

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: P591100

Luminaire Tested: **CTN-CA10-210-722-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591100
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
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-T2-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: 20668 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

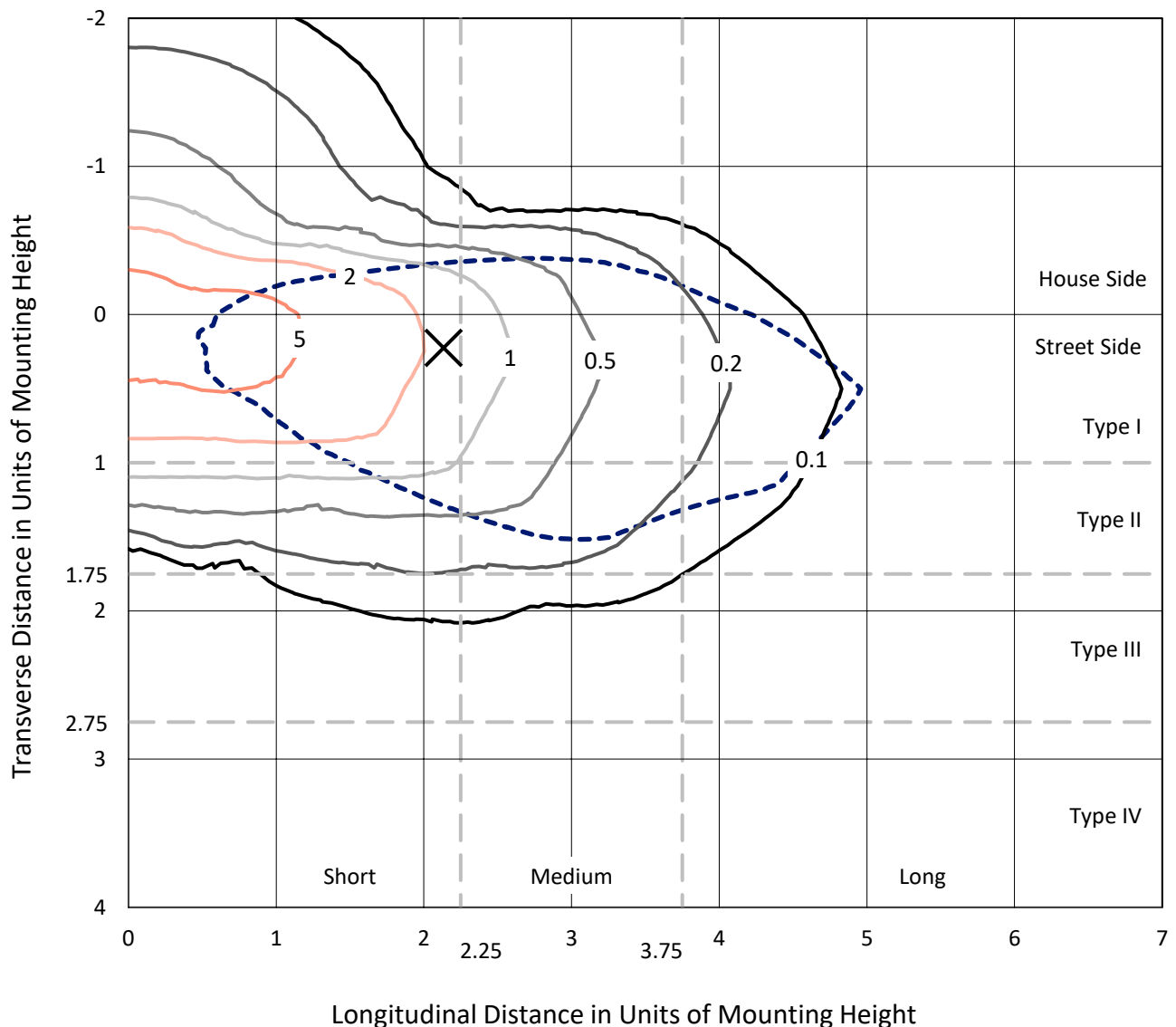
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

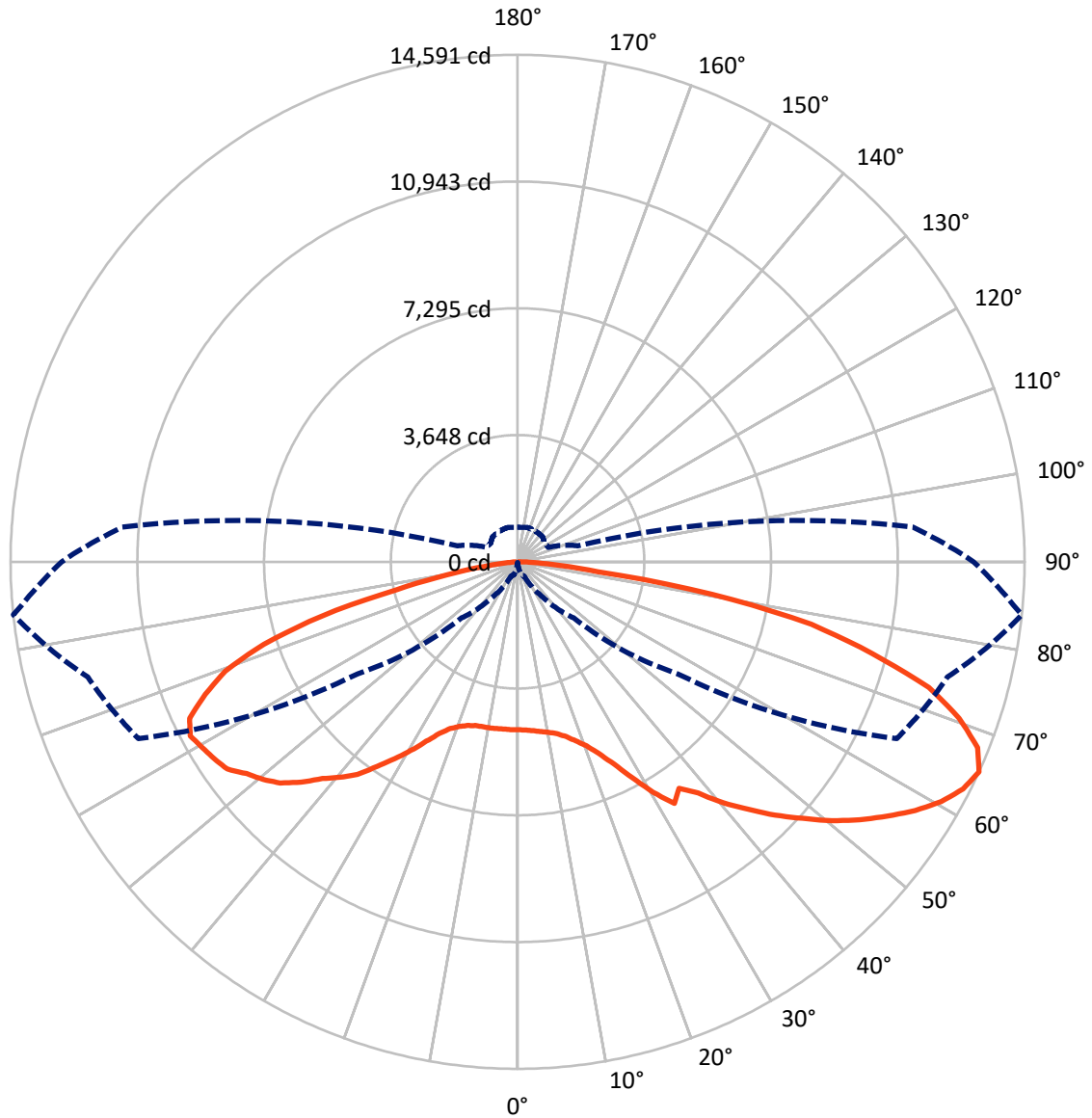
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



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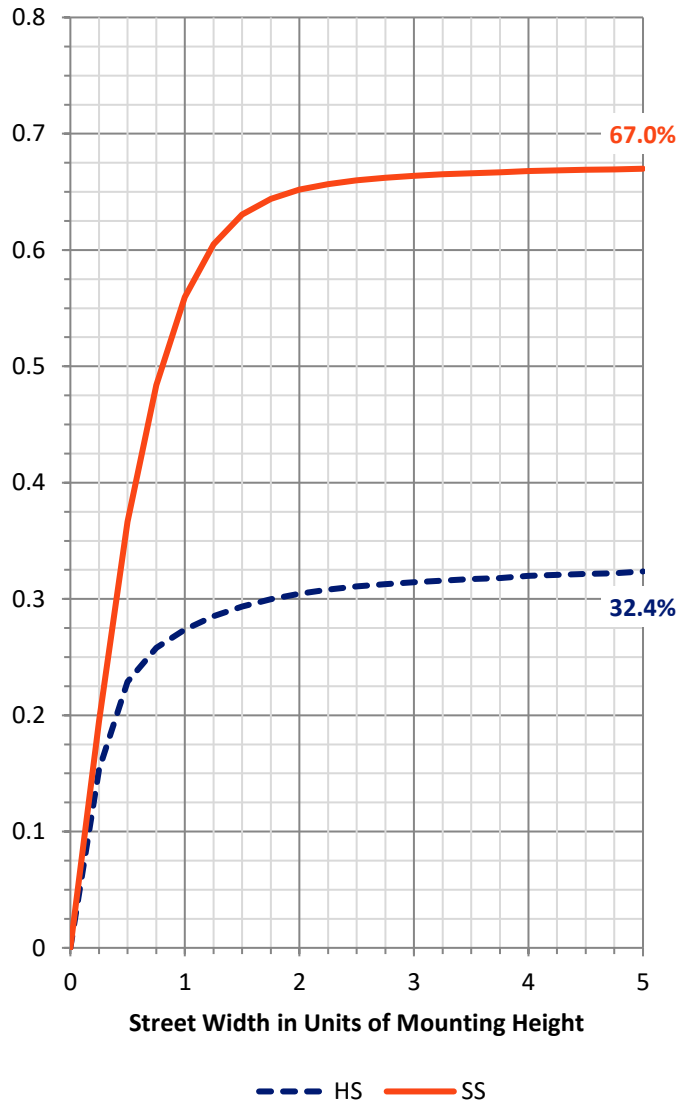
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6842.1	0.0	6842.1
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	13825.9	0.0	13825.9
	% Fixture	66.9	0.0	66.9
Total	Lumens	20668.0	0.0	20668.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	466.4	2.3
10°-20°	1388.4	6.7
20°-30°	2086.0	10.1
30°-40°	2773.9	13.4
40°-50°	3425.0	16.6
50°-60°	3848.7	18.6
60°-70°	3774.7	18.3
70°-80°	2454.5	11.9
80°-90°	450.4	2.2
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°	20668.0	100.0
0°-180°	20668.0	100.0

Coefficient of Utilization

