

CUKRARNA

Installation : LETNI BAR

Project number : 414/16

Customer : SCAPELAB

Processed by : SCAPELAB

Date : 11.10.2016

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

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1 Luminaire data

1.1 Zumtobel, ONDA2 E D1150 LED14000-840 LDE ... (42184858)

1.1.1 Data sheet

Manufacturer: Zumtobel

42184858 ceiling recessed ONDA2 E D1150 LED14000-840 LDE WH [STD]

Decorative diffuse LED Circular luminaire with opal cover for recessed installation. Total power: 96.8 W, DALI controllable luminaire with LED converter; LED service life lasts 50000 h before luminous flux is reduced to 90% of the initial value. Chromaticity tolerance (initial MacAdam): 3. Luminaire luminous flux: 13750 lm, Luminaire efficacy: 142 lm/W. Colour rendering Ra > 80, colour temperature 4000 K. Aluminium housing in white enamelled finish. Plastic cover, opal in polymethylmethacrylate with frosted surface, fixed to frame. Includes electronic LED converter for DALI control. Luminaire wired with halogen-free leads Dimensions: Ø1150 x 85 mm, ceiling cut-out: Ø1179 mm; weight: 18 kg;

Please order recessed-mounting kit for concealing and fixing material separately.

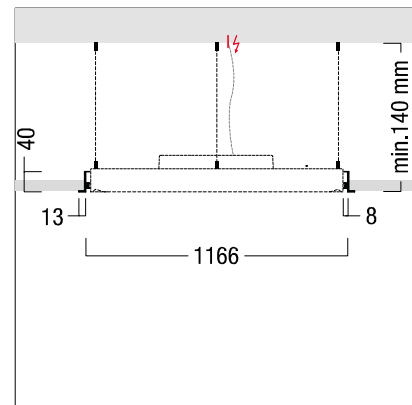
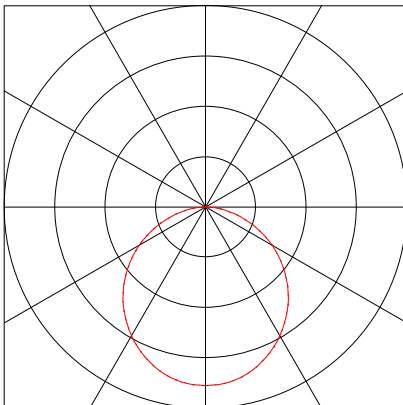
Luminaire data

Absolute Photometry
Luminaire efficacy : 142.05 lm/W
Classification : A40 ↓100.0% ↑0.0%
CIE Flux Codes : 47 79 95 100 100
UGR 4H 8H : 21.6 / 21.6
Power : 96.8 W
Luminous flux : 13750 lm

Equipped with

Quantity : 1
Designation : LED-Z42184858
Colour : Unknown
Colour reproduction : 80

Dimensions : Ø1150 mm x 2 mm



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1 Luminaire data

1.2 Zumtobel, SCUBA LED5600-840 PC LDO V2A [STD] (42182987)

1.2.1 Data sheet

Manufacturer: Zumtobel

42182987 surface mounted SCUBA LED5600-840 PC LDO V2A [STD]

LED moisture-proof diffuser luminaire total power: 44 W, Slave luminaire for DALI control (DALI only) with LED converter; light grey GRP (Glasfibre Reinforced Polyester) housing, halogen-free; Polycarbonate (PC) diffuser, with high impact strength, UV-resistant, made as a single injection-moulded piece patterned internally with prisms; not suitable for through-wiring with H05VV or NYM cable. Sealed optical system fitted to luminaire housing without tools. LED service life lasts 50000 h before luminous flux is reduced to 90% of the initial value. Chromaticity tolerance (initial MacAdam): 3. Luminaire luminous flux: 5600 lm, Luminaire efficacy: 127 lm/W. Colour rendering Ra > 80, colour temperature 4000 K. Fitted to ceiling, wall or trunking using V2A standard spring clips; galvanized sheet steel reflector painted white; 5-pole connector terminal. stainless steel fasteners. ambient temperature: -20°C to +35°C. Approved for indoor use or use in outdoor areas protected by a roof (see installation instructions). Luminaire wired with halogen-free leads. Complies with International Food Standard specifications. Degree of protection: IP65, class of protection: SC1, 850°C glow-wire tested, dimensions: 1594 x 112 x 112 mm; weight: 3.5 kg.

