

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: P591103

Luminaire Tested: **CTN-CA10-210-722-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-722-U-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 19702 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

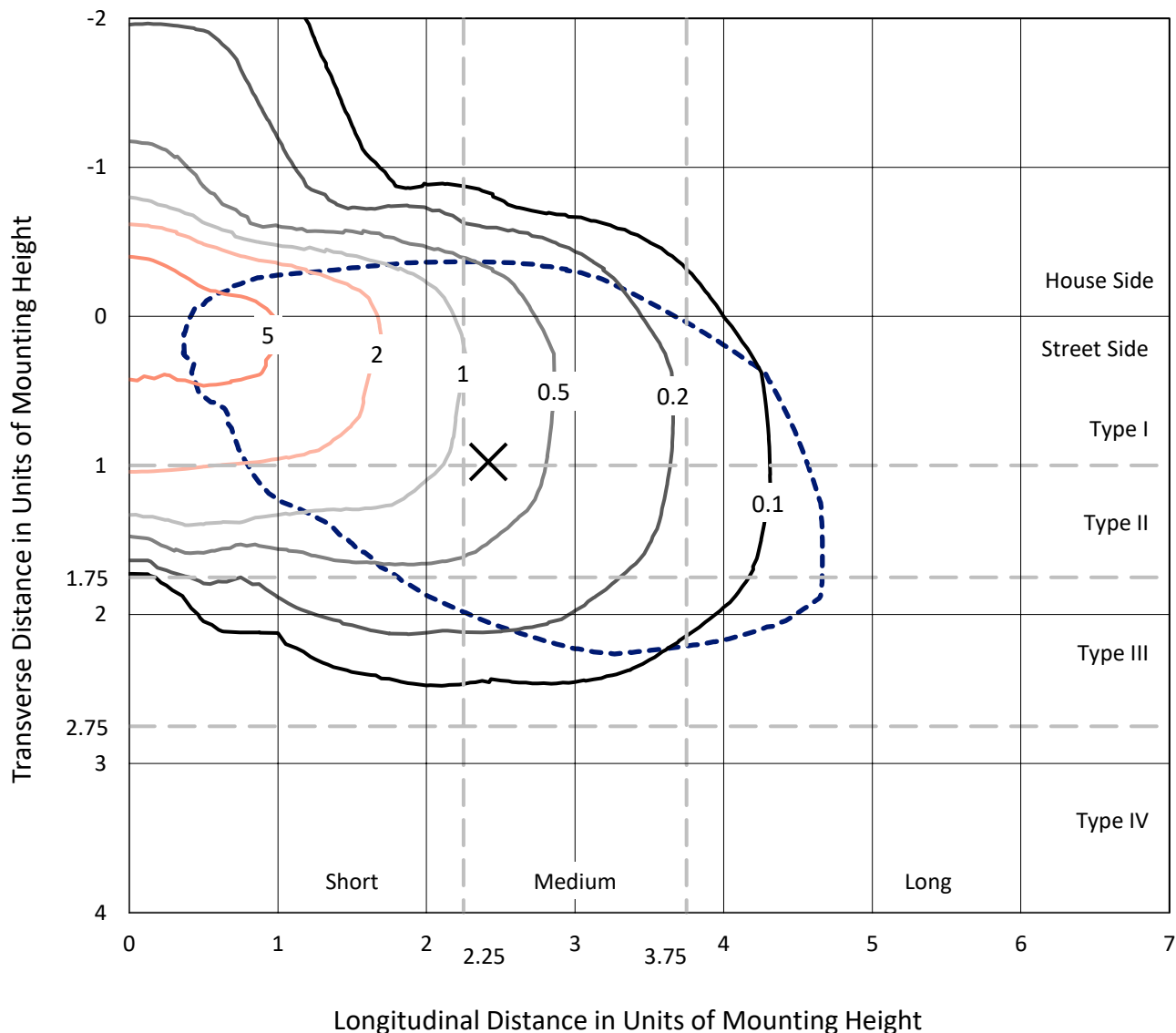
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

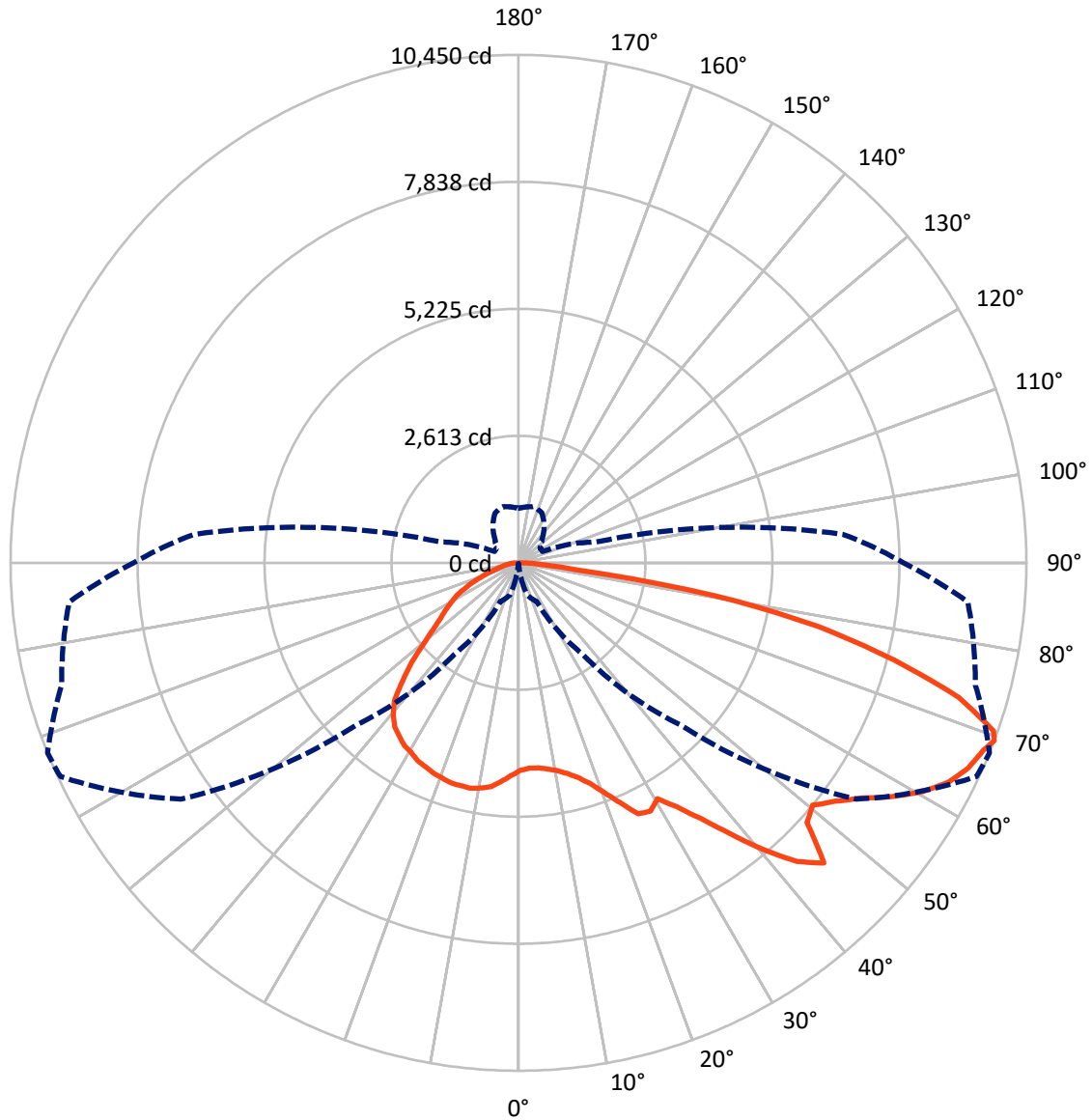
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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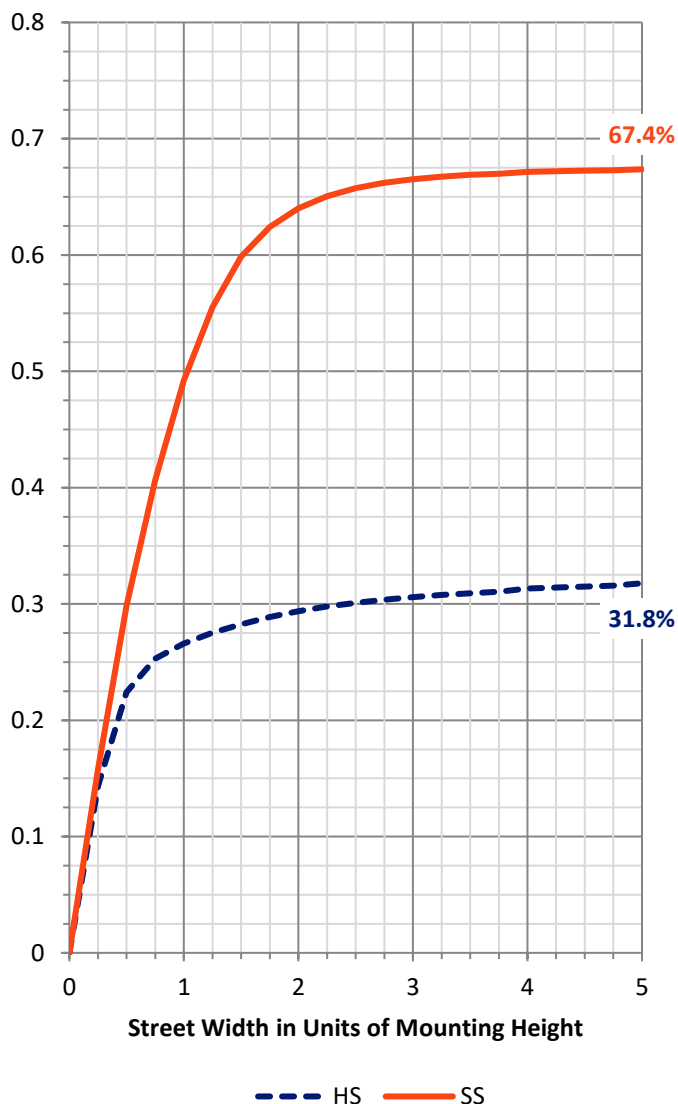
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6426.5	0.0	6426.5
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	13275.5	0.0	13275.5
	% Fixture	67.4	0.0	67.4
Total	Lumens	19702.0	0.0	19702.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.6	2.2
10°-20°	1319.8	6.7
20°-30°	2029.2	10.3
30°-40°	2635.5	13.4
40°-50°	3253.1	16.5
50°-60°	3653.6	18.5
60°-70°	3570.6	18.1
70°-80°	2397.8	12.2
80°-90°	415.9	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°	19702.0	100.0
0°-180°	19702.0	100.0

Coefficient of Utilization

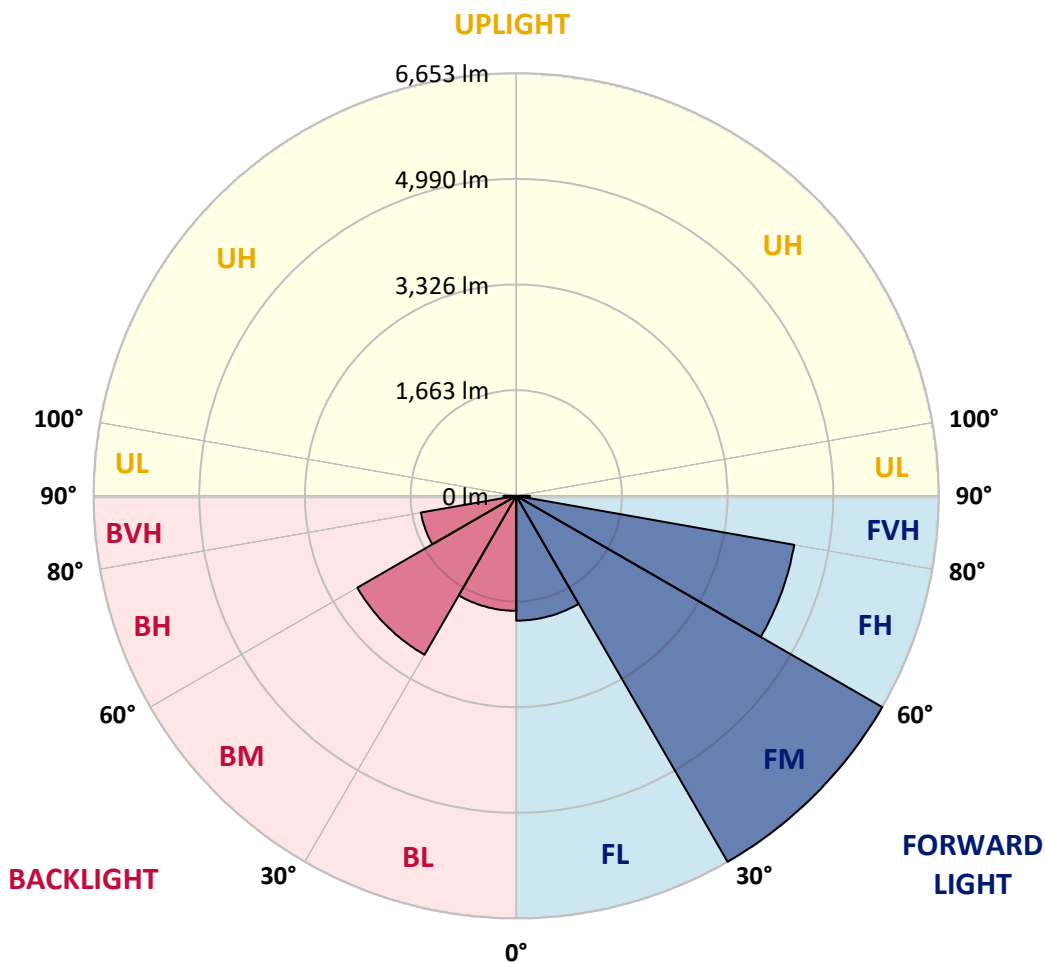


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1964.5	10.0			
FM (30°-60°)	6652.9	33.8			
