

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: P591256

Luminaire Tested: **CTN-CA8-230-727-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591256
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-CA8-230-727-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22056 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

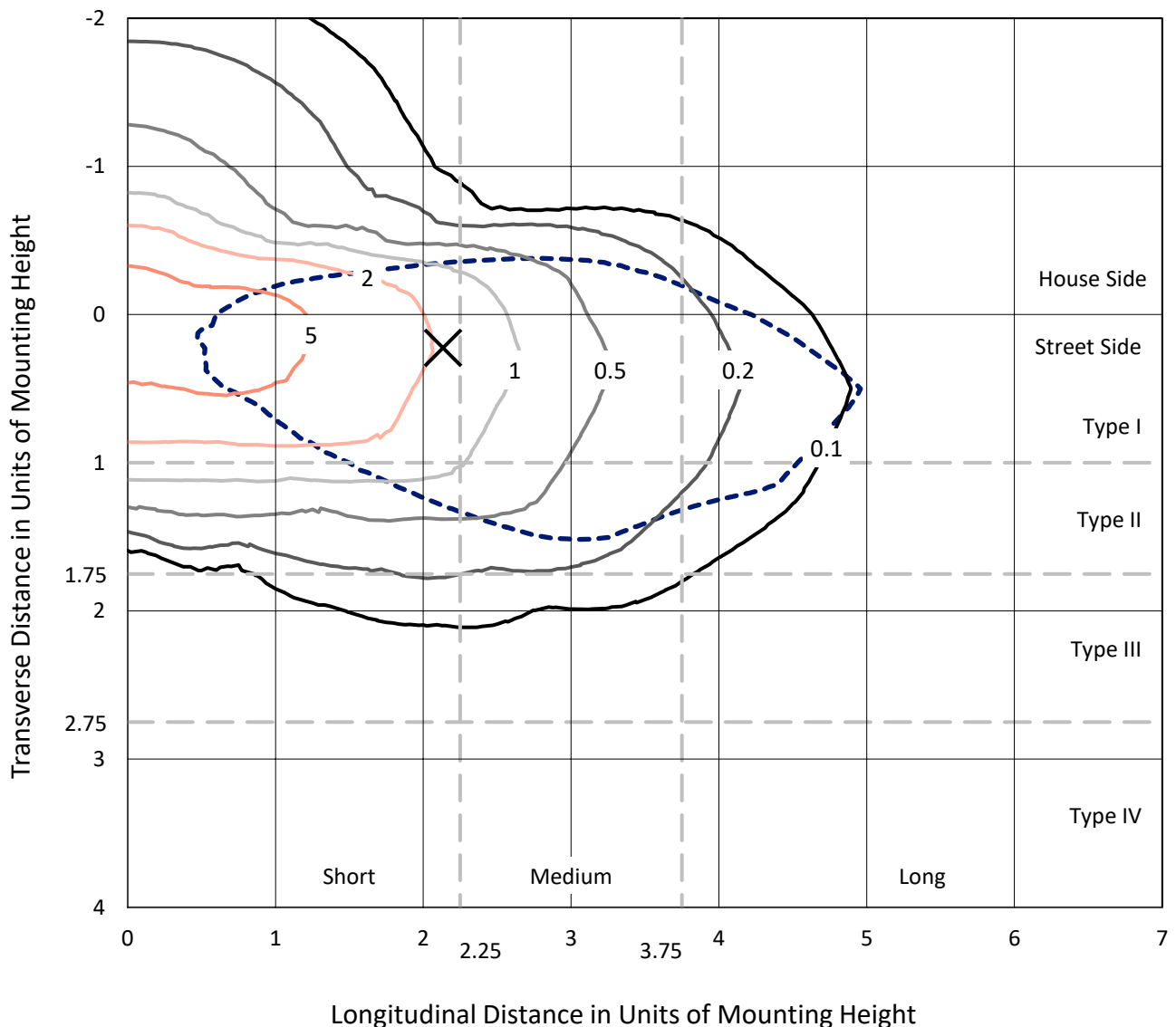
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

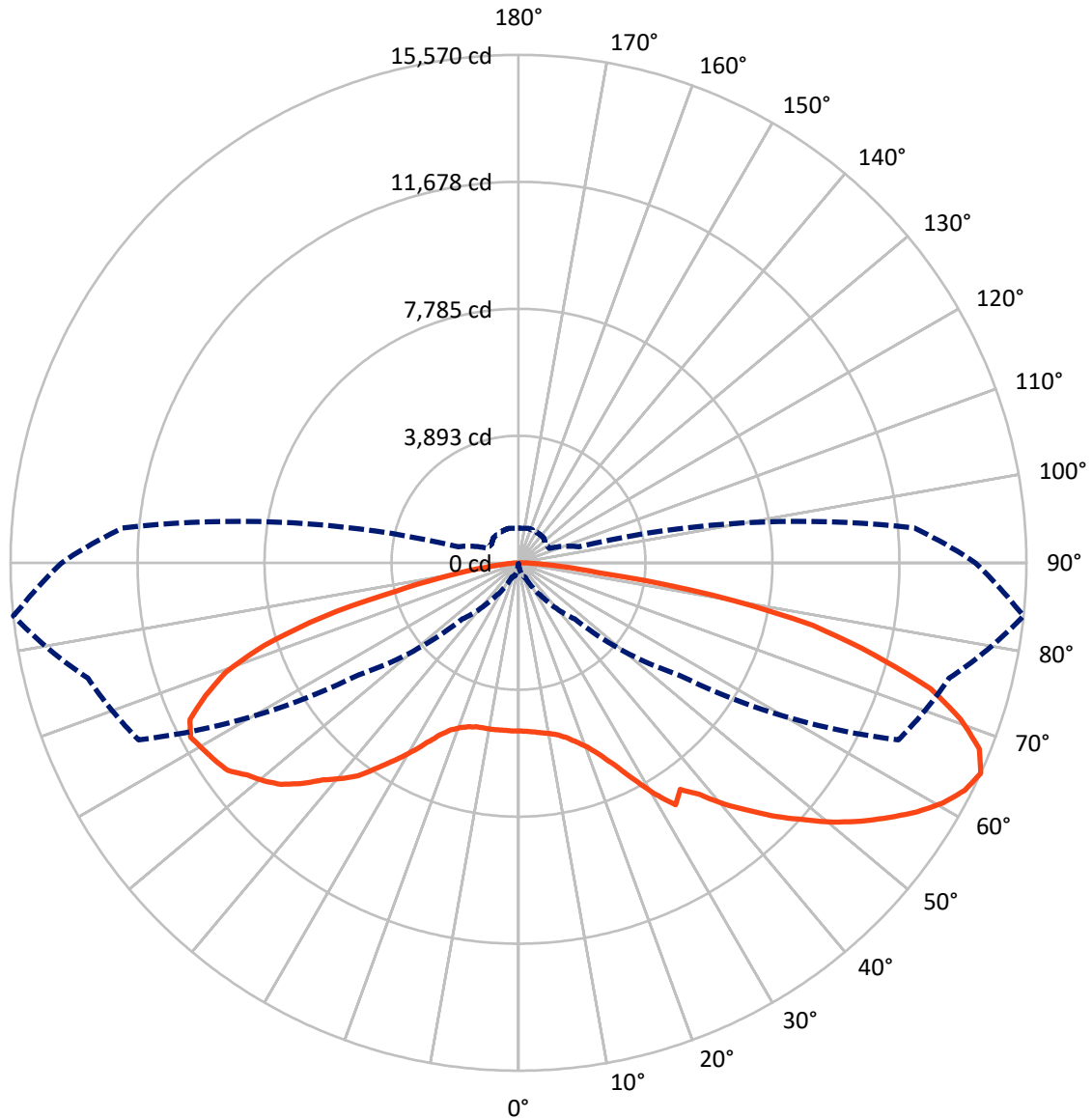
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 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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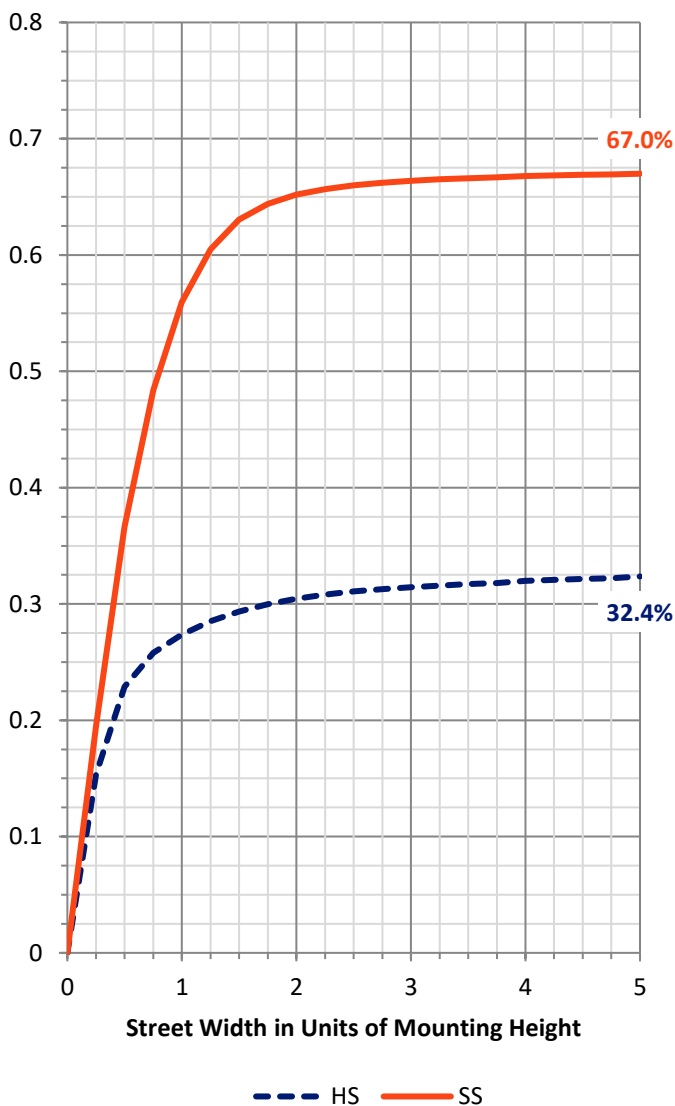
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7301.6	0.0	7301.6
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	14754.4	0.0	14754.4
	% Fixture	66.9	0.0	66.9
Total	Lumens	22056.0	0.0	22056.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	497.8	2.3
10°-20°	1481.6	6.7
20°-30°	2226.1	10.1
30°-40°	2960.2	13.4
40°-50°	3655.0	16.6
50°-60°	4107.2	18.6
60°-70°	4028.2	18.3
70°-80°	2619.3	11.9
80°-90°	480.7	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°	22056.0	100.0
0°-180°	22056.0	100.0

Coefficient of Utilization



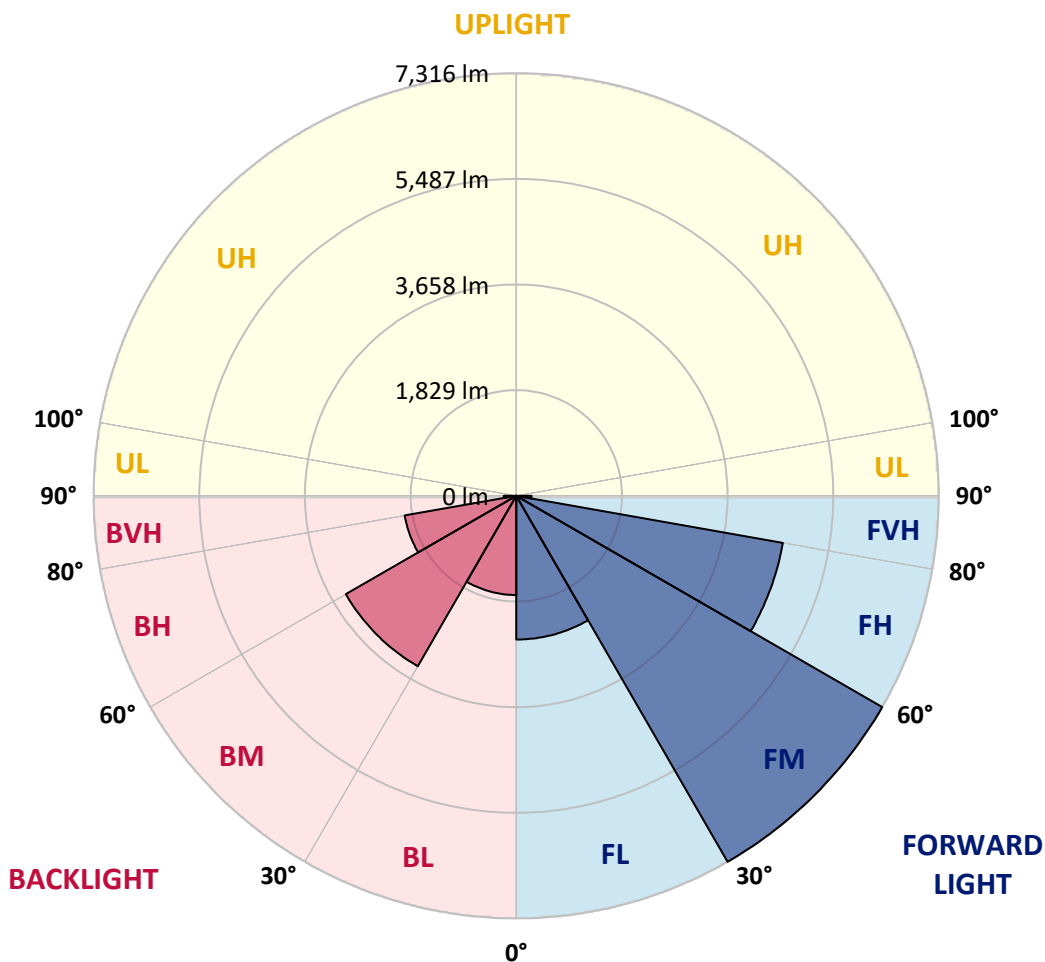
