

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: P591436

Luminaire Tested: **CTN-CA6-230-740-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591436
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-CA6-230-740-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25035 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

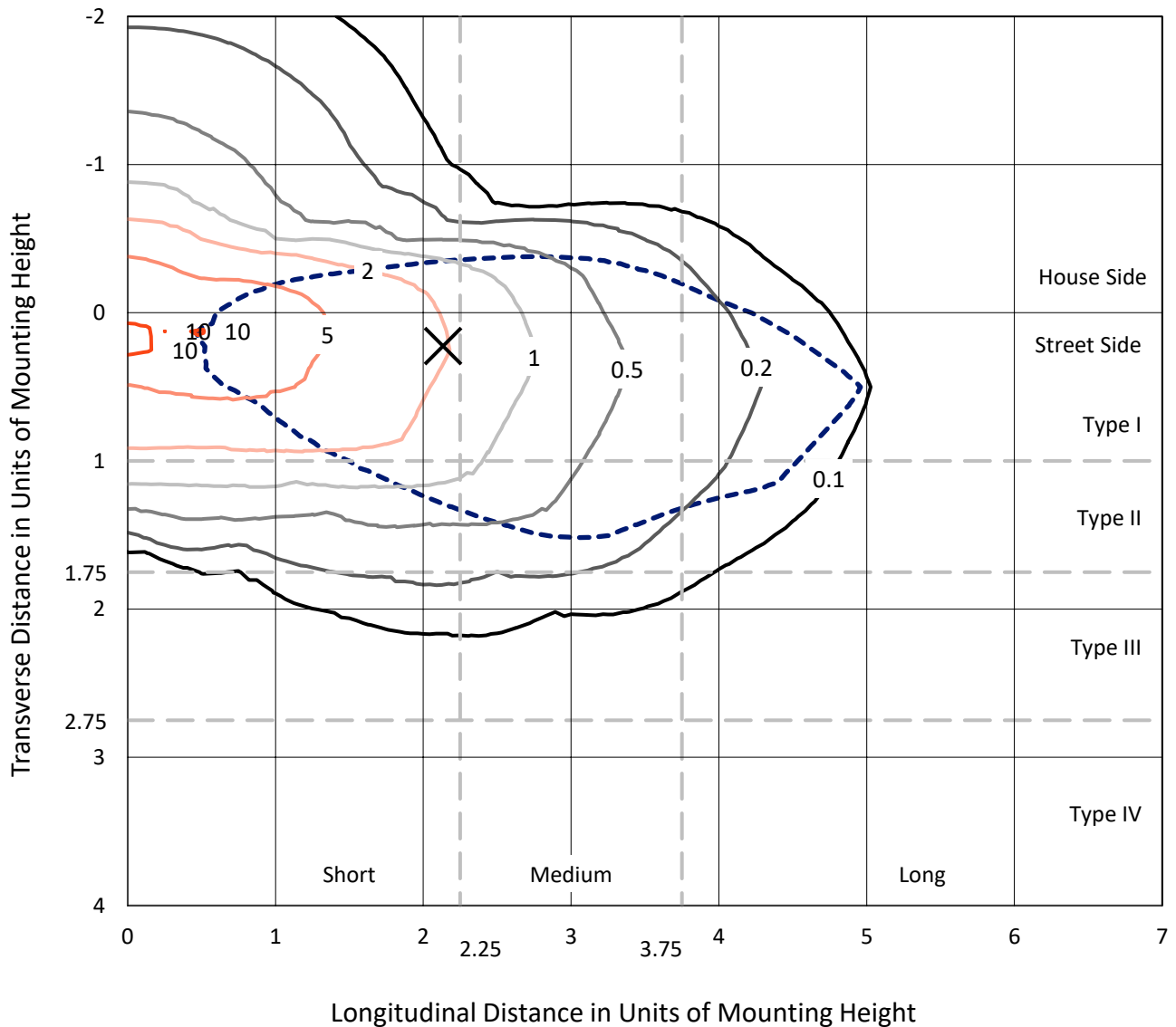
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

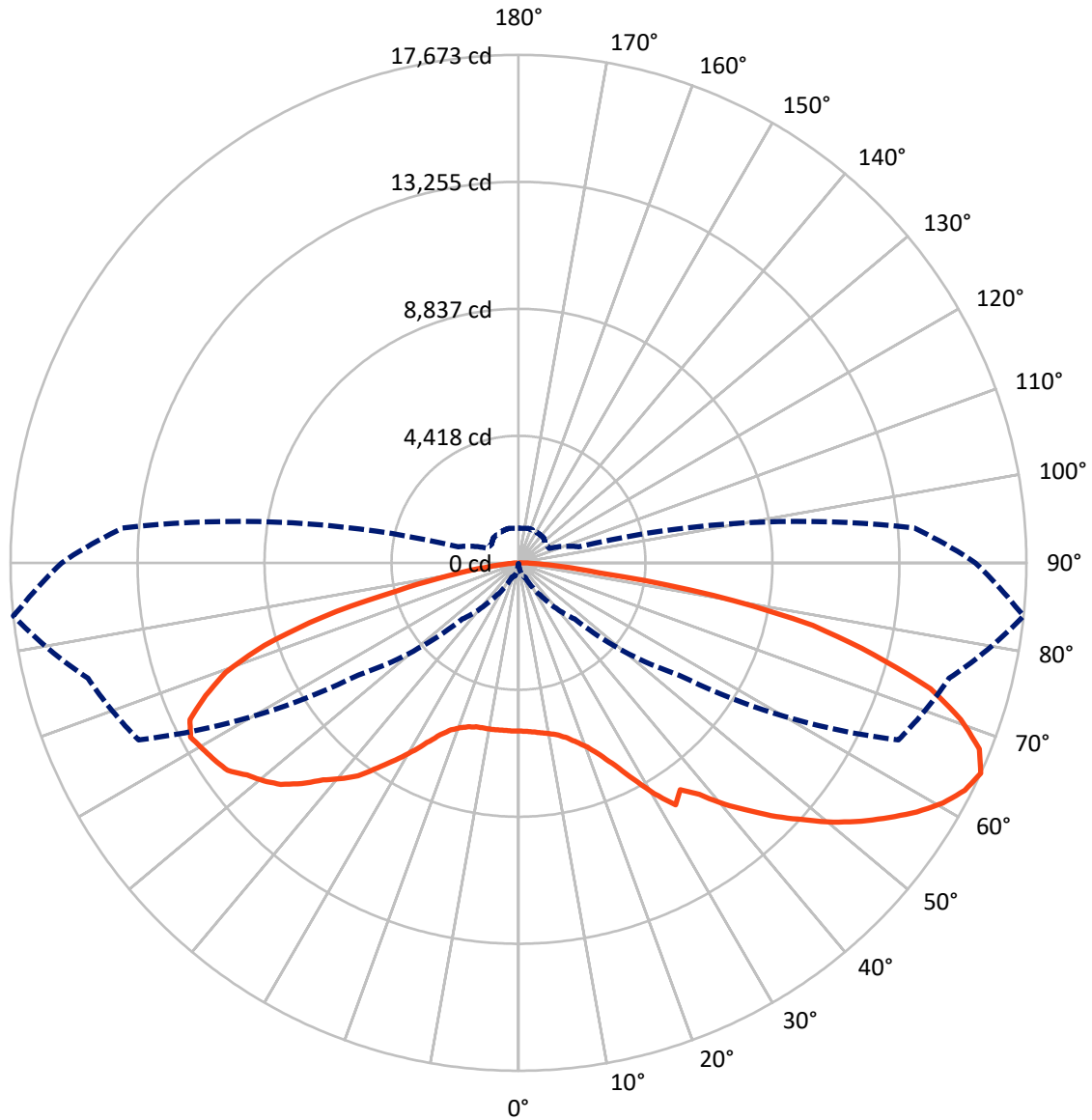
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.9 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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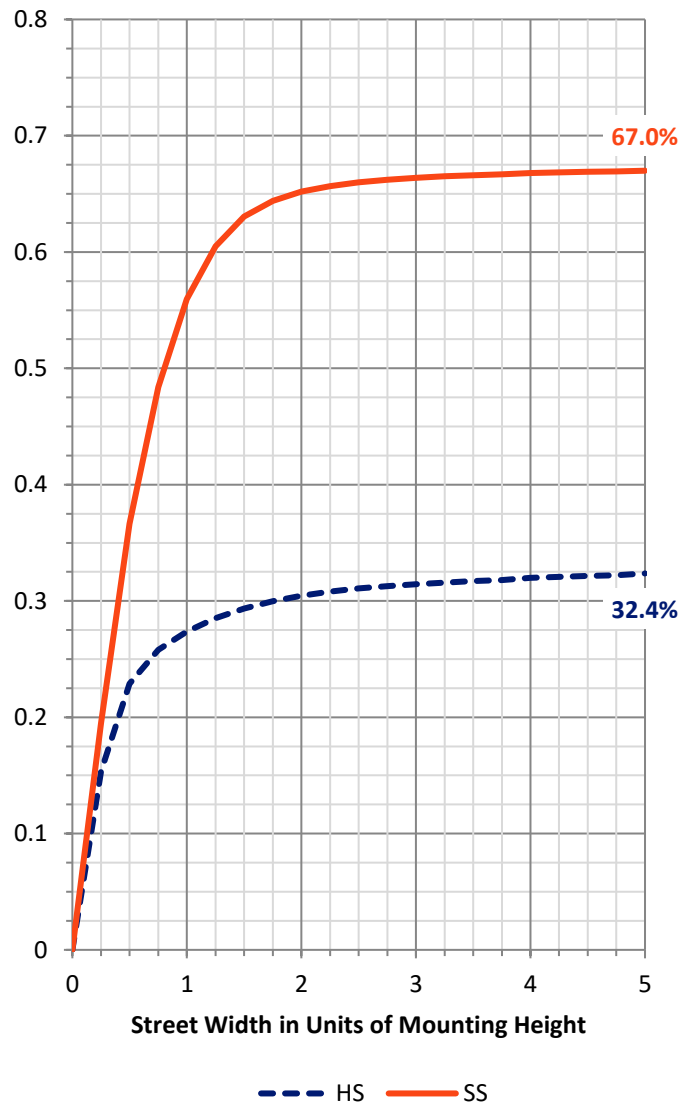
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8287.8	0.0	8287.8
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	16747.2	0.0	16747.2
	% Fixture	66.9	0.0	66.9
Total	Lumens	25035.0	0.0	25035.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	565.0	2.3
10°-20°	1681.7	6.7
20°-30°	2526.7	10.1
30°-40°	3360.1	13.4
40°-50°	4148.6	16.6
50°-60°	4661.9	18.6
60°-70°	4572.3	18.3
70°-80°	2973.1	11.9
80°-90°	545.6	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°	25035.0	100.0
0°-180°	25035.0	100.0

Coefficient of Utilization

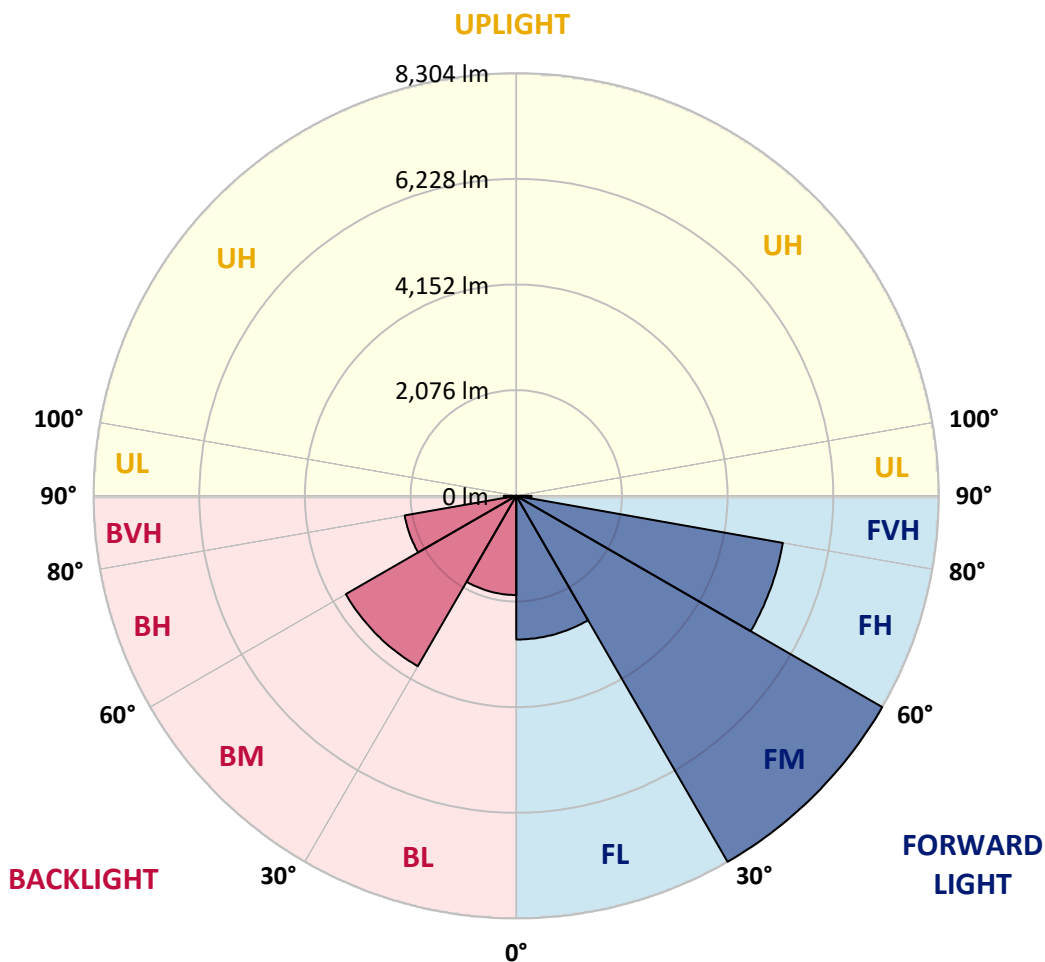


