

RECOVER PRO 1650

099-2211037



Project / Type

Notes

Count / Date



General

Wall | Surface

pure white | RAL 9010

IP40

indirect 6 lm | direct 156¹, 683², 1480³, 18300⁴ lm

total 162¹, 683², 1480³, 18300⁴ lm

162¹, 683², 1480³, 18300⁴ lm

LED

3000 K¹, 3000 K², 3000 K³, tunable white⁴ | 2200 K - 31000 K

CRI ≥ 97¹, 97², 97³, 70⁴

L80 / 50000 h

initial MacAdam ≤ 3 SDCM

R_g: 102 | R_f: 96 | R_{f(1-15)}: 96

MR 0.63 | MDER 0.57

Electrical

DALI-2 master control

PC1 | 220-240 V

system 2.3¹, 12.2², 23.5³, 199⁴ W

system 70¹, 63³, 56⁴ lm/W⁵

Physical

length 1645 mm | width 223 mm | height 80 mm

12 kg

LED wall mounted light for standard nursing area; IP 40 protection; 1 pc per bed; mounting height of upper edge of luminaire: 180cm; rectangular luminaire profile with direct / indirect light distribution, surface white powder coated; end cap in same colour; direct and indirect light exit with clear toughened glass cover; cable inlet on the wall side for 220-240V power supply and 2 control lines for the examination light circuit and the reading light; power feed from the rear (wall mounting profile preassembled); Luminaire offers 4 kinds of lighting; 1) Reading light 3000K; flush mounted, equipped with lens technology to avoid glare to neighbouring bed; 2-stage reading light, switchable by means of a connection to a potential-free contact (e.g., via a patient terminal provided by the customer); reading light > 300lx; 2) Nurse's night light, 3000K, right and left side (operation via integrated buttons); 3) Examination light 3000K; Em> 1000lx; operation of the examination light via RECOVER MASTER UNIT; 4) Indirect, dynamic room lighting that recreates the changes in natural daylight; the dynamic colour temperature of 2200K to 31000K, which changes with daylight, and the dynamic light intensity can be individually set and saved via XAL RECOVER SOFTWARE and can then be retrieved from the RECOVER MASTER UNIT; monitoring of the bed area via integrated presence sensor; LED boards are dimmed via analogue controlled operating devices (flicker-free, no PWM); maximum power consumption 237W; luminous flux at 5000K 18290lm; L80 min. 80% of luminous flux after 50000 operating hours; colour rendering of examination/reading light and at 2700K indirect ambient light: CRI > 90, CRI typically 95; colour point binning at 2700K: directly on the BBL, colour homogeneity: initial <3-Step SDCM scale, colour point stability: final after 10000 hrs <4-Step SDCM scale; PC I; complies with the following provisions: EN (IEC) 60598-1 and the supplement EN (IEC) 60598-2-25; luminaire unit complies with the requirements of DIN 5035-3 and EN 12464-1 (reading area, examination...) when mounted centrally above the bed's central axis, conforms to planning recommendation DIN SPEC 67600 - biologically effective illumination. Dimensions of housing W 1650mm, visible H 47mm, wall profile H 80mm, D 223mm; Manufacturer XAL, type RECOVER pro 1650; necessary accessories per room: RECOVER MASTER UNIT (up to 6 pcs RECOVER PRO can be controlled), flush-mounted electronics wall socket; optional accessories: DAYLIGHT / MOVEMENT SENSOR per room (3 variants: recessed in ceiling - installation depth 46mm; semi-recessed, installation with base, installation depth 20mm; surface mounted - installation height 40mm).

¹ NURSE LIGHT RIGHT ² AMBIENT LIGHT ³ READING LIGHT

⁴ NURSE LIGHT LEFT

⁵ incl. consideration of optical losses, internal control unit losses & operating device efficiency

Installation instructions



[099-2211037] The technical data represent rated values for an ambient temperature of 25°C. The data values for the luminous flux are initially subject to a tolerance of +/- 10%, those for the electrical connected load are initially subject to a tolerance of +/- 10%, and those for the colour temperature are initially subject to a tolerance of +/- 150 K. No liability is assumed for typographical or printing errors. The general terms and conditions of XAL GmbH apply.
© XAL GmbH · Auer-Welsbach-Gasse 36 · 8055 Graz · Austria · www.xal.com

12.08.2025

RECOVER PRO 1650

099-2211037

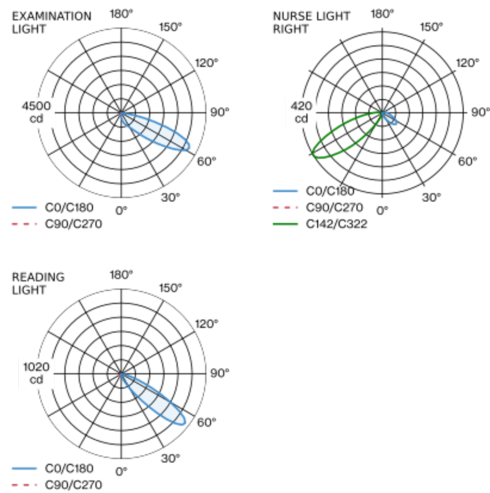


Project / Type

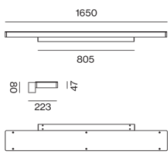
Notes

Count / Date

Light distribution



Product drawing



RECOVER PRO 1650

099-2211037



Project / Type

Notes

Count / Date

Maintenance Factors

| Operating Time [h] | 10 000 | 20 000 | 30 000 | 40 000 | 50 000 |
|--------------------|--------|--------|--------|--------|--------|
| LLMF | 0.98 | 0.93 | 0.89 | 0.85 | 0.81 |
| LSF | 1 | 1 | 1 | 1 | 1 |

| | | | |
|------------------|------------------------------|-------------------|---------------------------------|
| MF | LMF × RSMF × LLMF × LSF | RSMF ^a | Room Surface Maintenance Factor |
| MF | Maintenance Factor | LLMF | Lamp Lumens Maintenance Factor |
| LMF ^a | Luminaire Maintenance Factor | LSF | Lamp Survival Factor |

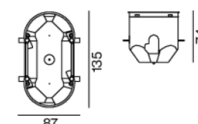
^a According to "CIE 97, Maintenance of indoor electric lighting systems", 2005, ISBN 3-900-734-34-8. The values must be determined by the planner.

