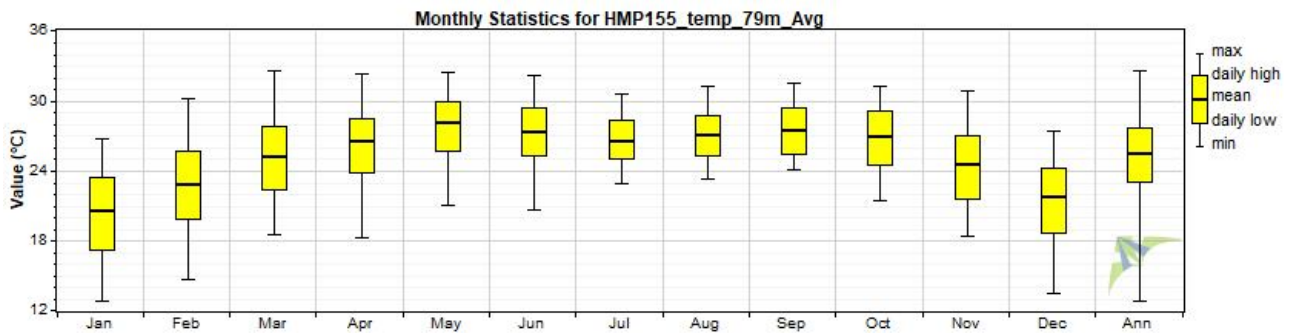


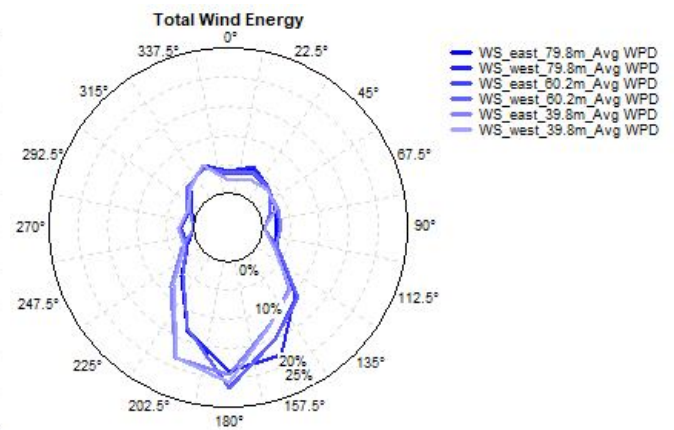
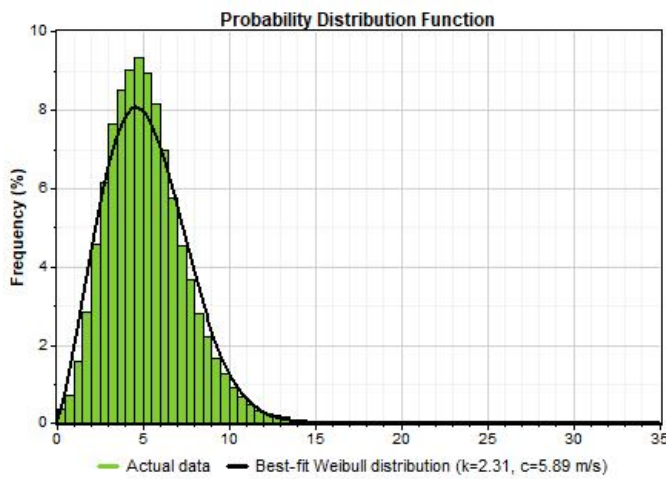
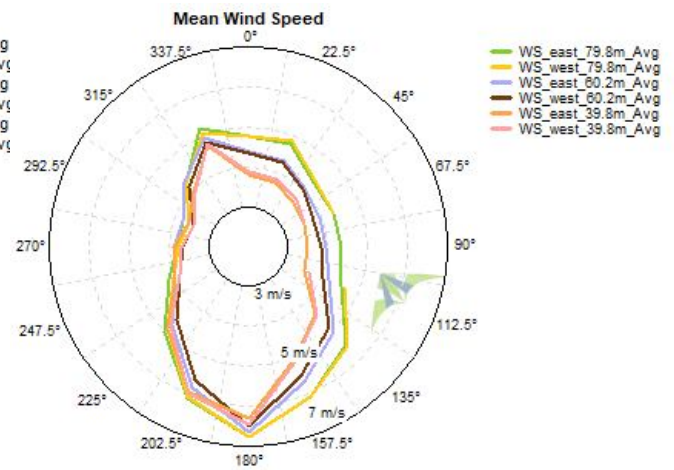
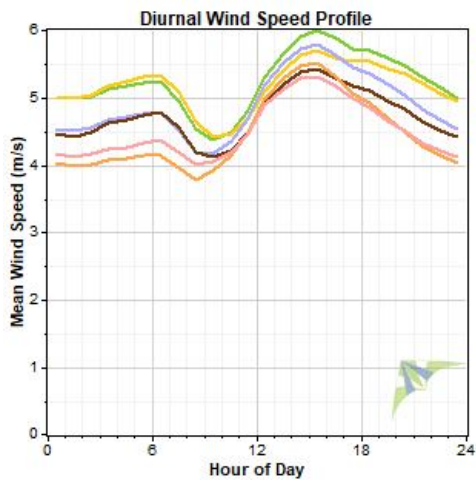
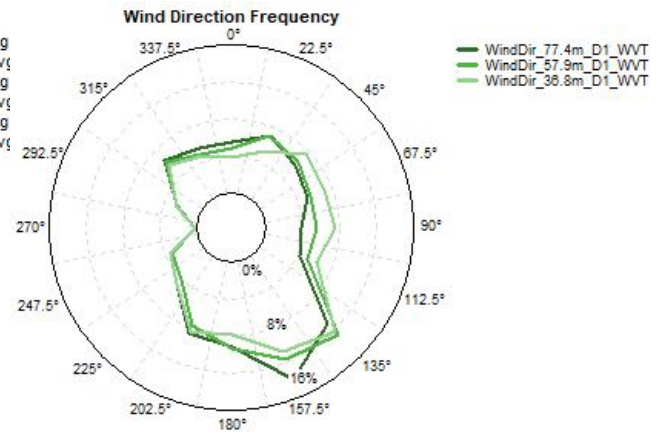
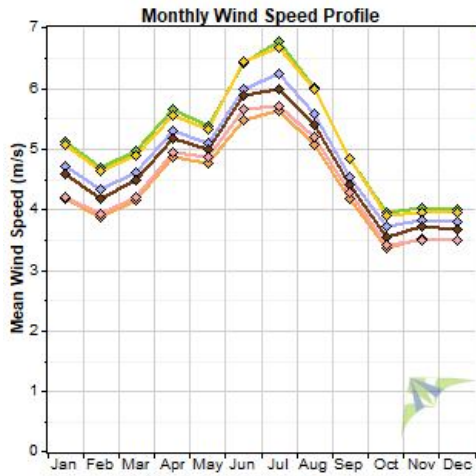
Data Set Properties

Report Created: 4/11/2018 10:23 using Windographer 3.3.10
 Filter Settings: <Unflagged data>

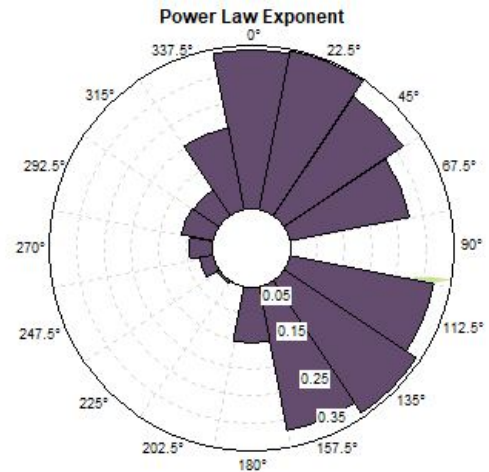
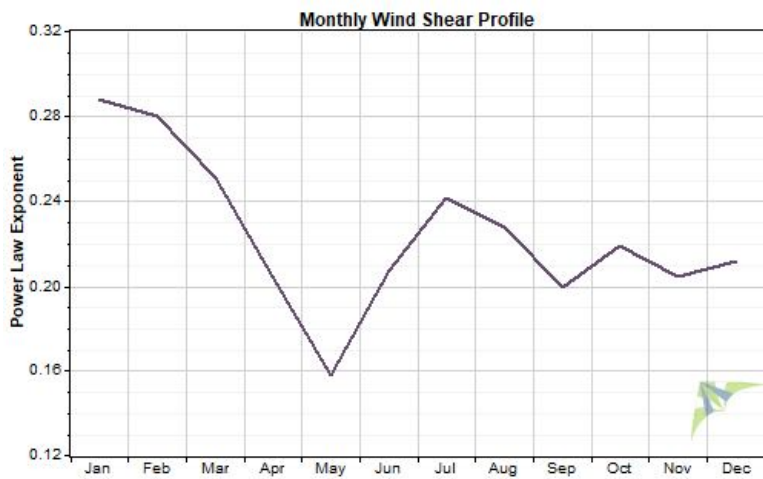
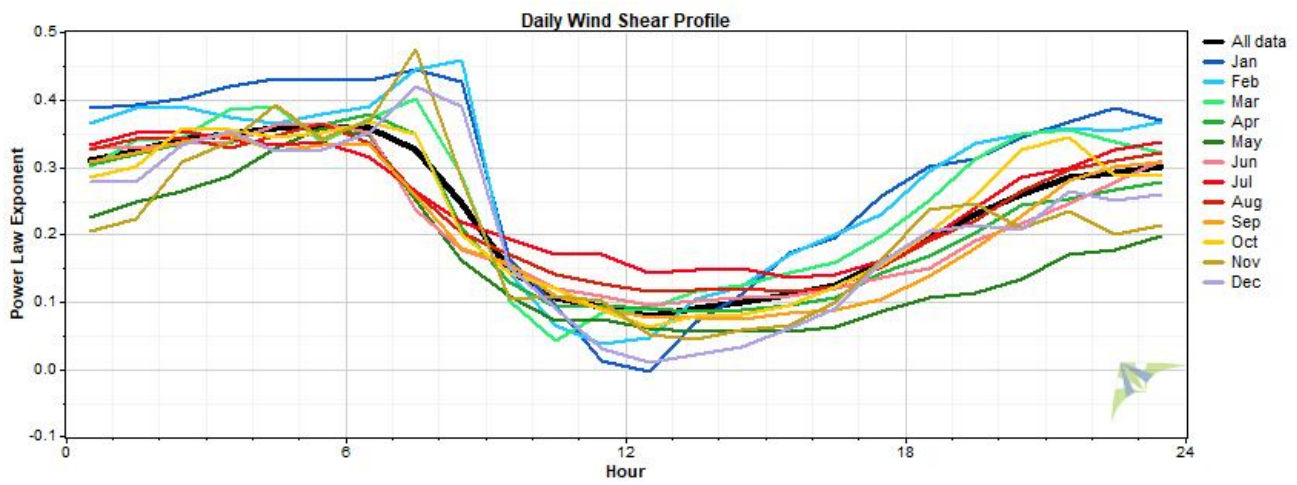
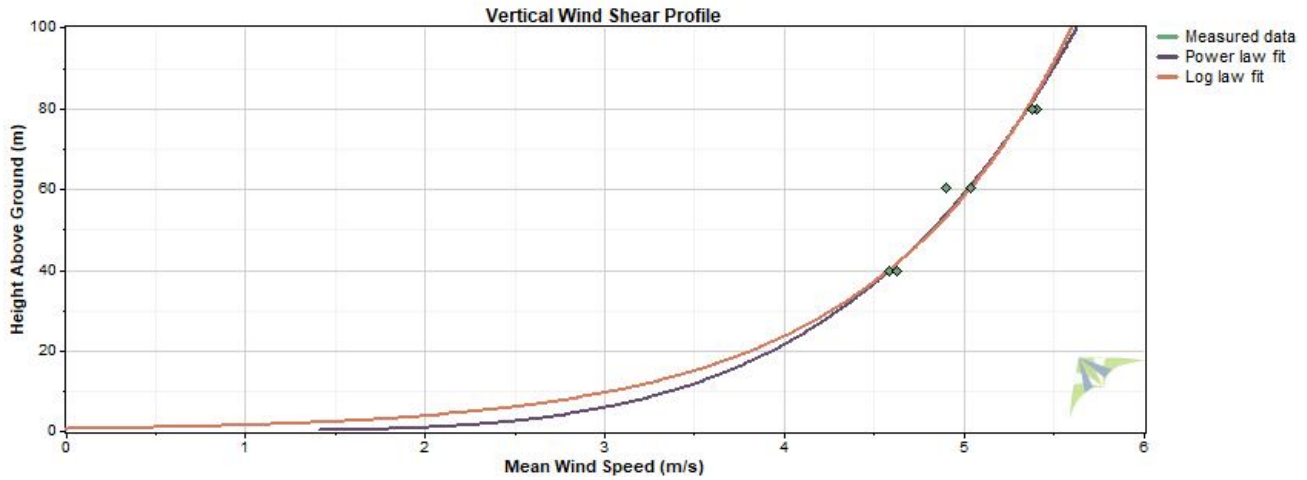
| Variable | Value |
|----------------------|-------------------------|
| Latitude | N 22.185130 |
| Longitude | E 91.817670 |
| Elevation | 2 m |
| Start date | 12/21/2014 19:50 |
| End date | 7/14/2017 08:50 |
| Duration | 31 months |
| Length of time step | 10 minutes |
| Calm threshold | 1 m/s |
| Mean temperature | 25.5 °C |
| Mean pressure | 1,000 mbar |
| Mean air density | 1.172 kg/m ³ |
| Power density at 50m | 100 W/m ² |
| Wind power class | 1 |
| Power law exponent | 0.223 |
| Surface roughness | 0.647 m |
| Roughness class | 3.55 |



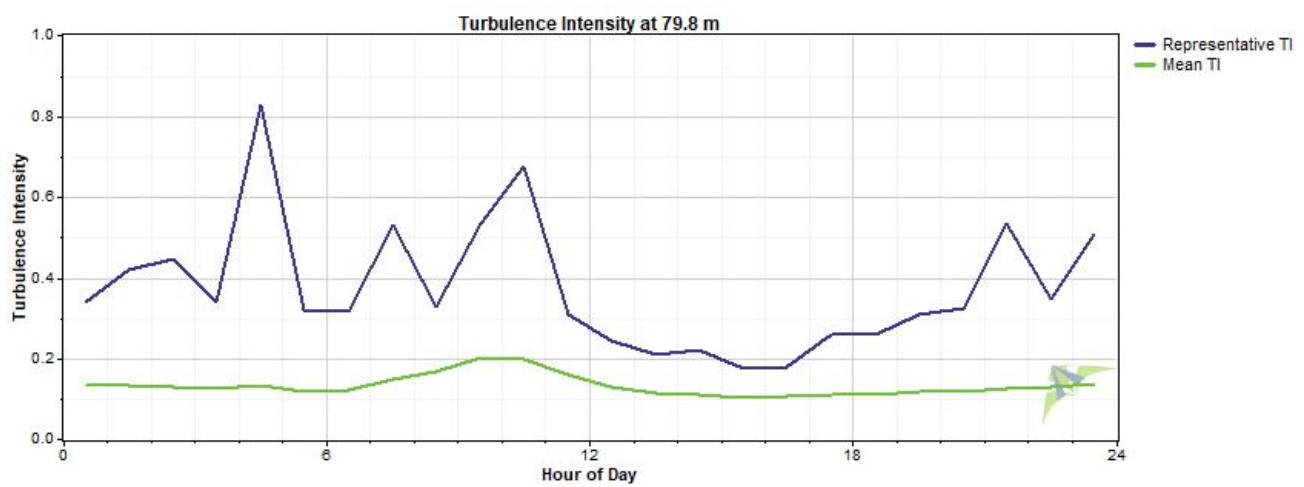
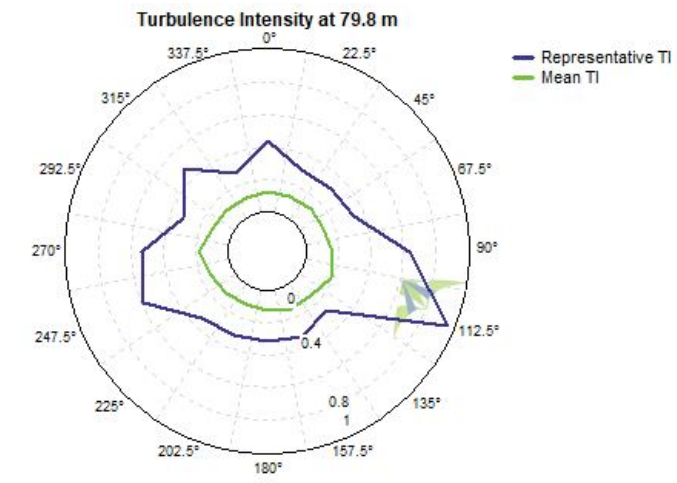
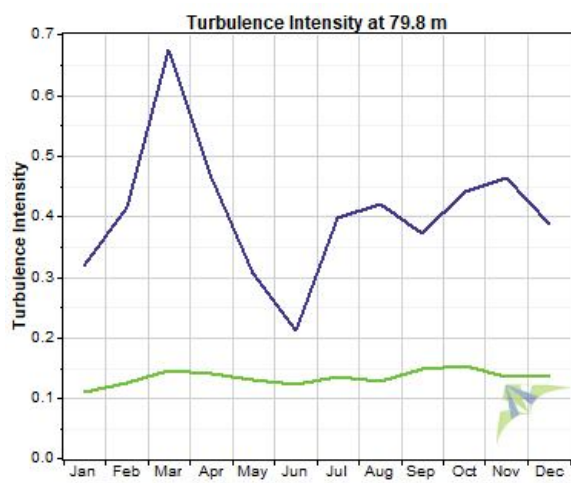
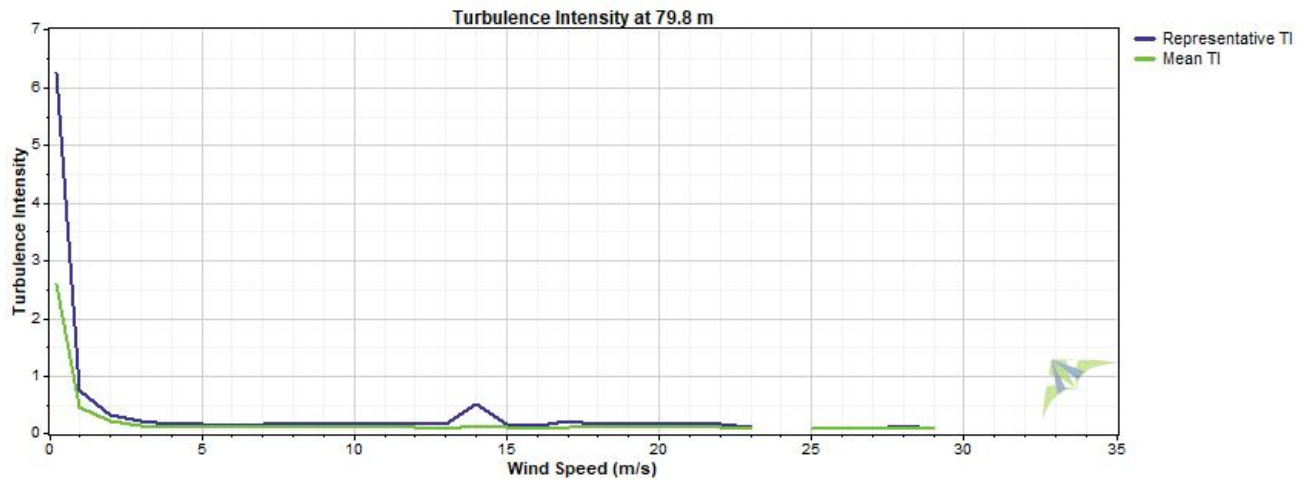
Wind Speed and Direction



Wind Shear



Turbulence Intensity



Data Column Properties