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2823.8	11.3			
FM (30°-60°)	8304.0	33.2			
FH (60°-80°)	5319.6	21.2			G3/7500
FVH (80°-90°)	299.7	1.2			G3/500
BL (0°-30°)	1949.6	7.8	B3/2500		
BM (30°-60°)	3866.6	15.4	B3/5000		
BH (60°-80°)	2225.8	8.9	B3/2500		G3/2500
BVH (80°-90°)	245.9	1.0			G3/500
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°	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4
2.5°	6103.7	6046.2	6052.6	6080.3	5973.8	6009.0	5949.3	5960.0	5888.6	5875.9	5883.3
5°	6532.9	6471.1	6471.1	6488.2	6309.3	6261.3	6095.2	6067.5	5962.1	5915.3	5917.4
7.5°	6754.4	6693.7	6682.0	6697.9	6569.1	6579.7	6409.4	6246.4	6059.0	5976.0	5971.7
10°	7080.2	7012.1	6971.6	6972.7	6799.1	6733.1	6607.4	6493.5	6207.0	6045.2	6024.9
12.5°	7343.2	7291.1	7269.8	7253.8	7062.1	7018.5	6782.1	6689.4	6383.8	6150.6	6124.0
15°	7495.5	7446.5	7415.6	7379.4	7273.0	7201.6	7099.4	6888.5	6593.6	6319.9	6286.9
17.5°	7098.3	7014.2	6868.3	6804.4	6779.9	6883.2	7323.0	7215.5	6864.0	6560.6	6525.4
20°	6050.5	6127.2	6237.9	5986.6	6064.3	6832.1	7657.4	7647.8	7242.1	6849.1	6803.4
22.5°	5147.5	4945.2	5294.5	5677.8	5922.7	6646.8	7787.3	8147.2	7754.3	7254.9	7201.6
25°	4220.0	4335.0	4805.7	5577.7	5920.6	6506.3	7715.9	8530.5	8409.2	7807.5	7744.7
