



in-dye® Indoor

3 cm² version specifications (ver. 4.0)



Sustainable



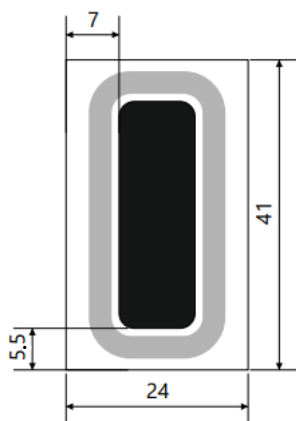
High performance



Robust

The in-dye® Indoor PV cell is tailored for indoor use (20 – 10,000 lux), and for integration into Internet of Things (IoT) devices. They are specifically designed to power self-sustaining, energy-efficient electronics in indoor environments but can also be used outdoor. These ultra-thin PV cells can be customized in size and shape to meet the unique needs of our customers in terms of integration.

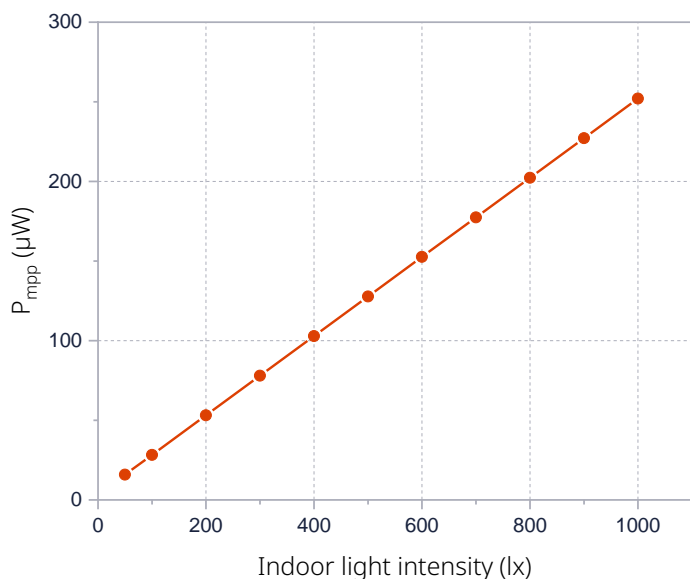
The indye® Indoor PV cell is optimized to convert light from LED and CFL lamp source regardless its temperature. Depending on conditions, in-dye® Indoor technology can harvest and convert indoor light with efficiencies up to 25 %.



	Min	Max
Light intensity (lx)	20	10 000
Operating temperature (°C)	-20	40
Ideal absorbance (nm)	360	650
Thickness (mm)	2.2	

(Active area* = 3 cm²)

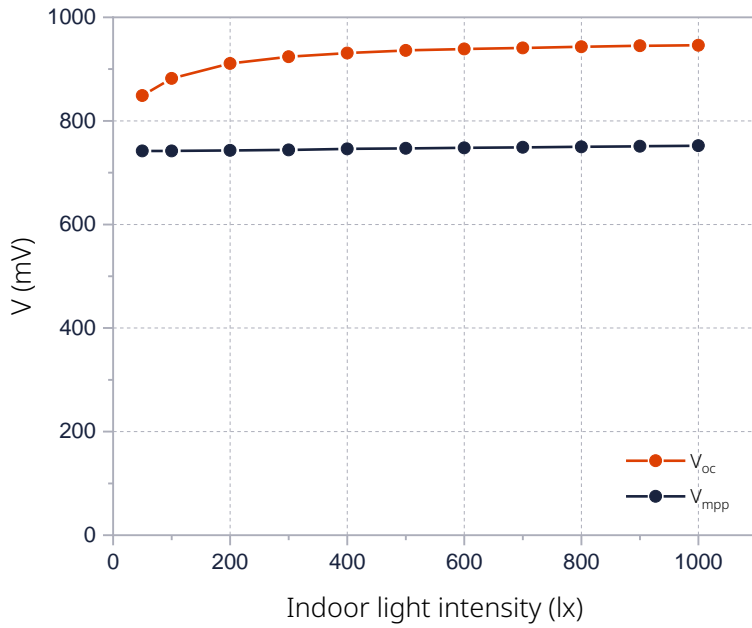
* Can be specifically designed as per customer requirements



Intensity (lx)	P _{mpp} (µW)	P _{mpp} (µW/cm ²)
50	16	5.3
100	28	9.5
200	53	18
300	78	26
400	103	35
500	128	43
600	153	51
700	177	59
800	202	68
900	227	76
1000	252	85

