

WHAT IS LG7?

FACTS & FIGURES



- Founding year: **1912**
- Legal form: **GmbH & Co. KG**
(limited liability company)
- Consolidated annual turnover 2015:
600 million euros
- Global employees: **> 5,000**
- Business partners and subsidiaries:
34 and 12
- Service subsidiaries: **> 50 countries**

MAY I INTRODUCE MYSELF

Helen Loomes FSLL

Business Development Director

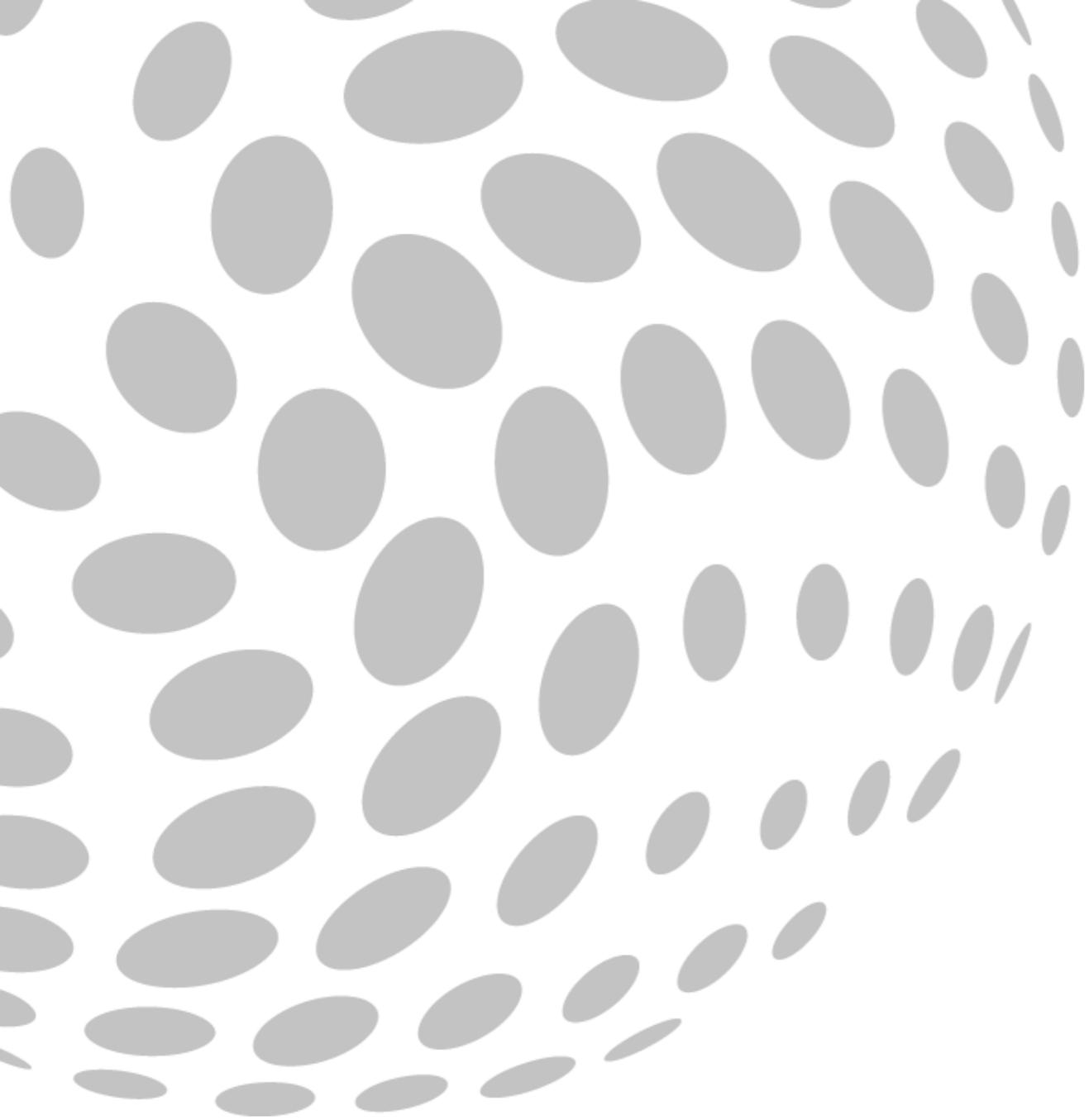
International Projects

Akademie Presenter

Fellow of The Society of Light and Lighting

BSI and ISO TC

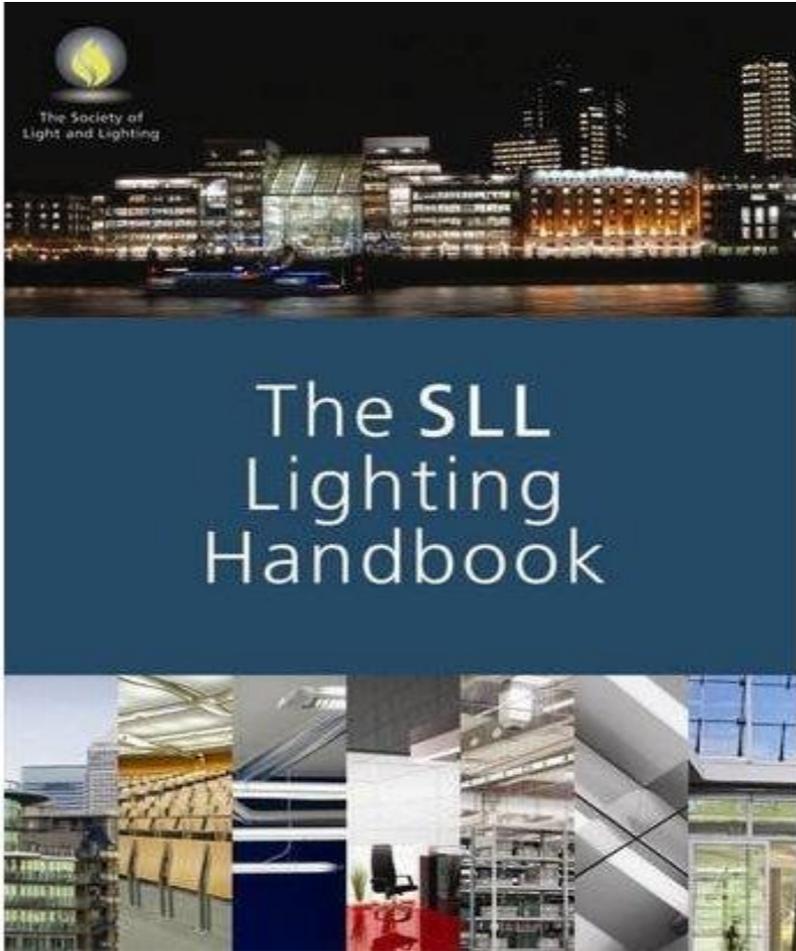
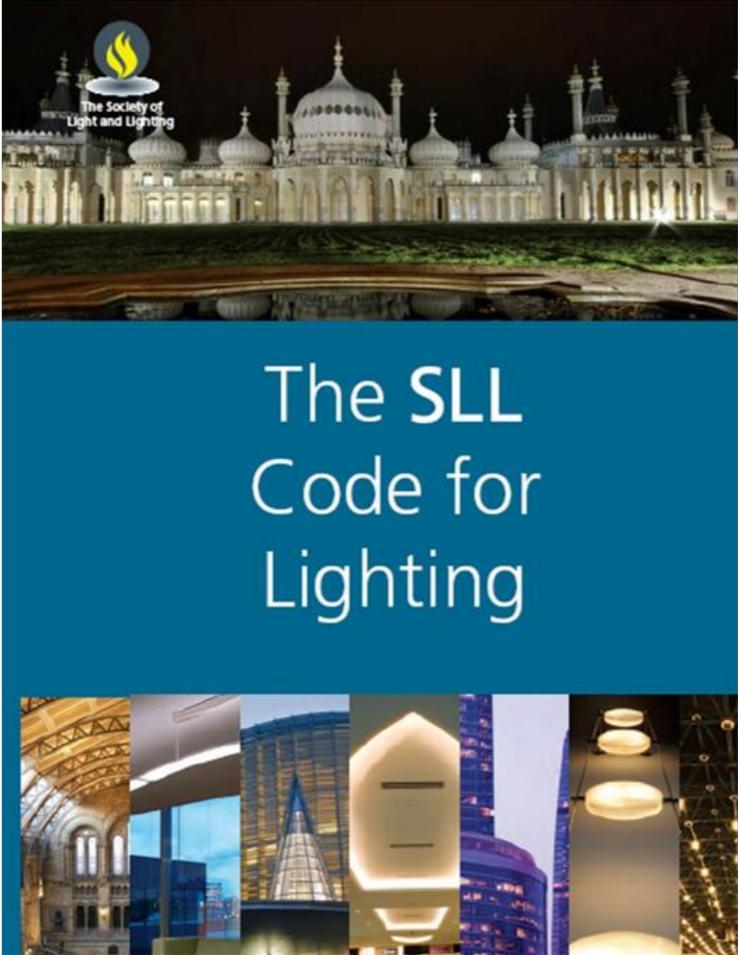




