



- PLANOX ECO FARM
- MultiLumen

PLANOX ECO

LUMINAIRES FOR MOIST/HUMID ENVIRONMENTS

PLANOX ECO

Luminaires for moist/humid environments

YES. DIFFERENT FROM THE REST...

Even more energy efficient, even more durable and even smarter: After the latest technical relaunch, PLANOX Eco is once again justifiably being referred to as the "most innovative moisture-proof luminaire of its kind". The best of all the clever improvements now is undoubtedly the **MultiLumen version** – the combination of two wattage levels in one single luminaire: there could hardly be a more appropriate and more efficient solution. The change between the two wattage levels is made with a toggle switch in the connecting terminal.

The main feature of the PLANOX Eco continues to be its strikingly slim, flat housing providing impressively homogeneous illumination in 320°. Cable entry via a cable gland at both ends makes the luminaire extremely easy to handle, as do the sliding stainless steel brackets, which allow existing drill holes to be used again. As a result, it really does not take much time at all to install these luminaires, may it be in a new build or change from "old to new".

The "Farm" version of the PLANOX Eco has also been designed down to the smallest detail for installation-friendly, low-maintenance and high-performance use in harsh environments. At the same time, it is also suitable as a highly economical lighting solution for production facilities with high levels of dust and ammonia.

The luminaire, with its striking slim design and remarkable price/performance ratio has been DLG tested for NH₃ resistance and cleaning distance, and has been awarded with their seal of approval.

ADDITIONAL ADVANTAGES

- ⊕ **MultiLumen version:** 2 steps adjustable luminous flux (high lumen output equivalent to 2-lamp version ; low lumen output equivalent to 1-lamp version)
- ⊕ 1:1 replacement for fluorescent lamps
- ⊕ Indirect light to illuminate the ceiling
- ⊕ ▽ Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected
- ⊕ Operating range: -30°C to +50°C, operating range (with movement sensor): -20°C to +50°C
- ⊕ High degree of protection IP 66
- ⊕ Housing and end caps made of shockproof polycarbonate (PC), for Planox ECO Farm made of ammonia resistant PMMA
- ⊕ Mould cast diffusers are realized as inner prisms, UV resistant and provide homogenous light distribution
- ⊕ Flexible installation through sliding mounting bracket. Ideal for luminaire replacement
- ⊕ Through-wiring as standard for further luminaires
- ⊕ PLANOX ECO Farm is certified by DLG. This luminaire is resistant to ammonia and is suitable for high pressure cleaning with a min. distance of 10 cm
- ⊕ Suitable for use in the food and drink industry



THE NEXT GENERATION!



PLANOX ECO | PLANOX ECO FARM

Technology



Planox ECO:
Versions with infrared movement sensor, adjustable time delay of 10 s to 20 min and ambient brightness of 1 to 50 lux

Sealed as standard

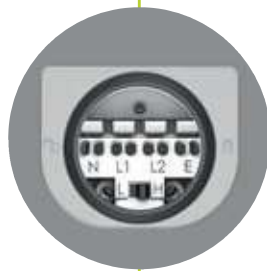


Can be opened and closed without tools using a turn lock fastener, cable screw fitting as standard

Simple connection by means of terminal with push-on connector

On-board through-wiring as standard for further luminaires

Illustration shows MultiLumen version



MultiLumen version:

The user can choose from two different luminous flux levels (L=Low/H=High).

Thanks to the switch in the luminaire the lumen output can easily be changed even after installation.

The initial setting is "H" (high lumen).



Housing and end caps made of shockproof polycarbonate (PC)



Planox ECO Farm:
Housing and end caps made of ammonia resistant PMMA



Certified by DLG. This luminaire is resistant to ammonia and is suitable for high pressure cleaning with a min. distance of 10 cm.

Therefore ideally useable in livestock housing and agricultural buildings.



Suitable for use in the food and drink industry



Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected

Flexible installation through sliding mounting bracket

Ideal for luminaire replacement



Homogeneous light output through satin-finished, internal prismatic diffuser

PLANOX ECO | PLANOX ECO FARM

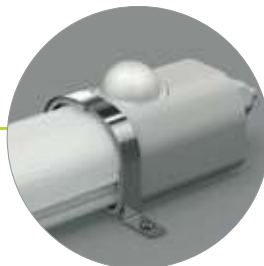
Everything at a glance



Planox ECO: In 3 lengths and 7 wattages
Planox ECO Farm: In 2 lengths and 4 wattages

