



# 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

**DE** Leuchtenkörper aus Aluminiumstrangpressprofil, kantige Ausführung; keine sichtbaren Schrauben; für Lichtsysteme; pulverbeschichtet; Leuchtenprofil für Montage vorab lieferbar; restl. Komponenten werkzeuglos montierbar; abgependelt mit Seilabhängung; werkzeuglose Höhenverstellung; Federclips-Befestigung an der Leuchte; inkl. Einspeiseleitung; Lichteinsatz bestehend aus hochreflektierend lackiertem Strangpressprofil für verbessertes Thermomanagement; optional flexibel ablängbarer Lichteinsatz; HPO (High Performance Opal) Abdeckung für homogene Ausleuchtung; mikroprismatische PMMA-Abdeckung inkl. Diffusorfolie zur Reduktion der Leuchtdichte bei homogener Ausleuchtung; Wallwasher Lichteinsatz; energieeff. LEDs – sehr gute Farbwiedergabe

## 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**



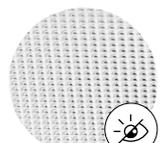
**wallwasher inset**



**concrete install. housing**



**flexible inset**



**microprismatic UGR ≤ 19**



**tunable white**  
2700–6500 K



**CRI ≥ 98**  
XPECTRUM

## Order options

|                 |   |
|-----------------|---|
| <b>LED TYPE</b> |  |
| mid lumen       | L   |
| high lumen      | M   |

|                              |   |
|------------------------------|---|
| <b>COLOUR TEMPERATURE</b>    |  |
| 3000 K (CRI <sub>≥</sub> 90) | 0   |
| 4000 K (CRI <sub>≥</sub> 90) | 1   |
| 3000 K (CRI <sub>≥</sub> 80) | 5   |
| 4000 K (CRI <sub>≥</sub> 80) | 6   |
| tunable white 2700–6500 K*   |   |

\*DALI-2 DT8

|                          |   |
|--------------------------|---|
| <b>CONTROL</b>           |  |
| non DIM                  | 1   |
| DALI-2 (only high lumen) | 3   |

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

|                                       |   |
|---------------------------------------|---|
| <b>LIGHT OPTIC COVER</b>              |  |
| opal high performance                 | H   |
| microprismatic                        | Z   |
| microprismatic (UGR <sub>≤</sub> 19)* | G   |
| blind cover only for corner 90°       | B   |

\*UGR<sub>≤</sub>19 only with mid lumen

|                        |   |
|------------------------|---|
| <b>EMERGENCY LIGHT</b> |  |
| 1h Accupack            | 1   |
| 3h Accupack            | 3   |

## Options on request

|                               |
|-------------------------------|
| <b>COLOUR RENDERING INDEX</b> |
| CRI <sub>≥</sub> 98 XPECTRUM  |

|                    |
|--------------------|
| <b>CONNECTORS</b>  |
| X- and T-connector |

**LUMINOUS FLUX** value calculated for  
CRI<sub>≥</sub>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 ···· 0  |
| 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       | 007-93  2  7  |
| 10.3/17.5W                    | 871       | 007-93  3  7  |
| 13.3/23.3W                    | 1171      | 007-93  4  7   |
| 16.6/29.1W                    | 1463      | 007-93  5  7  ● |
| 26.6/45W                      | 2341      | 007-93  8  7  |
| 33/58W                        | 2997      | 007-93  9  7  |
| 13.3/23.3W flex               | 660-1171  | 007-93  F  7  |
| 26.6/45W flex                 | 1903-2341 | 007-93  G  7  |

| 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  |

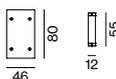
### LINEAR CONNECTOR/THROUGH WIRE

| 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 × 1.5 mm <sup>2</sup> (non DIM, 10 pieces) | 004-90003    |
| through wire 5 × 1.5 mm <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 × 1.5 mm <sup>2</sup> | 1500   | 005-221231  |
| canopy/feeder cable 5 × 1.5 mm <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 |



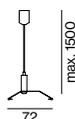
INSET 60 wallwasher, 18.7 W, 3000 K

### 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   | 005-41356  |
| MINO 40       | 3010   | 005-41356  |

**MOUNTING SET**

| TYPE          | ORDER CODE |
|---------------|------------|
| FRAME 40 trim | 035-0602   |
| MINO 40       | 034-0602   |

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) | 005-41236  |

**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 40 trim | 140    | 035-06016  |
| MINO 40       | 140    | 035-06016  |



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

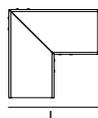
**CONCRETE** installation housing

**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 |

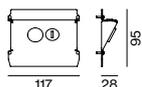
## CORNER CONNECTOR 90°

| 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  |