

Datasheet for #sbcw12047 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

WARNING: Operating the laser with higher current or voltage than specified in this document may cause damage and will result in loss of warranty, unless Alpes Lasers has permitted to do so!

WARNING: Beware of the polarity of the laser. This laser has to be powered with negative current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). To use with a power-supply ILX Lightwave LDX-3232 or equivalent.

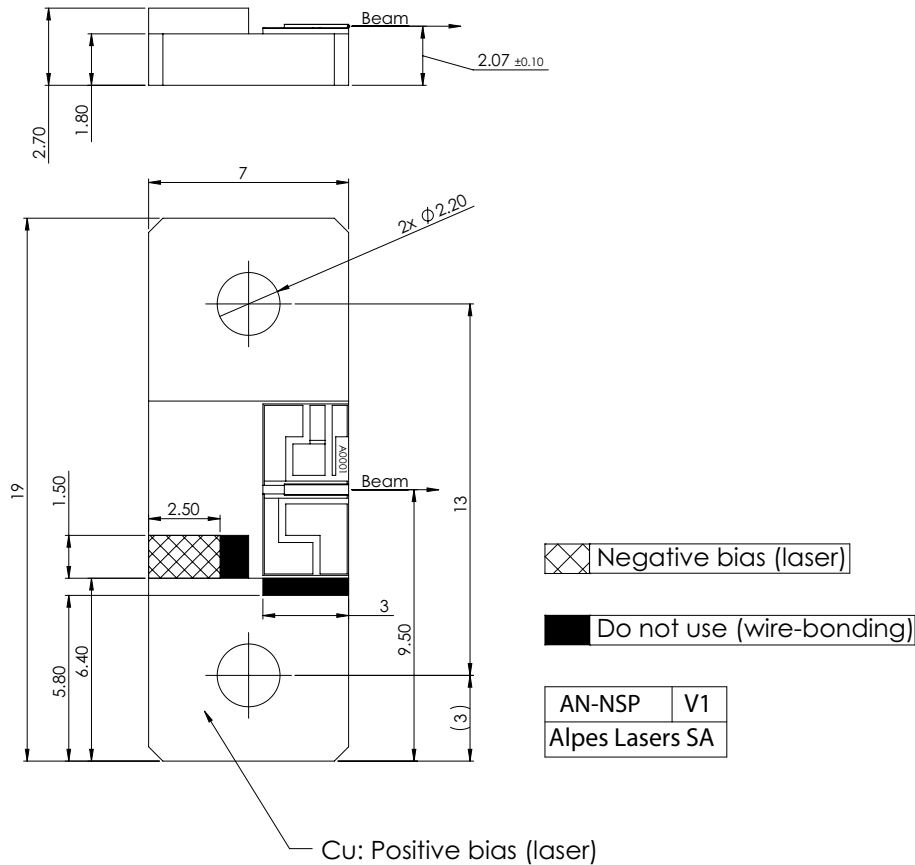


Figure 1: Support mounting for #sbcw12047 DN

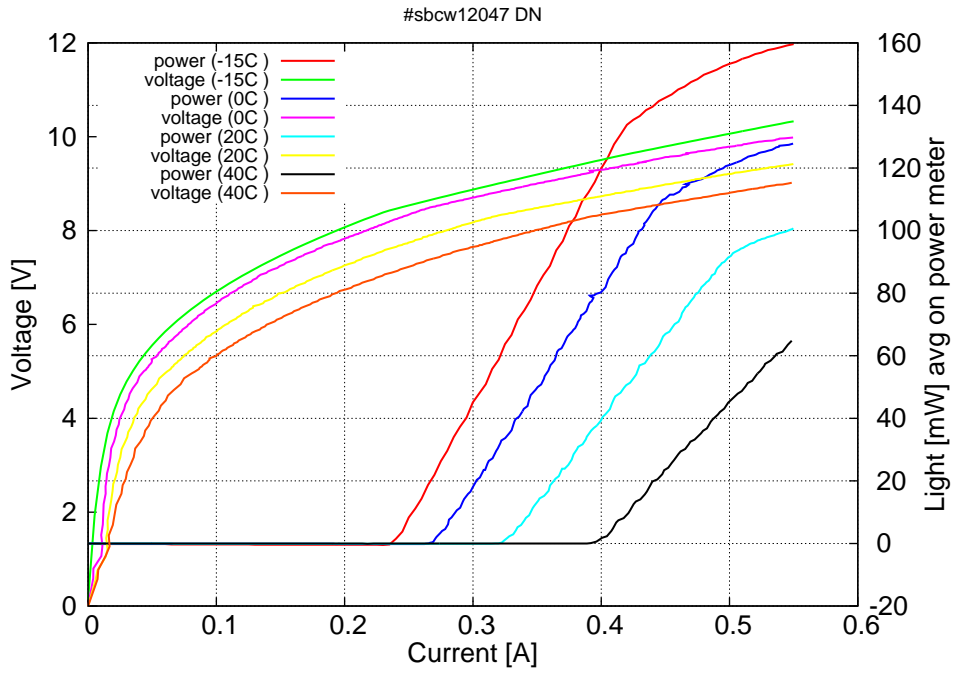


Figure 2: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at 0C: $I_{th}=0.27A$ / $V_{th}=8.5V$ (2-wires measurements). Maximum operation current: 0.55A for all temperatures.

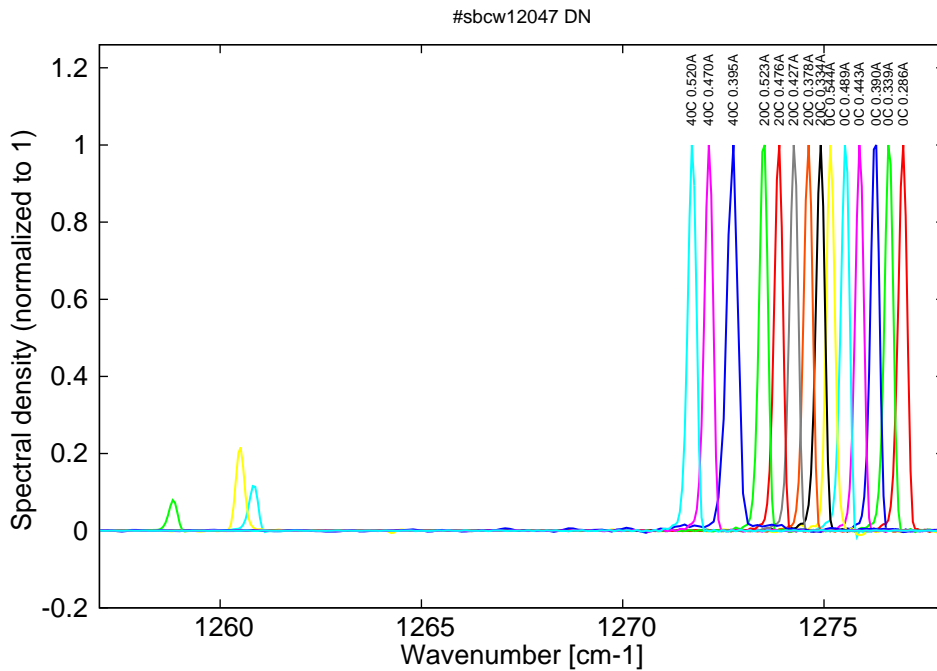


Figure 3: spectra at 0C, 20C and 40C in continuous-wave operation (front resistor current $I_F = 0A$ and back resistor current $I_B = 0A$)

