



# MINO 60 system

ceiling/ suspended

**EN** Luminaire housing from extruded aluminium profile, angular design; no visible screws; for lighting systems; powder coated; luminaire profile for mounting available in advance; remaining components mounted without tools; pendant fitting with cable suspension; height adjustment without tools; spring clip attachment to the luminaire; with feeder cable; light inset consisting of highly reflective coated extruded profile for improved thermal management; option: lighting module is versatile in length; HPO (High Performance Opal) cover for uniform illumination; micro prismatic PMMA diffuser incl. diffuser film for homogeneous illumination and reduced luminance; wallwasher light inset; energy-eff. LEDs – very good colour rendering

**FR** Corps de luminaire en profil extrudé en alu, version arête ; aucune vis visible ; pour les systèmes d'éclairage ; thermolaquée ; Profilé de luminaire pour montage livrable avant ; composants restants montable sans outil ; suspension par câble ; réglage en hauteur sans outil ; fixation au luminaire au moyen de clips à ressort ; conduit d'alimentation inclus ; élément lumineux composé de profilé extrudé laqué hautement réfléchissant pour une gestion thermique améliorée ; en option module d'éclairage raccourcissable de manière flexible ; cache HPO (High Performance Opal) pour éclairage homogène ; cache PMMA microprismatique, avec film diffusant inclus pour réduire la brillance avec un éclairage homogène ; module d'éclairage wallwasher ; LED à haut rend. éner. – excellent rendu coul.

## Quickinfo

3000 K, 4000 K, TW  
 CRI ≥ 80, CRI ≥ 90, 3 SDCM  
 up to 2750 lm/m  
 up to 146 lm/W  
 L90 @ 50 000 h  
 non DIM, DALI-2  
 opal, microprismatic (UGR ≤ 19)

## Types



## Colours



## Light distributions



DiiA® standards  
251, 252, 253



single luminaire



wallwasher inset



concrete install. housing



flexible inset



microprismatic UGR ≤ 19



tunable white  
2700–6500 K



CRI ≥ 98  
XPECTRUM

## Order options

| LED TYPE   |   |
|------------|---|
| mid lumen  | L |
| high lumen | M |

| COLOUR TEMPERATURE         |   |
|----------------------------|---|
| 3000 K (CRI $\geq$ 90)     | 0 |
| 4000 K (CRI $\geq$ 90)     | 1 |
| 3000 K (CRI $\geq$ 80)     | 5 |
| 4000 K (CRI $\geq$ 80)     | 6 |
| tunable white 2700–6500 K* |   |

\*DALI-2 DT8

| CONTROL                  |   |
|--------------------------|---|
| non DIM                  | 1 |
| DALI-2 (only high lumen) | 3 |

| MATERIAL COLOUR            |   |
|----------------------------|---|
| ○ pure white RAL 9010      | 7 |
| ● white aluminium RAL 9006 | G |
| ● jet black RAL 9005       | 8 |
| ● special colours          | X |

| LIGHT OPTIC COVER               |   |
|---------------------------------|---|
| opal high performance           | H |
| microprismatic                  | Z |
| microprismatic (UGR $\leq$ 19)* | G |
| blind cover only for corner 90° | B |

\*UGR $\leq$ 19 only with mid lumen

| EMERGENCY LIGHT |   |
|-----------------|---|
| 1h Accupack     | 1 |
| 3h Accupack     | 3 |

## Options on request

| COLOUR RENDERING INDEX |
|------------------------|
| CRI $\geq$ 98 XPECTRUM |

| CONNECTORS         |
|--------------------|
| X- and T-connector |

LUMINOUS FLUX value calculated for  
CRI $\geq$ 80, colour white, cover opal  
microprismatic -13%

## MINO 60 ceiling/suspended

### INSTALLATION CHANNEL / CORNER 90°

| TYPE                       | L (mm)  | ORDER CODE |
|----------------------------|---------|------------|
| channel                    | 1172    | 046-400401 |
| channel                    | 1472    | 046-400501 |
| channel                    | 3000    | 046-400901 |
| channel                    | custom  | E85031     |
| channel corner 90° + cover | 150x150 | 046-401121 |