| # | Label | Units | Height | Possible Data Points | Valid Data Points | Recovery Rate (%) | Mean | Min | Max | Std. Dev |
|----|-----------------------|-------|--------|----------------------|-------------------|-------------------|--------|-------|---------|----------|
| 1 | RECORD | m/s | | 134,718 | 119,944 | 89.03 | 33,139 | 0 | 73,595 | 19,618 |
| 2 | WS_east_79.8m_Avg | m/s | 79.8 m | 134,718 | 113,856 | 84.51 | 5.218 | 0.000 | 31.390 | 2.362 |
| 3 | WS_east_79.8m_Max | m/s | 79.8 m | 134,718 | 113,856 | 84.51 | 6.611 | 0.000 | 769.500 | 3.697 |
| 4 | WS_east_79.8m_Min | m/s | 79.8 m | 134,718 | 113,856 | 84.51 | 3.761 | 0.000 | 26.430 | 1.948 |
| 5 | WS_east_79.8m_Std | m/s | 79.8 m | 134,718 | 113,856 | 84.51 | 0.577 | 0.000 | 54.960 | 0.343 |
| 6 | WS_west_79.8m_Avg | m/s | 79.8 m | 134,718 | 114,124 | 84.71 | 5.167 | 0.000 | 31.320 | 2.374 |
| 7 | WS_west_79.8m_Max | m/s | 79.8 m | 134,718 | 114,124 | 84.71 | 6.540 | 0.000 | 770.700 | 3.705 |
| 8 | WS_west_79.8m_Min | m/s | 79.8 m | 134,718 | 114,124 | 84.71 | 3.728 | 0.000 | 25.690 | 1.949 |
| 9 | WS_west_79.8m_Std | m/s | 79.8 m | 134,718 | 114,124 | 84.71 | 0.572 | 0.000 | 55.050 | 0.341 |
| 10 | WS_east_60.2m_Avg | m/s | 60.2 m | 134,718 | 113,953 | 84.59 | 4.872 | 0.000 | 30.340 | 2.204 |
| 11 | WS_east_60.2m_Max | m/s | 60.2 m | 134,718 | 113,953 | 84.59 | 6.316 | 0.000 | 406.800 | 3.046 |
