

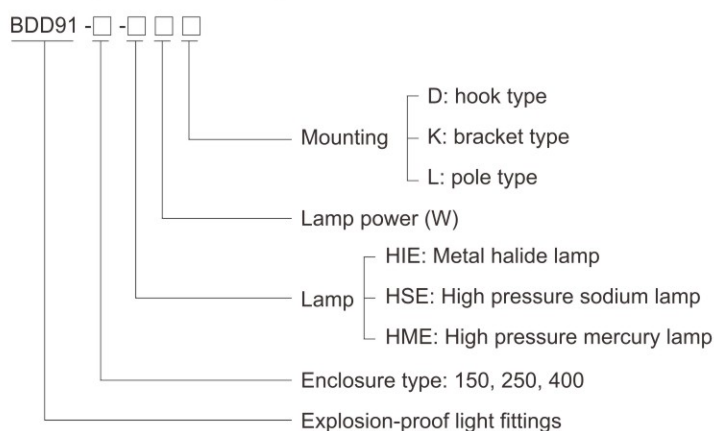
Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings



- ◆ 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 A, B, C, D
- ◆ Applicable lamp (max.400W):
 - Metal halide lamp (HIE)
 - High pressure sodium lamp (HSE)
 - High pressure mercury lamp (HME)
- ◆ Three enclosure types: 150, 250, 400
- ◆ Integral control gear, easy installation and maintenance.

Catalogue number logic



Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder	Weight (kg)
	HIE	HSE	HME		
BDD91-150	70, 100, 150	70, 100	80, 125	E27	11.20
BDD91-250	250	150, 250	250	E40	14.80
BDD91-400	250, 400	150, 250, 400	400	E40	16.70

Note: 1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
 2. HPI European standard ballast is supplied with HIE light fitting. HPI European standard lamps are recommended.
 3. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2; 21&22

Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings

Technical data														
Explosion-proof light fittings		BDD91-150-□□□												
Explosion protection														
Global (IECEX)		IECEX CQM 12.0016X												
Gas and dust		Ex d IIC T□ ¹⁾ Gb												
		Ex t IIIC T□ ¹⁾ Db IP66												
Europe (ATEX)		DNV 11 ATEX 05977X												
Gas and dust		Ⓔ II 2 G Ex d IIC T□ ¹⁾ Gb												
		Ⓔ II 2 D Ex tb IIIC T□ ¹⁾ Db IP66												
		¹⁾ See Selection table												
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)												
Transparent cover		Toughened glass, stands 4J impact												
Internal reflector		High-purity aluminium												
External reflector (optional)		Pure aluminium, anodic-oxidation treatment for surface												
Wire guard		Stainless steel												
Ballast		Electromagnetic ballast, rapid starting, stable performance												
Trigger		General trigger												
Power factor		COS φ ≥ 0.90 (compensated)												
Exposed fastener		Stainless steel												
Lamp														
Available lamp and lamp power (W)		<table> <tr> <th colspan="3">Available lamp</th><th rowspan="2">Lamp holder</th></tr> <tr> <th>HIE</th><th>HSE</th><th>HME</th></tr> <tr> <td>70W, 100W, 150W</td><td>70W, 100W</td><td>80W, 125W</td><td>E27</td></tr> </table>		Available lamp			Lamp holder	HIE	HSE	HME	70W, 100W, 150W	70W, 100W	80W, 125W	E27
Available lamp			Lamp holder											
HIE	HSE	HME												
70W, 100W, 150W	70W, 100W	80W, 125W	E27											
Rated voltage		Note: HPI European standard ballast is available in general.												
Earthing protection		220~240V AC 50Hz (60Hz is optional)												
Degree of protection		M5 (internal & external earth bolts)												
Ambient temperature		IP66												
Terminal		-60°C~+55°C												
Mounting		3 x 1.5~4mm ² (L+N+PE)												
Cable entries		Bracket type, pole type, hook type												
Cable gland (optional)		2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.												
		DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29												



