-70°	5351.4	14.0
70°-80°	3733.5	9.8
80°-90°	923.7	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°	38172.0	100.0
0°-180°	38172.0	100.0

Coefficient of Utilization

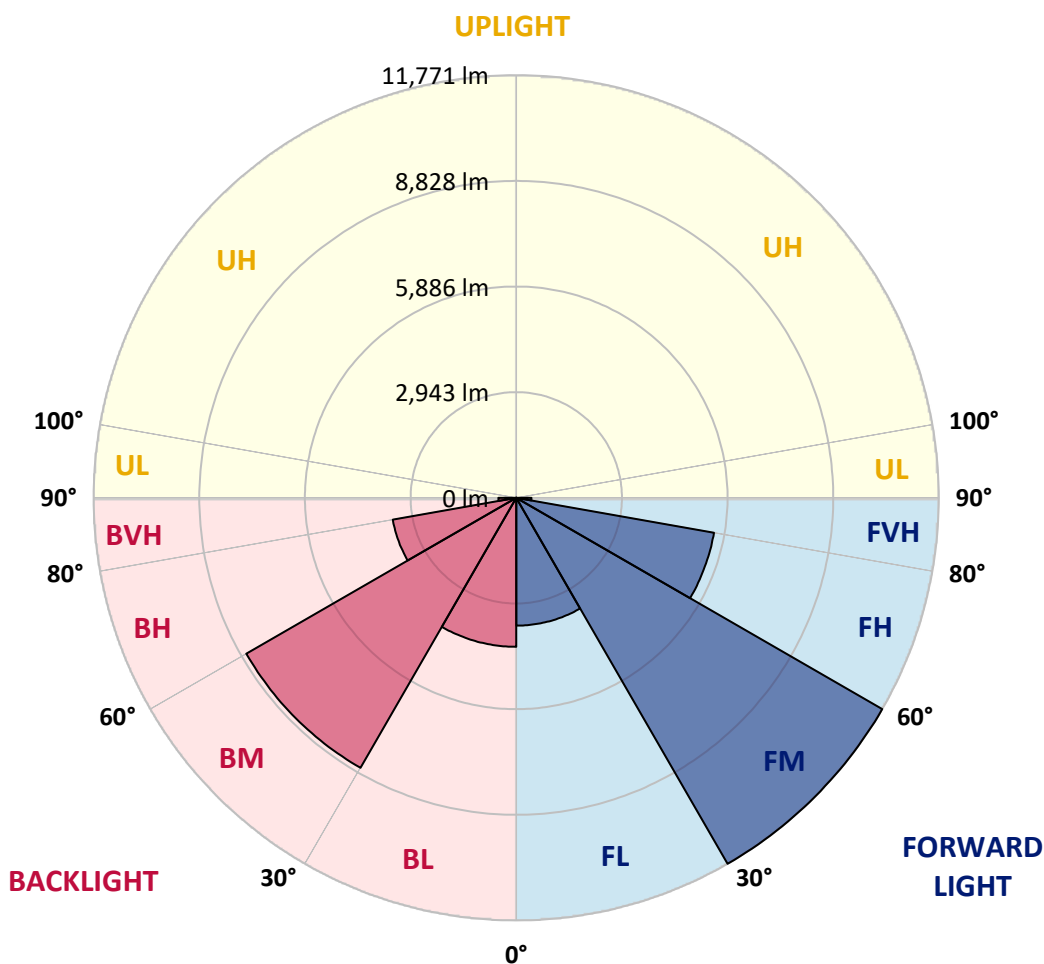


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3559.2	9.3			
FM (30°-60°)	11771.1	30.8			
FH (60°-80°)	5593.1	14.7			G3/7500
FVH (80°-90°)	424.1	1.1			G3/500
BL (0°-30°)	4149.6	10.9	B4/5000		
BM (30°-60°)	8683.5	22.7	B5		
BH (60°-80°)	3491.8	9.1	B4/5000		G4/5000
BVH (80°-90°)	499.6	1.3			G3/500
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2
2.5°	8889.9	8828.2	8833.6	8916.7	8806.7	8879.2	8868.4	8997.2	8973.1	8999.9	9018.7
5°	8812.1	8763.8	8763.8	8873.8	8796.0	8873.8	8820.1	8932.8	8970.4	9029.4	9050.9
7.5°	8828.2	8777.2	8798.7	8895.3	8809.4	8889.9	8887.2	8994.6	9008.0	9112.6	9147.5
10°	8873.8	8817.5	8828.2	8906.0	8857.7	8997.2	8973.1	9120.7	9120.7	9260.2	9313.9
12.5°	8779.9	8742.3	8763.8	8868.4	8911.4	9056.3	9088.5	9238.7	9260.2	9410.5	9477.6
15°	8677.9	8624.3	8694.0	8844.3	8916.7	9126.0	9195.8	9426.6	9458.8	9614.4	9689.6
17.5°	8184.2	8149.3	8278.1	8398.9	8439.1	8643.0	8779.9	9163.6	9625.2	9949.8	10038.4
20°	7202.1	7196.7	6957.9	6906.9	7532.1	8278.1	8372.0	8699.4	9233.4	9740.5	9920.3
22.5°	6013.4	6174.4	6949.9	7196.7	7180.6	7475.8	8677.9	8986.5	9222.6	9480.3	9587.6
25°	6013.4	6000.0	6458.8	7521.4	7524.1	7650.2	7918.5	9464.2	9689.6	9984.7	10070.6
27.5°	6203.9	6217.3	6187.8	6963.3	7894.4	8012.5	8127.8	8927.5	10309.4	10636.8	10779.0
30°	6525.9	6547.4	6429.3	6432.0	8017.8	8372.0	8592.1	8906.0	10741.4	11581.3	11645.7
32.5°	7161.8	7153.8	7006.2	6815.7	7035.7	8723.5	9045.5	9453.4	10059.9	12601.0	12751.2
35°	7669.0	7634.1	7532.1	7400.7	7110.9	8624.3	9477.6	10041.1	10813.9	12147.5	12941.8
37.5°	8232.5	8181.5	8066.1	7905.1	7642.2	6018.7	9904.2	10711.9	11911.4	12858.6	12909.6
40°	8868.4	8812.1	8653.8	8417.6	8082.2	6166.3	10094.7	11541.1	13341.6	14294.2	14286.1
42.5°	9356.8	9300.5	9217.3	8967.7	7105.5	6802.3	8804.0	12705.6	14889.9	15716.3	15646.6
45°	9770.1	9721.8	9729.8	9466.8	6665.4	7583.1	9807.6	13314.7	16349.6	16913.1	16821.9
47.5°	10092.1	10016.9	9813.0	7964.2	6837.2	8122.5	10623.4	11613.5	17581.3	17900.6	17798.6
50°	10875.6	10749.5	9536.6	7070.6	7271.9	8782.6	11398.8	12810.3	16014.2	18799.5	18619.7