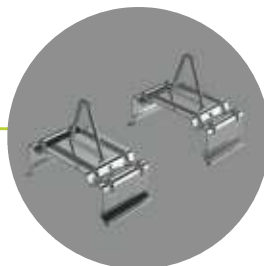


The sensitivity and time regulation can simply be adjusted with movement sensor model



Accessories:

Mounting brackets made of stainless steel (theft protection) for ceiling and wall mounting

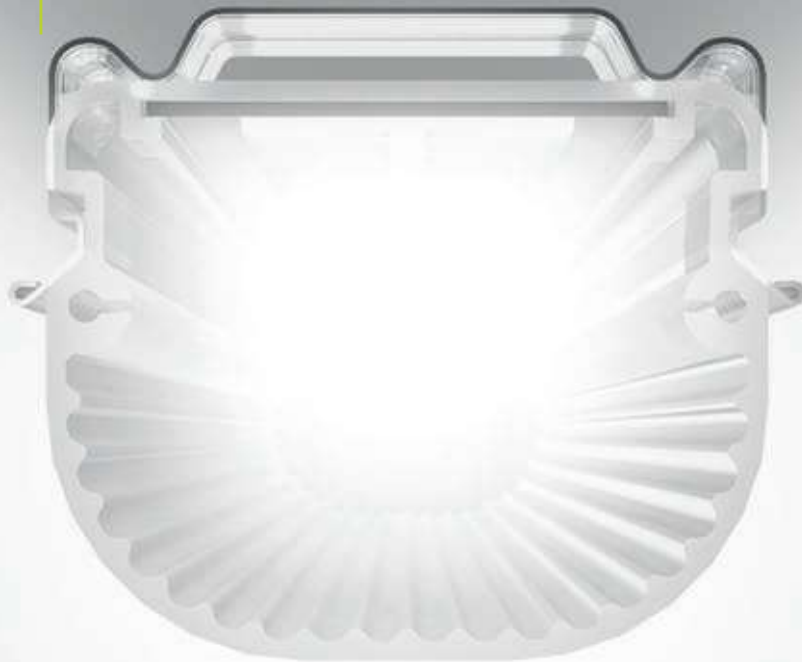


Included in scope of delivery:

Ceiling mounting bracket and triangular bracket for pendant mounting

Indirect light to illuminate the ceiling

Homogeneous illumination thanks to satin finish diffuser



PHOTOMETRICS

- ⊕ Luminous efficiency up to 143 lm/W
- ⊕ Luminaire flux up to 6,800 lm — **MultiLumen version**
- ⊕ Colour temperature 4,000 K
- ⊕ Colour rendering index Ra 80
- ⊕ Symmetrical light distribution
- ⊕ LED rated life 50,000 h (L80, B10)
- ⊕ Good colour consistency within 3-steps MacAdam (3 SDCM)
- ⊕ 1:1 replacement for fluorescent lamps

PLANOX ECO

Product overview



Ceiling and wall luminaires | Planox ECO

Type of Protection: **IP 66**
 Protection Class: II
 Impact Protection: IK08

Side panels: plastic, grey polycarbonate, shockproof. Diffuser: plastic (non-yellowing polycarbonate), opal, impact resistant. Converter encapsulated, integrated and permanently connected to the diffuser and side panel. Cable screw fittings for convenient wiring. Turn lock fastener on both sides for easy installation. Luminaire with integrated through-wiring for lining up further luminaires. Ceiling mounting stainless steel brackets and triangular brackets for pendant mounting included in the scope of delivery.

▽ Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

Available colour: 9 = grey

MultiLumen version: 2 steps adjustable luminous flux. Factory-set to highest luminous flux.



Comparison LED vs. conventional lamps

LED 17 W ≈

1 x 39 W T16 (42 W Psys)

LED 22/23 W ≈

1 x 54 W T16 (58 W Psys)

1 x 36 W T26 (43 W Psys)

LED 37 W ≈

2 x 54 W T16 (115 W Psys)

2 x 36 W T26 (86 W Psys)

LED 33 W ≈

1 x 80 W T16 (86 W Psys)

1 x 58 W T26 (67 W Psys)

LED 54 W ≈

2 x 80 W T16 (172 W Psys)

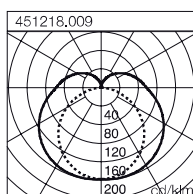
2 x 58 W T26 (134 W Psys)

