

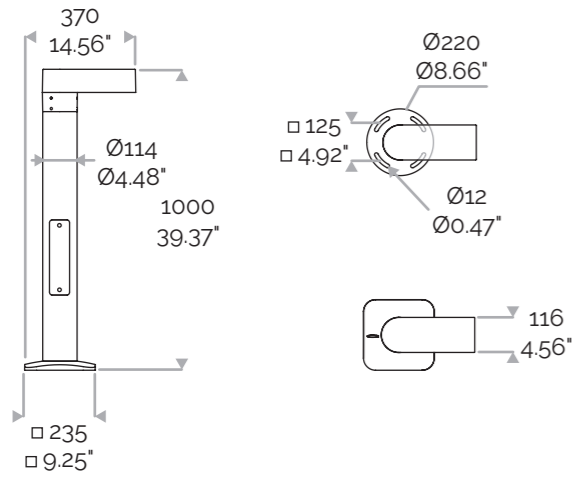
# Smart bollards

LINEO & ODO bollards

FLUX  
LIGHTING



# Smart bollards range



# LINEO

Glare-free, tamperproof & suitable for disable

Die-cast aluminium luminaire, with anti-corrosion treatment prior to polyester powder coating.

Extruded aluminium tube, thickness 6 mm. Decorative base plate. Captive stainless steel fasteners with Delta Seal® galvanic tamperproof treatment.

Integrated heat sink.  
Integrated surge protection device, up to 10kV.

Maintenance: interchangeable LED module.  
The inspection hatch can be opened with 2 tamperproof "snake-eye" screws.

Classe I & Classe II optional.

Zhaga LED module & Zhaga DALI driver integrated..  
CLO (constant light output), AstroDIM, MainsDIM, StepDIM.

Bollard with integrated sensor: 3 operating modes (p. 8 to p. 13).

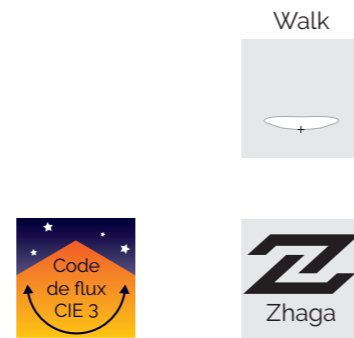
2 dimming levels.  
Example: 20% on idle & 100% at detection.

Wide detection area (p. 14 to p. 15).

Lifetime: 100.000 hours L80 B10.

ULOR = 0%, no upward light.

5-year warranty (see FLUX conditions).



IP66 IK10+ PMR DALI

- W Warm white 2200K
- W Warm white 2700K
- W Warm white 3000K
- W Neutral 4000K

### Efficiency at 2200K

flux (lm)	lm/W	W
1465	98	11

### Efficiency at 2700K

flux (lm)	lm/W	W
1684	112	11

### Efficiency at 3000K

flux (lm)	lm/W	W
1801	120	11

### Efficiency at 4000K

flux (lm)	lm/W	W
1899	127	11

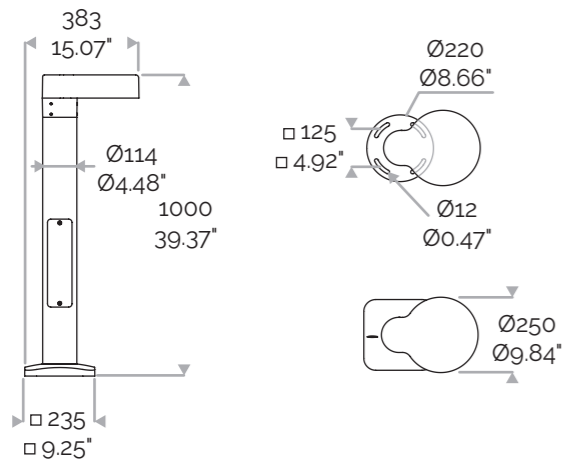
Zhaga COB modules & Zhaga connectors are non-proprietary. Everyone is free to buy COBs from several suppliers.



