



# SURFACE INSPECTION

"People don't see the light, they see with the light."

(Immanuel Kant)



## IMPRINT

### **Publisher:**

EAE Aydınlatma A.Ş. Istanbul, Turkey

### **Editing and Design**

EAE Aydınlatma A.Ş., Turkey

### **Picture Credits:**

EAE Lighting: 1, 5, 6-7, 8-9, 10-11, 16-17, 20-21, 24-25, 26-27, 28, 32-33, 34-35, 36, 40, 41, 44, 48-49, 50-51, 54-55, 58, 62-63, 66, 68-69, 70-71, 72, 76, 77, 79, 80, 82, 86, 88, 89, 92, 94, 96  
Shutterstock: 18, 22 (Jenson), 42-43  
Elements.envato.com: 56 - 57 (NomadSoul1)  
Dürr Systems AG: 18, 19, 42, 43, 64-65, 78-79, 84-85, 90-91  
Turgut Tanış: 12-13, 15, 31, 47, 75

### **Disclaimer:**

We accept no liability for the contents of any references cited in this catalogue. The publishers of these references are solely responsible for their content.

### **Copyright:**

All contents of this catalogue are protected by copyright. These contents may not be stored, reproduced or distributed in any way or used without the express written permission of EAE Aydınlatma A.Ş.

# Content

<b>Task</b>	6
<b>Request</b>	8
<b>Benefits</b>	10
<b>Solution</b>	12
<b>Finish Line</b>	14
Zebra Pro	16
Dipled Zebra	24
<b>Assembly Line</b>	30
Zebra Slim	32
Dipled Paint	40
<b>Paintbooth Line</b>	46
Paint Eco	48
Steril	54
<b>Spraybooth Line</b>	60
Cabin Pro	62
Paint Pro	68
<b>KTL Line</b>	74
Galis	76
Cozar	82
Lina	88
<b>EAE Group at a Glance</b>	94

# Effective lighting for painted surfaces

In today's world, the need for manpower is decreasing, while technology is being integrated into our lives more and more. Despite this development, the need for manpower has not completely ceased. The human eye, which has 324 MP, is able to easily see the details and defects on the surface.

The eye with its high resolution is the most advanced and natural technology for detecting surface defects. In determining the surface defects, it is important to design the ambient conditions in accordance with the purpose as well as the eye factor. Precisely at this point, lighting solutions that offer high performance are life-saving for sectors including a quality control stage.









# Task



We know that the first step is to choose lighting products designed for the needs of the sectors that require attention. It is important that the Lighting preference is suitable for the ambient conditions and compatible with the type of product to be tested. In the automotive industry, extremely precise examination of the materials that make up the components of products is essential. Playing the leading role in quality appearance, lighting becomes complementary for inspecting the surface quality in the automotive industry.



# Request





In general, the inspection phase is carried out under conditions that are not considered in detail. This wrong lighting preference can create unwanted situations such as reflection on the surface. The negativities experienced creates extra energy and time loss and cause the defects to be ignored. Making a lighting preference for the product needs will increase the quality level by preventing surface problems that may occur. Choosing the right lighting for the product needs will prevent surface problems that may occur, and increase the quality level. Surface inspection lines are one of the areas that companies with a quality inspection stage integrated in their production progress.



## Troubleshooting

Designing products that meet expectations is always one of the primary goals of companies. The use of quality materials and flawless surfaces are among the qualities that are effective in the product preference of users. No user wants to buy a product with deformation or defects on its surface. This brings with it the use of quality materials and detailed control that will meet the expectation. The use of materials that affect the production and sales processes will increase the level of flawless appearance and quality products to the maximum.



## Quality and Performance of Light

The suitability of lighting in work areas varies depending on the type and duration of the product. The lighting of closed work areas is based on EN 12464-1 standard. Developed according to EN 12464-1, EAE fixtures offer suitable lighting solutions for the control of surface conditions such as paint, scratches and dents in the automotive industry with quality control stage. Light transitions should be balanced by choosing LED lighting systems. Homogeneously emitted light has a direct effect on surface visibility. It minimizes the margin of error in Surface Inspection by preventing problems such as glare, dazzling and reflection.



## Cost-Effective Lighting Solution

The high energy consumption in the automotive industry, which carries out long-term production activities, has led companies to search for economical products. The search for low-cost lighting in the automotive industry directs companies to lighting products with energy efficiency and high performance at the same time. Our products, which offer convenient and economical lighting solutions to companies, are the ideal choice for the automotive industry, which highly needs light with their economical structures and minimum energy consumption.





## Easy Installation and Maintenance

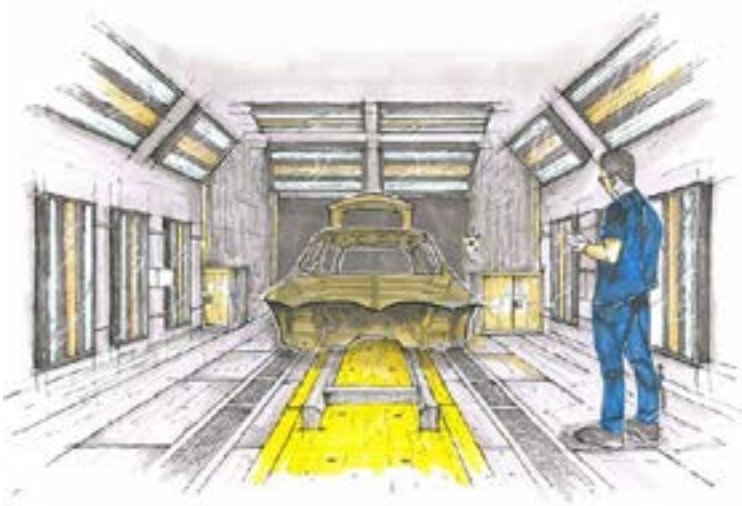
In the automotive industry, which operates for long hours, frequent disruption of the production process will cause high costs and breakdowns. Choosing Surface Inspection fixtures that require minimal maintenance is very advantageous in terms of both cost and usage. Long-term durability and longevity of the advanced LED lighting used in EAE fixtures provide convenience for harsh environmental conditions. Our products are the right choice for the automotive industry with their easy assembly and maintenance-free useful structure.



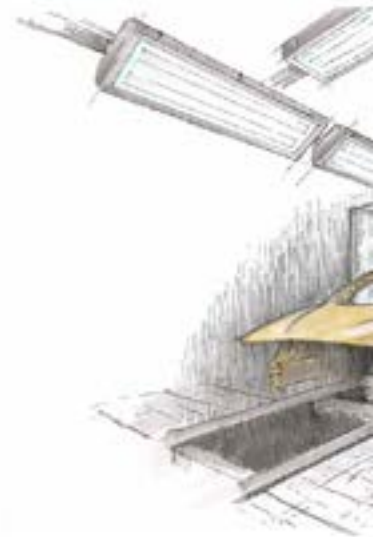
## Occupational Health and Safety

Correctly used lighting will benefit both the company and its personnel. The conformable lighting protects the health of eye and body of the personnel while minimizing the margin of error. High and uncontrolled use of light will increase the glare on the surface. High levels of light can cause glare and fatigue, affecting focus and causing accidents. A balanced lighting performance can be achieved with the choice of lighting suitable for the surface of the product. Thus, while preventing the accidents that the personnel may experience, it will be easier to detect the defects on the product surface. Lighting products developed by EAE promise to positively affect people's preferences, perceptions and behaviors. The margin of error of the personnel who show high performance during the working period will decrease, while the efficiency will increase.

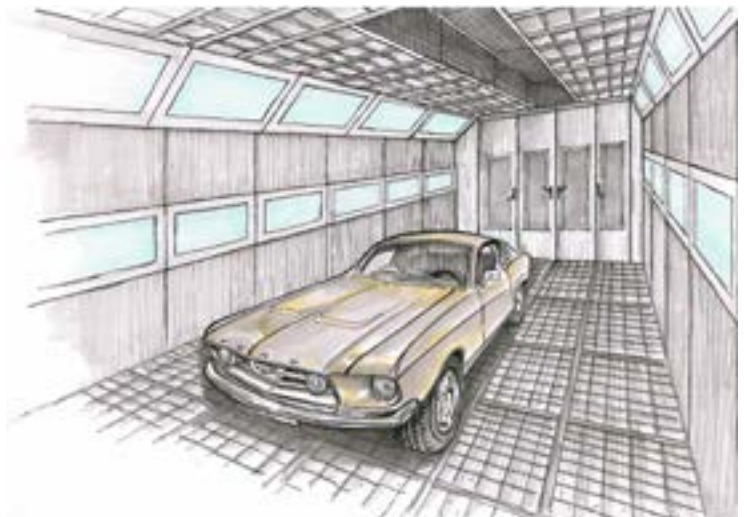




Finish Line



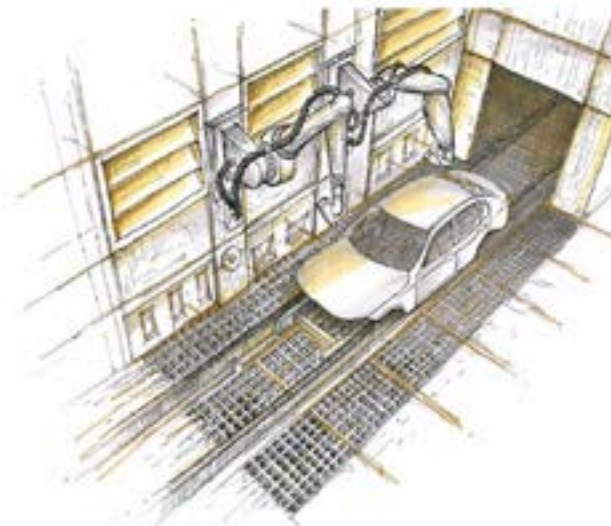
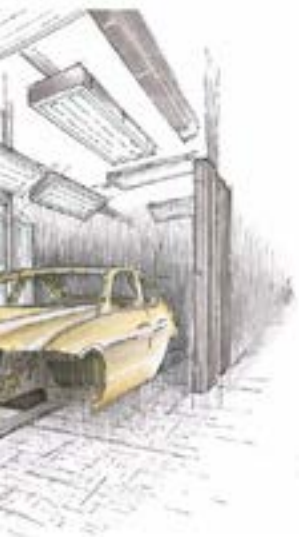
Assembly Line



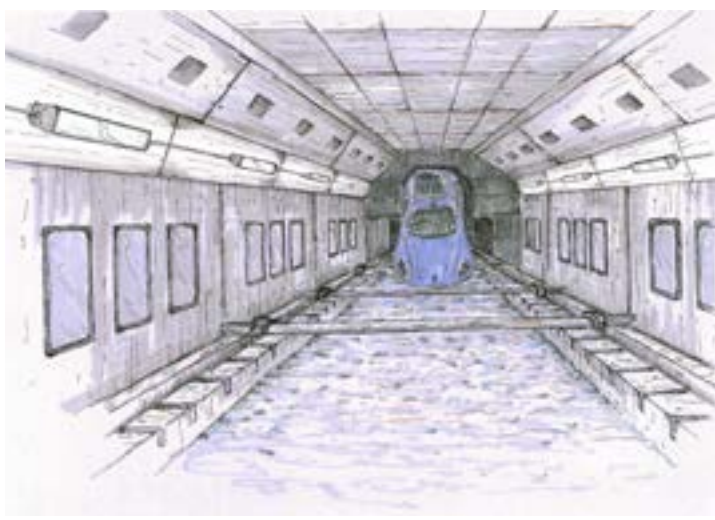
Paintbooth Line

# Solution





Spraybooth Line



KTL Line

The main goal of lighting in the automotive industry is to achieve a sustainable outcome in the quality control phase. In the final process carried out on the finishing lines, the detailed control of the surface minimizes the error rate. The lighting solution that comes into play at this stage plays a key role in detecting imperfections that cannot be seen with the naked eye. High level of lighting affects the appearance of the surface and working performance efficiently during the control process. The solutions, specially developed by EAE for surface inspection, will add value to the automotive industry that aims for perfection.



