

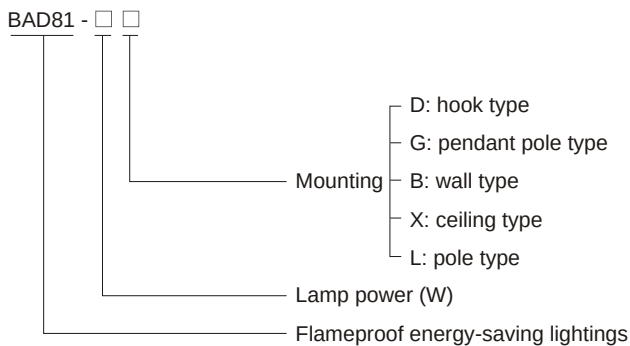


Energy-saving Lightings

BAD81 Series Flameproof Energy-saving Lightings

- ◆ Explosion protection to
 - CENELEC
 - IEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
- ◆ Two enclosure types separately for 42W and 68W compact energy-saving lamps, with good performance including rapid starting, flash free, high lighting efficiency, long service life and energy saving, etc.
- ◆ The luminous intensity of 42W compact energy-saving lamp equals to 80W mercury lamp; the luminous intensity of 68W compact energy-saving lamp equals to 125W mercury lamp.
- ◆ Powder coated wire guard, white.
- ◆ Toughened glass cover resistant to temperature changes.

Catalogue number logic



Selection table

Type/Ordering code	Lamp power(W)	Weight(kg)	Type/Ordering code	Lamp power(W)	Weight(kg)
BAD81-42D	42W	4.10	BAD81-68D	68W	6.20
BAD81-42G	42W	5.60	BAD81-68G	68W	7.70
BAD81-42B	42W	5.85	BAD81-68B	68W	7.95
BAD81-42X	42W	5.20	BAD81-68X	68W	7.30
BAD81-42L	42W	4.20	BAD81-68L	68W	6.30

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/29).
 2. The light fittings are supplied without external reflector. Please specify when ordering.
 3. The light fittings are supplied with lamps.

Zones 1&2; 21&22

Technical data

Flameproof energy-saving lightings BAD81-□□

Explosion protection

Gas explosion protection
Dust explosion protection

Ex II 2 G Ex d IIC T4
Ex tD A21 T130°C IP65

Certificates

For gas explosion protection
For dust explosion protection

LCIE 07 ATEX 6037; IECEx CQM 08.0002
PCEC (China)

Conformity to standards

EN 60079-0: 2006, EN 60079-1: 2004
IEC 60079-0: 2004, IEC 60079-1: 2003, IEC 61241-0: 2004, IEC 61241-1: 2004

Material

Enclosure
Wire guard
Transparent cover
Internal reflector
External reflector (optional)
Exposed fastener

Copper-free aluminium, powder coated external surface, yellow (RAL1021)
Powder coated carbon steel (white)
Toughened glass, stands 4J impact
High-purity aluminium
Pure aluminium, anodicoxidation treatment for surface
Stainless steel

Lamp

Lamp holder
Lamp brand
Lamp power (W)

E27
TCP (for sealed atmosphere)
42W
68W

Rated voltage

220~240V AC 50/60Hz

Earthing protection

M5 (internal & external earth bolts)

Degree of protection

IP65

Ambient temperature

-20°C~+55°C

Terminal

3 x 1.5~2.5mm² (L+N+PE)

Cable entries

G3/4" (NPT3/4" or M25x1.5 with reducer on request)

Cable gland

See Mounting Accessories and Spare Parts Table

Available cable outer diameter

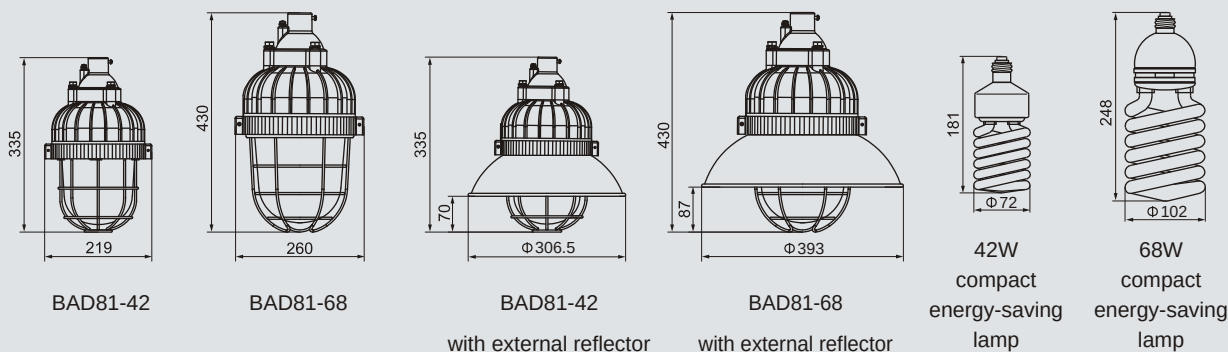
Φ10~Φ14 (mm)



Lamp data

Energy-saving lamp	Rated voltage	Working current	Luminous flux	Service life
42W	220~240V AC	380mA	2800lm	10000h
68W	220~240V AC	618mA	4200lm	10000h

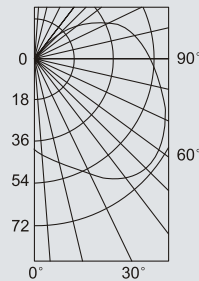
Dimension drawings (all dimensions in mm) - subject to alteration



Photometric data

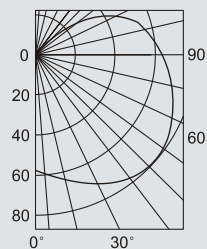


Photometric data of 42W
compact energy-saving lamp
Rated luminous flux:2800lm;
The data from TCP lamp;
Luminous intensity distribution
cd/1000lm



Angle	CP	Angle	CP	Angle	CP
0	115	60	196	120	96
5	129	65	190	125	79
10	135	70	190	130	66
15	152	75	182	135	49
20	162	80	173	140	33
25	170	85	170	145	19
30	181	90	159	150	0
35	197	95	156	155	0
40	209	100	146	160	0
45	213	105	140	165	0
50	212	110	132	170	0
55	204	115	107	175	0
				180	0

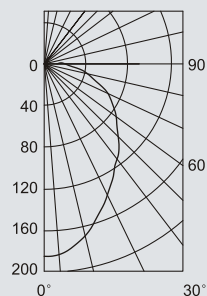
Photometric data of 68W
compact energy-saving lamp
Rated luminous flux:4200lm;
The data from TCP lamp;
Luminous intensity distribution
cd/1000lm



Angle	CP	Angle	CP	Angle	CP
0	249	60	331	120	172
5	241	65	322	125	150
10	244	70	316	130	125
15	257	75	305	135	100
20	273	80	280	140	76
25	283	85	263	145	53
30	292	90	261	150	33
35	313	95	255	155	16
40	325	100	246	160	0
45	332	105	225	165	0
50	336	110	217	170	0
55	334	115	199	175	0
				180	0

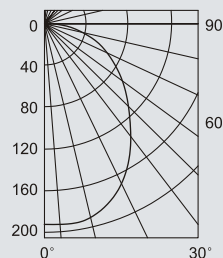


Photometric data of 42W
compact energy-saving lamp
(with wide reflector)
Rated luminous flux:2800lm;
The data from TCP lamp;
Luminous intensity distribution
cd/1000lm



Angle	CP	Angle	CP
0	482	50	240
5	477	55	219
10	461	60	197
15	433	65	171
20	403	70	149
25	371	75	117
30	341	80	91
35	313	85	65
40	290	90	37
45	265		

Photometric data of 68W
compact energy-saving lamp
(with wide reflector)
Rated luminous flux:4200lm;
The data from TCP lamp;
Luminous intensity distribution
cd/1000lm



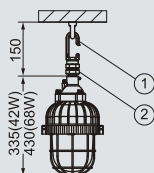
Angle	CP	Angle	CP
0	482	50	240
5	477	55	219
10	461	60	197
15	433	65	171
20	403	70	149
25	371	75	117
30	341	80	91
35	313	85	65
40	290	90	37
45	265		

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

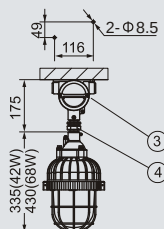
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

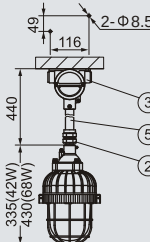
D: hook type



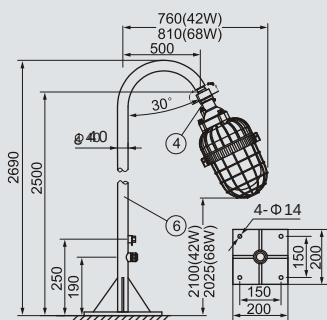
X: ceiling type



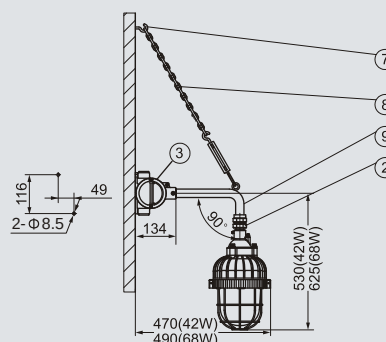
G: pendant pole type



L: pole type

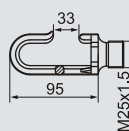
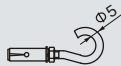


B: wall type



Mounting accessories and spare parts table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: hook type	①.Hook (stainless steel)	1		61020	0.20
	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F) Carbon steel	81D20	0.26
X: ceiling type	③.BHD51Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	④.BGJ-III Explosion-proof connector	1	M25 x 1.5(M)/ G3/4" (M) Carbon steel	81X01	0.30
G: pendant pole type	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F) Carbon steel	81D02	0.26
	③.BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑤.Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
L: pole type	④.BGJ-III Explosion-proof connector	1	M25 x 1.5(M)/ G3/4" (M) Carbon steel	81X01	0.30
	⑥.Pole	1	Φ 40mm	81L01	-
B: wall type	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F) Carbon steel	81D02	0.26
	③.BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑨.Elbow pipe 90° (M25 x 1.5)	1	Length: 400mm	51022	0.55
	⑧.Chain	1	Length: 580mm	80B11	0.09
	⑦.Hook expansion bolt	1		52017	0.03

Note: 1. Accessories not in the table shall be supplied by user.

2. Pole ⑥ shall not be supplied with light fittings; if required, please specify when ordering.

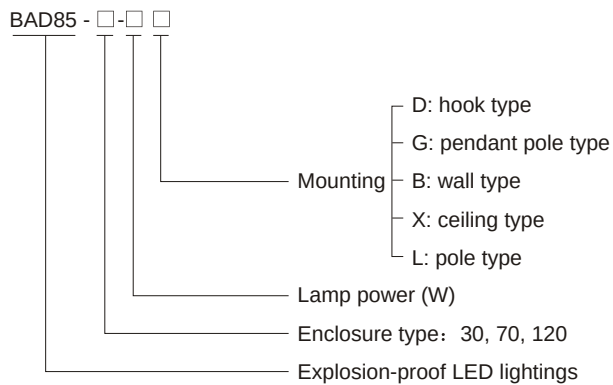


Energy-saving Lightings

BAD85 Series Explosion-proof LED Lightings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
- ◆ Applicable lamp and power (max.120W)
 - LED lamps, energy-saving and long service life
 - 20W, 30W, 50W, 70W, 100W, 120W
- ◆ Three enclosure types: 30, 70, 120
- ◆ Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment, terminal compartment; wind-convection heat dissipation structure.

Catalogue number logic



Selection table

Type/Ordering code	Lamp power(W)
BAD85-30-□ □	20, 30
BAD85-70-□ □	50, 70
BAD85-120-□ □	100, 120

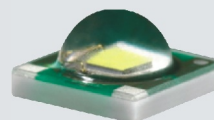
Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/32~33).
2. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.

Zones 1&2; 21&22

Technical data	
Explosion-proof LED lightings BAD85-□-□□	
Explosion protection Gas explosion protection Dust explosion protection	Ex II 2 G Ex d IIC T6/T5 Gb Ex II 2 D Ex t IIIC T80°C/T95°C Db IP66
Certificates	DNV 12 ATEX____; FM (USA); GOST.R (Russia); IECEx
Conformity to standards	EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-31: 2009 IEC 60079-0: 2007, IEC 60079-1: 2007, IEC 60079-31: 2008
Material Enclosure Transparent cover Power controller	Copper-free aluminium, powder coated external surface, yellow (RAL1021) Toughened glass, stands 4J impact Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥ 0.98 , with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Exposed fastener	Stainless steel
Lamp Lamp specification Lamp power (W)	CREE plural white LED modules 20W, 30W 50W, 70W 100W, 120W
Rated voltage	187~265V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-40°C~+55°C: T5/T95°C; -40°C~+40°C: T6/T80°C
Terminal	3 x 1.5~4mm ² (L+N+PE)
Mounting	Ceiling type, pole type, pendant pole type, wall type, hook type
Cable entries	30 type: G3/4" , (NPT3/4" or M25 x 1.5 with reducer on request) 70 /120 type: 1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1" (pole type)
Cable gland	See Mounting Accessories and Spare Parts Table
Applicable cable outer diameter	Φ10~Φ14 (mm)



Energy-saving description		
Name	Metal halide lamp 150W	BAD85-120
Rated power (W)	150	120
Working current (A)	1.80/220V	0.55/220V
Power factor (cos Φ)	0.56	0.95
Effective luminous flux (lm)	11000	10800
Service life (h)	15000	50000
Energy-saving effect	Similar luminous flux, electricity saved by over 70%, LED lamp service life extended by over 3 times, less maintenance expense, and less electric energy loss.	



Elaboration of plural white LED modules, unidirectional illumination, soft and balanced light, luminous efficiency>90lm/W, high colour rendering, long service life (50000h), environmental protection.

