

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: P591189

Luminaire Tested: **CTN-CA8-480-722-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591189
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-CA8-480-722-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25465 lumens
Efficiency: N/A
Efficacy: 53.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

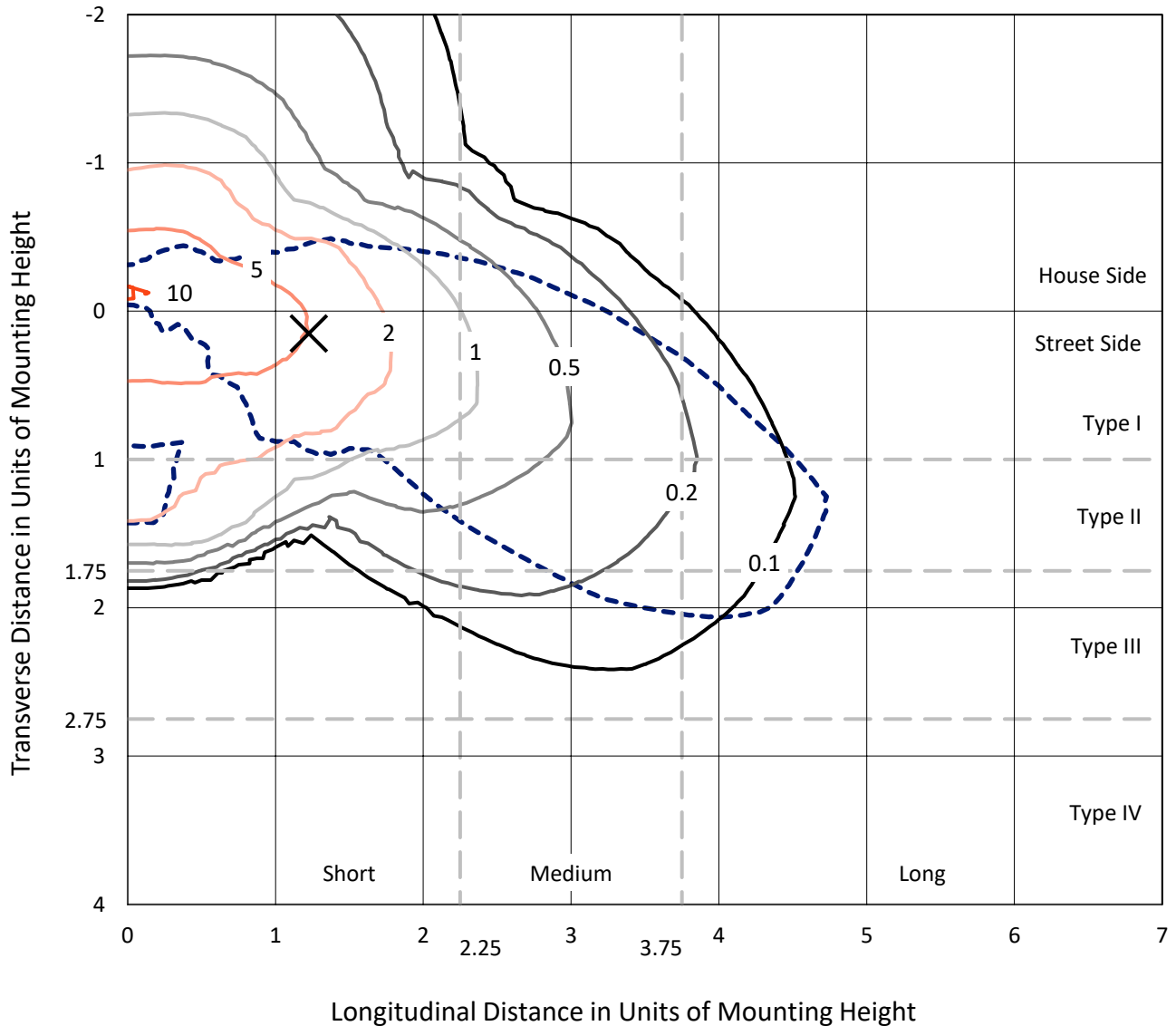
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

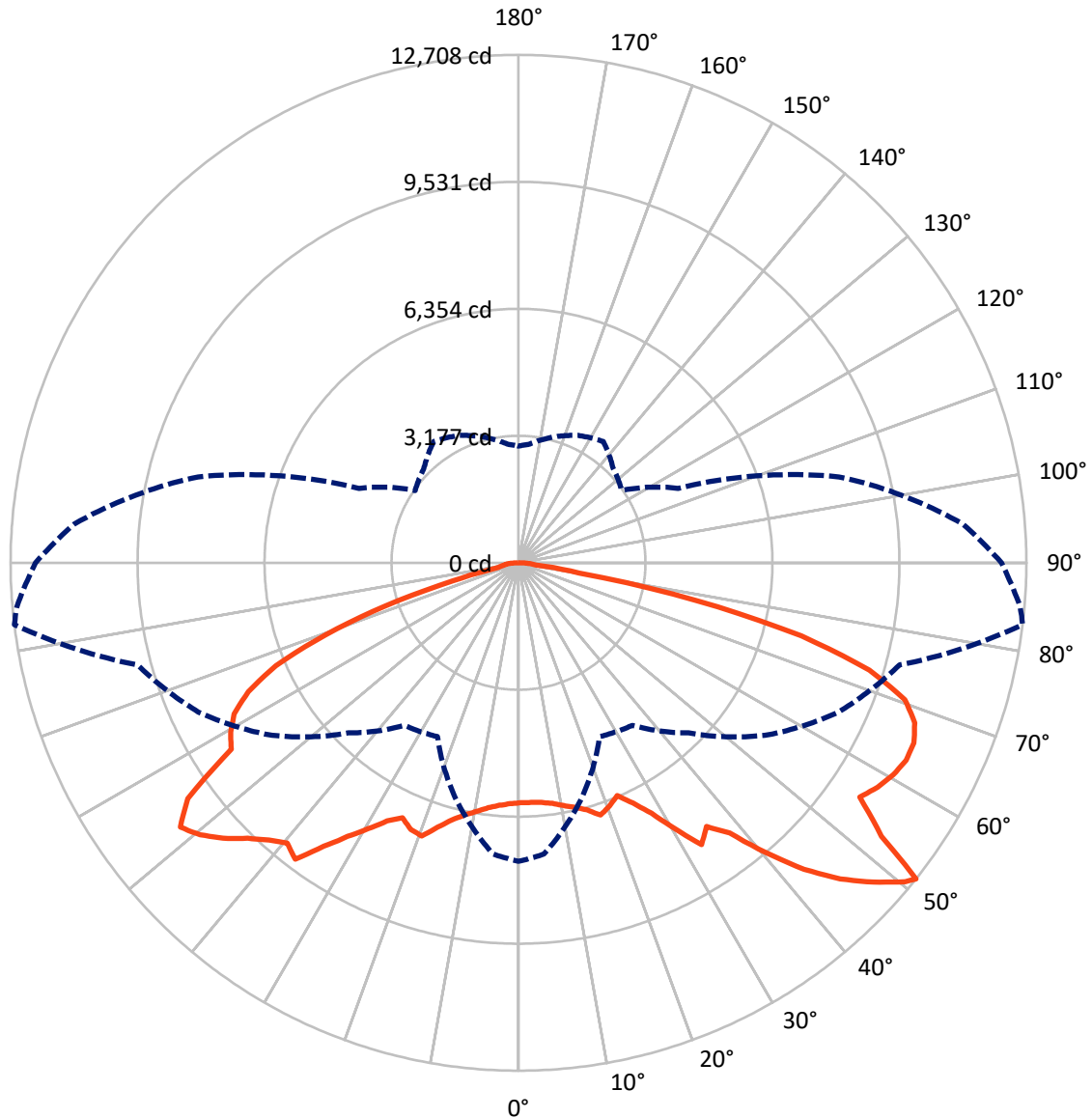
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 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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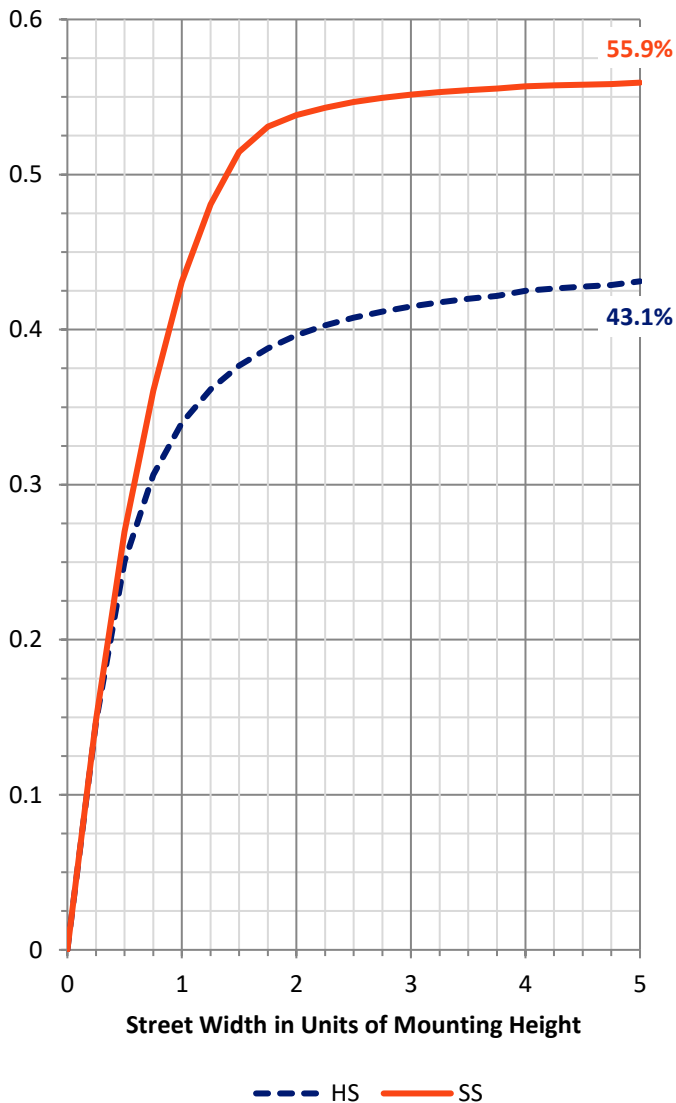
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11223.9	0.0	11223.9
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	14241.1	0.0	14241.1
	% Fixture	55.9	0.0	55.9
Total	Lumens	25465.0	0.0	25465.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	586.3	2.3
10°-20°	1784.4	7.0
20°-30°	2771.9	10.9
30°-40°	3708.9	14.6
40°-50°	4811.9	18.9
50°-60°	5124.8	20.1
60°-70°	3570.0	14.0
70°-80°	2490.6	9.8
80°-90°	616.2	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°	25465.0	100.0
0°-180°	25465.0	100.0



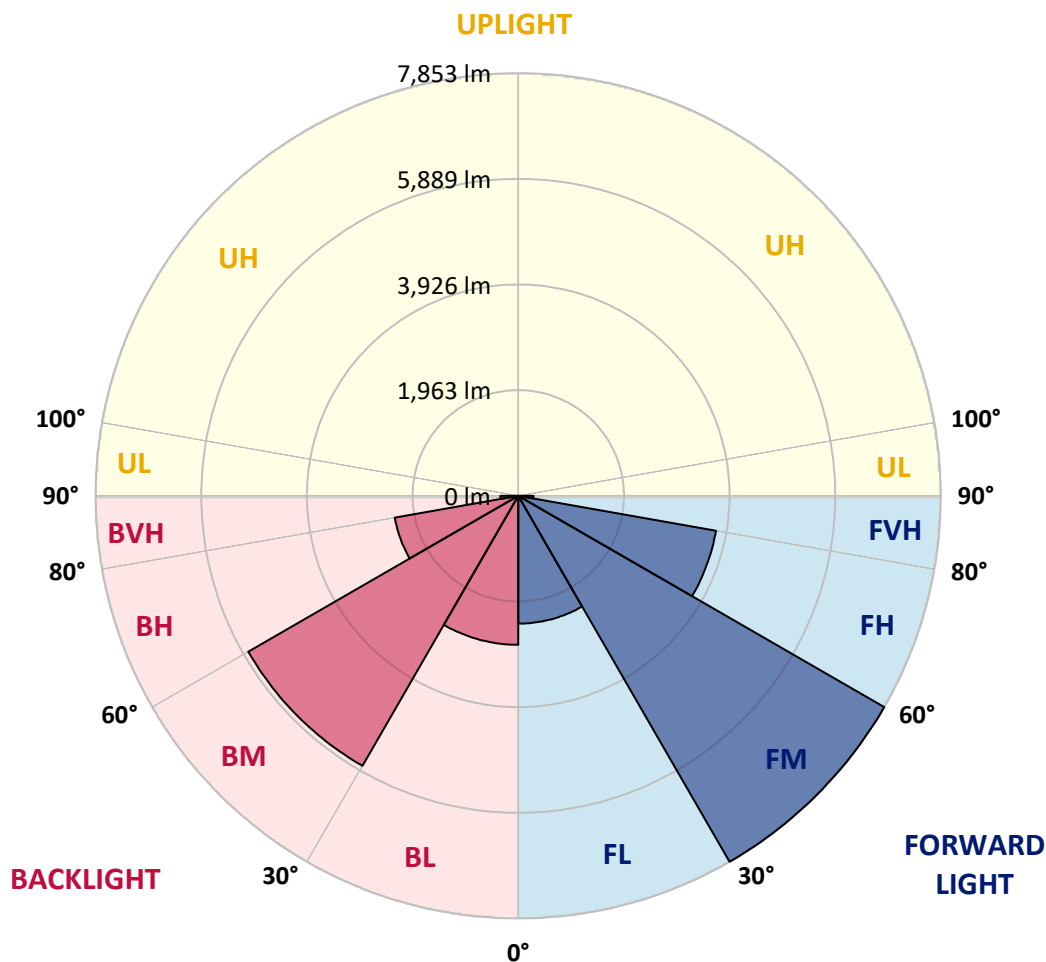