### LIGHT OPTIC COVER/BLIND COVER

| TYPE              | L (mm) | ORDER CODE |
|-------------------|--------|------------|
| linear            | 1171   | 006-16122  |
| linear            | 1470   | 006-16152  |
| linear            | 2997   | 006-16302  |
| linear            | custom | E80630     |
| continuous linear | 6000   | 006-23061H |
| continuous linear | 25000  | 006-23251H |
| blind cover       | 3000   | 006-1830   |
| blind cover       | custom | E80630     |



### LIGHT INSET 60

| SYSTEM POWER (MID/HIGH LUMEN) | L (mm)    | ORDER CODE |
|-------------------------------|-----------|------------|
| 6.9/12.1W                     | 571       | 007-932    |
| 10.3/17.5W                    | 871       | 007-933    |
| 13.3/23.3W                    | 1171      | 007-934    |
| 16.6/29.1W                    | 1463      | 007-935    |
| 26.6/45W                      | 2341      | 007-938    |
| 33/58W                        | 2997      | 007-939    |
| 13.3/23.3W flex               | 660-1171  | 007-93F    |
| 26.6/45W flex                 | 1903-2341 | 007-93G    |

| COVER            | COLOUR TEMP. | SYSTEM POWER | DELIVERED LUMENS | EFFICACY |
|------------------|--------------|--------------|------------------|----------|
| mid lumen/opal   | 3000K        | 11W/m        | 1400lm/m         | 123lm/W  |
| high performance | 4000K        |              | 1600lm/m         | 146lm/W  |
| high lumen/opal  | 3000K        | 20W/m        | 2370lm/m         | 119lm/W  |
| high performance | 4000K        |              | 2700lm/m         | 135lm/W  |

### LIGHT INSET 60 tunable white 2700–6500K

| SYSTEM POWER | L (mm) | ORDER CODE  |
|--------------|--------|-------------|
| 19W          | 871    | 007-9333D37 |
| 25.3W        | 1171   | 007-9334D37 |
| 31W          | 1463   | 007-9335D37 |
| 49W          | 2341   | 007-9338D37 |

## Accessories

### END CAPS

| TYPE            | ORDER CODE |
|-----------------|------------|
| end caps (pair) | 046-501001 |

### LINEAR CONNECTOR/THROUGH WIRE

| TYPE  | ORDER CODE   |
|---|--------------|
| linear connector (1 piece)                                      | 005-40046    |
| linear connector (10 pieces)                                    | 005-40046.10 |
| opal cover linear connector                                     | 006-14000    |
| through wire 3 $\times$ 1.5mm <sup>2</sup> (non DIM, 10 pieces) | 004-90003    |
| through wire 5 $\times$ 1.5mm <sup>2</sup> (DALI-2, 10 pieces)  | 004-90005    |

### CEILING CLIP / CABLE SUSPENSION / CANOPY

| TYPE  | L (mm) | ORDER CODE  |
|---|--------|-------------|
| ceiling clip                                      | 10     | 034-111636  |
| cable suspension                                  | 1500   | 005-2122110 |
| canopy/feeder cable 3 $\times$ 1.5mm <sup>2</sup> | 1500   | 005-221231  |
| canopy/feeder cable 5 $\times$ 1.5mm <sup>2</sup> | 1500   | 005-221241  |
| cable rail  | 1200   | 005-2491110 |

for electrical system configuration see luminaire data sheet at xal.com





# WALLWASHER

inset 60/100

**EN** Lighting module with specially computed, asymmetrical high gloss reflector for homogeneous vertical lighting; lighting module in aluminium, powder coated, installation without tools

**DE** Lichteinsatz mit speziell berechnetem, asymmetrischem Hochglanz-Reflektor für homogene vertikale Beleuchtungen; Lichteinsatz aus pulverbeschichtetem Aluminium werkzeuglos einsetzbar

## Quickinfo

3000K, 4000K  
CRI ≥ 80, 3 SDCM  
up to 96lm/W  
L80 @ 50000h  
non DIM, DALI-2

## Types



## Colours



## Light distribution



wall washer

### Order options

| COLOUR TEMPERATURE |   |
|--------------------|---|
| 3000K              | 5 |
| 4000K              | 6 |

| CONTROL |   |
|---------|---|
| non DIM | 1 |
| DALI-2  | 3 |

| MATERIAL COLOUR            |   |
|----------------------------|---|
| ○ pure white RAL 9010      | 7 |
| ● white aluminium RAL 9006 | G |
| ● jet black RAL 9005       | 8 |