WHAT IS LG7?

PUBLISHED BY THE SOCIETY OF LIGHT AND LIGHTING

PART OF CIBSE



Lighting for the
built environment

LG8: Lighting for museums and a



Lighting for the

Lighting for the built environment

LG7: Offices



ing Guide 5:
g for Education



Lighting for the
built environment

LG7: Offices



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Lighting for the
built environment

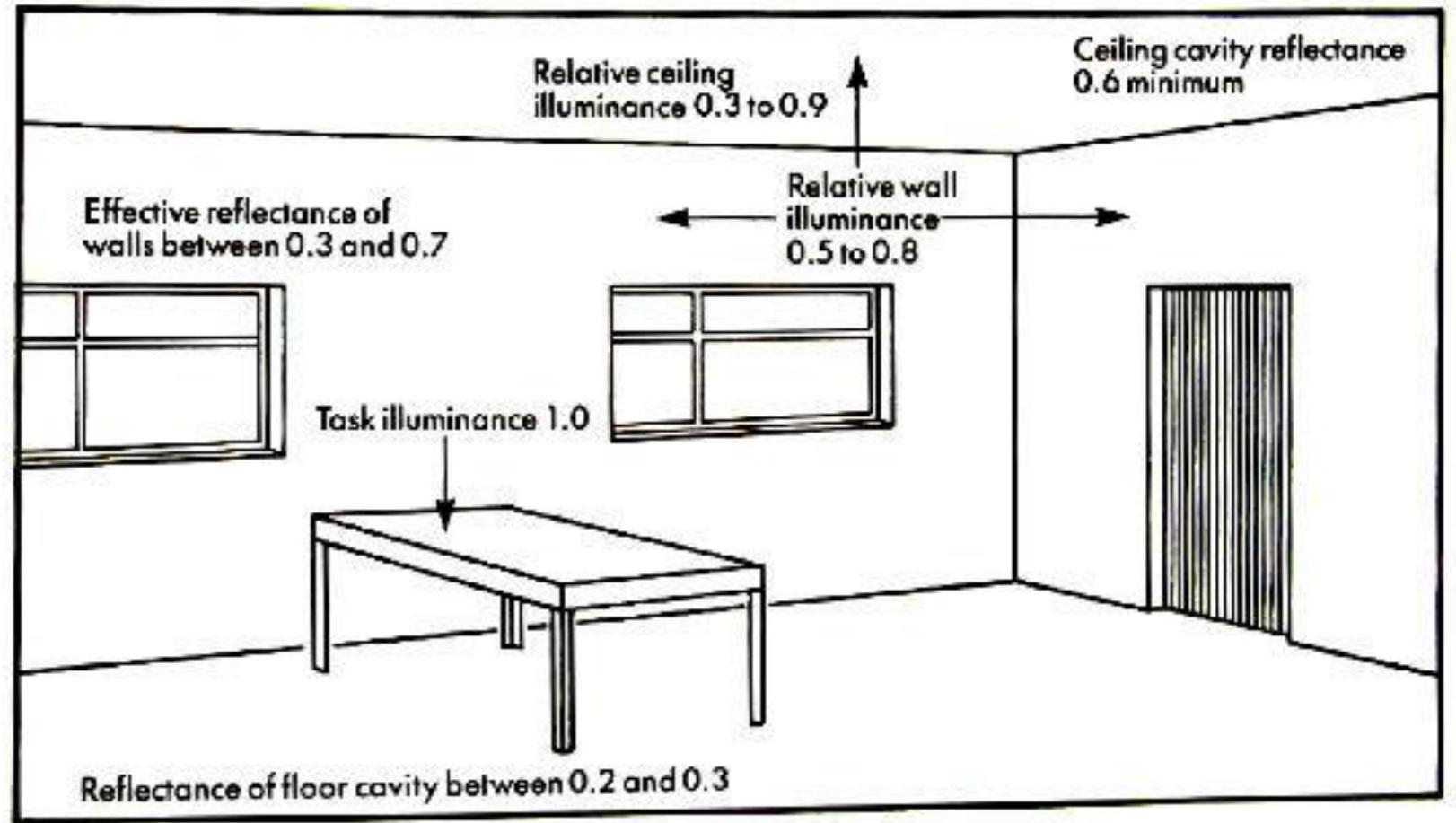


PREVIOUS EDITION OF LG7

Lighting Guide 7: Office lighting



The Society of
Light and Lighting





Skype HQ
GIA Equation



WHAT IS THE TASK?