Mounting accessories

INSTALLATION HOUSING

L-W-H (MM)
71-75-135

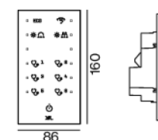
ARTICLE NUMBER(S)
099-2290000



Electrical accessories

MASTER UNIT

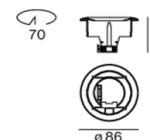
| TYPE | L-W-H (MM) | ARTICLE NUMBER(S) |
|---------------------|------------|-------------------|
| single patient room | 85-48-160 | 099-2291137 |
| double patient room | 85-48-160 | 099-2291237 |
| three patient room | 85-48-160 | 099-2291337 |
| four patient room | 85-48-160 | 099-2291437 |
| five patient room | 85-48-160 | 099-2291537 |
| six patient room | 85-48-160 | 099-2291637 |



Electrical accessories

DALI LIGHT SENSOR

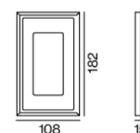
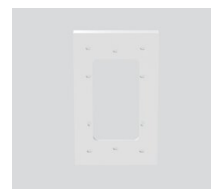
| TYPE | Ø (MM) | ARTICLE NUMBER(S) |
|--------------------------|--------|-------------------|
| recessed ceiling mounted | 86 | 002-54051 |
| surface mounted | 86 | 002-54058 |
| socket mounted | 103 | 002-54053 |



Other accessories

SAFETY FRAME FOR MASTER UNIT

| TYPE | L-W-H (MM) | ARTICLE NUMBER(S) |
|---------------------------|------------|-------------------|
| mandatory for MASTER UNIT | 108-15-182 | 099-2298007 |



[099-2211037] The technical data represent rated values for an ambient temperature of 25°C. The data values for the luminous flux are initially subject to a tolerance of +/- 10%, those for the electrical connected load are initially subject to a tolerance of +/- 10%, and those for the colour temperature are initially subject to a tolerance of +/- 150 K. No liability is assumed for typographical or printing errors. The general terms and conditions of XAL GmbH apply.
© XAL GmbH · Auer-Welsbach-Gasse 36 · 8055 Graz · Austria · www.xal.com

12.08.2025

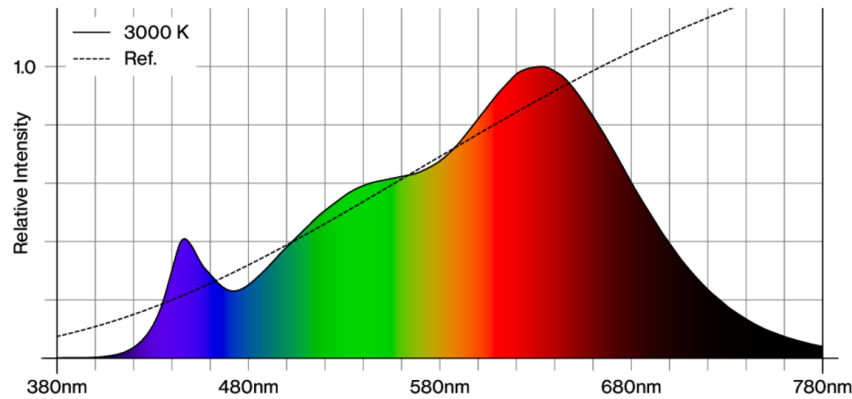


Project / Type

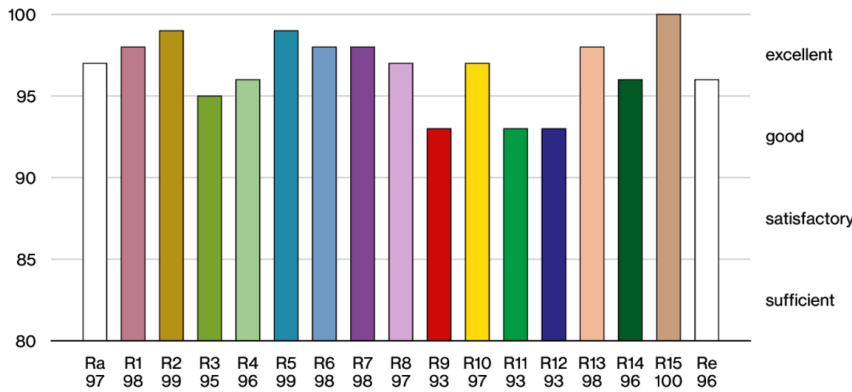
Notes

Count / Date

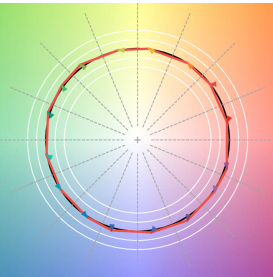
Colour rendering



CRI/R_a ≥ 97 R_e ≥ 96 (3000 K)



TM30 colour vector graphic



The black line represents the black body reference. The red line indicates the results of the test light source. The deviation from the test light source to the reference is shown and is marked by arrows. The shorter the arrows, the higher the color rendering.