Vernier characterization

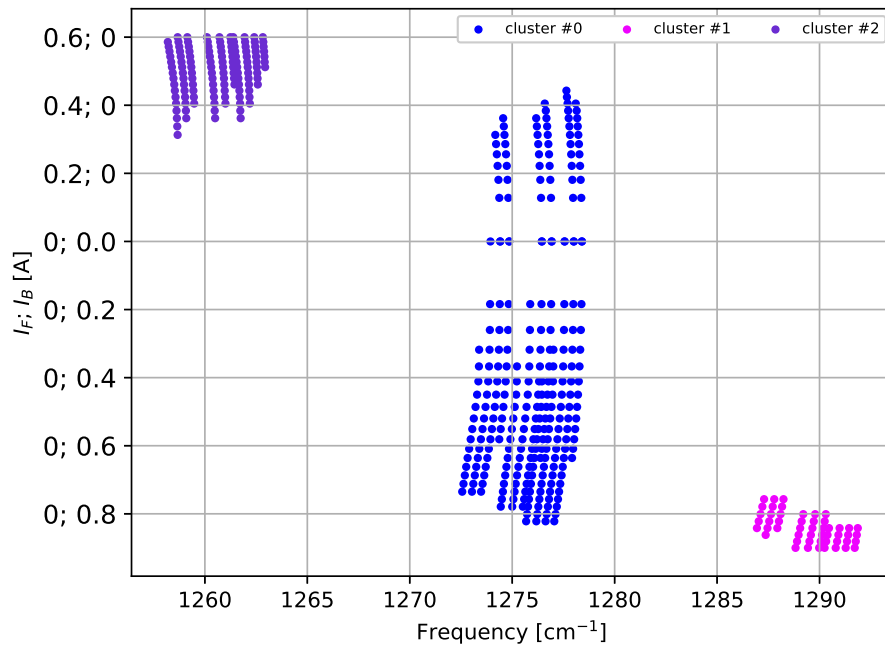


Figure 4: Emission frequency as a function of electrical current on the front resistor I_F or back resistor I_B . Either the back or the front resistors are heated, while no electrical current is flowing through the other resistor.

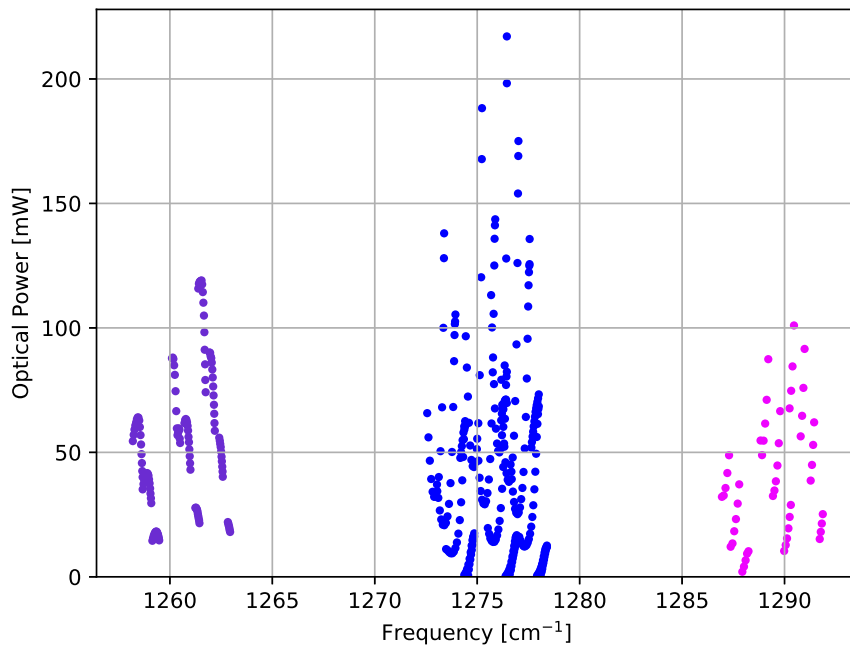


Figure 5: Optical power as a function of emission frequency.

Cluster	I_B [A]	V_B [V]	I_F [A]	V_F [V]	I_L [A]	V_L [V]	Freq [cm ⁻¹]	T [C]	P_{opt} [mW]
#0-Back	0.00 - 0.82	0.0 - 3.2	0	0	0.25 - 0.55	8.2 - 10.1	1272.6 - 1278.4	-15 - 20	217
#0-Front	0	0	0.00 - 0.44	0.0 - 1.7	0.25 - 0.48	8.3 - 9.5	1273.9 - 1278.4	-15 - 20	136
#1-Back	0.76 - 0.90	3.1 - 3.7	0	0	0.32 - 0.55	8.4 - 9.7	1286.9 - 1291.9	-15 - 20	101
#2-Front	0	0	0.31 - 0.60	1.3 - 2.5	0.32 - 0.55	8.6 - 10.1	1258.2 - 1262.9	-15 - 20	119

Table 1: Overview of the clusters.

Details of cluster #0-Back

I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm ⁻¹]
0.0	0.0	0.822	3.245	2.67	0.546	9.74	5.32	7.99	113	-15	1275.68
0.0	0.0	0.801	3.142	2.52	0.546	9.76	5.33	7.84	100	-15	1275.73
0.0	0.0	0.779	3.065	2.39	0.546	9.78	5.34	7.73	88	-15	1275.77
0.0	0.0	0.757	2.986	2.26	0.546	9.80	5.35	7.61	77	-15	1275.82
0.0	0.0	0.735	2.879	2.12	0.546	9.82	5.36	7.48	68	-15	1275.87
0.0	0.0	0.712	2.786	1.98	0.546	9.84	5.37	7.36	60	-15	1275.91
0.0	0.0	0.687	2.68	1.84	0.546	9.87	5.39	7.23	54	-15	1275.97
0.0	0.0	0.662	2.576	1.71	0.546	9.89	5.40	7.10	51	-15	1276.02
0.0	0.0	0.636	2.472	1.57	0.546	9.90	5.41	6.98	50	-15	1276.08
0.0	0.0	0.609	2.364	1.44	0.546	9.91	5.41	6.85	52	-15	1276.15
0.0	0.0	0.822	3.245	2.67	0.472	9.36	4.42	7.08	79	-15	1276.18
0.0	0.0	0.581	2.256	1.31	0.546	9.92	5.42	6.73	57	-15	1276.21
0.0	0.0	0.801	3.142	2.52	0.472	9.38	4.43	6.94	69	-15	1276.22
0.0	0.0	0.779	3.065	2.39	0.472	9.40	4.43	6.82	60	-15	1276.27
0.0	0.0	0.551	2.141	1.18	0.546	9.93	5.42	6.60	67	-15	1276.28
0.0	0.0	0.757	2.986	2.26	0.472	9.42	4.44	6.70	52	-15	1276.33
0.0	0.0	0.52	2.024	1.05	0.546	9.93	5.42	6.48	85	-15	1276.34
0.0	0.0	0.735	2.879	2.12	0.472	9.44	4.45	6.57	46	-15	1276.38
0.0	0.0	0.486	1.894	0.92	0.546	9.94	5.43	6.35	128	-15	1276.42
0.0	0.0	0.712	2.786	1.98	0.472	9.46	4.46	6.45	42	-15	1276.43
0.0	0.0	0.411	1.609	0.66	0.546	10.07	5.50	6.16	217	-15	1276.45
0.0	0.0	0.45	1.757	0.79	0.546	10.00	5.46	6.25	198	-15	1276.45
0.0	0.0	0.687	2.68	1.84	0.472	9.47	4.47	6.31	39	-15	1276.49
0.0	0.0	0.662	2.576	1.71	0.472	9.49	4.48	6.19	38	-15	1276.55
0.0	0.0	0.636	2.472	1.57	0.472	9.50	4.49	6.06	39	-15	1276.61
0.0	0.0	0.822	3.245	2.67	0.398	8.96	3.56	6.23	45	-15	1276.63
0.0	0.0	0.609	2.364	1.44	0.472	9.52	4.49	5.93	42	-15	1276.67
0.0	0.0	0.801	3.142	2.52	0.398	8.97	3.57	6.09	39	-15	1276.69
0.0	0.0	0.581	2.256	1.31	0.472	9.53	4.50	5.81	48	-15	1276.73
0.0	0.0	0.779	3.065	2.39	0.398	8.99	3.58	5.96	34	-15	1276.74
0.0	0.0	0.551	2.141	1.18	0.472	9.54	4.50	5.68	57	-15	1276.80
0.0	0.0	0.757	2.986	2.26	0.398	9.01	3.59	5.85	30	-15	1276.80
0.0	0.0	0.735	2.879	2.12	0.398	9.02	3.59	5.71	27	-15	1276.85
0.0	0.0	0.52	2.024	1.05	0.472	9.54	4.51	5.56	71	-15	1276.86
0.0	0.0	0.712	2.786	1.98	0.398	9.04	3.60	5.58	26	-15	1276.90
0.0	0.0	0.486	1.894	0.92	0.472	9.55	4.51	5.43	93	-15	1276.92
0.0	0.0	0.45	1.757	0.79	0.472	9.58	4.52	5.31	126	-15	1276.97
0.0	0.0	0.687	2.68	1.84	0.398	9.06	3.61	5.45	25	-15	1276.97
0.0	0.0	0.411	1.609	0.66	0.472	9.63	4.54	5.21	154	-15	1276.99
0.0	0.0	0.367	1.442	0.53	0.472	9.68	4.57	5.10	169	-15	1277.01
0.0	0.0	0.318	1.253	0.40	0.472	9.74	4.60	5.00	175	-15	1277.01
0.0	0.0	0.662	2.576	1.71	0.398	9.07	3.61	5.32	26	-15	1277.03
0.0	0.0	0.822	3.245	2.67	0.324	8.52	2.76	5.43	16	-15	1277.05
0.0	0.0	0.636	2.472	1.57	0.398	9.09	3.62	5.19	28	-15	1277.09
0.0	0.0	0.801	3.142	2.52	0.324	8.53	2.76	5.28	15	-15	1277.12
0.0	0.0	0.609	2.364	1.44	0.398	9.10	3.62	5.06	31	-15	1277.15