| 12 | WS_east_60.2m_Min | m/s | 60.2 m | 134,718 | 113,953 | 84.59 | 3.366 | 0.000 | 24.170 | 1.784 |
| 13 | WS_east_60.2m_Std | m/s | 60.2 m | 134,718 | 113,953 | 84.59 | 0.595 | 0.000 | 28.840 | 0.325 |
| 14 | WS_west_60.2m_Avg | m/s | 60.2 m | 134,718 | 111,431 | 82.71 | 4.745 | 0.000 | 29.420 | 2.235 |
| 15 | WS_west_60.2m_Max | m/s | 60.2 m | 134,718 | 111,431 | 82.71 | 6.179 | 0.000 | 36.930 | 2.800 |
| 16 | WS_west_60.2m_Min | m/s | 60.2 m | 134,718 | 111,431 | 82.71 | 3.233 | 0.000 | 23.200 | 1.850 |
| 17 | WS_west_60.2m_Std | m/s | 60.2 m | 134,718 | 111,431 | 82.71 | 0.594 | 0.000 | 6.682 | 0.315 |
| 18 | WS_east_39.8m_Avg | m/s | 39.8 m | 134,718 | 114,410 | 84.93 | 4.434 | 0.000 | 28.520 | 2.029 |
| 19 | WS_east_39.8m_Max | m/s | 39.8 m | 134,718 | 114,410 | 84.93 | 5.970 | 0.000 | 729.200 | 3.430 |
| 20 | WS_east_39.8m_Min | m/s | 39.8 m | 134,718 | 114,410 | 84.93 | 2.833 | 0.000 | 21.850 | 1.616 |
| 21 | WS_east_39.8m_Std | m/s | 39.8 m | 134,718 | 114,410 | 84.93 | 0.623 | 0.000 | 52.080 | 0.366 |
| 22 | WS_west_39.8m_Avg | m/s | 39.8 m | 134,718 | 109,067 | 80.96 | 4.522 | 0.000 | 29.000 | 2.088 |
| 23 | WS_west_39.8m_Max | m/s | 39.8 m | 134,718 | 109,067 | 80.96 | 6.062 | 0.000 | 759.400 | 3.567 |
| 24 | WS_west_39.8m_Min | m/s | 39.8 m | 134,718 | 109,067 | 80.96 | 2.921 | 0.000 | 23.370 | 1.667 |
| 25 | WS_west_39.8m_Std | m/s | 39.8 m | 134,718 | 109,067 | 80.96 | 0.623 | 0.000 | 54.250 | 0.375 |