27.5°	4094.4	4096.5	4549.1	5140.1	6037.7	6832.1	7793.7	8545.5	9149.2	8522.0	8400.6
30°	4067.7	4055.0	4177.4	4895.1	5831.1	7136.7	8294.1	8678.6	9329.2	9320.7	9158.8
32.5°	3943.2	3935.7	4063.5	4389.3	5389.2	7459.3	8768.0	9299.4	9264.2	10040.5	9996.8
35°	3765.3	3791.9	3950.6	4289.2	5181.6	7191.0	9254.6	10010.7	10070.3	9691.2	9864.8
37.5°	3580.0	3594.9	3748.3	4157.2	4834.4	6721.4	9625.2	10708.2	10912.6	10227.9	10089.5
40°	3327.7	3358.5	3538.5	3998.5	4764.2	6285.8	9363.3	11502.6	11820.9	11046.8	10833.8
42.5°	3060.4	3075.3	3294.7	3740.8	4647.0	6292.2	8825.5	12188.3	12657.9	11794.3	11578.2
45°	2826.1	2830.4	3035.9	3435.2	4415.9	6252.8	8485.8	12216.0	13659.9	12595.1	12323.6
47.5°	2539.7	2580.1	2783.5	3181.8	4121.0	6120.8	8644.5	11356.7	14665.2	13358.6	13110.5
50°	1947.6	1979.6	2373.6	2933.7	3798.3	5900.4	8753.1	12048.8	13544.9	14187.0	14009.2
52.5°	1675.0	1620.7	1904.0	2654.7	3503.4	5533.0	8798.9	13020.0	13542.8	14936.7	14758.9
55°	716.6	1098.9	1715.5	2179.8	3234.0	5043.1	8765.9	13969.8	14203.0	15643.8	15582.0
57.5°	566.5	593.1	1260.8	1763.4	2914.5	4463.9	8616.8	14598.1	14782.3	16351.9	16176.2
60°	104.4	118.2	619.7	745.4	2110.5	3599.2	8073.7	14687.5	15205.0	16968.4	16743.8
62.5°	47.9	56.4	498.4	620.8	1687.8	2960.3	7608.4	14658.8	15595.9	17426.3	17228.3
