

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: P591224

Luminaire Tested: **CTN-CA10-630-727-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591224
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-727-U-T4-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 42400 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Short
BUG Rating: B5 - U0 - G5

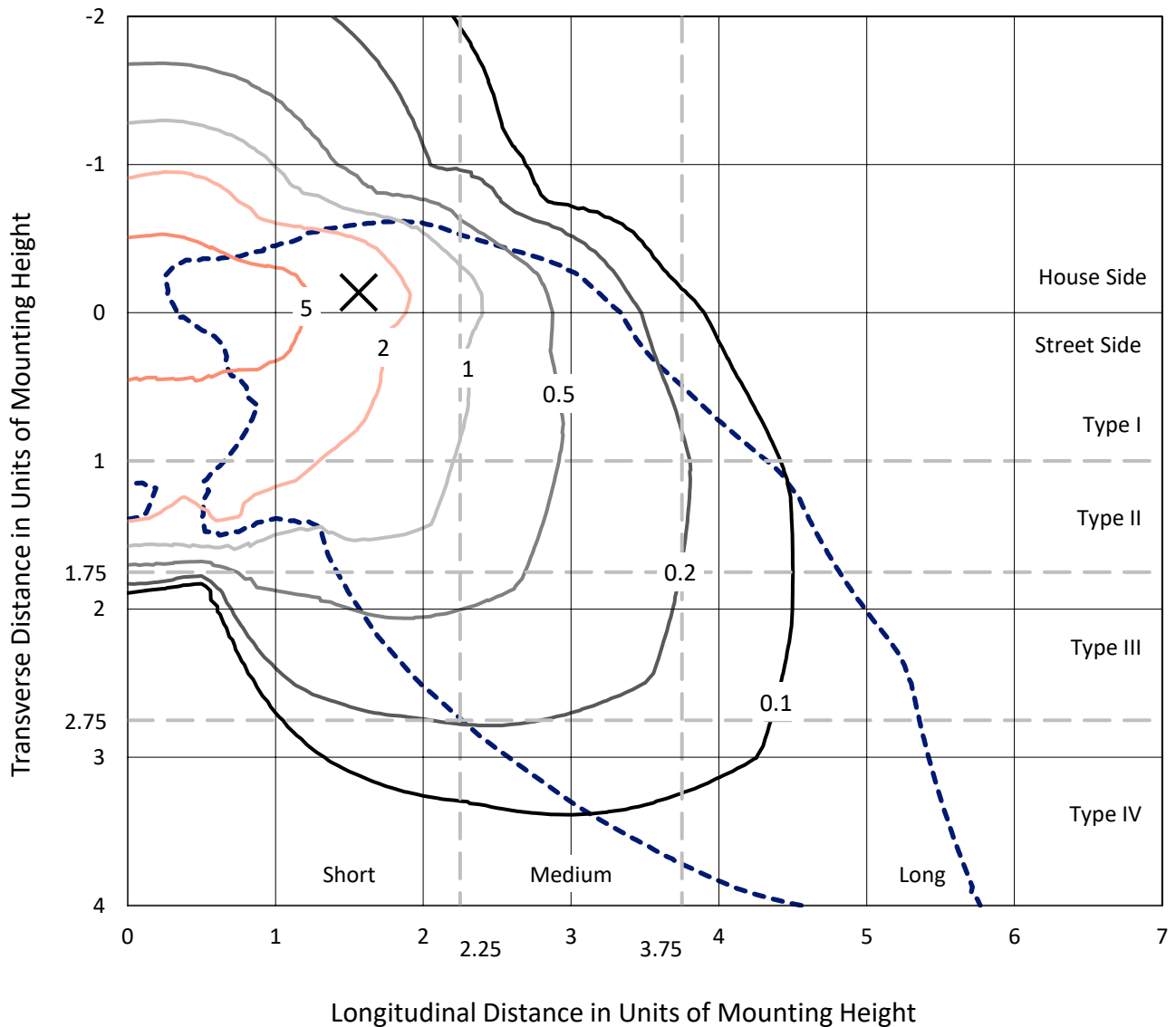
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

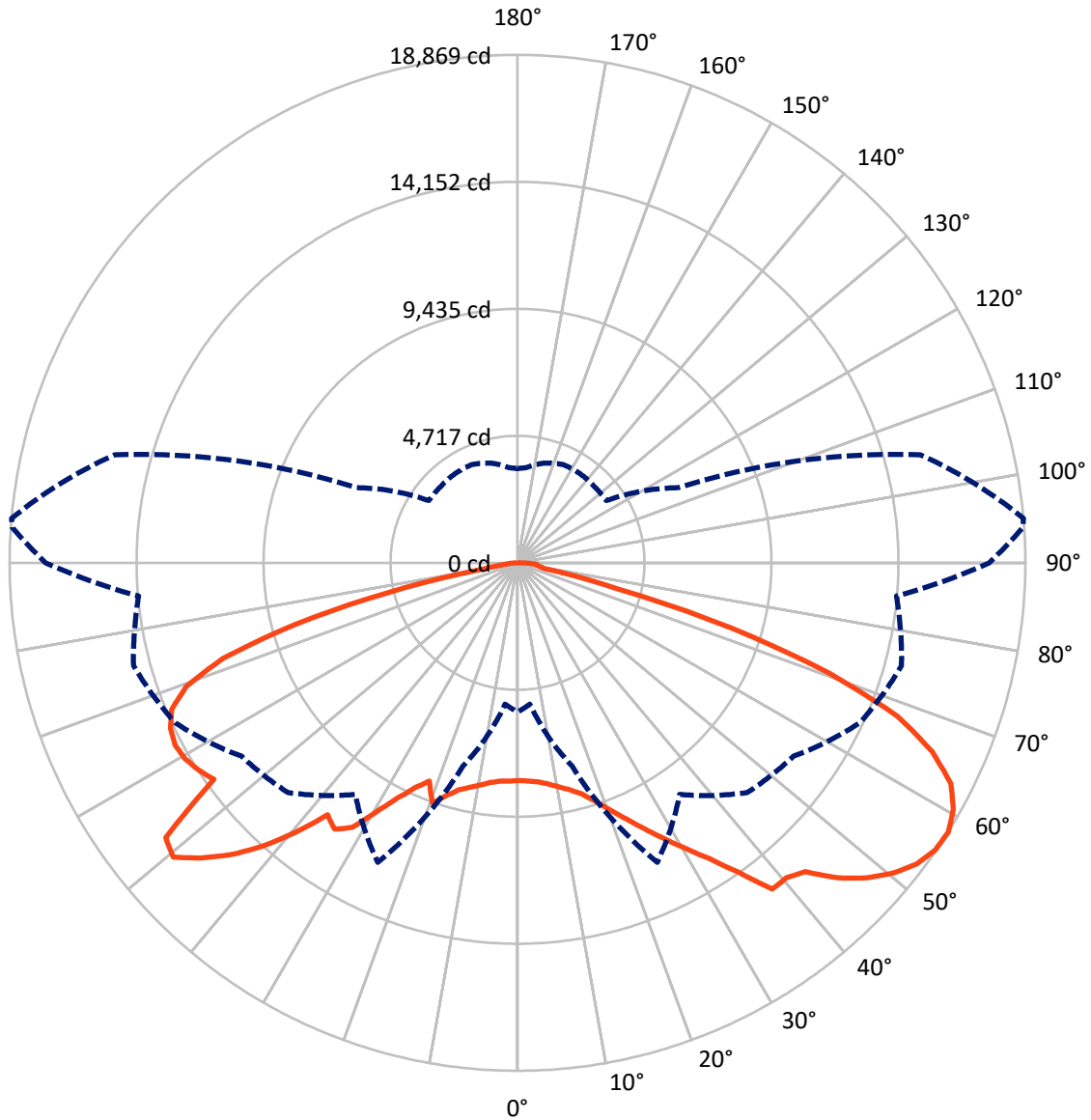
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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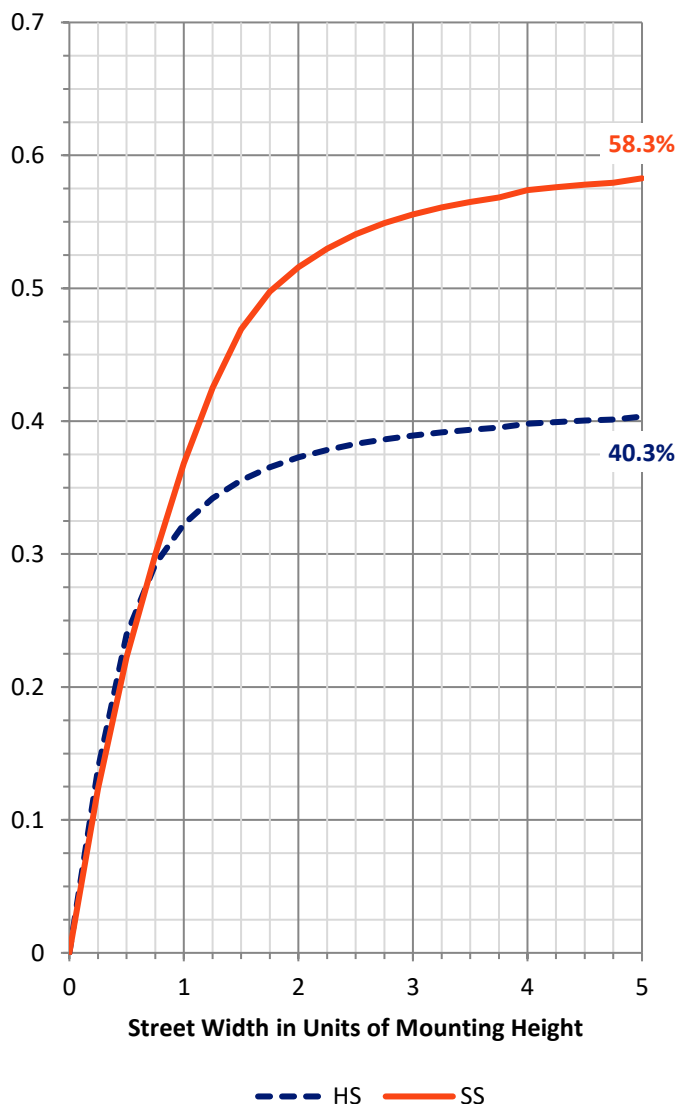
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17463.2	0.0	17463.2
	% Fixture	41.2	0.0	41.2
Street Side	Lumens	24936.8	0.0	24936.8
	% Fixture	58.8	0.0	58.8
Total	Lumens	42400.0	0.0	42400.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	790.0	1.9
10°-20°	2415.7	5.7
20°-30°	3817.3	9.0
30°-40°	5274.9	12.4
40°-50°	7112.3	16.8
50°-60°	8378.1	19.8
60°-70°	7484.7	17.7
70°-80°	5588.7	13.2
80°-90°	1538.3	3.6
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°	42400.0	100.0
0°-180°	42400.0	100.0

Coefficient of Utilization



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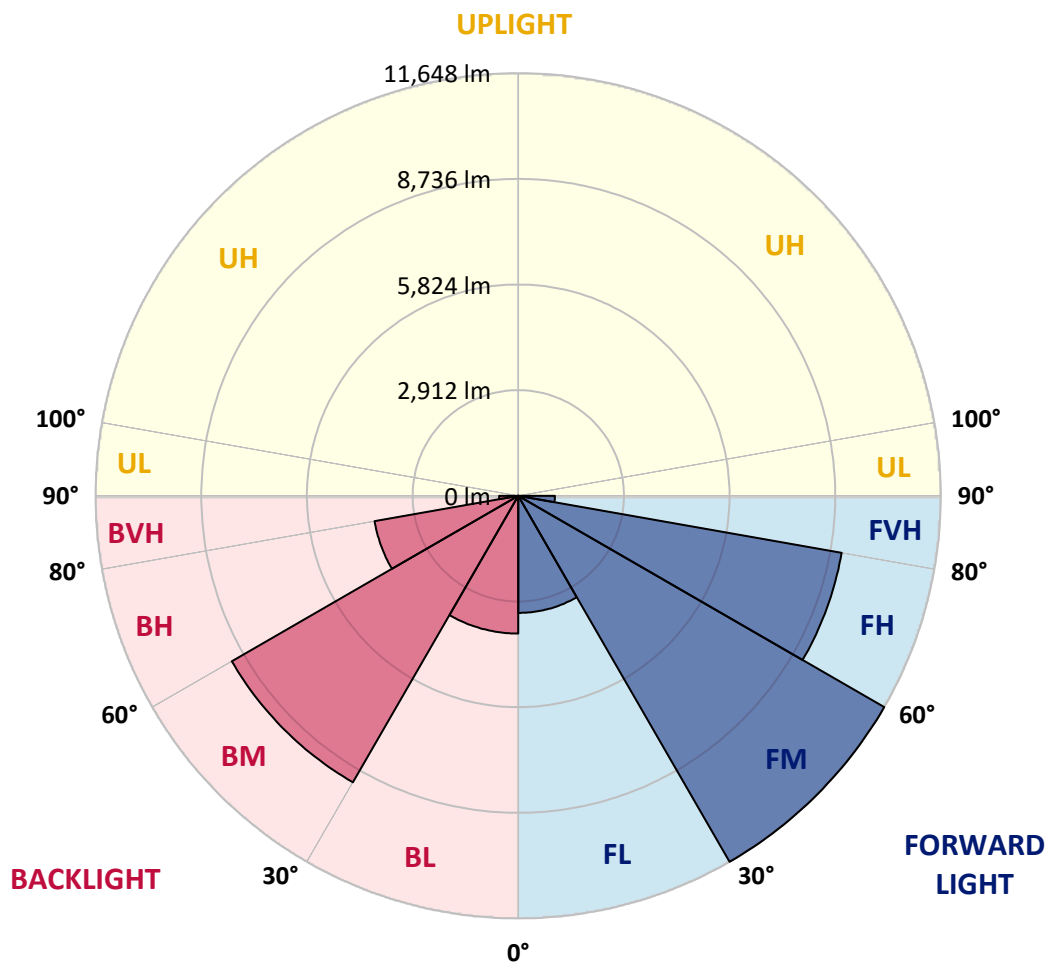