Dimension drawings (all dimensions in mm) - subject to alteration	
BAD85-30	BAD85-70
	BAD85-120

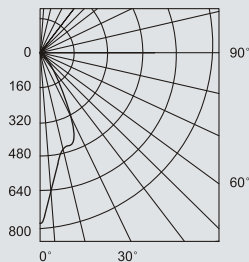
Photometric data



BAD85-30

Photometric data of 20W LED lamp

Rated luminous flux: 1800lm;
The data from CREE lamp;
Luminous intensity distribution cd/1000lm



30W LED lamp*1.5

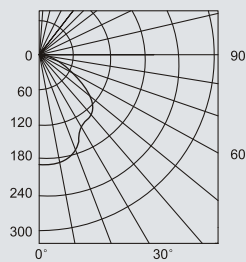
Angle	CP	Angle	CP	Angle	CP
0	1254	60	75	120	0
5	1013	65	60	125	0
10	766	70	51	130	0
15	668	75	45	135	0
20	675	80	30	140	0
25	525	85	17	145	0
30	310	90	10	150	0
35	165	95	6	155	0
40	128	100	0	160	0
45	105	105	0	165	0
50	85	110	0	170	0
55	80	115	0	175	0
				180	0



BAD85-70

Photometric data of 50W LED lamp

Rated luminous flux: 4500lm;
The data from CREE lamp;
Luminous intensity distribution cd/1000lm



70W LED lamp*1.4

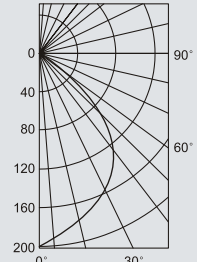
Angle	CP	Angle	CP	Angle	CP
0	864	60	303	120	0
5	815	65	235	125	0
10	765	70	155	130	0
15	690	75	78	135	0
20	715	80	39	140	0
25	725	85	18	145	0
30	639	90	11	150	0
35	640	95	8	155	0
40	606	100	5	160	0
45	462	105	4	165	0
50	415	110	0	170	0
55	410	115	0	175	0
				180	0



BAD85-120

Photometric data of 100W LED lamp

Rated luminous flux: 9000lm;
The data from CREE lamp;
Luminous intensity distribution cd/1000lm



120W LED lamp*1.2

Angle	CP	Angle	CP	Angle	CP
0	1750	60	502	120	0
5	1615	65	273	125	0
10	1387	70	154	130	0
15	1269	75	55	135	0
20	1215	80	32	140	0
25	1245	85	19	145	0
30	1195	90	13	150	0
35	1124	95	10	155	0
40	910	100	6	160	0
45	789	105	5	165	0
50	665	110	4	170	0
55	475	115	3	175	0
				180	0

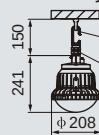


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Mounting type (BAD85-30 type) (all dimensions in mm) - subject to alteration

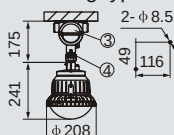
Installation reference

D: hook type



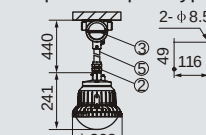
Weight: 3.64kg

X: ceiling type



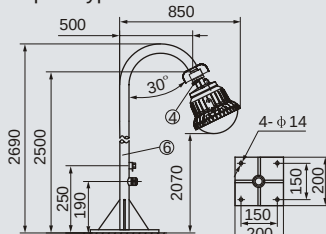
Weight: 4.05kg

G: pendant pole type



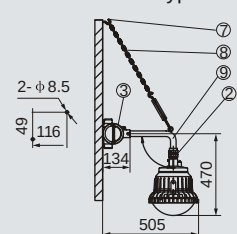
Weight: 4.45kg

L: pole type



Weight: 3.25kg (without pole ⑥)

B: wall type



Weight: 4.42kg

Mounting accessories and spare parts table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: hook type	①.Hook (stainless steel)	1	See P2/29	61020	0.20
	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F) Carbon steel	81D20	0.26
X: ceiling type	③.BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	④.BGJ-III Explosion-proof connector	1	M25 x 1.5(M)/ G3/4" (M) Carbon steel	81X01	0.30
G: pendant pole type	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F) Carbon steel	81D02	0.26
	③.BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑤.Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
L: pole type	④.BGJ-III Explosion-proof connector	1	M25 x 1.5(M)/ G3/4" (M) Carbon steel	81X01	0.30
	⑥.Pole	1	Φ40mm	81L01	-
	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F) Carbon steel	81D02	0.26
B: wall type	③.BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑨.Elbow pipe 90° (M25 x 1.5)	1	Length: 400mm	51022	0.55
	⑧.Chain	1	Length: 450mm	80B11	0.09
	⑦.Hook expansion bolt	1	See P2/29	52017	0.03

Note: 1. Accessories not in the table shall be supplied by user.

2. Pole ⑥ shall not be supplied with light fittings; if required, please specify when ordering.

Mounting type (BAD85-70 type, BAD85-120 type) (all dimensions in mm) - subject to alteration

G: pendant pole type	D: hook type	X: ceiling type	B: wall type	L: pole type
Weight: 7.80kg (70type) 8.80kg (120type) Accessories supplied with the light fittings: ①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel. ②.Straight pipe(M25 x 1.5), 300mm long. ③.BHD51-F(Ex d IIC, copper-free aluminium), see P3/6.	Weight: 6.50kg (70type) 7.50kg (120type) Accessories supplied with the light fittings: ①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel. ④.Hook (stainless steel).	Weight: 7.40kg (70type) 8.40kg (120type) Accessories supplied with the light fittings: ⑤.4 x M25 x1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~25.	Weight: 9.20kg (70type) 10.20kg (120type) Accessories supplied with the light fittings: ⑤.4 x M25 x1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~25.	Weight: 7.70kg (70type) 8.70kg (120type) Accessories supplied with the light fittings: ⑥.Pole shall be provided by user. ⑦.Locking bolt, 1 No. ⑧.Washer, 2 Nos. ⑨.Seal ring, 1 No.

Accessories

Picture	Name	Ordering code	Weight (kg)
	Power controller 20W	85001	0.20
	Power controller 30W	85002	0.20
	Power controller 50W	85003	0.45
	Power controller 70W	85004	0.45
	Power controller 100W	85005	0.58
	Power controller 120W	85006	0.58
	LED Lamp module 20W	85007	0.10
	LED Lamp module 30W	85008	0.10
	LED Lamp module 50W	85009	0.15
	LED Lamp module 70W	85010	0.15
	LED Lamp module 100W	85011	0.27
	LED Lamp module 120W	85012	0.27
	30 Type transparent cover with fixing-ring	85013	1.20
	70 Type transparent cover with fixing-ring	85014	1.84
	120 Type transparent cover with fixing-ring	85015	2.90



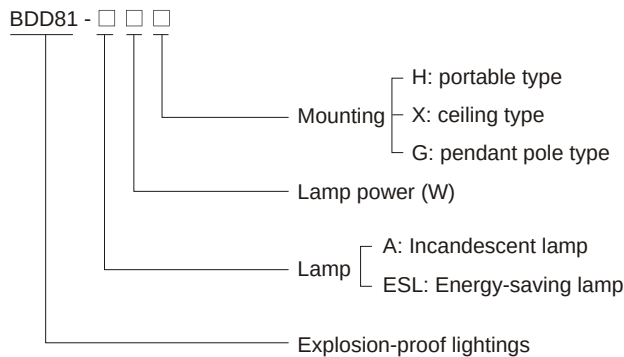


Energy-saving Lightings

BDD81 Series Explosion-proof Lightings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
- ◆ Available lamp and power:
 - Low power incandescent lamp (max.100W)
 - Compact energy-saving lamp (max.11W)
- ◆ Enclosure in copper-free aluminium, powder coated external surface, yellow (RAL1021).
- ◆ The light fittings are supplied without lamp. PHILIPS lamps are recommended.

Catalogue number logic



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

Installation reference

	H: portable type	X: ceiling type	G: pendant pole type
100W Incandescent lamp 11W Energy-saving lamp	Weight: 2.70kg Accessories supplied with the light fittings: ①.Hook ②.4 x M25 x1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~25.	Weight: 2.50kg Accessories supplied with the light fittings: ②.4 x M25 x1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~25.	Weight: 4.50kg Accessories supplied with the light fittings: ③.BGJ-III explosion-proof connector M25 x 1.5(M)/M25 x 1.5(F), carbon steel. ④.Straight pipe(M25 x 1.5),300mm long. ⑤.BHD51-F (Ex d IIC, copper-free aluminium), see P3/6.

Zones 1&2; 21&22

Technical data

Explosion-proof lightings BDD81 - □ □ □

Explosion protection

Gas explosion protection

Dust explosion protection

Certificates

Conformity to standards

Material

Enclosure

Transparent cover

Wire guard (optional)

Exposed fastener

Lamp

Lamp holder

Available lamp and lamp power (W)

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

Terminal

Mounting

Cable entries

Cable gland (optional)

Applicable cable outer diameter

Ex II 2 G Ex d IIC T4 Gb

Ex II 2 D Ex t IIIC T130°C Db IP66

LCIE 11 ATEX 3110X; FM (USA); GOST.R (Russia); IECEx

EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-31: 2009

IEC 60079-0: 2007, IEC 60079-1: 2007, IEC 60079-31: 2008

Copper-free aluminium, powder coated external surface, yellow (RAL1021)

Toughened glass, stands 4J impact

Powder coated carbon steel (white) or stainless steel

Stainless steel

E27

Incandescent lamp: 25W, 40W, 60W, 100W

Energy-saving lamp: 9W, 11W (for sealed atmosphere)

220~240V AC 50/60Hz

M5 (internal & external earth bolts)

IP66

-40°C ~ +55°C

3 x 1.5~4mm² (L+N+PE)

Portable type, ceiling type, pendant pole type

4 x M25 x 1.5 for ceiling type and portable type, 1 x M25 x 1.5 for pendant pole type

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~25.

Φ 10~Φ 14 (mm)

Photometric data

Photometric data of 100W

incandescent lamp

Rated luminous flux:1025lm;

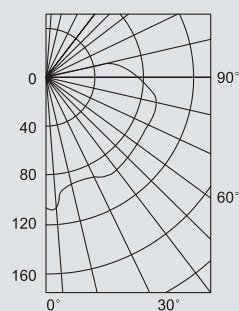
The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm

25W Incandescent lamp*0.2

40W Incandescent lamp*0.27

60W Incandescent lamp*0.49



Angle	CP	Angle	CP	Angle	CP
0	104	60	88	120	3
5	85	65	85	125	2
10	108	70	86	130	2
15	91	75	88	135	2
20	88	80	84	140	2
25	90	85	77	145	1
30	94	90	68	150	1
35	89	95	66	155	1
40	92	100	67	160	0
45	90	105	51	165	0
50	89	110	15	170	0
55	82	115	5	175	0
				180	0

Photometric data of 11W

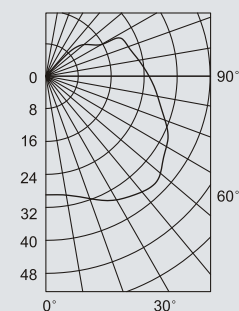
energy-saving lamp

Rated luminous flux:600lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm

9W Energy-saving lamp*0.7



Angle	CP	Angle	CP	Angle	CP
0	20	60	19	120	10
5	19	65	19	125	9
10	18	70	17	130	6
15	20	75	16	135	3
20	20	80	15	140	2
25	21	85	15	145	0
30	22	90	14	150	0
35	22	95	14	155	0
40	23	100	13	160	0
45	23	105	13	165	0
50	21	110	12	170	0
55	20	115	12	175	0
				180	0



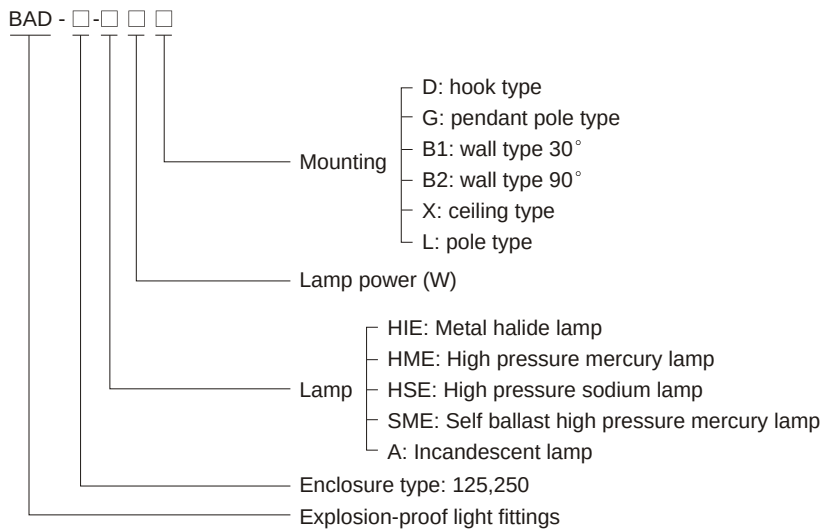


Pendant Light Fittings

BAD Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
- ◆ Can be used in
 - Zone 1 and Zone 2
- ◆ Available lamp:
 - Metal halide lamp (HIE)
 - High pressure mercury lamp (HME)
 - High pressure sodium lamp (HSE)
 - Self ballast high pressure mercury lamp (SME)
 - Incandescent lamp (A)
- ◆ Two enclosure types: 125, 250.
- ◆ Fast opening, easy maintenance.
- ◆ Powder coated wire guard, white.
- ◆ Toughened glass cover resistant to temperature changes.

Catalogue number logic



Selection table

Type/Ordering code	Available lamp power (W)					Lamp holder	Weight (kg)
	HIE	HME	SME	HSE	A		
BAD-125	70, 100, 150	80, 125	125, 160	70, 100	200	E27	5.20
BAD-250	175, 250	175, 250	250	150, 250	300	E40	6.10

Note

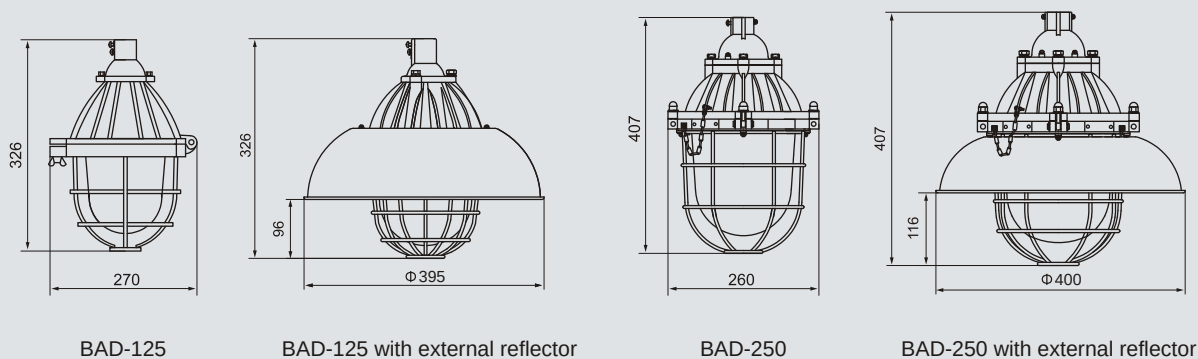
1. Mounting accessories are not supplied with light fittings. Please specify when ordering (See Mounting Accessories & Spare Parts Table on P2/40~41)
2. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
3. BAZ51 explosion-proof ballast is optional. See P2/88.
4. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2