| 26 | WindDir_77.4m_D1_WVT | ° | 77.4 m | 134,718 | 119,944 | 89.03 | 150.7 | 0.0 | 360.0 | 97.5 |
| 27 | WindDir_77.4m_SD1_WVT | ° | 77.4 m | 134,718 | 119,944 | 89.03 | 5.2 | 0.0 | 78.5 | 5.0 |
| 28 | WindDir_57.9m_D1_WVT | ° | 57.9 m | 134,718 | 119,944 | 89.03 | 145.3 | 0.0 | 360.0 | 96.4 |
| 29 | WindDir_57.9m_SD1_WVT | ° | 57.9 m | 134,718 | 119,944 | 89.03 | 5.9 | 0.0 | 80.0 | 5.2 |
| 30 | WindDir_36.8m_D1_WVT | ° | 36.8 m | 134,718 | 119,944 | 89.03 | 146.7 | 0.0 | 360.0 | 94.2 |
| 31 | WindDir_36.8m_SD1_WVT | ° | 36.8 m | 134,718 | 119,944 | 89.03 | 6.9 | 0.0 | 79.9 | 5.6 |
| 32 | RTD_temp_C_78m_Avg | °C | 78 m | 134,718 | 119,944 | 89.03 | 26.6 | 13.6 | 33.8 | 3.1 |
| 33 | RTD_temp_C_78m_Max | °C | 78 m | 134,718 | 119,944 | 89.03 | 26.9 | 14.0 | 35.4 | 3.1 |
| 34 | RTD_temp_C_78m_Min | °C | 78 m | 134,718 | 119,944 | 89.03 | 26.3 | 13.3 | 33.5 | 3.1 |
| 35 | RTD_temp_C_78m_Std | °C | 78 m | 134,718 | 119,944 | 89.03 | 0.1 | 0.0 | 2.9 | 0.1 |
| 36 | RTD_temp_C_4.9m_Avg | °C | 4.9 m | 134,718 | 119,944 | 89.03 | 25.4 | 11.1 | 37.1 | 4.0 |
| 37 | RTD_temp_C_4.9m_Max | °C | 4.9 m | 134,718 | 119,944 | 89.03 | 25.5 | 11.2 | 37.2 | 4.0 |
| 38 | RTD_temp_C_4.9m_Min | °C | 4.9 m | 134,718 | 119,944 | 89.03 | 25.2 | 11.0 | 36.9 | 4.0 |
| 39 | RTD_temp_C_4.9m_Std | °C | 4.9 m | 134,718 | 119,944 | 89.03 | 0.1 | 0.0 | 3.6 | 0.1 |