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2487.8	11.3			
FM	(30°-60°)	7315.9	33.2			
FH	(60°-80°)	4686.6	21.2			G2/5000
FVH	(80°-90°)	264.1	1.2			G3/500
BL	(0°-30°)	1717.6	7.8	B3/2500		
BM	(30°-60°)	3406.5	15.4	B3/5000		
BH	(60°-80°)	1960.9	8.9	B3/2500		G3/2500
BVH	(80°-90°)	216.6	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°	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0
2.5°	5377.4	5326.8	5332.4	5356.8	5263.0	5293.9	5241.4	5250.8	5187.9	5176.7	5183.2
5°	5755.5	5701.1	5701.1	5716.1	5558.5	5516.3	5369.9	5345.5	5252.7	5211.4	5213.3
7.5°	5950.6	5897.2	5886.8	5900.9	5787.4	5796.8	5646.7	5503.1	5338.0	5264.9	5261.1
10°	6237.7	6177.7	6142.0	6143.0	5990.0	5931.9	5821.2	5720.8	5468.4	5325.8	5308.0
12.5°	6469.4	6423.5	6404.7	6390.6	6221.8	6183.3	5975.0	5893.4	5624.2	5418.7	5395.3
15°	6603.6	6560.4	6533.2	6501.3	6407.5	6344.7	6254.6	6068.8	5809.0	5567.9	5538.8
17.5°	6253.7	6179.6	6051.0	5994.7	5973.2	6064.2	6451.6	6356.9	6047.3	5779.9	5748.9
20°	5330.5	5398.1	5495.6	5274.2	5342.7	6019.1	6746.2	6737.7	6380.3	6034.1	5993.8
22.5°	4535.0	4356.7	4664.4	5002.2	5218.0	5855.9	6860.6	7177.7	6831.6	6391.6	6344.7
25°	3717.9	3819.2	4233.8	4914.0	5216.1	5732.1	6797.8	7515.5	7408.5	6878.5	6823.1