# Finish Line



*The Finish Line is the last line where all kinds of defects that may occur on the surface of the vehicles whose production stages have been completed are examined in detail. It is the line where the errors such as all roughness, excess paint, ripples and scratches that may occur on the surface is detected finally.*

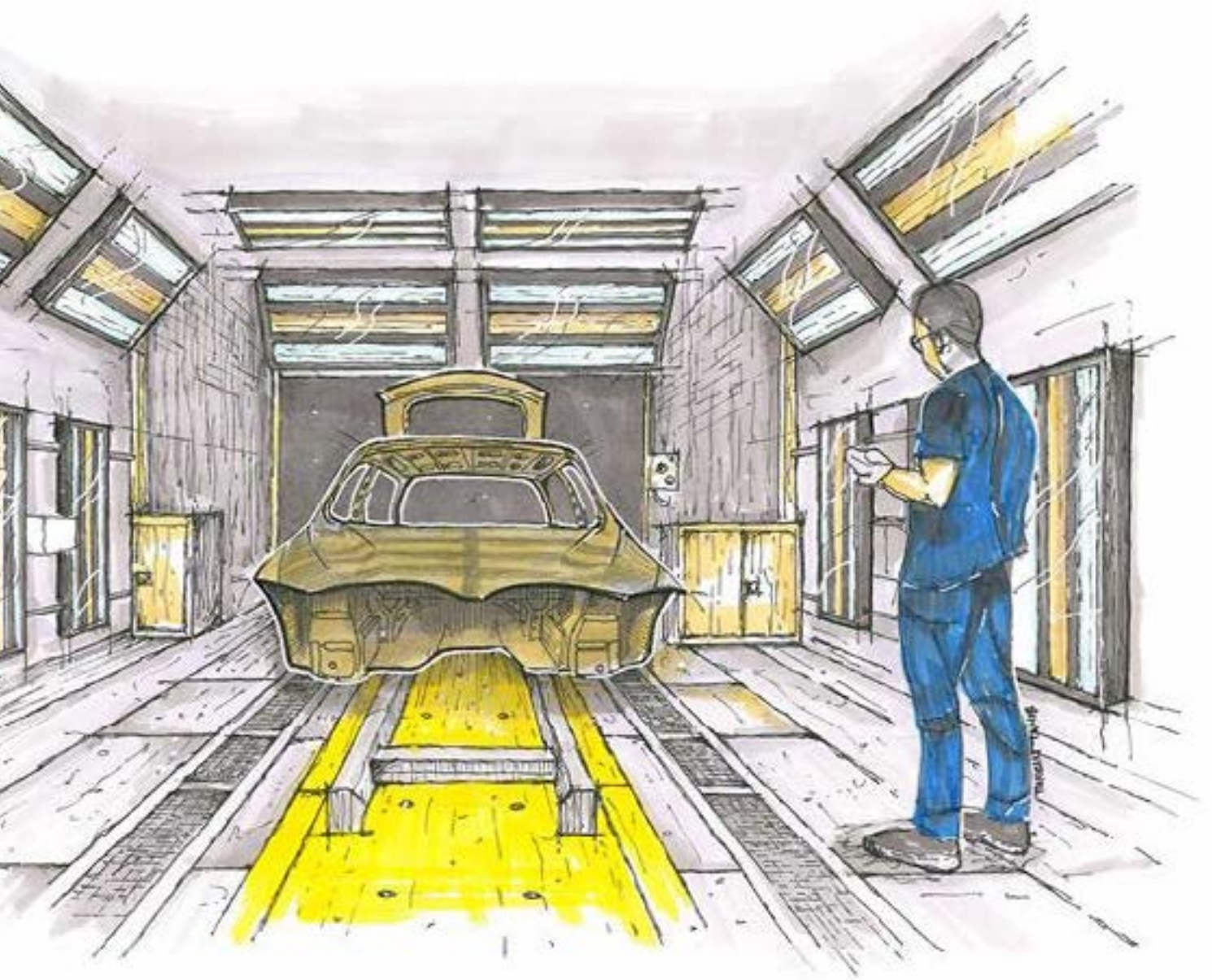
## ▶▶ Zebra Pro

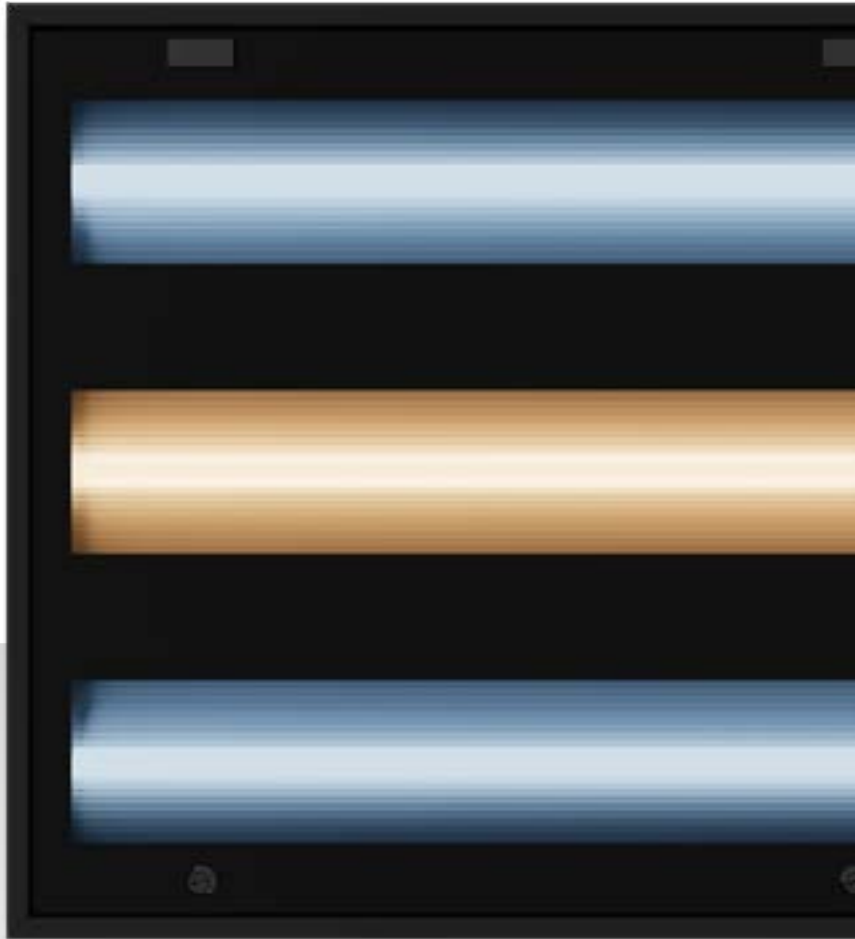
Zebra Pro plays a savior role for Finish Line in the automotive industry, which stands out with its quality and visual appeal. It reflects light on the surface appearance in detail thanks to its inspection ability. With its solution-oriented structure, it makes the errors visible with its effective lighting performance in detecting errors such as roughness, scratches, ripples and excess paint that may occur on the surface.

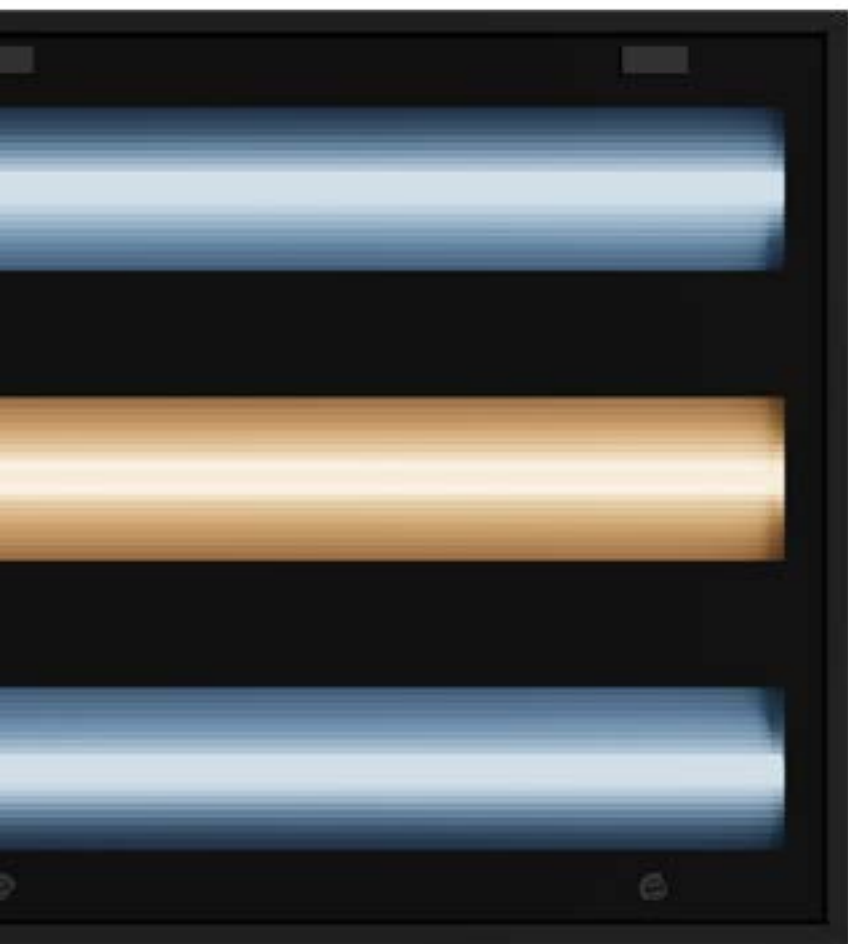
## ▶▶ Dipped Zebra

Dipped Zebra enables the improvement of surface quality thanks to its excellent light performance that meets the needs of the environment. The product in the Finish Line areas makes it easier to see the ripples, scratches and roughness that may occur on the automobile. It is the reliable lighting solution of the automotive industry with its long service life as well as its ease of intervention and installation.









# Zebra Pro









# Zebra Pro

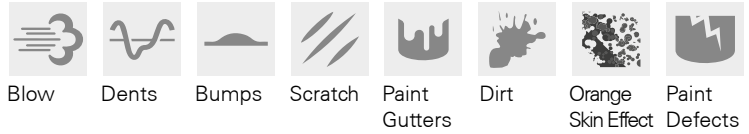
# Zebra Pro

Surface Inspection Luminaire For Finish Lines



It is of great importance that the lighting system is suitable for eye comfort and health. With its lighting performance, Zebra Pro developed by EAE is becoming one of the complementary parts of the automotive industry, which requires a meticulous and efficient working environment. Zebra Pro promises high durability with its dust- and splash-proof body. The fixture provides a sufficient level of lighting in the areas of use in the automotive industry, while providing a high level of visual comfort at the same time. It prevents excessive contrast and false light distribution, thanks to its special glare reduced diffusers, prismatic shades and contrast areas and high efficiency light that it reflects on the surface. The product creates an look of two different colors and interrupted lines on the painted surface, allowing the defective area to be easily noticed. It provides effective lighting in the detection of paint defects, roughness, scratches, ripples and excess paint on the surface during production, making the defects visible. With its design that prevents the limits of the ability to distinguish details and glare, Zebra Pro best responds to the needs of the automotive industry, which aims for a flawless surface appearance.

Zebra Pro product has 2 different body structures: with locking nut and mounting frame. These body structures are compatible with open and closed cabin designs. When an open cabinet design is desired, the product with a drive-in nut may be chose, and those in the cabinet structure can be mounted to the profile with the nut in the body structure. In the closed cabinet design, the product with a mounting frame is provided since the part where the product will be mounted is compatible with the body structure. Thus, the product is placed in the area where it will be mounted. Zebra Pro plays a saviour role for the control line in the automotive industry, which stands out with its quality and visual appeal. With its control on the surface, it reflects light on the appearance of the surface in detail in the inspection line. While providing a healthy surface visibility with its high performance lighting solution, it also increases the field of view of the personnel on the line to a great extent. With all these features, Zebra Pro makes imperfections such as paint defects and scratches on the surface that are difficult to notice visible with its solution-oriented structure.



