

TABLE 1. Response properties of cells with maximal responses,  $r_{\max} \geq 18$  pA. All experiments in bicarbonate Locke solution.  $S_F^D$ , flash sensitivity to transverse illumination;  $t_{\text{peak}}$ , the time from the flash to response peak;  $t_i$ , the integration time of the flash response; form, the model best fitting the flash response (I = independence; P = Poisson; number in parentheses = number of stages);  $a$ , peak amplitude of single-photon response measured by the ratio of variance to mean of flash response (v), or by the fit of amplitude histogram to a Poisson distribution (h);  $A_c$ , the collecting area for transverse illumination obtained from  $S_F^D/a$ , where  $a$  was calculated from the variance to mean ratio (v), from the fit of the response histogram (h), or by fitting eqn. (6) to the 'frequency of seeing' results (s);  $k_t$ , obtained by fitting eqn. (2) to response-intensity relation;  $T$ , temperature

Cell	Figure (symbol)	$r_{\max}$ (pA)	$S_F^D$ (pA photons $^{-1}$ $\mu\text{m}^2$ )	$t_{\text{peak}}$ (ms)	$t_i$ (ms)	Form (stages)	$a$ (pA)	$A_c$ ( $\mu\text{m}^2$ )	$k_t$ ( $\mu\text{m}^2$ )	$T$ ( $^{\circ}\text{C}$ )
1	2 (▼)	22	0.51	238	358	I (6)	0.43 (v)	1.16 (v)	0.0296	35
2	—	21	0.66	260	341	P (6)	0.93 (v)	0.71 (v)	0.0478	35
3	2 (●)	25	1.28	216	288	I (6)	0.69 (v)	1.85 (v)	0.0613	36
	—	—	—	—	—	—	0.88 (h)	1.50 (h)	—	—
4	—	18	0.84	200	—	—	0.97 (h)	0.86 (h)	—	38
5	2 (△), 3, 10, 13A, 15	22	1.26	200	269	P (6)	0.95 (v)	1.34 (v)	0.0365	36
	—	—	—	—	—	—	0.97 (h)	1.31 (h)	—	—
6	11, 12	18	1.54	150	—	—	—	—	0.0262	36
7	1, 2 (□)	34	1.17	150	—	—	—	—	0.0217	36
8	—	20	0.46	250	280	—	0.29 (h)	1.57 (h)	—	36
9	—	25	0.55	160	331	—	0.46 (h)	1.19 (h)	—	37
10	—	25	0.70	180	374	—	0.48 (h)	1.47 (h)	—	37
11	2 (○)	27	1.02	150	—	—	—	—	0.0262	37
12	8 (□)	24	0.93	190	330	I (6)	0.75 (v)	1.39 (s)	—	36
	—	—	—	—	—	—	0.76 (h)	—	—	—
13	8 (○)	20	0.58	150	228	P (6)	0.52 (h)	1.33 (s)	—	36
14	8 (△)	23	0.40	150	176	P (6)	0.29 (h)	1.20 (s)	—	35
15	8 (▽)	24	0.68	188	227	P (6)	0.63 (h)	1.14 (s)	—	36