

PowerBalance gen2

RC461B 40S/940 DEIA W60L60 VPC

PowerBalance gen2, 29 W, 600x600 mm, VPC, 4000 lm, 4000 K, CRI>90, DALI, Interact Ready, UGR16

When it comes to lighting an office space with LED luminaires, people are usually willing to invest in sustainability provided the investment pays back. At the same time, the system should comply with office lighting norms to ensure a comfortable working environment. PowerBalance gen2 is Philips' most energy-efficient office-norm-compliant LED luminaire. It more than halves energy costs compared to a T5 solution, and the light source has a longer lifetime. This results in significantly lower operational costs, ensuring a payback that meets the needs of the specification market. The gen2 architecture enables a range of highly versatile modular and semi-modular luminaires. These luminaires can be easily mounted in ceilings with exposed T-bar and concealed T-bar, as well as plaster ceilings and bandraaster-type ceilings. PowerBalance is also available in a surface-mounted version.

Warnings and Safety

- The product is IP20 and, as such, is not protected against water ingress. Therefore we strongly recommend that the environment in which the luminaire is to be installed should be suitably checked
- If the advice above is not taken and the luminaires are subject to water ingress, Philips / Signify cannot guarantee safe failure and the product warranty will become void

Product data

General Information	
Lamp family code	LED40S [LED module, system flux 4000 lm]
Light source replaceable	No
Number of gear units	1 unit
Gear	-
Driver included	Yes
Service tag	Yes

Lighting Technology	LED
Value ladder	Specification
Serviceability class	Class B, luminaire is equipped with some serviceable parts (when applicable): driver, control units, surge protection device, front cover and mechanical parts
Warranty period	5 years

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Sustainability rating	Lighting for wellbeing
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Light Technical

Luminous Flux	4,000 lm
Saturated Red (R9)	>50
Correlated Color Temperature (Nom)	4000 K
Luminous Efficacy (rated) (Nom)	146 lm/W
Color rendering index (CRI)	>90
Number of light sources	1
Beam angle of light source	120 degree(s)
Light source color	940 neutral white
Optic type	Wide beam office compliant
Luminaire light beam spread	86°
Unified glare rating CEN	16

Sustainability Data

Embedded carbon (A1-A3)	53.6 kg CO ₂ e
Recyclable content ratio of the finished product	21.5 %
Product non-virgin material ratio	10.9 %
GWP total B6 (kg CO ₂ eq) Declared Unit	Please calculate using your local energy mix value: Power Declared Unit (kW) * Service life (hrs) Declared Unit * Energy mix (kg CO ₂ eq / kwh)
GWP total B6 (kg CO ₂ eq) Functional Unit	Please calculate using your local energy mix value: Power Declared Unit (kW) * 1000 (lm) / Lumen output (lm) Declared Unit * 35000 (hrs) * Energy mix (kg CO ₂ eq / kwh)

Operating and Electrical

Input Voltage	220 to 240 V
Line Frequency	50 to 60 Hz
Inrush current	23.1 A
Inrush time	0.221 ms
Power Consumption	29 W
Power Factor (Fraction)	0.9
Connection	Push-in connector and pull relief
Cable	-
Number of products on MCB of 16 A type B	22
UL Type	Type B - bypass the ballast
Suitable for random switching	No
Protection class IEC	Safety class I
Feed-through wiring	-
Total harmonic distortion	20 %

Controls and Dimming

Dimmable	Yes
Driver/power unit/transformer	Dali dimming Interact System ready external for central emergency lighting
Control interface	DALI
Constant light output	No
DALI Standard	DALI-2™

Maximum dim level	1%
Connectivity	Interact Ready
Embedded control	-

Mechanical and Housing

Housing Material	Steel
Reflector material	Polycarbonate
Optic material	Polycarbonate
Optical cover material	Polycarbonate
Fixation material	-
Housing Color	White
Optical cover finish	Opal
Reflector Finish	White reflector
Overall length	597 mm
Overall width	597 mm
Overall height	72 mm
Dimensions (Height x Width x Depth)	72 x 597 x 597 mm
Compatible ceiling or ceiling installation accessory type	Visible profile ceiling version
Optical finish	Opal
Ingress protection code	IP20/40 [Finger-protected, Emitting surface]
Mech. impact protection code	IK03 [0.35 J reinforced]
Explosion hazard class	-
Mounting	Recessed
Optical cover type	Polycarbonate bowl/cover
Net Weight (Piece)	4.600 kg

Emergency Operation

Central Emergency	Yes
Emergency lighting	DC operated central emergency lighting

Approval and Application

Glow-wire test	Temperature 650 °C, duration 30 s
Flammability mark	For mounting on normally flammable surfaces
CE mark	Yes
ENEC mark	ENEC mark
Photobiological risk	Photobiological risk group 1 @200mm to EN62778
EU RoHS compliant	Yes
Performance ambient temperature Tq	25 °C
Flickering value (PstLM) - Flickering value as per EN 61000-3-3	1
Stroboscopic effect visibility measure (SVM)	0.4
Ambient temperature range	+10 to +35 °C

Initial Performance (IEC Compliant)

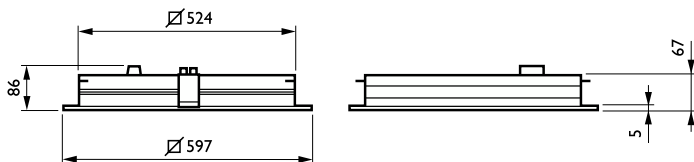
Luminous flux tolerance	+/-10%
Initial chromaticity	(0.38, 0.38) SDCM ≤3
Power consumption tolerance	+/-10%

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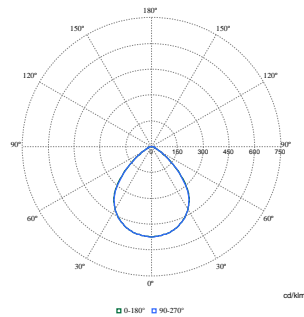
Standard Deviation of Colour Matching (McAdam ellipse)	SDCM≤3
Over Time Performance (IEC Compliant)	
Control gear failure rate at median useful life 50000 h	2.5 %
Control gear failure rate at median useful life 100000 h	5 %
Lumen maintenance (EN-IEC 62722-2-1) at L90 median useful life* 50000 h	
Lumen maintenance (EN-IEC 62722-2-1) at L75 median useful life* 100000 h	

Product Data	
Order product name	RC461B 40S/940 DEIA W60L60 VPC
Full product name	RC461B 40S/940 DEIA W60L60 VPC
Full product code	871869996456600
Order code	96456600
Material Nr. (12NC)	910505100250
Numerator - Quantity Per Pack	1
EAN/UPC - Product/Case	8718699964566
Numerator - Packs per outer box	1
EAN/UPC - Case	8718699964566
Product family code	RC461B [PowerBalance recessed]

Dimensional drawing



Photometric data



Polar Normal (separate) - RC460BN - 910505100250

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