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I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm ⁻¹]
0.0	0.0	0.779	3.065	2.39	0.324	8.55	2.77	5.16	13	-15	1277.18
0.0	0.0	0.581	2.256	1.31	0.398	9.11	3.63	4.94	36	-15	1277.21
0.0	0.0	0.757	2.986	2.26	0.324	8.56	2.78	5.04	13	-15	1277.24
0.0	0.0	0.551	2.141	1.18	0.398	9.13	3.63	4.81	42	-15	1277.26
0.0	0.0	0.735	2.879	2.12	0.324	8.58	2.78	4.90	12	-15	1277.29
0.0	0.0	0.52	2.024	1.05	0.398	9.14	3.64	4.69	52	-15	1277.32
0.0	0.0	0.712	2.786	1.98	0.324	8.60	2.78	4.77	12	-15	1277.35
0.0	0.0	0.486	1.894	0.92	0.398	9.15	3.64	4.56	64	-15	1277.37
0.0	0.0	0.687	2.68	1.84	0.324	8.61	2.79	4.63	13	-15	1277.41
0.0	0.0	0.45	1.757	0.79	0.398	9.17	3.65	4.44	80	-15	1277.42
0.0	0.0	0.411	1.609	0.66	0.398	9.20	3.66	4.32	96	-15	1277.46
0.0	0.0	0.662	2.576	1.71	0.324	8.63	2.80	4.50	14	-15	1277.47
0.0	0.0	0.367	1.442	0.53	0.398	9.24	3.68	4.21	109	-15	1277.49
0.0	0.0	0.318	1.253	0.40	0.398	9.29	3.70	4.10	117	-15	1277.51
0.0	0.0	0.636	2.472	1.57	0.324	8.64	2.80	4.37	15	-15	1277.52
0.0	0.0	0.26	1.022	0.27	0.398	9.34	3.72	3.98	122	-15	1277.53
0.0	0.0	0.184	0.722	0.13	0.398	9.40	3.74	3.87	125	-15	1277.54
0.0	0.0	0.0	0.0	0.00	0.398	9.51	3.78	3.78	126	-15	1277.56
0.0	0.0	0.0	0.0	0.00	0.398	9.52	3.79	3.79	136	-15	1277.56
0.0	0.0	0.609	2.364	1.44	0.324	8.66	2.81	4.25	17	-15	1277.58
0.0	0.0	0.581	2.256	1.31	0.324	8.68	2.81	4.12	20	-15	1277.64
0.0	0.0	0.551	2.141	1.18	0.324	8.69	2.82	4.00	24	-15	1277.69
0.0	0.0	0.52	2.024	1.05	0.324	8.71	2.82	3.87	29	-15	1277.74
0.0	0.0	0.486	1.894	0.92	0.324	8.72	2.83	3.75	35	-15	1277.79
0.0	0.0	0.45	1.757	0.79	0.324	8.74	2.83	3.62	42	-15	1277.84
0.0	0.0	0.411	1.609	0.66	0.324	8.77	2.84	3.50	49	-15	1277.88
0.0	0.0	0.367	1.442	0.53	0.324	8.80	2.85	3.38	56	-15	1277.91
0.0	0.0	0.636	2.472	1.57	0.25	8.16	2.04	3.61	0	-15	1277.92
0.0	0.0	0.318	1.253	0.40	0.324	8.84	2.86	3.26	61	-15	1277.94
0.0	0.0	0.26	1.022	0.27	0.324	8.88	2.88	3.14	65	-15	1277.97
0.0	0.0	0.609	2.364	1.44	0.25	8.18	2.04	3.48	1	-15	1277.97
0.0	0.0	0.184	0.722	0.13	0.324	8.94	2.90	3.03	67	-15	1277.98
0.0	0.0	0.0	0.0	0.00	0.324	9.05	2.93	2.93	73	-15	1278.01
0.0	0.0	0.0	0.0	0.00	0.324	9.04	2.93	2.93	68	-15	1278.01
0.0	0.0	0.581	2.256	1.31	0.25	8.19	2.05	3.36	2	-15	1278.02
0.0	0.0	0.551	2.141	1.18	0.25	8.21	2.05	3.23	3	-15	1278.07
0.0	0.0	0.52	2.024	1.05	0.25	8.23	2.06	3.11	4	-15	1278.12
0.0	0.0	0.486	1.894	0.92	0.25	8.25	2.06	2.98	5	-15	1278.17
0.0	0.0	0.45	1.757	0.79	0.25	8.27	2.07	2.86	7	-15	1278.21
0.0	0.0	0.411	1.609	0.66	0.25	8.30	2.07	2.74	8	-15	1278.25
0.0	0.0	0.367	1.442	0.53	0.25	8.33	2.08	2.61	10	-15	1278.29
0.0	0.0	0.318	1.253	0.40	0.25	8.36	2.09	2.49	11	-15	1278.32
0.0	0.0	0.26	1.022	0.27	0.25	8.40	2.10	2.37	12	-15	1278.35
0.0	0.0	0.184	0.722	0.13	0.25	8.45	2.11	2.25	12	-15	1278.38
0.0	0.0	0.0	0.0	0.00	0.25	8.54	2.14	2.14	13	-15	1278.40
0.0	0.0	0.0	0.0	0.00	0.25	8.54	2.14	2.14	12	-15	1278.40
0.0	0.0	0.779	3.099	2.41	0.538	9.44	5.08	7.49	97	0	1274.44
0.0	0.0	0.757	3.006	2.28	0.538	9.46	5.09	7.36	84	0	1274.50