| 40 | HMP155_temp_79m_Avg | °C | 79 m | 134,718 | 119,300 | 88.56 | 25.5 | 12.7 | 32.6 | 3.1 |
| 41 | HMP155_temp_79m_Max | °C | 79 m | 134,718 | 119,300 | 88.56 | 25.6 | 12.8 | 32.7 | 3.1 |
| 42 | HMP155_temp_79m_Min | °C | 79 m | 134,718 | 119,300 | 88.56 | 25.4 | 12.7 | 32.5 | 3.1 |
| 43 | HMP155_temp_79m_Std | °C | 79 m | 134,718 | 119,300 | 88.56 | 0.1 | 0.0 | 3.1 | 0.1 |
| 44 | HMP155_RH_79m_Avg | % | | 134,718 | 119,944 | 89.03 | 80.8 | 0.4 | 100.0 | 16.6 |
| 45 | HMP155_RH_79m_Max | % | | 134,718 | 119,944 | 89.03 | 82.2 | 0.5 | 100.0 | 16.0 |
| 46 | HMP155_RH_79m_Min | % | | 134,718 | 119,944 | 89.03 | 79.31 | 0.41 | 99.90 | 17.24 |
| 47 | HMP155_RH_79m_Std | % | | 134,718 | 119,944 | 89.03 | 0.75 | 0.01 | 13.79 | 0.84 |
| 48 | HMP155_temp_5.7m_Avg | °C | 5.65 m | 134,718 | 118,371 | 87.87 | 25.4 | 11.2 | 35.8 | 4.0 |
| 49 | HMP155_temp_5.7m_Max | °C | 5.65 m | 134,718 | 118,371 | 87.87 | 25.5 | 11.3 | 36.0 | 4.0 |
| 50 | HMP155_temp_5.7m_Min | °C | 5.65 m | 134,718 | 118,371 | 87.87 | 25.2 | -79.3 | 35.6 | 4.0 |
| 51 | HMP155_temp_5.7m_Std | °C | 5.65 m | 134,718 | 118,371 | 87.87 | 0.1 | 0.0 | 8.6 | 0.1 |
| 52 | HMP155_RH_5.7m_Avg | % | | 134,718 | 119,061 | 88.38 | 84.0 | 0.4 | 100.0 | 13.0 |

| # | Label | Units | Height | Possible Data Points | Valid Data Points | Recovery Rate (%) | Mean | Min | Max | Std. Dev |
|----|-----------------------|-------------------|--------|----------------------|-------------------|-------------------|---------|--------|---------|----------|