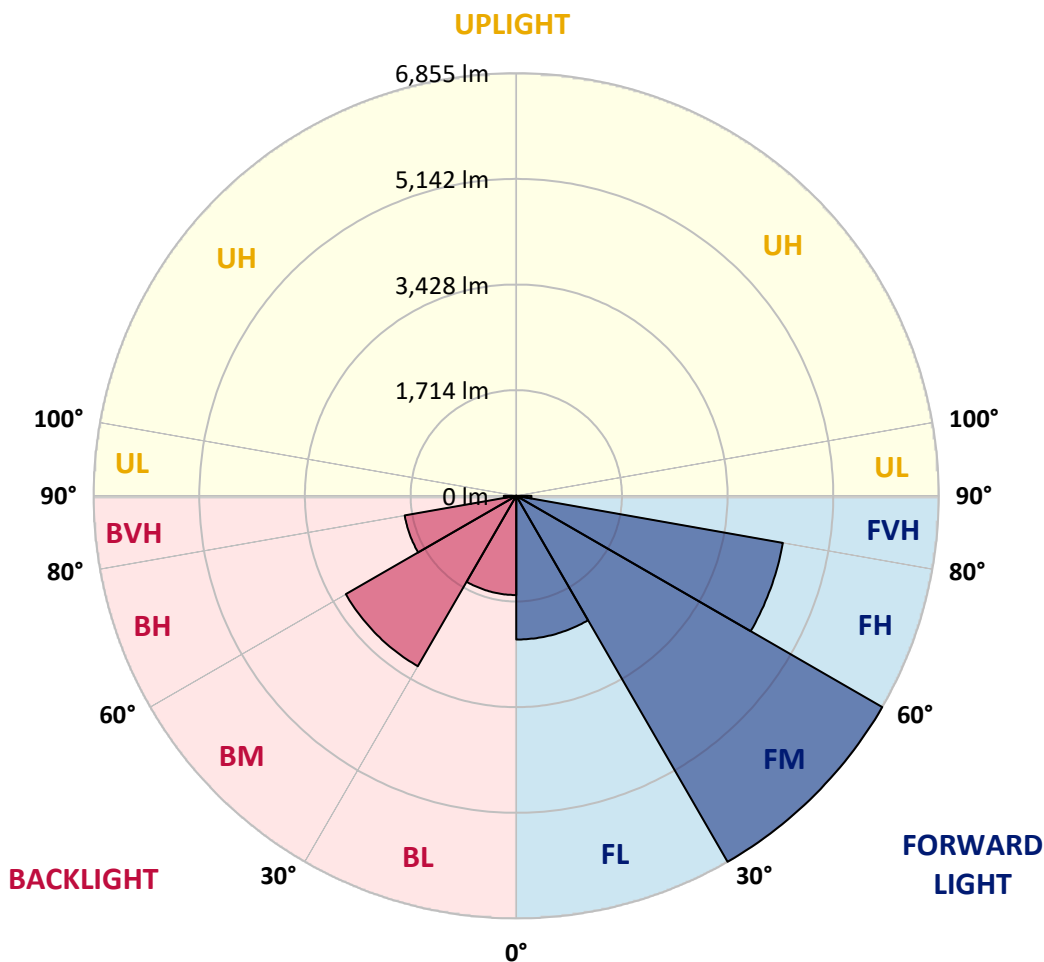


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2331.2	11.3			
FM (30°-60°)	6855.5	33.2			
FH (60°-80°)	4391.7	21.2			G2/5000
FVH (80°-90°)	247.5	1.2			G3/500
BL (0°-30°)	1609.5	7.8	B3/2500		
BM (30°-60°)	3192.1	15.4	B3/5000		
BH (60°-80°)	1837.5	8.9	B3/2500		G3/2500
BVH (80°-90°)	203.0	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6
2.5°	5039.0	4991.6	4996.8	5019.7	4931.8	4960.8	4911.6	4920.4	4861.5	4850.9	4857.1
5°	5393.3	5342.3	5342.3	5356.4	5208.7	5169.1	5032.0	5009.1	4922.1	4883.4	4885.2
7.5°	5576.2	5526.1	5516.4	5529.6	5423.2	5432.0	5291.3	5156.8	5002.1	4933.5	4930.0
10°	5845.2	5788.9	5755.5	5756.4	5613.1	5558.6	5454.8	5360.8	5124.3	4990.7	4974.0
12.5°	6062.3	6019.2	6001.7	5988.5	5830.2	5794.2	5599.0	5522.5	5270.2	5077.7	5055.7
15°	6188.0	6147.6	6122.1	6092.2	6004.3	5945.4	5861.0	5686.9	5443.4	5217.5	5190.2
17.5°	5860.1	5790.7	5670.2	5617.5	5597.3	5682.5	6045.6	5956.8	5666.7	5416.2	5387.2
20°	4995.1	5058.4	5149.8	4942.3	5006.5	5640.3	6321.6	6313.7	5978.8	5654.4	5616.6
22.5°	4249.6	4082.6	4370.9	4687.4	4889.6	5487.4	6428.9	6726.0	6401.6	5989.3	5945.4
25°	3483.9	3578.8	3967.4	4604.8	4887.8	5371.3	6370.0	7042.5	6942.3	6445.6	6393.7