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2374.4	9.3			
FM (30°-60°)	7852.7	30.8			
FH (60°-80°)	3731.2	14.7			G2/5000
FVH (80°-90°)	282.9	1.1			G3/500
BL (0°-30°)	2768.3	10.9	B4/5000		
BM (30°-60°)	5792.9	22.7	B4/8500		
BH (60°-80°)	2329.4	9.1	B3/2500		G3/2500
BVH (80°-90°)	333.3	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°	83°	85°
0°	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2
2.5°	5930.6	5889.4	5893.0	5948.5	5875.1	5923.4	5916.2	6002.2	5986.1	6004.0	6016.5
5°	5878.7	5846.4	5846.4	5919.8	5867.9	5919.8	5884.0	5959.2	5984.3	6023.7	6038.0
7.5°	5889.4	5855.4	5869.7	5934.1	5876.9	5930.6	5928.8	6000.4	6009.3	6079.1	6102.4
10°	5919.8	5882.2	5889.4	5941.3	5909.1	6002.2	5986.1	6084.5	6084.5	6177.6	6213.4
12.5°	5857.2	5832.1	5846.4	5916.2	5944.9	6041.6	6063.0	6163.3	6177.6	6277.8	6322.6
15°	5789.2	5753.4	5799.9	5900.1	5948.5	6088.1	6134.6	6288.6	6310.1	6413.9	6464.0
17.5°	5459.8	5436.5	5522.4	5603.0	5629.8	5765.9	5857.2	6113.2	6421.1	6637.7	6696.7
20°	4804.6	4801.0	4641.7	4607.7	5024.8	5522.4	5585.1	5803.5	6159.7	6498.0	6618.0
22.5°	4011.6	4119.0	4636.3	4801.0	4790.3	4987.2	5789.2	5995.0	6152.5	6324.4	6396.0
25°	4011.6	4002.6	4308.7	5017.6	5019.4	5103.5	5282.6	6313.6	6464.0	6660.9	6718.2
