◆ Explosion Protection to
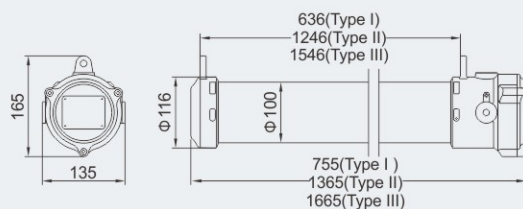-CENELEC
-IEC
-NEC

◆ Can be used in
Zone 1 and Zone 2
Zone 21 and Zone 22
Class I, Zone 1 and Zone 2
Class I, Division 1, Groups B, C, D

◆ Three enclosure types: Type I, Type II and Type III
Available lamp and power
Type I: T8 18W x 2, LED 9W x 2
Type II: T8 36W x 2, LED 18W x 2
Type III: T8 58W x 2, LED 28W x 2

◆ The glass tube stands 4J impact.

◆ Enclosure in Copper-free Aluminium Alloy, powder coated
surface, yellow (RAL1021).

◆ Built-in electronic ballast, wide voltage input, rapid starting,
stable performance, power factor ≥0.95.

◆ Built-in LED driver, wide voltage input, CC-CV (constant
current - constant voltage) output, power factor≥0.95.

◆ End of lamp life (EOL) rectification effect protection.
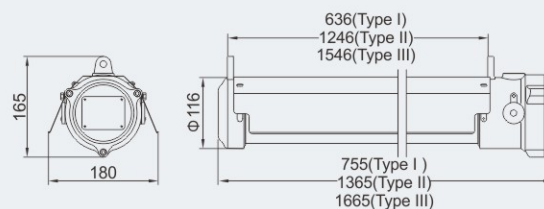
◆ Emergency functions are available on request.

WAROM

■ Catalogue number logic

BAY51-D-☐☐ x ☐☐☐

J: Emergency lighting (optional)

G1: pendant pole type 1
G2: pendant pole type 2
L: pole type
X: ceiling type
Mounting

Lamp number

Lamp power (W)

LED: Only for LED lamp

Explosion-proof light fittings
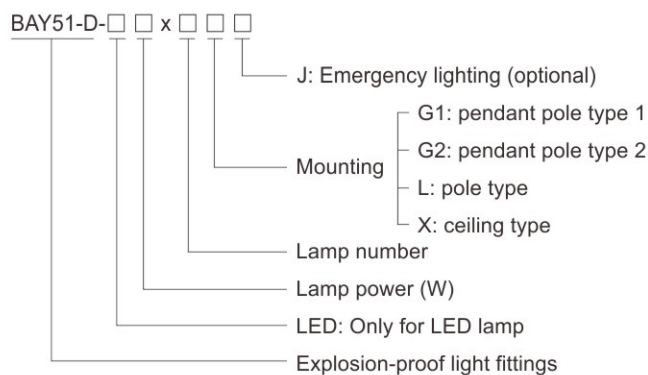
Dimension drawings (all dimensions in mm) - subject to alteration

636(Type I)
1246(Type II)
1546(Type III)

165

135

Φ116

Φ100

755(Type I)
1365(Type II)
1665(Type III)

BAY51-D-☐☐x2☐
Without external reflector

636(Type I)
1246(Type II)
1546(Type III)

165

180

Φ116

755(Type I)
1365(Type II)
1665(Type III)

