



Welcome

Panorama y guía de selección de Lámparas LED para máquinas

Webinar IMA Enero 2021

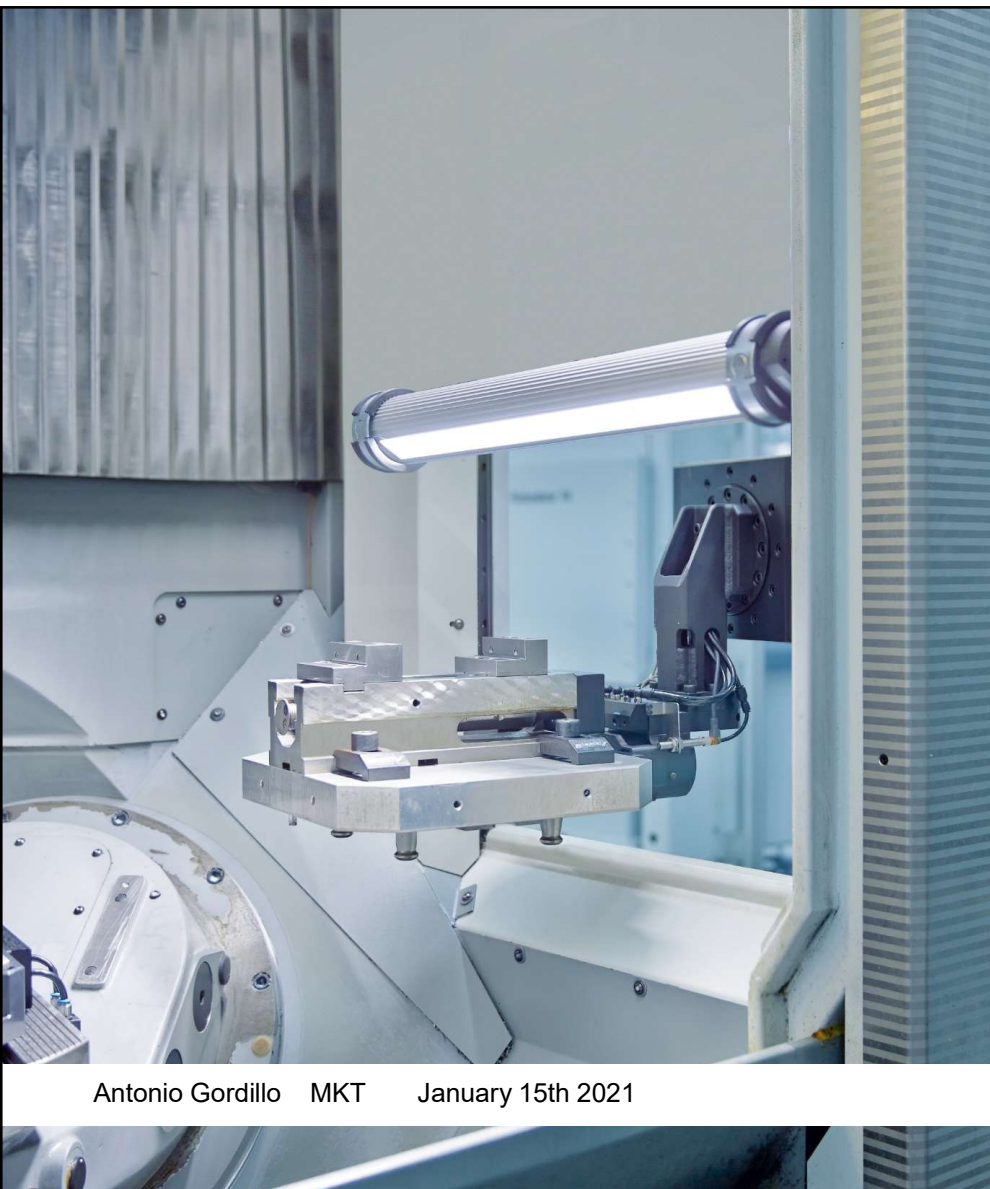
Panorama y guía de selección de lámparas LED para máquinas



Fecha	15 Enero 2021
Hora	9:00
Hora	
Duración	1 hora
Costo	gratuito

Lograr mayor conocimiento en la oferta de lámparas LED para máquinas.