27.5°	3607.2	3609.0	4007.7	4528.4	5319.3	6019.1	6866.3	7528.6	8060.5	7508.0	7401.0
30°	3583.7	3572.4	3680.3	4312.6	5137.3	6287.4	7307.2	7645.9	8219.1	8211.6	8069.0
32.5°	3473.9	3467.4	3580.0	3867.0	4747.9	6571.7	7724.7	8192.8	8161.8	8845.8	8807.3
35°	3317.3	3340.7	3480.5	3778.8	4565.0	6335.3	8153.4	8819.5	8872.0	8538.0	8691.0
37.5°	3154.0	3167.2	3302.3	3662.5	4259.2	5921.6	8479.9	9434.0	9614.1	9010.9	8888.9
40°	2931.7	2958.9	3117.5	3522.7	4197.3	5537.9	8249.1	10133.8	10414.3	9732.3	9544.7
42.5°	2696.2	2709.4	2902.6	3295.7	4094.1	5543.5	7775.3	10738.0	11151.7	10390.9	10200.4
45°	2489.8	2493.6	2674.6	3026.5	3890.5	5508.8	7476.1	10762.4	12034.5	11096.4	10857.1
47.5°	2237.5	2273.1	2452.3	2803.2	3630.6	5392.4	7615.8	10005.3	12920.1	11769.0	11550.4
50°	1715.9	1744.0	2091.1	2584.6	3346.4	5198.3	7711.5	10615.1	11933.2	12498.9	12342.2
52.5°	1475.7	1427.9	1677.4	2338.8	3086.5	4874.6	7751.9	11470.7	11931.3	13159.3	13002.7
55°	631.4	968.2	1511.3	1920.4	2849.1	4443.0	7722.8	12307.5	12513.0	13782.3	13727.9
57.5°	499.1	522.5	1110.8	1553.6	2567.7	3932.7	7591.5	12861.0	13023.3	14406.1	14251.3
60°	91.9	104.1	546.0	656.7	1859.4	3170.9	7113.0	12939.8	13395.7	14949.3	14751.4
62.5°	42.2	49.7	439.1	546.9	1487.0	2608.0	6703.0	12914.5	13740.0	15352.7	15178.2
