

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: P591244

Luminaire Tested: **CTN-CA6-230-727-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591244
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-CA6-230-727-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21200 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

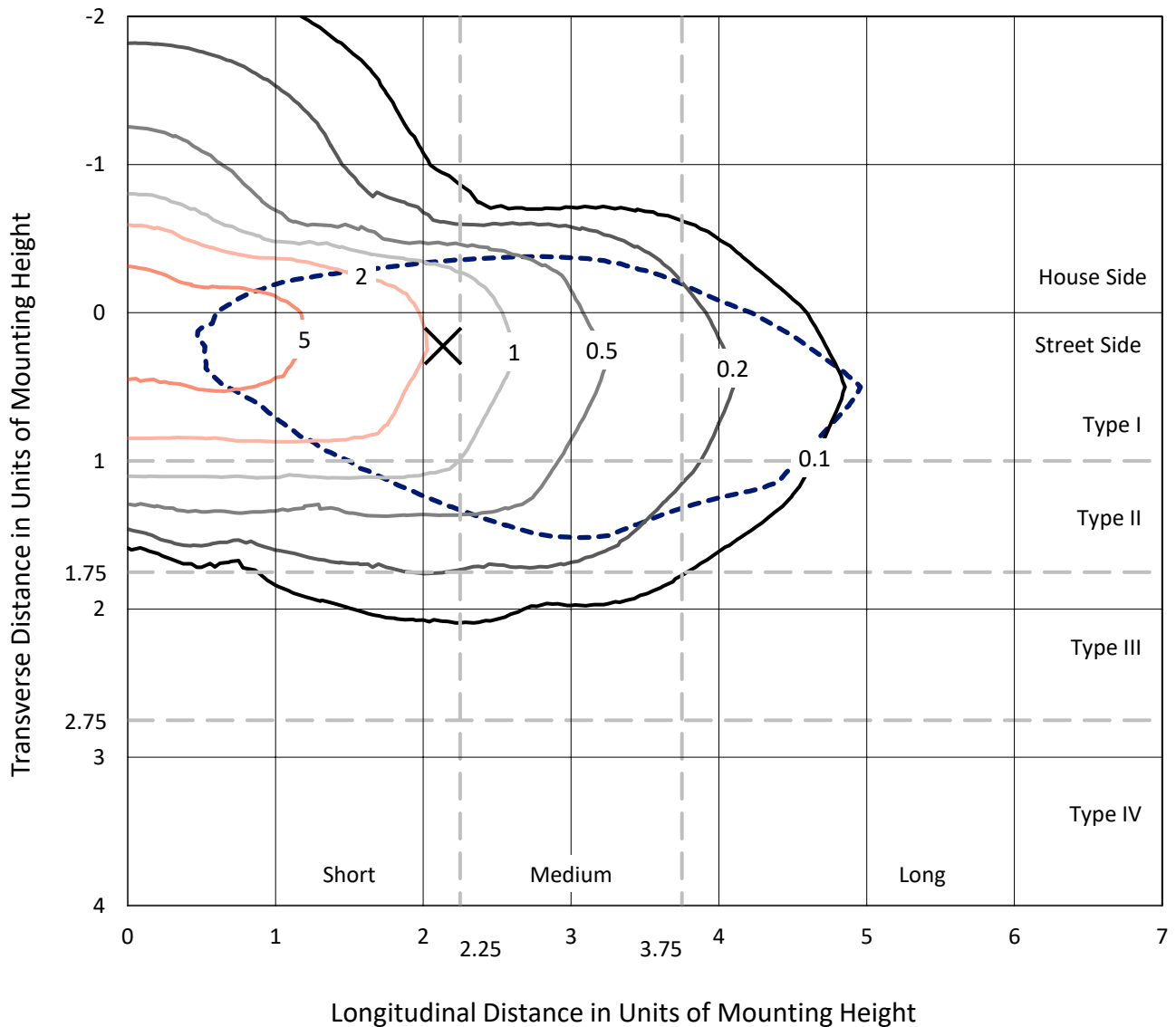
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

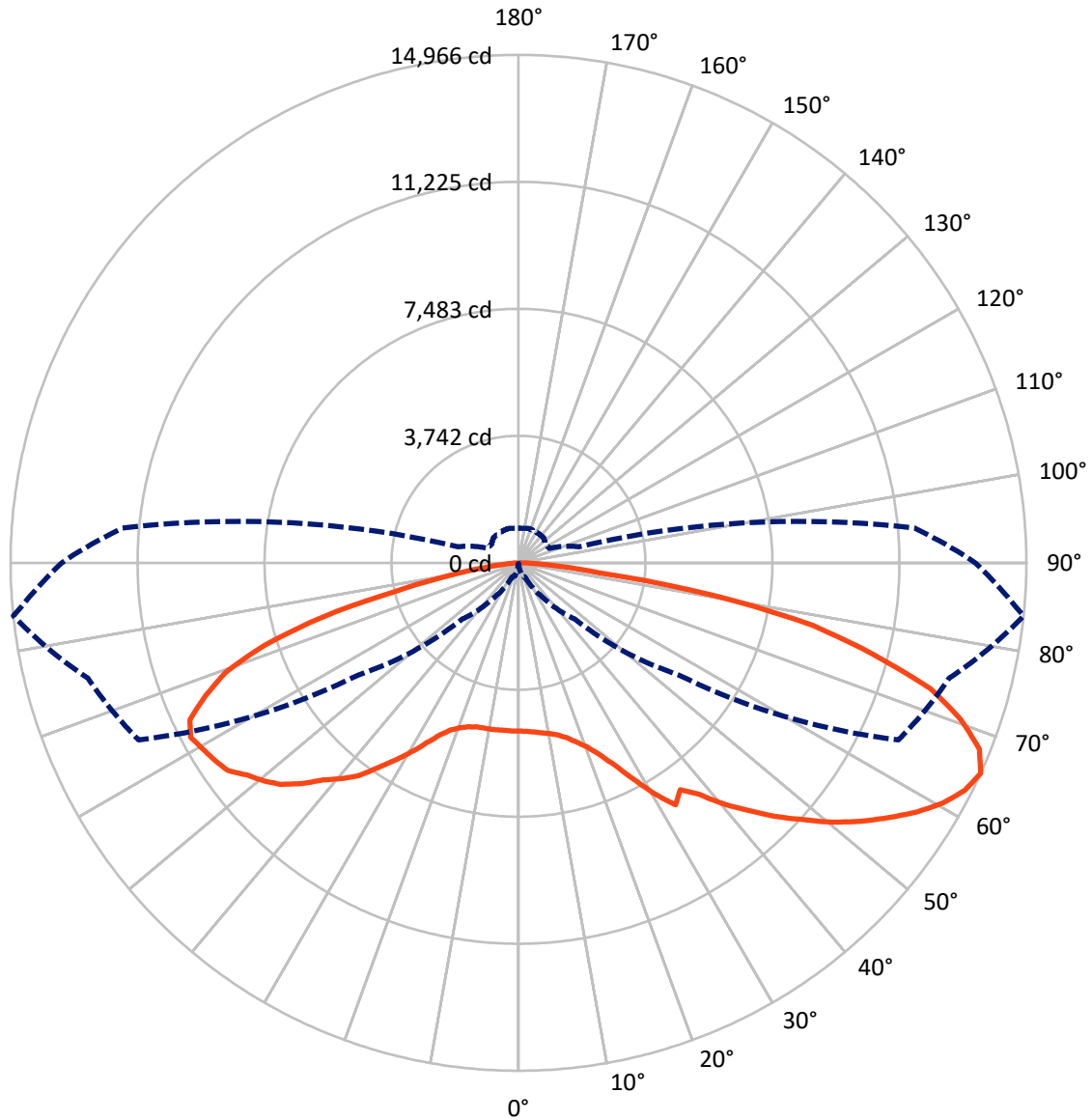
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 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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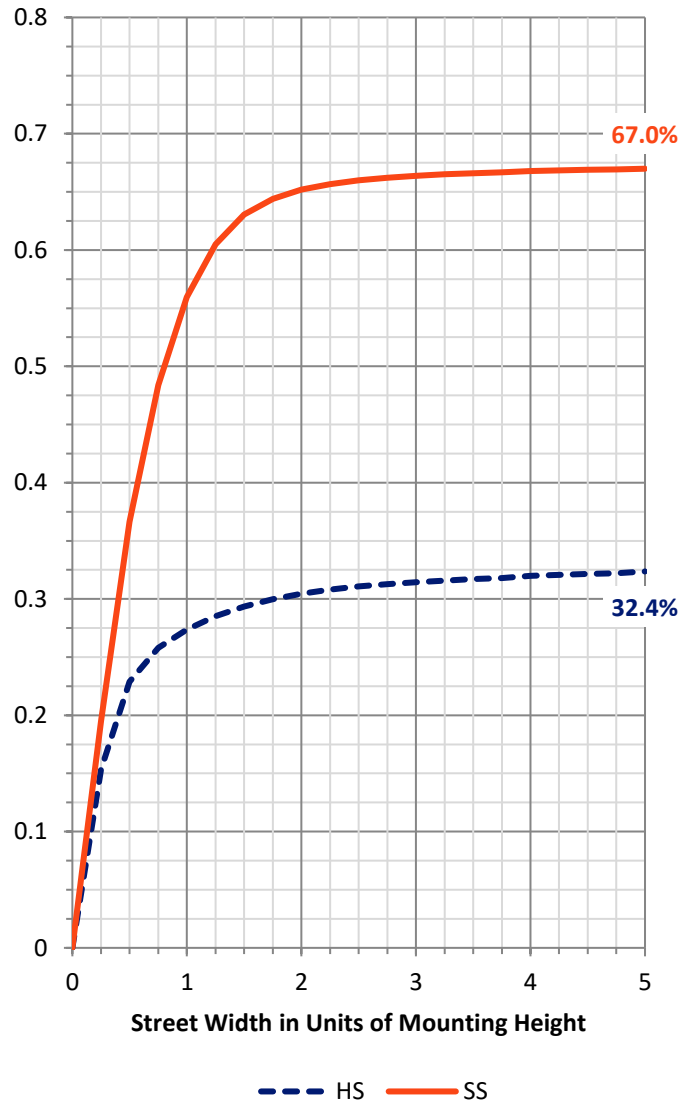
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7018.3	0.0	7018.3
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	14181.7	0.0	14181.7
	% Fixture	66.9	0.0	66.9
Total	Lumens	21200.0	0.0	21200.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	478.4	2.3
10°-20°	1424.1	6.7
20°-30°	2139.7	10.1
30°-40°	2845.3	13.4
40°-50°	3513.1	16.6
50°-60°	3947.8	18.6
60°-70°	3871.9	18.3
70°-80°	2517.6	11.9
80°-90°	462.0	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°	21200.0	100.0
0°-180°	21200.0	100.0

Coefficient of Utilization



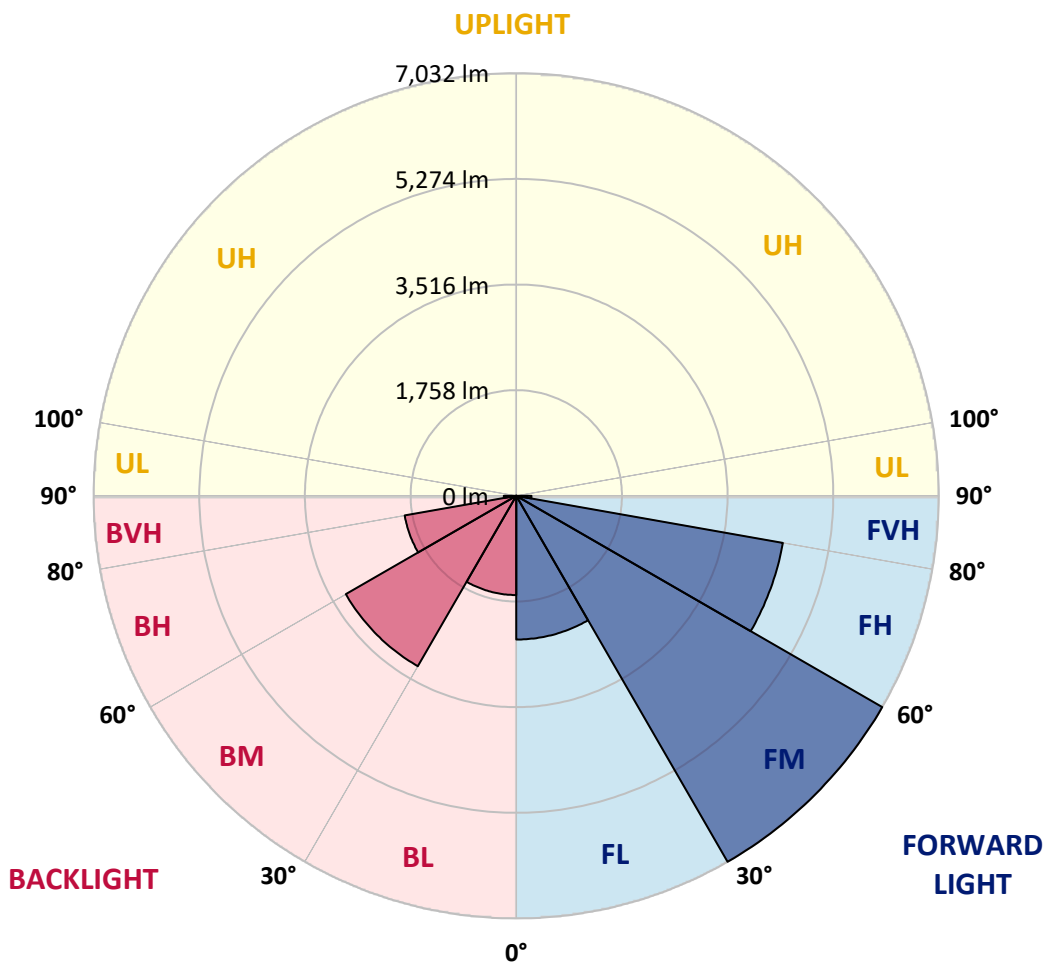