FH (60°-80°)	4443.8	22.6			G2/5000
FVH (80°-90°)	214.4	1.1			G2/225
BL (0°-30°)	1811.0	9.2	B3/2500		
BM (30°-60°)	2889.3	14.7	B3/5000		
BH (60°-80°)	1524.6	7.7	B3/2500		G3/2500
BVH (80°-90°)	201.5	1.0			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8
2.5°	4184.7	4159.2	4168.8	4204.0	4132.8	4179.4	4157.4	4204.9	4229.5	4218.9	4285.8
5°	4224.2	4196.1	4197.8	4222.5	4146.0	4185.5	4160.9	4211.9	4239.2	4224.2	4313.9
7.5°	4344.7	4313.9	4305.1	4303.3	4231.2	4261.1	4211.9	4253.2	4281.4	4273.4	4374.5
10°	4529.3	4492.3	4475.6	4466.0	4379.8	4371.0	4309.5	4327.9	4349.0	4357.8	4466.9
12.5°	4732.3	4682.2	4671.7	4642.7	4531.9	4512.6	4437.8	4446.6	4446.6	4466.9	4575.0
15°	4904.7	4863.3	4863.3	4833.4	4725.3	4698.1	4595.2	4584.7	4582.9	4598.7	4695.4
17.5°	4793.9	4771.0	4750.8	4735.9	4568.8	4524.9	4803.6	4785.1	4776.3	4792.1	4848.4
20°	4422.0	4483.6	4353.4	4169.7	4196.1	4725.3	5071.7	5038.3	5043.6	5059.4	5043.6
22.5°	3891.9	3739.8	3978.9	4044.9	4154.8	4546.0	5316.1	5351.3	5361.8	5362.7	5280.0
25°	3335.4	3419.8	3744.2	4247.1	4233.0	4559.2	5167.5	5667.7	5720.5	5715.2	5571.9
27.5°	3495.4	3479.6	3730.1	4060.7	4478.3	4838.7	5258.9	5481.4	5783.8	6118.7	5924.4
30°	3635.2	3622.0	3648.4	4110.8	4640.0	5118.3	5600.9	5564.9	5629.1	6235.7	6340.3