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3227.2	7.6			
FM	(30°-60°)	11648.1	27.5			
FH	(60°-80°)	9051.1	21.3			G4/12000
FVH	(80°-90°)	1010.4	2.4			G5
BL	(0°-30°)	3795.8	9.0	B4/5000		
BM	(30°-60°)	9117.2	21.5	B5		
BH	(60°-80°)	4022.3	9.5	B4/5000		G4/5000
BVH	(80°-90°)	527.9	1.2			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6
2.5°	7983.3	7932.6	7935.0	8005.1	7901.2	7976.1	7966.4	8082.3	8065.4	8111.3	8125.8
5°	7918.1	7874.7	7877.1	7966.4	7896.4	7964.0	7918.1	8024.4	8063.0	8133.1	8147.5
7.5°	7935.0	7896.4	7910.9	7995.4	7908.5	7976.1	7980.9	8079.9	8099.3	8220.0	8239.3
10°	7978.5	7937.5	7947.1	8014.7	7959.2	8079.9	8065.4	8195.8	8200.7	8369.7	8393.9
12.5°	7920.6	7891.6	7891.6	7976.1	8005.1	8125.8	8162.0	8297.3	8326.2	8521.8	8553.2
15°	7816.7	7768.4	7838.5	7964.0	8022.0	8205.5	8273.1	8476.0	8509.8	8712.6	8780.2
17.5°	7638.0	7611.5	7869.8	7908.5	7688.7	7828.8	8116.2	8683.6	8799.5	9038.6	9164.2
20°	7104.4	6804.9	6114.3	6239.9	6916.0	7420.7	7510.0	7782.9	8280.4	9470.9	9666.5
22.5°	5223.2	5481.6	6394.4	6469.3	6447.5	6865.3	7804.6	8067.9	8304.5	8741.6	10040.8
25°	5409.2	5394.7	5841.4	6790.4	6756.6	6836.3	7229.9	8509.8	8746.4	9181.1	10533.4
27.5°	5575.8	5587.9	5554.0	6447.5	7080.2	7162.3	7283.0	8157.2	9301.8	9799.3	11071.9