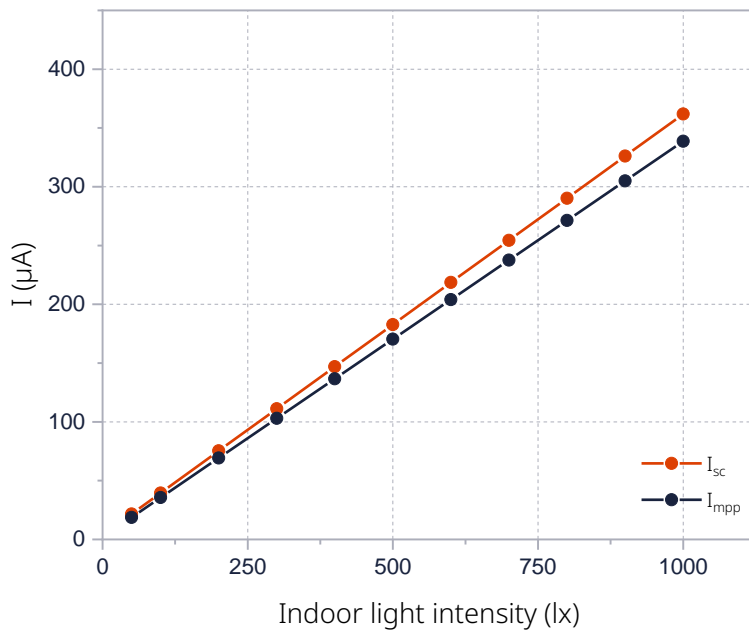
The data reflect the performance of a single in-dye® Indoor PV cell at 25 °C, under LED illumination 3000 K, unless otherwise specified.

Voltage at open circuit and at maximum power point of in-dye® Indoor PV cell



Intensity (lx)	V _{oc} (mV)	V _{mpp} (mV)
50	849	742
100	882	742
200	911	743
300	924	744
400	931	746
500	936	747
600	939	748
700	941	749
800	943	750
900	945	751
1000	946	752

Current at short circuit and at maximum power point of in-dye® Indoor PV cell

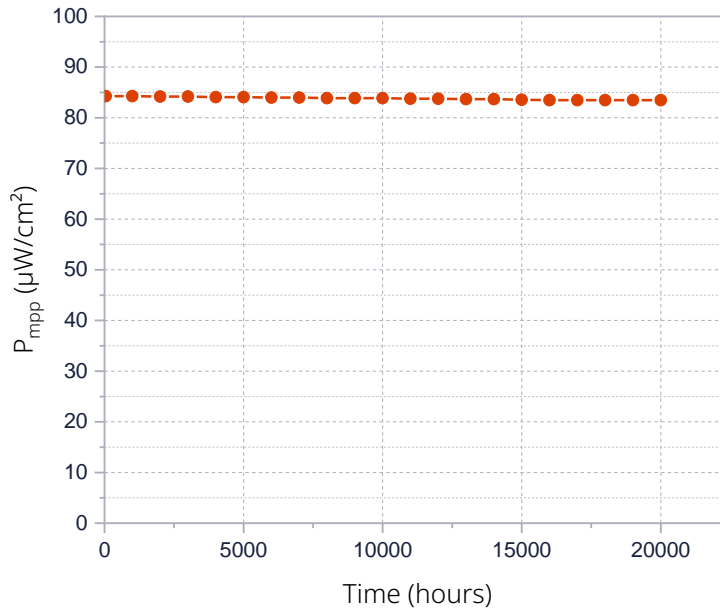


Intensity (lx)	I _{sc} (μA)	I _{mpp} (μA)
50	22	19
100	40	36
200	75.3	69
300	111	103
400	147	137
500	183	170
600	219	204
700	254	238
800	290	271
900	326	305
1000	362	339

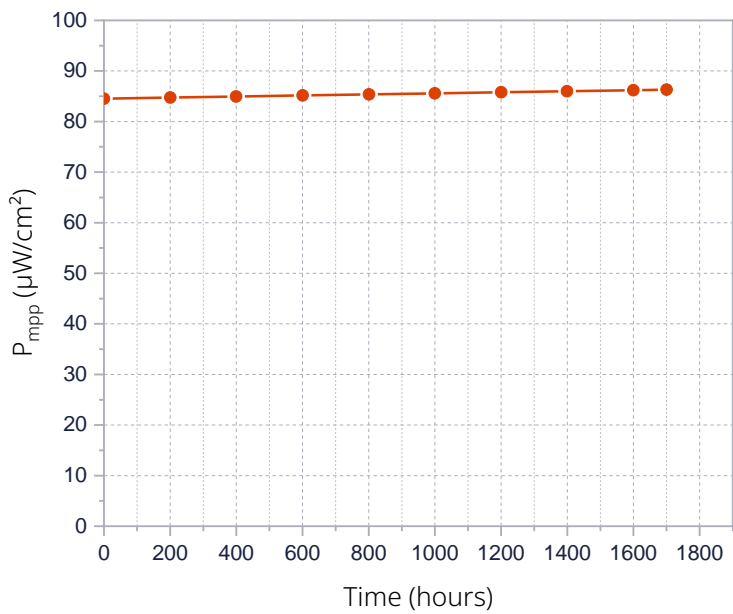
Stability of in-dye® Indoor PV cell

(measurements at 1000 lux, LED 2700 K)