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I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm ⁻¹]
0.0	0.0	0.735	2.913	2.14	0.538	9.48	5.10	7.24	72	0	1274.55
0.0	0.0	0.712	2.818	2.01	0.538	9.50	5.11	7.12	62	0	1274.59
0.0	0.0	0.687	2.712	1.86	0.538	9.52	5.12	6.99	53	0	1274.66
0.0	0.0	0.662	2.61	1.73	0.538	9.55	5.14	6.86	47	0	1274.72
0.0	0.0	0.636	2.505	1.59	0.538	9.56	5.14	6.74	44	0	1274.78
0.0	0.0	0.609	2.396	1.46	0.538	9.58	5.15	6.61	44	0	1274.84
0.0	0.0	0.581	2.282	1.33	0.538	9.59	5.16	6.49	46	0	1274.91
0.0	0.0	0.551	2.162	1.19	0.538	9.60	5.17	6.36	51	0	1274.98
0.0	0.0	0.779	3.099	2.41	0.455	9.03	4.11	6.52	55	0	1275.00
0.0	0.0	0.52	2.04	1.06	0.538	9.61	5.17	6.23	62	0	1275.05
0.0	0.0	0.757	3.006	2.28	0.455	9.04	4.11	6.39	47	0	1275.06
0.0	0.0	0.735	2.913	2.14	0.455	9.06	4.12	6.26	40	0	1275.12
0.0	0.0	0.486	1.906	0.93	0.538	9.62	5.17	6.10	81	0	1275.12
0.0	0.0	0.712	2.818	2.01	0.455	9.08	4.13	6.14	34	0	1275.17
0.0	0.0	0.45	1.764	0.79	0.538	9.64	5.18	5.98	120	0	1275.19
0.0	0.0	0.411	1.611	0.66	0.538	9.69	5.21	5.87	168	0	1275.22
0.0	0.0	0.367	1.438	0.53	0.538	9.76	5.25	5.78	188	0	1275.23
0.0	0.0	0.687	2.712	1.86	0.455	9.10	4.14	6.00	31	0	1275.24
0.0	0.0	0.662	2.61	1.73	0.455	9.11	4.15	5.87	29	0	1275.30
0.0	0.0	0.636	2.505	1.59	0.455	9.13	4.15	5.75	29	0	1275.37
0.0	0.0	0.609	2.396	1.46	0.455	9.15	4.16	5.62	30	0	1275.43
0.0	0.0	0.581	2.282	1.33	0.455	9.16	4.17	5.49	34	0	1275.50
0.0	0.0	0.779	3.099	2.41	0.372	8.57	3.19	5.60	20	0	1275.52
0.0	0.0	0.551	2.162	1.19	0.455	9.17	4.17	5.36	39	0	1275.57
0.0	0.0	0.757	3.006	2.28	0.372	8.59	3.19	5.47	17	0	1275.58
0.0	0.0	0.52	2.04	1.06	0.455	9.18	4.18	5.24	47	0	1275.64
0.0	0.0	0.735	2.913	2.14	0.372	8.60	3.20	5.34	15	0	1275.64
0.0	0.0	0.486	1.906	0.93	0.455	9.19	4.18	5.11	62	0	1275.70
0.0	0.0	0.712	2.818	2.01	0.372	8.62	3.21	5.21	14	0	1275.70
0.0	0.0	0.45	1.764	0.79	0.455	9.21	4.19	4.99	82	0	1275.76
0.0	0.0	0.687	2.712	1.86	0.372	8.64	3.21	5.08	14	0	1275.77
0.0	0.0	0.411	1.611	0.66	0.455	9.24	4.21	4.87	106	0	1275.80
0.0	0.0	0.367	1.438	0.53	0.455	9.29	4.23	4.76	125	0	1275.83
0.0	0.0	0.662	2.61	1.73	0.372	8.65	3.22	4.95	14	0	1275.84
0.0	0.0	0.318	1.244	0.40	0.455	9.35	4.25	4.65	136	0	1275.85
0.0	0.0	0.26	1.013	0.26	0.455	9.40	4.28	4.54	141	0	1275.87
0.0	0.0	0.184	0.704	0.13	0.455	9.47	4.31	4.44	144	0	1275.88
0.0	0.0	0.636	2.505	1.59	0.372	8.67	3.22	4.82	15	0	1275.91
0.0	0.0	0.609	2.396	1.46	0.372	8.68	3.23	4.69	17	0	1275.97
0.0	0.0	0.581	2.282	1.33	0.372	8.70	3.24	4.56	19	0	1276.03
0.0	0.0	0.551	2.162	1.19	0.372	8.71	3.24	4.43	22	0	1276.10
0.0	0.0	0.52	2.04	1.06	0.372	8.73	3.25	4.31	28	0	1276.15
0.0	0.0	0.486	1.906	0.93	0.372	8.75	3.25	4.18	35	0	1276.22
0.0	0.0	0.45	1.764	0.79	0.372	8.77	3.26	4.05	44	0	1276.27
0.0	0.0	0.411	1.611	0.66	0.372	8.79	3.27	3.93	54	0	1276.31
0.0	0.0	0.367	1.438	0.53	0.372	8.83	3.28	3.81	63	0	1276.35
0.0	0.0	0.318	1.244	0.40	0.372	8.87	3.30	3.70	71	0	1276.38
0.0	0.0	0.636	2.505	1.59	0.29	8.16	2.37	3.96	0	0	1276.39

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I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm ⁻¹]
0.0	0.0	0.26	1.013	0.26	0.372	8.92	3.32	3.58	77	0	1276.41
0.0	0.0	0.184	0.704	0.13	0.372	8.98	3.34	3.47	80	0	1276.43
0.0	0.0	0.0	0.0	0.00	0.372	9.07	3.38	3.38	70	0	1276.45
0.0	0.0	0.0	0.0	0.00	0.372	9.09	3.38	3.38	82	0	1276.45
0.0	0.0	0.609	2.396	1.46	0.29	8.18	2.37	3.83	1	0	1276.45
0.0	0.0	0.581	2.282	1.33	0.29	8.20	2.38	3.70	2	0	1276.51
0.0	0.0	0.551	2.162	1.19	0.29	8.22	2.38	3.57	3	0	1276.56
0.0	0.0	0.52	2.04	1.06	0.29	8.24	2.39	3.45	4	0	1276.62
0.0	0.0	0.486	1.906	0.93	0.29	8.26	2.39	3.32	6	0	1276.67
0.0	0.0	0.45	1.764	0.79	0.29	8.28	2.40	3.20	8	0	1276.72
0.0	0.0	0.411	1.611	0.66	0.29	8.31	2.41	3.07	10	0	1276.77
0.0	0.0	0.367	1.438	0.53	0.29	8.34	2.42	2.95	12	0	1276.81
0.0	0.0	0.318	1.244	0.40	0.29	8.37	2.43	2.82	14	0	1276.84
0.0	0.0	0.26	1.013	0.26	0.29	8.41	2.44	2.70	16	0	1276.87
0.0	0.0	0.184	0.704	0.13	0.29	8.47	2.46	2.58	16	0	1276.90
0.0	0.0	0.0	0.0	0.00	0.29	8.56	2.48	2.48	15	0	1276.92
0.0	0.0	0.0	0.0	0.00	0.29	8.57	2.49	2.49	17	0	1276.93
0.0	0.0	0.735	3.039	2.23	0.552	9.17	5.06	7.29	66	20	1272.56
0.0	0.0	0.712	2.935	2.09	0.552	9.18	5.07	7.16	56	20	1272.62
0.0	0.0	0.687	2.823	1.94	0.552	9.21	5.08	7.02	47	20	1272.69
0.0	0.0	0.662	2.712	1.80	0.552	9.23	5.10	6.89	39	20	1272.75
0.0	0.0	0.636	2.598	1.65	0.552	9.25	5.11	6.76	34	20	1272.82
0.0	0.0	0.609	2.477	1.51	0.552	9.27	5.12	6.63	32	20	1272.90
0.0	0.0	0.581	2.351	1.37	0.552	9.29	5.13	6.49	32	20	1272.97
0.0	0.0	0.735	3.039	2.23	0.485	8.84	4.29	6.52	37	20	1273.04
0.0	0.0	0.551	2.221	1.22	0.552	9.30	5.14	6.36	34	20	1273.05
0.0	0.0	0.712	2.935	2.09	0.485	8.86	4.30	6.39	32	20	1273.10
0.0	0.0	0.52	2.091	1.09	0.552	9.32	5.14	6.23	40	20	1273.13
0.0	0.0	0.687	2.823	1.94	0.485	8.87	4.30	6.24	27	20	1273.18
0.0	0.0	0.486	1.947	0.95	0.552	9.33	5.15	6.09	50	20	1273.21
0.0	0.0	0.662	2.712	1.80	0.485	8.90	4.32	6.11	23	20	1273.24
0.0	0.0	0.45	1.796	0.81	0.552	9.34	5.15	5.96	68	20	1273.29
0.0	0.0	0.636	2.598	1.65	0.485	8.91	4.32	5.98	21	20	1273.32
0.0	0.0	0.411	1.636	0.67	0.552	9.37	5.17	5.84	100	20	1273.35
0.0	0.0	0.367	1.455	0.53	0.552	9.43	5.20	5.74	128	20	1273.38
0.0	0.0	0.318	1.252	0.40	0.552	9.49	5.24	5.64	138	20	1273.39
0.0	0.0	0.609	2.477	1.51	0.485	8.94	4.33	5.84	21	20	1273.39
0.0	0.0	0.581	2.351	1.37	0.485	8.95	4.34	5.71	22	20	1273.47
0.0	0.0	0.735	3.039	2.23	0.418	8.49	3.55	5.78	11	20	1273.48
0.0	0.0	0.551	2.221	1.22	0.485	8.97	4.35	5.57	24	20	1273.55
0.0	0.0	0.712	2.935	2.09	0.418	8.51	3.56	5.65	11	20	1273.56
0.0	0.0	0.52	2.091	1.09	0.485	8.98	4.36	5.44	29	20	1273.62
0.0	0.0	0.687	2.823	1.94	0.418	8.52	3.56	5.50	10	20	1273.63
0.0	0.0	0.486	1.947	0.95	0.485	9.00	4.36	5.31	38	20	1273.70
0.0	0.0	0.662	2.712	1.80	0.418	8.54	3.57	5.37	9	20	1273.71
0.0	0.0	0.45	1.796	0.81	0.485	9.02	4.37	5.18	50	20	1273.77
0.0	0.0	0.636	2.598	1.65	0.418	8.56	3.58	5.23	9	20	1273.79
0.0	0.0	0.411	1.636	0.67	0.485	9.04	4.38	5.06	68	20	1273.83