27.5°	3380.2	3381.9	3755.5	4243.4	4984.5	5640.3	6434.2	7054.8	7553.3	7035.5	6935.3
30°	3358.2	3347.6	3448.7	4041.2	4814.0	5891.8	6847.4	7164.7	7701.8	7694.8	7561.2
32.5°	3255.3	3249.2	3354.7	3623.7	4449.2	6158.1	7238.6	7677.2	7648.2	8289.1	8253.0
35°	3108.5	3130.5	3261.5	3541.0	4277.7	5936.6	7640.3	8264.5	8313.7	8000.7	8144.0
37.5°	2955.6	2967.9	3094.5	3432.0	3991.1	5548.9	7946.2	8840.3	9009.1	8443.8	8329.5
40°	2747.2	2772.7	2921.3	3301.0	3933.1	5189.4	7730.0	9496.1	9758.9	9119.8	8944.0
42.5°	2526.5	2538.9	2720.0	3088.3	3836.4	5194.6	7286.0	10062.2	10449.9	9737.0	9558.5
45°	2333.1	2336.7	2506.3	2836.0	3645.6	5162.1	7005.6	10085.1	11277.2	10398.1	10173.9
47.5°	2096.7	2130.1	2298.0	2626.8	3402.1	5053.1	7136.6	9375.7	12107.0	11028.4	10823.5
50°	1607.9	1634.3	1959.5	2421.9	3135.8	4871.1	7226.2	9947.1	11182.2	11712.3	11565.5
52.5°	1382.8	1338.0	1571.8	2191.6	2892.3	4567.8	7264.0	10748.8	11180.5	12331.2	12184.4
55°	591.6	907.2	1416.2	1799.5	2669.8	4163.4	7236.8	11533.0	11725.5	12914.9	12863.9
57.5°	467.7	489.7	1040.9	1455.8	2406.1	3685.2	7113.7	12051.7	12203.7	13499.5	13354.5
60°	86.2	97.6	511.6	615.4	1742.4	2971.4	6665.4	12125.5	12552.7	14008.5	13823.1
62.5°	39.6	46.6	411.4	512.5	1393.4	2443.9	6281.2	12101.8	12875.4	14386.6	14223.0