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2391.2	11.3			
FM	(30°-60°)	7032.0	33.2			
FH	(60°-80°)	4504.7	21.2			G2/5000
FVH	(80°-90°)	253.8	1.2			G3/500
BL	(0°-30°)	1651.0	7.8	B3/2500		
BM	(30°-60°)	3274.3	15.4	B3/5000		
BH	(60°-80°)	1884.8	8.9	B3/2500		G3/2500
BVH	(80°-90°)	208.2	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°	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9
2.5°	5168.7	5120.0	5125.5	5148.9	5058.7	5088.5	5038.0	5047.0	4986.6	4975.8	4982.1
5°	5532.1	5479.8	5479.8	5494.3	5342.8	5302.2	5161.5	5138.1	5048.8	5009.1	5010.9
7.5°	5719.7	5668.3	5658.4	5671.9	5562.8	5571.8	5427.5	5289.6	5130.9	5060.5	5056.9
10°	5995.6	5937.9	5903.7	5904.6	5757.6	5701.7	5595.3	5498.8	5256.2	5119.1	5102.0
12.5°	6218.4	6174.2	6156.1	6142.6	5980.3	5943.3	5743.1	5664.7	5405.9	5208.4	5185.9
15°	6347.3	6305.8	6279.7	6249.0	6158.8	6098.4	6011.9	5833.3	5583.5	5351.8	5323.8
17.5°	6011.0	5939.7	5816.2	5762.1	5741.3	5828.8	6201.2	6110.1	5812.6	5555.6	5525.8
20°	5123.7	5188.6	5282.4	5069.5	5135.4	5785.5	6484.4	6476.3	6132.7	5800.0	5761.2
22.5°	4359.0	4187.7	4483.4	4808.0	5015.4	5628.6	6594.4	6899.2	6566.4	6143.5	6098.4
25°	3573.6	3671.0	4069.5	4723.3	5013.6	5509.6	6534.0	7223.8	7121.0	6611.5	6558.3