## Product Data

### Standard Features

Housing: Painted DKP sheet metal housing RAL 9010 silicone free  
 Diffuser: Opal diffuser, tempered glass cover  
 Optic: Special prismatic optics for inspection  
 IP grade: IP54  
 Installation: M8 locking nuts on the back  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 96 W  
 Luminaire luminous flux: 10000 lm  
 Luminaire efficiency: Up to 131 lm / W  
 Input voltage: 220-240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 475mA  
 Correlated color temperature: 6500K - 4000K - 6500K  
 Color rendering index: Up to CRI 97  
 Connection type: Via harting 7 + PE Pol  
 Wiring: Internal through-wiring 7x2,5mm

### Other Features & Conditions

Operating temperature range: -20 °C/+45 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 hours @Ta= 45 °C

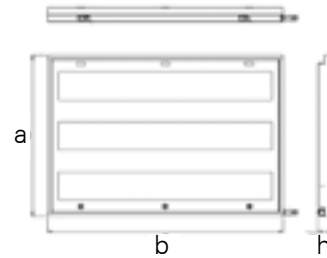
### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Atex 2,22 Version on request  
 UL version for us market  
 Emergency battery kit up to 3h on request



### Dimension (mm)

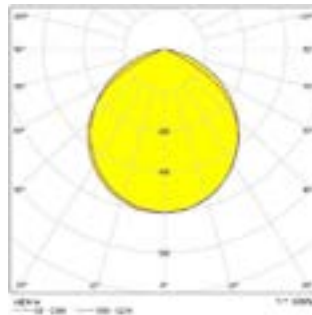
	a	b	h
Standard:	860	1560	75
Fixing Points:	660	1300	75



### Weight (kg)

Standard: 44

### Photometric Curve



### Harting 7 + PE Pol Configuration

Pin 1: L1 Driver For 3 Flames  
 Pin 2: L2  
 Pin 3: L3  
 Pin 4: Free  
 Pin 5: L5  
 Pin 6: DALI+  
 Pin 7: DALI-  
 PE



# Zebra Pro

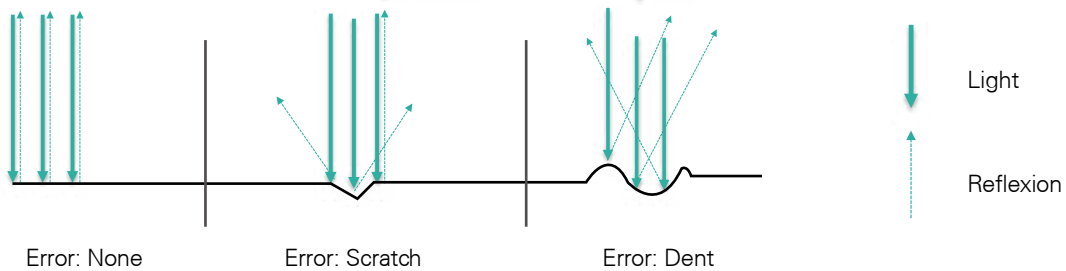
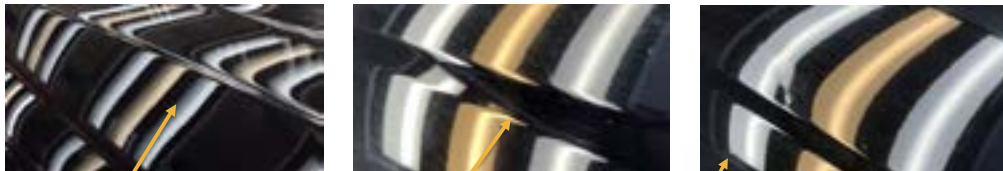
Surface Inspection Luminaire For Finish Lines



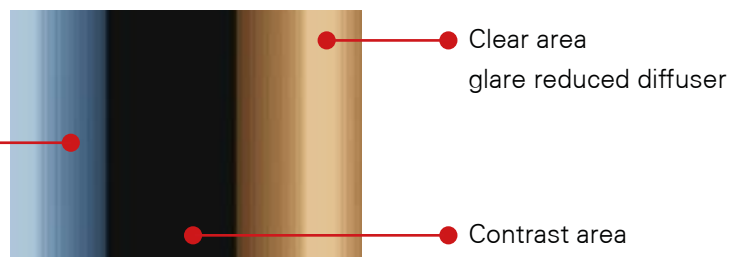
Open environment with drive-in nut



Closed workdeck with mounting frame



Prismatic area  
luminance transition  
reflexion on the body surface



## 1500 Lux



Using area: Sanding, polish  
Requirement lux: 1500 lux at 1m height  
Using luminaires: DZP 096O TBPR00 10K0 5FL 861554 3242689  
Luminaire wattage: 96 w  
Luminaire quantities: 16 pcs  
Line quantities: 4 ( Each line have 4 luminaires )

## 2500 Lux



Using area: Inspection workdeck (Audit) , finishing  
Requirement lux: 2500 lux at 1m height  
Using luminaires: DZP 096O TBPR00 10K0 5FL 861554 3242689  
Luminaire wattage: 96 W  
Luminaire quantities: 20 pcs  
Line quantities: 4 ( Each line have 5 luminaires )







# Dipled Zebra



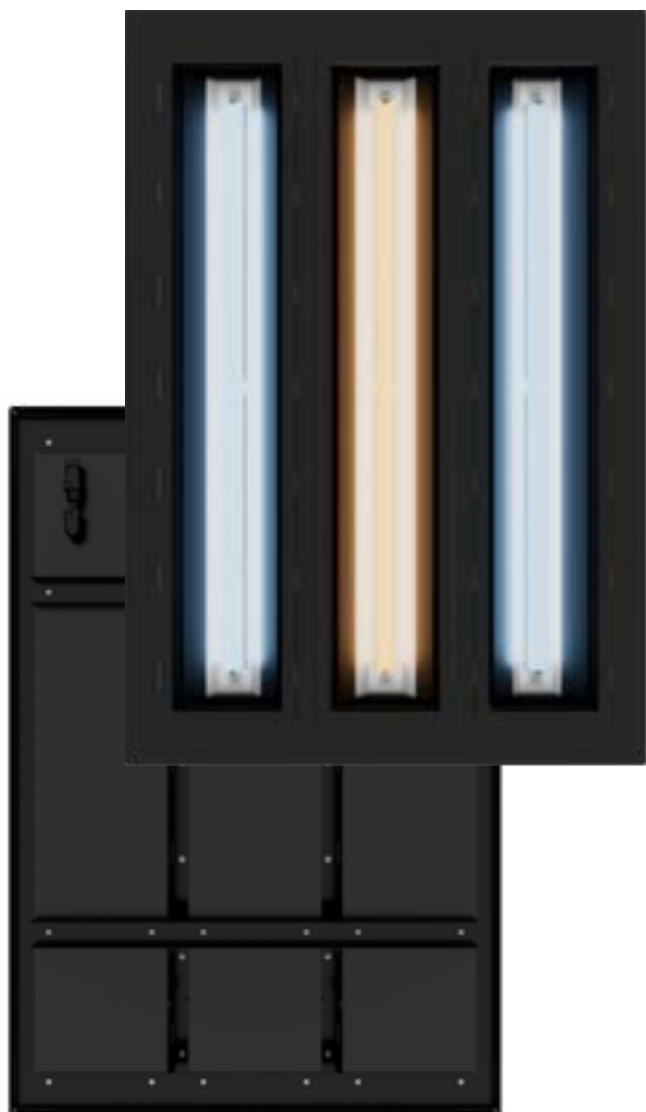


# Dipled Zebra



# Dipled Zebra

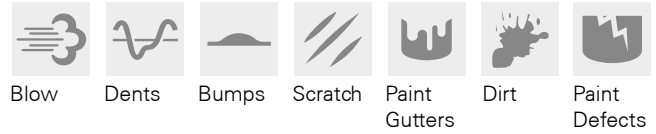
Floor Luminaire with floor fittings



The most basic principle of obtaining optimum efficiency from lighting in the automotive industry is that the light is sufficiently applicable. Dipled Zebra enables the improvement of surface quality thanks to its excellent light performance that meets the needs of the environment. Designed for use in the final control lines of the facilities, the product facilitates the detection of surface defects with its options that increase the working capacity.

The product, which takes its name from the light strips it creates on the vehicle surface, offers effective lighting performance for the defects on the surface. In this way, it is ensured that the errors between the strips can be detected quickly. With its body promising high durability, Dipled Zebra, which can be mounted in-built to the ground, is not affected by dust and water splashes that may occur on the line.

It protects eye health with its microprismatic reflector structure that keeps glare under control. The LEDs specially developed for the zebra effect provide homogeneous light distribution on the surface. The product in the finish line makes it easier to see the ripples, scratches and roughness that may occur on the automobile. Dipled Zebra is the reliable lighting solution of the automotive industry with its long service life as well as its ease of intervention and installation.



## Product Data

### Standard Features

Housing: Painted DKP sheet metal housing RAL 9005, silicone free  
 Diffuser: Opal diffuser, tempered glass cover  
 Optic: White powder coated reflector  
 IP grade: IP54  
 Installation: Floory inlay  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 67 W  
 Luminaire luminous flux: 8800 lm  
 Luminaire efficiency: Up to 131 lm / W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 475 mA  
 Correlated color temperature: 6500K - 4000K - 6500K  
 Color rendering index: Up to CRI 97  
 Connection type: Via harting 7 + PE Pol  
 Wiring: Internal through-wiring 7 x 2,5 mm

### Other Features & Conditions

Operating temperature range: -20 °C/+45 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

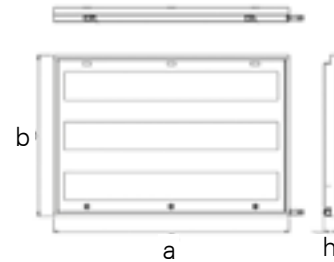
### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Atex 2,22 Version on request  
 UL version for us market  
 Emergency battery kit up to 3h on request



### Dimension (mm)

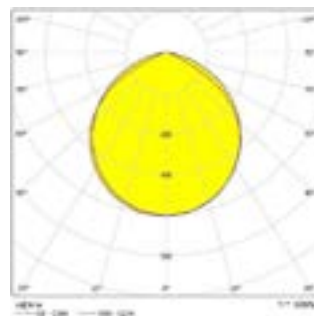
	a	b	h
Standard :	1444	999	120



### Weight (kg)

Standard: 70

### Photometric Curve



### Harting 7+ PE Pol Configuration

- Pin 1: L1 Driver For 3 Flames
- Pin 2: L2
- Pin 3: L3
- Pin 4: Free
- Pin 5: L5
- Pin 6: DALI+
- Pin 7: DALI-  
PE

# Assembly Line



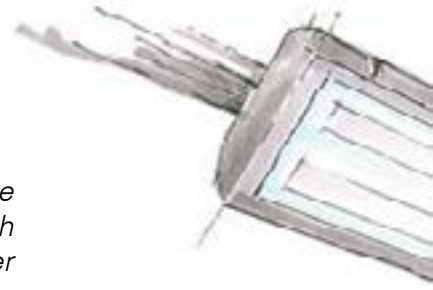
*Assembly Line is the cabin where all the parts required for the vehicle are joined and assembled. It is the area where different surface defects such as roughness, scratches and ripples that may occur on the body and other parts of the vehicle are detected.*