Technical data		
Explosion-proof light fittings	BAD-125-□□□	BAD-250-□□□
Explosion protection		
Gas explosion protection	Ex II 2 G Ex d IIB T4	Ex II 2 G Ex d IIB T4 Gb
Dust explosion protection		Ex II 2 D Ex t IIIB T130°C Db IP65
Certificates	PTB 03 ATEX 1077; IECEx CQM 07.0010	PCEC(China); DNV 12 ATEX ____; IECEx
Conformity to standards	EN 50014:1997+A1+A2, EN 50018:2000+A1 IEC 60079-0: 2004, IEC 60079-1: 2003	EN 60079-0: 2009, EN 60079-1: 2007 EN 60079-31: 2009 IEC 60079-0: 2007, IEC 60079-1: 2007 IEC 60079-31: 2008
Material	Copper-free aluminium, powder coated external surface, yellow (RAL1021) Powder coated carbon steel, white Toughened glass, stands 4J impact High-purity aluminium Pure aluminium, anodicoxidation treatment for surface Stainless steel	
Lamp		
Lamp holder	E27	E40
Available lamp and lamp power (W)	HIE: 70W, 100W, 150W	HIE: 175W, 250W
	HME: 80W, 125W	HME: 175W, 250W
	SME: 125W, 160W	SME: 250W
	HSE: 70W, 100W	HSE: 150W, 250W
	A: 200W	A: 300W
Rated voltage	220~240V AC 50/60Hz	
Earthing protection	M5 (internal & external earth bolts)	
Degree of protection	IP65	
Ambient temperature	-20°C~+55°C	
Terminal	3 x 1.5~2.5mm ² (L+N+PE)	
Cable entries	G3/4" (NPT3/4" or M25 x 1.5 with reducer on request)	
Cable gland	See Mounting Accessories and Spare Parts Table	
Available cable outer diameter	Φ10~Φ14 (mm)	



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



Photometric data (BAD-125)

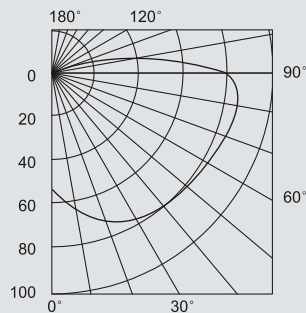


Photometric data of 100W high pressure sodium lamp

Rated luminous flux: 9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



70W High pressure sodium lamp*0.67

70W Metal halide lamp*0.56

80W High pressure mercury lamp*0.41

100W Metal halide lamp*1.0

125W High pressure mercury lamp*0.68

150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	480	60	662	120	32
5	476	65	707	125	28
10	543	70	746	130	24
15	584	75	839	135	21
20	578	80	855	140	19
25	621	85	833	145	17
30	622	90	735	150	15
35	593	95	588	155	13
40	514	100	407	160	0
45	555	105	236	165	0
50	616	110	85	170	0
55	611	115	38	175	0
				180	0

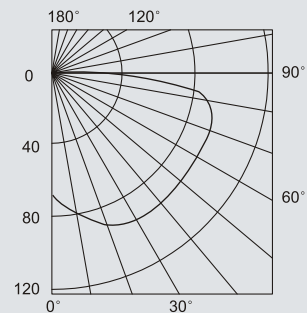


Photometric data of 100W high pressure sodium lamp (with wide reflector)

Rated luminous flux: 9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



70W High pressure sodium lamp*0.67

70W Metal halide lamp*0.56

80W High pressure mercury lamp*0.41

100W Metal halide lamp*1.0

125W High pressure mercury lamp*0.68

150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	614	60	788	120	9
5	669	65	819	125	0
10	623	70	844	130	0
15	737	75	902	135	0
20	820	80	902	140	0
25	908	85	585	145	0
30	868	90	215	150	0
35	849	95	44	155	0
40	785	100	31	160	0
45	726	105	23	165	0
50	796	110	15	170	0
55	781	115	11	175	0
				180	0

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

Photometric data (BAD-250)

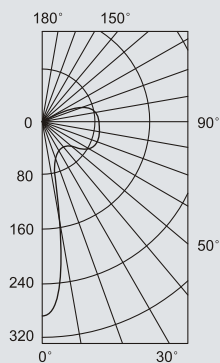


Photometric data of 175W metal halide lamp

Rated luminous flux:14000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



150W High pressure sodium lamp*1.07
250W High pressure sodium lamp* 2
250W Metal halide lamp*1.64
175W High pressure mercury lamp*0.53
250W High pressure mercury lamp*0.91

Angle	CP	Angle	CP	Angle	CP
0	3823	60	1380	120	412
5	2631	65	1483	125	93
10	1633	70	1414	130	67
15	761	75	1312	135	54
20	697	80	1204	140	42
25	754	85	1356	145	35
30	808	90	1413	150	28
35	883	95	1401	155	22
40	945	100	1389	160	19
45	812	105	1358	165	15
50	1083	110	1304	170	0
55	1285	115	1002	175	0
				180	0

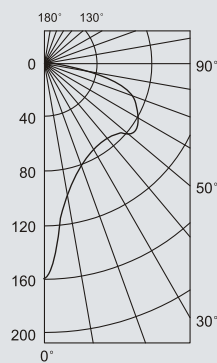


Photometric data of 175W metal halide lamp (with wide reflector)

Rated luminous flux:14000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



150W High pressure sodium lamp*1.07
250W High pressure sodium lamp* 2
250W Metal halide lamp*1.64
175W High pressure mercury lamp*0.53
250W High pressure mercury lamp*0.91

Angle	CP	Angle	CP	Angle	CP
0	2277	60	1174	120	12
5	1818	65	1097	125	8
10	1460	70	1017	130	0
15	1319	75	757	135	0
20	1229	80	280	140	0
25	1170	85	142	145	0
30	1153	90	56	150	0
35	1095	95	45	155	0
40	1007	100	45	160	0
45	1081	105	49	165	0
50	1255	110	151	170	0
55	1358	115	119	175	0
				180	0

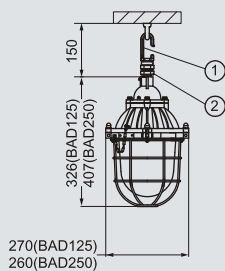


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

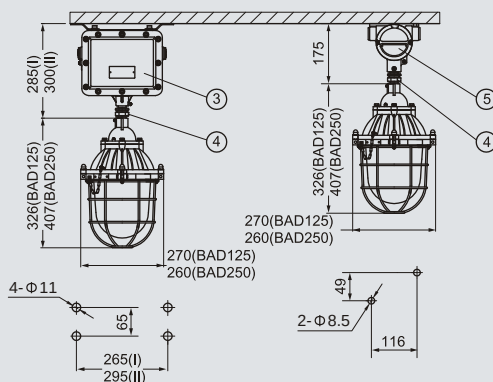
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

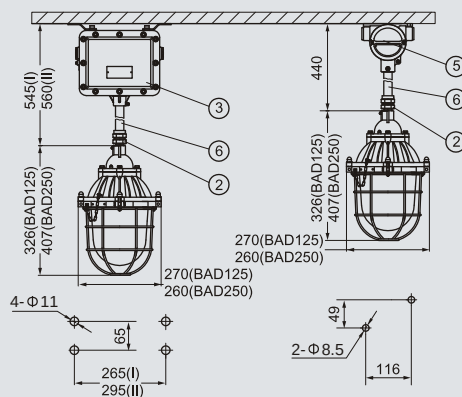
D: hook type



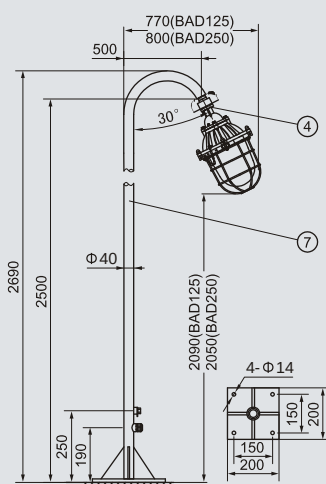
X: ceiling type



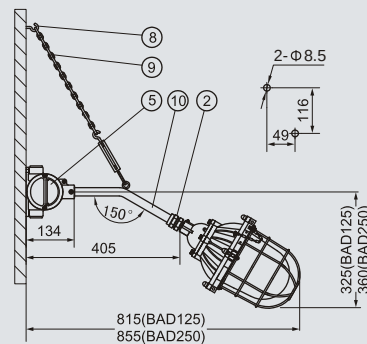
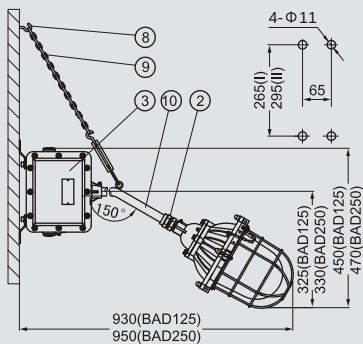
G: pendant pole type



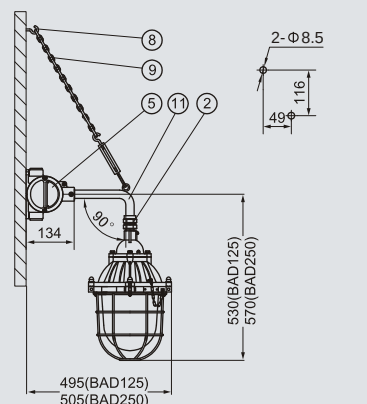
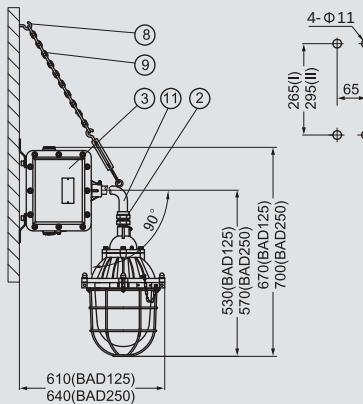
L: pole type



B1: wall type 30°

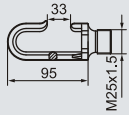
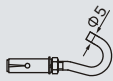


B2: wall type 90°



Mounting accessories and spare parts table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: hook type	①.Hook (stainless steel)	1		61020	0.20
	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F), Carbon steel	81D02	0.26
X: ceiling type	③.BAZ51 Explosion-proof ballast	1	BAZ51-II for BAD-HIE250; BAZ51-I for others	BAZ51-I/II	See P2/88
	④.BGJ-III Explosion-proof connector	1	M25 x 1.5(M)/ G3/4" (M), Carbon steel	81X01	0.30
	⑤.BHD51-F Explosion-proof junction box	1	Copper-free aluminium(Ex d IIC)	BHD51-F	0.80
G: pendant pole type	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F), Carbon steel	81D02	0.26
	③.BAZ51 Explosion-proof ballast	1	BAZ51-II for BAD-HIE250; BAZ51-I for others	BAZ51-I/II	See P2/88
	⑤.BHD51-F Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑥.Straight pipe (M25 x 1.5)	1	Length: 300mm	51G01	0.41
	④.BGJ-III Explosion-proof connector	1	M25 x 1.5 (M)/ G3/4" (M), Carbon steel	81X01	0.30
L: pole type	⑦.Pole	1	Φ40mm	81L01	-
B1: wall type 30°	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F), Carbon steel	81D02	0.26
	③.BAZ51 Explosion-proof ballast	1	BAZ51-II for BAD-HIE250; BAZ51-I for others	BAZ51-I/II	See P2/88
	⑤.BHD51-F Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑧.Hook expansion bolt	1		52017	0.03
	⑨.Chain	1	Length: 580mm	80B11	0.09
	⑩.Elbow pipe 30° (M25 x 1.5)	1	Length: 300mm	51021	0.42
	②.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5 (F), Carbon steel	81D02	0.26
B2: wall type 90°	③.BAZ51 Explosion-proof ballast	1	BAZ51-II for BAD-HIE250; BAZ51-I for others	BAZ51-I/II	See P2/88
	⑤.BHD51-F Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑧.Hook expansion bolt	1	Same as wall mounting 30°	52017	0.03
	⑨.Chain	1	Length: 450mm	80B11	0.10
	⑪.Elbow pipe 90° (M25 x 1.5)	1	Length: 400mm	51022	0.54

Note: 1. Accessories not in the table shall be supplied by user.

2. Pole ⑦ shall not be supplied with light fittings; if required, please specify when ordering.

Accessories

Picture	Name	Ordering code	Weight (kg)
	125 Top cover sleeve	51001	0.21
	250 Top cover sleeve	51002	0.37
	125 Wide reflector	51004	0.35
	250 Wide reflector	51005	0.34
	125 Wire guard	51007	0.38
	250 Wire guard	51008	0.33
	125 Transparent cover	51010	2.16
	250 Transparent cover	51011	2.68
	125 E27 lamp holder	51013	0.15
	250 E40 lamp holder	51014	0.45



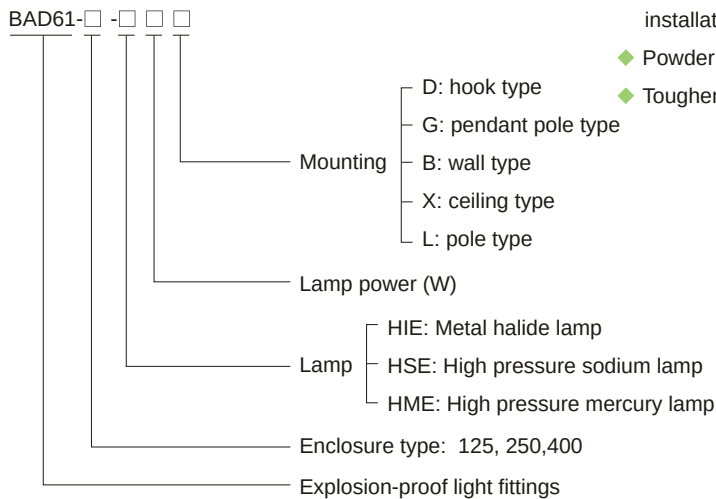


Pendant Light Fittings

BAD61 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
- ◆ Available lamp (max. 400W)
 - Metal halide lamp (HIE)
 - High pressure mercury lamp (HME)
 - High pressure sodium lamp (HSE)
- ◆ Three enclosure types: 125, 250, 400.
- ◆ Integral control gear, easy installation and maintenance.
- ◆ Explosion-proof trigger, rapid starting, stable performance and long service life.
- ◆ Wireless connection between body and top cover, easy installation and maintenance.
- ◆ Powder coated wire guard, white.
- ◆ Toughened glass cover resistant to temperature changes.