32.5°	3760.0	3750.4	3781.1	3832.1	4371.0	5419.8	5967.5	5960.5	5982.5	6029.9	6830.8
35°	3877.8	3878.7	3916.5	4000.0	4405.3	5482.2	6329.7	6404.4	6462.5	6567.1	6746.4
37.5°	3958.7	3960.5	3990.4	4091.5	4261.1	5173.7	6696.3	6962.7	7066.4	7254.6	7000.5
40°	3957.8	3971.0	4043.1	4175.0	4401.8	4969.7	6809.7	7595.7	7762.7	7899.8	7472.6
42.5°	3875.2	3882.2	4016.7	4255.0	4526.6	5124.4	6457.2	8212.8	8398.3	8360.5	7862.9
45°	3799.6	3797.8	3950.8	4244.4	4638.3	5337.2	6504.7	8195.2	8811.5	8765.8	8221.6
47.5°	3698.5	3701.1	3862.9	4198.7	4740.3	5564.9	6856.3	7452.4	7986.0	9113.9	8513.5
50°	3571.9	3587.7	3752.1	4129.3	4791.2	5777.6	7160.5	7778.5	7841.8	8185.6	8799.2
52.5°	3361.8	3333.7	3633.4	4049.3	4827.3	5932.4	7450.6	8091.5	8151.3	8026.4	9090.2
55°	1908.6	2368.4	3484.9	3956.1	4837.8	6025.5	7675.7	8447.5	8540.7	8422.9	9326.7
57.5°	1199.1	1236.1	3018.9	3709.0	4749.1	6083.6	7951.7	8936.3	9074.4	8793.9	9506.0
60°	424.6	458.0	1468.1	1702.9	3892.8	5923.6	8371.9	9512.2	9557.9	9142.9	9637.9
62.5°	44.8	58.9	995.2	1250.1	3022.4	5466.4	8662.1	9975.5	9934.1	9401.4	9709.1
65°	15.8	22.0	874.7	1118.3	2813.2	5324.0	8757.9	10173.3	10172.4	9566.7	9658.1
67.5°	12.3	16.7	760.4	971.4	2510.8	5018.9	8598.8	10321.8	10307.8	9730.2	9523.6