| 53 | HMP155_RH_5.7m_Max | % | | 134,718 | 119,061 | 88.38 | 85.3 | 0.4 | 100.0 | 12.3 |
| 54 | HMP155_RH_5.7m_Min | % | | 134,718 | 119,061 | 88.38 | 82.82 | 0.39 | 99.90 | 13.73 |
| 55 | HMP155_RH_5.7m_Std | % | | 134,718 | 119,061 | 88.38 | 0.61 | 0.00 | 49.55 | 0.88 |
| 56 | BP_78.6m_Avg | mbar | 78.6 m | 134,718 | 119,944 | 89.03 | 1,000.4 | 962.0 | 1,018.0 | 5.2 |
| 57 | BP_78.6m_Max | mbar | 78.6 m | 134,718 | 119,944 | 89.03 | 1,000.5 | 971.0 | 1,019.0 | 5.2 |
| 58 | BP_78.6m_Min | mbar | 78.6 m | 134,718 | 119,944 | 89.03 | 1,000.2 | 809.0 | 1,017.0 | 5.9 |
| 59 | BP_78.6m_Std | mbar | 78.6 m | 134,718 | 119,944 | 89.03 | 0.1 | 0.0 | 84.6 | 0.3 |
| 60 | BP_4.1m_Avg | mbar | 4.1 m | 134,718 | 119,944 | 89.03 | 1,007.8 | 978.0 | 1,020.0 | 5.3 |
| 61 | BP_4.1m_Max | mbar | 4.1 m | 134,718 | 119,944 | 89.03 | 1,007.9 | 979.0 | 1,021.0 | 5.3 |
| 62 | BP_4.1m_Min | mbar | 4.1 m | 134,718 | 119,944 | 89.03 | 1,007.7 | 929.0 | 1,020.0 | 5.3 |
| 63 | BP_4.1m_Std | mbar | 4.1 m | 134,718 | 119,944 | 89.03 | 0.0 | 0.0 | 5.0 | 0.0 |
| 64 | LWmV_Avg | Avg | | 134,718 | 119,944 | 89.03 | 291 | 119 | 1,076 | 141 |
| 65 | LWmV | Smp | | 134,718 | 119,944 | 89.03 | 291 | 118 | 1,076 | 141 |
| 66 | VBatt_Min | Volts | | 134,718 | 119,943 | 89.03 | 12.71 | 0.00 | 14.03 | 0.56 |