30°	5906.6	5855.9	5764.1	5761.7	7362.7	7483.5	7688.7	7980.9	9813.8	10603.4	11745.6
32.5°	6464.4	6406.5	6285.7	6095.0	6363.0	7816.7	8099.3	8471.1	9055.5	11591.1	12535.2
35°	6877.4	6836.3	6754.2	6621.4	6406.5	7983.3	8500.1	8992.7	9765.5	12001.6	13571.2
37.5°	7386.9	7328.9	7234.8	7070.5	6908.8	6843.6	8886.5	9584.4	10755.5	11723.9	13795.8
40°	7964.0	7930.2	7758.8	7546.3	7367.6	7186.5	9152.1	10357.1	12028.1	12969.9	13590.5
42.5°	8398.7	8372.1	8270.7	8099.3	7925.4	7809.5	8111.3	11306.1	13414.2	14174.9	14631.3
45°	8777.8	8748.8	8748.8	8703.0	8654.7	8664.3	8794.7	11987.1	14730.3	15203.6	15616.5
47.5°	9070.0	9019.3	8816.4	8857.5	8927.5	9137.6	9533.6	10422.3	15790.4	16077.8	16444.8
50°	9782.4	9705.1	9048.3	9200.4	9427.4	9765.5	10275.0	11393.0	14744.8	16823.9	17111.3
52.5°	10439.2	10081.8	7473.8	9705.1	9961.1	10460.9	11064.6	12443.5	13571.2	16582.5	17620.8
55°	9313.9	8949.3	7512.5	10632.4	10588.9	11219.2	11808.4	13305.6	14208.7	13851.3	17492.8
57.5°	5544.4	5269.1	7816.7	12279.3	10497.2	12066.8	12520.8	14042.1	14768.9	14129.0	17526.6
60°	2871.2	3018.5	2902.6	7266.1	9038.6	12438.7	13257.3	14752.0	15148.1	14336.7	17548.4
62.5°	386.4	277.7	115.9	5315.0	6423.4	10364.3	14182.1	15428.2	15425.8	14406.7	17396.2
65°	24.1	26.6	53.1	5288.4	7085.0	12296.2	15713.1	15973.9	15563.4	14283.6	16889.1