Selection table (BDD91-150)			
Lamp	Lamp power (W)	Temperature classes	
		Gas	Dust
HIE	70, 100	T4	T130°C
HME	80		
HSE	70, 100		
HIE	150	T142°C	T142°C
HME	125	T147°C	T147°C

Pendant Light Fittings

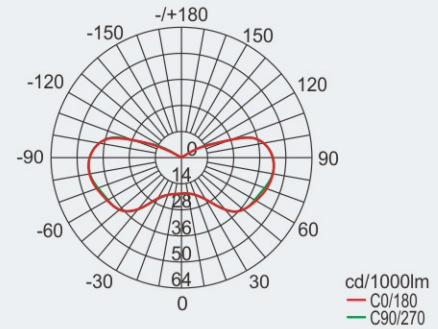
BDD91 Series Explosion-proof Light Fittings

Photometric data

BDD91-150-□□□(Without external reflector)



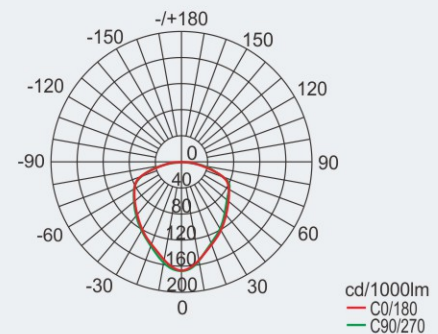
Rated luminous flux
 70W High pressure sodium lamp: 6600 lm
 100W High pressure sodium lamp: 10200 lm
 80W High pressure mercury lamp: 3800 lm
 125W High pressure mercury lamp: 6300 lm
 70W Metal halide lamp: 5800 lm
 100W Metal halide lamp: 8700 lm
 150W Metal halide lamp: 13500 lm
 The data from Philips lamp



BDD91-150-□□□(With wide reflector)



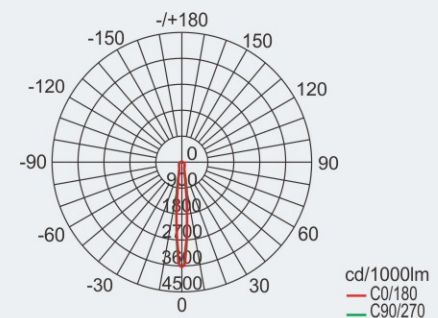
Rated luminous flux
 70W High pressure sodium lamp: 6600 lm
 100W High pressure sodium lamp: 10200 lm
 80W High pressure mercury lamp: 3800 lm
 125W High pressure mercury lamp: 6300 lm
 70W Metal halide lamp: 5800 lm
 100W Metal halide lamp: 8700 lm
 150W Metal halide lamp: 13500 lm
 The data from Philips lamp



BDD91-150-□□□(With deep reflector)



Rated luminous flux
 70W High pressure sodium lamp: 6600 lm
 100W High pressure sodium lamp: 10200 lm
 80W High pressure mercury lamp: 3800 lm
 125W High pressure mercury lamp: 6300 lm
 70W Metal halide lamp: 5800 lm
 100W Metal halide lamp: 8700 lm
 150W Metal halide lamp: 13500 lm
 The data from Philips lamp