51°	11194.9	10966.8	9139.5	7194.0	7443.6	9021.4	11283.5	13245.0	14793.3	19049.1	18888.1
52.5°	11530.3	11079.5	8050.0	7381.9	7652.9	9351.4	9584.9	13913.1	15134.1	17047.3	17997.2
55°	9727.1	9904.2	8313.0	8068.8	8050.0	8082.2	9788.8	14908.7	15845.1	15523.1	15335.3
57.5°	5720.9	5825.5	8444.5	9034.8	6966.0	6418.6	10328.2	15660.0	16459.6	15880.0	15670.7
60°	2876.5	3010.7	3075.1	2804.1	3756.7	5855.1	8699.4	11350.5	16835.3	16148.4	15896.1
62.5°	126.1	209.3	83.2	91.2	153.0	2042.0	6391.7	11659.1	17151.9	16312.0	15979.3
65°	10.7	10.7	13.4	26.8	67.1	2144.0	7113.5	12085.8	17280.7	16295.9	15850.5
67.5°	2.7	2.7	5.4	18.8	48.3	2321.1	7961.5	12260.2	17286.1	16022.2	15477.5
70°	0.0	2.7	5.4	16.1	42.9	2428.4	8146.6	12225.3	17066.1	15378.2	14629.6
72.5°	0.0	0.0	2.7	13.4	37.6	2291.6	7932.0	12155.5	16314.7	13757.5	12694.9
75°	0.0	0.0	2.7	10.7	32.2	2331.8	7953.4	11372.0	14245.9	10953.4	9662.7
77.5°	0.0	0.0	2.7	10.7	29.5	2152.0	7282.6	9847.9	11259.3	6818.4	5406.9
80°	0.0	0.0	2.7	10.7	26.8	1846.1	5989.2	7687.8	6300.5	2313.0	1491.9
82.5°	0.0	0.0	2.7	10.7	21.5	1250.4	3979.4	3842.5	1269.2	662.8	595.7
85°	0.0	0.0	2.7	8.1	16.1	746.0	1993.7	523.3	491.1	421.3	381.0
87.5°	0.0	0.0	2.7	5.4	10.7	316.6	614.5	161.0	203.9	171.7	153.0
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°	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2	8997.2
2.5°	9034.8	9034.8	9064.3	9163.6	9152.9	9233.4	9187.8	9287.0	9295.1	9276.3	9321.9
5°	9069.7	9101.9	9201.2	9305.8	9262.9	9381.0	9437.3	9568.8	9563.4	9547.3	9601.0
7.5°	9169.0	9236.1	9335.3	9461.5	9507.1	9603.7	9609.1	9788.8	9778.1	9770.1	9823.7
10°	9335.3	9423.9	9533.9	9724.4	9697.6	9837.1	9778.1	9909.6	9906.9	9901.5	9955.2
12.5°	9507.1	9635.9	9770.1	9955.2	9952.5	9957.9	9906.9	9974.0	9960.6	9923.0	9963.3
15°	9748.6	9920.3	10105.5	10239.6	10121.6	10097.4	9984.7	9944.5	9866.7	9759.3	9791.5
17.5°	10148.4	10317.5	10553.6	10626.0	10432.8	10322.8	10016.9	9794.2	9552.7	9389.0	9423.9
20°	10508.0	10821.9	11047.3	11042.0	10795.1	10505.3	10030.3	9654.7	9187.8	8871.1	8844.3
22.5°	10059.9	10588.5	11570.6	11455.2	11023.2	10612.6	10014.2	9432.0	8656.5	8165.4	8146.6
25°	10317.5	10328.2	11208.3	11686.0	11125.1	10567.0	9821.0	9042.9	8050.0	7540.2	7510.7