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I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm^{-1}]
0.0	0.0	0.609	2.477	1.51	0.418	8.58	3.59	5.09	10	20	1273.86
0.0	0.0	0.367	1.455	0.53	0.485	9.08	4.40	4.94	87	20	1273.87
0.0	0.0	0.318	1.252	0.40	0.485	9.14	4.43	4.83	97	20	1273.89
0.0	0.0	0.26	1.011	0.26	0.485	9.19	4.46	4.72	102	20	1273.91
0.0	0.0	0.184	0.692	0.13	0.485	9.26	4.49	4.62	103	20	1273.92
0.0	0.0	0.581	2.351	1.37	0.418	8.60	3.59	4.96	12	20	1273.94
0.0	0.0	0.0	0.0	0.00	0.485	9.37	4.54	4.54	105	20	1273.94
0.0	0.0	0.551	2.221	1.22	0.418	8.62	3.60	4.83	14	20	1274.01
0.0	0.0	0.52	2.091	1.09	0.418	8.64	3.61	4.70	17	20	1274.08
0.0	0.0	0.486	1.947	0.95	0.418	8.65	3.62	4.56	23	20	1274.15
0.0	0.0	0.45	1.796	0.81	0.418	8.67	3.63	4.43	30	20	1274.22
0.0	0.0	0.411	1.636	0.67	0.418	8.70	3.64	4.31	39	20	1274.27
0.0	0.0	0.367	1.455	0.53	0.418	8.73	3.65	4.18	48	20	1274.31
0.0	0.0	0.318	1.252	0.40	0.418	8.78	3.67	4.07	55	20	1274.35
0.0	0.0	0.581	2.351	1.37	0.35	8.21	2.87	4.24	1	20	1274.37
0.0	0.0	0.26	1.011	0.26	0.418	8.83	3.69	3.95	59	20	1274.38
0.0	0.0	0.184	0.692	0.13	0.418	8.89	3.72	3.84	61	20	1274.39
0.0	0.0	0.0	0.0	0.00	0.418	8.99	3.76	3.76	63	20	1274.41
0.0	0.0	0.0	0.0	0.00	0.418	9.01	3.77	3.77	61	20	1274.42
0.0	0.0	0.551	2.221	1.22	0.35	8.23	2.88	4.11	2	20	1274.44
0.0	0.0	0.52	2.091	1.09	0.35	8.26	2.89	3.98	3	20	1274.51
0.0	0.0	0.486	1.947	0.95	0.35	8.28	2.90	3.84	5	20	1274.57
0.0	0.0	0.45	1.796	0.81	0.35	8.30	2.91	3.71	7	20	1274.63
0.0	0.0	0.411	1.636	0.67	0.35	8.33	2.91	3.59	10	20	1274.68
0.0	0.0	0.367	1.455	0.53	0.35	8.36	2.93	3.46	13	20	1274.73
0.0	0.0	0.318	1.252	0.40	0.35	8.40	2.94	3.34	15	20	1274.77
0.0	0.0	0.26	1.011	0.26	0.35	8.44	2.95	3.22	16	20	1274.80
0.0	0.0	0.184	0.692	0.13	0.35	8.49	2.97	3.10	16	20	1274.83
0.0	0.0	0.0	0.0	0.00	0.35	8.61	3.01	3.01	16	20	1274.85
0.0	0.0	0.0	0.0	0.00	0.35	8.60	3.01	3.01	17	20	1274.85

Table 2:

Details of cluster #0-Front

I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm^{-1}]
0.0	0.0	0.0	0.0	0.00	0.398	9.51	3.78	3.78	126	-15	1277.56
0.0	0.0	0.0	0.0	0.00	0.398	9.52	3.79	3.79	136	-15	1277.56
0.443	1.718	0.0	0.0	0.76	0.324	8.84	2.86	3.62	52	-15	1277.65
0.424	1.647	0.0	0.0	0.70	0.324	8.84	2.87	3.56	54	-15	1277.67
0.405	1.576	0.0	0.0	0.64	0.324	8.86	2.87	3.51	56	-15	1277.70
0.384	1.497	0.0	0.0	0.57	0.324	8.87	2.87	3.45	58	-15	1277.73
0.362	1.414	0.0	0.0	0.51	0.324	8.88	2.88	3.39	60	-15	1277.76
0.338	1.323	0.0	0.0	0.45	0.324	8.89	2.88	3.33	62	-15	1277.79
0.313	1.228	0.0	0.0	0.38	0.324	8.90	2.88	3.27	64	-15	1277.82
0.286	1.125	0.0	0.0	0.32	0.324	8.92	2.89	3.21	66	-15	1277.85
0.256	1.009	0.0	0.0	0.26	0.324	8.93	2.89	3.15	68	-15	1277.88
0.222	0.876	0.0	0.0	0.19	0.324	8.95	2.90	3.09	69	-15	1277.90
0.181	0.713	0.0	0.0	0.13	0.324	8.97	2.91	3.03	70	-15	1277.94
0.128	0.496	0.0	0.0	0.06	0.324	8.99	2.91	2.98	72	-15	1277.97
0.0	0.0	0.0	0.0	0.00	0.324	9.05	2.93	2.93	73	-15	1278.01
0.0	0.0	0.0	0.0	0.00	0.324	9.04	2.93	2.93	68	-15	1278.01
0.405	1.576	0.0	0.0	0.64	0.25	8.35	2.09	2.73	1	-15	1278.10
0.384	1.497	0.0	0.0	0.57	0.25	8.36	2.09	2.66	2	-15	1278.15
0.362	1.414	0.0	0.0	0.51	0.25	8.37	2.09	2.60	3	-15	1278.17
0.338	1.323	0.0	0.0	0.45	0.25	8.38	2.10	2.54	5	-15	1278.20
0.313	1.228	0.0	0.0	0.38	0.25	8.40	2.10	2.48	6	-15	1278.23
0.286	1.125	0.0	0.0	0.32	0.25	8.41	2.10	2.42	7	-15	1278.26
0.256	1.009	0.0	0.0	0.26	0.25	8.43	2.11	2.37	8	-15	1278.28
0.222	0.876	0.0	0.0	0.19	0.25	8.44	2.11	2.31	9	-15	1278.31
0.181	0.713	0.0	0.0	0.13	0.25	8.47	2.12	2.25	10	-15	1278.34
0.128	0.496	0.0	0.0	0.06	0.25	8.49	2.12	2.19	12	-15	1278.37
0.0	0.0	0.0	0.0	0.00	0.25	8.54	2.14	2.14	13	-15	1278.40
0.0	0.0	0.0	0.0	0.00	0.25	8.54	2.14	2.14	12	-15	1278.40
0.362	1.448	0.0	0.0	0.52	0.372	8.91	3.31	3.84	63	0	1276.17
0.338	1.352	0.0	0.0	0.46	0.372	8.92	3.32	3.78	66	0	1276.20
0.313	1.249	0.0	0.0	0.39	0.372	8.93	3.32	3.71	67	0	1276.24
0.286	1.14	0.0	0.0	0.33	0.372	8.95	3.33	3.65	69	0	1276.27
0.256	1.019	0.0	0.0	0.26	0.372	8.96	3.33	3.59	70	0	1276.31
0.222	0.884	0.0	0.0	0.20	0.372	8.98	3.34	3.54	70	0	1276.34
0.181	0.714	0.0	0.0	0.13	0.372	9.00	3.35	3.48	71	0	1276.37
0.128	0.492	0.0	0.0	0.06	0.372	9.02	3.36	3.42	71	0	1276.41
0.0	0.0	0.0	0.0	0.00	0.372	9.07	3.38	3.38	70	0	1276.45
0.0	0.0	0.0	0.0	0.00	0.372	9.09	3.38	3.38	82	0	1276.45
0.405	1.619	0.0	0.0	0.66	0.29	8.36	2.42	3.08	1	0	1276.59
0.384	1.533	0.0	0.0	0.59	0.29	8.37	2.43	3.02	3	0	1276.64
0.362	1.448	0.0	0.0	0.52	0.29	8.38	2.43	2.95	4	0	1276.67
0.338	1.352	0.0	0.0	0.46	0.29	8.39	2.43	2.89	6	0	1276.70
0.313	1.249	0.0	0.0	0.39	0.29	8.41	2.44	2.83	7	0	1276.73
0.286	1.14	0.0	0.0	0.33	0.29	8.42	2.44	2.77	9	0	1276.77
0.256	1.019	0.0	0.0	0.26	0.29	8.44	2.45	2.71	10	0	1276.80
0.222	0.884	0.0	0.0	0.20	0.29	8.45	2.45	2.65	11	0	1276.83