En esta sesión se presentará un panorama y guía más a profundidad en la selección y aplicación de las lámparas LED para máquinas, las cuales contribuyen a un mejor desempeño de la operación traduciéndose en beneficios de productividad en los diferentes puestos de trabajo en donde operadores y máquinas dan resultados correctos en los objetivos planteados en el proceso industrial. .



Panorama y guía de selección de lámparas LED para máquinas

Machine lights

VARIETY FOR
OPTIMUM ILLUMINATION

Antonio Gordillo MKT January 15th 2021



Machine lights

Agenda

- Machine lights – General
- Class 100 lights
- Class 200 lights
- Machine lights – Use cases
- Machine lights – Light simulation



Machine lights

Agenda

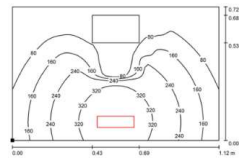
General



Use cases



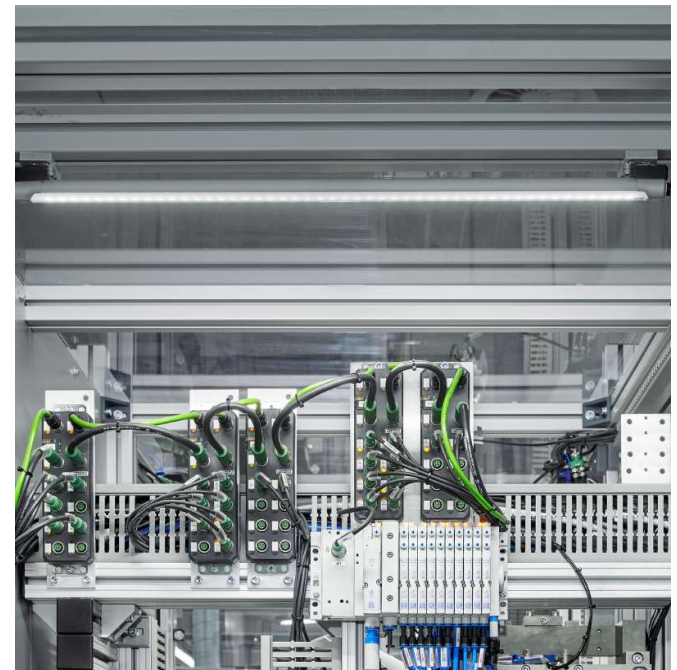
Light simulation



Class 100 lights



Class 200 lights



Machine lights – General

Optimum illumination of machines

“Machine users need enough light inside of the machine during these actions:

- set up of the machine
- observation of the manufacturing process
- maintenance tasks

With our machine lights we create an optimal working environment. ”



Machine lights – General

Portfolio overview



CLASS 100

CLASS 200

IP54

IP67

Ø 25 mm

Ø 35 mm

Ø 40 mm

Ø 70 mm

Class 100 lights

Class 100 lights



Class 100 lights

Features of class 100 lights, Ø25 mm

PLD M 140 W .../D25

- Small design (Ø 25 mm)
- Rotational position ($\pm 60^\circ$)
- Emission angle (89°)
- Lumen output (315 lm ... 1890 lm)
- LED lifetime 60.000 h (L70)
- Ambient temperature (operation): $+5^\circ\text{C}$... $+40^\circ\text{C}$
- Resistant against vibration (4g) and shock (25g)
- ETL Intertek approval