Catalogue number logic



Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder
	HIE	HSE	HME	
BAD61-125	70, 100, 150	70, 100	80, 125	E27
BAD61-250	175, 250	150, 250	175, 250	E40
BAD61-400	400	400	400	E40

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

Technical data

Explosion-proof light fittings

BAD61-125-□□□

Explosion protection

Gas explosion protection
Dust explosion protection

Certificates

Conformity to standards

Material

Enclosure
Wire guard
Transparent cover
Ballast
Trigger
Capacitor
Internal reflector
External reflector (optional)
Exposed fastener

II 2 G Ex d IIC T4/T3 Gb

II 2 D Ex tD A21 T135°C/T200°C IP66

DNV 10 ATEX 85533X; IECEx CQM 11.0010; FM(USA); POCC CN. ГБ 05.B03637(Russia)

EN 60079-0: 2009, EN 60079-1: 2007, EN 61241-0: 2006, EN 61241-1: 2004

IEC 60079-0: 2007, IEC 60079-1: 2007, IEC 61241-0: 2004, IEC 61241-1: 2004

Copper-free aluminium, powder coated external surface, yellow (RAL1021)

Powder coated carbon steel, white

Toughened glass, stands 4J impact

Choke ballast, rapid starting, stable performance

Explosion-proof trigger

Power factor ≥ 0.85 (compensated)

High-purity aluminium

Pure aluminium, anodization treatment for surface

Stainless steel

Lamp

Lamp holder
Available lamp and lamp power (W)

E27

Metal halide lamp (HIE): 70W, 100W, 150W

High pressure mercury lamp (HME): 80W, 125W

High pressure sodium lamp (HSE): 70W, 100W

Note: HPI European standard ballast is available in general

220~240V AC 50Hz (60Hz is optional)

M5 (internal & external earth bolts)

IP66

-60°C~+40°C: T4/T135°C; -60°C~+55°C: T3/T200°C

3 x 1.5~2.5mm² (L+N+PE)

1 x G3/4" (pendant pole type and hook type);

4 x M25x1.5 (wall type and ceiling type); 1 x G1" (pole type)

See Mounting Accessories and Spare Parts Table

Φ10~Φ14 (mm)

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

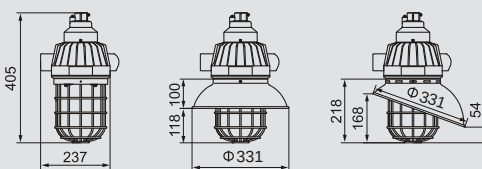
Terminal

Cable entries

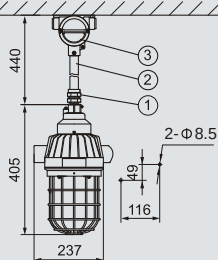
Cable gland

Available cable outer diameter

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



G: pendant pole type

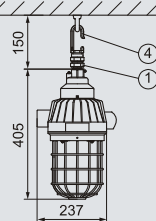


Weight: 10.35kg

Accessories supplied with the light fittings:

- ①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
- ②.Straight pipe (M25 x 1.5), 300mm long.
- ③.BHD51-F (Ex d IIC, copper-free aluminium), see P3/6.

D: hook type

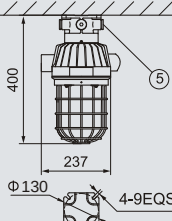


Weight: 9.30kg

Accessories supplied with the light fittings:

- ①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
- ④.Hook (stainless steel)

X: ceiling type

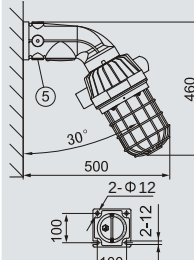


Weight: 9.45kg

Accessories supplied with the light fittings:

- ⑤.4 x M25 x 1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
- Please see P7/20~25.

B: wall type

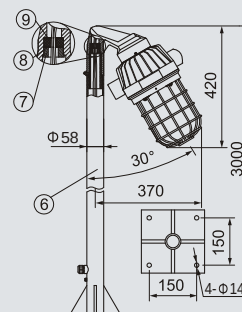


Weight: 11.20kg

Accessories supplied with the light fittings:

- ⑤.4 x M25 x 1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
- Please see P7/20~25.

L: pole type



Weight: 9.70kg

Accessories supplied with the light fittings:

- ⑥.Pole shall be provided by user.
- ⑦.Locking bolt, 1No.
- ⑧.Washer, 2 Nos.
- ⑨.Seal ring, 1 No.

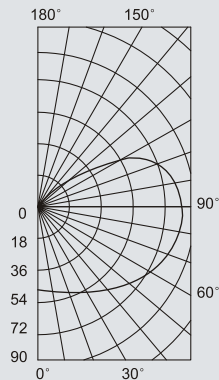


Photometric data (BAD61-125)



Photometric data of 100W
high pressure sodium lamp

Rated luminous flux:9000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



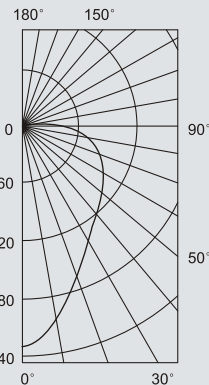
70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*1.0
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	423	60	654	120	591
5	256	65	694	125	432
10	205	70	725	130	275
15	181	75	749	135	110
20	199	80	772	140	25
25	252	85	786	145	14
30	314	90	785	150	8
35	379	95	782	155	0
40	436	100	774	160	0
45	552	105	757	165	0
50	600	110	723	170	0
55	611	115	670	175	0
				180	0



Photometric data of 100W
high pressure sodium lamp
(with wide reflector)

Rated luminous flux:9000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



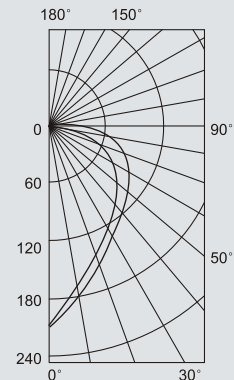
70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*1.0
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	2089	60	845	120	4
5	1895	65	841	125	0
10	1685	70	838	130	0
15	1521	75	826	135	0
20	1371	80	661	140	0
25	1240	85	389	145	0
30	1131	90	107	150	0
35	1042	95	25	155	0
40	962	100	17	160	0
45	971	105	13	165	0
50	929	110	7	170	0
55	862	115	5	175	0
				180	0



Photometric data of 100W
high pressure sodium lamp
(with angle reflector)

Rated luminous flux:9000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*1.0
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

0° Reflection angle CP				90° Reflection angle CP			
0	1897	95	265	0	1897	95	13
5	1685	105	29	5	1779	105	12
15	1474	115	20	15	1388	115	0
25	1289	125	14	25	1034	125	0
35	1143	135	0	35	762	135	0
45	1046	145	0	45	730	145	0
55	884	155	0	55	699	155	0
65	834	165	0	65	394	165	0
75	822	175	0	75	52	175	0
85	763	180	0	85	22	180	0
90	523			90	16		

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

BAD61-250-□□□

Explosion protection

Gas explosion protection
Dust explosion protection

Ex II 2 G Ex d IIC T3 Ex d IIC T3 Gb
Ex tD A21 T190°C IP65

Certificates

For gas explosion protection
For dust explosion protection

LCIE 05 ATEX 6142; IECEx CQM 07.0003; FM (USA); GOST.R (Russia)
PCEC (China)
EN 60079-0: 2006, EN 60079-1: 2004
IEC 60079-0: 2007, IEC 60079-1: 2007, IEC 61241-0: 2004, IEC 61241-1: 2004

Conformity to standards

Material

Enclosure
Wire guard
Transparent cover
Ballast
Trigger
Capacitor
Internal reflector
External reflector (optional)
Exposed fastener

Copper-free aluminium, powder coated external surface, yellow (RAL1021)
Powder coated carbon steel, white
Toughened glass, stands 4J impact
Choke ballast, rapid starting, stable performance
Explosion-proof electronic trigger
Power factor ≥ 0.85 (compensated)
High-purity aluminium
Pure aluminium, anodicoxidation treatment for surface
Stainless steel

Lamp

Lamp holder
Available lamp and lamp power (W)

E40
Metal halide lamp (HIE): 175W, 250W
High pressure mercury lamp (HME): 175W, 250W
High pressure sodium lamp (HSE): 150W, 250W
Note: HPI European standard ballast is available in general
220~240V AC 50Hz (60Hz is optional)
M5 (internal & external earth bolts)
IP65
-20°C ~ +55°C
3 x 1.5~2.5mm² (L+N+PE)
1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1" (pole type)
See Mounting Accessories and Spare Parts Table
Φ10~Φ14 (mm)

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

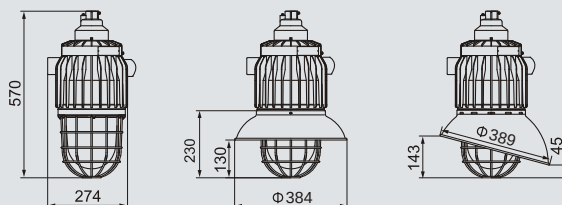
Terminal

Cable entries

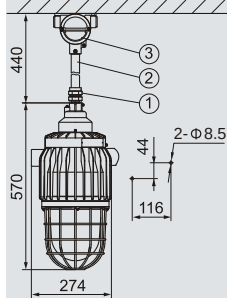
Cable gland

Available cable outer diameter

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



G: pendant pole type

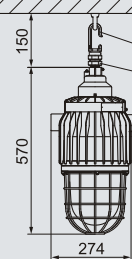


Weight: 17.20kg

Accessories supplied with the light fittings:

- ①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
- ②.Straight pipe (M25 x 1.5), 300mm long.
- ③.BHD51-F (Ex d IIC, cast iron), see P3/6.

D: hook type

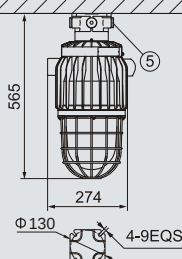


Weight: 14.55kg

Accessories supplied with the light fittings:

- ①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
- ④.Hook (stainless steel)

X: ceiling type

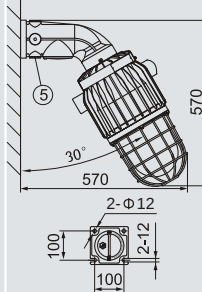


Weight: 15.20kg

Accessories supplied with the light fittings:

- ⑤.4 x M25 x 1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~25.

B: wall type

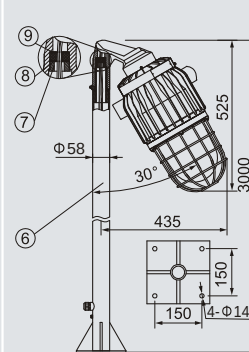


Weight: 16.95kg

Accessories supplied with the light fittings:

- ⑤.4 x M25 x 1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~25.

L: pole type



Weight: 15.50kg

Accessories supplied with the light fittings:

- ⑥.Pole shall be provided by user.
- ⑦.Locking bolt, 1 No.
- ⑧.Washer, 2 Nos.
- ⑨.Seal ring, 1 No.

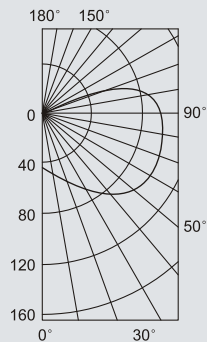


Photometric data (BAD61-250)



Photometric data of 175W metal halide lamp

Rated luminous flux:14000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



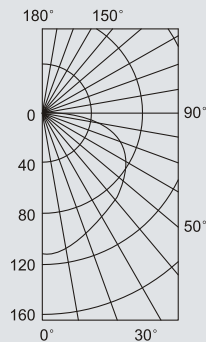
150W High pressure sodium lamp*1.07
250W High pressure sodium lamp*2
250W Metal halide lamp*1.64
175W High pressure mercury lamp*0.53
250W High pressure mercury lamp*0.91

Angle	CP	Angle	CP	Angle	CP
0	669	60	1315	120	116
5	633	65	1367	125	84
10	598	70	1287	130	58
15	562	75	1381	135	47
20	569	80	1365	140	36
25	554	85	1448	145	28
30	565	90	1439	150	23
35	665	95	1440	155	19
40	771	100	1432	160	16
45	990	105	1347	165	10
50	1213	110	1114	170	3
55	1257	115	618	175	2
				180	2



Photometric data of 175W metal halide lamp (with wide reflector)

Rated luminous flux:14000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



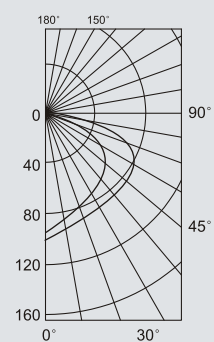
150W High pressure sodium lamp*1.07
250W High pressure sodium lamp*2
250W Metal halide lamp*1.64
175W High pressure mercury lamp*0.53
250W High pressure mercury lamp*0.91

Angle	CP	Angle	CP	Angle	CP
0	1580	60	1127	120	12
5	1479	65	1129	125	8
10	1383	70	1016	130	4
15	1399	75	976	135	3
20	1256	80	938	140	3
25	1166	85	709	145	3
30	1104	90	130	150	3
35	1023	95	56	155	3
40	1033	100	39	160	3
45	958	105	31	165	3
50	1137	110	23	170	3
55	1133	115	16	175	3
				180	3



Photometric data of 175W metal halide lamp (with angle reflector)

Rated luminous flux:14000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



150W High pressure sodium lamp*1.07
250W High pressure sodium lamp*2
250W Metal halide lamp*1.64
175W High pressure mercury lamp*0.53
250W High pressure mercury lamp*0.91

0° Reflection angle CP				90° Reflection angle CP			
0	1358	95	32	0	1358	95	9
5	1259	105	14	5	1237	105	4
15	1246	115	6	15	1073	115	3
25	1061	125	3	25	962	125	3
35	980	135	3	35	897	135	3
45	959	145	3	45	862	145	3
55	1116	155	3	55	983	155	3
65	1071	165	3	65	301	165	3
75	564	175	3	75	66	175	3
85	79	180	3	85	25	180	3
90	40			90	14		

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

BAD61-400-□□□

Explosion protection

Gas explosion protection
Dust explosion protection

Ex II 2 G Ex d IIC T3
Ex tD A21 T190°C IP65

Certificates

For gas explosion protection
For dust explosion protection

LCIE 07 ATEX 6085; IECEx CQM 08.0004; FM (USA); GOST.R (Russia)
PCEC (China)

Conformity to standards

EN 60079-0: 2006, EN 60079-1: 2007
IEC 60079-0: 2004, IEC 60079-1: 2003, IEC 61241-0: 2004, IEC 61241-1: 2004

Material

Enclosure
Wire guard
Transparent cover
Ballast
Trigger
Capacitor
Internal reflector
External reflector (optional)
Exposed fastener

Copper-free aluminium, powder coated external surface, yellow (RAL1021)
Powder coated carbon steel, white
Toughened glass, stands 4J impact
Choke ballast, rapid starting, stable performance
General trigger
Power factor ≥ 0.85 (compensated)
High-purity aluminium
Pure aluminium, anodization treatment for surface
Stainless steel

Lamp

Lamp holder
Available lamp and lamp power (W)

E40
Metal halide lamp (HIE): 400W
High pressure mercury lamp (HME): 400W
High pressure sodium lamp (HSE): 400W
Note: HPI European standard ballast is available in general

Rated voltage

220~240V AC 50Hz (60Hz is optional)
208V, 250V, 277V AC 50Hz (60Hz is optional)

Earthing protection

Degree of protection

Ambient temperature

Terminal

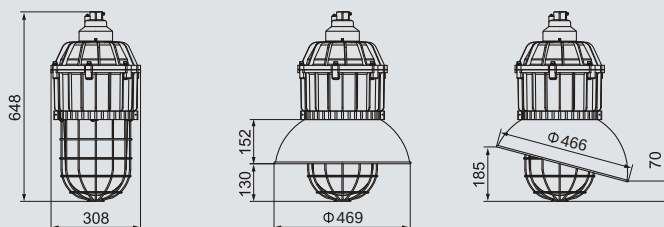
Cable entries

Cable gland

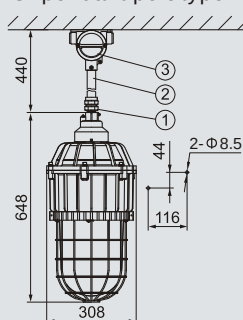
Available cable outer diameter

IP65
-20°C ~ +55°C
3 x 1.5 ~ 2.5mm² (L+N+PE)
1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1" (pole type)
See Mounting Accessories and Spare Parts Table
Φ10 ~ Φ14 (mm)

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



G: pendant pole type

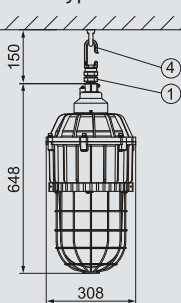


Weight: 23.65kg

Accessories supplied with the light fittings:

- ①. BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
- ②. Straight pipe (M25 x 1.5), 300mm long.
- ③. BHD51-F (Ex d IIC, cast iron), see P3/6.