65°	18.5	23.7	368.3	465.0	1206.1	2280.4	5615.7	12037.6	12804.2	14590.5	14325.0
67.5°	14.1	20.2	338.5	417.6	1003.1	2117.8	4983.6	11364.2	12461.3	14274.9	13906.6
70°	14.1	20.2	309.4	379.8	851.0	1911.2	4045.6	10521.1	11678.9	13477.6	13170.8
72.5°	14.9	20.2	275.2	343.7	737.6	1650.1	3160.4	9175.2	10740.9	12376.9	12054.3
75°	14.9	20.2	237.4	304.2	621.5	1382.0	2116.0	6558.1	9251.7	10534.3	10175.6
77.5°	14.9	20.2	196.9	254.1	506.4	1104.2	1368.8	3535.8	7279.0	8639.0	8179.2
80°	14.9	20.2	146.8	192.5	380.7	778.9	817.6	1782.8	3916.4	5675.5	5755.5
82.5°	14.9	19.3	102.0	140.7	248.8	427.2	451.9	860.6	1445.2	2327.9	2360.4
85°	14.1	16.7	73.0	93.2	136.3	160.9	219.8	428.1	692.7	993.4	985.5
87.5°	8.8	8.8	23.7	36.9	55.4	63.3	98.5	158.2	239.1	327.9	309.4
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°	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6	4831.6
2.5°	4856.2	4836.0	4810.5	4803.4	4743.7	4715.5	4658.4	4683.9	4654.9	4631.1	4658.4
5°	4863.2	4833.3	4779.7	4716.4	4588.9	4530.9	4450.0	4458.8	4416.6	4384.1	4402.6
7.5°	4880.8	4843.9	4759.5	4617.1	4465.0	4373.5	4289.2	4355.1	4326.1	4301.5	4319.9
10°	4889.6	4860.6	4711.1	4560.8	4341.9	4291.8	4186.3	4178.4	4181.0	4178.4	4207.4
12.5°	4913.3	4872.0	4654.9	4463.2	4276.8	4144.1	4079.0	4078.2	3994.7	3958.6	3974.4