27.5°	4138.7	4147.6	4127.9	4645.3	5266.4	5345.2	5422.2	5955.6	6877.5	7095.9	7190.8
30°	4353.5	4367.8	4289.1	4290.8	5348.8	5585.1	5731.9	5941.3	7165.7	7726.0	7769.0
32.5°	4777.8	4772.4	4673.9	4546.8	4693.6	5819.6	6034.4	6306.5	6711.0	8406.3	8506.5
35°	5116.1	5092.8	5024.8	4937.1	4743.7	5753.4	6322.6	6698.5	7214.1	8103.7	8633.6
37.5°	5492.0	5458.0	5381.0	5273.6	5098.2	4015.2	6607.2	7146.0	7946.2	8578.1	8612.1
40°	5916.2	5878.7	5773.0	5615.5	5391.8	4113.6	6734.3	7699.2	8900.3	9535.8	9530.4
42.5°	6242.0	6204.5	6149.0	5982.5	4740.2	4537.9	5873.3	8476.1	9933.2	10484.6	10438.0
45°	6517.7	6485.5	6490.9	6315.4	4446.6	5058.8	6542.8	8882.4	10907.0	11282.9	11222.1
47.5°	6732.5	6682.4	6546.4	5313.0	4561.2	5418.6	7087.0	7747.5	11728.7	11941.7	11873.7
50°	7255.2	7171.1	6362.0	4716.9	4851.1	5859.0	7604.3	8545.9	10683.3	12541.4	12421.4
51°	7468.3	7316.1	6097.0	4799.2	4965.7	6018.3	7527.3	8835.9	9868.8	12707.9	12600.4
52.5°	7692.0	7391.3	5370.3	4924.5	5105.3	6238.5	6394.2	9281.6	10096.1	11372.4	12006.1
55°	6489.1	6607.2	5545.7	5382.8	5370.3	5391.8	6530.2	9945.7	10570.5	10355.7	10230.4
57.5°	3816.5	3886.3	5633.4	6027.2	4647.1	4281.9	6890.1	10447.0	10980.4	10593.8	10454.1
60°	1919.0	2008.5	2051.4	1870.6	2506.1	3906.0	5803.5	7572.1	11231.0	10772.8	10604.5
62.5°	84.1	139.6	55.5	60.9	102.0	1362.3	4264.0	7777.9	11442.3	10882.0	10660.0
