



# SmartForm – the new standard for office lighting with modular recessed luminaires

## SmartForm TBS460

Reflecting Philips' drive for simplicity and sustainability, SmartForm recessed is a complete family of highly versatile modular and semi-modular luminaires. These luminaires are available with a choice of LED or MASTER TL5 light sources in square and rectangular versions. Designed to fit in a wide range of ceiling types, SmartForm can fulfill the majority of project requirements in most applications. Energy efficiency As well as incorporating energy-efficient light sources and electronic ballasts, the SmartForm recessed family can be equipped with lighting controls. These include solutions for presence detection and daylight regulation (ActiLume) or daylight regulation only (Luxsense), thereby further reducing energy consumption (W/m<sup>2</sup> is very low). In this way, this Green Flagship range lowers overall cost of ownership as well as CO<sub>2</sub> levels, making SmartForm an environmentally friendly choice. SmartForm recessed TBS460 – ultra-flat 'light beam' SmartForm recessed TBS460 'light beam' luminaires are built around superior micro-optics and have a build-in height of a mere 45 mm, making them ideal for applications requiring very flat light fittings, e.g. refurbishment projects where ceiling space may be especially limited.

### Benefits

- Square or rectangular recessed luminaires with superior micro-optics producing a combination of ultra-flat 'light beams'
- Built-in height of only 45 mm makes luminaires ideal for situations with little space above flat ceilings, such as in refurbishment projects
- Rim with a height of only 5 mm ensures the luminaire blends in with every ceiling

# SmartForm TBS460

## Features

- Available in square and rectangular versions
- Choice of LED or MASTER TL5 light sources
- Micro-optics producing ultra-flat 'light beams'
- Electronic ballast
- Can be equipped with lighting controls for presence detection and daylight regulation (ActiLume) or daylight regulation only (Luxsense)

## Application

- Offices
- Education
- Healthcare
- Recreation
- Retail
- Industry

## Specifications

Type	TBS460 (modular light beam)
Ceiling grid	Module size: 600 mm Exposed- and symmetrical concealed- T-bar ceiling and plaster (board) ceilings
Light source	Fluorescent: - 2 x, 3 x or 4 x MASTER TL5 ECO / G5 / 13, 20 W (square version) - 2 x, 3 x or 4 x MASTER TL5 / G5 / 14, 24 W (square version) - 1 x or 2 x MASTER TL5 ECO / G5 / 25, 32, 45, 50, 73 W (rectangular version) - 1 x or 2 x MASTER TL5 / G5 / 28, 35, 49, 54, 80 W (rectangular version)
Lamp included	Yes, TL5 ECO (lamp color 830 or 840) Yes, TL5 (lamp color 827, 830 or 840) In certain versions no lamps are included
Ballast	Electronic, 220 - 240 V / 50 - 60 Hz: - High Frequency Performer (HFP) - High Frequency Regulator, DALI (HFD) - High Frequency Regulator (HFR) - High Frequency Regulator, touch-switch (HFR-T)

Optic	Micro OLC very high efficiency high-gloss optic (C8-VH) Micro OLC performer high-gloss optic (C8) Micro OLC excellent comfort high-gloss optic (C8-C) Micro OLC very high efficiency semi-high-gloss optic (D8-VH) Micro OLC performer semi-high-gloss optic (D8) Micro OLC excellent comfort semi-high-gloss optic (D8-C) Micro matt mirror, ribbed cross louvers (M2) Micro high efficiency mirror, ribbed cross louvers (M2-H)
Optical cover	Opal cover (O)
Connection (outside housing)	Push-in connector (PI) or with pull relief (PIP) Wieland connector GST 18, 3 or 4 poles (W, W4 respectively) Wago connector, 3 or 4 poles (WA, WA4 respectively) Ensto connector, 3 or 4 poles (EN, EN4 respectively) Cable, length 200 cm, with plug CEE7 (CCE)

## Specifications

Option	Emergency lighting: 1 hour (EL1), 3 hours (EL3) Lighting controls: - Luxsense daylight controller micro (LXM) - ActiLume multi controller (ACL) Euro fuse (FU) included Internal PVC free wiring (PVCFR) Safety cable (SC) Separate switching (SW) Separate switching EL-versions (SW-EL)
Infill plates	Infill plate closed (IP) Infill plate perforated (IPP)

Material	Housing: zinc-coated steel, rim post lacquered, white RAL 9016 based Optional white RAL 9010 or silver grey RAL 9006 based Rim detailing: width 12 mm, height 5 mm, post lacquered
Installation	Exposed ceilings: lay-in, no brackets needed Concealed ceilings: bracket ZBS460 SMB (4 pcs) reach is 25-65 mm Concealed ceiling with T-bar 38 mm: bracket ZBS460 SMB-TPM (4 pcs) Plaster ceilings: bracket ZBS460 SMB-PLC (24 pcs), reach is 10-20 mm

SmartForm TBS460

Accessory	Suspension bracket sets
Remarks	Protection foil to protect the optic during installation
	Dedicated luminaires available with air-handling functionality (AIR), 50 m³/hour/luminaire

Main applications	Office, education, healthcare, recreation, retail, industry
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Accessories

Optical cover remover

Ordercode 98469599