15°	4983.6	4894.0	4617.1	4347.2	4141.5	4053.6	3847.8	3848.7	3813.6	3772.2	3771.4
17.5°	5124.3	4959.9	4617.1	4268.9	4016.6	3839.1	3659.7	3562.1	3538.4	3543.7	3540.2
20°	5309.8	5070.7	4615.3	4153.8	3840.8	3657.1	3398.6	3316.0	3241.3	3246.5	3246.5
22.5°	5576.2	5234.2	4618.8	4048.3	3672.9	3423.2	3132.3	3027.6	2947.6	2950.3	2950.3
25°	5958.6	5514.6	4660.1	3984.1	3447.9	3148.1	2854.5	2691.8	2610.1	2610.9	2612.7
27.5°	6445.6	5905.8	4803.4	3847.8	3260.6	2822.8	2501.1	2381.5	2299.7	2278.6	2278.6
30°	6996.8	6375.3	4988.9	3759.1	2970.5	2456.2	2189.0	2100.2	2001.7	1972.7	1972.7
32.5°	7607.8	6846.5	5180.6	3650.0	2697.1	2141.5	1919.1	1837.3	1714.3	1678.2	1665.9
35°	8243.4	7333.5	5413.5	3497.1	2353.4	1882.2	1685.2	1585.9	1497.1	1449.6	1438.2
37.5°	8586.2	7888.2	5623.6	3342.4	2087.9	1677.3	1457.6	1380.2	1321.3	1287.9	1281.7
40°	9057.4	8291.7	5732.6	3086.5	1802.2	1469.0	1247.5	1243.9	1251.8	1222.0	1220.2
42.5°	9537.4	8690.0	5702.8	2743.7	1579.8	1256.2	1142.0	1202.6	1246.6	1220.2	1222.0
45°	10137.8	9226.2	5811.8	2383.3	1360.0	1138.4	1120.0	1191.2	1251.8	1245.7	1245.7
47.5°	10745.3	9744.9	5610.5	1941.9	1212.3	1104.2	1122.6	1172.7	1248.3	1268.5	1264.2
50°	11240.2	10100.0	5486.5	1567.4	1128.8	1105.0	1131.4	1149.9	1232.5	1265.0	1264.2