BAY51-D-☐☐x2☐
With external reflector

Zones 1&2; 21&22

Technical data

Explosion-proof light fittings   BAY51-D-□ × □□□

Explosion protection	
Global (IECEx)	IECEx CQM 16.0023X
Gas and dust	Ex db IIB T6 Gb
	Ex db IIB+H_2 T6 Gb
	Ex tb IIIC T80℃ Db IP66
Europe (ATEX)	TÜV CY 21 ATEX 0206465X
Gas and dust	Ⓔx II 2 G Ex db IIB T6 Gb
	Ⓔx II 2 G Ex db IIB+H_2 T6 Gb
	Ⓔx II 2 D Ex tb IIIC T80℃ Db
Certificates	IECEx; ATEX; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31, IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
Ballast	Electronic ballast
Emergency unit	Special emergency controller and battery pack, with protection against over-charge and overdischarge
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector (optional)	Powder coated pure aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp specification	T8 fluorescent lamp (supplied with the light fittings)
Lamp power (W)	18Wx2, 36Wx2, 58Wx2
Rated voltage	100-305V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	Ex db IIB+H_2 T6 Gb for Tamb: -20℃~+55℃
	Ex db IIB T6 Gb for Tamb: -60℃~+55℃
	Ex tb IIIC T80℃ Db IP66 for Tamb: -60℃~+55℃
	Ⓔx II 2 G Ex db IIB+H_2 T6 Gb for Tamb: -20℃~+55℃
	Ⓔx II 2 G Ex db IIB T6 Gb for Tamb: -60℃~+55℃
	Ⓔx II 2 D Ex tb IIIC T80℃ Db for Tamb: -60℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Cable entries	2 x M25 x 1.5 plugs (M20 x 1.5 plugs is optional)
Cable gland(optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
Emergency data	
Emergency unit	Special emergency controller and battery pile, with protection against overcharge and overdischarge
Emergency power (W)	36W x 30%, 58W x 30%
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-D-18 x 2G1	18×2	5.85	BAY51-D-36 x 2G1	36×2	8.45	BAY51-D-58 x 2G1	58×2	9.72
BAY51-D-18 x 2G2	18×2	7.00	BAY51-D-36 x 2G2	36×2	9.63	BAY51-D-58 x 2G2	58×2	10.90
BAY51-D-18 x 2X	18×2	5.52	BAY51-D-36 x 2X	36×2	8.13	BAY51-D-58 x 2X	58×2	9.40
BAY51-D-18 x 2L	18×2	5.64	BAY51-D-36 x 2L	36×2	8.25	BAY51-D-58 x 2L	58×2	9.52
			BAY51-D-36 x 2G1J	36×2	12.35	BAY51-D-58 x 2G1J	58×2	13.60
			BAY51-D-36 x 2G2J	36×2	13.35	BAY51-D-58 x 2G2J	58×2	14.85
			BAY51-D-36 x 2XJ	36×2	12.05	BAY51-D-58 x 2XJ	58×2	13.30
			BAY51-D-36 x 2LJ	36×2	12.15	BAY51-D-58 x 2LJ	58×2	13.40

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/31).
2. The light fittings are supplied without wire guard and external reflector. Please specify when ordering.
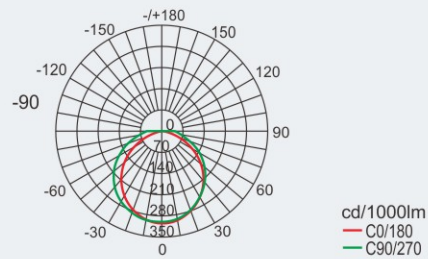
Photometric data

BAY51-D-18x2□、BAY51-D-14x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 18 x 2	2600lm	65%

(with external reflector)

cd/1000lm
— C0/180
— C90/270

BAY51-D-18x2□、BAY51-D-14x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 18 x 2	2600lm	65%

(without external reflector)
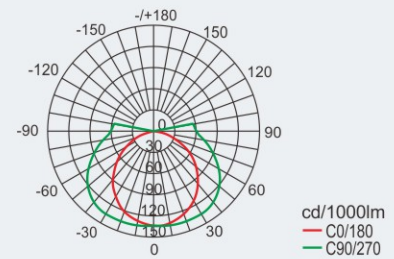
cd/1000lm
— C0/180
— C90/270

BAY51-D-36x2□□、BAY51-D-28x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 36 x 2	6500lm	65%

(with external reflector)
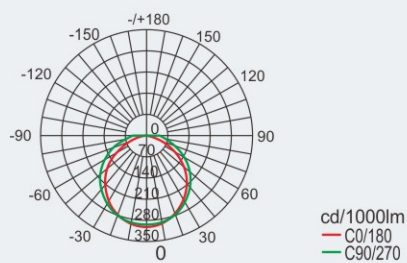
cd/1000lm
— C0/180
— C90/270

BAY51-D-36x2□□、BAY51-D-28x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 36 x 2	6500lm	65%