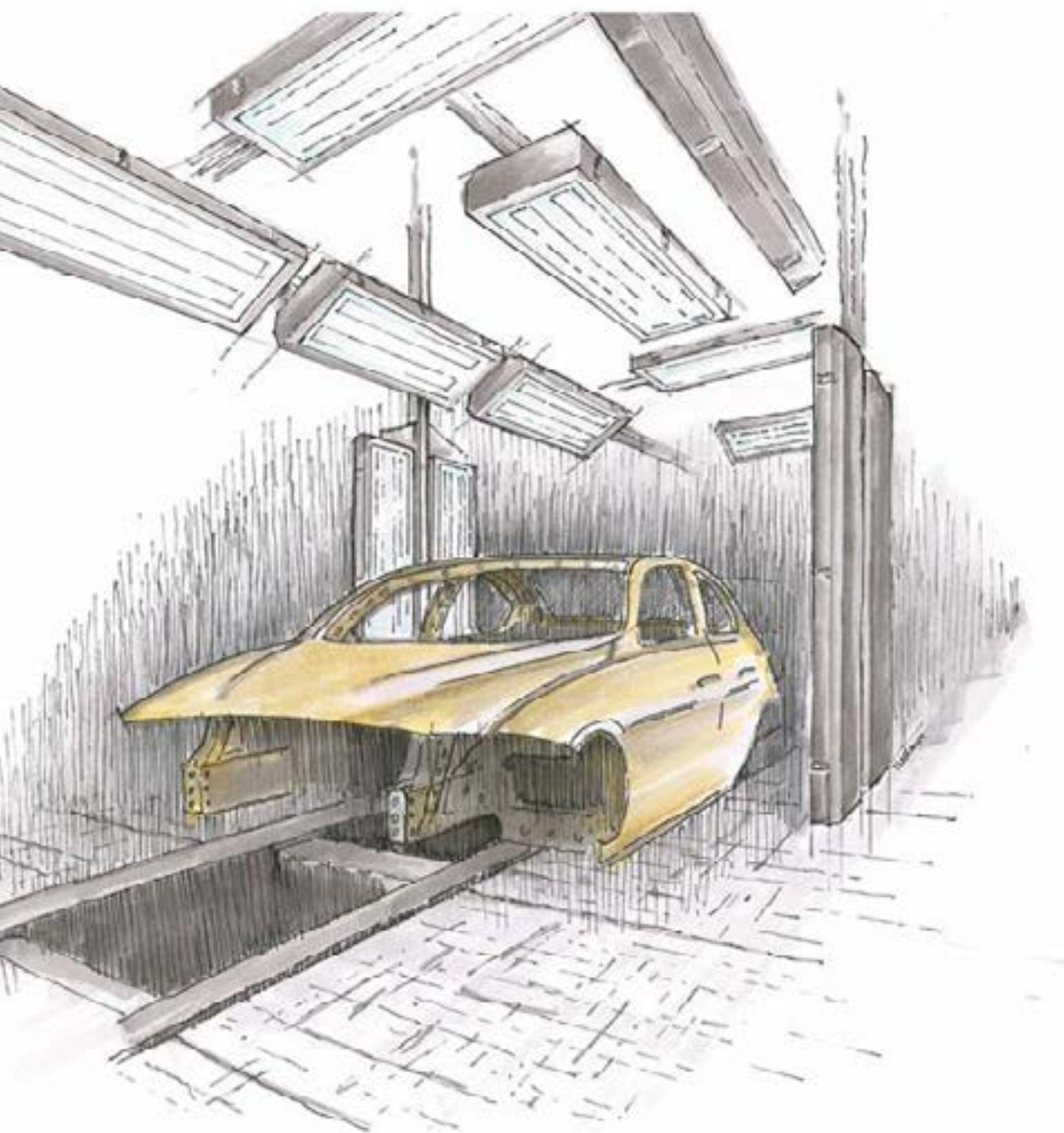
## ▶▶ Zebra Slim

Developed by EAE, Zebra Slim has been designed in accordance with the lighting needs of production and assembly areas in the automotive industry. The product reaches the required level of light, while making all possible defects on the surface visible with its high lighting performance. It is the perfect complement to the automotive industry with its energy-saving LEDs and advanced functions.

## ▶▶ Dipled Paint

Designed for the lighting needs of Assembly Line areas in the automotive industry, Dipled Paint can be used to detect different surface defects such as roughness, scratches and ripples that may occur on the rocker panel and underside of vehicle. Combining efficient energy consumption with ideal performance, the product guarantees a flawless surface experience.











# Zebra Slim





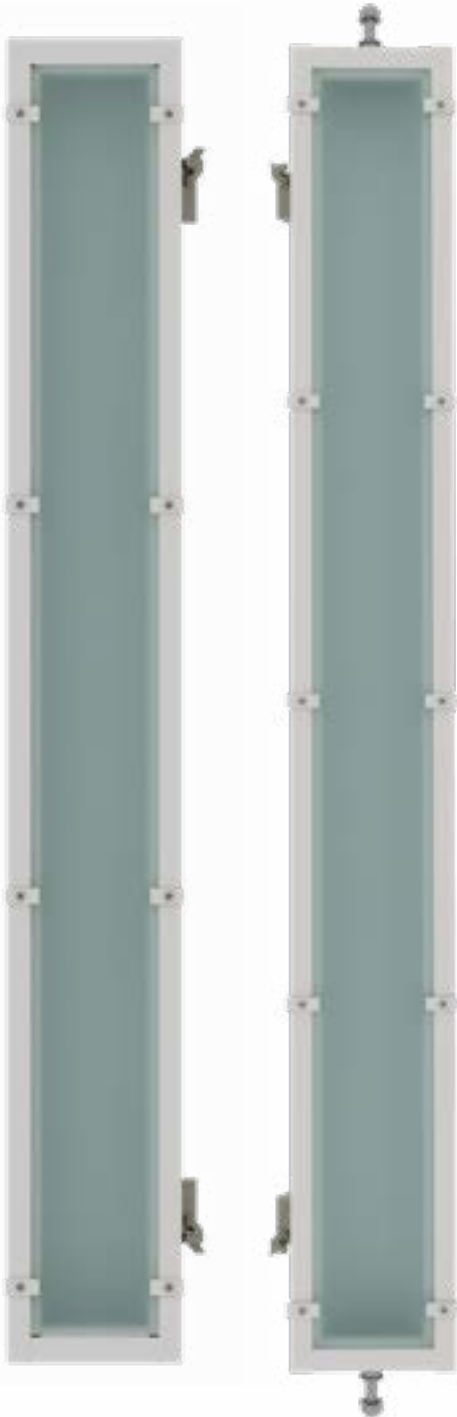


# Zebra Slim



# Zebra Slim

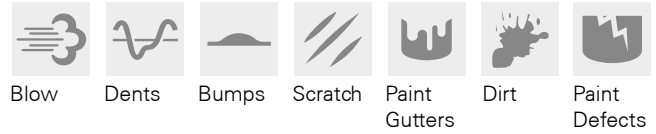
## Reflector Luminaire Back Mounting M8 Locking Nuts



Light is very important for seeing. However, excessive or insufficient use of light may cause problems in the detection process. Considering that the light comes into direct contact with the eye, the fixture to be selected in accordance with the ambient conditions will increase the visibility of the defects on the surface. At this point, Zebra Slim, which you can prefer in Assembly Line areas, is a very effective lighting solution for the eye to perceive the surface and environment with high performance, while bringing the environment to the required light level.

Developed by EAE, Zebra Slim has been designed in accordance with the lighting needs of Assembly Line areas in the automotive industry. The product is the perfect complement to the automotive industry with its advanced functions that make the surface visible. Zebra Slim, which is in the IP54 resistance class, promises long-lasting use with its dust- and splash-proof body. The product provides an economical lighting experience for Assembly Line areas with its energy-saving LEDs on it. The Symmetrical reflector, which allows the side surfaces of the vehicle in the line to be perceived more clearly, illuminates the surface homogeneously and brings the environment to the appropriate light level. It does not cause lighting pollution thanks to its diffuser structure that controls glare and efficient light transmission.

Zebra Slim can be mounted as pendant and on the surface with its body structure that can be adapted to different environmental conditions. Thanks to the Throuwiring feature of the products, feeding from one place will be sufficient for each line. While throuwiring, 4 different cabling structures as longitudinal, transverse, normal and T Plug can be used in order to prevent the complexity that may occur in the cabling structure. Thanks to this feature, it minimizes the assembly time without causing excessive wiring.



## Product Data

### Standard Features

Housing: Painted DKP sheet metal housing RAL 9010  
 Diffuser: Opal diffuser, Tempered glass  
 Optic: Symmetric white coated reflector  
 IP Grade: IP54  
 Installation: M8 locking nuts on the back  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 70 W  
 Luminaire luminous flux: 8400 lm  
 Luminaire efficiency: 120 lm/W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1 kV  
 Drive current: 475 mA  
 Correlated color temperature: 4000K  
 Color rendering index: Up to CRI 97  
 Connection type: Via harting 5 Pol  
 Wiring: Internal through-wiring 5 x 2,5 mm

### Other Features & Conditions

Operating temperature range: -20 °C/+45 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

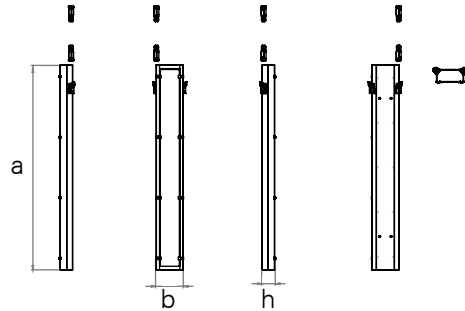
### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Atex 2,22 version on request  
 UL version for us market  
 Emergency battery kit up to 3h on request  
 Dimming Function on Request



### Dimension (mm)

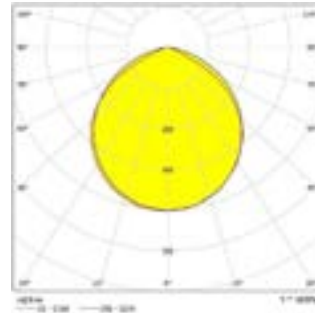
	a	b	h
Standard:	1560	400	80
Distance Between Fixing points:	860		



### Weight (kg)

Standard: 30

### Photometric Curve

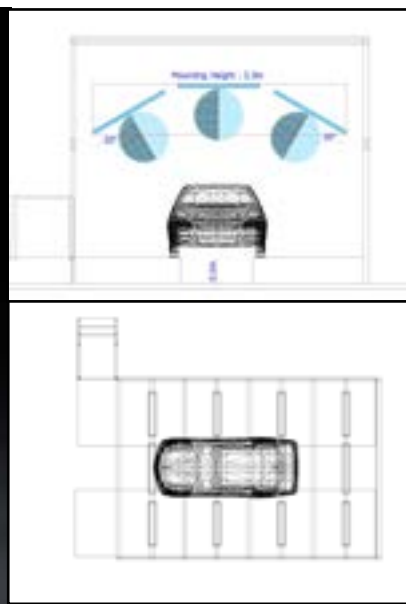


### Harting 5 + PE Pol Configuration

Pin 1: L1 Ballast  
 Pin 2: L2  
 Pin 3: L3  
 Pin 4: Free  
 Pin 5: N  
 PE

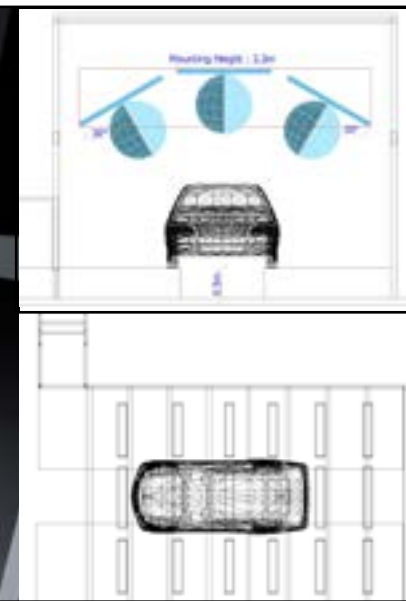
# Zebra Slim

## Zebra Slim Triple 600 Lux



Using Area: NAD-Robot, GAD-Robot, Maintenance Station, NAD-Manual SD, Skid Check, FAD-Robot, Plenum (Outside)  
Requirement Lux: 600 Lux at 1m Height  
Using Luminaires: DZS 032U 40ST00 4K40 5FL 1615054 AVR 3241384  
Luminaire Wattage: 32 W  
Luminaire Quantities: 12 Pcs  
Line Quantities: 4 ( Each ring has 3 luminaires )

## Zebra Slim Triple 1000 Lux



Using Area: Operating Resources, Masking, Set Plug, UBS-Manual, Insulation Mats  
Requirement Lux: 1000 Lux at 1 m Height  
Using Luminaires: DZS 032U 40ST00 4K40 5FL 1615054 AVR 3241384  
Luminaire Wattage: 32 W  
Luminaire Quantities: 18 Pcs  
Line Quantities: 6 ( Each Ring have 3 Luminaires )

## Zebra Slim Quinary 1000 Lux



Using Area: Sanding, Polish  
Requirement Lux: 1000 Lux at 1 m Height  
Using Luminaires: DZS 032U 40ST00 4K40 5FL 1615054 AVR 3241384  
Luminaire Wattage: 32 W  
Luminaire Quantities: 30 Pcs  
Line Quantities: 6 ( Each Ring has 5 luminaires )