67.5°	9.7	12.1	48.3	5252.2	7645.3	12926.4	17514.6	16147.8	15577.9	13952.7	15775.9
70°	9.7	12.1	48.3	4892.4	8026.8	13037.5	17818.8	16082.6	15399.2	13138.9	13706.4
72.5°	12.1	14.5	43.5	4250.1	7795.0	12735.7	17321.4	15949.8	14759.3	11501.7	10642.0
75°	12.1	14.5	43.5	3433.9	6896.7	12076.4	16927.8	14839.0	12938.5	8594.3	6901.5
77.5°	9.7	12.1	43.5	2680.4	5749.6	10702.4	15355.7	12902.3	10231.5	5001.1	2726.3
80°	9.7	12.1	43.5	1866.6	4380.5	8773.0	12508.7	10048.0	5754.5	1429.6	767.9
82.5°	9.7	12.1	41.1	1163.9	3098.2	6452.4	8548.4	4631.6	1234.0	557.8	598.9
85°	9.7	9.7	31.4	569.9	1980.1	4286.3	4259.7	775.2	490.2	362.2	454.0
87.5°	4.8	7.2	16.9	260.8	1106.0	2260.3	1697.6	297.0	210.1	147.3	253.6
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):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6	8089.6
2.5°	8130.6	8118.6	8152.4	8239.3	8234.5	8299.7	8249.0	8348.0	8364.9	8343.1	8377.0
5°	8174.1	8178.9	8270.7	8362.5	8328.7	8434.9	8456.6	8603.9	8608.8	8589.5	8632.9
7.5°	8282.8	8299.7	8391.4	8500.1	8548.4	8637.8	8625.7	8816.4	8799.5	8789.9	8840.6
10°	8434.9	8466.3	8565.3	8736.8	8715.0	8852.7	8789.9	8917.9	8913.0	8893.7	8949.3
12.5°	8620.8	8652.2	8777.8	8942.0	8944.4	8954.1	8903.4	8968.6	8946.8	8901.0	8944.4