27.5°	10974.9	10915.8	10671.7	11439.1	11031.2	10333.6	9432.0	8380.1	7497.3	7054.5	7033.0
30°	11755.7	11573.3	10999.0	10242.3	10644.8	9880.1	8833.6	7701.2	6998.2	6595.7	6563.5
32.5°	12689.5	12305.8	11296.9	10110.8	9378.3	9195.8	8060.8	7164.5	6584.9	6166.3	6083.1
35°	13797.7	13223.5	11584.0	9888.1	8390.8	8181.5	7333.6	6681.5	6195.8	5771.9	5688.7
37.5°	13795.1	14393.5	12008.0	9582.2	7779.0	7043.8	6805.0	6359.5	5924.8	5412.3	5318.4
40°	13897.0	13915.8	12474.9	9284.4	7207.5	6458.8	6491.0	6201.2	5753.1	5189.6	5093.0
42.5°	15136.7	14224.4	13046.4	8884.5	6668.1	6026.8	6356.8	6144.9	5661.9	5084.9	4977.6
45°	16215.4	15163.6	11793.3	8447.2	6101.9	5691.4	6249.5	6013.4	5533.1	4958.8	4838.1
47.5°	17154.6	15909.5	12112.6	7682.4	5549.2	5417.7	6042.9	5761.1	5302.3	4768.3	4661.0
50°	17868.4	16526.7	12391.7	6654.7	5012.5	5144.0	5707.5	5420.4	4977.6	4545.6	4454.3
51°	18112.6	16725.3	12448.0	6609.1	4728.1	5015.2	5549.2	5270.1	4873.0	4459.7	4376.5
52.5°	18375.5	16982.9	12531.2	6711.0	4325.5	4803.2	5291.6	5047.4	4717.3	4363.1	4269.2
55°	15279.0	15957.8	12319.2	6496.4	3858.6	4381.9	4819.3	4709.3	4526.8	4212.8	4145.8
57.5°	14720.8	13502.6	10218.2	5500.9	3448.1	3880.1	4360.4	4432.9	4293.3	3974.0	3925.7
60°	14841.6	13379.1	9099.2	4102.8	3040.2	3432.0	4017.0	4081.4	3960.6	3719.1	3652.0
62.5°	14820.1	13062.5	8114.4	2890.0	2686.0	3198.5	3770.1	3796.9	3630.6	3429.3	3367.6
65°	14465.9	12335.3	6770.1	2186.9	2490.1	3069.7	3625.2	3638.6	3432.0	3174.4	3142.2
67.5°	13677.0	11184.2	4709.3	1921.3	2380.1	2970.5	3528.6	3469.6	3271.0	3000.0	2951.7
70°	12166.3	9112.6	2200.3	1768.3	2213.8	2788.0	3292.5	3222.7	3005.3	2753.1	2710.2
72.5°	9754.0	6332.7	1043.8	1618.1	2039.3	2559.9	3002.7	2892.6	2712.9	2618.9	2594.8
75°	6383.7	2973.1	872.1	1457.1	1808.6	2283.5	2753.1	2712.9	2546.5	2358.7	2267.4
77.5°	2589.4	783.5	788.9	1293.4	1623.4	2103.7	2487.5	2455.3	2235.2	2066.2	2028.6
80°	652.1	587.7	721.8	1068.0	1414.1	1832.7	2181.6	2090.3	2009.8	1827.4	1768.3
82.5°	496.4	472.3	566.2	826.5	1161.9	1510.7	1862.2	1899.8	1765.6	1626.1	1596.6
85°	346.2	429.3	343.5	587.7	861.4	1191.4	1561.7	1628.8	1537.6	1379.2	1271.9
87.5°	190.5	225.4	142.2	308.6	456.2	652.1	896.2	904.3	748.7	686.9	646.7
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)