LINEO bollard

Luminaire	Number of LEDs	IP	IK	Weight (Kg)	Scx (m <sup>2</sup> )	L x w x H (mm) (")	Control		Color temperatures
							DALI AstroDIM StepDIM MainsDIM	Sensor	
LINEO bollard	8	IP66	IK10+	15	0.15	370 x 116 x 1000 14.56" x 4.56" x 39.37"	✓	✓	2200K 2700K 3000K 4000K

# Smart bollards range



## ODO

Glare-free, tamperproof & suitable for disable

Die-cast aluminium luminaire, with anti-corrosion treatment prior to polyester powder coating.

Extruded aluminium tube, thickness 6 mm. Decorative base plate. Captive stainless steel fasteners with Delta Seal® galvanic tamperproof treatment.

Integrated heat sink.  
Integrated surge protection device, up to 10kV.

Maintenance: interchangeable LED module.  
The inspection hatch can be opened with 2 tamperproof "snake-eye" screws.

Classe I & Classe II optional.

Zhaga LED module & Zhaga DALI driver integrated..  
CLO (constant light output), AstroDIM, MainsDIM, StepDIM.

Bollard with integrated sensor: 3 operating modes (p. 8 to p. 13).

2 dimming levels.  
Example: 20% on idle & 100% at detection.

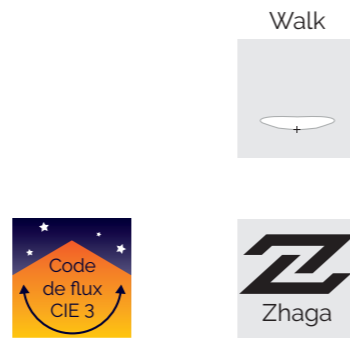
Wide detection area (p. 14 to p. 15).

Lifetime: 100.000 hours L80 B10.

ULOR = 0%, no upward light.

5-year warranty (see FLUX conditions).

 Zhaga COB modules & Zhaga connectors are non-proprietary. Everyone is free to buy COBs from several suppliers.



IP66 IK10+ PMR DALI

- W Warm white 2200K
- W Warm white 2700K
- W Warm white 3000K
- W Neutral 4000K

### Efficiency at 2200K

flux (lm)	lm/W	W
1465	98	11

### Efficiency at 2700K

flux (lm)	lm/W	W
1684	112	11

### Efficiency at 3000K

flux (lm)	lm/W	W
1801	120	11

### Efficiency at 4000K

flux (lm)	lm/W	W
1899	127	11



FLUX LIGHTING

ODO bollard

Luminaire	Number of LEDs	IP	IK	Weight (Kg)	Scx (m <sup>2</sup> )	L x w x H (mm) (")	Control		Color temperatures
							DALI AstroDIM StepDIM MainsDIM	Sensor	
ODO bollard	8	IP66	IK10+	15	0,15	383 x Ø250 x 1000 15,07" x 9,84" x 39,37"	✓	✓	2200K 2700K 3000K 4000K

