# LEDiL

Guide for office lighting optics v1-0 / 2025



## Office lighting in a nutshell

Office lighting impacts much more than visibility – it shapes comfort, wellbeing, safety, and productivity. Smart lighting follows natural rhythms: warm tones calm mornings and evenings, while cool tones energise the day – a core principle of Human Centric Lighting.

Offices include various spaces – work areas, public zones, hallways, meeting rooms, kitchens, and relaxation spots –each requiring different lighting. Some spaces follow strict criteria, while others offer more flexibility.

Consider visual performance, comfort, and ambience to create the right lighting for each office space. Balance light levels, colour, and direction to support both wellbeing and productivity.





### Glare

Glare is visual discomfort caused by overly bright areas in the field of vision – like lit surfaces, luminaires, windows, or ceilings. It should be minimised to prevent fatigue, discomfort, and accidents.

#### Types of glare

Direct (A):	Bright lamps – clearly impacts performance; measurable.		
Reflected (B & C):	Light from glossy or specular surfaces; subjective.		
Disability:	Impairs visual performance; measurable.		
Discomfort:	Feels unpleasant, doesn't always affect visual performance; subjective.		



#### UGR Discomfort glare criterion

	13 Barely perceptible		1 <b>9 Barely acceptable</b> (for average eye tasks)		25 Barely comfortable (for simple eye tasks)	
<10 Imperceptible		1 <mark>6 Perceptible</mark> (for accurate eye tasks)		<b>22 Unacceptable</b> (for moderate eye tasks)		>28 Uncomfortable

## How to reduce glare





Output Decrease light output (might require adding more luminaires)

1



Placement Avoid glare on task area and increase ambient light



Visibility Shading and shielding



Ambient light Less contrast ▶ Eyes adapt to brightness more easily









## Types of fixtures







Downlight

Suspended

Freestanding



Track light



Recessed or surface mounted

## Technical support

- Simulations to show optic performance in real applications
- Guides and tips for installations
- Thermal analysis for luminaire designs

#### Contact our tech support experts:

Global tech.support@ledil.com

North America tech.support.us@ledil.com



www.ledil.com

Ledil Oy (Headquarters) Joensuunkatu 7 FI-24100 SALO Finland Ledil Inc. 228 West Page Street Suite D Sycamore IL 60178 USA



The information contained herein is the property of Ledil Oy, Joensuunkatu 7, FI-24100 SALO, Finland, and is subject to change without prior notice. Please visit www.ledil.com for additional information, such as the latest photometric files, 3D mechanical models, and application notes relating to handling, gluing and taping. LEDiL products are IPR protected.

P.R.China