65°	7.2	7.2	9.0	17.9	44.8	1430.3	4745.5	8062.6	11528.2	10871.2	10574.1
67.5°	1.8	1.8	3.6	12.5	32.2	1548.4	5311.2	8178.9	11531.8	10688.6	10325.2
70°	0.0	1.8	3.6	10.7	28.6	1620.0	5434.7	8155.7	11385.0	10259.0	9759.6
72.5°	0.0	0.0	1.8	9.0	25.1	1528.7	5291.5	8109.1	10883.7	9177.8	8468.9
75°	0.0	0.0	1.8	7.2	21.5	1555.6	5305.8	7586.4	9503.6	7307.1	6446.1
77.5°	0.0	0.0	1.8	7.2	19.7	1435.7	4858.3	6569.6	7511.2	4548.6	3607.0
80°	0.0	0.0	1.8	7.2	17.9	1231.6	3995.5	5128.6	4203.1	1543.1	995.3
82.5°	0.0	0.0	1.8	7.2	14.3	834.2	2654.7	2563.4	846.7	442.2	397.4
85°	0.0	0.0	1.8	5.4	10.7	497.6	1330.0	349.1	327.6	281.0	254.2
87.5°	0.0	0.0	1.8	3.6	7.2	211.2	409.9	107.4	136.0	114.6	102.0
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°	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2	6002.2
2.5°	6027.2	6027.2	6046.9	6113.2	6106.0	6159.7	6129.3	6195.5	6200.9	6188.3	6218.8
5°	6050.5	6072.0	6138.2	6208.0	6179.4	6258.2	6295.7	6383.5	6379.9	6369.1	6404.9
7.5°	6116.7	6161.5	6227.7	6311.9	6342.3	6406.7	6410.3	6530.2	6523.1	6517.7	6553.5
10°	6227.7	6286.8	6360.2	6487.3	6469.4	6562.5	6523.1	6610.8	6609.0	6605.4	6641.2
12.5°	6342.3	6428.2	6517.7	6641.2	6639.4	6643.0	6609.0	6653.8	6644.8	6619.8	6646.6