15°	8872.0	8908.2	9079.7	9200.4	9096.6	9070.0	8973.4	8937.2	8855.1	8734.3	8770.6
17.5°	9268.0	9297.0	9490.2	9557.8	9379.1	9272.8	8997.6	8792.3	8560.5	8391.4	8422.8
20°	9767.9	9794.4	9951.4	9934.5	9695.4	9434.6	9007.2	8659.5	8227.2	7896.4	7886.7
22.5°	10318.5	10335.4	10485.1	10335.4	9910.4	9531.2	8987.9	8454.2	7727.4	7300.0	7254.1
25°	10924.6	10939.1	10936.6	10603.4	10033.5	9475.7	8809.2	8111.3	7179.2	6722.8	6674.5
27.5°	11603.1	11605.5	11339.9	10811.1	9980.4	9270.4	8463.9	7495.6	6676.9	6280.9	6244.7
30°	12325.2	12320.3	11709.4	10830.4	9775.1	8881.6	7930.2	6913.6	6225.4	5872.8	5822.1
32.5°	13148.6	13107.6	12037.8	10762.8	9400.8	8323.8	7242.0	6425.8	5870.4	5467.1	5392.3
35°	14203.9	14102.5	12317.9	10528.5	8845.4	7570.4	6604.5	6000.8	5527.5	5117.0	5042.1
37.5°	15510.3	15379.9	12757.4	10197.7	8205.5	6947.4	6136.0	5713.4	5281.2	4812.7	4716.1
40°	15133.6	15384.7	13281.4	9840.3	7587.3	6449.9	5860.7	5575.8	5131.5	4612.3	4520.5
42.5°	15715.5	15684.1	13998.6	9417.7	6993.3	6061.2	5749.6	5534.7	5051.8	4525.3	4419.1
45°	16705.6	16698.4	14771.4	9007.2	6413.7	5749.6	5665.1	5423.6	4938.3	4416.7	4300.8
47.5°	17509.7	17485.6	15510.3	8555.6	5877.6	5505.8	5493.7	5199.1	4735.4	4250.1	4143.8
50°	18070.0	18106.2	15920.8	8121.0	5370.5	5254.6	5208.7	4882.7	4450.5	4049.6	3967.5