(without external reflector)
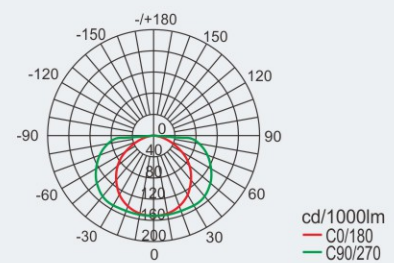
cd/1000lm
— C0/180
— C90/270

BAY51-D-58x2□□、BAY51-D-35x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 58 x 2	10000lm	65%

(with external reflector)

cd/1000lm
— C0/180
— C90/270

BAY51-D-58x2□□、BAY51-D-35x2□

Lamp power (W)	Rated luminous flux (Lamp tube)	Luminaire efficiency
T8 58 x 2	10000lm	65%

(without external reflector)

cd/1000lm
— C0/180
— C90/270

We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Technical data

Explosion-proof light fittings   BAY51-D-□□ × □□□

Explosion protection	
Global (IECEx)	IECEx CQM 16.0023X
Gas and dust	Ex db IIB T6 Gb
	Ex db IIB+H_2 T6 Gb
	Ex tb IIIC T80℃ Db IP66
Europe (ATEX)	TÜV CY 21 ATEX 0206465X
Gas and dust	⟨Ex⟩ II 2 G Ex db IIB T6 Gb
	⟨Ex⟩ II 2 G Ex db IIB+H_2 T6 Gb
	⟨Ex⟩ II 2 D Ex tb IIIC T80℃ Db
Certificates	IECEx; ATEX; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31, IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
Ballast	Electronic ballast
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector (optional)	Powder coated pure aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module (supplied with the light fittings)
Lamp power (W)	LED: 9Wx2, 18Wx2, 28Wx2
Colour rendering index (Ra)	LED: ≥80
LED Colour temperature (CCT)	5000K
	Note: nature white is available in general. Warm white or cool white is optional, please specify when ordering.
Rated voltage	LED: 100-275V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	Ex db IIB+H_2 T6 Gb for Tamb: -20℃~+55℃
	Ex db IIB T6 Gb and Ex tb IIIC T80℃ Db IP66 for Tamb: -60℃~+55℃
	⟨Ex⟩ II 2 G Ex db IIB+H_2 T6 Gb for Tamb: -20℃~+55℃
	⟨Ex⟩ II 2 G Ex db IIB T6 Gb and ⟨Ex⟩ II 2 D Ex tb IIIC T80℃ Db for Tamb: -60℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Cable entries	2 x M25 x 1.5 plugs
Cable gland(optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/22~31
Emergency data	
Emergency unit	Special emergency controller and battery pile, with protection against overcharge and overdischarge
Emergency power (W)	18W x 30%, 28W x 30%
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-D-LED 9 x 2G1	9×2	5.75	BAY51-D-LED 18 x 2G1	18×2	8.35	BAY51-D-LED 28 x 2G1	28×2	9.62
BAY51-D-LED 9 x 2G2	9×2	6.90	BAY51-D-LED 18 x 2G2	18×2	9.53	BAY51-D-LED 28 x 2G2	28×2	10.80
BAY51-D-LED 9 x 2X	9×2	5.42	BAY51-D-LED 18 x 2X	18×2	8.03	BAY51-D-LED 28 x 2X	28×2	9.30
BAY51-D-LED 9 x 2L	9×2	5.54	BAY51-D-LED 18 x 2L	18×2	8.15	BAY51-D-LED 28 x 2L	28×2	9.42
			BAY51-D-LED 18 x 2G1J	18×2	12.50	BAY51-D-LED 28 x 2G1J	28×2	13.72
			BAY51-D-LED 18 x 2G2J	18×2	13.23	BAY51-D-LED 28 x 2G2J	28×2	14.50
			BAY51-D-LED 18 x 2XJ	18×2	11.73	BAY51-D-LED 28 x 2XJ	28×2	13.40
			BAY51-D-LED 18 x 2LJ	18×2	11.85	BAY51-D-LED 28 x 2LJ	28×2	13.52

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/31).
2. The light fittings are supplied without wire guard and external reflector. Please specify when ordering.