27.5°	3467.2	3469.0	3852.2	4352.7	5112.8	5785.5	6599.8	7236.4	7747.7	7216.6	7113.8
30°	3444.6	3433.8	3537.5	4145.3	4937.9	6043.4	7023.6	7349.1	7900.1	7892.9	7755.8
32.5°	3339.1	3332.8	3441.0	3716.9	4563.7	6316.6	7424.9	7874.8	7845.1	8502.4	8465.5
35°	3188.5	3211.1	3345.4	3632.2	4387.8	6089.4	7837.0	8477.2	8527.7	8206.7	8353.7
37.5°	3031.6	3044.3	3174.1	3520.4	4093.9	5691.7	8150.8	9067.8	9241.0	8661.2	8543.9
40°	2817.9	2844.1	2996.5	3386.0	4034.4	5322.9	7928.9	9740.5	10010.1	9354.6	9174.2
42.5°	2591.6	2604.2	2790.0	3167.8	3935.2	5328.3	7473.6	10321.2	10718.9	9987.6	9804.6
45°	2393.2	2396.8	2570.8	2909.0	3739.5	5295.0	7185.9	10344.7	11567.4	10665.7	10435.8
47.5°	2150.6	2184.9	2357.1	2694.4	3489.7	5183.2	7320.3	9617.0	12418.7	11312.2	11102.1
50°	1649.3	1676.3	2010.0	2484.3	3216.5	4996.5	7412.3	10203.1	11470.1	12013.8	11863.2
52.5°	1418.4	1372.4	1612.3	2248.0	2966.7	4685.4	7451.0	11025.5	11468.2	12648.6	12498.0
55°	606.9	930.6	1452.7	1845.8	2738.6	4270.6	7423.1	11829.8	12027.3	13247.4	13195.1
57.5°	479.7	502.3	1067.7	1493.3	2468.0	3780.1	7296.8	12361.9	12517.9	13847.0	13698.2
60°	88.4	100.1	524.8	631.2	1787.2	3047.9	6836.9	12437.6	12875.9	14369.1	14178.9
62.5°	40.6	47.8	422.0	525.7	1429.2	2506.8	6442.9	12413.3	13206.8	14756.9	14589.2