Class 100 lights

Features of class 100 lights, Ø35 mm

PLD M 140 W .../D35/SC

- Small design (Ø 35 mm)
- Rotational position ($\pm 75^\circ$)
- Emission angle (85°)
- Lumen output (550 lm ... 3300 lm)
- LED lifetime 60.000 h (L70)
- Ambient temperature (operation): $+5^\circ\text{C}$... $+50^\circ\text{C}$
- Resistant against vibration (4g) and shock (25g)
- ETL Intertek approval



Class 100 lights

Main differences of class 100 lights

PLD M 140 W .../D25 (Ø 25 mm)

- Very narrow design
- Powerless switching

PLD M 140 W .../D35/SC (Ø 35 mm)

- Series connection
- Dimmable in seven steps (0%; 40% ... 100%)



COMMON FEATURES

IP54

M12



195 mm to
895 mm

WHERE TO USE?



Class 100 lights

Benefits of class 100 lights

Very slim design allows mounting on narrow machine parts ✓

Protection function against polarity reversal and high supply voltage ✓

Flexible wiring thanks to M12 connector ✓

Glare suppression by milky plastic cover ✓

Light holder included in delivery ✓

Optimal alignment through $\pm 60^\circ$ or $\pm 75^\circ$ swivel range in light holder ✓



Class 100 lights

Replacement of PLD M 160



PLD M 160...

PLD M 140 ...

PLD M 140...

- ✓ Universal mounting bracket provided
- ✓ Price below existing PLD M160 – *with at least **two times higher lumen output***
- ✓ M12 connection technology for variable cable lengths

FULLY EXCHANGE-COMPATIBLE!

Class 100 lights

Product list of class 100 lights

Item No	Item Name	Item Description
1118035	PLD M 140 W 195/D25	Ø 25 mm, length: 195 mm
1118022	PLD M 140 W 335/D25	Ø 25 mm, length: 335 mm
1118036	PLD M 140 W 615/D25	Ø 25 mm, length: 615 mm
1118015	PLD M 140 W 895/D25	Ø 25 mm, length: 895 mm
1118021	PLD M 140 W 195/D35/SC	Ø 35 mm, length: 195 mm, series connection
1118016	PLD M 140 W 335/D35/SC	Ø 35 mm, length: 335 mm, series connection
1118024	PLD M 140 W 615/D35/SC	Ø 35 mm, length: 615 mm, series connection
1118028	PLD M 140 W 895/D35/SC	Ø 35 mm, length: 895 mm, series connection

Class 100 lights

Installation situations

- Applications **without** coolants and lubricants
- For simple applications
- Mounting in small installation areas
- Illumination of long machines (variant with series connection)
- Distances up to ≈ 1 m
- Illuminated area up to $1,5 \text{ m}^2$ per light

PLD M 140 W .../D35/SC

- Distances up to $\approx 1,5$ m (PLD M 140 .../D35/SC)
- Illuminated area up to 2 m^2 per light

Class 200 lights

Class 200 lights, Ø40 mm



Class 200 lights

Features of class 200 lights, Ø40 mm

PLD M 260 W .../D40 ...

- Small design (Ø 40 mm)
- Four lengths (190 mm ... 715 mm)
- M12 connector, A-coded
- Two emission angles variants: 40° or 80°
- Optional: series connection
- Rotational position ($\pm 45^\circ$)
- 4 mm safety glass



Class 200 lights

Features of class 200 lights, Ø40 mm

PLD M 260 W .../D40 ...

- Resistant against coolants, lubricants, vibration (4g) and shock (50g)
- Ambient temperature (operation): 0 °C ... +50 °C
- LED lifetime 60.000 h (L70)
- ETL Intertek approval



Class 200 lights

Emission angles

PLD M 260 W-85...



85°

PLD M 260 W-40...



40°

Optimum illumination for big and small target areas

Class 200 lights

Series connection

PLD M 260 W-85.../SC



Less cabling = less cost of installation

Class 200 lights

Benefits of class 200 lights, Ø40 mm

Optimal alignment through
 $\pm 45^\circ$ swivel range with
mounting accessory



Two emission angles for
optimum adaption to the
size of the target area

Flexible wiring thanks to
M12 bulkhead connector



Optional: series
connection of lights for
less cabling

Small footprint due to
narrow design (40 mm)

Especially **ROBUST** due to ...