D: hook type

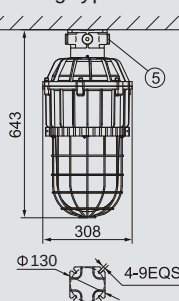


Weight: 20.85kg

Accessories supplied with the light fittings:

- ①. BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
- ④. Hook (stainless steel)

X: ceiling type

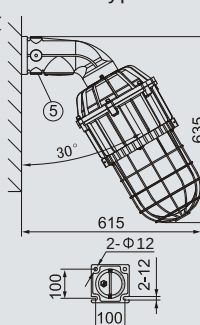


Weight: 21.50kg

Accessories supplied with the light fittings:

- ⑤. 4 x M25 x 1.5 Plug; Ex d cable gland (optional); DQM-II (Ex d) or DQM-III (Ex d) is recommended.
- Please see P7/20 ~ 25.

B: wall type

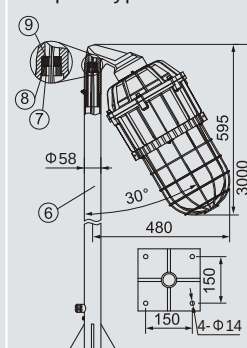


Weight: 23.25kg

Accessories supplied with the light fittings:

- ⑤. 4 x M25 x 1.5 Plug; Ex d cable gland (optional); DQM-II (Ex d) or DQM-III (Ex d) is recommended.
- Please see P7/20 ~ 25.

L: pole type



Weight: 21.80kg

Accessories supplied with the light fittings:

- ⑥. Pole shall be provided by user.
- ⑦. Locking bolt, 1 No.
- ⑧. Washer, 2 Nos.
- ⑨. Seal ring, 1 No.

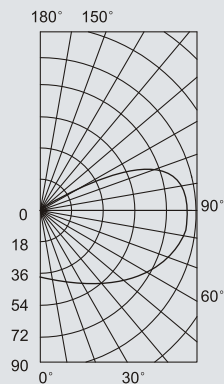


Photometric data (BAD61-400)



Photometric data of 400W metal halide lamp

Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



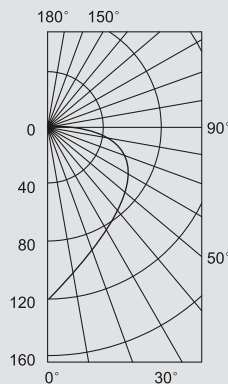
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

Angle	CP	Angle	CP	Angle	CP
0	1373	60	2538	120	139
5	1324	65	2431	125	110
10	1501	70	2576	130	98
15	1640	75	2838	135	82
20	1531	80	2794	140	70
25	1398	85	2437	145	67
30	1787	90	2318	150	60
35	1961	95	2483	155	55
40	2054	100	2498	160	49
45	1738	105	2197	165	38
50	2255	110	1129	170	28
55	2428	115	215	175	13
				180	7



Photometric data of 400W metal halide lamp (with wide reflector)

Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



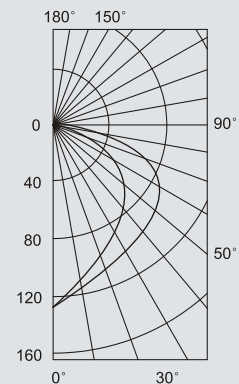
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

Angle	CP	Angle	CP	Angle	CP
0	4480	60	2137	120	5
5	4884	65	2143	125	5
10	4922	70	1981	130	6
15	4821	75	1711	135	6
20	4682	80	819	140	6
25	4224	85	248	145	0
30	3880	90	91	150	0
35	3394	95	59	155	0
40	3087	100	36	160	0
45	3138	105	19	165	0
50	2935	110	8	170	0
55	2335	115	7	175	0
				180	0



Photometric data of 400W metal halide lamp (with angle reflector)

Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm

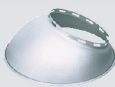
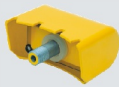


400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

0° Reflection angle CP				90° Reflection angle CP			
0	4948	95	59	0	4948	95	6
5	5312	105	20	5	4900	105	6
15	5523	115	0	15	4809	115	0
25	4992	125	0	25	3987	125	0
35	4021	135	0	35	3431	135	0
45	3569	145	0	45	3515	145	0
55	2559	155	0	55	2149	155	0
65	2194	165	0	65	1626	165	0
75	1541	175	0	75	119	175	0
85	216	180	0	85	130	180	0
90	95			90	14		

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

Accessories

Picture	Name	Ordering code	Weight (kg)
	125 Wide reflector	61001	0.15
	250 Wide reflector	61002	0.27
	400 Wide reflector	61003	0.53
	125 Angle reflector	61004	0.15
	250 Angle reflector	61005	0.36
	400 Angle reflector	61006	0.52
	Hook	61020	0.20
	Explosion-proof electronic trigger (125, 250 type)	61034	0.34
	E27 Lamp holder	61035	0.06
	E40 Lamp holder	61036	0.30
	125 Explosion-proof capacitor	61037	0.45
	250 Explosion-proof capacitor	61038	0.50

Note: Ballast, 400 type trigger, 400 type capacitor see P1/19



Power connection lamp replacement



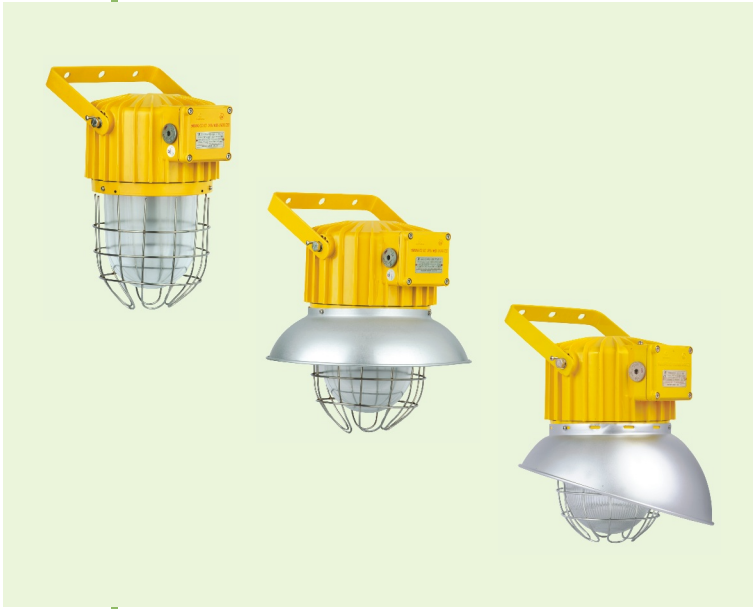
- ◆ Unscrew lock bolt at top cover, remove top cover and circlip, and take terminal block out.
- ◆ Connect the cable to terminal block, put terminal block and circlip back to ensure proper connection.



- ◆ Screw top cover at light fitting, keep two arrows on two parts in line to ensure proper connection between two spring contact plates.



- ◆ Unscrew bolts at transparent cover, open the transparent cover and screw lamp into lamp holder. Close cover and screw bolts.

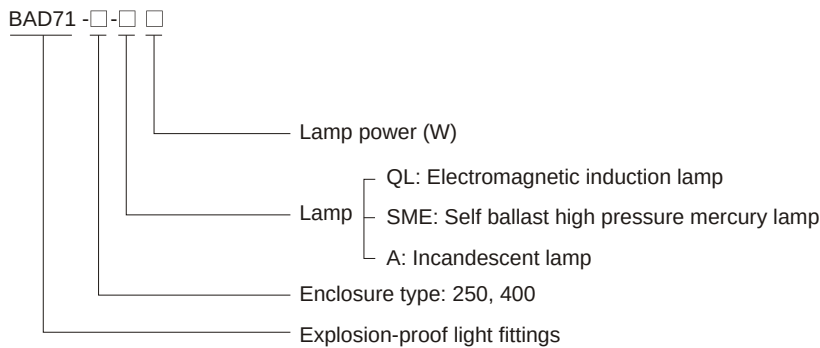


Pendant Light Fittings

BAD71 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
- ◆ Available lamp (max. 500W)
 - Self ballast high pressure mercury lamp (SME)
 - Incandescent lamp (A)
 - Electromagnetic induction lamp (QL)
- ◆ External terminal compartment, easy connection and maintenance.
- ◆ Two enclosure types: 250, 400.
- ◆ External reflector is optional, to increase lighting intensity.

Catalogue number logic



Selection table

Type/Ordering code	Available lamp power (W)		
	QL	SME	A
BAD71-250	85	160, 250	200, 300
BAD71-400	135	500 (450)	500

Note

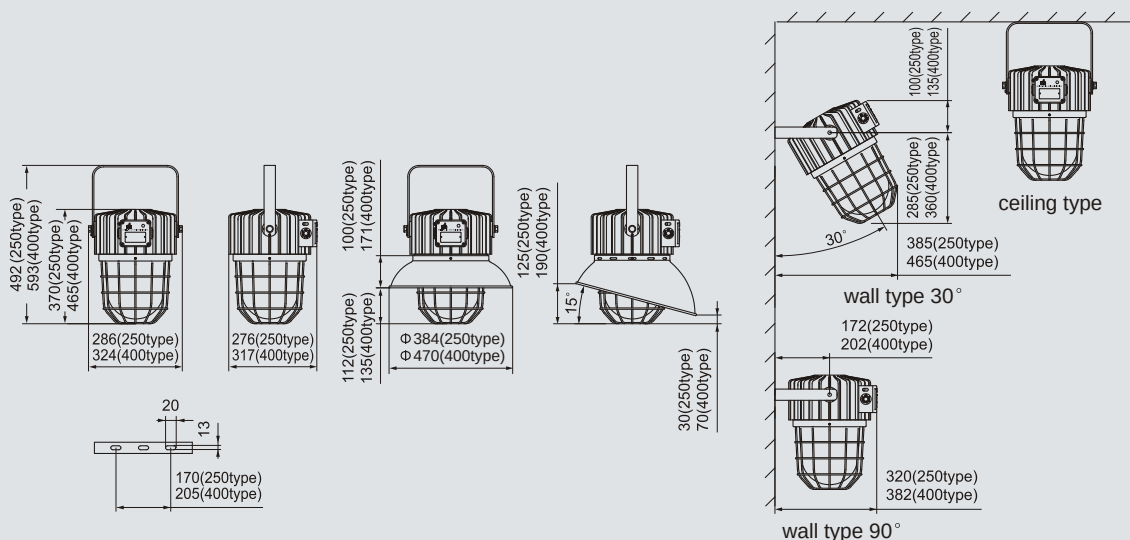
1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
2. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2; 21&22

Technical data																														
Explosion-proof light fittings	BAD71-250-□□	BAD71-400-□□																												
Explosion protection Gas explosion protection	Ex II 2 G Ex de IIC T3	Ex II 2 G Ex de IIC T3																												
Dust explosion protection	Ex tD A21 T190°C IP65	Ex tD A21 T190°C IP65																												
Certificates For gas explosion protection	LCIE 08 ATEX 6105 IECEX CQM 08.0018	LCIE 08 ATEX 6111 IECEX CQM 11.0030																												
For dust explosion protection	PCEC (China)	PCEC (China)																												
Conformity to standards	EN 60079-0: 2004, EN 60079-1: 2004 EN 60079-7: 2003 IEC 60079-0: 2004, IEC 60079-1: 2003 IEC 60079-7: 2001, IEC 61241-0: 2004 IEC 61241-1: 2004	EN 60079-0: 2004, EN 60079-1: 2004 EN 60079-7: 2003 IEC 60079-0: 2007, IEC 60079-1: 2007 IEC 60079-7: 2006, IEC 61241-0: 2004 IEC 61241-1: 2004																												
Material Enclosure Transparent cover Internal reflector External reflector (optional) Wire guard Exposed fastener	Copper-free aluminium, powder coated external surface, yellow (RAL1021) Toughened glass, stands 4J impact High-purity aluminium Pure aluminium, anodicoxidation treatment for surface Stainless steel Stainless steel																													
Lamp	<table border="1"> <thead> <tr> <th>Available lamp</th><th>Lamp power</th><th>Lamp holder</th></tr> </thead> <tbody> <tr> <td rowspan="2">SME</td><td>160W</td><td>E27</td></tr> <tr> <td>250W</td><td>E40</td></tr> <tr> <td rowspan="2">A</td><td>200W</td><td>E27</td></tr> <tr> <td>300W</td><td>E40</td></tr> <tr> <td>QL</td><td>85W</td><td>-</td></tr> </tbody> </table>	Available lamp	Lamp power	Lamp holder	SME	160W	E27	250W	E40	A	200W	E27	300W	E40	QL	85W	-	<table border="1"> <thead> <tr> <th>Available lamp</th><th>Lamp power</th><th>Lamp holder</th></tr> </thead> <tbody> <tr> <td>SME</td><td>500(450)W</td><td>E40</td></tr> <tr> <td>A</td><td>500W</td><td>E40</td></tr> <tr> <td>QL</td><td>135W</td><td>-</td></tr> </tbody> </table>	Available lamp	Lamp power	Lamp holder	SME	500(450)W	E40	A	500W	E40	QL	135W	-
Available lamp	Lamp power	Lamp holder																												
SME	160W	E27																												
	250W	E40																												
A	200W	E27																												
	300W	E40																												
QL	85W	-																												
Available lamp	Lamp power	Lamp holder																												
SME	500(450)W	E40																												
A	500W	E40																												
QL	135W	-																												
Rated voltage	220~240V AC 50/60Hz																													
Earthing protection	M5 (internal & external earth bolts)																													
Degree of protection	IP65																													
Ambient temperature	-20°C ~ +55°C																													
Terminal	3 x 1.5~2.5mm ² (L+N+PE)																													
Cable entries	2 x M25 x 1.5 plug																													
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~18.																													
Weight	9.25kg	13.45kg																												