15°	6503.4	6618.0	6741.5	6831.0	6752.2	6736.1	6660.9	6634.1	6582.2	6510.6	6532.0
17.5°	6770.1	6882.9	7040.4	7088.8	6959.9	6886.5	6682.4	6533.8	6372.7	6263.5	6286.8
20°	7010.0	7219.4	7369.8	7366.2	7201.5	7008.2	6691.4	6440.7	6129.3	5918.0	5900.1
22.5°	6711.0	7063.7	7718.9	7641.9	7353.7	7079.8	6680.6	6292.2	5774.8	5447.2	5434.7
25°	6882.9	6890.1	7477.2	7795.8	7421.7	7049.4	6551.7	6032.6	5370.3	5030.2	5010.5
27.5°	7321.5	7282.1	7119.2	7631.2	7359.1	6893.6	6292.2	5590.5	5001.5	4706.1	4691.8
30°	7842.4	7720.7	7337.6	6832.8	7101.3	6591.1	5893.0	5137.6	4668.6	4400.0	4378.6
32.5°	8465.3	8209.4	7536.3	6745.1	6256.4	6134.6	5377.4	4779.5	4392.9	4113.6	4058.1
35°	9204.6	8821.6	7727.8	6596.5	5597.6	5458.0	4892.3	4457.3	4133.3	3850.5	3795.0
37.5°	9202.9	9602.0	8010.7	6392.4	5189.5	4699.0	4539.7	4242.5	3952.5	3610.6	3548.0
40°	9270.9	9283.4	8322.1	6193.7	4808.2	4308.7	4330.2	4136.9	3838.0	3462.0	3397.6
42.5°	10097.9	9489.3	8703.4	5927.0	4448.4	4020.5	4240.7	4099.3	3777.1	3392.2	3320.6
45°	10817.5	10115.8	7867.4	5635.2	4070.7	3796.8	4169.1	4011.6	3691.2	3308.1	3227.5
47.5°	11444.0	10613.4	8080.5	5125.0	3701.9	3614.2	4031.3	3843.3	3537.2	3181.0	3109.4
50°	11920.2	11025.2	8266.6	4439.4	3343.9	3431.6	3807.5	3616.0	3320.6	3032.4	2971.5
51°	12083.1	11157.6	8304.2	4409.0	3154.1	3345.7	3701.9	3515.7	3250.8	2975.1	2919.6