Reference number	Dimensions	Lamp	Light colour	Luminous flux	System power	dim-able
Ceiling and wall luminaires						
Length L 769 mm						
451210.009 .Q	L 769, B 61, H 50	LED	840	2100 lm	17 W	on/off
Length L 1369 mm						
451211.009 .Q	L 1369, B 61, H 50	LED	840	2800 lm	23 W	on/off
451218.009 .Q*	L 1369, B 61, H 50	LED	840	3050/4950 lm	22/37 W	on/off
Length L 1669 mm						
451213.009 .Q	L 1669, B 61, H 50	LED	840	4100 lm	33 W	on/off
451219.009 .Q*	L 1669, B 61, H 50	LED	840	4700/6800** lm	33/54 W	on/off

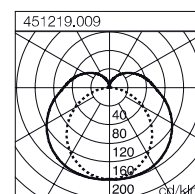
* MultiLumen version

** Operating range Ta ≤ +45°C

451218.009 (4950 lm)		
Floor 12 x 2,5 x 3m (0,2m)		
100 lx	150 lx	200 lx
2	3	4
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
3	4	6



451219.009 (6800 lm)		
Floor 12 x 2,5 x 3m (0,2m)		
100 lx	150 lx	200 lx
2	2	3
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
2	3	5



End piece for turn lock fastener with D 25 mm

982179.009 D 25, H 13

Price Category 11



Turn lock fastening

982429.009 D 44, H 41

Price Category 11



Mounting brackets made of stainless steel (theft protection) for ceiling and wall mounting

982430.000 L 146, B 16, H 38

Price Category 11

Ceiling and wall luminaires | Planox ECO with movement sensor

Type of Protection: **IP 66**

Protection Class: II

Impact Protection: IK08

Side panels: plastic, grey polycarbonate, shockproof. Diffuser: plastic (non-yellowing polycarbonate), opal, impact resistant. Converter encapsulated, integrated and permanently connected to the diffuser and side panel. Cable screw fittings for convenient wiring. Turn lock fastener on both sides for easy installation. Luminaire with intergrated 4-phase through-wiring to connect multiple luminaires. Ceiling mounting stainless steel brackets and triangular brackets for pendant mounting included in the scope of delivery. With integrated movement sensor. Master-Slave operation possible.

▽ Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

Available colour: 9 = grey

MultiLumen version: 2 steps adjustable luminous flux. Factory-set to highest luminous flux.



Reference number	Dimensions	Lamp	Light colour	Luminous flux	System power	dim-able
Ceiling and wall luminaires with movement sensor						
Price Category 11						
Length L 790 mm						
451210.009.19.Q	L 800, B 66, H 71	LED	840	2100 lm	17 W	on/off
Length L 1369 mm						
451218.009.19.Q*	L 1400, B 66, H 71	LED	840	3050/4950 lm	22/37 W	on/off
Length L 1690 mm						
451219.009.19.Q*	L 1700, B 66, H 71	LED	840	4700/6800** lm	33/54 W	on/off
* MultiLumen version				** Operating range Ta ≤ +45°C		

Comparison LED vs. conventional lamps

LED 17 W ≈
1 x 39 W T16 (42 W Psys)

LED 22 W ≈
1 x 54 W T16 (58 W Psys)
1 x 36 W T26 (43 W Psys)

LED 37 W ≈
2 x 54 W T16 (115 W Psys)
2 x 36 W T26 (86 W Psys)

LED 33 W ≈
1 x 80 W T16 (86 W Psys)
1 x 58 W T26 (67 W Psys)

LED 54 W ≈
2 x 80 W T16 (172 W Psys)
2 x 58 W T26 (134 W Psys)

End piece for turn lock fastener with D 25 mm		Price Category 11
982179.009	D 25, H 13	



Turn lock fastening		Price Category 11
982186.009	D 48, H 50	



Mounting brackets made of stainless steel (theft protection) for ceiling and wall mounting		Price Category 11
982180.000	L 115, B 13, H 62	

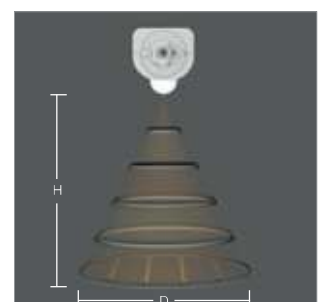


Details on movement sensor

Single luminaire with infrared movement sensor.

Detection range 360°. Cover of movement sensor made of polyethylene, prismatic. Run-down time and intensity can be adjusted.