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



Pendant Light Fittings

BAD71 Series Explosion-proof Light Fittings

Photometric data (BAD71-250)

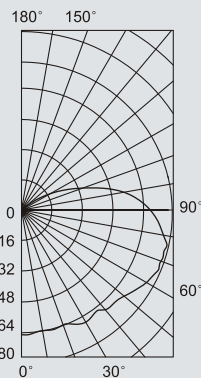


Photometric data of 250W self ballast high pressure mercury lamp

Rated luminous flux:4900lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



160W Self ballast high pressure mercury lamp*0.64
200W Incandescent lamp*0.41
300W Incandescent lamp*0.83

Angle	CP	Angle	CP	Angle	CP
0	315	60	317	120	45
5	314	65	317	125	45
10	309	70	313	130	23
15	304	75	306	135	9
20	299	80	291	140	0
25	300	85	270	145	0
30	303	90	243	150	0
35	298	95	213	155	0
40	293	100	180	160	0
45	296	105	143	165	0
50	303	110	107	170	0
55	310	115	73	175	0
				180	0

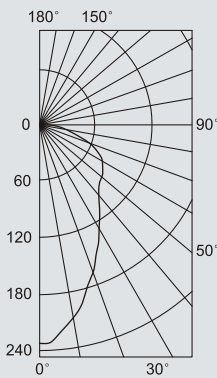


Photometric data of 250W self ballast high pressure mercury lamp (with wide reflector)

Rated luminous flux:4900lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



160W Self ballast high pressure mercury lamp*0.64
200W Incandescent lamp*0.41
300W Incandescent lamp*0.83

Angle	CP	Angle	CP	Angle	CP
0	1117	60	337	120	0
5	1109	65	306	125	0
10	1070	70	251	130	0
15	980	75	192	135	0
20	875	80	131	140	0
25	763	85	77	145	0
30	666	90	37	150	0
35	587	95	13	155	0
40	506	100	5	160	0
45	443	105	4	165	0
50	401	110	2	170	0
55	364	115	1	175	0
				180	0

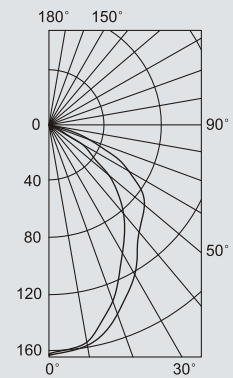


Photometric data of 250W self ballast high pressure mercury lamp (with angle reflector)

Rated luminous flux:4900lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



160W Self ballast high pressure mercury lamp*0.64
200W Incandescent lamp*0.41
300W Incandescent lamp*0.83

0° Reflection angle CP				90° Reflection angle CP			
0	829	95	0	0	829	95	0
5	730	105	0	5	800	105	0
15	615	115	0	15	707	115	0
25	509	125	0	25	573	125	0
35	467	135	0	35	460	135	0
45	387	145	0	45	337	145	0
55	267	155	0	55	169	155	0
65	129	165	0	65	50	165	0
75	34	175	0	75	6	175	0
85	11	180	0	85	2	180	0
90	6			90	1		

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

Photometric data (BAD71-400)

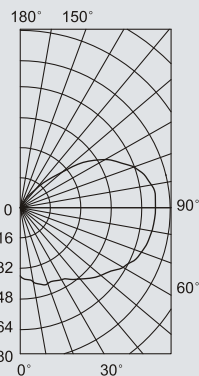


Photometric data of 500W self ballast high pressure mercury lamp

Rated luminous flux:13000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



500W Incandescent lamp*0.57

Angle	CP	Angle	CP	Angle	CP
0	451	60	718	120	731
5	453	65	765	125	649
10	481	70	805	130	533
15	488	75	836	135	402
20	494	80	862	140	179
25	488	85	882	145	178
30	492	90	896	150	94
35	514	95	904	155	37
40	548	100	907	160	18
45	578	105	891	165	12
50	617	110	857	170	0
55	666	115	803	175	0
				180	0

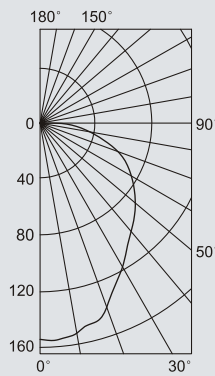


Photometric data of 500W self ballast high pressure mercury lamp (with wide reflector)

Rated luminous flux:13000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



500W Incandescent lamp*0.57

Angle	CP	Angle	CP	Angle	CP
0	1979	60	956	120	0
5	1903	65	878	125	0
10	1918	70	768	130	0
15	1815	75	626	135	0
20	1619	80	493	140	0
25	1450	85	327	145	0
30	1386	90	180	150	0
35	1272	95	87	155	0
40	1191	100	38	160	0
45	1107	105	16	165	0
50	1045	110	9	170	0
55	998	115	5	175	0
				180	0

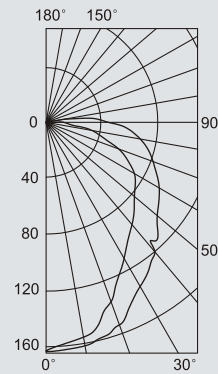


Photometric data of 500W self ballast high pressure mercury lamp (with angle reflector)

Rated luminous flux:13000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



500W Incandescent lamp*0.57

0° Reflection angle CP				90° Reflection angle CP			
0	2064	95	12	0	2064	95	39
5	2025	105	0	5	2179	105	0
15	1719	115	0	15	1919	115	0
25	1371	125	0	25	1609	125	0
35	1066	135	0	35	1337	135	0
45	887	145	0	45	1148	145	0
55	765	155	0	55	1012	155	0
65	537	165	0	65	827	165	0
75	219	175	0	75	534	175	0
85	62	180	0	85	195	180	0
90	26			90	93		



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

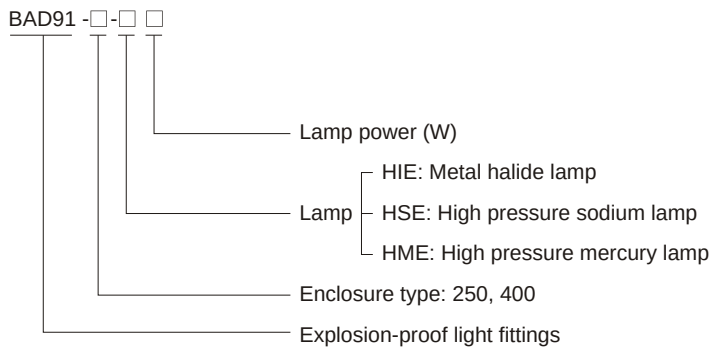


Pendant Light Fittings

BAD91 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
- ◆ Integral control gear, easy installation and maintenance.
- ◆ External terminal compartment, convenient for connection and maintenance.
- ◆ Two enclosure types: 250, 400.
- ◆ External reflector is optional, to increase lighting intensity.

Catalogue number logic



Selection table

Type/Ordering code	Available lamp power (W)		
	HIE	HSE	HME
BAD91-250	175, 250	150, 250	175, 250
BAD91-400	400	400	400

Note

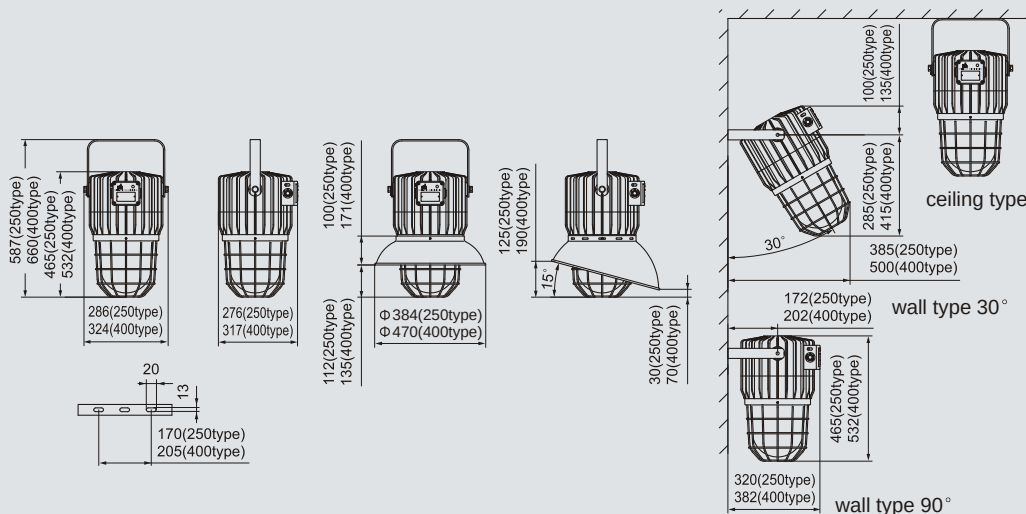
1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
2. HPI European standard ballast is supplied with HIE light fitting. HPI European standard lamps are recommended.
3. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2; 21&22

Technical data																				
Explosion-proof light fittings		BAD91-250-□□		BAD91-400-□□																
Explosion protection Gas explosion protection Dust explosion protection Certificates For gas explosion protection For dust explosion protection Conformity to standards	 II 2 G Ex de IIC T3		 II 2 G Ex de IIC T3 Ex de IIC T3 Gb Ex tD A21 T190℃ IP65																	
	Ex tD A21 T190℃ IP65																			
	LCIE 08 ATEX 6106 IECEX CQM 08.0019		LCIE 08 ATEX 6112 IECEX CQM 11.0019X																	
	PCEC (China)		PCEC (China)																	
	EN 60079-0: 2004, EN 60079-1: 2004 EN 60079-7: 2003 IEC 60079-0: 2004, IEC 60079-1: 2003 IEC 60079-7: 2001, IEC 61241-0: 2004, IEC 61241-1: 2004		EN 60079-0: 2004, EN 60079-1: 2004 EN 60079-7: 2003 IEC 60079-0: 2007, IEC 60079-1: 2007 IEC 60079-7: 2006, IEC 61241-0: 2004 IEC 61241-1: 2004																	
Material Enclosure Transparent cover Internal reflector External reflector (optional) Wire guard Ballast Trigger Capacitor Exposed fastener Lamp Lamp holder Available lamp and lamp power (W)	Copper-free aluminium, powder coated external surface, yellow(RAL1021) Toughened glass, stands 4J impact High-purity aluminium Pure aluminium, anodicoxidation treatment for surface Stainless steel Choke ballast, rapid starting, stable performance General trigger Power factor≥0.85 (compensated) Stainless steel																			
	E40																			
	<table><tr><td>Available lamp</td><td>Lamp power</td></tr><tr><td>HSE</td><td>150W, 250W</td></tr><tr><td>HME</td><td>175W, 250W</td></tr><tr><td>HIE</td><td>175W, 250W</td></tr></table>		Available lamp	Lamp power	HSE	150W, 250W	HME	175W, 250W	HIE	175W, 250W	<table><tr><td>Available lamp</td><td>Lamp power</td></tr><tr><td>HSE</td><td>400W</td></tr><tr><td>HME</td><td>400W</td></tr><tr><td>HIE</td><td>400W</td></tr></table>		Available lamp	Lamp power	HSE	400W	HME	400W	HIE	400W
	Available lamp	Lamp power																		
	HSE	150W, 250W																		
	HME	175W, 250W																		
	HIE	175W, 250W																		
	Available lamp	Lamp power																		
	HSE	400W																		
	HME	400W																		
HIE	400W																			
Note: HPI European standard ballast is available in general 220~240V AC 50Hz (60Hz is optional)																				
M5 (internal & external earth bolts)																				
IP65																				
-20℃~+55℃																				
3 x 1.5~2.5mm ² (L+N+PE)																				
2 x M25 x 1.5 Plug																				
DQM-I (Ex e) is recommended. Please see P7/17~18.																				
13.80kg		20.00kg																		



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

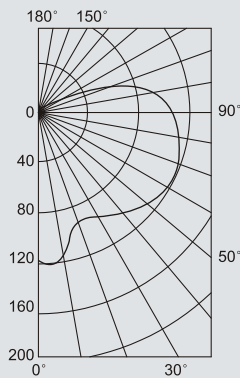


Photometric data (BAD91-250)



Photometric data of 250W metal halide lamp

Rated luminous flux:23000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



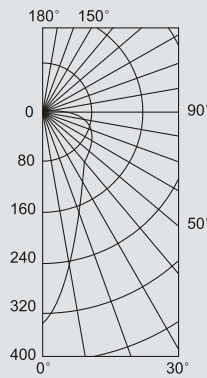
175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

Angle	CP	Angle	CP	Angle	CP
0	1569	60	1547	120	103
5	1697	65	1646	125	72
10	1201	70	1544	130	55
15	983	75	1485	135	45
20	720	80	1453	140	36
25	814	85	1646	145	31
30	970	90	1614	150	28
35	864	95	1581	155	27
40	1196	100	1547	160	27
45	1224	105	1492	165	25
50	1267	110	1202	170	23
55	1209	115	641	175	9
				180	4



Photometric data of 250W metal halide lamp (with wide reflector)

Rated luminous flux:23000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



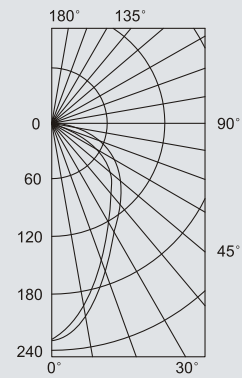
175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

Angle	CP	Angle	CP	Angle	CP
0	6806	60	1883	120	9
5	6873	65	1790	125	8
10	6059	70	1471	130	6
15	5109	75	1038	135	4
20	4242	80	407	140	0
25	3672	85	139	145	0
30	3206	90	70	150	0
35	2538	95	47	155	0
40	2451	100	36	160	0
45	2010	105	25	165	0
50	1886	110	19	170	0
55	1983	115	12	175	0
				180	0



Photometric data of 250W metal halide lamp (with angle reflector)

Rated luminous flux:23000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

0° Reflection angle CP				90° Reflection angle CP			
0	4532	95	29	0	4532	95	7
5	4386	105	14	5	4470	105	6
15	3495	115	8	15	3500	115	0
25	2862	125	0	25	2699	125	0
35	2063	135	0	35	2025	135	0
45	1797	145	0	45	1868	145	0
55	1687	155	0	55	944	155	0
65	1166	165	0	65	253	165	0
75	288	175	0	75	54	175	0
85	85	180	0	85	17	180	0
90	42			90	12		