65°	19.7	25.3	393.1	496.3	1287.1	2433.5	5992.9	12846.0	13664.1	15570.4	15287.0
67.5°	15.0	21.6	361.2	445.6	1070.4	2260.0	5318.3	12127.4	13298.2	15233.6	14840.5
70°	15.0	21.6	330.2	405.3	908.1	2039.5	4317.3	11227.7	12463.2	14382.7	14055.3
72.5°	15.9	21.6	293.6	366.8	787.1	1760.9	3372.6	9791.4	11462.2	13208.1	12863.8
75°	15.9	21.6	253.3	324.6	663.3	1474.8	2258.1	6998.5	9873.0	11241.8	10859.0
77.5°	15.9	21.6	210.1	271.1	540.4	1178.3	1460.7	3773.2	7767.8	9219.1	8728.5
80°	15.9	21.6	156.7	205.5	406.2	831.2	872.5	1902.6	4179.4	6056.7	6142.0
82.5°	15.9	20.6	108.8	150.1	265.5	455.9	482.2	918.4	1542.3	2484.2	2518.9
85°	15.0	17.8	77.9	99.4	145.4	171.7	234.5	456.9	739.3	1060.1	1051.7
87.5°	9.4	9.4	25.3	39.4	59.1	67.5	105.1	168.9	255.2	349.9	330.2
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°	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0	5156.0
2.5°	5182.3	5160.7	5133.5	5126.0	5062.2	5032.2	4971.2	4998.4	4967.5	4942.1	4971.2
5°	5189.8	5157.9	5100.7	5033.1	4897.1	4835.2	4748.9	4758.3	4713.2	4678.5	4698.2
7.5°	5208.6	5169.2	5079.1	4927.1	4764.8	4667.3	4577.2	4647.6	4616.6	4590.3	4610.0
10°	5218.0	5187.0	5027.5	4867.1	4633.5	4580.0	4467.4	4459.0	4461.8	4459.0	4490.0
12.5°	5243.3	5199.2	4967.5	4763.0	4564.1	4422.4	4353.0	4352.0	4262.9	4224.5	4241.3