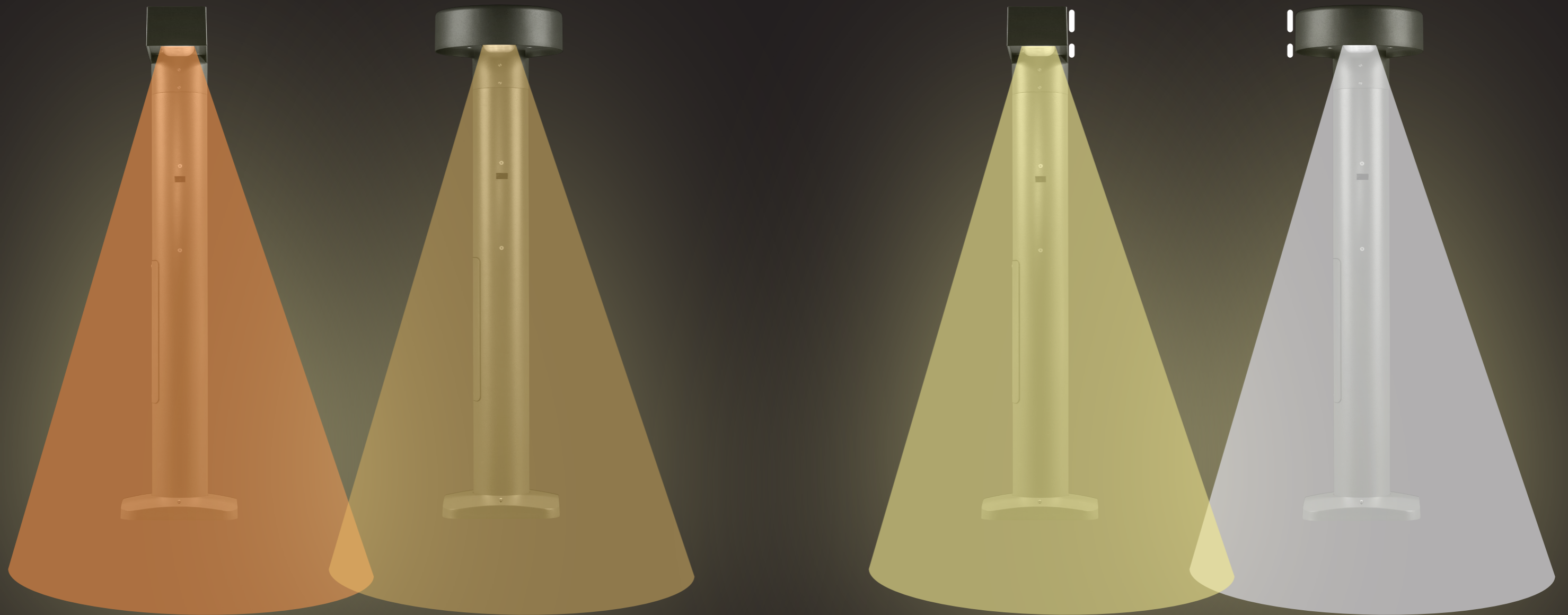
## Colour temperatures

LINEO & ODO bollards are available in 2200K & 2700K.  
3000K & 4000K temperatures remain available.

## Luminaires suitable for disable

PRM: spacing of bollards up to 10 m.  
Greater visibility for persons with reduced mobility.

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**2200K** **2700K**

**3000K** **4000K**

# Autonomous control

Bollard individually light up when detection occurs.

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# Communicator control

Each bollard detects & controls the others.  
Control by a pilot wire.

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# Master/slave control

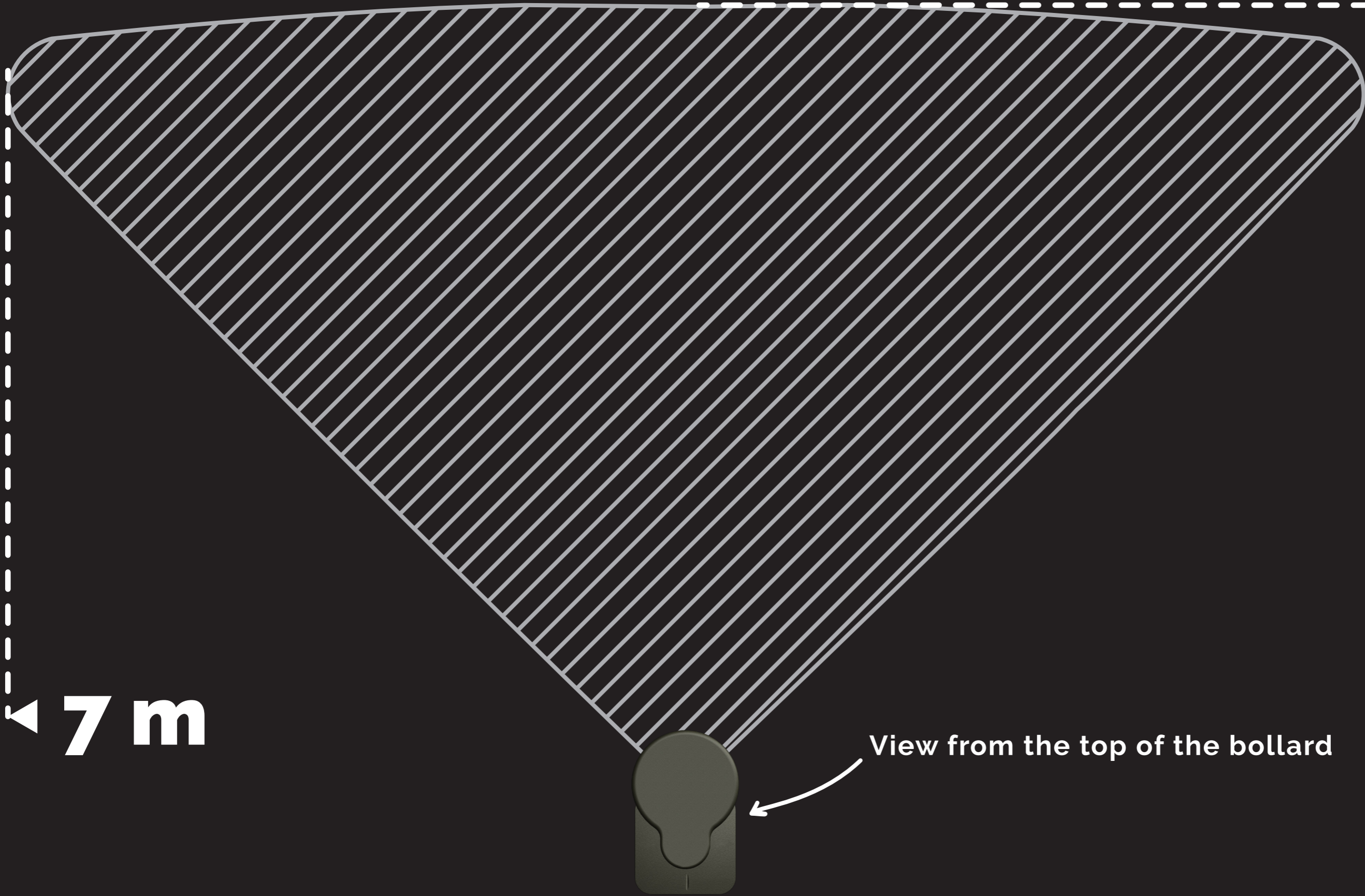
Masters bollards control all the other bollards of the installation.  
Control by a pilot wire.

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Detection area

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7 m

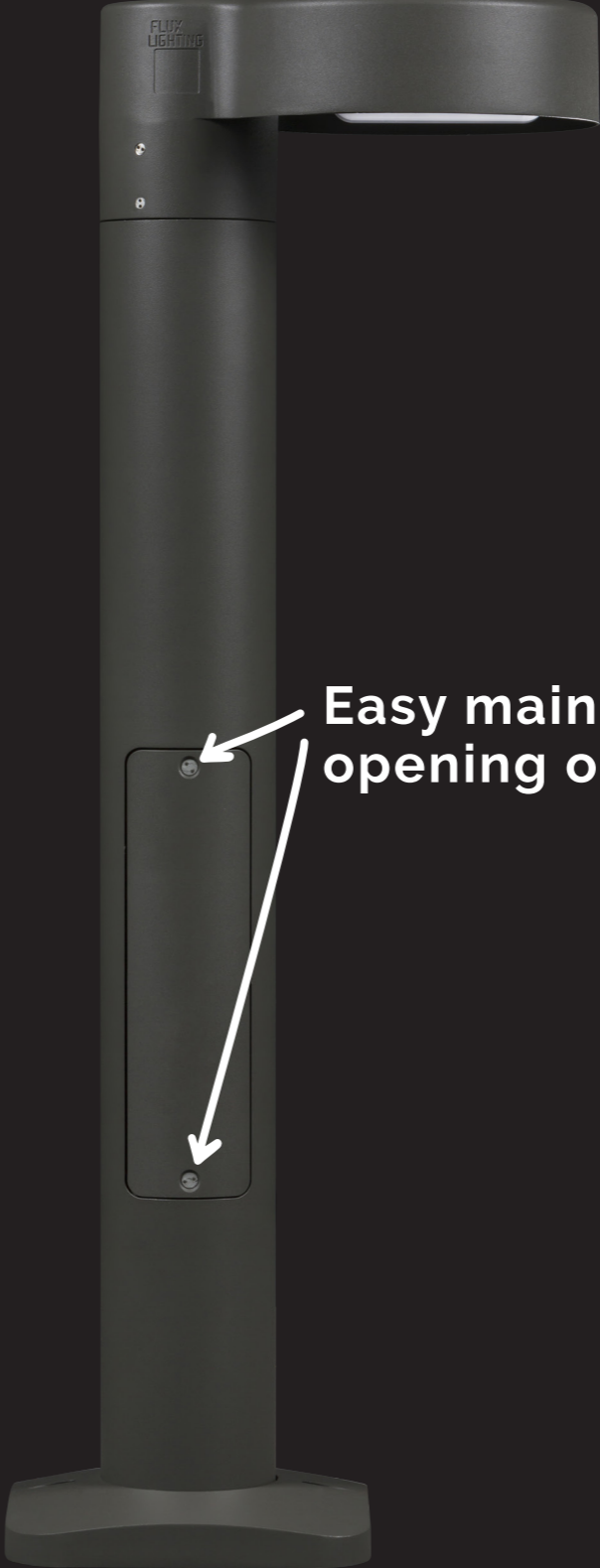
7 m

View from the top of the bollard

**IK10+ tamperproof bollards**



**IK10+ LINEO & ODO bollards are tamperproof with the snake-eyes screws**



**Easy maintenance thanks to the easy opening of the inspection hatch**

# RAL sandblasted

Only for the glare shield

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code	code	code	code
RAL 1001	RAL 4006	RAL 6019	RAL 7044
RAL 1003	RAL 4007	RAL 6021	RAL 7045
RAL 1004	RAL 4008	RAL 6022	RAL 7046
RAL 1011	RAL 4010	RAL 6027	RAL 7047
RAL 1013	RAL 5000	RAL 6029	RAL 8000
RAL 1014	RAL 5001	RAL 6033	RAL 8001
RAL 1015	RAL 5002	RAL 6034	RAL 8002
RAL 1016	RAL 5003	RAL 7000	RAL 8003
RAL 1018	RAL 5004	RAL 7001	RAL 8004
RAL 1019	RAL 5005	RAL 7002	RAL 8007
RAL 1021	RAL 5007	RAL 7003	RAL 8008
RAL 1023	RAL 5008	RAL 7004	RAL 8011
RAL 1028	RAL 5009	RAL 7005	RAL 8012
RAL 1032	RAL 5010	RAL 7006	RAL 8014
RAL 2000	RAL 5011	RAL 7008	RAL 8015
RAL 2001	RAL 5012	RAL 7009	RAL 8016
RAL 2002	RAL 5013	RAL 7010	RAL 8017
RAL 2003	RAL 5014	RAL 7011	RAL 8019
RAL 2004	RAL 5015	RAL 7012	RAL 8022
RAL 2008	RAL 5017	RAL 7013	RAL 8023
RAL 2009	RAL 5018	RAL 7015	RAL 8024
RAL 2010	RAL 5019	RAL 7016	RAL 8025
RAL 2011	RAL 5021	RAL 7021	RAL 8028
RAL 3000	RAL 5023	RAL 7022	RAL 9001
RAL 3001	RAL 5024	RAL 7023	RAL 9002
RAL 3002	RAL 6001	RAL 7024	RAL 9003
RAL 3003	RAL 6003	RAL 7026	RAL 9004
RAL 3004	RAL 6004	RAL 7030	RAL 9005
RAL 3005	RAL 6005	RAL 7031	RAL 9006
RAL 3007	RAL 6007	RAL 7032	RAL 9007
RAL 3009	RAL 6008	RAL 7033	RAL 9010
RAL 3011	RAL 6009	RAL 7034	RAL 9011
RAL 3012	RAL 6011	RAL 7035	RAL 9016
RAL 3013	RAL 6012	RAL 7036	
RAL 3016	RAL 6013	RAL 7037	
RAL 3018	RAL 6014	RAL 7038	
RAL 3020	RAL 6015	RAL 7039	
RAL 3031	RAL 6016	RAL 7040	
RAL 4004	RAL 6017	RAL 7042	
RAL 4005	RAL 6018	RAL 7043	

Large choice of RAL colours & all AKZO NOBEL colours are available please contact us.  
Non-contractual colors

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Product illustrations are only examples and may differ from the originals.  
All measurements are in millimeters.

FLUX reserves the right to modify the technical specifications of the devices at any time depending on the progress of research and product development.

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MADE IN FRANCE