### LIGHT OPTIC

wallwasher

### Planning information



### MOUNTING DISTANCE

| H (mm) | A (mm) |
|--------|--------|
| 2750   | 900    |
| 3000   | 1000   |
| 3500   | 1200   |



### INSET 60 wallwasher



**LIGHT INSET** only for recessed or surface mounting

| SYSTEM POWER | L (mm) | ORDER CODE |
|--------------|--------|------------|
| 10.6 W       | 571    | 007-9042   |
| 14 W         | 871    | 007-9043   |
| 18.7 W       | 1171   | 007-9044   |
| 23 W         | 1471   | 007-9045   |

### Technical data

| SYSTEM POWER | COLOUR TEMPERATURE | DELIVERED LUMENS | EFFICACY |
|--------------|--------------------|------------------|----------|
| 17 W/m       | 3000 K             | 1960 lm/m        | 121 lm/W |
|              | 4000 K             | 2070 lm/m        | 128 lm/W |



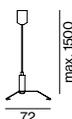
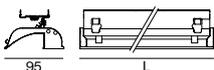
INSET 60 wallwasher, 18.7 W, 3000 K

#### ROOM VALUES

Wall dimensions H = 2.8 m | W = 10.8 m  
 Distance to wall B = 1.3 m  
 Distance between luminaires continuous  
 Reflection factor 0.7 | 0.5 | 0.2  
 Maintenance factor 0.8

#### CALCULATION SURFACE

Surface dimensions 10.8 × 2.8 m  
 Surface height 0 – 2.8 m  
 Eye level 1.35 m – 1.75 m



### INSET 100 wallwasher



**LIGHT INSET**

| SYSTEM POWER | L (mm) | ORDER CODE |
|--------------|--------|------------|
| 20 W         | 571    | 007-9052   |
| 30 W         | 871    | 007-9053   |
| 40 W         | 1171   | 007-9054   |
| 51 W         | 1463   | 007-9055   |

#### CABLE SUSPENSION

| TYPE                 | L (mm) | ORDER CODE  |
|----------------------|--------|-------------|
| inset 100 wallwasher | 1500   | 005-2132310 |

installation channel is required for mounting

### Technical data

| SYSTEM POWER | COLOUR TEMPERATURE | DELIVERED LUMENS | EFFICACY |
|--------------|--------------------|------------------|----------|
| 35 W/m       | 3000 K             | 2820 lm/m        | 82 lm/W  |
|              | 4000 K             | 2990 lm/m        | 87 lm/W  |



INSET 100 wallwasher, 30 W, 3000 K

#### ROOM VALUES

Wall dimensions H = 2.8 m | W = 10.8 m  
 Distance to wall B = 1.3 m  
 Distance between luminaires continuous  
 Reflection factor 0.7 | 0.5 | 0.2  
 Maintenance factor 0.8

#### CALCULATION SURFACE

Surface dimensions 10.8 × 2.8 m  
 Surface height 0 – 2.8 m  
 Eye level 1.35 m – 1.75 m

### Light distribution



asymmetric

LUMINOUS FLUX value calculated for CRI ≥ 80, colour white, reflector chrome

**Order options**

| NUMBER OF PIECES |  |
|------------------|---|
| 2 pieces         | 2   |
| 3 pieces         | 3   |



**FRAME 40/MINO 40**

**HOUSING FOR CONCRETE INSTALLATION**

| TYPE          | L (mm) | ORDER CODE        |
|---------------|--------|-------------------|
| FRAME 40 trim | 3010   | 0 0 5 - 4 1 3 5 6 |
| MINO 40       | 3010   | 0 0 5 - 4 1 3 5 6 |

**MOUNTING SET**

| TYPE          | ORDER CODE  |
|---------------|---|
| FRAME 40 trim | 0 3 5 - 0 6 0 2  |
| MINO 40       | 0 3 4 - 0 6 0 2  |

up to 900 mm: 2 pieces / up to 1500 mm: 3 pieces / up to 3000 mm: 2 x 2 pieces

**END CAPS**

| TYPE            | ORDER CODE        |
|-----------------|-------------------|
| end caps (pair) | 0 0 5 - 4 1 2 3 6 |

