

# Supplementary Material: Single-image Full-body Human Relighting

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## 1. Additional Results

In this section we show additional results for the real photographs in the test dataset. Figures 1 and 2 show a variety of relighting results under different illuminations. For each input photo and illumination map we show the final relighted image, and the reconstructed shading and residual terms. We observe how our model is capable of faithfully relighting the input photographs. Table 1 shows the L1 and L2 metrics (note that they are scaled by a factor of 100), and the peak signal-to-noise ratio (PSNR). Our model consistently outperforms the reconstructions obtained by the work of Kanamori and Endo [KE18].

**Table 1:** Quantitative results of our model for each of the real photographs, measured with three metrics: L1 and L2 distances, and PSNR. Note that the L1 and L2 metrics have been scaled by a factor of 100. We also include a comparison to the model of Kanamori and Endo [KE18], which our model consistently outperforms. Boldface highlights the best result in each case. For qualitative results please refer to Figures 1 and 2.

REAL PHOTOGRAPHS						
Name	L1 (x100)		L2 (x100)		PSNR	
	Ours	[KE18]	Ours	[KE18]	Ours	[KE18]
<i>gray_jacket</i>	<b>1.10</b>	2.48	<b>0.07</b>	0.22	<b>31.69</b>	26.56
<i>pink_coat</i>	<b>1.08</b>	2.23	<b>0.05</b>	0.23	<b>33.15</b>	26.37
<i>plaid_pants</i>	<b>0.93</b>	1.69	<b>0.07</b>	0.15	<b>31.52</b>	28.24
<i>white_t-shirt</i>	<b>1.24</b>	1.46	<b>0.08</b>	0.12	<b>31.23</b>	29.11
<i>woman_suit</i>	<b>0.83</b>	1.92	<b>0.06</b>	0.09	<b>32.04</b>	30.23
<i>white_bag</i>	<b>1.33</b>	2.17	<b>0.09</b>	0.21	<b>30.27</b>	26.87
<i>pale_outfit</i>	<b>2.29</b>	5.17	<b>0.19</b>	0.72	<b>27.27</b>	21.41
<i>blue_jumper</i>	0.66	<b>0.46</b>	0.04	<b>0.02</b>	33.60	<b>37.13</b>
<i>red_jacket</i>	<b>1.40</b>	2.15	<b>0.10</b>	0.19	<b>29.83</b>	27.27
<i>man_suit</i>	<b>0.86</b>	1.70	<b>0.04</b>	0.09	<b>33.65</b>	30.61
Average	<b>1.17</b>	2.14	<b>0.08</b>	0.20	<b>31.42</b>	28.38

## References

[KE18] KANAMORI, YOSHIHIRO and ENDO, YUKI. “Relighting humans: occlusion-aware inverse rendering for full-body human images”. *ACM Trans. on Graphics (SIGGRAPH Asia)*. 2018 1.



**Figure 1:** Relighting results using real photographs for three different illuminations (*doge*, *ennis*, and *pisa*) and five different input images. The last two columns feature the same illumination under two different rotations. In each case, we show the relighted image, and the reconstructed shading and residual terms. The residual term has been scaled by a factor of 10 for visualization purposes. Please, refer also to Table 1 for the quantitative results for each input image.



**Figure 2:** Relighting results using real photographs for three different illuminations (doge, ennis, and pisa) and five different input images. The last two columns feature the same illumination under two different rotations. In each case, we show the relighted image, and the reconstructed shading and residual terms. The residual term has been scaled by a factor of 10 for visualization purposes. Please, refer also to Table 1 for the quantitative results for each input image.