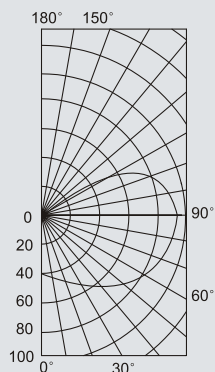
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Photometric data (BAD91-400)



Photometric data of 400W metal halide lamp

Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



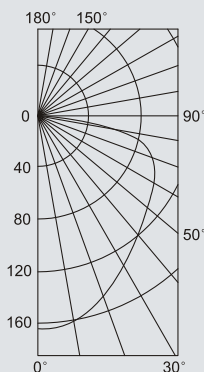
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

Angle	CP	Angle	CP	Angle	CP
0	1743	60	2852	120	1005
5	1610	65	3055	125	184
10	1563	70	3200	130	101
15	1669	75	3028	135	73
20	1780	80	2857	140	60
25	1879	85	2729	145	51
30	1865	90	2761	150	49
35	1694	95	2996	155	52
40	2316	100	2930	160	50
45	2413	105	2787	165	57
50	2414	110	2600	170	6
55	2504	115	1963	175	6
				180	6



Photometric data of 400W metal halide lamp (with wide reflector)

Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



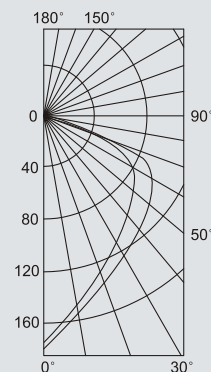
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

Angle	CP	Angle	CP	Angle	CP
0	5194	60	3324	120	9
5	6163	65	3506	125	9
10	6104	70	3447	130	9
15	5900	75	3053	135	9
20	5459	80	2052	140	0
25	5037	85	759	145	0
30	4647	90	255	150	0
35	4324	95	133	155	0
40	4251	100	81	160	0
45	4257	105	48	165	0
50	3733	110	26	170	0
55	3671	115	15	175	0
				180	0



Photometric data of 400W metal halide lamp (with angle reflector)

Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

0° Reflection angle CP				90° Reflection angle CP			
0	6366	95	451	0	6366	95	48
5	6629	105	128	5	6320	105	16
15	5891	115	54	15	5671	115	10
25	5155	125	16	25	4462	125	0
35	4518	135	8	35	3919	135	0
45	4207	145	0	45	3475	145	0
55	3914	155	0	55	3034	155	0
65	3680	165	0	65	2875	165	0
75	3235	175	0	75	523	175	0
85	2640	180	0	85	139	180	0
90	1295			90	80		



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

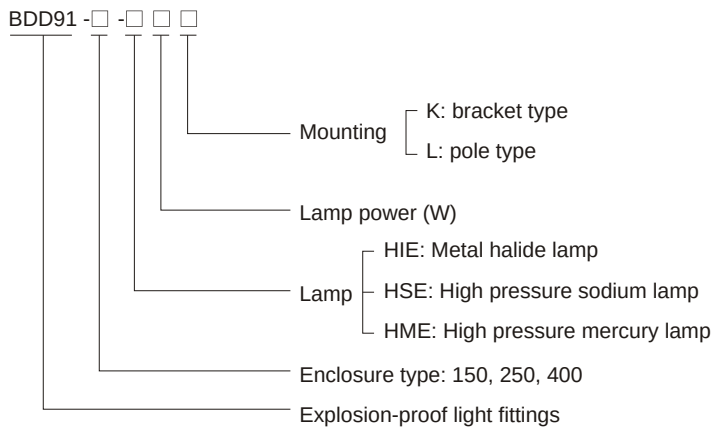


Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
- ◆ 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	175, 250	150, 250	175, 250	E40	14.80
BDD91-400	400	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

Technical data					
Explosion-proof light fittings	BDD91-150-□□□		BDD91-250-□□□ BDD91-400-□□□		
Explosion protection					
Gas explosion protection	Ⓔ II 2 G Ex d IIC Tx ¹⁾ Gb		Ⓔ II 2 G Ex d IIC T3 Gb		
Dust explosion protection	Ⓔ II 2 D Ex t IIIC Txxx℃ ¹⁾ Db IP66 ¹⁾ See Selection Table		Ⓔ II 2 D Ex t IIIC T190℃ Db IP66		
Certificates	DNV 11 ATEX 05977X		DNV 11 ATEX 06159X DNV 11 ATEX 06160X		
Conformity to standards	IECEX; FM (USA); GOST.R (Russia) EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-31: 2009 IEC 60079-0: 2007, IEC 60079-1: 2007, IEC 60079-31: 2008				
Material					
Enclosure	Copper-free aluminium, powder coated external surface, yellow (RAL1021)				
Transparent cover	Toughened glass, stands 4J impact.				
Internal reflector	High-purity aluminium				
External reflector (optional)	Pure aluminium, anodicoxidation treatment for surface				
Wire guard	Stainless steel				
Ballast	Chock ballast, rapid starting,stable performance				
Trigger	General trigger				
Capacitor	Power factor≥0.85 (compensated)				
Exposed fastener	Stainless steel				
Lamp					
Available lamp and lamp power (W)	Type	Available Lamp			Lamp
		HIE	HSE	HME	holder
	BDD91-150	70W, 100W, 150W	70W, 100W	80W, 125W	E27
	BDD91-250	175W, 250W	150W, 250W	175W, 250W	E40
	BDD91-400	400W	400W	400W	E40
Rated voltage	Note: HPI European standard ballast is available in general 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				
Cable entries	2 x M25 x 1.5 for bracket type, 1 x M25 x 1.5 for pole type				
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20～25.				



Selection Table		Dimension drawings (all dimensions in mm) - subject to alteration	
Lamp	Explosion protection		
HIE 70,100	Ⓔ II 2 G Ex d IIC T4 Gb II 2 D Ex t IIIC T130°C Db IP66		
HME 80			
HSE 70,100			
HIE 150	Ⓔ II 2 G Ex d IIC T142°C Gb II 2 D Ex t IIIC T142°C Db IP66		
HME 125			

Photometric data



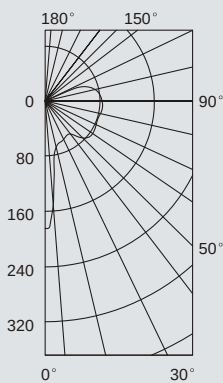
BDD91-150

Photometric data of 100W metal halide lamp

Rated luminous flux:9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*1.0
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	1649	60	505	120	20
5	812	65	520	125	15
10	420	70	410	130	12
15	280	75	495	135	0
20	245	80	608	140	0
25	280	85	620	145	0
30	282	90	600	150	0
35	320	95	590	155	0
40	350	100	565	160	0
45	463	105	552	165	0
50	452	110	415	170	0
55	475	115	78	175	0
				180	0



BDD91-150

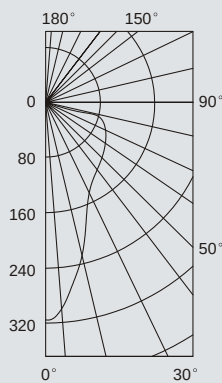
Photometric data of 100W metal halide lamp

(with wide reflector)

Rated luminous flux:9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*1.0
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	2041	60	570	120	14
5	2246	65	685	125	10
10	4959	70	655	130	5
15	4696	75	620	135	0
20	1427	80	210	140	0
25	1238	85	85	145	0
30	1093	90	45	150	0
35	962	95	32	155	0
40	750	100	27	160	0
45	920	105	26	165	0
50	825	110	20	170	0
55	712	115	16	175	0
				180	0



BDD91-150

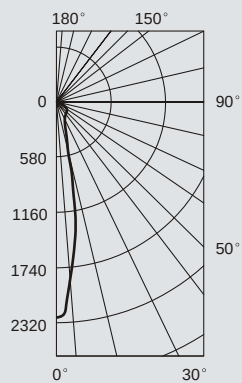
Photometric data of 100W metal halide lamp

(with deep reflector)

Rated luminous flux:9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*1.0
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	18452	60	105	120	0
5	7163	65	72	125	0
10	3163	70	40	130	0
15	1827	75	20	135	0
20	1012	80	10	140	0
25	1232	85	0	145	0
30	1117	90	0	150	0
35	1814	95	0	155	0
40	917	100	0	160	0
45	1001	105	0	165	0
50	572	110	0	170	0
55	178	115	0	175	0
				180	0

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

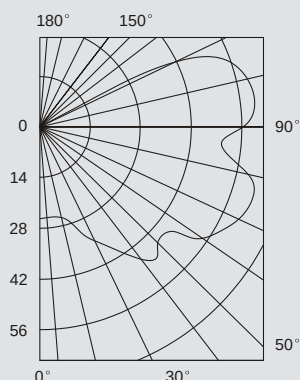
Photometric data



BDD91-250

Photometric data of 250W metal halide lamp

Rated luminous flux:23000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

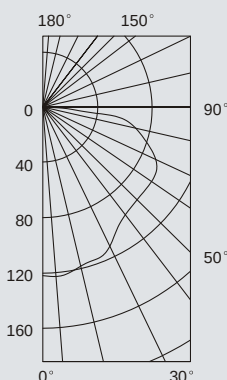
Angle	CP	Angle	CP	Angle	CP
0	660	60	1772	120	545
5	691	65	1740	125	110
10	600	70	1752	130	60
15	592	75	1635	135	45
20	642	80	1449	140	40
25	808	85	1392	145	36
30	1025	90	1461	150	37
35	1017	95	1626	155	40
40	1260	100	1641	160	42
45	1408	105	1586	165	45
50	1250	110	1481	170	0
55	1497	115	1169	175	0
				180	0



BDD91-250

Photometric data of 250W metal halide lamp(with wide reflector)

Rated luminous flux:23000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

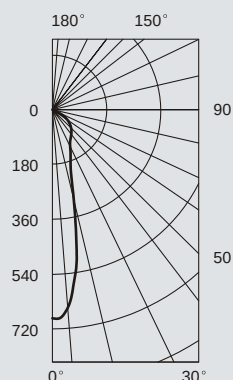
Angle	CP	Angle	CP	Angle	CP
0	2553	60	1687	120	25
5	2489	65	1728	125	20
10	2423	70	1721	130	10
15	2259	75	1656	135	0
20	1998	80	1360	140	0
25	1816	85	1340	145	0
30	1959	90	525	150	0
35	1917	95	130	155	0
40	1735	100	90	160	0
45	1552	105	70	165	0
50	1630	110	60	170	0
55	1662	115	30	175	0
				180	0



BDD91-250

Photometric data of 250W metal halide lamp(with deep reflector)

Rated luminous flux:23000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

Angle	CP	Angle	CP	Angle	CP
0	19426	60	426	120	0
5	13251	65	195	125	0
10	9093	70	134	130	0
15	4925	75	65	135	0
20	3073	80	40	140	0
25	2555	85	18	145	0
30	2505	90	6	150	0
35	1884	95	0	155	0
40	2403	100	0	160	0
45	1877	105	0	165	0
50	1537	110	0	170	0
55	1521	115	0	175	0
				180	0



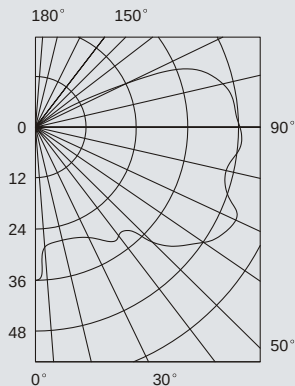
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Photometric data



BDD91-400

Photometric data of 400W
metal halide lamp
Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



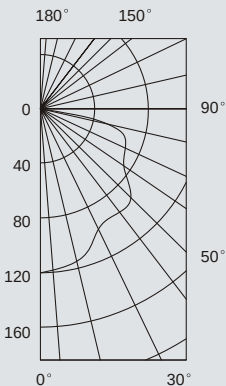
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

Angle	CP	Angle	CP	Angle	CP
0	1757	60	1961	120	445
5	1327	65	1984	125	87
10	1070	70	1886	130	71
15	1067	75	1793	135	60
20	1286	80	1725	140	50
25	1350	85	1783	145	41
30	1443	90	1738	150	35
35	1439	95	1717	155	34
40	1374	100	1697	160	36
45	1645	105	1621	165	34
50	1797	110	1459	170	27
55	1944	115	1014	175	7
				180	0



BDD91-400

Photometric data of 400W
metal halide lamp(with wide reflector)
Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



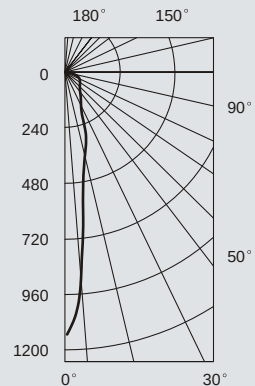
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

Angle	CP	Angle	CP	Angle	CP
0	4480	60	2137	120	0
5	4884	65	2143	125	0
10	4922	70	1981	130	0
15	1821	75	1711	135	0
20	4682	80	819	140	0
25	4224	85	248	145	0
30	3880	90	92	150	0
35	3394	95	60	155	0
40	3087	100	36	160	0
45	3138	105	20	165	0
50	2935	110	10	170	0
55	2355	115	0	175	0
				180	0



BDD91-400

Photometric data of 400W
metal halide lamp(with deep reflector)
Rated luminous flux:38000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

Angle	CP	Angle	CP	Angle	CP
0	36882	60	766	120	0
5	35726	65	463	125	0
10	19906	70	306	130	0
15	12926	75	171	135	0
20	10071	80	80	140	0
25	7662	85	25	145	0
30	5429	90	16	150	0
35	6597	95	10	155	0
40	4739	100	0	160	0
45	5178	105	0	165	0
50	4573	110	0	170	0
55	2865	115	0	175	0
				180	0

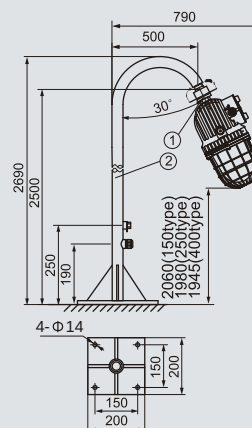
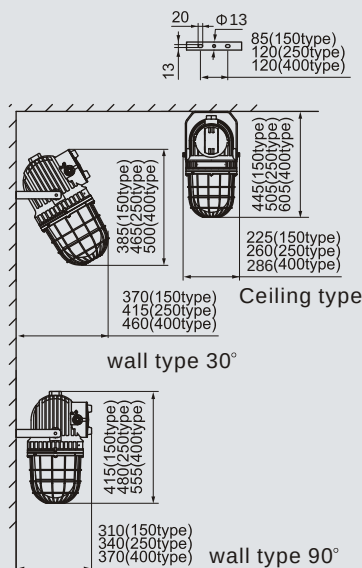
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

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

Installation reference

K: bracket type

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



- ①.BGJ-III explosion-proof connector, M25 x 1.5(M) / M25 x 1.5(F) carbon steel
②.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	0.30
	250 Wide reflector	91002	0.45
	400 Wide reflector	91003	1.15
	150 Deep reflector	91004	0.44
	250 Deep reflector	91005	0.50
	400 Deep reflector	91006	0.62
	150 Wire guard	91007	0.35
	250 Wire guard	91008	0.53
	400 Wire guard	91009	0.80
	150 Transparent cover with fixing-ring	91010	2.30
	250 Transparent cover with fixing-ring	91011	3.65
	400 Transparent cover with fixing-ring	91012	6.50
	150 Mounting bracket	91013	0.65
	250 Mounting bracket	91014	0.82
	400 Mounting bracket	91015	1.20
	E27 Lamp holder	61035	0.06
	E40 Lamp holder	61036	0.12

Note: Ballast, trigger, capacitor see P1/19

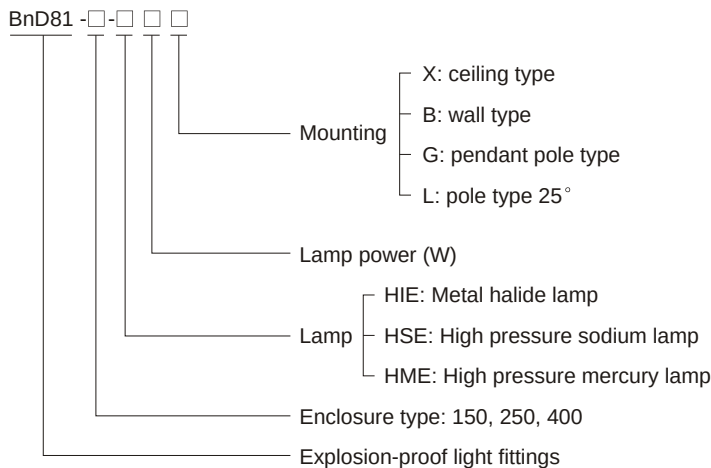


Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 2
 - Zone 21 and Zone 22
- ◆ Available 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.
- ◆ Both American standard and European standard are available.