- protection function against polarity reversal and high supply voltage
- resistance against coolants, and lubricants
- 4 mm safety glass

Class 200 lights

Product list of class 200 lights, Ø40 mm

Item No	Item Name	Item Description
2702480	PLD M 260 W-85/95 190/D40	Length: 190 mm, emission angles 85°/95°
2702933	PLD M 260 W-85/95 190/D40/SC	Length: 190 mm, emission angles 85°/95°, series connection
2702938	PLD M 260 W-40/80 190/D40	Length: 190 mm, emission angles 40°/80°
2702481	PLD M 260 W-85/95 365/D40	Length: 365 mm, emission angles 85°/95°
2702934	PLD M 260 W-85/95 365/D40/SC	Length: 365 mm, emission angles 85°/95°, series connection
2702939	PLD M 260 W-40/80 365/D40	Length: 365 mm, emission angles 40°/80°
2702482	PLD M 260 W-85/95 540/D40	Length: 540 mm, emission angles 85°/95°
2702935	PLD M 260 W-85/95 540/D40/SC	Length: 540 mm, emission angles 85°/95°, series connection
2702941	PLD M 260 W-40/80 540/D40	Length: 540 mm, emission angles 40°/80°
2702483	PLD M 260 W-85/95 715/D40	Length: 715 mm, emission angles 85°/95°
2702936	PLD M 260 W-85/95 715/D40/SC	Length: 715 mm, emission angles 85°/95°, series connection
2702942	PLD M 260 W-40/80 715/D40	Length: 715 mm, emission angles 40°/80°



Class 200 lights, Ø40 mm

Installation situations

- Applications **with** coolants and lubricants
- Mounting in small installation areas
- Illumination of long machines (variants with series connection)
- Spot light (variants with 40° emission angle)
- Distances up to $\approx 1,5$ m
- Illuminated area up to 2 m^2 per light

PLD machine lights

Class 200 lights, Ø70 mm



PLD machine lights

Features of class 200 lights, Ø70 mm

PLD M 260 W-75/95 .../D70

- „Retrofit design“ (Ø 70 mm)
- Five lengths (370 mm ... 1070 mm)
- M12 connector, A-coded
- Emission angle 75°
- Rotational position ($\pm 65^\circ$)
- 4 mm safety glass



PLD machine lights

Features of class 200 lights, Ø70 mm

PLD M 260 W-75/95 .../D70

- Resistant against coolants, lubricants, vibration (4g) and shock (50g)
- Ambient temperature (operation): 0 °C ... +45 °C
- Degree of protection IP67
- LED lifetime 60.000 h (L70)
- ETL Intertek approval



Class 200 lights

Benefits of class 200 lights, Ø70 mm

Optimal alignment through
 $\pm 65^\circ$ swivel range with
mounting accessory



Flexible wiring thanks to
M12 bulkhead connector



Diameter of 70 mm to
allow easy mechanical
replacement of traditional
tube lights

Especially ROBUST due to ...

- protection function against polarity reversal and high supply voltage
- resistance against coolants, and lubricants
- 4 mm safety glass



Class 200 lights, Ø70 mm

Installation situations

- Applications **with** coolants and lubricants
- Exchange of 70 mm tube luminaires (Retrofit)
- Mounting position in the worker's field of view
- Illumination of long machine parts
- Necessary rotation angle $>45^\circ$
- Distances up to $\approx 1,5$ m
- Illuminated area up to 2 m^2 per light

Class 200 lights

Main differences

PLD M 260 W .../D40 (Ø 40 mm)

- Narrow design
- Series connection
- Different emission angles



PLD M 260 W .../D70 (Ø 70 mm)

- Retrofit capable for exchange of 70 mm tube luminaires

COMMON FEATURES

IP67

M12



WHERE TO USE?