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I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm ⁻¹]
0.181	0.714	0.0	0.0	0.13	0.29	8.48	2.46	2.59	12	0	1276.86
0.128	0.492	0.0	0.0	0.06	0.29	8.50	2.47	2.53	13	0	1276.89
0.0	0.0	0.0	0.0	0.00	0.29	8.56	2.48	2.48	15	0	1276.92
0.0	0.0	0.0	0.0	0.00	0.29	8.57	2.49	2.49	17	0	1276.93
0.0	0.0	0.0	0.0	0.00	0.485	9.37	4.54	4.54	105	20	1273.94
0.313	1.258	0.0	0.0	0.39	0.418	8.85	3.70	4.09	48	20	1274.17
0.286	1.143	0.0	0.0	0.33	0.418	8.86	3.71	4.03	50	20	1274.21
0.256	1.017	0.0	0.0	0.26	0.418	8.88	3.71	3.97	52	20	1274.25
0.222	0.875	0.0	0.0	0.19	0.418	8.90	3.72	3.91	55	20	1274.29
0.181	0.7	0.0	0.0	0.13	0.418	8.92	3.73	3.85	58	20	1274.33
0.128	0.472	0.0	0.0	0.06	0.418	8.95	3.74	3.80	60	20	1274.37
0.0	0.0	0.0	0.0	0.00	0.418	8.99	3.76	3.76	63	20	1274.41
0.0	0.0	0.0	0.0	0.00	0.418	9.01	3.77	3.77	61	20	1274.42
0.362	1.468	0.0	0.0	0.53	0.35	8.42	2.95	3.48	1	20	1274.56
0.338	1.367	0.0	0.0	0.46	0.35	8.43	2.95	3.41	3	20	1274.59
0.313	1.258	0.0	0.0	0.39	0.35	8.45	2.96	3.35	5	20	1274.62
0.286	1.143	0.0	0.0	0.33	0.35	8.46	2.96	3.29	7	20	1274.66
0.256	1.017	0.0	0.0	0.26	0.35	8.48	2.97	3.23	9	20	1274.70
0.222	0.875	0.0	0.0	0.19	0.35	8.50	2.97	3.17	11	20	1274.74
0.181	0.7	0.0	0.0	0.13	0.35	8.52	2.98	3.11	13	20	1274.77
0.128	0.472	0.0	0.0	0.06	0.35	8.55	2.99	3.05	15	20	1274.81
0.0	0.0	0.0	0.0	0.00	0.35	8.61	3.01	3.01	16	20	1274.85
0.0	0.0	0.0	0.0	0.00	0.35	8.60	3.01	3.01	17	20	1274.85

Table 3:

Details of cluster #1-Back

I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm^{-1}]
0.0	0.0	0.9	3.561	3.20	0.546	9.67	5.28	8.49	68	-15	1290.25
0.0	0.0	0.881	3.479	3.06	0.546	9.69	5.29	8.36	75	-15	1290.32
0.0	0.0	0.862	3.385	2.92	0.546	9.70	5.29	8.21	85	-15	1290.39
0.0	0.0	0.842	3.323	2.80	0.546	9.70	5.30	8.10	101	-15	1290.46
0.0	0.0	0.9	3.561	3.20	0.472	9.28	4.38	7.59	56	-15	1290.79
0.0	0.0	0.881	3.479	3.06	0.472	9.29	4.39	7.45	65	-15	1290.86
0.0	0.0	0.862	3.385	2.92	0.472	9.30	4.39	7.31	76	-15	1290.92
0.0	0.0	0.842	3.323	2.80	0.472	9.32	4.40	7.20	92	-15	1290.98
0.0	0.0	0.9	3.561	3.20	0.398	8.87	3.53	6.74	39	-15	1291.28
0.0	0.0	0.881	3.479	3.06	0.398	8.88	3.54	6.60	45	-15	1291.34
0.0	0.0	0.862	3.385	2.92	0.398	8.90	3.54	6.46	53	-15	1291.40
0.0	0.0	0.842	3.323	2.80	0.398	8.92	3.55	6.35	62	-15	1291.44
0.0	0.0	0.9	3.561	3.20	0.324	8.44	2.73	5.94	15	-15	1291.72
0.0	0.0	0.881	3.479	3.06	0.324	8.45	2.74	5.80	18	-15	1291.77
0.0	0.0	0.862	3.385	2.92	0.324	8.47	2.74	5.66	21	-15	1291.82
0.0	0.0	0.842	3.323	2.80	0.324	8.49	2.75	5.55	25	-15	1291.87
0.0	0.0	0.9	3.646	3.28	0.538	9.35	5.03	8.31	55	0	1288.83
0.0	0.0	0.881	3.56	3.14	0.538	9.37	5.04	8.18	49	0	1288.90
0.0	0.0	0.862	3.467	2.99	0.538	9.38	5.05	8.04	55	0	1288.98
0.0	0.0	0.842	3.378	2.84	0.538	9.39	5.05	7.90	62	0	1289.05
0.0	0.0	0.822	3.29	2.70	0.538	9.40	5.06	7.76	71	0	1289.13
0.0	0.0	0.801	3.192	2.56	0.538	9.41	5.06	7.62	87	0	1289.21
0.0	0.0	0.9	3.646	3.28	0.455	8.92	4.06	7.34	32	0	1289.43
0.0	0.0	0.881	3.56	3.14	0.455	8.94	4.07	7.20	35	0	1289.51
0.0	0.0	0.862	3.467	2.99	0.455	8.95	4.07	7.06	38	0	1289.58
0.0	0.0	0.842	3.378	2.84	0.455	8.96	4.08	6.92	45	0	1289.65
0.0	0.0	0.822	3.29	2.70	0.455	8.97	4.08	6.79	54	0	1289.72
0.0	0.0	0.801	3.192	2.56	0.455	8.99	4.09	6.65	67	0	1289.79
0.0	0.0	0.9	3.646	3.28	0.372	8.46	3.15	6.43	10	0	1289.98
0.0	0.0	0.881	3.56	3.14	0.372	8.48	3.16	6.29	13	0	1290.06
0.0	0.0	0.862	3.467	2.99	0.372	8.50	3.16	6.15	15	0	1290.12
0.0	0.0	0.842	3.378	2.84	0.372	8.51	3.17	6.01	19	0	1290.19
0.0	0.0	0.822	3.29	2.70	0.372	8.53	3.17	5.88	24	0	1290.25
0.0	0.0	0.801	3.192	2.56	0.372	8.54	3.18	5.74	29	0	1290.31
0.0	0.0	0.842	3.548	2.99	0.552	9.09	5.02	8.00	32	20	1286.94
0.0	0.0	0.822	3.442	2.83	0.552	9.10	5.02	7.85	33	20	1287.03
0.0	0.0	0.801	3.339	2.67	0.552	9.11	5.03	7.70	36	20	1287.12
0.0	0.0	0.779	3.243	2.53	0.552	9.12	5.04	7.56	42	20	1287.21
0.0	0.0	0.757	3.141	2.38	0.552	9.13	5.04	7.42	49	20	1287.29
0.0	0.0	0.862	3.659	3.15	0.485	8.73	4.24	7.39	12	20	1287.37
0.0	0.0	0.842	3.548	2.99	0.485	8.75	4.24	7.23	13	20	1287.46
0.0	0.0	0.822	3.442	2.83	0.485	8.77	4.25	7.08	18	20	1287.55
0.0	0.0	0.801	3.339	2.67	0.485	8.78	4.26	6.93	23	20	1287.63
0.0	0.0	0.779	3.243	2.53	0.485	8.79	4.26	6.79	29	20	1287.71
0.0	0.0	0.757	3.141	2.38	0.485	8.81	4.27	6.65	37	20	1287.79
0.0	0.0	0.842	3.548	2.99	0.418	8.40	3.51	6.50	2	20	1287.94