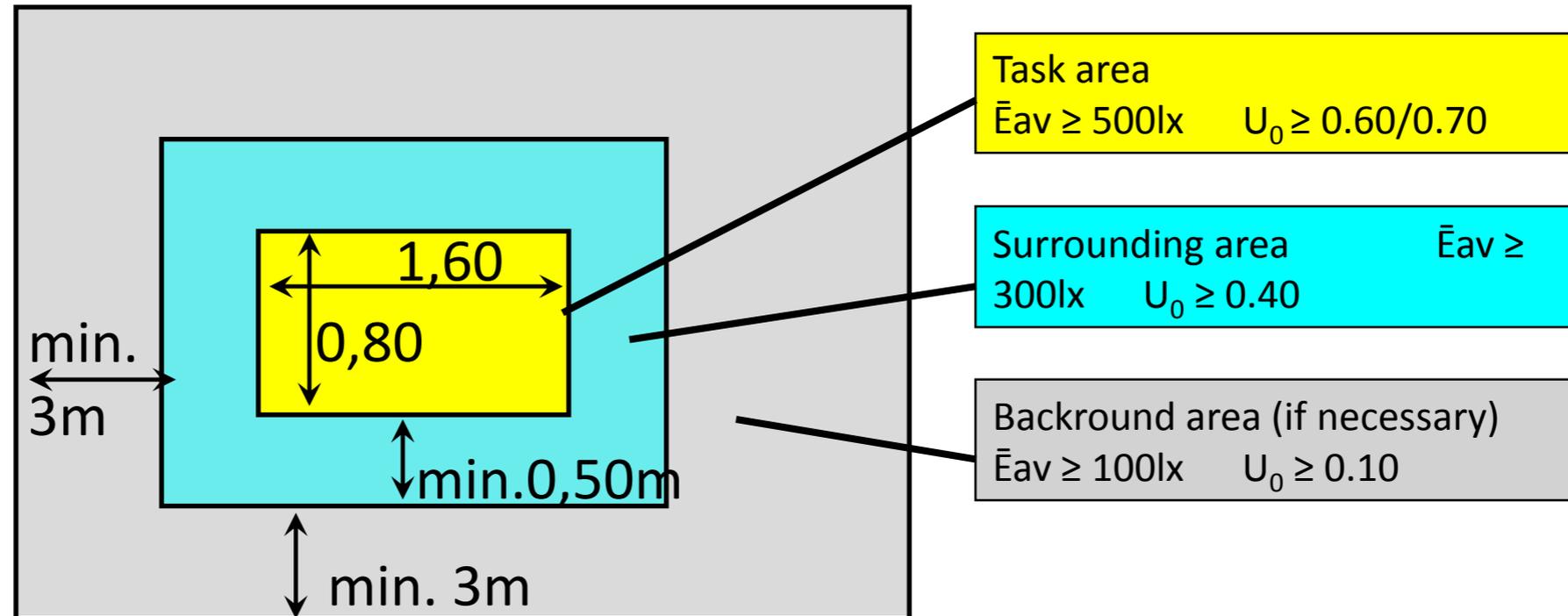
Table 2.30 Offices

Ref No.	Type of area, task or activity	\bar{E}_m / lx	UGR_L	U_o	R_a	Specific requirements
2.30.1	<i>Filing, copying, etc</i>	300	19	0.40	80	
2.30.2	<i>Writing, typing, reading, data processing</i>	500	19	0.60	80	<i>DSE work, see 2.1.9</i>
2.30.3	<i>Technical drawing</i>	750	16	0.70	80	
2.30.4	<i>CAD work stations</i>	500	19	0.60	80	<i>DSE work, see 2.1.9</i>
2.30.5	<i>Conference and meeting rooms</i>	500	19	0.60	80	<i>Lighting should be controllable</i>
2.30.6	<i>Reception desk</i>	300	22	0.60	80	
2.30.7	<i>Archives</i>	200	25	0.40	80	For filing, the vertical surfaces are especially important

LIGHTING THE TASK

HOWEVER THERE ARE MORE ASPECTS WE MUST CONSIDER

Example of illumination of desk area



VERTICAL SURFACES



CYLINDRICAL ILLUMINANCE



GLARE



Table 6.2 Luminance limits

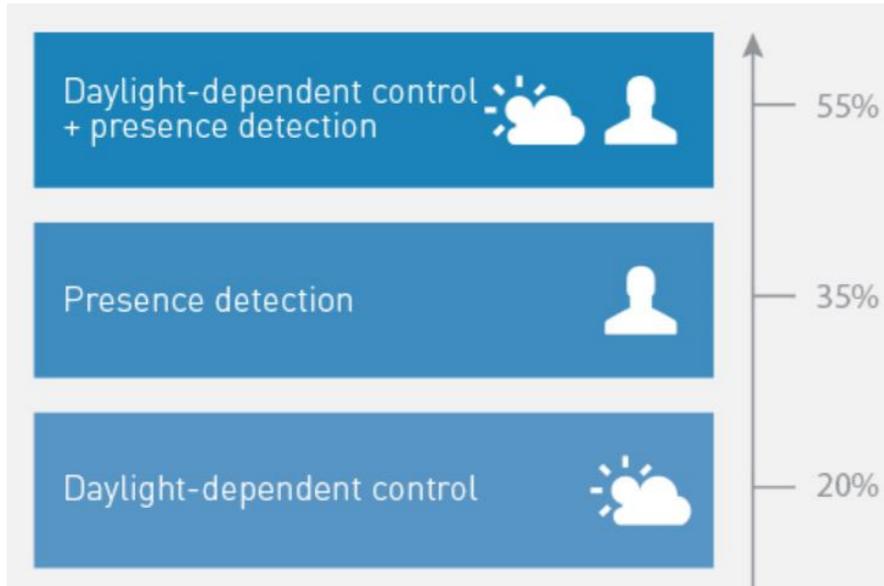
Screen high state luminance	High luminance screen ($L > 200 \text{ cd/m}^2$)	Medium luminance screen ($L < 200 \text{ cd/m}^2$)
Case A (positive polarity and normal requirements concerning colour and detail of the displayed information as used in office, education, etc.)	$< 3000 \text{ cd/m}^2$	$< 1500 \text{ cd/m}^2$
Case B (negative polarity and/or higher requirements concerning colour and detail of the displayed information as used for CAD, colour inspection, etc.)	$< 1500 \text{ cd/m}^2$	$< 1000 \text{ cd/m}^2$

LIGHTING CONTROLS



ENERGY USE

Luminaire Lumens per circuit watt



Lighting Energy Numeric Indicator - **LENI**

$$\frac{\text{Daytime + night time + parasitic loads}}{\text{Floor area of the building}} = \text{kWh / m}^2$$