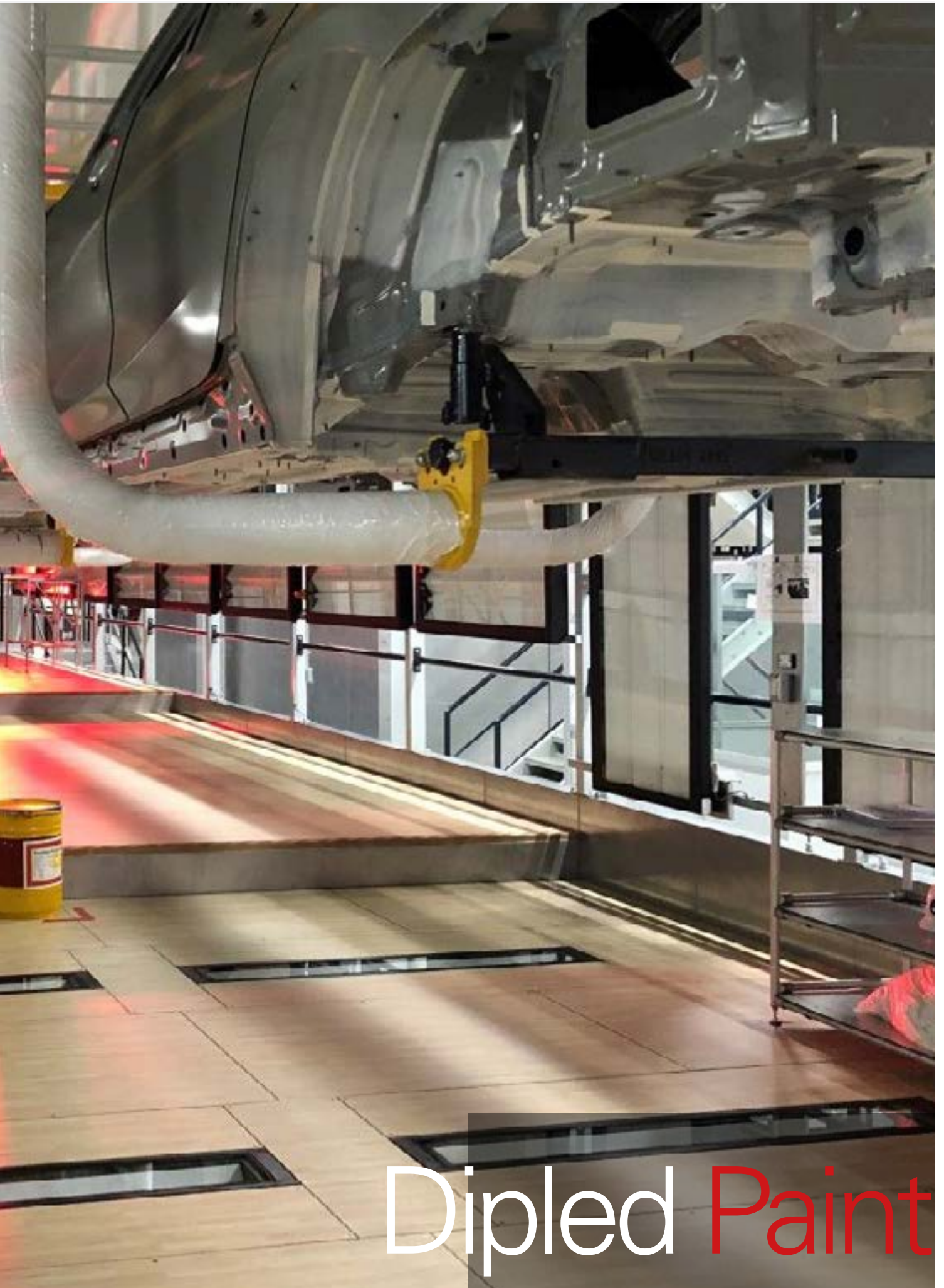




# Dipled Paint





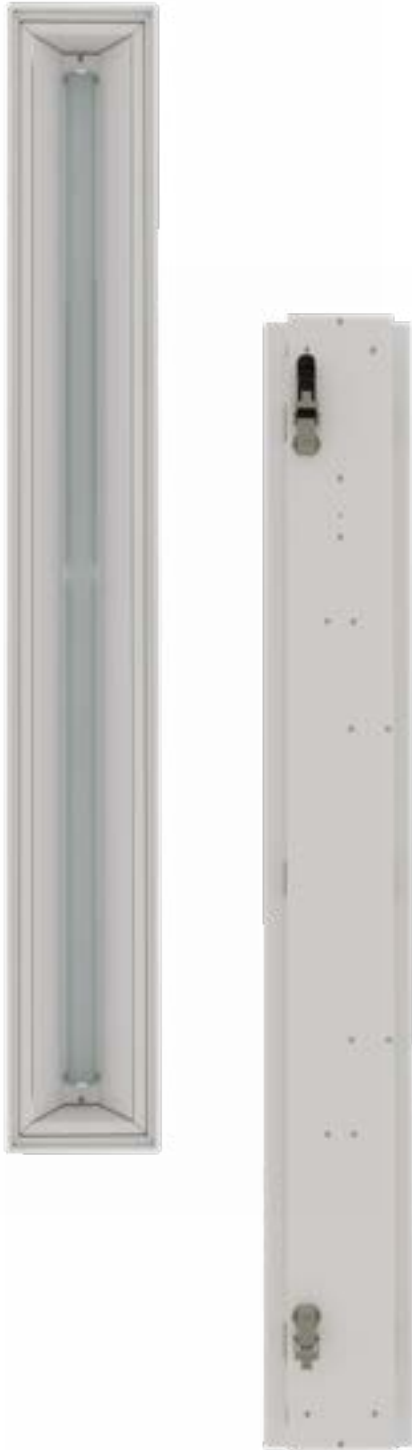


# Dipled Paint



# Dipled Paint

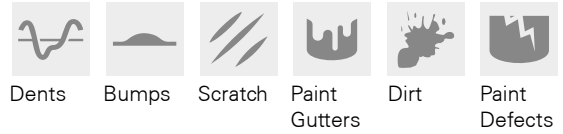
Floor Luminaire with floor fittings



The color, amount and direction of the light, which plays the leading role in choosing the lighting adequately and in accordance with the purpose, are as important as the structure of the surface. Quickness and efficiency in vision can be gained only with the right lighting preference.

Designed by EAE for the lighting needs of Assembly Line areas in the automotive industry, Dipled Paint takes its place among the complements of Surface Inspection with its superior light performance. Standing out with its minimal body design, the fixture offers a long-term guarantee of use with its body resistant to water splashes and dust on lines with harsh conditions. The product can be used to easily detect different surface defects such as roughness, scratches, and ripples that may occur on the rocker panel and underside of the vehicles.

Dipled Paint, which can be mounted in-built to the ground, has a LED structure designed as a single row. Combining efficient energy consumption with ideal performance, the product guarantees a flawless surface experience. It eliminates glare and facilitates homogeneous distribution of light. Dipled Paint also prevents light pollution with its advanced options that improve ambient lighting. Offering an effective appearance on the surface, the product is a suitable lighting solution for Assembly Line areas.



## Product Data

### Standard Features

Housing: Painted DKP sheet metal housing RAL 9010  
 Diffuser: Opal diffuser, tempered glass  
 Optic: Symmetric white coated reflector  
 IP Grade: IP54  
 Installation: Floory inlay luminaire  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 21 W  
 Luminaire luminous flux: 2230 lm  
 Luminaire efficiency: 106 lm/W  
 Input voltage: 220 - 240V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 475mA  
 Correlated color temperature: 4000K  
 Color rendering index: Up to CRI 97  
 Connection type: Via harting 5 Pol + PE pol crosswise + ACK  
 Wiring: Internal through-wiring 5 x 2,5 mm

### Other Features & Conditions

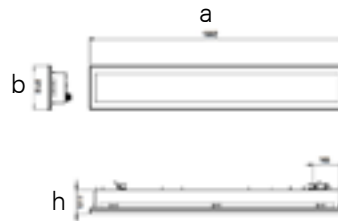
Operating temperature range: -20 °C/+45 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Atex 2,22 version on request  
 UL version for us market  
 Emergency battery kit up to 3h on request  
 Dimming function on request

### Dimension (mm)

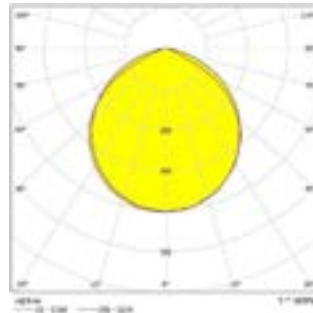
	a	b	h
Standard:	1602	212	115



### Weight (kg)

Standard: 38

### Photometric Curve



### Harting 5 + PE Pol Configuration

Pin 1: L1 Ballast  
 Pin 2: L2  
 Pin 3: L3  
 Pin 4: Free  
 Pin 5: N  
 PE



# Paintbooth Line



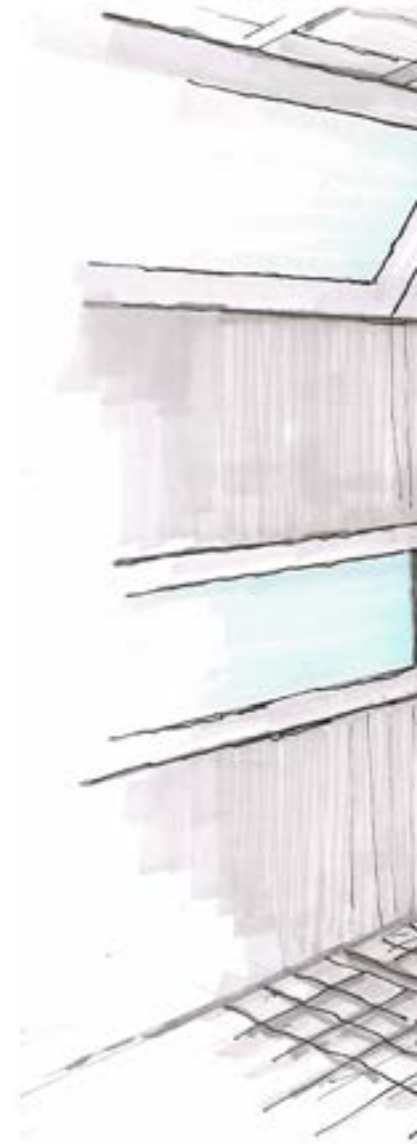
*Paintbooth Line is the area where all aspects of surface visibility are examined by applying paint to the vehicle structure. It is the line where defects such as roughness and scratches are detected, as well as errors such as ripples and excess paint on the surface during production.*