69°	12.3	17.6	684.8	875.6	2291.9	4727.1	8475.7	10400.1	10450.2	9732.8	9280.1
70°	12.3	17.6	636.5	808.8	2113.4	4459.8	8299.0	10340.3	10365.8	9648.4	9027.8
72.5°	12.3	17.6	493.2	625.9	1607.0	3433.0	7270.4	9422.5	9470.8	8907.3	8113.5
75°	12.3	17.6	347.3	455.4	1055.0	2303.3	5789.1	7848.0	7979.0	7528.0	6648.0
77.5°	12.3	17.6	207.5	311.2	662.0	1264.2	3983.3	6015.0	6311.3	5891.0	4751.7
80°	12.3	16.7	97.6	169.7	377.1	669.9	1825.1	3702.9	4088.8	3685.3	2485.3
82.5°	12.3	16.7	80.0	122.2	190.8	333.2	713.0	1213.2	1191.2	1069.9	800.9
85°	11.4	14.9	65.9	89.7	137.1	211.0	397.4	494.1	471.2	416.7	419.3
87.5°	7.9	8.8	22.9	40.4	55.4	104.6	192.5	209.2	213.6	178.5	187.3
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°	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8	4270.8
2.5°	4317.4	4322.7	4348.2	4393.9	4393.0	4442.2	4429.0	4543.3	4547.7	4546.0	4554.8
5°	4357.0	4386.8	4443.1	4540.7	4597.0	4670.8	4656.7	4771.9	4778.9	4769.3	4793.9
7.5°	4425.5	4462.5	4554.8	4675.2	4690.1	4783.3	4764.0	4857.2	4852.8	4835.2	4877.4
10°	4522.2	4566.2	4649.7	4718.3	4761.4	4815.9	4794.8	4873.9	4858.9	4839.6	4880.0
12.5°	4620.7	4641.8	4688.4	4765.8	4769.3	4781.6	4757.0	4821.1	4804.4	4775.4	4817.6