Class 200 lights

Product list of class 200 lights, Ø70 mm

Item No	Item Name	Item Description
2702484	PLD M 260 W-75/95 370/D70	Length: 370 mm, emission angles 75°/95°
2702485	PLD M 260 W-75/95 510/D70	Length: 510 mm, emission angles 75°/95°
2702486	PLD M 260 W-75/95 650/D70	Length: 650 mm, emission angles 75°/95°
2702488	PLD M 260 W-75/95 790/D70	Length: 790 mm, emission angles 75°/95°
2702489	PLD M 260 W-75/95 1070/D70	Length: 1070 mm, emission angles 75°/95°

The right product for every environment



AMBIENT CONDITIONS

Moderate

IP54



e.g.
assembling machines
packaging machines

Class 100
Ø 25 mm



Class 100
Ø 35 mm



+ series
connection

Rough

e.g.
tooling machines
molding presses
textile machines
woodworking machines



Class 200
Ø 40 mm



+ series
connection

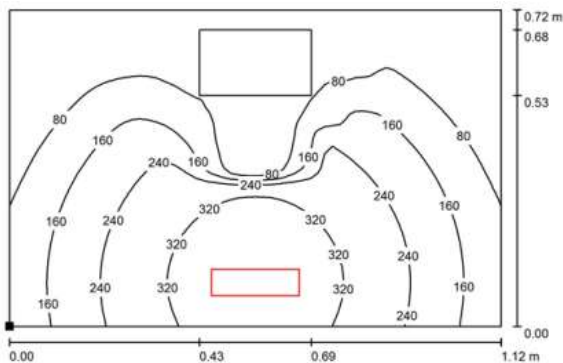
Class 200
Ø 70 mm



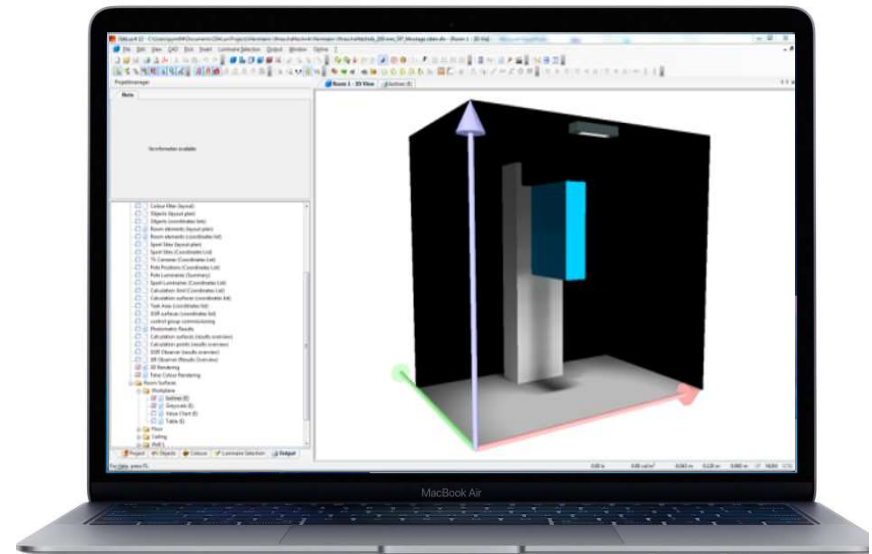
PLD machine lights – light simulation

Optimum light selection with software DIALux

“We provide EULUMDAT device description files for incorporation into lighting design, calculation, and simulation programs like the free tool DIALux from DIAL ”



Light simulation in DIALux



AVAILABLE AS FREE DOWNLOAD

WWW.DIALUX.COM (THIRD PARTY)



¿Cómo Hacer un Proyecto de Iluminación Básico? | DIALux evo



Example of use LED LAMP on Industrial Machine Work



Live Demo y Webinar Scodix

Webinar IMA 2020

Mayor información



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