OTHER INFLUENCING FACTORS

THE ARCHITECT



OTHER INFLUENCING FACTORS

THE INTERIOR DESIGNER

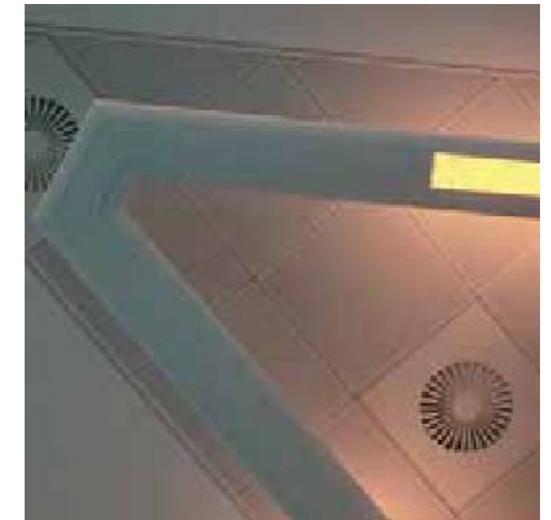


OTHER INFLUENCING FACTORS

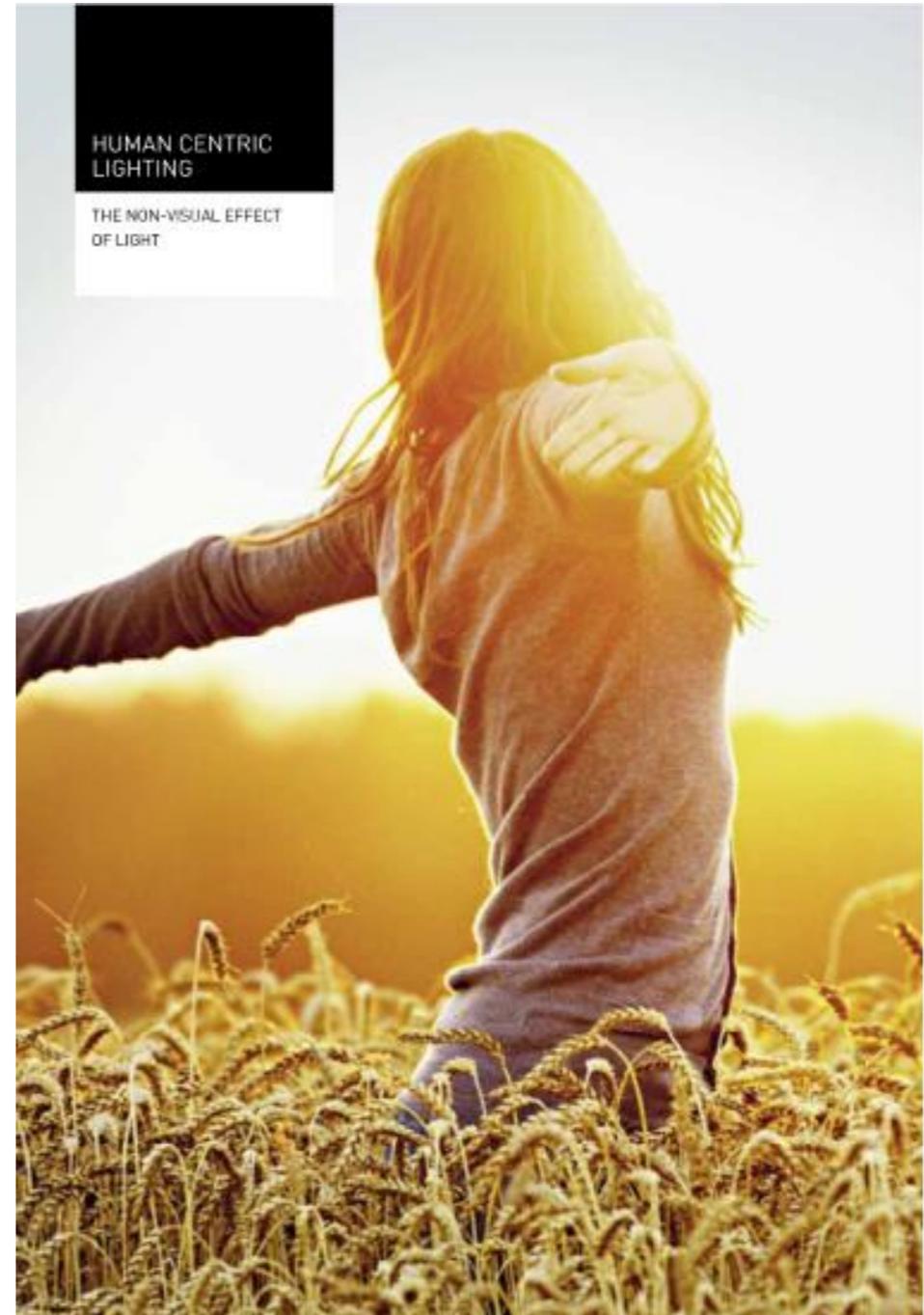
ENGINEERS

Table 7.1 Typical operating temperatures of common lighting sources and chilled services

FCU air supply	Typically 6–8 °C below the ambient temperature in the space to be cooled
Chilled beam surface temperature	Typically 14–18 °C
T5 lamp optimum operating temperature	Typically 35 °C around the lamp
T8 lamp optimum operating temperature	Typically 25 °C around the lamp
LED optimum operating temperature	Typically 25 °C