| 67 | IBatt_Min | Amps | | 134,718 | 119,944 | 89.03 | -0.000 | -0.491 | 3.455 | 0.433 |
| 68 | ILoad_Min | | | 134,718 | 119,944 | 89.03 | 0.260 | 0.000 | 0.383 | 0.052 |
| 69 | V_in_chg_Min | | | 134,718 | 119,944 | 89.03 | 8.34 | 0.00 | 20.42 | 8.22 |
| 70 | I_in_chg_Min | | | 134,718 | 119,944 | 89.03 | 0.234 | -0.003 | 3.503 | 0.362 |
| 71 | Chg_TmpC_Avg | °C | 2 m | 134,718 | 119,944 | 89.03 | 29.5 | 0.3 | 64.0 | 6.4 |
| 72 | Chg_State | Smp | | 134,718 | 119,944 | 89.03 | 1.074 | 0.000 | 3.000 | 1.319 |
| 73 | Ck_Batt | Smp | | 134,718 | 119,944 | 89.03 | 0.002 | 0.000 | 1.000 | 0.043 |
| 74 | BattV_Min | Volts | | 134,718 | 119,944 | 89.03 | 12.33 | 9.23 | 13.63 | 0.54 |
| 75 | PTemp_C_Avg | °C | 2 m | 134,718 | 119,944 | 89.03 | 27.3 | 10.7 | 38.4 | 4.9 |
| 76 | latitude_a | Smp | | 134,718 | 119,944 | 89.03 | 22 | 22 | 22 | 0 |
| 77 | latitude_b | Smp | | 134,718 | 119,944 | 89.03 | 11.11 | 11.10 | 11.12 | 0.00 |
| 78 | longitude_a | Smp | | 134,718 | 119,944 | 89.03 | 91 | 91 | 91 | 0 |
| 79 | longitude_b | Smp | | 134,718 | 119,944 | 89.03 | 49.06 | 49.05 | 49.07 | 0.00 |
| 80 | magnetic_variation | Smp | | 134,718 | 119,944 | 89.03 | -0.7 | -0.7 | -0.7 | 0.0 |
| 81 | fix_quality | Smp | | 134,718 | 119,944 | 89.03 | 2.000 | 1.000 | 2.000 | 0.006 |
| 82 | nmbr_satellites | Smp | | 134,718 | 119,944 | 89.03 | 9.12 | 5.00 | 12.00 | 0.88 |
| 83 | altitude | Smp | | 134,718 | 119,944 | 89.03 | 12.38 | -61.80 | 35.80 | 6.16 |