15°	5318.3	5222.6	4927.1	4639.1	4419.6	4325.8	4106.3	4107.2	4069.7	4025.6	4024.6
17.5°	5468.4	5293.0	4927.1	4555.6	4286.4	4096.9	3905.5	3801.4	3776.0	3781.7	3777.9
20°	5666.4	5411.2	4925.3	4432.7	4098.7	3902.7	3626.9	3538.7	3458.9	3464.6	3464.6
22.5°	5950.6	5585.7	4929.0	4320.2	3919.6	3653.1	3342.6	3231.0	3145.6	3148.4	3148.4
25°	6358.7	5885.0	4973.1	4251.7	3679.4	3359.5	3046.2	2872.6	2785.3	2786.3	2788.2
27.5°	6878.5	6302.4	5126.0	4106.3	3479.6	3012.4	2669.0	2541.4	2454.2	2431.7	2431.7
30°	7466.7	6803.4	5324.0	4011.5	3170.0	2621.2	2336.0	2241.2	2136.2	2105.2	2105.2
32.5°	8118.7	7306.3	5528.5	3895.2	2878.2	2285.3	2048.0	1960.7	1829.4	1790.9	1777.8
35°	8797.0	7826.0	5777.1	3731.9	2511.4	2008.6	1798.4	1692.4	1597.7	1547.0	1534.8
37.5°	9162.8	8418.0	6001.3	3566.8	2228.1	1790.0	1555.4	1472.9	1410.0	1374.4	1367.8
40°	9665.7	8848.6	6117.6	3293.8	1923.2	1567.6	1331.2	1327.5	1335.9	1304.0	1302.1
42.5°	10177.9	9273.5	6085.7	2927.9	1685.8	1340.6	1218.6	1283.4	1330.3	1302.1	1304.0
45°	10818.7	9845.8	6202.1	2543.3	1451.3	1214.9	1195.2	1271.2	1335.9	1329.3	1329.3
47.5°	11466.9	10399.3	5987.2	2072.4	1293.7	1178.3	1198.0	1251.5	1332.2	1353.7	1349.1
50°	11995.1	10778.3	5855.0	1672.7	1204.6	1179.2	1207.4	1227.1	1315.3	1350.0	1349.1
52.5°	12422.0	11139.5	5361.5	1411.9	1153.9	1183.0	1237.4	1223.3	1285.3	1321.8	1343.4
55°	13026.1	11639.5	4799.5	1311.5	1127.6	1179.2	1247.7	1236.5	1261.8	1278.7	1294.6
57.5°	13493.3	11888.2	4047.2	1246.8	1104.2	1173.6	1239.3	1240.2	1252.4	1245.9	1239.3
60°	13885.5	12115.2	3310.7	1183.9	1074.2	1161.4	1203.6	1216.8	1213.0	1204.6	1187.7
62.5°	14076.8	12361.0	2571.5	1117.3	1042.3	1125.8	1145.5	1160.5	1152.0	1123.9	1122.0
65°	14004.6	12184.6	1906.3	1045.1	1003.8	1086.4	1085.4	1092.0	1095.8	1060.1	1063.9
67.5°	13599.3	11409.7	1452.2	953.2	959.7	1030.1	1025.4	1029.1	1018.8	994.4	998.2
70°	12421.0	10529.7	1030.1	798.4	869.7	941.9	948.5	964.4	941.0	897.8	900.6
72.5°	10678.9	9017.4	722.4	636.1	763.6	855.6	851.8	850.9	819.0	835.9	856.5
75°	9108.4	6905.7	548.8	512.2	603.2	736.4	778.7	781.5	786.2	955.0	967.2
77.5°	7011.7	4177.6	467.2	404.3	468.1	610.7	689.5	721.4	990.7	1026.3	1007.6
80°	4178.5	2412.9	361.2	315.2	378.1	466.3	589.2	761.8	995.4	889.4	850.9
82.5°	2033.9	1119.2	262.7	240.2	278.6	338.7	462.5	887.5	842.5	687.7	678.3
85°	759.0	378.1	157.6	164.2	185.8	222.3	351.8	847.1	646.4	560.1	529.1
87.5°	189.5	69.4	63.8	65.7	83.5	111.6	180.1	408.1	313.3	259.9	254.2
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)