Technical data on movement sensor					
Tolerance 10 percent					
Mounting height (H)	3,0 m	4,0 m	5,0 m	6,0 m	8,0 m
Detection range (Diameter D)	7,40 m	11,0 m	13,0 m	13,8 m	14,4 m
Run-down time	10s - 20min adjustable				
Intensity	1-50lx adjustable				
Detection angle	120°				





PLANOX ECO FARM

Ammonia resistant luminaire
for moist/humid environments

Being „indestructible“, energy-efficient and almost maintenance-free: These are definitely great features already to provide for excellent lighting even in rough environments.

Modern agriculture and livestock, however, are facing us with much higher demands for up-to-date lighting solutions.

Moisture, extreme temperatures, dust, salts, acids and fumes – the stress is extraordinarily high and a smooth operation is gaining fundamental importance.

Our FARM version of the series PLANOX ECO is a sophisticated light tool fulfilling these tremendously high and similar requirements.

Meticulously designed for the use in extreme conditions it is an unlimited and DLG-approved recommendation for permanent operation in stables and animal sheds particularly thanks to its ammonia resistant PMMA housing.



RZB PLANOX ECO FARM

- ✓ Resistance to ammonia
- ✓ Cleaning distance

DLG Test Report 6922

Parallel to its NH₃-resistance, its robustness, which is typical for this series, and its economic performance the FARM version is convincing with lighting quality which is characteristic for RZB, i.e. a permanently even and high lumen output with good glare control – for the sake and well-being both of humans and animals.

Ceiling and wall luminaires | Planox ECO Farm

Type of Protection: **IP 66**
 Protection Class: II
 Impact Protection: IK07

Side panels: plastic (PMMA), grey. Diffuser: plastic (non-yellowing PMMA), opal. Converter encapsulated, integrated and permanently connected to the diffuser and side panel. Cable screw fittings for convenient wiring. Luminaire with intergrated 4-phase through-wiring to connect multiple luminaires. Ceiling mounting stainless steel brackets and triangular brackets for pendant mounting included in the scope of delivery.

▽ Luminaires with limited surface temperature in accordance with DIN EN 60598-2-24 for use in environments in which a deposit of conductive dust on the luminaire can be expected.

Ammonia resistant : to be used in livestock housing and agricultural buildings.

Available colour: 9 = grey

MultiLumen version: 2 steps adjustable luminous flux. Factory-set to highest luminous flux.



Reference number	Dimensions	Lamp	Light colour	Luminous flux	System power	dim-able
Ceiling and wall luminaires						
						Price Category 11
Length L 1369 mm						
451212.009.1 .Q*	L 1369, B 61, H 50	LED	840	3050/4950 lm	22/37 W	on/off
Length L 1669 mm						
451214.009.1 .Q*	L 1669, B 61, H 50	LED	840	4700/6800** lm	33/54 W	on/off

* MultiLumen version

** Operating range Ta ≤ +45°C

Comparison LED vs. conventional lamps

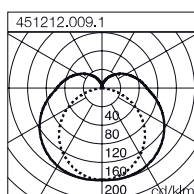
LED 22 W ≈
 1 x 54 W T16 (58 W Psys)
 1 x 36 W T26 (43 W Psys)

LED 33 W ≈
 1 x 80 W T16 (86 W Psys)
 1 x 58 W T26 (67 W Psys)

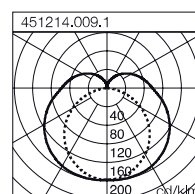
LED 37 W ≈
 2 x 54 W T16 (115 W Psys)
 2 x 36 W T26 (86 W Psys)

LED 54 W ≈
 2 x 80 W T16 (172 W Psys)
 2 x 58 W T26 (134 W Psys)

451212.009.1 (4950 lm)		
Floor 12 x 2,5 x 3m (0,2m)		
100 lx	150 lx	200 lx
2	3	4
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
3	4	6



451214.009.1 (6800 lm)		
Floor 12 x 2,5 x 3m (0,2m)		
100 lx	150 lx	200 lx
2	2	3
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
2	3	5



Turn lock fastening

982429.019 D 44, H 41

Price Category 11



Mounting brackets made of stainless steel (theft protection) for ceiling and wall mounting