2

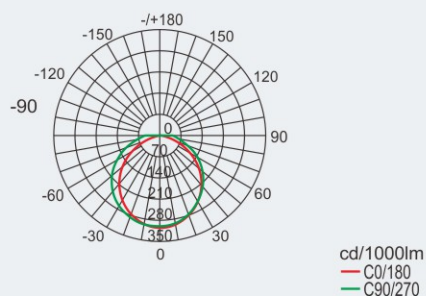## Light Fittings for Fluorescent Lamp
BAY51-D Series Explosion-proof Light Fittings

Photometric data Note: LED luminous flux is from the standard product of which colour temperature is 5000K

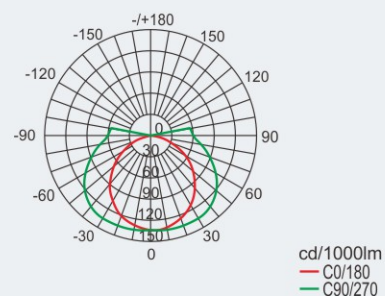### BAY51-D-LED 9x2☐

Lamp power (W)	Luminous flux	Wattage
LED 9 x 2	1999lm	19W

(with external reflector)

cd/1000lm
— C0/180
— C90/270

BAY51-D-LED 9x2☐

Lamp power (W)	Luminous flux	Wattage
LED 9 x 2	1999lm	19W

(without external reflector)

cd/1000lm
— C0/180
— C90/270

BAY51-D-LED 18x2☐☐

Lamp power (W)	Luminous flux	Wattage
LED 18 x 2	3920lm	36W

(with external reflector)

cd/1000lm
— C0/180
— C90/270
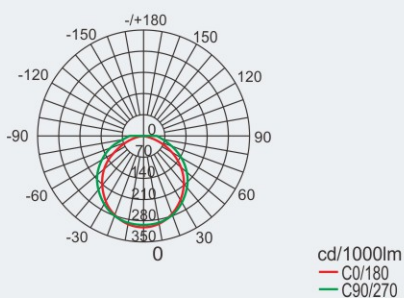
BAY51-D-LED 18x2☐☐

Lamp power (W)	Luminous flux	Wattage
LED 18 x 2	3920lm	36W

(without external reflector)

cd/1000lm
— C0/180
— C90/270
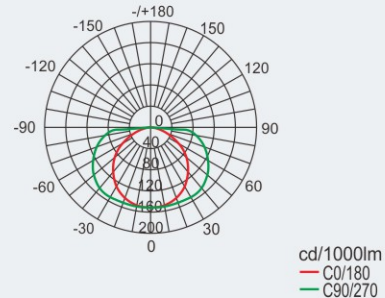
BAY51-D-LED 28x2☐☐

Lamp power (W)	Luminous flux	Wattage
LED 28 x 2	5900lm	56W

(with external reflector)

cd/1000lm
— C0/180
— C90/270
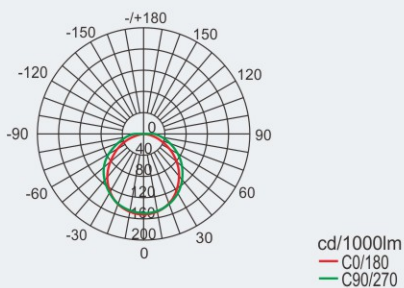
BAY51-D-LED 28x2☐☐

Lamp power (W)	Luminous flux	Wattage
LED 28 x 2	5900lm	56W

(without external reflector)
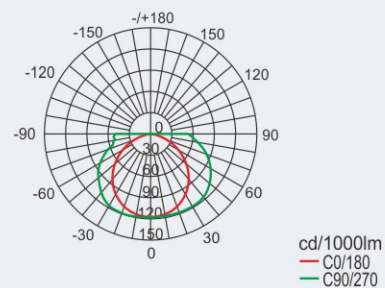
cd/1000lm
— C0/180
— C90/270