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I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm ⁻¹]
0.0	0.0	0.822	3.442	2.83	0.418	8.42	3.52	6.35	4	20	1288.02
0.0	0.0	0.801	3.339	2.67	0.418	8.43	3.52	6.20	7	20	1288.10
0.0	0.0	0.779	3.243	2.53	0.418	8.45	3.53	6.06	9	20	1288.17
0.0	0.0	0.757	3.141	2.38	0.418	8.47	3.54	5.92	10	20	1288.24

Table 4:

Details of cluster #2-Front

I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm ⁻¹]
0.6	2.327	0.0	0.0	1.40	0.546	10.03	5.47	6.87	116	-15	1261.39
0.586	2.272	0.0	0.0	1.33	0.546	10.03	5.48	6.81	118	-15	1261.42
0.572	2.219	0.0	0.0	1.27	0.546	10.03	5.48	6.75	118	-15	1261.45
0.558	2.168	0.0	0.0	1.21	0.546	10.04	5.48	6.69	119	-15	1261.48
0.543	2.109	0.0	0.0	1.15	0.546	10.04	5.48	6.63	119	-15	1261.51
0.527	2.048	0.0	0.0	1.08	0.546	10.05	5.49	6.56	119	-15	1261.55
0.512	1.992	0.0	0.0	1.02	0.546	10.05	5.49	6.51	117	-15	1261.58
0.495	1.926	0.0	0.0	0.95	0.546	10.05	5.49	6.44	114	-15	1261.61
0.479	1.87	0.0	0.0	0.90	0.546	10.06	5.49	6.39	110	-15	1261.64
0.461	1.785	0.0	0.0	0.82	0.546	10.07	5.50	6.32	105	-15	1261.66
0.443	1.718	0.0	0.0	0.76	0.546	10.08	5.50	6.26	98	-15	1261.68
0.424	1.647	0.0	0.0	0.70	0.546	10.09	5.51	6.21	91	-15	1261.70
0.405	1.576	0.0	0.0	0.64	0.546	10.11	5.52	6.16	85	-15	1261.72
0.384	1.497	0.0	0.0	0.57	0.546	10.13	5.53	6.10	79	-15	1261.73
0.362	1.414	0.0	0.0	0.51	0.546	10.15	5.54	6.05	74	-15	1261.75
0.6	2.327	0.0	0.0	1.40	0.472	9.60	4.53	5.93	90	-15	1261.94
0.586	2.272	0.0	0.0	1.33	0.472	9.60	4.53	5.86	90	-15	1261.96
0.572	2.219	0.0	0.0	1.27	0.472	9.61	4.54	5.80	89	-15	1261.99
0.558	2.168	0.0	0.0	1.21	0.472	9.61	4.54	5.75	88	-15	1262.02
0.543	2.109	0.0	0.0	1.15	0.472	9.62	4.54	5.68	86	-15	1262.04
0.527	2.048	0.0	0.0	1.08	0.472	9.63	4.54	5.62	83	-15	1262.07
0.512	1.992	0.0	0.0	1.02	0.472	9.64	4.55	5.57	80	-15	1262.09
0.495	1.926	0.0	0.0	0.95	0.472	9.64	4.55	5.51	76	-15	1262.11
0.479	1.87	0.0	0.0	0.90	0.472	9.66	4.56	5.45	73	-15	1262.13
0.461	1.785	0.0	0.0	0.82	0.472	9.67	4.56	5.39	69	-15	1262.15
0.443	1.718	0.0	0.0	0.76	0.472	9.69	4.57	5.33	66	-15	1262.17
0.424	1.647	0.0	0.0	0.70	0.472	9.70	4.58	5.28	62	-15	1262.18
0.405	1.576	0.0	0.0	0.64	0.472	9.72	4.59	5.23	59	-15	1262.19
0.6	2.327	0.0	0.0	1.40	0.398	9.16	3.65	5.04	56	-15	1262.41
0.586	2.272	0.0	0.0	1.33	0.398	9.18	3.65	4.98	55	-15	1262.44
0.572	2.219	0.0	0.0	1.27	0.398	9.18	3.65	4.92	53	-15	1262.46
0.558	2.168	0.0	0.0	1.21	0.398	9.19	3.66	4.87	52	-15	1262.48
0.543	2.109	0.0	0.0	1.15	0.398	9.20	3.66	4.81	50	-15	1262.50
0.527	2.048	0.0	0.0	1.08	0.398	9.22	3.67	4.75	48	-15	1262.52
0.512	1.992	0.0	0.0	1.02	0.398	9.23	3.67	4.69	46	-15	1262.54
0.495	1.926	0.0	0.0	0.95	0.398	9.24	3.68	4.63	44	-15	1262.56
0.479	1.87	0.0	0.0	0.90	0.398	9.25	3.68	4.58	42	-15	1262.57
0.461	1.785	0.0	0.0	0.82	0.398	9.27	3.69	4.51	40	-15	1262.58
0.6	2.327	0.0	0.0	1.40	0.324	8.73	2.83	4.22	22	-15	1262.83
0.586	2.272	0.0	0.0	1.33	0.324	8.74	2.83	4.16	21	-15	1262.85
0.572	2.219	0.0	0.0	1.27	0.324	8.75	2.83	4.10	21	-15	1262.87
0.558	2.168	0.0	0.0	1.21	0.324	8.76	2.84	4.05	20	-15	1262.89
0.543	2.109	0.0	0.0	1.15	0.324	8.77	2.84	3.99	19	-15	1262.91
0.527	2.048	0.0	0.0	1.08	0.324	8.79	2.85	3.93	19	-15	1262.92
0.512	1.992	0.0	0.0	1.02	0.324	8.80	2.85	3.87	18	-15	1262.94
0.6	2.381	0.0	0.0	1.43	0.538	9.67	5.20	6.63	88	0	1260.10