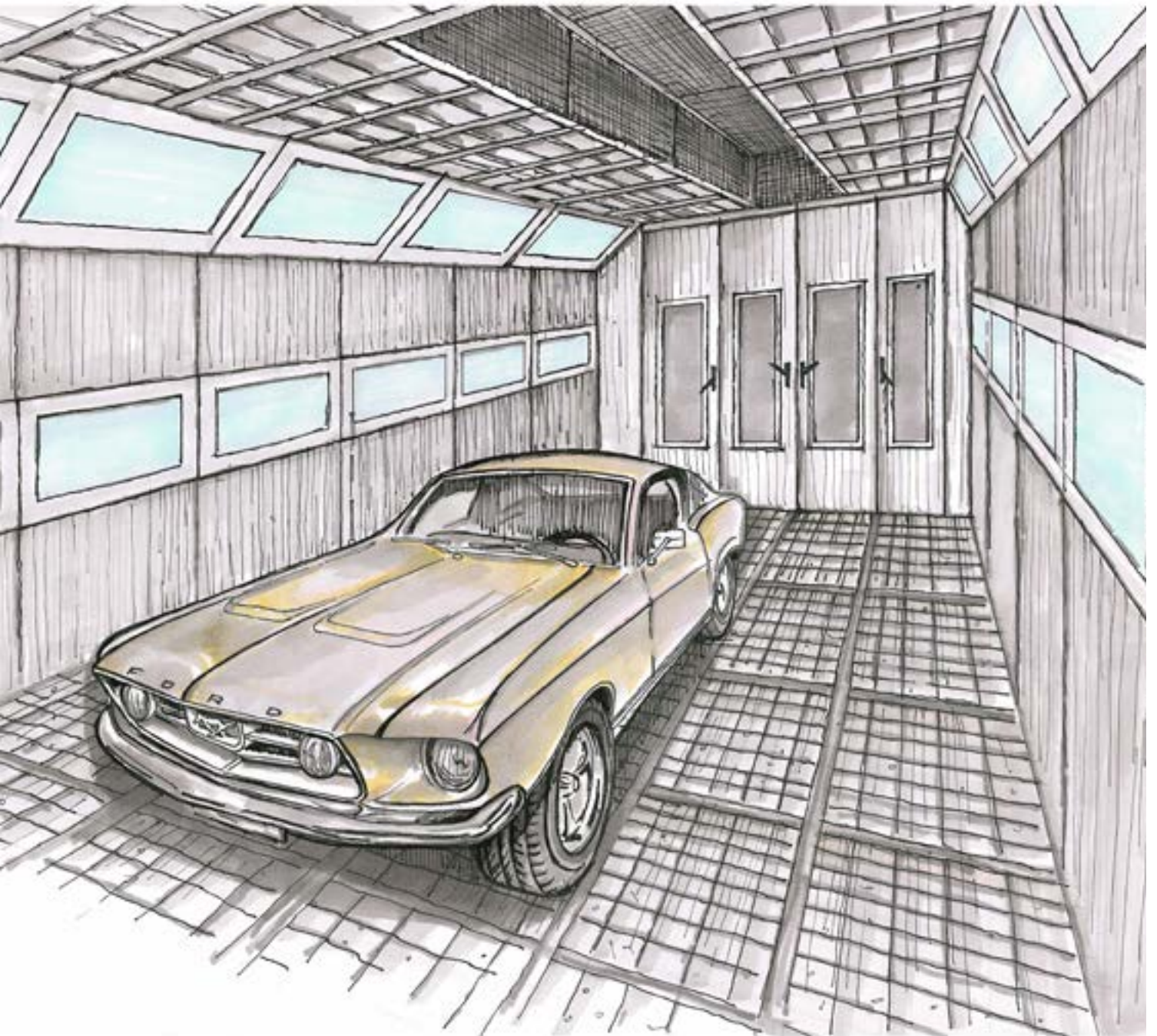
## ▶▶ Paint Eco

Paint Eco was developed for Paintbooth Line areas in the automotive industry where surface visibility is a priority. The product, which makes the surface details in the paint lines more visible, provides emission in the direction of light with the nature-friendly LEDs. It provides maximum control over paint-related defects such as roughness and ripples.

## ▶▶ Steril

Developed by EAE for all Paintbooth Line areas where sterile usage conditions are, the product can be easily flush mounted. The product, which is offered with different case and frame alternatives, provides an ideal lighting solution in accordance with standards in areas requiring high sensitivity. It provides high performance with its special structure that prevents dust from reaching the ceiling surface.











# Paint **Eco**





# Paint **Eco**



# Paint Eco

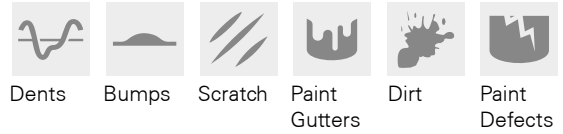
Spraybooth Luminaire Wall Integrated



Making the lighting correctly and in accordance with the standards increases the eyesight. Paint Eco, which enables visual performance to be transformed into efficiency, was developed for Paintbooth Line areas in the automotive industry where surface visibility is prioritized. It is the right option for the automotive industry that needs high lighting with its dust- and splash-proof body in IP54 resistance class.

Paint Eco, which can be offered in different versions according to the area of use, offers an explosion-proof lighting solution for use in hazardous environments with its Ex-proof version as well as the standard version. The product can be preferred in different ranges and versions according to the needs of the line used. Paint Eco, which can be easily flush mounted, has three alternatives, V, D and Z, suitable for different ceiling structures.

The product, which makes the surface details in the paint lines more visible, provides emission in the direction of light with the nature-friendly LEDs. Homogeneous distribution of light is very important, especially in the illumination of Paintbooth Line areas. Irregular lighting on the line will undoubtedly cause shadows on the surface appearance and reduce the efficiency of the operations to be performed on the vehicle surface. In this sense, Paint Eco spreads the light at the optimum level with its economical Power consumption and controlled lighting performance in the cabin. With all these positive aspects, Paint Eco provides control over paint-related defects.



## Product Data

### Standard Features

Housing: Painted DKP sheet metal housing RAL 9010  
 Diffuser: Opal diffuser, Tempered glass  
 Optic: Symmetric white coated reflector  
 IP Grade: IP54  
 Installation: Circumferential mounting frame  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 91 W  
 Luminaire luminous flux: 11000 lm  
 Luminaire efficiency: 120 lm/W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 475mA  
 Correlated color temperature: 4000K  
 Color rendering index: Up to CRI 97  
 Connection type: M20 Cable gland  
 Wiring: Internal through-wiring 5x2, 5mm

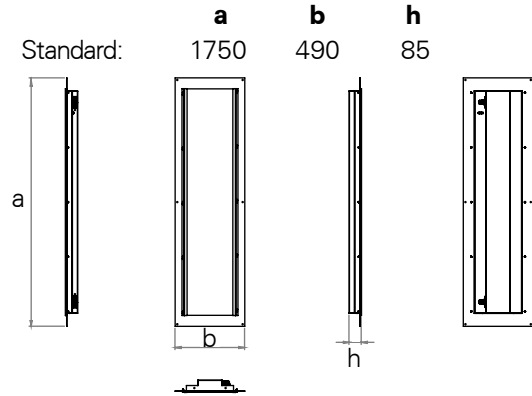
### Other Features & Conditions

Operating temperature range: -20 °C/+45 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Atex 2,22 version on request  
 UL version for us market  
 Emergency battery kit up to 3h on request  
 Dimming function on request

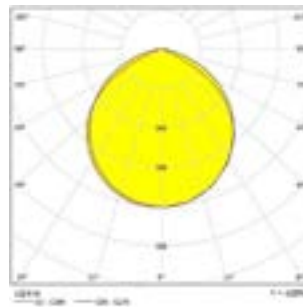
### Dimension (mm)



### Weight (kg)

Standard: 35

### Photometric Curve



### Internal Terminal Configuration

Pin 1: L1 Ballast  
 Pin 2: L2  
 Pin 3: L3  
 Pin 4: N  
 Pin 5: PE







# Steril



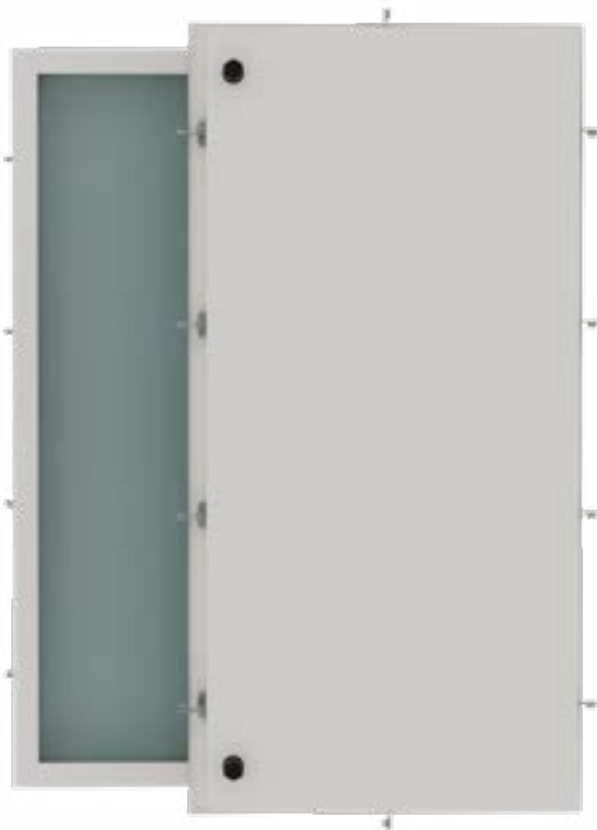




# Steril

# Steril

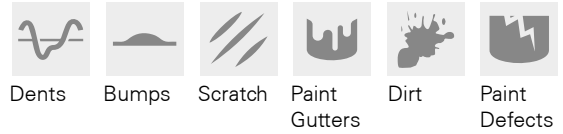
Cleanroom Luminaire integrated



Developed by EAE for Paintbooth Line areas where sterile usage conditions are, the product can be easily flush mounted. Sterile, which is offered with different case and frame alternatives, provides an ideal lighting solution in accordance with standards in areas requiring high sensitivity. The product provides high performance with its special structure that prevents dust from reaching the ceiling surface.

Thanks to its double-sided design, possible malfunctions that may occur in the fixture can be easily intervened. The product, which is in the IP54 resistance class, provides protection against dust, foreign matter and water splashes. Sterile provides high lighting efficiency thanks to its Mid power LED, while bringing the advantage of low cost. In addition, the tempered glass prevents accidents that may occur during breakage.

Offering a high Color rendering index, the product fits perfectly in sterile areas. Optional DALI control and emergency lighting kit is activated in case of possible interruptions and continues to support lighting with a service time of more than 50,000 hours. Sterile has been developed for project conditions at ambient temperatures from -20 °C to +45 °C.



## Product Data

### Standard Features

Housing: Painted DKP sheet metal housing RAL 9010  
 Diffuser: Satinated tempered glass cover  
 Optic: Symmetric white coated reflector  
 IP Grade: IP54  
 Installation: Fittings for recessed installation  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 117 W  
 Luminaire luminous flux: 13500 lm  
 Luminaire efficiency : 115 lm/W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 475mA  
 Correlated color temperature: 4000K  
 Color rendering index: Up to CRI 97  
 Connection type: Cable gland M20  
 Wiring: Internal through-wiring 5x2, 5mm

### Other Features & Conditions

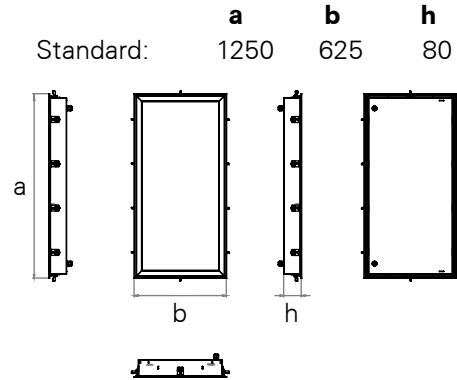
Operating temperature range: -20 °C/+45 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Atex 2,22 version on request  
 UL version for us market  
 Emergency battery kit up to 3h on request  
 Dimming function on request



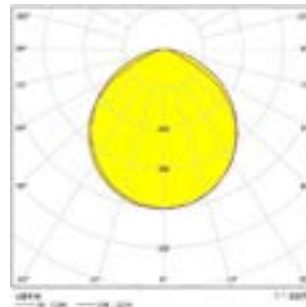
### Dimension (mm)



### Weight (kg)

Standard: 34

### Photometric Curve



### Internal Terminal Configuration

Pin 1: L1 Driver  
 Pin 2: L2  
 Pin 3: L3  
 Pin 4: N  
 Pin 5: PE



# Spraybooth Line



*Spraybooth Line areas, where paint is applied to components and parts of the vehicle, is the line where paint-related defects such as roughness and ripples that cannot be detected on the surface are examined in detail.*

