Supplementary Material

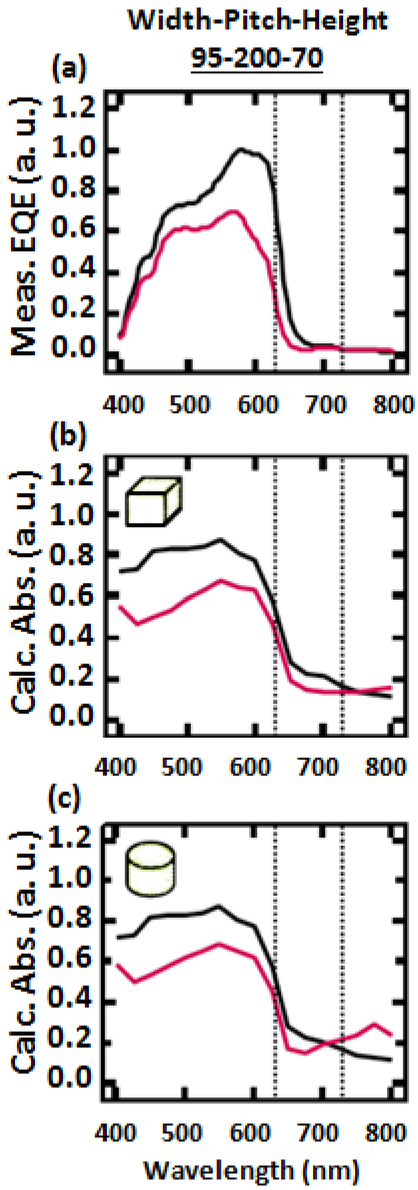

Figure S1. (**a**) Comparison of measured external quantum efficiency; and (**b**) calculated active layer absorbance; (**c**) for arrays with nanopillars 95 nm wide, spaced at 200 nm and 70 nm high, for square cross section-, and cylindrical-nanopillars, respectively. The magenta curves are for cells patterned with Au nanopillars, and the black curves are for control cells. The measured EQE spectra are normalized to the maximum value of the EQE of the control cells on the same substrate.

Performance under Simulated Solar Illumination

For completeness, although the focus of our work is on the external quantum efficiency, we include in Table S1 the measured open circuit voltages, Voc, short circuit currents, J_{sc}, and fill factors, FF, for our nanopillar patterned device (Table 1, column (c)), a control device (Table 1, column (b)), and a device without nanopillars, but including a PEDOT:PSS layer (Table 1, column (a)). Clearly the absence of this layer causes a large reduction in the overall efficiency. The measurements were done by measuring the output current as a function of bias voltage during illumination of a simulated solar illumination source with an air mass 1.5 Global (AM 1.5 G) spectrum and with the input intensity 95 mW/cm^2.

Table S1. Measured short circuit current densities, open circuit voltages and fill factors for a standard BHJ OPV device including PEDOT:PSS (column (a)), a control device with neither PEDOT:PSS nor Au nanopillars (column (b)) and a Au nanopillar patterned device with no PEDOT:PSS layer (column (c)) under solar AM 1.5 G illumination.

	(a) Coated with PEDOT:PSS	**(b) Control**	**(c) NP's**
J_{SC} (mA/cm^2)	7.68	1.81	1.63
V_{OC} (V)	0.41	0.243	0.297
FF (%)	0.60	0.239	0.233
PCE (%)	2.0	0.126	0.119