982430.000 L 146, B 16, H 38

Price Category 11



CHEMICAL RESISTANCE

to the plastics used in the manufactured luminaires

Chemical Agents	max. concentration	PC	PMMA
Acetone		-	-
Battery Acid		o	-
Aliphatic, Hydrocarbons		+	o
Alcohol	30%	+	+
Alcohol concentrate		-	-
Aluminium sulphate	10%	+	
Formic acid	30%	-	o
Ammonia	5%	-	+
Ammonia	25%	-	+
Aniline		-	-
Aromatic hydrocarbons		-	-
Arsenic acid		+	+
Ether		-	-
Caustic potash		-	
Benzene		-	-
Beer		+	+
Blood		+	+
Bromic acid		-	-
Calcium Chloride		+	+
Chloroform		-	-
Chlorophenol		-	-
Chromic acid	40%	o	o
Diesel fuel		o	+
Dioxane		-	-
Acetic acid	5%	+	o
Acetic acid	30%	+	-
Ethyl acetate (ester)		-	-
Ethanol	30%	+	o
Ethanol	50%	+	-
Ethyl acetate		-	-
Ethyl alcohol		+	o
Mineral fat		-	+
Vegetable fat		-	+
Animal fat		-	+
Glycerin		o	+
Glycol		+	+
Glysantin		+	+
Glycerine		o	+
Fuel oil		-	o
Caustic potash	30%	-	+
Potassium nitrate		+	+
milk of lime		o	+
Ketone		-	-
Saline solution	20%	+	+
Carbon dioxide		+	+
Carbon monoxide		+	+

Chemical Agents	max. concentration	PC	PMMA
Hydrocarbons		-	o
Lye		o	+
Lysol		-	-
Sea water		+	+
Methanol		-	-
Methyl chloride		-	-
Lactic acid, aqueous	10%	+	+
Mineral oils		+	+
Sodium hydroxide solution	2%	-	+
Sodium hydroxide solution	10%	-	+
Regular petrol (ROZ 91)		o	-
Petroleum ether		o	+
Phenol		-	-
Nitric acid	10%	+	+
Nitric acid	20%	o	o
Hydrochloric acid	5%	+	+
Hydrochloric acid	15%	+	+
Hydrochloric acid	20%	o	+
Sulfur dioxide		o	-
Sulphuric acid	30%	+	+
Sulphuric acid	50%	+	+
Sulphuric acid	70%	o	o
Hydrogen sulfide		+	+
Soap sud		+	+
Silicone oils		+	o
Soda bleach		+	+
Premium petrol		-	+
Turpentine oil		o	o
Carbon tetrachloride		-	-
Toluene		-	-
Trichloroethylene		-	-
Hydrogen peroxide	30%	o	-
Hydrogen sulfide		+	+
Xylene / Dimethylbenzene		-	-
Citric acid	20%	+	+

+ resistant

o partially resistant

- non-resistant

	<p>MultiLumen version: 2 steps adjustable luminous flux</p>		<p>Luminaires with limited surface temperature in accordance with EN 60598-2-24</p>
	<p>Luminaires with movement sensor</p>		<p>HACCP Luminaires with this symbol are suitable for use in the food and beverage industry. For precise instructions on the use of our products in this context, please see the declaration of conformity, which you can find in the download area for the corresponding product under rzb-lighting.com.</p>
	<p>Luminaires made of impact resistant polycarbonate</p>		<p>Certified by DLG. This luminaire is resistant to ammonia and is suitable for high pressure cleaning with a short distance.</p>



MORE LUMINAIRES OF THIS PRODUCT FAMILY:



⊕ Planox



⊕ Planox PRO



⊕ Planox Tube

HIGHEST PRODUCT AND CONSULTING QUALITY

⊕ RELIABILITY

We are your reliable partner. From the first idea to the implementation and far beyond, we accompany your project. Personal, passionate and individual. Thanks to our excellent expertise, top product quality and services such as lighting design, economic efficiency analysis and commissioning, we meet the high demands of all parties involved in the planning process.

- ✓ availability of BIM files
- ✓ easy and quick installation
- ✓ quality and long warranty

⊕ WARRANTY

RZB grants 5 years warranty on LED luminaires and 2 years warranty on emergency luminaires!

The creation of high quality lighting solutions is our passion. Our products are developed and manufactured with the utmost care.

In addition to SMART TECHNOLOGY and EXCELLENT DESIGN, we are dedicated to manufacture luminaires of highest quality throughout the entire value chain through to After Sales Service.

Because of this, we confidently grant you a 5 years warranty on LED luminaires and 2 years warranty on emergency luminaires with effect of the date of invoice without prior registration of your project.

Warranty terms to be found under

[rzb.de/en/service/led-luminaire-warranty](https://www.rzb.de/en/service/led-luminaire-warranty)

RZB - FOR A TANGIBLE ADDED VALUE.



05.2020



RZB
Rudolf Zimmermann,
Bamberg GmbH

Rheinstr. 16
96052 Bamberg
Germany

Phone +49 951/79 09-374
Fax +49 951/79 09-212

www.rzb-lighting.com
export@rzb.eu



Member of **licht.de**