HEALTH AND WELLBEING



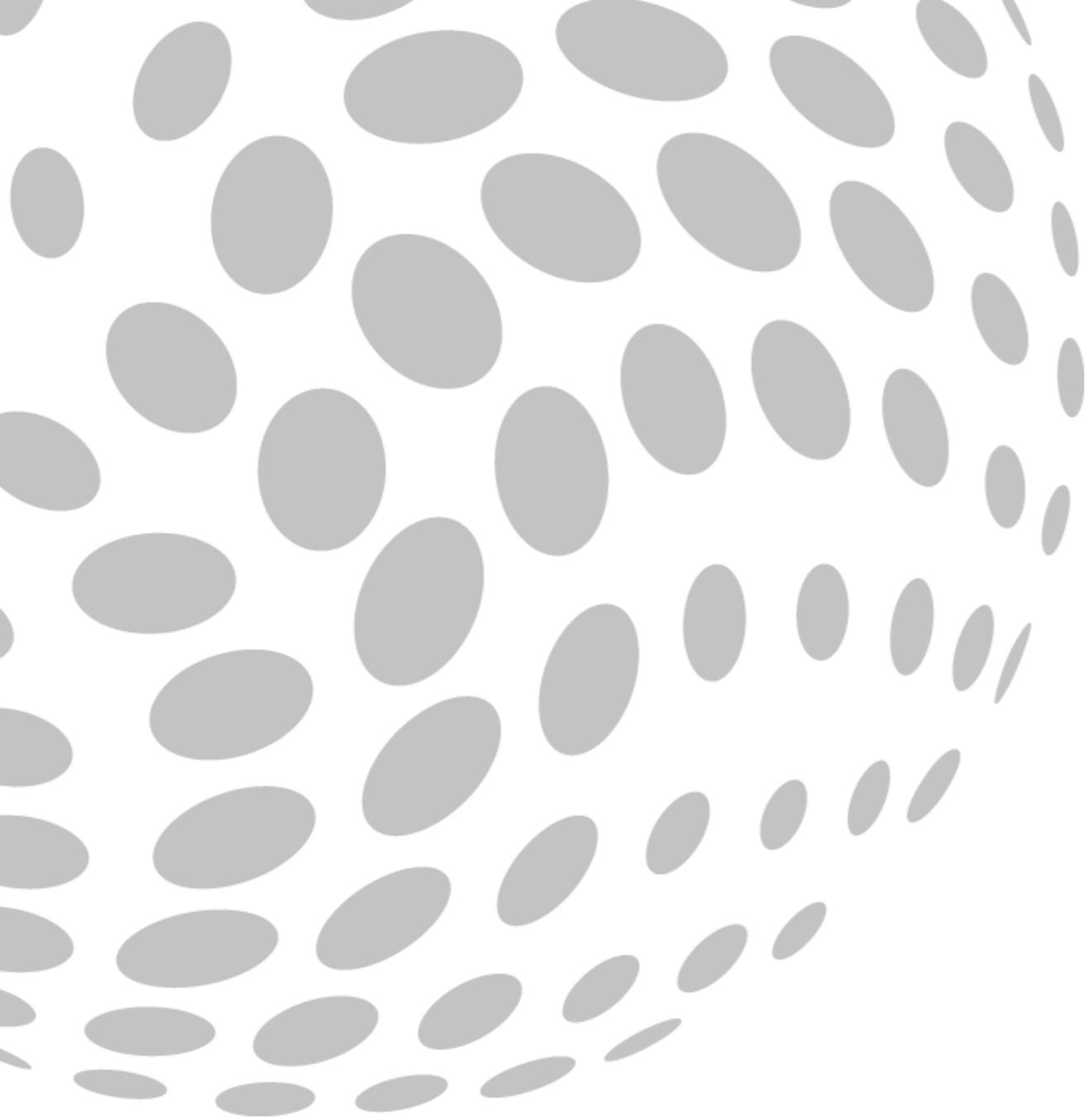
THE SPEC OFFICE

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A PRACTICAL EXAMPLE

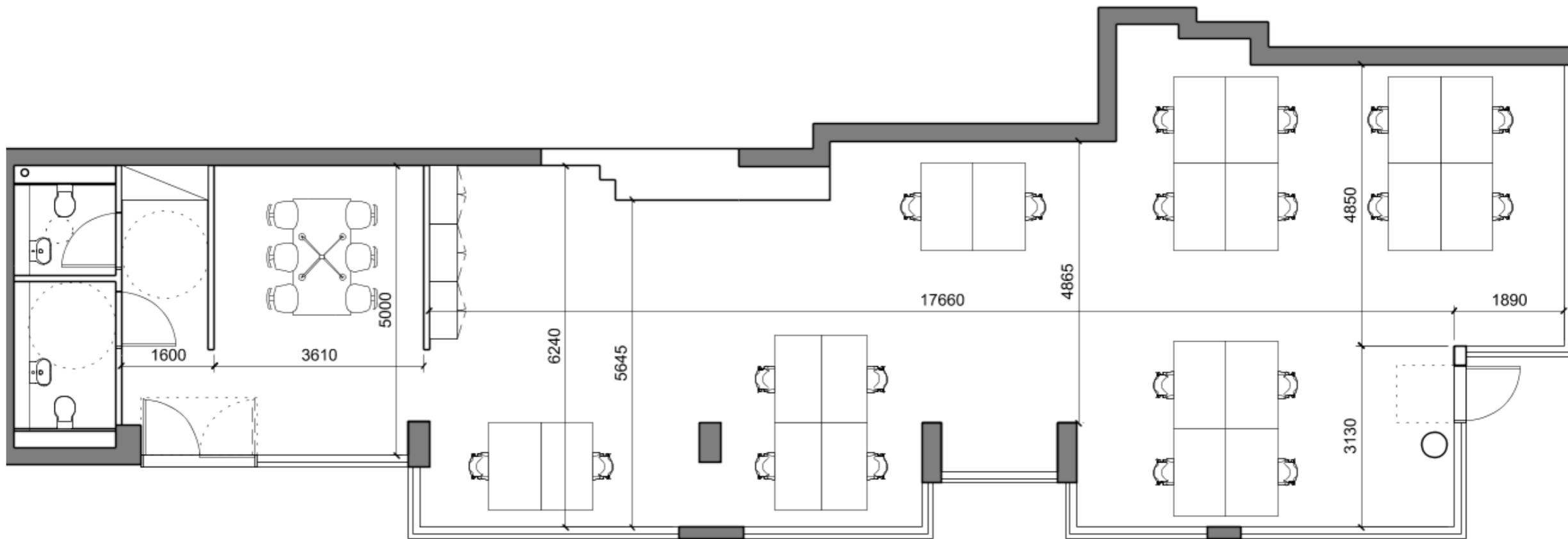
CASE STUDY

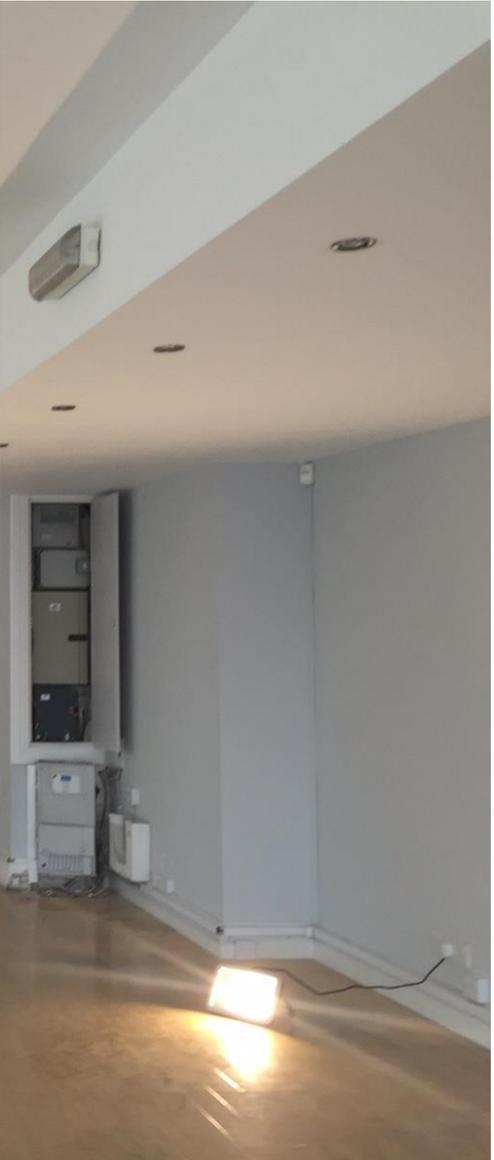