65°	22.4	28.8	446.2	563.3	1461.0	2762.2	6802.3	14581.0	15509.6	17673.4	17351.8
67.5°	17.0	24.5	410.0	505.8	1215.0	2565.2	6036.7	13765.4	15094.3	17291.1	16844.9
70°	17.0	24.5	374.8	460.0	1030.8	2315.0	4900.5	12744.2	14146.6	16325.3	15953.6
72.5°	18.1	24.5	333.3	416.4	893.4	1998.7	3828.2	11113.9	13010.4	14992.1	14601.3
75°	18.1	24.5	287.5	368.4	752.9	1674.0	2563.1	7943.8	11206.5	12760.1	12325.7
77.5°	18.1	24.5	238.5	307.7	613.4	1337.5	1658.0	4282.8	8817.0	10464.3	9907.4
80°	18.1	24.5	177.8	233.2	461.1	943.5	990.3	2159.5	4743.9	6874.7	6971.6
82.5°	18.1	23.4	123.5	170.4	301.4	517.5	547.3	1042.5	1750.6	2819.7	2859.1
85°	17.0	20.2	88.4	112.9	165.1	194.9	266.2	518.6	839.1	1203.3	1193.7
87.5°	10.6	10.6	28.8	44.7	67.1	76.7	119.3	191.7	289.6	397.2	374.8
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°	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4	5852.4
2.5°	5882.3	5857.8	5826.9	5818.4	5746.0	5711.9	5642.7	5673.5	5638.4	5609.7	5642.7
5°	5890.8	5854.6	5789.6	5712.9	5558.5	5488.3	5390.3	5400.9	5349.8	5310.4	5332.8
7.5°	5912.1	5867.3	5765.1	5592.6	5408.4	5297.6	5195.4	5275.3	5240.1	5210.3	5232.7
10°	5922.7	5887.6	5706.6	5524.5	5259.3	5198.6	5070.8	5061.3	5064.4	5061.3	5096.4
12.5°	5951.5	5901.4	5638.4	5406.3	5180.5	5019.7	4940.9	4939.9	4838.7	4795.0	4814.2
