



PREMIUM
LIGHT PRO



Updating four parameters in the Guidelines for Indoor Lighting



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1.1 Efficacy for Lighting Systems

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Type af bygning og rum		Maksimum W/m ²
Hotel	Gæsteværelse	6,4
	Lobby	5,5
Kontor	Enkeltkontor eller gruppekantor	10,3
	Storrumskontor	8,1
	Møderum	10,3
	Hal	5,9
Restaurant	Restaurant	4,9
	Ca	
Detailhandel	Fø	
	Bu	
	Mø	

Type af bygning og rum		Maksimum W/m ²
Skole	Klasseværelse	9,1
	Lærerværelse	6,2
	Bibliotek	4,9
	Koncertsal	8,1
	Laboratorier	9,1
Sport	Gymnastiksal	9,3
	Fitnessrum	5,3
		6,0
		2,9
		5,9
		5,9
		2,5
		4,2
		5,0
		8,2
	WC	8,2
	Garderobe	4,7
	Parkeringsplads	1,2
	Vaske- og tørrerum	7,0

Update related to the requirements in EN 12464-1-1

20 lux 0.5 W/m²
50 lux 1 W/m²
100 lux 2 W/m²
200 lux 4 W/m²
300 lux 6 W/m²

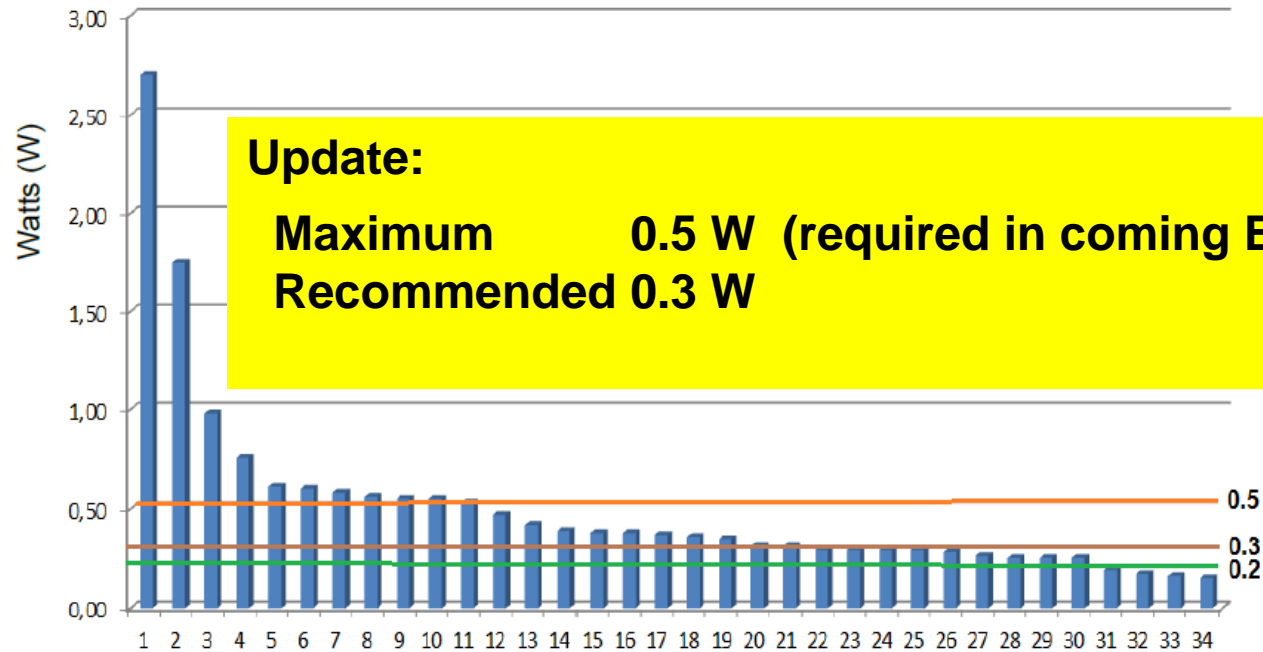
500 lux 10 W/m²
1000 lux 20 W/m²
1500 lux 30 W/m²
2000 lux 40 W/m²

1.2 Efficacy for Replacement of lighting sources

- ≥ 90 $\Rightarrow \geq 120 \text{ lm/W}$ for **non-directional LED** lighting sources emitting $\geq 100 \text{ lm}$.
- ≥ 85 $\Rightarrow \geq 100 \text{ lm/W}$ for **directional LED** lighting sources emitting $\geq 100 \text{ lm}$.
- ≥ 120 $\Rightarrow \geq 150 \text{ lm/W}$ for **linear LED lighting sources** with length from 550 mm to 1500 mm.
- ≥ 90 $\Rightarrow \geq 120 \text{ lm/W}$ for **small integrated LED luminaires (including extern driver)** emitting $\geq 100 \text{ lm}$ and $< 2,500 \text{ lm}$.
- ≥ 105 $\Rightarrow \geq 135 \text{ lm/W}$ for **large integrated LED luminaires (including extern driver)** emitting $\geq 2,500 \text{ lm}$ and $< 50,000 \text{ lm}$.

1.3 Standby load

- For smart products: What is the **standby load (W)**



Ref: IEA SSL measurements

3.1 Flicker



Krav jf. IEEE 1789: 2015

f: Flimmer frekvens (Hz)

FM: Flimmer modulation maksimum (%)

$$f < 90\text{Hz}$$

$$FM < (0.025 \times f)$$

90Hz

Required in coming new EU regulation:

Short-term flicker metric for visible flicker $PstLM \leq 1.0$

Stroboscopic Visibility Measure SVM < 0.4

In case of use of dimmers, is recommended to require no flicker for the most important used dimming levels e.g. 50% and 25%.