65°	18.9	24.3	377.8	477.0	1237.2	2339.1	5760.3	12347.4	13133.8	14966.1	14693.8
67.5°	14.4	20.7	347.2	428.3	1028.9	2172.3	5111.9	11656.7	12782.1	14642.4	14264.5
70°	14.4	20.7	317.4	389.5	872.9	1960.4	4149.8	10791.9	11979.5	13824.5	13509.8
72.5°	15.3	20.7	282.2	352.6	756.6	1692.6	3241.7	9411.4	11017.4	12695.5	12364.6
75°	15.3	20.7	243.5	312.0	637.5	1417.5	2170.5	6726.9	9489.8	10805.5	10437.6
77.5°	15.3	20.7	202.0	260.6	519.4	1132.6	1404.0	3626.8	7466.4	8861.3	8389.7
80°	15.3	20.7	150.6	197.5	390.5	798.9	838.6	1828.7	4017.2	5821.6	5903.7
82.5°	15.3	19.8	104.6	144.3	255.2	438.2	463.5	882.8	1482.5	2387.8	2421.2
85°	14.4	17.1	74.8	95.6	139.8	165.0	225.4	439.1	710.6	1019.0	1010.8
87.5°	9.0	9.0	24.3	37.9	56.8	64.9	101.0	162.3	245.3	336.3	317.4
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°	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9	4955.9
2.5°	4981.2	4960.4	4934.3	4927.1	4865.8	4836.9	4778.3	4804.4	4774.7	4750.3	4778.3
5°	4988.4	4957.7	4902.7	4837.8	4707.1	4647.5	4564.6	4573.6	4530.3	4496.9	4515.9
7.5°	5006.4	4968.6	4882.0	4735.9	4579.9	4486.1	4399.6	4467.2	4437.4	4412.2	4431.1
10°	5015.4	4985.7	4832.4	4678.2	4453.7	4402.3	4294.1	4285.9	4288.6	4285.9	4315.7
12.5°	5039.8	4997.4	4774.7	4578.1	4386.9	4250.8	4184.0	4183.1	4097.5	4060.5	4076.7