52.5°	11640.2	10438.5	5024.1	1323.1	1081.3	1108.6	1159.5	1146.4	1204.4	1238.7	1258.9
55°	12206.4	10907.1	4497.5	1229.0	1056.7	1105.0	1169.2	1158.7	1182.4	1198.2	1213.2
57.5°	12644.2	11140.0	3792.5	1168.3	1034.7	1099.8	1161.3	1162.2	1173.6	1167.5	1161.3
60°	13011.6	11352.8	3102.4	1109.4	1006.6	1088.3	1127.9	1140.2	1136.7	1128.8	1112.9
62.5°	13191.0	11583.1	2409.6	1047.0	976.7	1054.9	1073.4	1087.5	1079.5	1053.2	1051.4
65°	13123.3	11417.8	1786.3	979.3	940.6	1018.0	1017.1	1023.3	1026.8	993.4	996.9
67.5°	12743.5	10691.7	1360.9	893.2	899.3	965.3	960.9	964.4	954.7	931.9	935.4
70°	11639.4	9867.1	965.3	748.1	814.9	882.6	888.8	903.7	881.7	841.3	843.9
72.5°	10006.9	8450.0	676.9	596.0	715.6	801.7	798.2	797.3	767.5	783.3	802.6
75°	8535.2	6471.1	514.3	480.0	565.3	690.1	729.7	732.3	736.7	894.9	906.4
77.5°	6570.4	3914.7	437.8	378.9	438.7	572.3	646.1	676.0	928.3	961.7	944.2
80°	3915.5	2261.1	338.5	295.4	354.3	436.9	552.1	713.8	932.7	833.4	797.3
82.5°	1905.9	1048.8	246.1	225.1	261.1	317.4	433.4	831.6	789.4	644.4	635.6
85°	711.2	354.3	147.7	153.8	174.1	208.3	329.7	793.8	605.7	524.8	495.8
87.5°	177.6	65.1	59.8	61.5	78.2	104.6	168.8	382.4	293.6	243.5	238.2
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)