




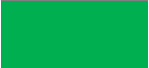




Appendix Table 1. Corresponding figures of merit (median and range) of the spectral radiant powers presented in Figures 4A and 4B.

Display type	LER lmW	CER blm/W	CAF lm/blm	PIL lx	CIL blx	MSV %
LCD	288 (255-396)	238 (207-301)	0.82 (0.63 – 1.04)	52 (6.4-103)	44 (5.8-81)	10.03 (0.3-24.8)
AMOLED	274 (241-330)	230 (205-283)	0.85 (0.77 – 0.93)	63 (17-106)	56 (14-93))	14.6 (1.4-29.7)

LER = luminous efficacy of radiation; CER = circadian efficiency of radiation; CAF = circadian action factor; PIL = photopic illuminance; CIL = circadian illuminance parameter; MSV = melatonin suppression value; LCD = liquid-crystal display; AMOLED = active-matrix organic light-emitting diode.

Appendix Table 2. Figures of merit corresponding to the spectral radiant powers presented in Fig. 5.

	Model	Color line	LER lm/W	CER blm/W	CAF lm/blm	PIL lx	CIL blx	MSV %
LCD	Ref.		284.35	234.10	0.82	52.57	43.28	9.87
	Cool		291.22	216.92	0.74	48.29	35.97	7.32
	Warm		302.44	164.39	0.54	38.13	20.73	2.86
	Warmest		298.46	99.72	0.33	27.36	9.14	0.68
AMOLED	Ref.		258.04	227.72	0.88	60.13	53.06	13.62
	Cool		260.30	217.31	0.83	56.54	47.21	11.33
	Warm		271.60	164.74	0.61	45.78	27.77	4.75
	Warmest		268.28	104.14	0.39	33.10	12.85	1.25

LER = luminous efficacy of radiation; CER = circadian efficiency of radiation; CAF = circadian action factor; PIL = photopic illuminance; CIL = circadian Illuminance parameter; MSV = melatonin suppression value; LCD = liquid-crystal display; AMOLED = active-matrix organic light-emitting diode

Appendix Table 3. Figures of merit (FoMs) of the spectral radiant powers of generic liquid-crystal display (LCD) and active-matrix organic light-emitting diode (AMOLED) displays, the medians shown in Figure 4C (full white; reference) and when viewed through a clear spectacle lens and each of the four blur-light-reducing lenses, whose transmittance is shown in Fig. 7.

Model (display)	Blue-light-reducing spectacle	LER lmW	CER blm/W	CAF lm/blm	PIL lx	CIL blx	MSV %
LCD	Ref.(no lens)	284.35	234.10	0.82	52.57	43.28	9.87
	Clear lens (uncoated)	288.28	233.19	0.81	48.71	39.41	8.49
	1.60 UV Blue Light	292.32	229.27	0.78	49.98	39.20	8.41
	Anti Blu-Ray	285.58	237.33	0.80	47.19	37.88	7.95
	Crizal Previncia	324.70	224.86	0.71	50.40	33.32	6.44
	Blue Protect	294.65	228.24	0.78	49.96	36.72	7.56
AMOLED	Ref. (no lens)	258.04	227.72	0.88	60.13	53.06	13.60
	Clear lens (uncoated)	260.68	226.65	0.87	55.75	48.48	11.82
	1.60 UV Blue Light	262.39	223.42	0.85	57.32	48.80	11.95
	Anti Blu-Ray	257.60	230.20	0.87	54.25	47.05	11.28
	Crizal Previncia	291.70	219.59	0.77	57.65	41.55	9.25
	Blue Protect	264.89	222.99	0.84	57.19	45.76	10.79

LER = luminous efficacy of radiation; CER = circadian efficiency of radiation; CAF = circadian action factor; PIL = photopic illuminance; CIL = circadian Illuminance parameter; MSV = melatonin suppression value; AMOLED = active-matrix organic light-emitting diode