15°	5111.9	5020.0	4735.9	4459.1	4248.1	4157.9	3946.9	3947.8	3911.7	3869.3	3868.4
17.5°	5256.2	5087.6	4735.9	4378.8	4120.0	3937.9	3753.9	3653.8	3629.5	3634.9	3631.3
20°	5446.5	5201.2	4734.1	4260.7	3939.7	3751.2	3486.1	3401.3	3324.7	3330.1	3330.1
22.5°	5719.7	5368.9	4737.7	4152.5	3767.4	3511.4	3212.9	3105.6	3023.5	3026.2	3026.2
25°	6112.0	5656.6	4780.1	4086.7	3536.6	3229.1	2927.9	2761.1	2677.2	2678.1	2680.0
27.5°	6611.5	6057.8	4927.1	3946.9	3344.5	2895.5	2565.4	2442.8	2358.9	2337.3	2337.3
30°	7176.9	6539.4	5117.3	3855.8	3047.0	2519.4	2245.3	2154.2	2053.2	2023.5	2023.5
32.5°	7803.6	7022.7	5313.9	3744.0	2766.5	2196.6	1968.5	1884.6	1758.4	1721.4	1708.8
35°	8455.6	7522.3	5552.9	3587.1	2413.9	1930.6	1728.6	1626.7	1535.7	1487.0	1475.2
37.5°	8807.2	8091.3	5768.4	3428.4	2141.6	1720.5	1495.1	1415.7	1355.3	1321.0	1314.7
40°	9290.6	8505.2	5880.2	3166.0	1848.6	1506.8	1279.6	1276.0	1284.1	1253.4	1251.6
42.5°	9782.9	8913.6	5849.5	2814.3	1620.4	1288.6	1171.4	1233.6	1278.7	1251.6	1253.4
45°	10398.8	9463.7	5961.4	2444.6	1395.0	1167.7	1148.8	1221.8	1284.1	1277.8	1277.8
47.5°	11021.9	9995.7	5754.9	1991.9	1243.5	1132.6	1151.5	1202.9	1280.5	1301.2	1296.7
50°	11529.6	10360.0	5627.7	1607.8	1157.8	1133.5	1160.5	1179.5	1264.2	1297.6	1296.7