52.5°	18511.9	18579.5	16099.5	8079.9	4926.2	4931.0	4851.3	4554.3	4216.2	3892.7	3805.7
55°	18729.2	18833.1	15916.0	7814.3	4491.5	4520.5	4443.2	4254.9	4054.5	3757.4	3694.6
57.5°	18818.6	18869.3	15491.0	6609.3	4025.5	4020.6	4044.8	4025.5	3837.1	3544.9	3499.1
60°	18666.4	18598.8	14566.1	5022.8	3552.2	3573.9	3728.5	3709.1	3542.5	3320.4	3257.6
62.5°	18198.0	18065.1	12873.3	3714.0	3173.1	3349.3	3513.5	3458.0	3255.2	3052.3	3004.0
65°	17304.5	16930.2	10258.1	2900.2	2991.9	3233.4	3385.6	3303.5	3071.6	2832.6	2803.6
67.5°	15701.1	15232.6	6732.5	2600.7	2914.7	3134.4	3293.8	3156.1	2931.6	2673.2	2632.1
70°	12812.9	12298.6	3187.5	2424.5	2740.8	2958.1	3074.0	2934.0	2704.6	2446.2	2417.2
72.5°	8934.8	8350.4	1716.9	2233.7	2540.4	2728.7	2806.0	2634.6	2434.1	2320.6	2313.4
75°	4452.9	3805.7	1557.5	2038.1	2282.0	2446.2	2576.6	2458.3	2282.0	2074.3	2021.2
77.5°	1185.7	1019.0	1465.8	1820.8	2076.7	2262.7	2337.5	2214.4	2011.5	1835.3	1803.9
80°	823.4	840.4	1369.2	1509.3	1811.1	1977.7	2047.8	1890.8	1789.4	1615.5	1567.2
82.5°	697.9	734.1	1106.0	1137.4	1439.2	1617.9	1741.1	1714.5	1569.6	1429.6	1410.2
85°	654.4	695.5	707.5	787.2	1031.1	1241.2	1453.7	1465.8	1369.2	1190.5	1132.5
87.5°	376.7	371.9	340.5	400.9	565.1	688.2	833.1	794.5	647.2	560.2	548.2
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)