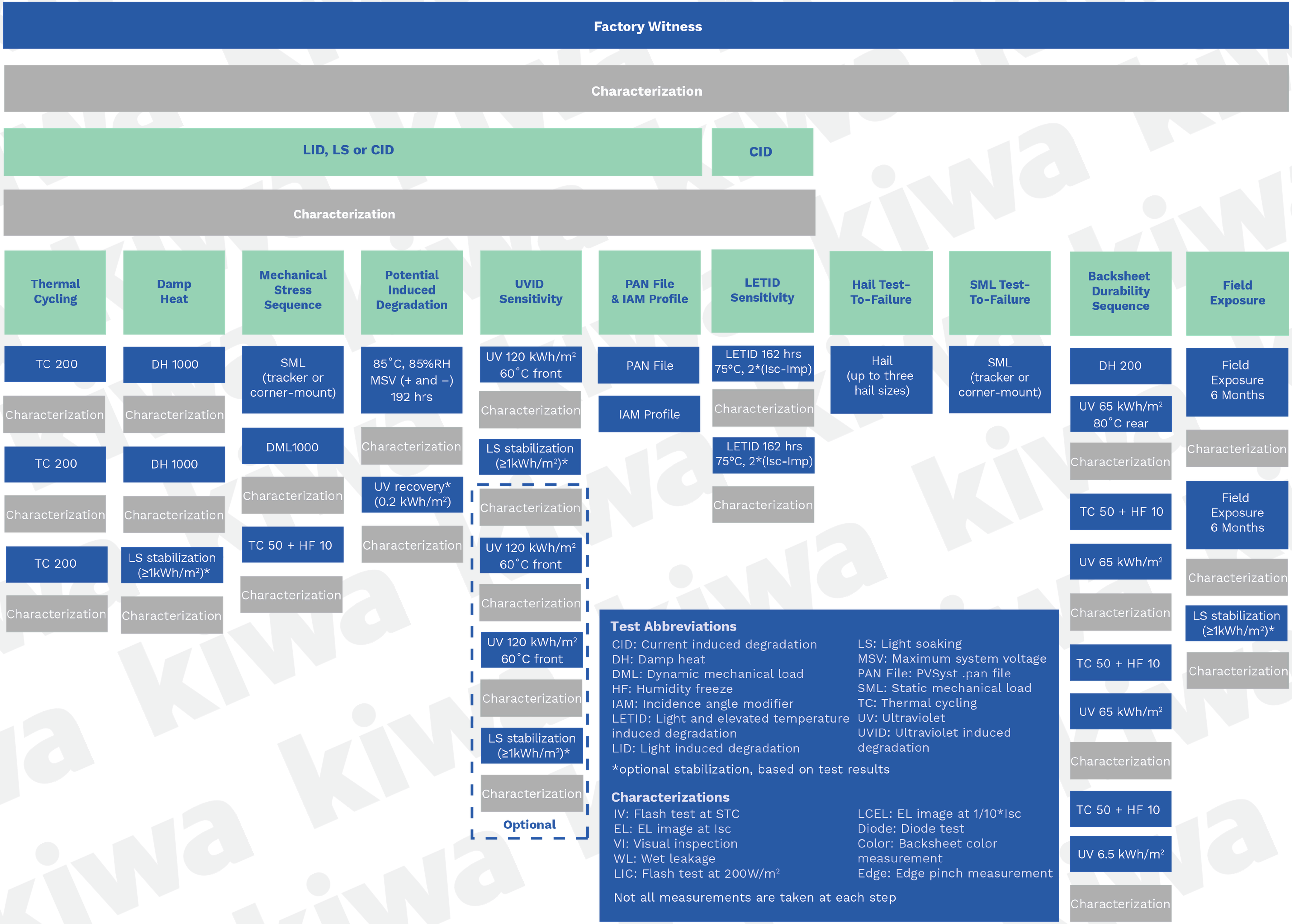

Factory Witness

Characterization

LID, LS or CID

CID

Characterization

Thermal Cycling
- TC 200
- Characterization
- TC 200
- Characterization
- TC 200
- Characterization

Damp Heat
- DH 1000
- Characterization
- DH 1000
- Characterization
- LS stabilization (≥1kWh/m²)*
- Characterization

Mechanical Stress Sequence
- SML (tracker or corner-mount)
- DML1000
- Characterization
- TC 50 + HF 10
- Characterization

Potential Induced Degradation
- 85˚C, 85%RH MSV (+ and –) 192 hrs
- Characterization
- UV recovery* (0.2 kWh/m²)
- Characterization

UVID Sensitivity
- UV 120 kWh/m² 60˚C front
- Characterization
- LS stabilization (≥1kWh/m²)*
- Optional:
  - Characterization
  - UV 120 kWh/m² 60˚C front
  - Characterization
  - UV 120 kWh/m² 60˚C front
  - Characterization
  - LS stabilization (≥1kWh/m²)*
  - Characterization

PAN File & IAM Profile
- PAN File
- IAM Profile

LETID Sensitivity
- LETID 162 hrs 75°C, 2*(Isc-Imp)
- Characterization
- LETID 162 hrs 75°C, 2*(Isc-Imp)
- Characterization

Hail Test-To-Failure
- Hail (up to three hail sizes)

SML Test-To-Failure
- SML (tracker or corner-mount)

Backsheet Durability Sequence
- DH 200
- UV 65 kWh/m² 80˚C rear
- Characterization
- TC 50 + HF 10
- UV 65 kWh/m²
- Characterization
- TC 50 + HF 10
- UV 65 kWh/m²
- Characterization
- TC 50 + HF 10
- UV 6.5 kWh/m²
- Characterization

Field Exposure
- Field Exposure 6 Months
- Characterization
- Field Exposure 6 Months
- Characterization
- LS stabilization (≥1kWh/m²)*
- Characterization

Optional

Test Abbreviations

CID: Current induced degradation
DH: Damp heat
DML: Dynamic mechanical load
HF: Humidity freeze
IAM: Incidence angle modifier
LETID: Light and elevated temperature induced degradation
LID: Light induced degradation
LS: Light soaking
MSV: Maximum system voltage
PAN File: PVSyst .pan file
SML: Static mechanical load
TC: Thermal cycling
UV: Ultraviolet
UVID: Ultraviolet induced degradation

*optional stabilization, based on test results

Characterizations

IV: Flash test at STC
EL: EL image at Isc
VI: Visual inspection
WL: Wet leakage
LIC: Flash test at 200W/m²
LCEL: EL image at 1/10*Isc
Diode: Diode test
Color: Backsheet color measurement
Edge: Edge pinch measurement

Not all measurements are taken at each step