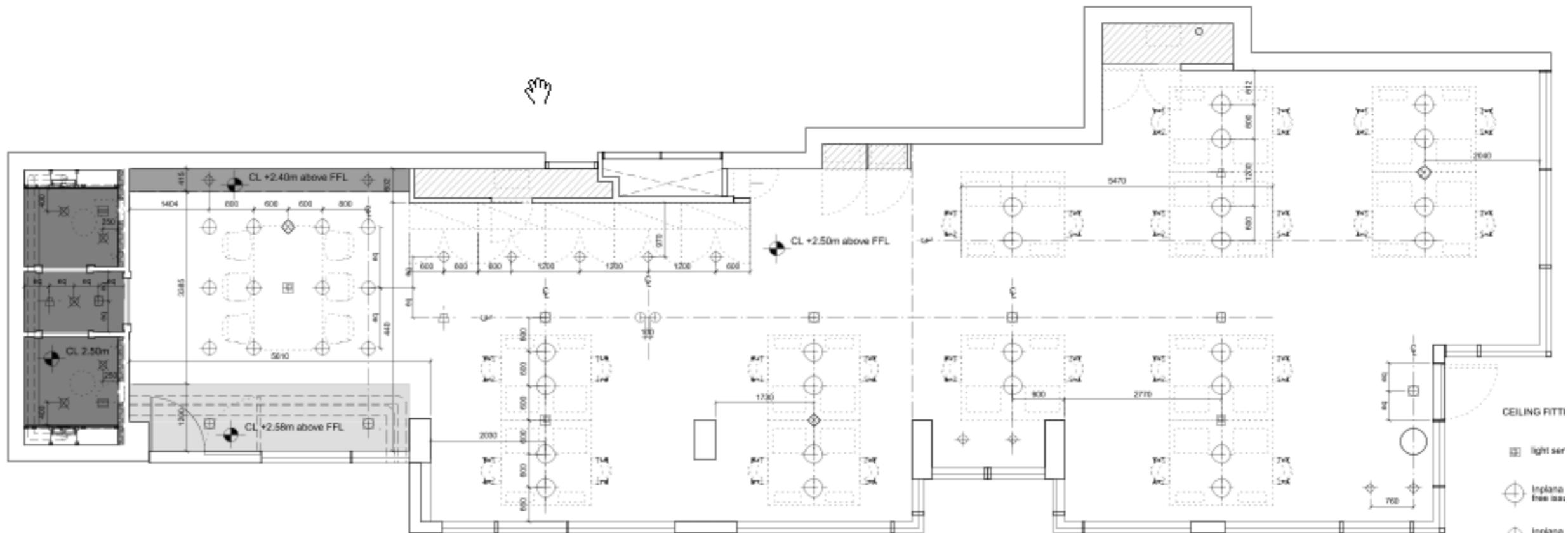
ALBERT BRIDGE HOUSE

FOSTER + PARTNERS





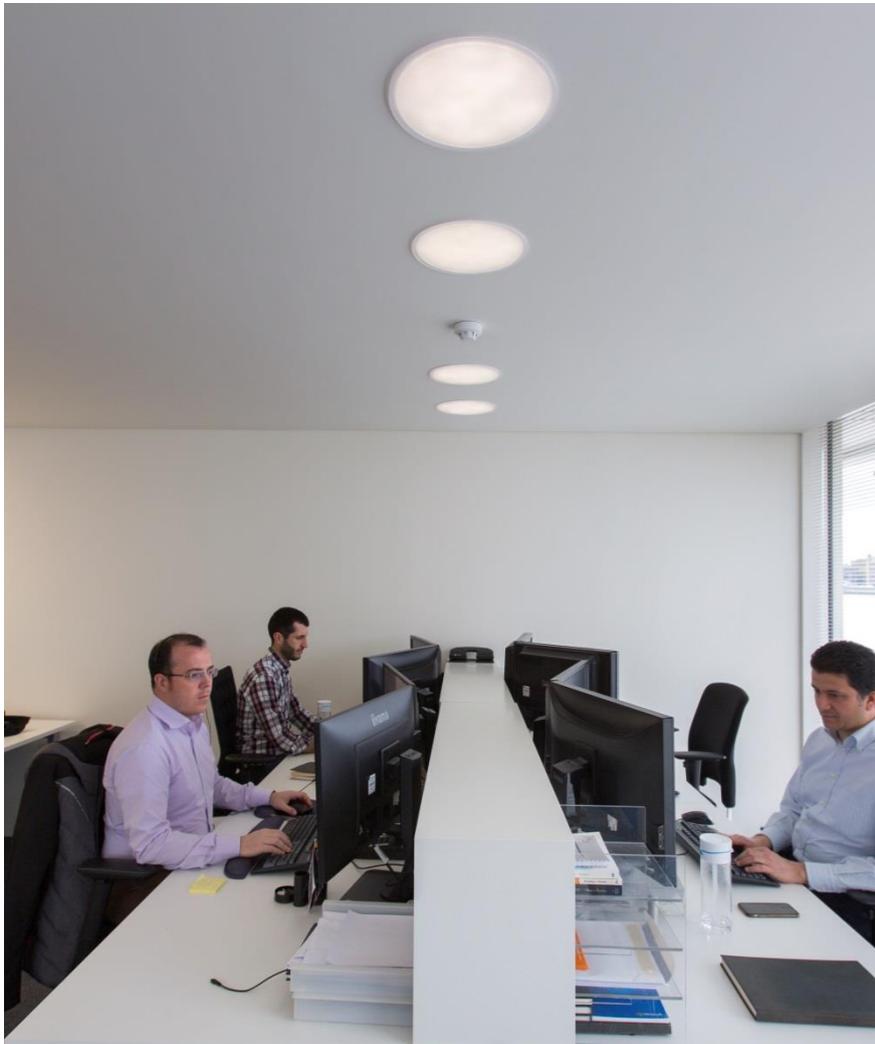


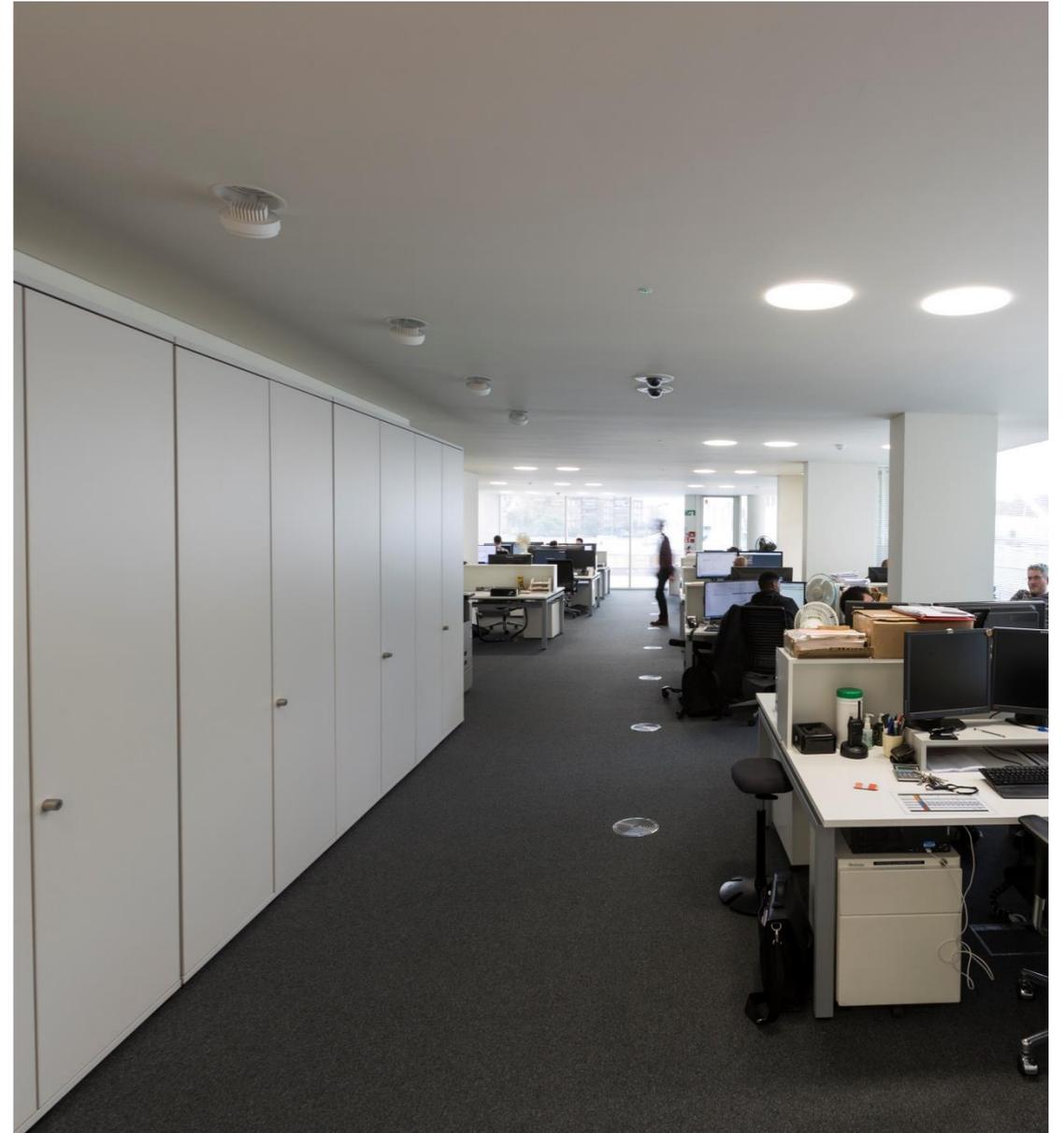


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WILL YOU READ IT?

