

DESCARTES' MODEL OF A RAINBOW

Dr Andrew French. July 2020

Light frequency /THz	Refractive index of water	Primary bow theta /deg	Primary bow elev /deg	Secondary bow theta /deg	Secondary bow elev /deg
405	1.3303	59.57	42.48	71.93	50.18
415	1.3305	59.56	42.45	71.92	50.22
425	1.3307	59.55	42.42	71.92	50.27
435	1.3308	59.54	42.39	71.91	50.32
445	1.3310	59.52	42.36	71.91	50.38
455	1.3312	59.51	42.33	71.90	50.43
465	1.3315	59.50	42.30	71.89	50.48
475	1.3317	59.49	42.27	71.89	50.54
485	1.331				50.60
495	1.332				50.66
505	1.332				50.72
515	1.332				50.78
525	1.332				50.84
535	1.333				50.90
545	1.333				50.97
555	1.333				51.03
565	1.333				51.10
575	1.334				51.17
585	1.334				51.24
595	1.334				51.31
605	1.334				51.39
615	1.335				51.46
625	1.335				51.54
635	1.335				51.61
645	1.336				51.69
655	1.3364	59.21	41.59	71.73	51.77
665	1.3367	59.20	41.54	71.72	51.85
675	1.3370	59.18	41.50	71.71	51.94
685	1.3373	59.16	41.45	71.70	52.02
695	1.3377	59.14	41.40	71.69	52.11
705	1.3380	59.12	41.36	71.68	52.19
715	1.3383	59.10	41.31	71.67	52.28
725	1.3387	59.08	41.26	71.66	52.37
735	1.3390	59.06	41.21	71.65	52.46
745	1.3394	59.04	41.16	71.64	52.56
755	1.3398	59.02	41.10	71.62	52.65
765	1.3401	59.00	41.05	71.61	52.75
775	1.3405	58.97	41.00	71.60	52.84
785	1.3409	58.95	40.94	71.59	52.94
795	1.3413	58.93	40.89	71.58	53.04