15°	4714.8	4717.4	4709.5	4744.7	4707.7	4715.6	4662.0	4702.5	4673.4	4660.3	4687.5
17.5°	4837.0	4805.3	4749.1	4734.1	4647.1	4610.1	4531.0	4529.3	4478.3	4459.8	4478.3
20°	4983.8	4915.2	4785.1	4661.1	4510.8	4435.2	4300.7	4264.7	4223.3	4183.8	4205.7
22.5°	5186.9	5054.1	4829.9	4598.7	4349.9	4201.4	4036.1	3934.1	3856.7	3780.3	3803.1
25°	5418.1	5232.6	4893.2	4492.3	4157.4	3894.5	3680.0	3506.0	3395.2	3283.5	3333.7
27.5°	5731.0	5475.2	4931.9	4413.2	3906.8	3554.3	3212.3	2985.5	2870.4	2790.4	2764.9
30°	6095.9	5789.1	5001.4	4257.6	3612.3	3135.9	2701.6	2448.4	2326.2	2288.4	2304.2
32.5°	6540.7	6170.6	5142.9	4127.5	3313.4	2691.9	2185.5	1987.7	1899.8	1893.6	1891.9
35°	7135.9	6657.6	5264.2	3925.3	2917.8	2174.1	1738.9	1575.4	1571.9	1569.2	1575.4
37.5°	7593.0	7153.5	5393.5	3727.5	2448.4	1697.6	1390.8	1291.4	1280.9	1311.7	1319.6
40°	7953.5	7508.6	5586.9	3393.4	1898.0	1267.7	1068.1	1031.2	1105.9	1173.6	1187.7
42.5°	8278.8	7807.5	5629.1	3037.4	1382.9	973.2	885.3	946.8	1062.0	1139.4	1154.3
45°	8583.8	8121.4	5468.2	2508.2	989.0	824.6	842.2	934.5	1063.7	1146.4	1155.2
47.5°	8917.0	8331.5	5294.1	2016.7	813.2	790.3	833.4	938.9	1074.3	1157.8	1162.2
50°	9136.8	8481.8	4858.9	1577.2	762.2	769.2	829.9	948.6	1076.1	1135.8	1139.4
52.5°	9226.5	8602.3	4465.1	1262.4	736.7	753.4	834.3	965.3	1071.7	1105.1	1103.3