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

Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings

Technical data														
Explosion-proof light fittings		BDD91-250-□□□												
Explosion protection														
Global (IECEX)		IECEX CQM 12.0016X												
Gas and dust		Ex d IIC T3 Gb												
		Ex t IIIC T190°C Db IP66												
Europe (ATEX)		DNV 11 ATEX 06159X												
Gas and dust		Ex II 2 G Ex d IIC T3 Gb Ex II 2 D Ex tb IIIC T190°C Db IP66												
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)												
Transparent cover		Toughened glass, stands 4J impact												
Internal reflector		High-purity aluminium												
External reflector (optional)		Pure aluminium, anodic-oxidation treatment for surface												
Wire guard		Stainless steel												
Ballast		Electromagnetic ballast, rapid starting, stable performance												
Trigger		General trigger												
Power factor		COS ϕ $\geq$ 0.90 (compensated)												
Exposed fastener		Stainless steel												
Lamp														
Available lamp and lamp power (W)		<table> <tr> <th colspan="3">Available lamp</th><th rowspan="2">Lamp holder</th></tr> <tr> <th>HIE</th><th>HSE</th><th>HME</th></tr> <tr> <td>250W</td><td>150W, 250W</td><td>250W</td><td>E40</td></tr> </table>		Available lamp			Lamp holder	HIE	HSE	HME	250W	150W, 250W	250W	E40
Available lamp			Lamp holder											
HIE	HSE	HME												
250W	150W, 250W	250W	E40											
Rated voltage		Note: HPI European standard ballast is available in general												
Earthing protection		220~240V AC 50Hz (60Hz is optional)												
Degree of protection		M5 (internal & external earth bolts)												
Ambient temperature		IP66												
Terminal		-60°C~+55°C												
Mounting		3 x 1.5~4mm ² (L+N+PE)												
Cable entries		Bracket type, pole type, hook type												
Cable gland (optional)		2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.												
		DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.												



Pendant Light Fittings

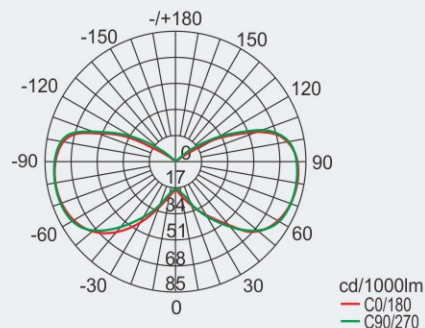
BDD91 Series Explosion-proof Light Fittings

Photometric data

BDD91-250-□□□(Without external reflector)



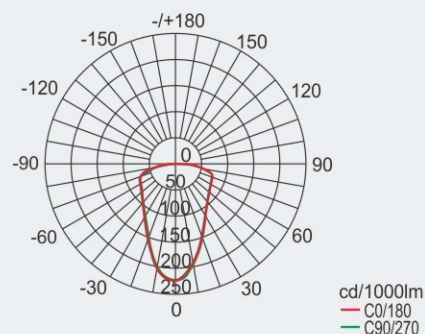
Rated luminous flux
 250W Metal halide lamp: 23200 lm
 150W High pressure sodium lamp: 18000 lm
 250W High pressure sodium lamp: 33200 lm
 250W High pressure mercury lamp: 13000 lm
 The data from Philips lamp



BDD91-250-□□□(With wide reflector)



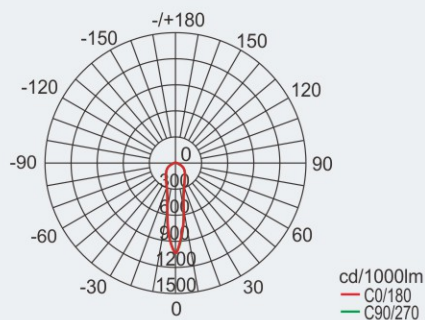
Rated luminous flux
 250W Metal halide lamp: 23200 lm
 150W High pressure sodium lamp: 18000 lm
 250W High pressure sodium lamp: 33200 lm
 250W High pressure mercury lamp: 13000 lm
 The data from Philips lamp



BDD91-250-□□□(With deep reflector)



Rated luminous flux
 250W Metal halide lamp: 23200 lm
 150W High pressure sodium lamp: 18000 lm
 250W High pressure sodium lamp: 33200 lm
 250W High pressure mercury lamp: 13000 lm
 The data from Philips lamp



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Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings

Technical data													
Explosion-proof light fittings		BDD91-400-□□□											
Explosion protection	Global (IECEX)	IECEX CQM 12.0016X											
	Gas and dust	Ex d IIC T□ ¹⁾ Gb											
		Ex tb IIIC T□ ¹⁾ Db IP66											
	Europe (ATEX)	DNV 11 ATEX 06160X											
	Gas and dust	Ⓔ ^{Ex} II 2 G Ex d IIC T□ ¹⁾ Gb											
		Ⓔ ^{Ex} II 2 D Ex tb IIIC T□ ¹⁾ Db IP66											
		¹⁾ See Selection Table											
		IECEX; ATEX; CU-TR											
	Certificates	EN 60079-0, EN 60079-1, EN 60079-31											
	Conformity to standards	IEC 60079-0, IEC 60079-1, IEC 60079-31											
Material	Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)											
	Transparent cover	Toughened glass, stands 4J impact											
	Internal reflector	High-purity aluminium											
	External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface											
	Wire guard	Stainless steel											
	Ballast	Electromagnetic ballast, rapid starting, stable performance											
	Trigger	General trigger											
	Power factor	COS ϕ ≥ 0.90 (compensated)											
	Exposed fastener	Stainless steel											
	Lamp	Available lamp and lamp power (W)	<table><tr><th colspan="3">Available lamp</th><th rowspan="3">Lamp holder</th></tr><tr><th>HIE</th><th>HSE</th><th>HME</th></tr><tr><td>250W, 400W</td><td>150W, 250W, 400W</td><td>400W</td></tr></table>		Available lamp			Lamp holder	HIE	HSE	HME	250W, 400W	150W, 250W, 400W
Available lamp			Lamp holder										
HIE		HSE		HME									
250W, 400W		150W, 250W, 400W		400W									
	Note: HPI European standard ballast is available in general.												
Rated voltage	220V, 230V, 240V AC 50Hz, 220~240V AC 50Hz (60Hz is optional)												
Earthing protection	M5 (internal & external earth bolts)												
Degree of protection	IP66												
Ambient temperature	-60℃~+55℃												
Terminal	3 x 1.5~4mm ² (L+N+PE)												
Mounting	Bracket type, pole type, hook type												
Cable entries	2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.												
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.												



Selection table					
Rated voltage (V)	Rated power (W)	Temperature classes			
		-60°C ≤ Ta ≤ +55°C		-60°C ≤ Ta ≤ +40°C	
		Gas	Dust	Gas	Dust
220V~240V AC 50/60Hz	HIE250W HSE150W	T4	T130°C	-	-
	HIE400W, HSE400W HME400W	T3	T190°C	-	-
220V AC 50/60Hz	HSE250W	T4	T130°C	-	-
230V/240V AC 50/60Hz	HSE250W	-	-	T4	T130°C

Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings

Photometric data

BDD91-400-□□□(Without external reflector)

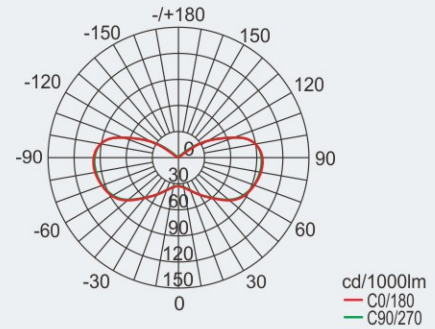
Rated luminous flux

400W High pressure sodium lamp: 56500 lm

400W High pressure mercury lamp: 22000 lm

400W Metal halide lamp: 42000 lm

The data from Philips lamp



BDD91-400-□□□(With wide reflector)

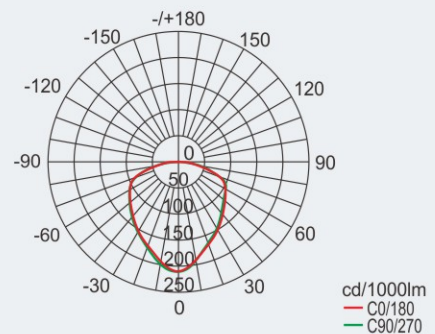
Rated luminous flux

400W High pressure sodium lamp: 56500 lm

400W High pressure mercury lamp: 22000 lm

400W Metal halide lamp: 42000 lm

The data from Philips lamp



BDD91-400-□□□(With deep reflector)