Stability under real indoor condition

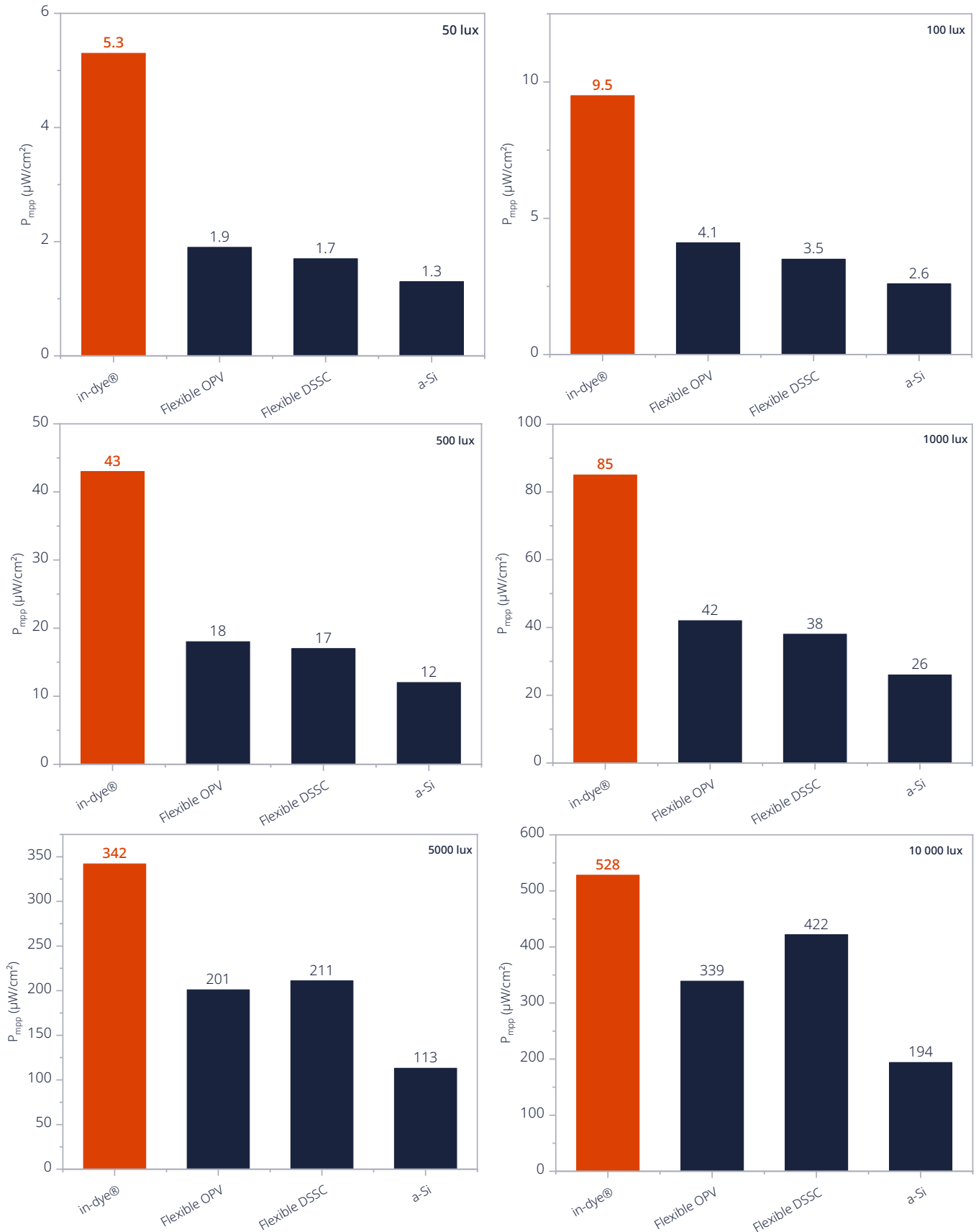


Stability under 100 % relative humidity at 40 °C



in-dye® *Indoor* PV cell compared to commercialized Indoor PV technologies

(Comparison data are given as indications)



For more information about customization and integration options, or if you want to test our product, please get in touch with our team:

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