55°	9282.7	8657.7	4126.6	1050.6	713.9	741.1	842.2	977.6	1081.3	1115.6	1115.6
57.5°	9246.7	8533.7	3875.2	895.0	691.0	732.3	851.9	996.1	1172.8	1233.4	1227.3
60°	9220.3	8301.6	3518.3	790.3	663.7	722.6	864.2	1060.2	1367.9	1429.5	1409.2
62.5°	9084.0	8105.6	3131.5	723.5	633.0	717.4	874.7	1146.4	1395.2	1391.7	1352.1
65°	8736.8	7706.4	2521.3	655.8	601.3	710.3	878.2	1184.2	1283.5	1228.1	1216.7
67.5°	8244.5	7130.6	1989.5	588.1	566.2	695.4	907.3	1139.4	1221.1	1173.6	1156.1
69°	7922.7	6704.2	1652.8	545.9	543.3	683.1	918.7	1135.0	1198.3	1144.6	1121.8
70°	7663.4	6335.0	1426.8	518.7	525.7	673.4	907.3	1134.1	1188.6	1121.8	1096.3
72.5°	6550.4	5132.4	921.3	453.6	473.9	647.9	864.2	1105.1	1168.4	1124.4	1089.2
75°	5076.1	3736.3	596.0	392.1	419.3	604.8	821.1	1086.6	1186.8	1106.8	1031.2
77.5°	3257.2	1999.1	461.5	329.7	360.4	544.2	743.7	1011.9	1152.5	1080.4	982.9
80°	1418.9	742.0	356.0	267.3	291.9	442.2	638.2	899.3	1092.8	1084.8	1018.9
82.5°	602.2	478.2	274.3	204.8	232.1	327.0	500.2	771.0	965.3	1003.1	1075.2
85°	341.1	286.6	182.9	140.7	172.3	240.9	356.0	591.7	785.9	871.2	931.9
87.5°	146.8	119.6	84.4	75.6	97.6	124.8	153.0	277.8	419.3	511.7	550.3
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)