We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.
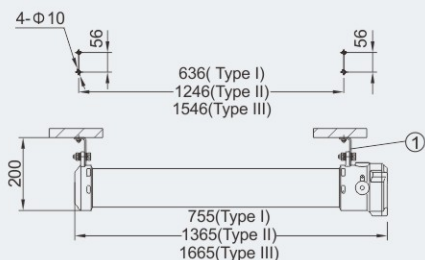
Light Fittings for Fluorescent Lamp
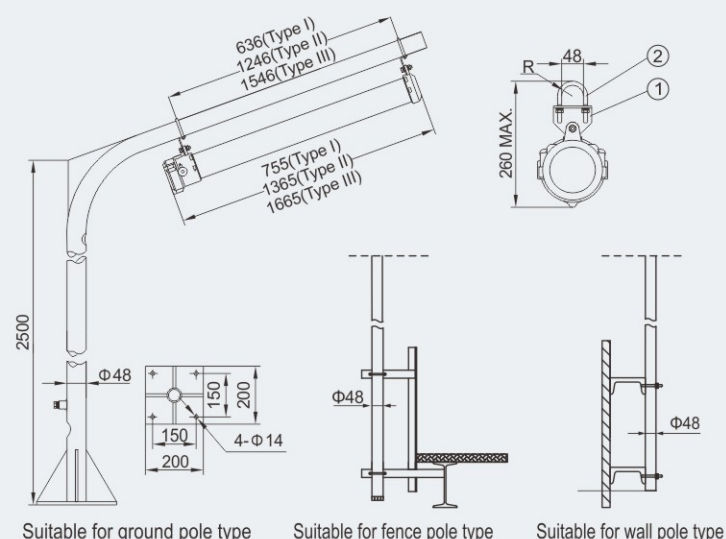## BAY51-D Series Explosion-proof Light Fittings

Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration
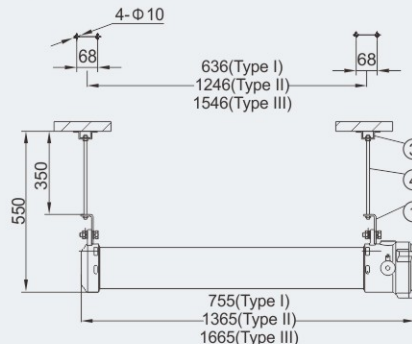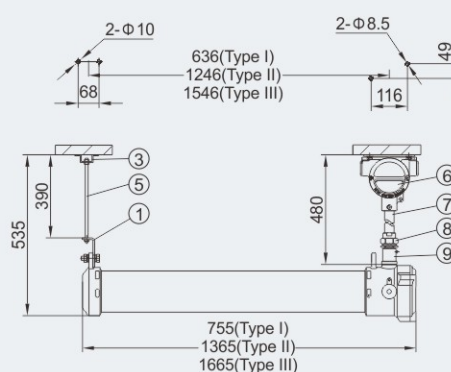
Installation reference

X: ceiling type

L: pole type (the pole is provided by user)

Suitable for ground pole type   Suitable for fence pole type   Suitable for wall pole type

G1: pendant pole type 1

G2: pendant pole type 2

Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight(kg)
	Name	Qty	Illustration		
X: ceiling type	① Mounting plate	2	Stainless steel	51DX01	0.25
L: pole type	① Mounting plate	2	Stainless steel	51DX01	0.25
	② U type pipe clamp	2	Stainless steel	51L01	0.15
G1: pendant pole type 1	① Mounting plate	2	Stainless steel	51DX01	0.25
	③ Mounting bracket	2	Stainless steel	51S01G1	0.04
	④ M8 screw	2	Stainless steel, length: 350mm	51S01G2	0.12
G2: pendant pole type 2	① Mounting plate	2	Stainless steel	51DX01	0.25
	③ Mounting bracket	1	Stainless steel	51S01G1	0.04
	⑤ M8 screw	1	Stainless steel, length: 390mm	51S01G3	0.15
	⑥ BHD51 Explosion-proof junction box	1	Copper-free Aluminium Alloy (Ex d IIC)	BHD51-F	0.80
	⑦ Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
	⑧ BGJ-III Explosion-proof connector	1	M25x1.5(F)/M25x1.5(M) Stainless steel	81D03	0.26
	⑨ Explosion-proof connector	1	M25x1.5(F)/M25x1.5(M) Stainless steel	51G201	0.22

Note: Accessories not in the table shall be supplied by user.