Lighting for the built environment

LG7: Offices



Lighting for the built environment

LG8: Lighting for museums and galleries



Lighting for the built environment

LG7: Offices



Lighting Guide 6: The exterior environment



Lighting for the built environment



built environment

Lighting Guide 5: Lighting for Education

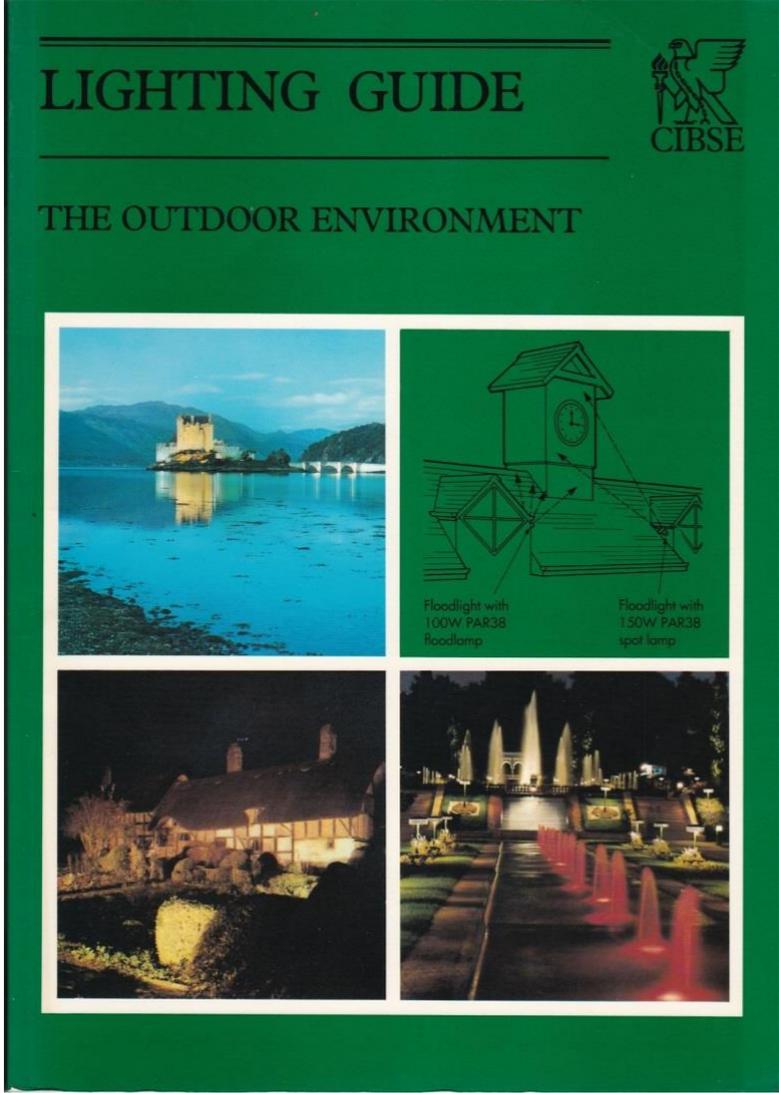


Lighting for the environment

Emergency lighting



PREVIOUS EDITION OF LG6



- Published in 1992

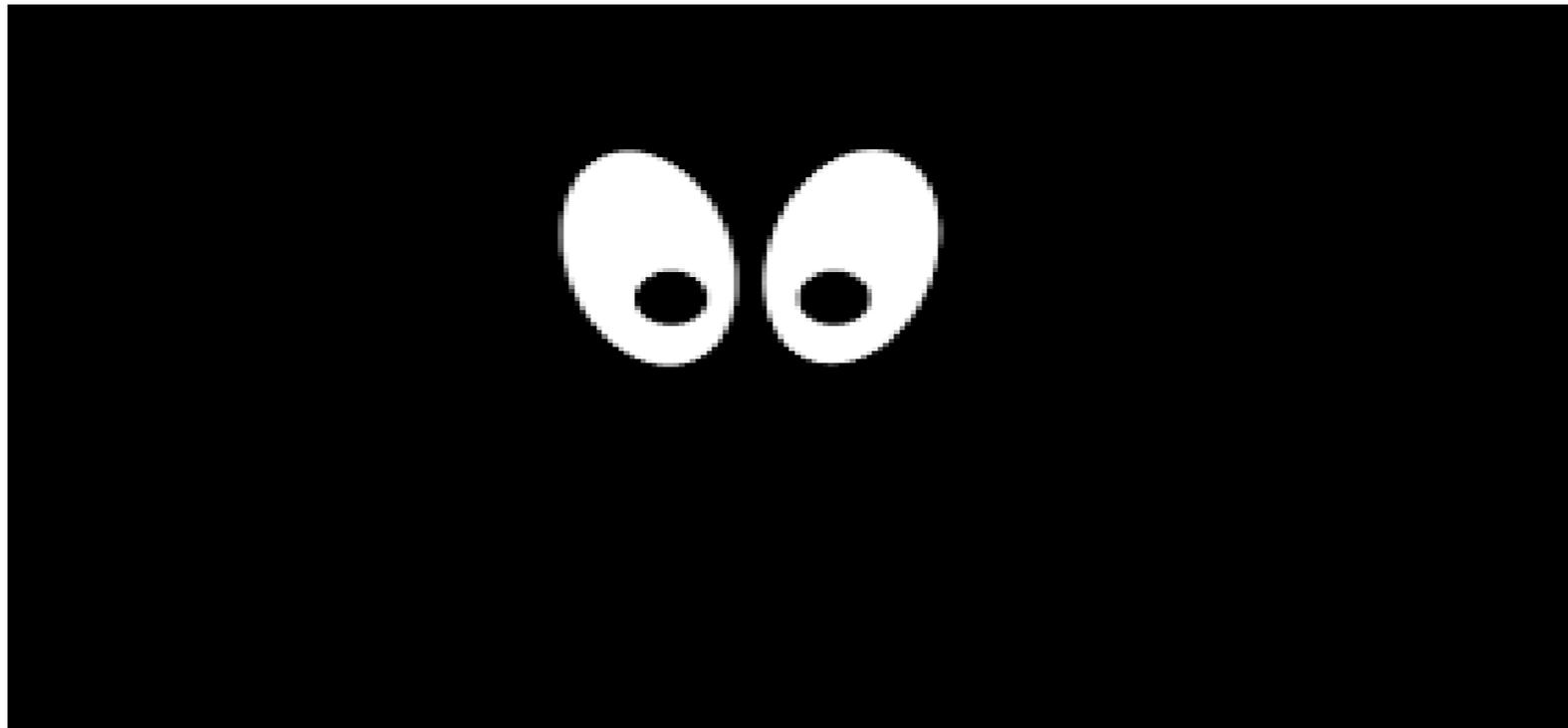
PUBLISHED IN 2016

STRUCTURE OF THE NEW LG6

- General Design aspects – Masterplans, Views & Vistas, Environmental aspects, Legislation.
- General techniques – Landscapes, facades, open areas such as car parks, security lighting, Roadways.
- Specific applications
- Appendix, Bibliography etc