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I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm ⁻¹]
0.586	2.33	0.0	0.0	1.37	0.538	9.68	5.21	6.57	88	0	1260.14
0.572	2.275	0.0	0.0	1.30	0.538	9.68	5.21	6.51	88	0	1260.17
0.558	2.22	0.0	0.0	1.24	0.538	9.68	5.21	6.45	85	0	1260.21
0.543	2.164	0.0	0.0	1.18	0.538	9.69	5.21	6.39	81	0	1260.24
0.527	2.097	0.0	0.0	1.11	0.538	9.70	5.22	6.32	75	0	1260.28
0.512	2.042	0.0	0.0	1.05	0.538	9.70	5.22	6.27	67	0	1260.31
0.495	1.973	0.0	0.0	0.98	0.538	9.71	5.22	6.20	60	0	1260.34
0.479	1.909	0.0	0.0	0.91	0.538	9.72	5.23	6.14	57	0	1260.37
0.461	1.842	0.0	0.0	0.85	0.538	9.73	5.23	6.08	58	0	1260.40
0.443	1.76	0.0	0.0	0.78	0.538	9.73	5.24	6.02	60	0	1260.42
0.424	1.685	0.0	0.0	0.71	0.538	9.75	5.24	5.96	59	0	1260.45
0.405	1.619	0.0	0.0	0.66	0.538	9.76	5.25	5.91	59	0	1260.47
0.384	1.533	0.0	0.0	0.59	0.538	9.78	5.26	5.85	56	0	1260.48
0.362	1.448	0.0	0.0	0.52	0.538	9.80	5.27	5.80	54	0	1260.50
0.6	2.381	0.0	0.0	1.43	0.455	9.21	4.19	5.62	62	0	1260.71
0.586	2.33	0.0	0.0	1.37	0.455	9.21	4.19	5.56	63	0	1260.75
0.572	2.275	0.0	0.0	1.30	0.455	9.22	4.20	5.50	63	0	1260.78
0.558	2.22	0.0	0.0	1.24	0.455	9.23	4.20	5.44	63	0	1260.81
0.543	2.164	0.0	0.0	1.18	0.455	9.23	4.20	5.38	62	0	1260.84
0.527	2.097	0.0	0.0	1.11	0.455	9.25	4.21	5.31	61	0	1260.86
0.512	2.042	0.0	0.0	1.05	0.455	9.26	4.21	5.26	59	0	1260.89
0.495	1.973	0.0	0.0	0.98	0.455	9.27	4.22	5.19	56	0	1260.91
0.479	1.909	0.0	0.0	0.91	0.455	9.28	4.22	5.14	54	0	1260.93
0.461	1.842	0.0	0.0	0.85	0.455	9.29	4.23	5.08	51	0	1260.95
0.443	1.76	0.0	0.0	0.78	0.455	9.31	4.24	5.01	48	0	1260.97
0.424	1.685	0.0	0.0	0.71	0.455	9.32	4.24	4.96	46	0	1260.99
0.405	1.619	0.0	0.0	0.66	0.455	9.34	4.25	4.91	43	0	1261.00
0.6	2.381	0.0	0.0	1.43	0.372	8.74	3.25	4.68	28	0	1261.24
0.586	2.33	0.0	0.0	1.37	0.372	8.74	3.25	4.62	28	0	1261.27
0.572	2.275	0.0	0.0	1.30	0.372	8.76	3.26	4.56	27	0	1261.30
0.558	2.22	0.0	0.0	1.24	0.372	8.76	3.26	4.50	27	0	1261.32
0.543	2.164	0.0	0.0	1.18	0.372	8.78	3.27	4.44	26	0	1261.35
0.527	2.097	0.0	0.0	1.11	0.372	8.79	3.27	4.37	25	0	1261.36
0.512	2.042	0.0	0.0	1.05	0.372	8.80	3.27	4.32	24	0	1261.38
0.495	1.973	0.0	0.0	0.98	0.372	8.81	3.28	4.26	24	0	1261.40
0.479	1.909	0.0	0.0	0.91	0.372	8.83	3.29	4.20	23	0	1261.42
0.461	1.842	0.0	0.0	0.85	0.372	8.85	3.29	4.14	22	0	1261.44
0.586	2.41	0.0	0.0	1.41	0.552	9.37	5.17	6.58	55	20	1258.19
0.572	2.347	0.0	0.0	1.34	0.552	9.38	5.18	6.52	57	20	1258.23
0.558	2.284	0.0	0.0	1.27	0.552	9.38	5.18	6.45	59	20	1258.27
0.543	2.227	0.0	0.0	1.21	0.552	9.39	5.18	6.39	61	20	1258.31
0.527	2.163	0.0	0.0	1.14	0.552	9.40	5.19	6.33	62	20	1258.35
0.512	2.099	0.0	0.0	1.07	0.552	9.40	5.19	6.27	63	20	1258.39
0.495	2.03	0.0	0.0	1.00	0.552	9.41	5.19	6.20	64	20	1258.43
0.479	1.967	0.0	0.0	0.94	0.552	9.42	5.20	6.14	64	20	1258.47
0.461	1.886	0.0	0.0	0.87	0.552	9.43	5.21	6.07	63	20	1258.50
0.443	1.817	0.0	0.0	0.80	0.552	9.44	5.21	6.01	60	20	1258.53
0.424	1.738	0.0	0.0	0.74	0.552	9.45	5.22	5.95	57	20	1258.57

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I_F	V_F	I_B	V_B	P_{elR}	I_L	V_L	P_L	P_{tot}	P_{opt}	T	freq
[A]	[V]	[A]	[V]	[W]	[A]	[V]	[W]	[W]	[mW]	[C]	[cm^{-1}]
0.405	1.651	0.0	0.0	0.67	0.552	9.46	5.22	5.89	53	20	1258.59
0.384	1.564	0.0	0.0	0.60	0.552	9.47	5.23	5.83	49	20	1258.62
0.362	1.468	0.0	0.0	0.53	0.552	9.49	5.24	5.77	46	20	1258.63
0.338	1.367	0.0	0.0	0.46	0.552	9.51	5.25	5.71	42	20	1258.65
0.313	1.258	0.0	0.0	0.39	0.552	9.54	5.26	5.66	40	20	1258.67
0.6	2.467	0.0	0.0	1.48	0.485	9.01	4.37	5.85	35	20	1258.67
0.586	2.41	0.0	0.0	1.41	0.485	9.01	4.37	5.78	37	20	1258.71
0.572	2.347	0.0	0.0	1.34	0.485	9.02	4.37	5.72	39	20	1258.75
0.558	2.284	0.0	0.0	1.27	0.485	9.03	4.38	5.65	40	20	1258.78
0.543	2.227	0.0	0.0	1.21	0.485	9.03	4.38	5.59	41	20	1258.82
0.527	2.163	0.0	0.0	1.14	0.485	9.04	4.39	5.53	41	20	1258.86
0.512	2.099	0.0	0.0	1.07	0.485	9.05	4.39	5.47	42	20	1258.89
0.495	2.03	0.0	0.0	1.00	0.485	9.06	4.40	5.40	41	20	1258.93
0.479	1.967	0.0	0.0	0.94	0.485	9.07	4.40	5.34	41	20	1258.96
0.461	1.886	0.0	0.0	0.87	0.485	9.09	4.41	5.28	39	20	1258.98
0.443	1.817	0.0	0.0	0.80	0.485	9.10	4.41	5.22	38	20	1259.01
0.424	1.738	0.0	0.0	0.74	0.485	9.11	4.42	5.16	36	20	1259.03
0.405	1.651	0.0	0.0	0.67	0.485	9.13	4.43	5.10	33	20	1259.05
0.384	1.564	0.0	0.0	0.60	0.485	9.15	4.44	5.04	32	20	1259.07
0.362	1.468	0.0	0.0	0.53	0.485	9.17	4.45	4.98	30	20	1259.09
0.6	2.467	0.0	0.0	1.48	0.418	8.64	3.61	5.09	14	20	1259.15
0.586	2.41	0.0	0.0	1.41	0.418	8.65	3.62	5.03	16	20	1259.18
0.572	2.347	0.0	0.0	1.34	0.418	8.66	3.62	4.96	17	20	1259.22
0.558	2.284	0.0	0.0	1.27	0.418	8.66	3.62	4.90	17	20	1259.25
0.543	2.227	0.0	0.0	1.21	0.418	8.68	3.63	4.84	18	20	1259.28
0.527	2.163	0.0	0.0	1.14	0.418	8.69	3.63	4.77	18	20	1259.31
0.512	2.099	0.0	0.0	1.07	0.418	8.70	3.64	4.71	18	20	1259.34
0.495	2.03	0.0	0.0	1.00	0.418	8.71	3.64	4.65	18	20	1259.37
0.479	1.967	0.0	0.0	0.94	0.418	8.73	3.65	4.59	18	20	1259.39
0.461	1.886	0.0	0.0	0.87	0.418	8.74	3.65	4.52	17	20	1259.42
0.443	1.817	0.0	0.0	0.80	0.418	8.75	3.66	4.46	16	20	1259.44
0.424	1.738	0.0	0.0	0.74	0.418	8.77	3.67	4.40	16	20	1259.46
0.405	1.651	0.0	0.0	0.67	0.418	8.79	3.67	4.34	15	20	1259.48

Table 5: