Screen Health Specification Pack

Ready-to-use requirement language for screen protection and display health performance

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The language is vendor-neutral by design. Every block keeps brand-name-or-equal treatment and accepts test reports from any ISO/IEC 17025-accredited laboratory as an alternative to certification. Removing either makes the requirement restrictive and challengeable.

What this pack requires is a measured optical result. It does not assert a clinical outcome and should not be justified as one.

The five parts

- Part 1 — Screen protection specification, with five buyer variants
- Part 2 — Device specification, with category riders
- Part 3 — Supplier response form
- Part 4 — RPF and CPF explained
- Part 5 — Justification memo

Values shown highlighted in this document are set by the purchasing organisation and must be completed before issue.

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PART 1

Screen protection specification

For aftermarket screen protection — phone, tablet, laptop and monitor protectors, including privacy filters. Aligned to Eyesafe Accessory Requirements 3.0.

1.1 Core specification block

Insert into the specifications or salient-characteristics section of the solicitation.

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SALIENT CHARACTERISTICS — SCREEN PROTECTION
(a) Blue light performance. Screen protection applied to an LCD or LED display shall
achieve a Radiance Protection Factor of RPF20 or greater. Screen protection applied to an
OLED display shall achieve a Circadian Protection Factor of CPF20 or greater. Values shall
be determined from the spectral output of the assembled display and protector.

(b) Measurement range. RPF shall be evaluated over the 435–440 nm retinal-risk range; CPF
over the 480–500 nm circadian range. Any percentage reduction figure offered as evidence
shall state the wavelength range over which it was computed. Figures computed over ranges
that exclude these shall not be accepted as evidence of conformance with (a).

(c) Color temperature and luminance. The product shall maintain correlated color
temperature and luminance in accordance with Eyesafe Accessory Requirements 3.0.

(d) Conformity assessment. Conformance shall be demonstrated by current independent third-
party verification (e.g., Eyesafe® Accessory Requirements 3.0, or equal) or by test reports
from an ISO/IEC 17025-accredited laboratory documenting (a)–(c).

(e) Trade Agreements Act. Products shall be TAA-compliant end products per FAR 52.225-5.
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Clause (b) is the clause that does the most work. Percentage claims in this category are commonly computed over the 380–420 nm violet edge, which produces a large number that describes very little. Requiring the range to be stated makes competing claims comparable without excluding any supplier.

Where optical clarity matters to the buyer, a buyer-set haze or transmittance limit (e.g., per ASTM D1003) may be added as an additional line; Eyesafe publishes no threshold for these values.

1.2 Buyer variants

The characteristics do not change. What changes is the procurement framing around them.

Education – Sourcewell, E&I, district RFPs

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SHORT FORM
Devices and screen protection shall provide quantified blue light emission reduction
achieving RPF20 or greater on LCD/LED displays, or CPF20 or greater on OLED displays,
measured over the ranges stated above, with color temperature and luminance maintained,
verified by independent third-party certification (e.g., Eyesafe® certified, or equal) or
accredited-laboratory test reports.
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Justification for education rests on prudent exposure reduction and sleep, supported by the SCHEER (2018) finding on children's ocular media and the Hale & Guan (2015) review. It does not rest on eye strain.

State and cooperative – NASPO ValuePoint and state solicitations

Use the core block. Remove clause (e) — the Trade Agreements Act does not bind states — and substitute an optional domestic-assembly preference:

(e-alt) Domestic assembly (optional preference). Offerors shall disclose country of final assembly. Products assembled in the United States may receive evaluation preference per section ___.

Federal – GSA, SEWP, agency solicitations

Use the core block and add the framing sentence:

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The following salient physical, functional, and performance characteristics are required. Offers of equal products will be evaluated per FAR 52.211-6; an offered equal product shall meet all salient characteristics (a)–(e) and shall be supported by the documentation described in (d).
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Clause references: FAR 11.104 (brand name or equal), FAR 52.211-6, FAR 52.225-5 and FAR 52.225-6 (Trade Agreements). Verify the current designated-country list at FAR 25.003 at time of use — designations change with trade agreements.

Healthcare – GPO and health-system RFPs

Use the core block for clinical workstations. For patient-room applications, where sleep is a clinical consideration, add the circadian requirement and specify CPF rather than RPF as the governing metric on OLED displays.

Wellness framing only. The requirement supports healthy sleep patterns; it makes no treatment claim.

Enterprise – corporate device standards, refresh programs and employee-choice catalogs

Procurement-law citations drop out; the requirement block is written into the device standard or preferred-configuration list, and extends to employee choice programs by listing conforming configurations.

Justification framing: a measurable, auditable performance floor for equipment employees use for extended hours, alongside the display criteria (resolution, color gamut, ergonomics) the standard already carries. No clinical outcome is asserted.

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PART 2

Device specification

For laptops, monitors, tablets and all-in-ones where protection is engineered into the display rather than applied to it. Aligned to Eyesafe Display Requirements 3.0.

2.1 Core specification block

SALIENT CHARACTERISTICS — DISPLAY SCREEN-HEALTH PERFORMANCE

(a) Blue light performance. The display shall achieve a Radiance Protection Factor of RPF35 or greater, determined from the spectral output of the display and weighted for blue-light toxicity per the ICNIRP guidelines, and verified by third-party testing.

(b) Color gamut coverage. In the color mode offered, the display shall achieve: sRGB mode ≥95% of the standard sRGB color space; Adobe RGB mode ≥90%; DCI-P3 mode ≥90%; NTSC mode ≥72% (≥45% for battery-powered products) — each measured in CIE 1931 and CIE 1976.

(c) Correlated color temperature. The display shall meet the correlated color temperature criteria of Eyesafe Display Requirements 3.0.

(d) Circadian performance (optional). Where evening or overnight use is relevant, the display shall achieve a Circadian Protection Factor of CPF35 or greater, computed from melanopic equivalent daylight (D65) luminance per the CIE system for ipRGC-influenced responses to light.

(e) Conformity assessment. Conformance shall be demonstrated by current independent third-party verification (e.g., Eyesafe® Display Requirements 3.0, or equal) or by test reports from an ISO/IEC 17025-accredited laboratory documenting (a)–(d).

(f) Trade Agreements Act. Products shall be TAA-compliant end products per FAR 52.225-5.

Clauses (a) and (b) must be specified together. The cheapest way to reduce blue light is to warm the white point, and a warm shift collapses color gamut coverage. Requiring RPF35 and ≥95% sRGB simultaneously means the reduction has to come from spectral engineering rather than from tinting the screen.

2.2 Category riders

Televisions and large-format displays

Displays shall ship with low-blue-light protection active in the default picture mode as shipped, achieving RPF35 measured in that mode, with color gamut coverage and correlated color temperature held against the same mode without protection; conformity per 2.1(e).

"Default picture mode as shipped" is the tested condition. Do not write input-coverage promises into specification language.

Phones and tablets

Written as a device-eligibility line for a contract attachment or approved-device list rather than a specification section:

Eligible devices shall carry current independent third-party screen-health verification (e.g., Eyesafe® certified, or equal) documenting blue light performance, color gamut coverage and correlated color temperature.

Eyewear

Lenses shall achieve RPF20 or greater — the published minimum of Eyesafe Eyewear Requirements 1.0 — verified by independent third-party testing or certification (e.g., Eyesafe® certified, or equal).

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PART 3

Supplier response form

Attach this table to the solicitation and require every respondent to complete one row per offered product. Specification language alone produces prose answers that cannot be compared; this returns every bid in the same shape.

This form is also provided as an editable Excel workbook (Eyesafe-Supplier-Response-Form_v1.0_2026-09.xlsx) for suppliers to complete and return.

Field	What to enter	Why it is required
Product / model	Exact model and configuration tested	A different panel or coating is a different product
Metric	RPF or CPF	RPF for LCD/LED, CPF for OLED
Measured value	The number, not a percentage	This is the comparable figure
Wavelength range	Range over which it was computed	Prevents violet-edge percentage claims
Color gamut coverage	% and color space (devices only)	Confirms the reduction is spectral, not a warm shift
Test method	Standard or method used	Establishes reproducibility
Testing laboratory	Name and accreditation	Must be ISO/IEC 17025-accredited
Certificate identifier	Number or ID	Lets the buyer verify independently
Date of issue / expiry	Both dates	"Current" certification has a date

Ask every respondent, including the incumbent. A specification applies to the supplier already in place as much as to the one seeking to displace them.

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PART 4

RPF and CPF explained

Two measured values do the work in this specification. Both are ratios computed from a full spectral measurement of the display, so both are reproducible in any accredited laboratory and comparable across products from different manufacturers.

Radiance Protection Factor (RPF)

How much light is removed from the range associated with risk to retinal health. Weighted by the blue-light hazard function defined in the ICNIRP guidelines, which peaks over 435–440 nm. Reported on a 0–100 scale; higher means greater reduction.

Because RPF is normalised to luminance, a product cannot raise its RPF by dimming. The value describes the spectrum, not the brightness.

Circadian Protection Factor (CPF)

How much light is removed from the range that drives the circadian system. Weighted by the melanopic action spectrum of CIE S 026/E:2018 and evaluated over 480–500 nm. Higher scores indicate less circadian disruption. Used on OLED displays and wherever evening or overnight use is relevant.

Why a scale and not a percentage

"Blocks 60% of blue light" is not a specification. It is a number without a stated range, weighting or reference, and two suppliers can produce very different figures for identical products by choosing different ranges. RPF and CPF fix all three, which is what makes competing answers comparable.

The requirement families

- Eyesafe Display Requirements 3.0 — displays with protection built in. RPF35, color gamut coverage, correlated color temperature; CPF35 optional.
- Eyesafe Accessory Requirements 3.0 — applied screen protection. RPF20 on LCD/LED, CPF20 on OLED, with color temperature and luminance maintained.
- Eyesafe Eyewear Requirements 1.0 — lenses. RPF20 minimum.

Definitions and scale documentation: eyesafe.com/standards

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PART 5

Justification memo

For defending the requirement to a committee that did not write it.

The rationale

Digital displays emit high-energy visible light between roughly 380 and 500 nm. Two narrow ranges within it have been identified internationally, for different reasons. The range around 435–440 nm is associated with the greatest risk to retinal health, per the ICNIRP guidelines (2013) and ANSI (2015). The range around 480–500 nm drives melatonin suppression and circadian timing, characterised by the CIE system for ipRGC-influenced responses to light (CIE S 026/E:2018) and grounded in the photoreceptor mechanism identified by Berson et al. (2002).

Evening exposure to light-emitting screens has been reported to suppress melatonin and delay sleep timing relative to non-emissive reading (Chang et al., PNAS 2015; Cajochen et al., 2011), and melatonin suppression has been observed at ordinary indoor light levels (Gooley et al., 2011) — so the effect does not require unusually bright exposure.

Where devices are issued to children, the European Commission's SCHEER opinion (2018) found that children's ocular media transmit substantially more short-wavelength light to the retina than adults', and across 67 reviewed studies the large majority associated screen time with poorer sleep outcomes in school-aged children (Hale & Guan, 2015; AAP / LeBourgeois, 2017).

Why a measured floor rather than a feature

The evidence supports requiring a quantified reduction over a named range. It does not support treating "has a blue light filter" as equivalent. Measurable, high-attenuation filtration has been reported to produce circadian benefit (Ostrin, 2017; Shechter, 2018), while built-in software night modes have been reported to produce negligible measured effect (Driller et al., 2019).

That contrast is the entire reason this requirement is written as a performance floor with independent verification rather than as a checkbox.

The ask

Adopt the specification language in Parts 1 and 2 for the relevant category, and attach the supplier response form in Part 3. Conformance is testable by any ISO/IEC 17025-accredited laboratory, certified products from multiple manufacturers ship today, and the cost of evaluation to the purchasing organisation is nil — conformance is demonstrated by documentation the offeror supplies.

Scope of the claim

This requirement specifies a measured optical result. It does not assert that any product prevents, treats or diagnoses a condition, and it should not be justified on that basis.