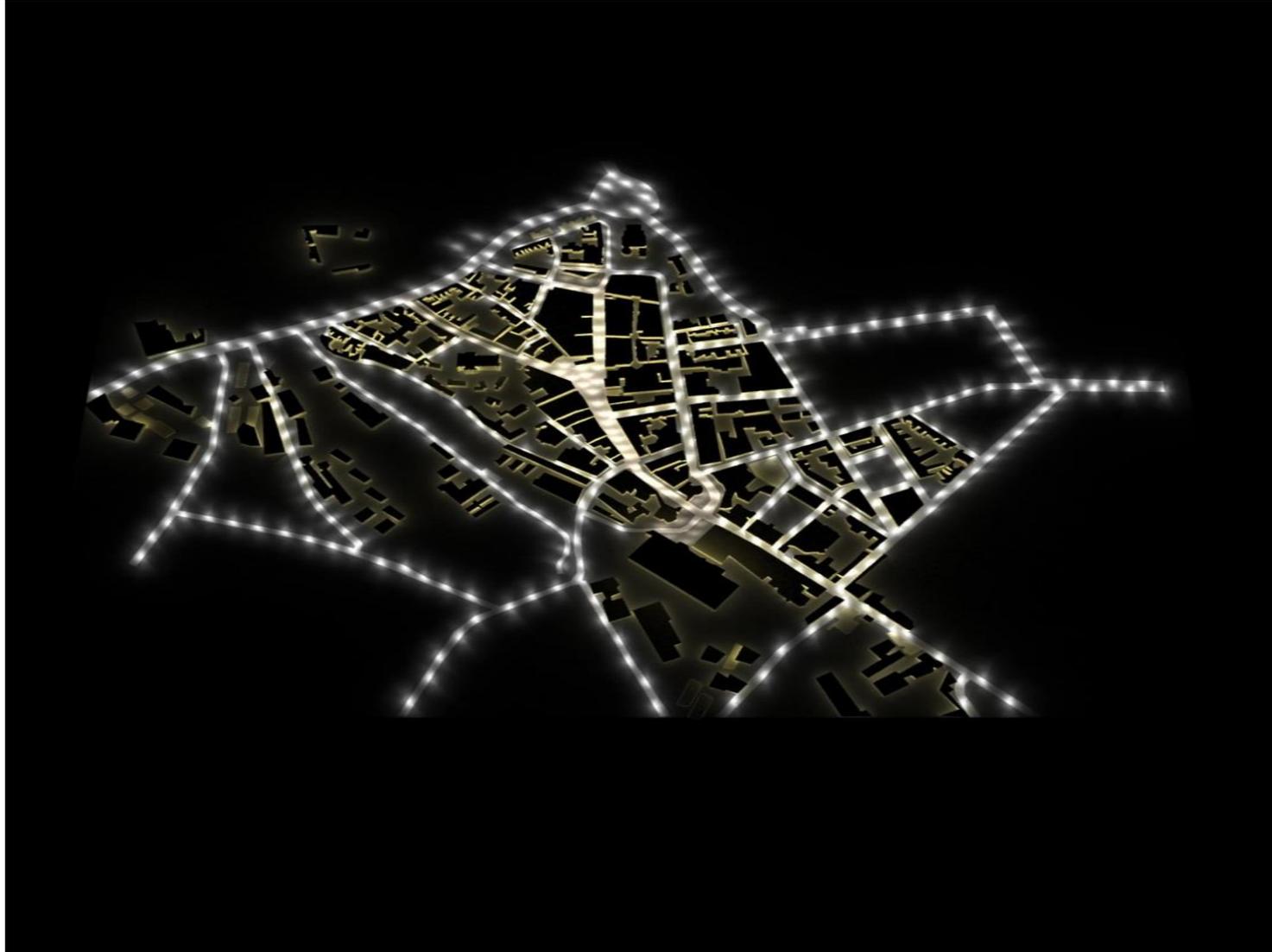
ADDITIONS

Vision



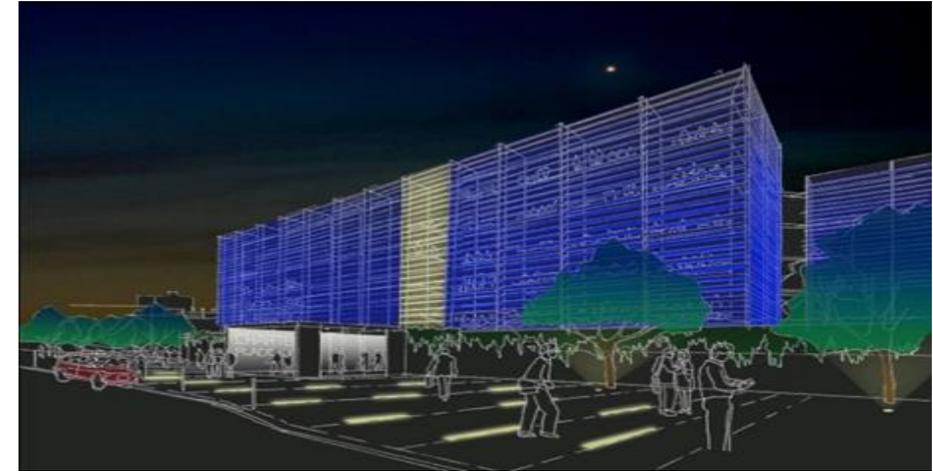
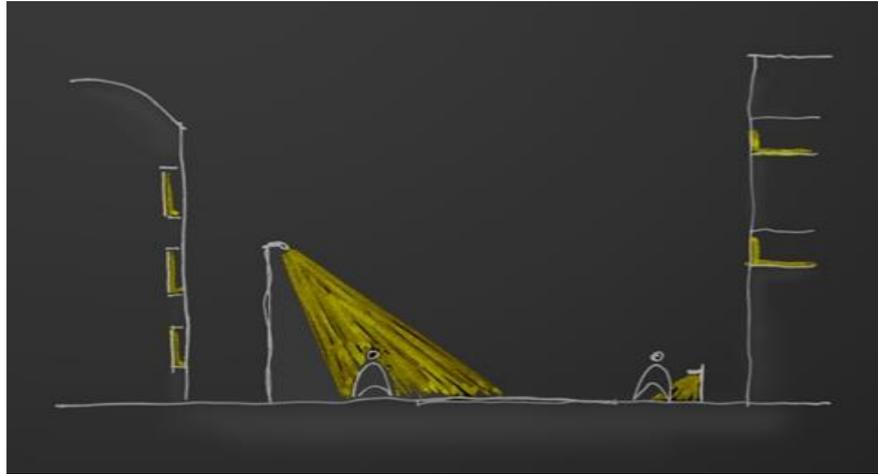
ADDITIONS

Masterplans and Nightscape strategies



ADDITIONS

Software and visualisations



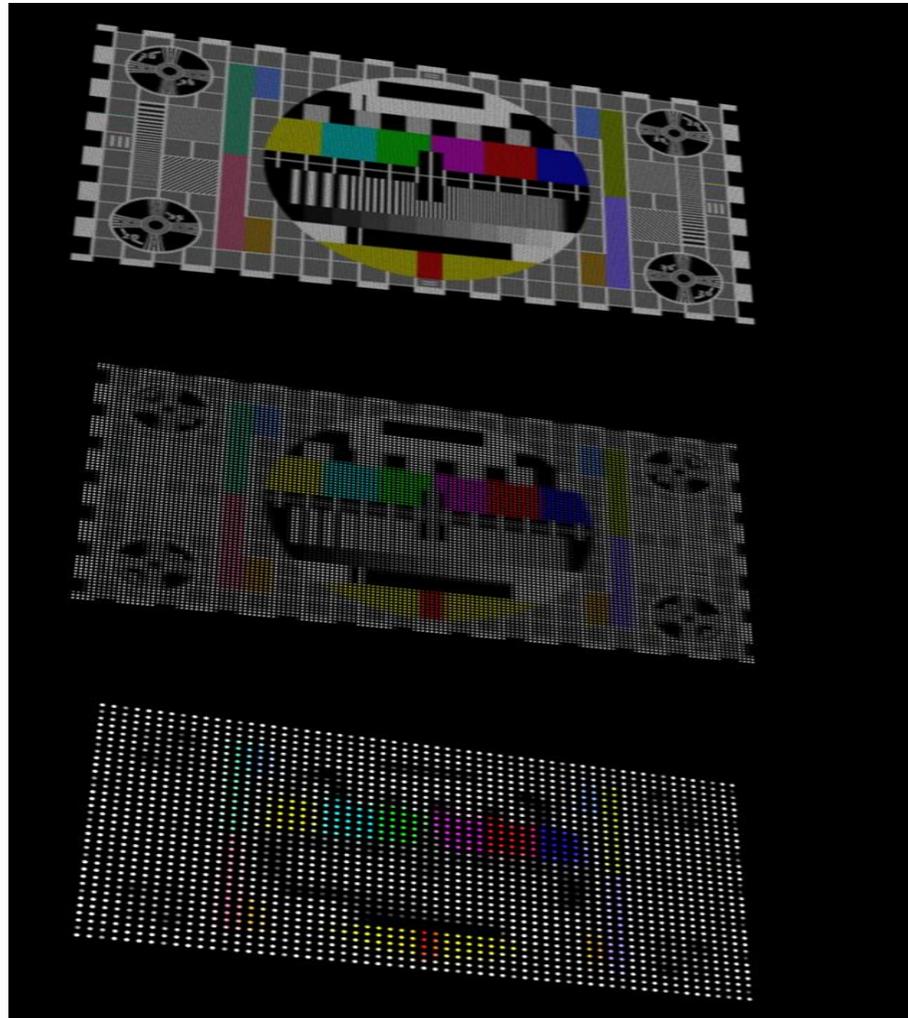
ADDITIONS

Off Grid and PV systems



ADDITIONS

Media facades



ADDITIONS

Building Facades

Heritage to modern + individual features



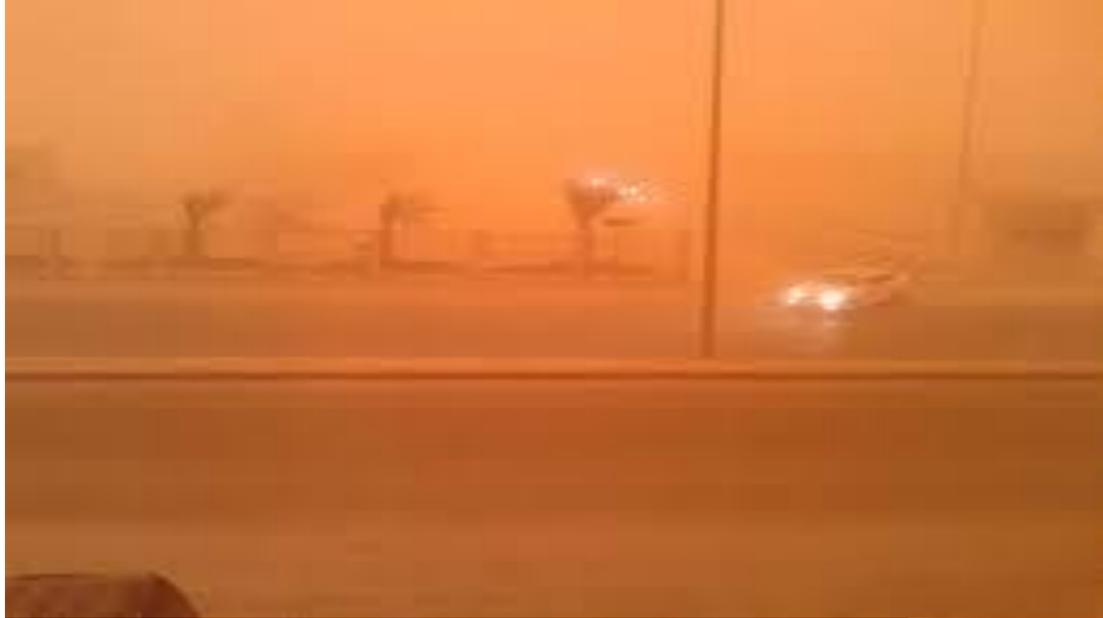
ADDITIONS

Ecological and environmental issues



ADDITIONS

Equipment for Extreme Environments



ADDITIONS

LEDs

- Not mentioned at all in the 1992 Guide.
- Forms a large part of the Luminaires & Equipment chapter.

And much more



THANK YOU FOR YOUR ATTENTION