**LINEAR CONNECTOR**

| TYPE                         | ORDER CODE              |
|------------------------------|-------------------------|
| linear connector (1 piece)   | 0 0 5 - 4 1 1 6 6       |
| linear connector (10 pieces) | 0 0 5 - 4 1 1 6 6 . 1 0 |

**CORNER CONNECTOR 90°**

| TYPE          | L (mm) | ORDER CODE        |
|---------------|--------|-------------------|
| FRAME 40 trim | 140    | 0 3 5 - 0 6 0 1 6 |
| MINO 40       | 140    | 0 3 5 - 0 6 0 1 6 |



**Note**  
only for installation in concrete ceilings  
no use for wall installation (only on request)

**CONCRETE** installation housing

**EN** Concrete casting made of aluminium profile, designed for continuous lighting systems

**DE** Betoneingießgehäuse aus Aluminiumprofil, ausgelegt für durchgehende Lichtsysteme

## Order options

| NUMBER OF PIECES |   |
|------------------|---|
| 2 pieces         | 2 |
| 3 pieces         | 3 |



## FRAME 60 / MINIMAL 60 / MINO 60 / BASO 60

## HOUSING FOR CONCRETE INSTALLATION

| TYPE                 | L (mm) | ORDER CODE |
|----------------------|--------|------------|
| FRAME 60 trim        | 3000   | 005-41346  |
| BASO 60 IP54 trim    | 3000   | 005-41346  |
| MINIMAL 60 trimless  | 3000   | 005-41346  |
| MINO 60 ceiling      | 3000   | 005-41446  |
| BASO 60 IP54 surface | 3000   | 005-41446  |

## MOUNTING SET

| TYPE                 | ORDER CODE |
|----------------------|------------|
| FRAME 60 trim        | 035-0600   |
| BASO 60 IP54 trim    | 035-0600   |
| MINIMAL 60 trimless  | 036-0400   |
| MINO 60 ceiling      | 034-0400   |
| BASO 60 IP54 surface | 034-0400   |

up to 900mm: 2 pieces / up to 1500mm: 3 pieces / up to 3000mm: 2 x 2 pieces

## END CAPS

| TYPE            | ORDER CODE |
|-----------------|------------|
| end caps (pair) | 005-41246  |

## LINEAR CONNECTOR

| TYPE                         | ORDER CODE   |
|------------------------------|--------------|
| linear connector (1 piece)   | 005-41166    |
| linear connector (10 pieces) | 005-41166.10 |

## CORNER CONNECTOR 90°

| TYPE                 | L (mm) | ORDER CODE |
|----------------------|--------|------------|
| FRAME 60 trim        | 142    | 035-04016  |
| BASO 60 IP54 trim    | 142    | 035-04016  |
| MINIMAL 60 trimless  | 146    | 036-04016  |
| MINO 60 ceiling      | 157    | 034-04016  |
| BASO 60 IP54 surface | 157    | 034-04016  |

## FRAME 100 / MINIMAL 100 / MINO 100

## HOUSING FOR CONCRETE INSTALLATION



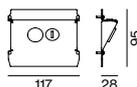
| TYPE                 | L (mm) | ORDER CODE |
|----------------------|--------|------------|
| FRAME 100 trim       | 3000   | 005-41366  |
| MINIMAL 100 trimless | 3000   | 005-41366  |
| MINO 100 ceiling     | 3000   | 005-41466  |



## MOUNTING SET

| TYPE                 | ORDER CODE |
|----------------------|------------|
| FRAME 100 trim       | 035-0600   |
| MINIMAL 100 trimless | 036-0500   |
| MINO 100 ceiling     | 034-0400   |

up to 900mm: 2 pieces / up to 1500mm: 3 pieces / up to 3000mm: 2x2 pieces



## END CAPS

| TYPE            | ORDER CODE |
|-----------------|------------|
| end caps (pair) | 005-41266  |



## LINEAR CONNECTOR

| TYPE                         | ORDER CODE   |
|------------------------------|--------------|
| linear connector (1 piece)   | 005-41166    |
| linear connector (10 pieces) | 005-41166.10 |



## CORNER CONNECTOR 90°

| TYPE                 | L (mm) | ORDER CODE |
|----------------------|--------|------------|
| FRAME 100 trim       | 202    | 035-05016  |
| MINIMAL 100 trimless | 207    | 036-05016  |
| MINO 100 ceiling     | 207    | 034-05016  |