52.5°	11939.9	10707.2	5153.4	1357.1	1109.1	1137.1	1189.4	1175.9	1235.4	1270.5	1291.3
55°	12520.6	11187.8	4613.3	1260.6	1083.9	1133.5	1199.3	1188.5	1212.8	1229.1	1244.4
57.5°	12969.6	11426.8	3890.1	1198.4	1061.3	1128.1	1191.2	1192.1	1203.8	1197.5	1191.2
60°	13346.6	11645.0	3182.2	1138.0	1032.5	1116.3	1156.9	1169.5	1165.9	1157.8	1141.6
62.5°	13530.5	11881.2	2471.7	1074.0	1001.8	1082.1	1101.0	1115.4	1107.3	1080.3	1078.5
65°	13461.1	11711.7	1832.3	1004.5	964.9	1044.2	1043.3	1049.6	1053.2	1019.0	1022.6
67.5°	13071.5	10966.9	1395.9	916.2	922.5	990.1	985.6	989.2	979.3	955.8	959.4
70°	11939.0	10121.1	990.1	767.4	835.9	905.3	911.7	927.0	904.4	863.0	865.7
72.5°	10264.4	8667.5	694.3	611.4	734.0	822.4	818.8	817.9	787.2	803.4	823.3
75°	8754.9	6637.7	527.5	492.3	579.8	707.9	748.4	751.1	755.7	918.0	929.7
77.5°	6739.6	4015.4	449.1	388.6	450.0	587.0	662.8	693.4	952.2	986.5	968.5
80°	4016.3	2319.3	347.2	303.0	363.4	448.2	566.3	732.2	956.7	854.8	817.9
82.5°	1955.0	1075.8	252.5	230.8	267.8	325.5	444.6	853.0	809.8	661.0	652.0
85°	729.5	363.4	151.5	157.8	178.5	213.7	338.2	814.3	621.3	538.3	508.6
87.5°	182.2	66.7	61.3	63.1	80.3	107.3	173.1	392.3	301.2	249.8	244.4
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)