Catalogue number logic



Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder	Weight(kg)
	HIE	HSE	HME		
BnD81-150	70, 100, 150	70, 100	80, 125	E27	6.15
BnD81-250	175, 250	150, 250	175, 250	E40	10.20
BnD81-400	400	400	400	E40	13.60

Note: 1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
 2. The light fittings are supplied without external reflector. Please specify when ordering.
 3. High pressure mercury lamp is not available in American standard products.

Zones 2; 21&22

Technical data

Explosion-proof light fittings

BnD81-150-□□□

Explosion protection

- Gas explosion protection
- Dust explosion protection

Certificates

Conformity to standards

Material

- Enclosure
- Transparent cover
- External reflector (optional)
- Wire guard (optional)
- Ballast
- Trigger
- Capacitor
- Exposed fastener

Lamp

- Lamp holder
- Available lamp and lamp power (W)

Ex II 3 G Ex nR IIC T4 Gc
Ex II 2 D Ex t IIIC T130°C Db IP66
LCIE 12 ATEX____; IECEx; FM (USA); GOST.R (Russia)
EN 60079-0: 2009, EN 60079-15: 2010, EN 60079-31: 2009
IEC 60079-0: 2007, IEC 60079-15: 2010, IEC 60079-31: 2008

Copper-free aluminium, powder coated external surface, yellow (RAL1021)
Toughened glass, stands 4J impact
Pure aluminium, anodicoxidation treatment for surface
Stainless steel
Chock ballast, rapid starting,stable performance
General trigger
Power factor $\geq$ 0.85 (compensated)
Stainless steel

E27

Available lamp	American standard	European standard
	120V/208V/240V/277V/480V AC	220~240V, 250V AC
HIE	70W, 100W,150W	70W, 100W, 150W
HSE	70W,100W	70W, 100W
HME	-----	80W, 125W

Note: Please see Seletion table of American standard HID lamp and corresponding electrical components (See P1/20)

American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional)

European standard: 220~240V AC 50Hz (60Hz is optional)

250V AC 50Hz (60Hz is optional)

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

Terminal

Mounting

Cable entries

Cable gland (optional)

M5 (internal & external earth bolts)

IP66

-60°C ~ +55°C

3 x 1.5~4mm² (L+N+PE)

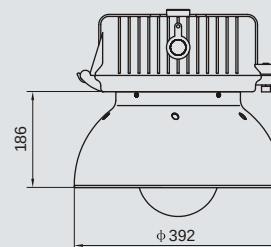
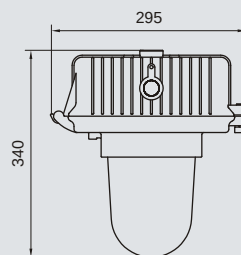
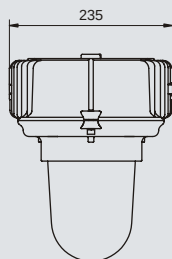
Ceiling type, wall type,pendant pole type, pole type 25°

1 x M25 x 1.5

DQM-I (Ex e) is recommended. Please see P7/16~19.



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



Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

Technical data

Explosion-proof light fittings

BnD81-250-□□□

Explosion protection

Gas explosion protection

Dust explosion protection

Certificates

Conformity to standards

Material

Enclosure

Transparent cover

External reflector (optional)

Wire guard (optional)

Ballast

Trigger

Capacitor

Exposed fastener

Lamp

Lamp holder

Available lamp and lamp power (W)

Ex II 3 G Ex nR IIC T3 Gc

Ex II 2 D Ex t IIIC T190°C Db IP66

LCIE 12 ATEX____; IECEX; FM (USA); GOST.R (Russia)

EN 60079-0: 2009, EN 60079-15: 2010, EN 60079-31: 2009

IEC 60079-0: 2007, IEC 60079-15: 2010, IEC 60079-31: 2008

Copper-free aluminium, powder coated external surface, yellow (RAL1021)

Toughened glass, stands 4J impact

Pure aluminium, anodicoxidation treatment for surface

Stainless steel

Chock ballast, rapid starting, stable performance

General trigger

Power factor ≥ 0.85 (compensated)

Stainless steel

E40

Available lamp	American standard	European standard
	120V/208V/240V/277V/480V AC	220~240V, 250V AC
HIE	175W, 250W	175W, 250W
HSE	150W, 250W	150W, 250W
HME	-----	175W, 250W

Note: Please see Seletion table of American standard HID lamp and corresponding electrical components (See P1/20)

American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional)

European standard: 220~240V AC 50Hz (60Hz is optional)

250V AC 50Hz (60Hz is optional)

M5 (internal & external earth bolts)

IP66

-60°C ~ +55°C

3 x 1.5~4mm² (L+N+PE)

Earthing protection

Degree of protection

Ambient temperature

Terminal

Mounting

Cable entries

Cable gland (optional)

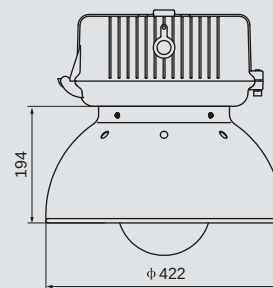
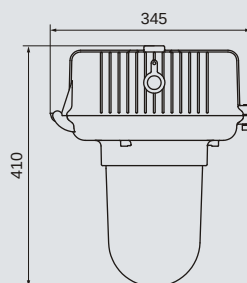
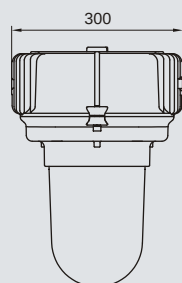
Ceiling type, wall type, pendant pole type, pole type 25°

1 x M25 x 1.5

DQM-I (Ex e) is recommended. Please see P7/16~19.



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



Technical data

Explosion-proof light fittings

BnD81-400-□□□

Explosion protection

Gas explosion protection
Dust explosion protection

Certificates

Conformity to standards

Material

Enclosure
Transparent cover
External reflector (optional)
Wire guard (optional)
Ballast
Trigger
Capacitor
Exposed fastener

Ex II 3 G Ex nR IIC T3 Gc

Ex II 2 D Ex t IIC T190°C Db IP66

LCIE 12 ATEX____; IECEx; FM (USA); GOST.R (Russia)

EN 60079-0: 2009, EN 60079-15: 2010, EN 60079-31: 2009

IEC 60079-0: 2007, IEC 60079-15: 2010, IEC 60079-31: 2008

Copper-free aluminium, powder coated external surface, yellow (RAL1021)

Toughened glass, stands 4J impact

Pure aluminium, anodicoxidation treatment for surface

Stainless steel

Chock ballast, rapid starting, stable performance

General trigger

Power factor ≥ 0.85 (compensated)

Stainless steel

E40

Available lamp	American standard	European standard
	120V/208V/240V/277V/480V AC	220~240V, 250V AC
HIE	400W	400W
HSE	400W	400W
HME	-----	400W

Note: Please see Seletion table of American standard HID lamp and corresponding electrical components (See P1/20)

American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional)

European standard: 220~240V AC 50Hz (60Hz is optional)

250V AC 50Hz (60Hz is optional)

M5 (internal & external earth bolts)

IP66

-60°C ~ +55°C

3 x 1.5~4mm² (L+N+PE)

Ceiling type, wall type, pendant pole type, pole type 25°

1 x M25 x 1.5

DQM-I (Ex e) is recommended. Please see P7/16~19.

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

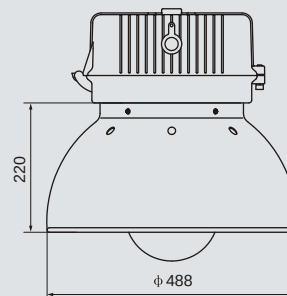
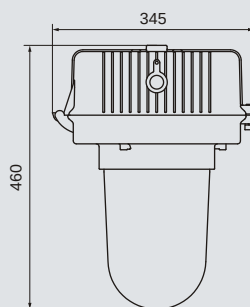
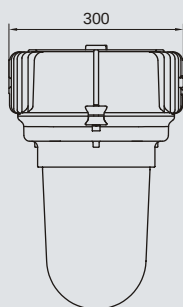
Terminal

Mounting

Cable entries

Cable gland (optional)

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



Photometric data



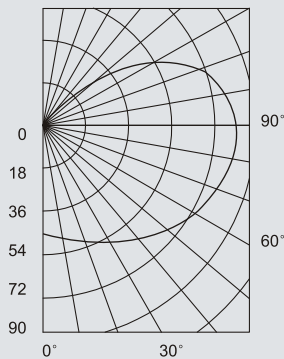
BnD81-150

Photometric data of 100W
high pressure sodium lamp

Rated luminous flux:9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*0.94
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	230	60	692	120	443
5	185	65	730	125	206
10	169	70	750	130	65
15	252	75	758	135	15
20	292	80	754	140	10
25	390	85	750	145	5
30	463	90	750	150	0
35	515	95	755	155	0
40	574	100	745	160	0
45	611	105	720	165	0
50	650	110	672	170	0
55	659	115	620	175	0
				180	0



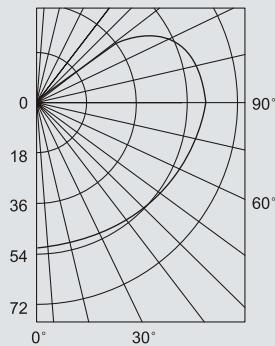
BnD81-250

Photometric data of 250W
metal halide lamp

Rated luminous flux:23000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

Angle	CP	Angle	CP	Angle	CP
0	1327	60	1068	120	921
5	1414	65	1006	125	685
10	930	70	1022	130	120
15	763	75	1064	135	30
20	584	80	1108	140	20
25	577	85	1122	145	15
30	534	90	1112	150	5
35	648	95	1100	155	4
40	763	100	1090	160	3
45	806	105	1063	165	3
50	893	110	1001	170	3
55	1138	115	976	175	3
				180	3



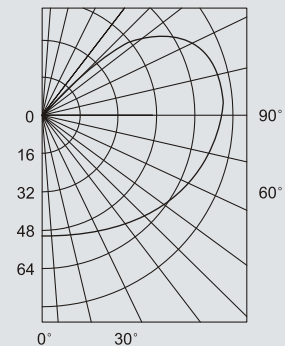
BnD81-400

Photometric data of 400W
metal halide lamp

Rated luminous flux:38000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

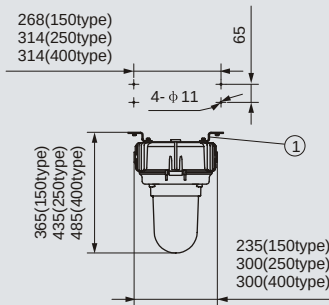
Angle	CP	Angle	CP	Angle	CP
0	2090	60	2290	120	2126
5	1366	65	2278	125	2049
10	1278	70	2439	130	1844
15	1115	75	2628	135	969
20	1122	80	2776	140	141
25	1168	85	2865	145	445
30	1294	90	2883	150	25
35	1521	95	2830	155	15
40	1872	100	2740	160	9
45	2108	105	2640	165	5
50	2197	110	2383	170	5
55	2288	115	2254	175	5
				180	5

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

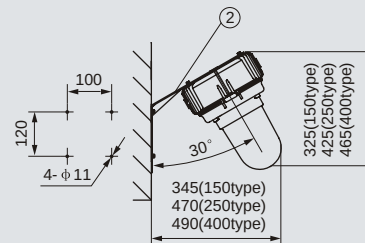
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

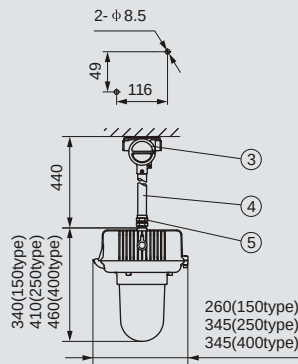
X: ceiling type



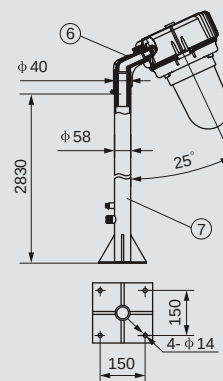
B: wall type



G: pendant pole type



L1: pole type 25°



Mounting accessories and spare parts table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①.Mounting bracket	2	Powder coated carbon steel	81X02	0.20
B: wall type	②.Wall bracket (powder coated carbon steel)	1	150 type	81B01	1.20
			250 type	81B02	1.50
			400 type	81B02	1.50
G: pendant pole type	③.BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	④.Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
	⑤.BGJ-III Explosion-proof connector	1	G3/4" (M)/M25 x 1.5(F) Carbon steel	81D02	0.26
L: pole type 25°	⑥.Pole type 25° connector	1	Copper-free aluminium	81L02	0.80
	⑦.Pole	1	Φ58mm	81L03	-

Note: 1. Accessories not in the table shall be supplied by user.

2. Pole ⑦ shall not be supplied with light fittings; if required, please specify when ordering.