52.5°	12258.5	11329.5	8359.7	4477.0	2885.6	3204.3	3530.1	3367.2	3147.0	2910.7	2848.0
55°	10192.8	10645.7	8218.3	4333.8	2574.1	2923.2	3215.0	3141.6	3019.9	2810.4	2765.7
57.5°	9820.4	9007.7	6816.7	3669.7	2300.3	2588.5	2908.9	2957.2	2864.1	2651.1	2618.9
60°	9901.0	8925.4	6070.2	2737.0	2028.2	2289.5	2679.8	2722.7	2642.2	2481.1	2436.3
62.5°	9886.7	8714.2	5413.2	1927.9	1791.9	2133.8	2515.1	2533.0	2422.0	2287.7	2246.6
65°	9650.4	8229.0	4516.4	1458.9	1661.2	2047.9	2418.4	2427.4	2289.5	2117.7	2096.2
67.5°	9124.1	7461.1	3141.6	1281.7	1587.8	1981.6	2354.0	2314.6	2182.1	2001.3	1969.1
70°	8116.3	6079.1	1467.9	1179.7	1476.8	1859.9	2196.4	2149.9	2004.9	1836.6	1808.0
72.5°	6507.0	4224.6	696.3	1079.4	1360.5	1707.7	2003.1	1929.7	1809.8	1747.1	1731.0
75°	4258.6	1983.4	581.8	972.0	1206.5	1523.4	1836.6	1809.8	1698.8	1573.5	1512.6
77.5°	1727.4	522.7	526.3	862.8	1083.0	1403.4	1659.4	1637.9	1491.1	1378.4	1353.3
80°	435.0	392.0	481.5	712.5	943.4	1222.6	1455.3	1394.5	1340.8	1219.1	1179.7
82.5°	331.2	315.1	377.7	551.3	775.1	1007.8	1242.3	1267.4	1177.9	1084.8	1065.1
85°	230.9	286.4	229.1	392.0	574.6	794.8	1041.8	1086.6	1025.7	920.1	848.5
87.5°	127.1	150.4	94.9	205.9	304.3	435.0	597.9	603.3	499.4	458.3	431.4
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)