

KWADRA FL/SU LED

KWADRA is a high efficiency surface mounted or recessed LED luminaire designed for emergency lighting. Its main task is to illuminate escape routes, evacuation signs, rooms in public facilities, work places, etc.



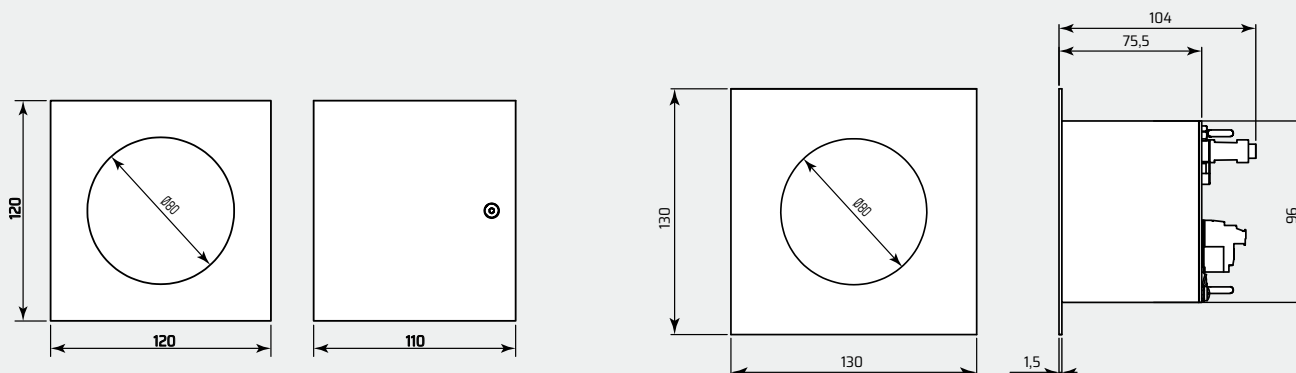
IP65/IP20
IP54



SU



FL



LUMINAIRE FEATURES

- Deep discharge battery protection
- Non-maintained, switched maintained or night (hotel) operation mode
- Possibility of connecting to the monitoring system or collective power supply system
- Lighting of escape routes, open spaces and fire points
- Housing is made of steel
- A lot of mounting types
- Wide range of optics

TECHNICAL DATA

Supply voltage	AT, CT	230V AC 50/60Hz
	CB	230V AC 50/60Hz 80-275V DC
	CBAM	230V AC 50/60Hz 170-275V DC
	LVAM	6-32V DC
Protection class	AT, CT, CB, CBAM	I
	LVAM	III
Ingress protection		SU: IP54 or IP40 ¹⁾ FL: IP65/IP20 ²⁾
Light source		LED Module ³⁾
Light source lifespan		> 50 000h
Light colour temperature		5700K
Light source supply power		3W
Minimum luminous flux	AR	282lm
	SD	321lm
	RO	321lm
	RP	325lm

Battery type / voltage	Ni-MH	4,8V
Battery capacity		1,6; 2,1; 4,0Ah
Battery recharging time		< 24h
Emergency operation time		1h, 3h
Ambient temperature	AT, CT	+5 - +35°C; TE: ⁴⁾ -25 - +40°C
	CB, CBAM	-10 - +35°C;
	LVAM	-25 - +45°C
Supply cable cross-section area		0,5 - 2,5mm ²
Supply cable diameter		≤ 13mm
Communication cable diameter	CT	≤ 7mm
Through wiring		YES
Suitable for surface wiring		NO

¹⁾ IP54 for ceiling luminaires, IP40 for wall-mounted and suspended luminaires;

²⁾ Luminaire in internal/external zone, IP20 for luminaires without seal;

³⁾ Non-exchangeable, but serviceable light source; ⁴⁾ TE - extended temperature range

AVAILABLE SYSTEMS

AUTOTEST - (AT) internal components, battery and light source tests being performed automatically

CENTRALTEST - (CT) internal components, battery and light source tests being performed on command from the main unit of central management system

CB - luminaire supplied from HVCBS (230V AC / 216V DC / 108V DC), without address module

CBAM - luminaire supplied from the HVCBS (230V AC / 216V DC), with built-in address module

LVAM - luminaire supplied with 24V DC from the LVDBS system, with built-in address module

MATERIAL

Housing material - powder coated steel

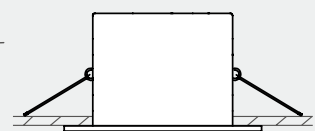
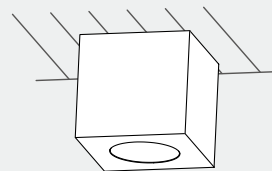
Housing colour - ○ RAL 9003, ● RAL 9006, ● RAL 9005, other colours on special order

Lamp shade material - PMMA

MOUNTING TYPE

SU - directly to the ceiling

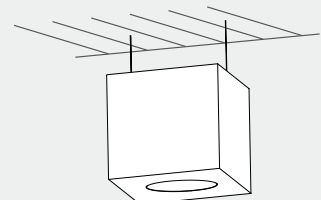
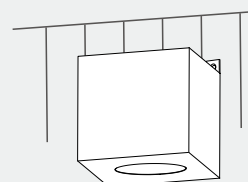
FL - recessed



MOUNTING KITS

W131 - back to the wall

C102 - suspended



AVAILABLE OPTICS

SIDE - (SD) light distribution directed to one side, for wall mounting, spot illuminating

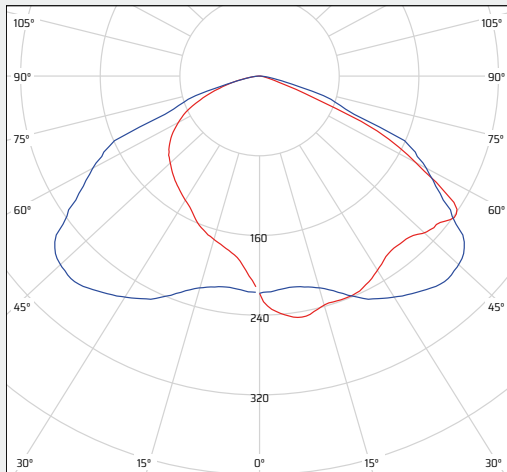
AREA - (AR) symmetrical light distribution in all directions, recommended for use in places of considerable height or to illuminate fire points

ROAD - (RO) light distribution mainly along the escape route, recommended for use in high corridors

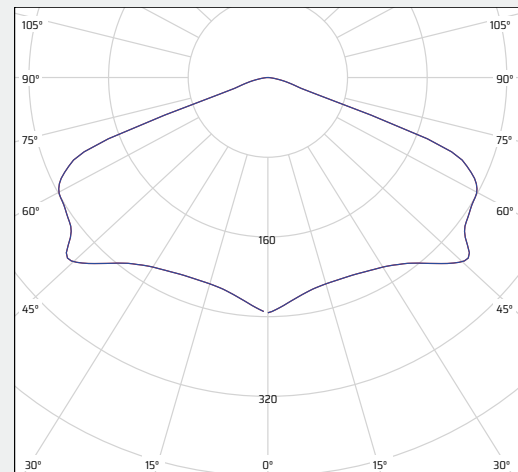
ROAD PLUS - (RP) light distribution mainly along the escape route with a much greater range than for the ROAD optics, for small heights

LIGHT DISTRIBUTION CURVES

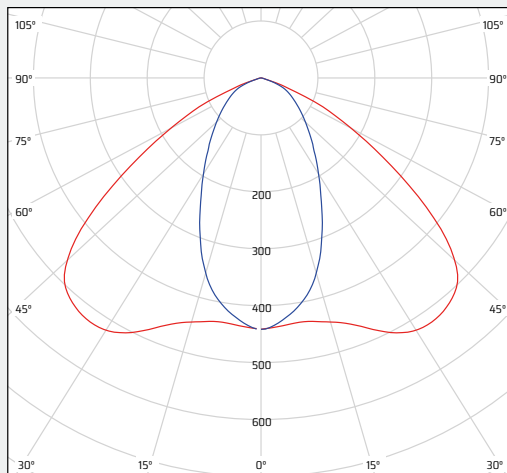
SIDE (SD)



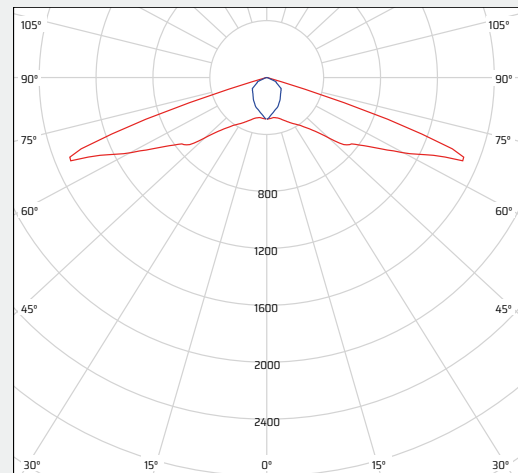
AREA (AR)



ROAD (RO)



ROAD PLUS (RP)



cd/klm — C0 - C180 — C90 - C270

DISTANCE TABLES

Tables for open area lighting

SIDE; 3W; 5700K

↓ [m]	↔↔↔	↔↔↔	↔↔↔	↔↔↔	↔↔↔
2	3,9	8,6	9,2	9,4	4,0
2,5	4,3	9,6	10,4	10,7	4,3
3	4,7	10,4	11,3	11,5	4,6
3,5	4,8	11,1	12,1	12,1	4,8
4	4,7	11,6	12,8	12,7	5,0
4,5	4,4	11,6	13,3	13,2	5,0
5	4,2	11,4	13,4	13,6	4,9
5,5	3,9	11,1	13,5	14,1	4,7
6	3,6	10,8	13,3	14,2	4,3
6,5	3,2	10,3	13,2	14,1	3,6
7	2,6	9,9	12,8	13,9	1,9

ROAD; 3W; 5700K

↓ [m]	↔↔↔	↔↔↔	↔↔↔	↔↔↔	↔↔↔
2	3,8	8,8	7,8	6,8	2,8
2,5	4,3	10,0	8,7	7,4	3,0
3	4,8	11,1	9,5	7,9	3,1
3,5	5,2	12,1	10,2	8,3	3,2
4	5,6	13,1	10,9	8,6	3,3
4,5	5,9	13,9	11,4	8,9	3,3
5	6,1	14,7	11,9	9,1	3,4
5,5	6,4	15,4	12,4	9,3	3,4
6	6,5	16,1	12,8	9,4	3,3
6,5	6,6	16,7	13,1	9,4	3,3
7	6,5	17,2	13,4	9,5	3,2
7,5	6,4	17,7	13,6	9,5	3,1
8	6,2	18,1	13,7	9,4	2,9
8,5	5,9	18,3	13,8	9,3	2,7
9	5,4	18,5	13,7	9,2	2,5
9,5	4,4	18,5	13,5	9,1	2,1
10	2,5	18,4	13,2	8,9	1,4

ROAD PLUS; 3W; 5700K

↓ [m]	↔↔↔	↔↔↔	↔↔↔	↔↔↔	↔↔↔
2	6,2	13,0	10,2	7,5	3,1
2,5	7,5	15,8	12,0	8,3	3,4
3	8,6	18,4	13,7	8,9	3,6
3,5	9,6	20,9	15,2	9,6	3,6
4	10,5	23,2	16,5	9,9	3,5
4,5	11,0	25,3	17,6	10,1	3,4
5	10,6	27,2	18,6	10,0	3,3
5,5	10,2	28,3	19,4	9,9	3,2
6	9,4	29,1	19,1	9,8	3,0
6,5	8,7	29,5	18,6	9,6	2,7
7	8,4	29,8	17,8	9,4	2,3
7,5	5,3	29,2	17,1	9,2	1,7
8	3,6	28,0	15,4	8,8	1,0
8,5	0,5	26,5	13,4	8,3	0,3

Tables for open area lighting

AREA; 3W; 5700K

↓ [m]	↔↔↔	↔↔↔
2	4,2	8,9
2,5	4,8	10,8
3	5,1	12,3
3,5	5,3	13,4
4	5,4	14,1
4,5	5,5	14,7
5	5,5	15,0
5,5	5,6	15,2
6	5,7	15,3
6,5	5,4	15,5
7	5,0	15,5
7,5	4,5	15,7
8	3,9	15,8
8,5	3,3	15,6
9	2,6	15,2
9,5	1,7	14,7
10	0,8	13,7

The distance tables for flat escape routes are based on the following parameters:

- Maintenance factor: 0,77
- The minimum illuminance on centerline: 1,00 lx
- Minimum illuminance on half of escape route width: 0,50 lx
- Diversity on the centre line max.: 40:1
- Escape routes width: 2,00 m

The distance tables for open area lighting are based on the following parameters:

- Maintenance factor: 0,77
- Minimum illuminance at the floor level: 0,50 lx
- Diversity on the centre line max.: 40:1

LEGEND:

↓ - fixture mounting height; ↔↔↔ - distance between the wall and the fixture; ↔↔↔ - distance between the fixtures; ↔↔↔ - distance between the wall and the luminaire placed longer angle of light parallel to the wall; ↔↔↔ - distance between the luminaires placed longer angle of light parallel to each other; ↔↔↔ - distance between the luminaires placed longer angle of light perpendicular to each other; ↔↔↔ - distance between the luminaires placed shorter angle of light parallel to each other; ↔↔↔ - distance between the wall and the luminaire placed shorter angle of light parallel to the wall

ORDERING

KWADRA SU LED / KWADRA FL LED 0000 - RP - 3W - AT - 3h - NM - CW - 9003 - FT

Variant:

- 0000** - base variant
- 0001** - extended warranty variant
- 0008** - 1h luminaire variant with 3h battery
- 0009** - 2h luminaire variant with 3h battery
- 0102** - variant with a thermostat - only for 1h

Optics:

- AR** - area
- SD** - side
- RO** - road
- RP** - road plus

System variant:

- AT** - autotest
- CT** - centraltest
- CB** - centrally supplied luminaire
- CBAM** - centrally supplied luminaire, with address module
- LVAM** - centrally low voltage supplied luminaire, with address module

Emergency operation time:

- 1h** - emergency operation time of 60 minutes
- 3h** - emergency operation time of 180 minutes
- X** - not applicable (CB, CBAM, LVAM)

Operation modes:

- NM** - non-maintained
- SM** - switched maintained
- N** - night (available only for CT operation mode)
- X** - not applicable (CB, CBAM, LVAM)

Housing colour:

- 9003** - RAL 9003
- 9006** - RAL 9006
- 9005** - RAL 9005
- ... - other on special order

Surface finish:

- FT** - fine texture
- ... - other on special order