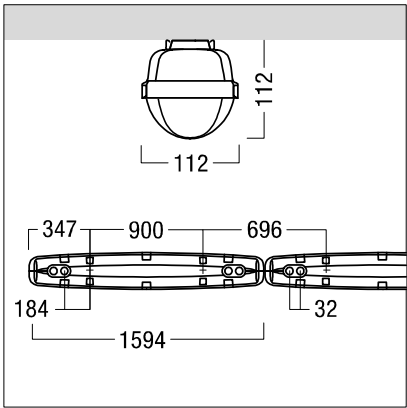
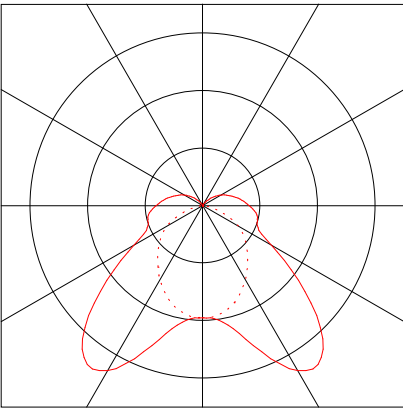
Luminaire data

Absolute Photometry
Luminaire efficacy : 127.27 lm/W
Classification : B31 ↓88.4% ↑11.6%
CIE Flux Codes : 41 74 90 88 100
UGR 4H 8H : 23.3 / 19.6
Power : 44 W
Luminous flux : 5600 lm

Equipped with

Quantity : 1
Designation : LED-Z42182990
Colour : Unknown
Colour reproduction : 80

Dimensions : 1594 mm x 112 mm x 112 mm

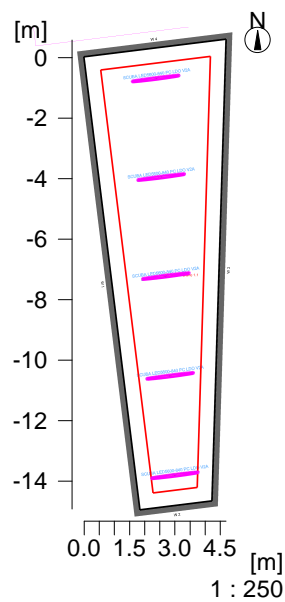


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2 Room 1

2.1 Description, Room 1

2.1.1 Floor plan



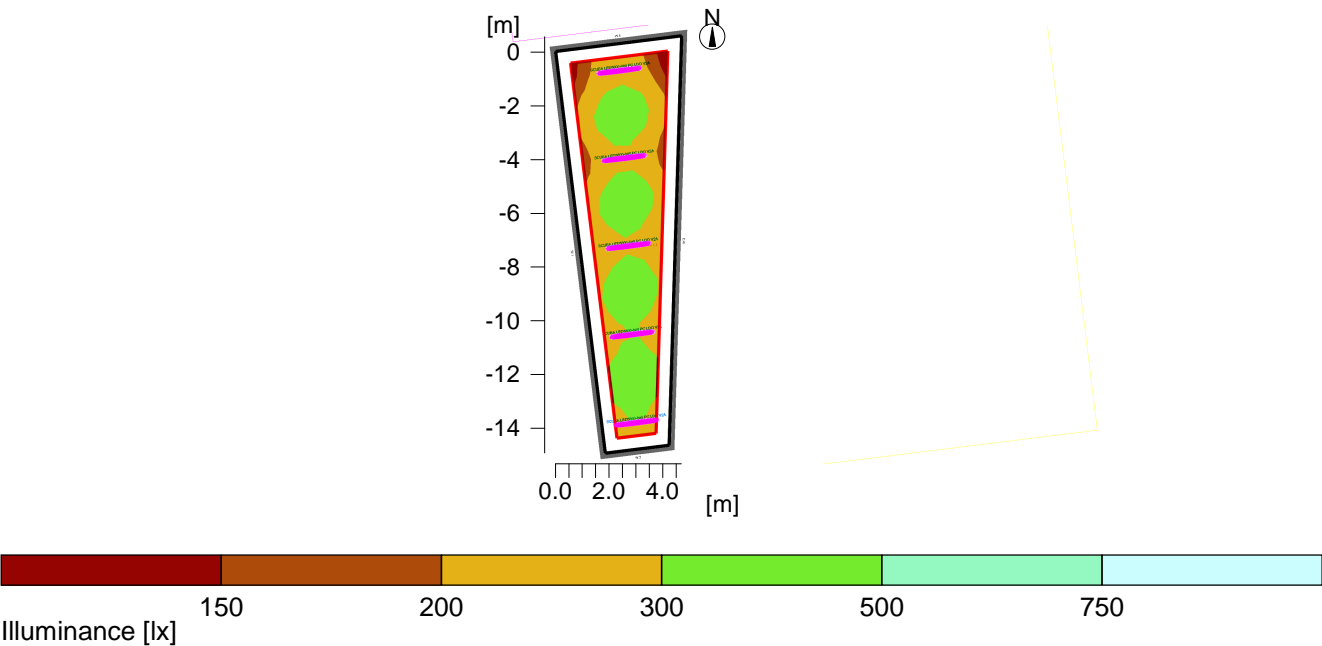
Wall	x	y	Length	Reflectance
1	97.22 m	12.60 m	15.04 m	50.0 %
2	99.60 m	12.89 m	2.40 m	50.0 %
3	100.07 m	28.10 m	15.22 m	50.0 %
4	95.37 m	27.52 m	4.73 m	50.0 %
Floor				20.0 %
Ceiling				70.0 %
Room height		3.00 m		
Height of reference plane		0.75 m		