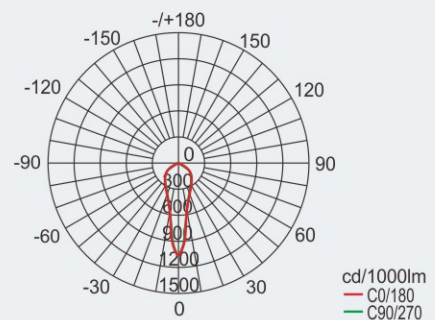
Rated luminous flux

400W High pressure sodium lamp: 56500 lm

400W High pressure mercury lamp: 22000 lm

400W Metal halide lamp: 42000 lm

The data from Philips lamp

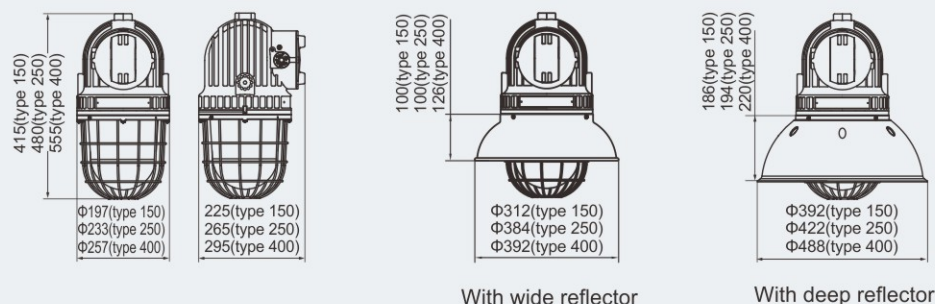


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Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings

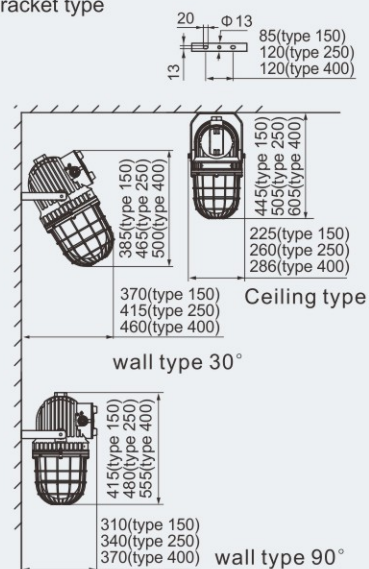
Dimension drawings (all dimensions in mm) - subject to alteration



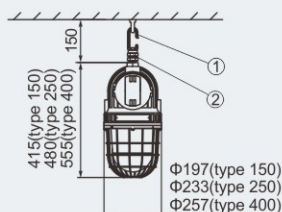
Mounting type (all dimensions in mm) – subject to alteration

Installation reference

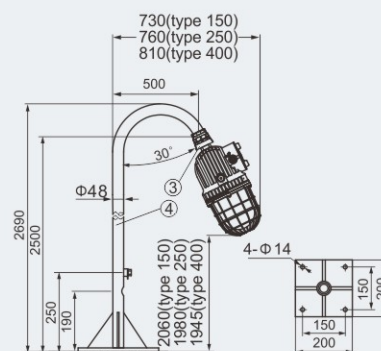
K: bracket type



D: hook type



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



- ①. Hook (Stainless steel).
- ②. BGJ-III explosion-proof connector, M25 x 1.5(M) / M25 x 1.5(F) Stainless steel.
- ③. BGJ-III explosion-proof connector, M25 x 1.5(M) / M25 x 1.5(M) Stainless steel.
- ④. Pole shall not be supplied with light fittings; if required, please specify when ordering.



Accessories

Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	91001	0.20
	250 Wide reflector	61002	0.27
	400 Wide reflector	91003	0.45
	150 Deep reflector	91004	0.44
	250 Deep reflector	91005	0.55
	400 Deep reflector	91006	0.65

Note: Ballast, trigger and capacitor see P1/21.