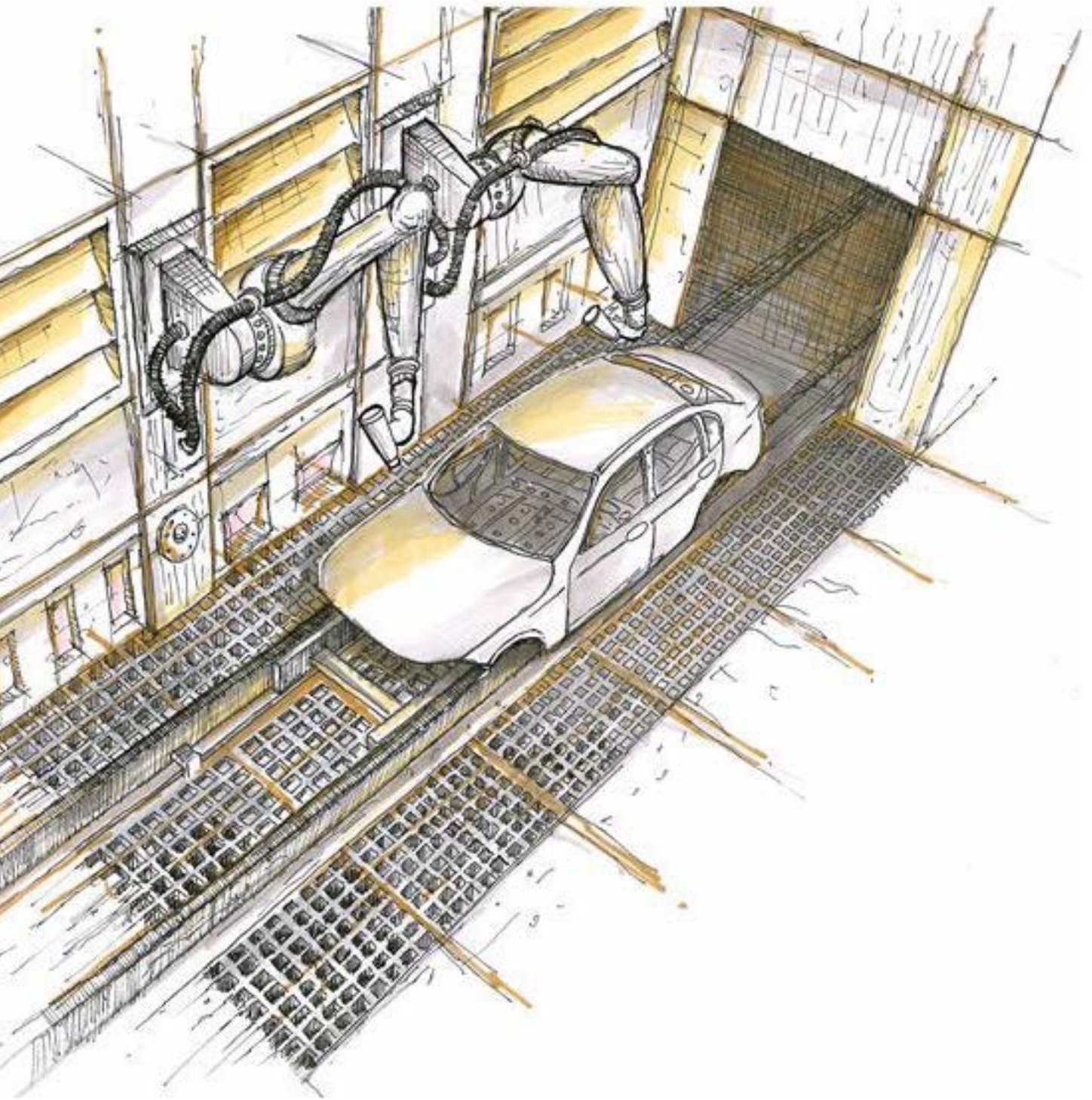
## ▶▶ Cabin Pro

Cabin Pro was designed especially considering the challenging environmental conditions in the automotive industry. The product, which meets to the lighting needs of Spraybooth Line areas, makes the paint defects that may occur on the surface visible. It offers solution-oriented lighting in the detection of defects that may occur in Spraybooth Line cabins in the automotive industry.

## ▶▶ Paint Pro

Paint Pro by EAE is designed for Spraybooth Line areas. It minimizes the error rate by making the paint defects on the vehicle surface more visible. Aiming for a flawless surface appearance with its perfect light performance, the product meets the lighting needs of the automotive industry in the best way possible.









# Cabin Pro







# Cabin Pro

# Cabin Pro

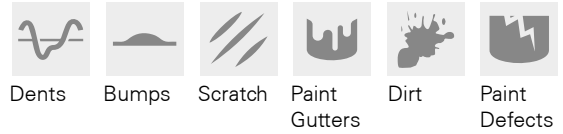
Spraybooth Luminaire For Glass Panels Fittings Are Included



Today, it is very important for working environments to have lighting designs that prioritize eye health. EAE Cabin Pro developed by EAE was designed especially considering the challenging environmental conditions in the automotive industry. The product, which meets to the lighting needs of Spraybooth Line areas, comes to the fore with its advanced lighting performance. It makes the defects that cannot be detected with the naked eye visible by facilitating to detect the paint defects that may occur on the vehicle surface.

The body structure of Cabin Pro, which has two different versions as standard and Ex-proof, can vary according to the fluorescent size used. The product can be offered with different size case alternatives suitable for Refit projects. When installed in accordance with the environment, it reaches IP54 level and offers high resistance against dust and water splashes. The advanced body structure of the product easily overcomes challenging environmental conditions. Thanks to its symmetrical angle, it distributes the light evenly on the vehicle surface, while its Asymmetrical angle concentrates the light on the surface in a single direction. In this way, it makes possible the visibility of roughness, scratches and especially paint defects on the car surface. In addition to its ability to distinguish details, it provides homogeneous light distribution and high efficiency light distribution with its Opal diffuser that controls glare. The product can be easily repaired as it can be easily intervened from the front and back.

Cabin Pro, which is suitable for project areas at ambient temperatures from -20 °C to +45 °C, offers solution-oriented lighting with its effective power in detecting surface defects that may occur in Spraybooth Line areas in the automotive industry.



## Product Data

### Standard Features

Housing: Painted DKP sheet metal housing RAL 9010  
 Diffuser: Opal diffuser  
 Optic: Asymmetric white coated reflector  
 IP Grade: IP54 with appropriate installation condition  
 Installation: Surface mounting with fittings  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 105 W  
 Luminaire luminous flux: 12000 lm  
 Luminaire efficiency: 114 lm/W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 475mA  
 Correlated color temperature: 4000K  
 Color rendering index: Up to CRI 97  
 Connection type: M20 Cable gland  
 Wiring: Internal through-wiring 5x2, 5mm

### Other Features & Conditions

Operating temperature range: -20 °C/+45 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

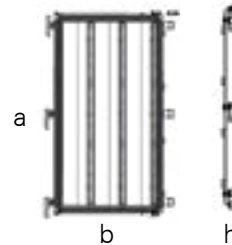
### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Atex 2,22 version on request  
 UL version for us market  
 Emergency battery kit up to 3h on request  
 Dimming function on request



### Dimension (mm)

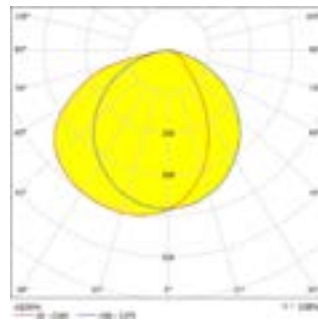
	<b>a</b>	<b>b</b>	<b>h</b>
Standard:	1560	860	90



### Weight (kg)

Standard: 35

### Photometric Curve



### Harting 5 + PE Pol Configuration

Pin 1: L1 Ballast  
 Pin 2: L2  
 Pin 3: L3  
 Pin 4: Free  
 Pin 5: N  
 PE







# Paint Pro





# Paint Pro



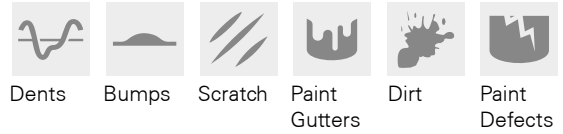
# Paint Pro

Spraybooth Luminaire wall integrated



It is of great importance that the light creates the desired effect in accordance with its target with minimum energy consumption. Especially in the automotive industry, choosing lighting for the needs plays an important role in increasing both work efficiency and the ability of the eye to see. Paint Pro, bearing the EAE signature, is designed for spray booths on paint lines. The product, which makes the paint defects on the vehicle surface more visible, minimizes the error rate. Offering many years of use with its durable body structure, the product is presented to the user in two different versions as standard and Ex-Proof.

Paint Pro, which is resistant to splashes and impacts, provides high lighting efficiency thanks to its wide lumen package and Mid power LED. With its glare-controlling diffuser, it helps the light to spread homogeneously on the vehicle surface. Aiming for a flawless surface appearance with its light performance that eliminates visual illusions, the product perfectly meets the lighting needs of the automotive industry. Paint Pro, which has two different versions including Asymmetrical and symmetrical, facilitates the detection of paint errors, scratches and ripples with its balanced light transitions. The product, which has two different mounting types, with and without a frame, can be placed as surface-mounted and flush-mounted.



## Product Data

### Standard Features

Housing: Painted DKP sheet metal housing RAL 9010  
 Diffuser: Opal diffuser, tempered glass cover  
 Optic: Asymmetric white coated reflector  
 IP Grade: IP54  
 Installation: 40mm circumferential mounting frame  
 Light source: Mid-power LED

### Optical & Electrical Features

Power consumption: 105 W  
 Luminaire luminous flux: 12000 lm  
 Luminaire efficiency: 114 lm/W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 475mA  
 Correlated color temperature: 4000K  
 Color rendering index: Up to CRI 97  
 Connection type: Via harting 7 + PE pol  
 Wiring: Internal through-wiring 7 x 2,5mm

### Other Features & Conditions

Operating temperature range : -20 °C/+45 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

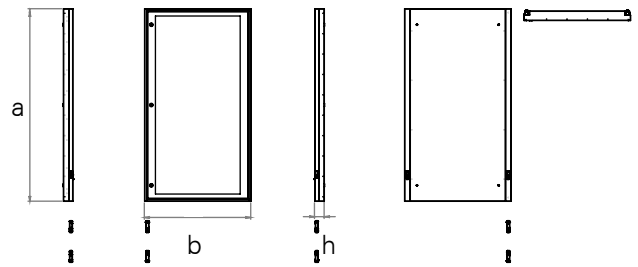
### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Atex 2,22 version on request  
 UL version for us market  
 Emergency battery kit up to 3h on request  
 Dimming function on request



### Dimension (mm)

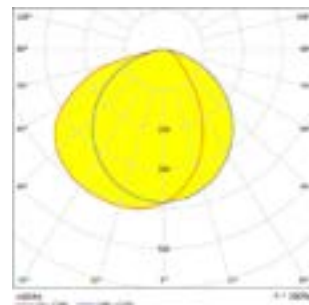
	a	b	h
Standard:	1560	860	75
With Frame:	1640	940	75



### Weight (kg)

Standard: 40

### Photometric Curve



### Harting 7 + PE Pol Configuration

Pin 1: L1 Ballast  
 Pin 2: L2  
 Pin 3: L3  
 Pin 4: Free  
 Pin 5: N  
 Pin 6: DALI +  
 Pin 7: DALI -  
 PE

# KTL Line



*KTL Line is the area where the entire body structure of the vehicle under production is colored by dipping it into the paint pool. After the process in this area, the possible paint-related errors on the entire body surface can be detected in detail.*

## ▶▶ Galis

Galis, with its high IP-protective body, is ideal for using in wet and moist areas. Its front surface, with sanded and transparent glass options, is tempered against breaking and cracking. May be serially wired by through wiring. It is the optimum solution for projects that need a balanced combination of economy and functionality.