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2 Room 1

2.2 Summary, Room 1

2.2.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	28000 lm
Total power	220.0 W
Total power per area (53.60 m²)	4.10 W/m² (1.46 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	280 lx
Emin	109 lx
Emin/Eav (Uo)	0.39
Emin/Emax (Ud)	0.27
Position	0.75 m

Type No.\Make

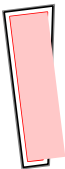
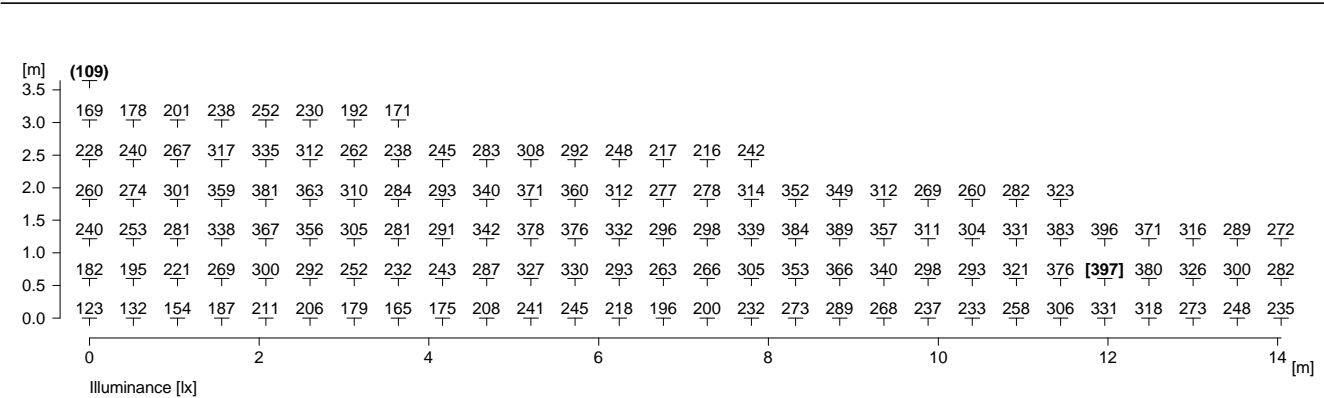
2	5	Zumtobel	
		Order No.	: 42182987
		Luminaire name	: SCUBA LED5600-840 PC LDO V2A [STD]
		Equipment	: 1 x LED-Z42182990 44 W / 5600 lm

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2 Room 1

2.3 Calculation results, Room 1

2.3.1 Table, Reference plane 1.1 (E)



Height of the reference plane

Average illuminance	Eav	: 0.75 m	: 280 lx
Minimum illuminance	Emin	: 109 lx	
Maximum illuminance	Emax	: 397 lx	
Uniformity Uo	Emin/Eav	: 1 : 2.57 (0.39)	
Diversity Ud	Emin/Emax	: 1 : 3.64 (0.27)	