| 84 | max_clock_change | | | 134,718 | 119,944 | 89.03 | 2,782 | -4,210 | 7,999 | 4,027 |
| 85 | nmbr_clock_change | Smp | | 134,718 | 119,944 | 89.03 | 1.88 | 0.00 | 41.00 | 4.59 |
| 86 | Air Density | kg/m ³ | | 134,718 | 134,718 | 100.00 | 1.172 | 1.122 | 1.230 | 0.022 |
| 87 | WS_east_79.8m_Avg TI | | | 134,718 | 113,797 | 84.47 | 0.13 | 0.02 | 20.50 | 0.22 |
| 88 | WS_west_79.8m_Avg TI | | | 134,718 | 114,029 | 84.64 | 0.14 | 0.02 | 20.00 | 0.22 |
| 89 | WS_east_60.2m_Avg TI | | | 134,718 | 113,839 | 84.50 | 0.15 | 0.03 | 20.00 | 0.25 |
| 90 | WS_west_60.2m_Avg TI | | | 134,718 | 110,850 | 82.28 | 0.18 | 0.02 | 22.50 | 0.47 |
| 91 | WS_east_39.8m_Avg TI | | | 134,718 | 114,318 | 84.86 | 0.16 | 0.04 | 20.50 | 0.23 |
| 92 | WS_west_39.8m_Avg TI | | | 134,718 | 108,950 | 80.87 | 0.16 | 0.04 | 20.50 | 0.22 |
| 93 | WS_east_79.8m_Avg WPD | W/m ² | | 134,718 | 113,856 | 84.51 | 142 | 0 | 17,598 | 295 |
| 94 | WS_west_79.8m_Avg WPD | W/m ² | | 134,718 | 114,124 | 84.71 | 139 | 0 | 17,447 | 305 |
| 95 | WS_east_60.2m_Avg WPD | W/m ² | | 134,718 | 113,953 | 84.59 | 116 | 0 | 15,860 | 258 |
| 96 | WS_west_60.2m_Avg WPD | W/m ² | | 134,718 | 111,431 | 82.71 | 111 | 0 | 14,461 | 259 |
| 97 | WS_east_39.8m_Avg WPD | W/m ² | | 134,718 | 114,410 | 84.93 | 90 | 0 | 13,174 | 218 |
| 98 | WS_west_39.8m_Avg WPD | W/m ² | | 134,718 | 109,067 | 80.96 | 96 | 0 | 13,850 | 240 |