15°	6036.7	5928.0	5592.6	5265.7	5016.5	4910.0	4660.9	4661.9	4619.3	4569.3	4568.2
17.5°	6207.0	6007.9	5592.6	5170.9	4865.3	4650.2	4433.0	4314.8	4286.0	4292.4	4288.2
20°	6431.7	6142.1	5590.5	5031.4	4652.3	4429.8	4116.7	4016.6	3926.1	3932.5	3932.5
22.5°	6754.4	6340.1	5594.7	4903.7	4449.0	4146.5	3794.1	3667.4	3570.5	3573.6	3573.6
25°	7217.6	6679.8	5644.8	4825.9	4176.4	3813.2	3457.6	3260.6	3161.6	3162.6	3164.7
27.5°	7807.5	7153.7	5818.4	4660.9	3949.5	3419.2	3029.5	2884.7	2785.7	2760.1	2760.1
30°	8475.2	7722.3	6043.0	4553.3	3598.1	2975.2	2651.5	2543.9	2424.7	2389.5	2389.5
32.5°	9215.2	8293.1	6275.2	4421.3	3267.0	2594.0	2324.6	2225.5	2076.5	2032.8	2017.9
35°	9985.1	8883.0	6557.4	4236.0	2850.6	2279.9	2041.3	1921.0	1813.4	1755.9	1742.1
37.5°	10400.4	9554.9	6811.9	4048.6	2529.0	2031.7	1765.5	1671.8	1600.5	1560.0	1552.6
40°	10971.2	10043.7	6943.9	3738.7	2183.0	1779.4	1511.0	1506.8	1516.4	1480.1	1478.0
42.5°	11552.6	10526.1	6907.7	3323.4	1913.5	1521.7	1383.2	1456.7	1510.0	1478.0	1480.1
45°	12279.9	11175.6	7039.7	2886.8	1647.3	1379.0	1356.6	1442.9	1516.4	1508.9	1508.9
47.5°	13015.7	11803.9	6795.9	2352.3	1468.4	1337.5	1359.8	1420.5	1512.1	1536.6	1531.3
50°	13615.2	12234.1	6645.8	1898.6	1367.3	1338.5	1370.5	1392.8	1492.9	1532.3	1531.3
