

### Supplementary Table 3

Photosynthetic traits of chlorophyll retention mutant (CRM) rice lines relative to the parental wild type (WT) IR64-21 from light response curves (LRCs).

Genotype	A <sub>max</sub> **	QE**	LCP*	LSP*	Rd
WT	38.04±1.04 <sup>bc</sup>	0.06±0.00 <sup>b</sup>	42.68±2.71 <sup>abcd</sup>	688.17±28.53 <sup>abcd</sup>	2.58±0.21
CRM 27	36.63±0.78 <sup>bc</sup>	0.05±0.00 <sup>ab</sup>	34.50±2.23 <sup>abc</sup>	834.43±43.53 <sup>abcde</sup>	1.63±0.18
CRM 29	42.60±0.15 <sup>bc</sup>	0.06±0.00 <sup>b</sup>	34.27±4.94 <sup>ab</sup>	702.00±15.04 <sup>abcde</sup>	2.20±0.35
CRM 31	39.90±3.42 <sup>bc</sup>	0.06±0.01 <sup>b</sup>	34.33±2.02 <sup>ab</sup>	730.50±110.63 <sup>abcde</sup>	2.08±0.34
CRM 32	36.36±2.83 <sup>bc</sup>	0.06±0.01 <sup>b</sup>	37.26±7.23 <sup>abcd</sup>	654.40±43.49 <sup>ab</sup>	2.08±0.22
CRM 33	34.86±1.17 <sup>bc</sup>	0.06±0.00 <sup>b</sup>	32.98±1.82 <sup>ab</sup>	642.20±29.36 <sup>ab</sup>	1.88±0.07
CRM 34	34.30±2.27 <sup>bc</sup>	0.06±0.01 <sup>ab</sup>	27.33±3.99 <sup>a</sup>	689.50±84.67 <sup>abcde</sup>	1.59±0.39
CRM 35	21.00±2.54 <sup>a</sup>	0.02±0.00 <sup>a</sup>	62.35±15.58 <sup>bd</sup>	944.20±19.67 <sup>abcde</sup>	1.67±0.33
CRM 36	35.83±2.85 <sup>bc</sup>	0.06±0.01 <sup>b</sup>	32.15±2.07 <sup>ab</sup>	681.00±35.58 <sup>abc</sup>	1.77±0.13
CRM 37	32.90±6.16 <sup>abc</sup>	0.05±0.01 <sup>ab</sup>	49.20±2.77 <sup>abcd</sup>	773.67±98.00 <sup>abcde</sup>	2.34±0.61
CRM 40	29.93±1.88 <sup>ab</sup>	0.04±0.00 <sup>ab</sup>	46.10±9.04 <sup>abcd</sup>	828.75±38.58 <sup>abcde</sup>	1.70±0.24
CRM 43	48.57±6.40 <sup>c</sup>	0.05±0.01 <sup>ab</sup>	31.47±4.62 <sup>ab</sup>	1025.67±184.79 <sup>ace</sup>	1.71±0.58
CRM 68	31.10±4.20 <sup>ab</sup>	0.04±0.01 <sup>ab</sup>	52.53±2.20 <sup>abcd</sup>	926.33±144.18 <sup>abcde</sup>	2.03±0.58
Mean CRM	35.33±1.97	0.05±0	39.55±3.04	785.67±36.38	1.89±0.07

Means and standard error of the means are shown where  $n \geq 3$  for A<sub>max</sub> ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ ): maximum assimilation rate; QE ( $\text{mol mol}^{-1}$ ): quantum use efficiency; LCP ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ ): light compensation point; LSP ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ ): light saturation point and; Rd ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ ): dark respiration. \* and \*\* indicates significant differences between lines according to ANOVA at  $P < 0.01$  and  $P < 0.001$ , respectively ( $p < 0.05$ ). Letters indicating differences according to post-hoc Bonferroni test.