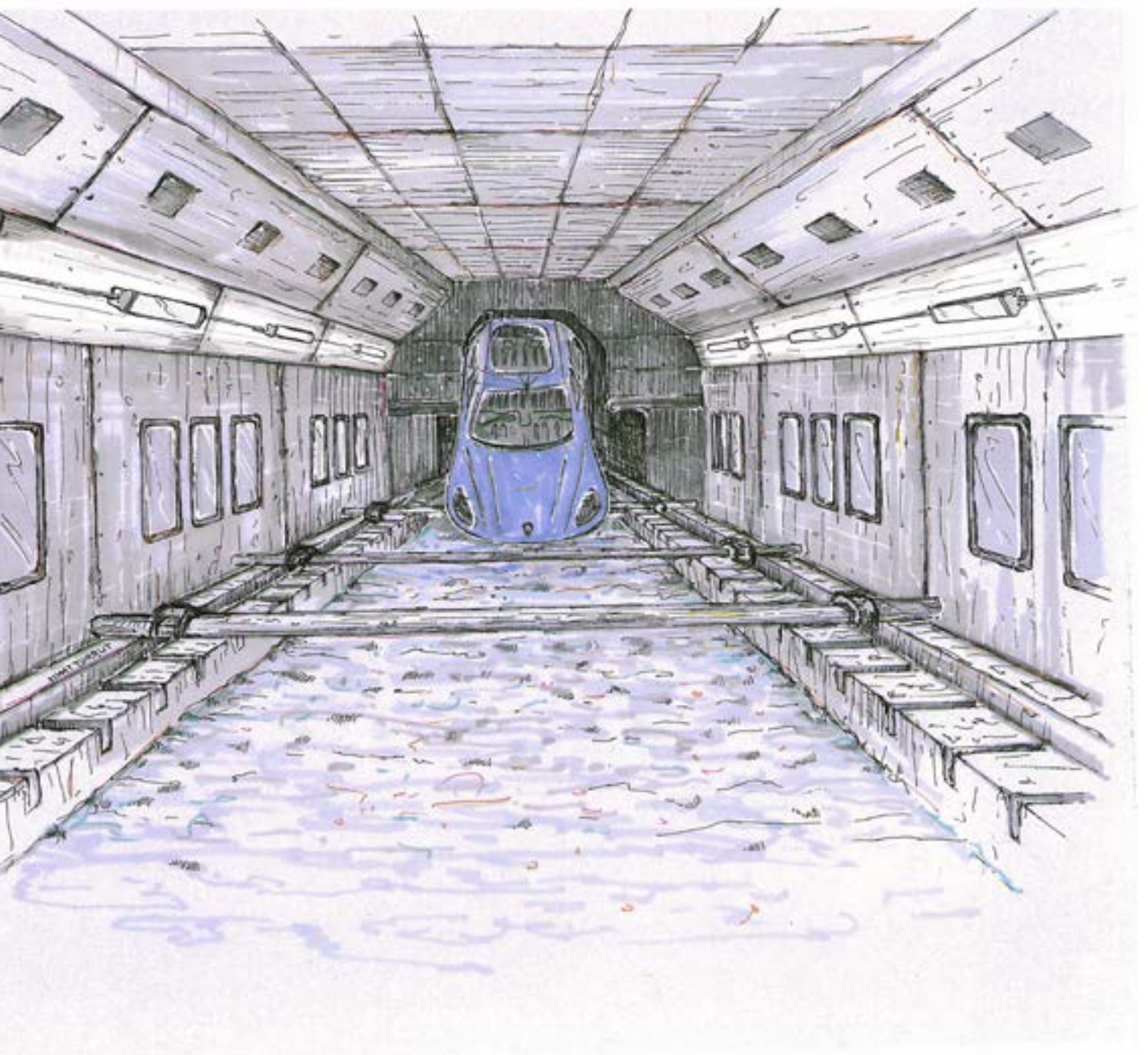
## ▶▶ Cozar

Cozar's integrated, body structure produced with a special method, composed of PC material, offers a minimal display. Body cover structure without details ensures a high IP protection class. Offering different lumen package and size options, Cozar is the optimal lighting solution for the areas that need etange lighting.

## ▶▶ Lina

With its LED infrastructure updated according to the latest technology and its high IP protected body, it offers an optimal lighting solution in moist and dusty environments. It provides ease of assembly and intervention in hard-to-reach areas. Fixture replacement is quick and easy thans to the flexible mounting spring that can move on the body.











# Galis





Galis



# Galis

Waterproof Luminaire For KTL Line



Galis works flawlessly for many years under challenging conditions with its dust-proof body that provides protection against high pressure water that may come from all directions. The product, which has standard and mini body options, is ideal for immersion in KTL Line areas, especially for use in wet and moist environments. It plays an effective role in the general lighting of the environment during the immersion process in the line environment.

Thanks to efficient and environmentally friendly LED technology, it saves up to 70%. Galis, which offers fast and easy electrical connection with the sleeve, is fast to install with its flexible mounting spring that can move on the body. Its tempered front surface against breakage and cracking is resistant to impacts. The product, which can be wired as Through Wiring series, meets the general lighting needs of the automotive industry in the best way.

In addition to the KTL Lines in the finish lines, it can be used in many application areas such as composite structures, logistics facilities, ports & shipyards and rail systems. Galis can also be offered with DALI control / 1H-3H emergency kit / uninterrupted continuation feeding options.





## Product Data

### Standard Features

Housing: Aluminium extrusion housing  
 Diffuser: Transparent glass  
 IP Grade: IP66  
 Installation: Surface mounted  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 51.5 W  
 Luminaire luminous flux: 7580 lm  
 Luminaire efficiency: 147 lm/W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 350mA  
 Correlated color temperature: 4000K  
 Color rendering index: >80

### Other Features & Conditions

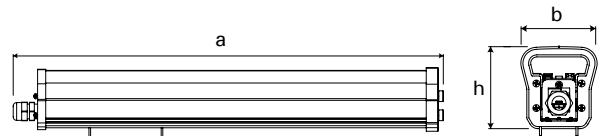
Operating temperature range : -20 °C/+40 °C  
 Impact resistance: IK 07  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Colour rendering index (CRI) up 97  
 Emergency battery kit up to 3h on request  
 Dimming function on request

### Dimension (mm)

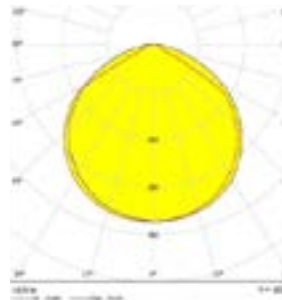
	<b>a</b>	<b>b</b>	<b>h</b>
Standard:	1489	76	70,5



### Weight (kg)

Standard : 4.3

### Photometric Curve







# Cozar





Cozar



# Cozar

Waterproof Luminaire For KTL Line



Developed with a special production technique, Cozar displays a minimal appearance in KTL Line areas with its body and diffuser made of PC material. The product, which is in the IP65 class, ensures long-term use in challenging environmental conditions. Offering flexible mounting possibilities with its movable mounting spring, Cozar facilitates installation in project areas with different conditions.

Cozar, which saves a lot of time with its fast electrical connection, meets the lighting performance required by KTL Line lines in the best way. Offered with different lumen and size options, the product prevents excessive contrast with its economical Power consumption and high efficiency light.

With DALI control / 1H-3H emergency kit / continuous feed options, Cozar is a lighting solution for many different industries, where lighting is needed, especially the automotive industry.



## Product Data

### Standard Features

Housing: Coextrusion housing  
 Diffuser: PC Diffuser  
 IP Grade: IP65  
 Installation: Surface mounted  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 51.6 W  
 Luminaire luminous flux: 6467 lm  
 Luminaire efficiency: 125.3 lm/W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 350mA  
 Correlated color temperature: 4000K  
 Color rendering index: >80

### Other Features & Conditions

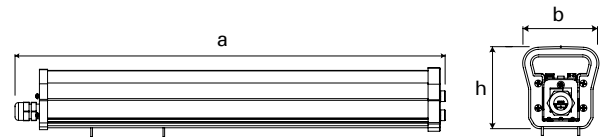
Operating temperature range : -20 °C/+40 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Colour rendering index (CRI) up 97  
 Emergency battery kit up to 3h on request  
 Dimming function on request

### Dimension (mm)

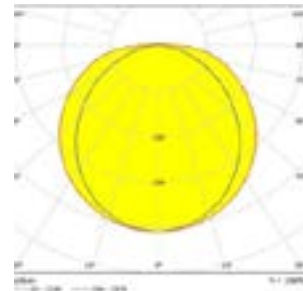
	<b>a</b>	<b>b</b>	<b>h</b>
Standard:	1489	76	70,5



### Weight (kg)

Standard : 2,2

### Photometric Curve







# Lina







# Lina

# Lina

Waterproof Luminaire For KTL Line



With its LED infrastructure updated according to the latest technology, Lina offers the optimum lighting solution for KTL Lines of the automotive industry. With its high IP-protective body, it is suitable for general lighting of project areas with dust and moisture. Offering a safe lighting solution compared to traditional systems, Lina provides maximum energy savings with its efficient structure reaching 140 lm/W.

The product, which has two different body options including standard and mini, can be preferred in different sizes according to the needs of the project areas. The fixture offers a high level of visual comfort with its homogeneous light emanating from its Opal diffuser. Lina, which shows high performance in general lighting of KTL Line areas, makes changing the fixtures easy with its movable mounting spring.

In addition to the quick electrical connection & ST / MR sleeve options, the product can be offered with DALI control / 1H-3H emergency kit / Sensor / uninterrupted continuation feeding options.



## Product Data

### Standard Features

Housing: Aluminium extrusion housing  
 Diffuser: Glare controlled opal diffuser  
 IP Grade: IP65  
 Installation: Surface mounted  
 Light source: Mid power LED

### Optical & Electrical Features

Power consumption: 53.6 W  
 Luminaire luminous flux: 7311 lm  
 Luminaire efficiency: 136.3 lm/W  
 Input voltage: 220 - 240 V  
 Frequency: 50-60 Hz  
 Power factor: >0,9  
 Surge transient protection: 1kV  
 Drive current: 350mA  
 Correlated color temperature: 4000K  
 Color rendering index: >80

### Other Features & Conditions

Operating temperature range : -20 °C/+40 °C  
 Impact resistance: IK 09  
 Lifetime - L80: > 50.000 Hours @Ta= 45 °C

### Available Product Types

Different light colours: 3000K - 6500K  
 Different connector variants  
 Colour rendering index (CRI) up 97  
 Emergency battery kit up to 3h on request  
 Dimming function on request

### Dimension (mm)

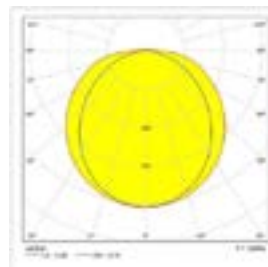
	<b>a</b>	<b>b</b>	<b>h</b>
Standard:	1560	65	83



### Weight (kg)

Standard : 2.8

### Photometric Curve



# EAE Group at a glance

EAE Group which started its sector journey with EAE Elektrik in 1973 is a preferred brand in the international market. EAE has grown rapidly since the first day of its establishment and has gradually expanded its production as well as fields of activity in different sectors.



LED Lighting & Fixtures



Rack Cabinets & LV Enclosures



Busbar Power Distribution Systems



Fit-Out Solutions



Cable Trays & Support Systems



Building & Lighting Automation Systems

## Key facts EAE Group

EAE is one of the global leader in the area of busbar power distribution systems and in the electrical products market.



founded in  
**1973**



**2,500** employees  
more than **+500**  
engineers and  
technical experts

Export to more than  
**+ 100** countries



Appx. **280,000** m<sup>2</sup>  
closed  
manufacturing area



**3**  
in-house  
R&D centers



more than **30**  
patents  
over **300** brands  
over **500** industrial  
designs

**6**

factories



## Certificates

It continues its production activities in accordance with ISO 9001 Quality Management, ISO 14001 Environmental Management, ISO 45001 Occupational Health / Safety, ISO 50001 Energy Systems Management and ISO 27001 Information Security Management Systems Standards. The conformity of the electrical products it produces to world standards has been documented as a result of the tests carried out by DEKRA and CESI laboratories.



## EAE worldwide



EAE Companies



EAE Offices



EAE Distributors

## EAE Group Companies



**EAE Lighting**  
LED Lighting Products



**EAE Elektrik**  
Electrical Power Distribution Systems



**EAE Elektrotechnik**  
LV Enclosures



**EAE Technology**  
Lighting and Building Automation



**EAE Machinery**  
Steel Sheet Forming Machinery



**EAE Italy**  
Group Products European Sales and Marketing Center



**EAE Germany**  
Group Products Sales and Marketing Center



**EAE USA**  
Busbar, Cable Tray and Lighting Luminaires



**EAE Australia**  
Busbar and Lighting Luminaires





**EAE LIGHTING Inc.**  
Ikitelli Organize Sanayi Bolgesi  
Eski Turgut Ozal Caddesi No: 20  
Basaksehir / ISTANBUL - TURKEY  
Tel : +90 212 413 21 00 (pbx)  
Faks : +90 212 549 37 90  
[www.eaelighting.com](http://www.eaelighting.com)



EAE LIGHTING - Brochure Surface Inspection - Update: 11.04.2022

EAE is provided with the right to perform changes deemed necessary without notifying in advance. Please contact us for further information about products and details partaking in catalogue.

*engineering the light*