52.5°	14099.7	12644.1	6085.6	1602.6	1309.8	1342.8	1404.5	1388.6	1458.8	1500.4	1524.9
55°	14785.5	13211.6	5447.8	1488.7	1280.0	1338.5	1416.3	1403.5	1432.2	1451.4	1469.5
57.5°	15315.8	13493.8	4593.8	1415.2	1253.3	1332.1	1406.7	1407.7	1421.6	1414.1	1406.7
60°	15760.9	13751.5	3757.9	1343.8	1219.3	1318.3	1366.2	1381.1	1376.9	1367.3	1348.1
62.5°	15978.1	14030.5	2918.8	1268.2	1183.1	1277.8	1300.2	1317.2	1307.6	1275.7	1273.6
65°	15896.1	13830.3	2163.8	1186.2	1139.4	1233.1	1232.0	1239.5	1243.7	1203.3	1207.5
67.5°	15436.1	12950.8	1648.4	1081.9	1089.3	1169.2	1163.9	1168.1	1156.4	1128.7	1133.0
70°	14098.7	11951.9	1169.2	906.2	987.1	1069.1	1076.6	1094.7	1068.0	1019.1	1022.3
72.5°	12121.2	10235.4	819.9	722.0	866.8	971.1	966.9	965.8	929.6	948.8	972.2
75°	10338.7	7838.4	622.9	581.4	684.7	835.9	883.8	887.0	892.3	1084.0	1097.9
77.5°	7958.7	4741.8	530.3	459.0	531.4	693.2	782.7	818.9	1124.5	1165.0	1143.7
80°	4742.9	2738.8	410.0	357.8	429.1	529.2	668.7	864.7	1129.8	1009.5	965.8
82.5°	2308.6	1270.4	298.2	272.6	316.3	384.4	525.0	1007.4	956.2	780.5	769.9
85°	861.5	429.1	178.9	186.3	210.8	252.4	399.3	961.6	733.7	635.7	600.6
87.5°	215.1	78.8	72.4	74.5	94.8	126.7	204.5	463.2	355.7	295.0	288.6
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)