



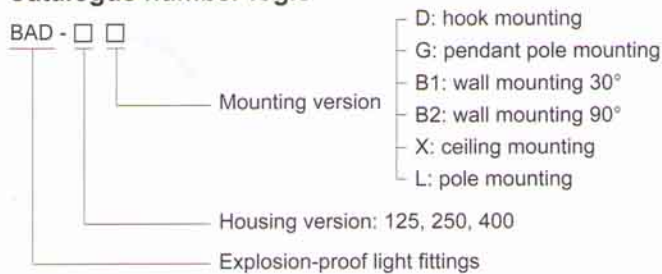
BAD-□□series explosion-proof light fittings is usable for lighting in the petrochemical factory, where is filled with C_4H_{10} , C_3H_8 explosive gas mixture and flammable and explosive dust. Metal halide lamp, high pressure mercury lamp and high pressure sodium lamp must work with the suitable ballast.

BAD-□□ Series

Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
- ◆ Can be used in Zone 1 and Zone 2
- ◆ Available light source
 - Metal halide lamp
 - high pressure mercury lamp
 - high pressure sodium lamp
 - self ballast mercury lamp, incandescent lamp
- ◆ 125, 250 and 400 versions
- ◆ External reflector increases the luminous intensity of working place.
- ◆ Quick start and convenient maintenance with flexible bolt
- ◆ Wire guard of zinc-coated
- ◆ Toughened glass, resistant to impact and high light transmission

Catalogue number logic



Lamp selection table

Ordering code	Available lamp wattage (W)					Lamp holder	Weight
	HIE	HME	SME	HSE	A		
BAD-125	70, 100	80, 125	125, 160	70, 100	200	E27	4.7 kg
BAD-250	175, 250	175, 250	250	150, 250	300	E40	5.5 kg
BAD-400	400	400	450	400	-	E40	7.1 kg

Note: 1. Without installation accessories if order according to "Type/ ordering code", possible to supply on request, please order separately according to the "installation accessories and spare parts table".

2. With installation accessories if order according to "Catalogue number logic". Other accessories than the one listed in "installation accessories and spare parts table" can be found in "accessories table".

3. The light fittings are supplied without lamp, PHILIPS lamp is recommended.

4. BAZ51 explosion-proof ballast is recommended if the lamp required. The details of BZA51 can be found in P2/68 of catalogue.

Zones 1&2

Power connection



- ◆ For 125 versions, screw out the bolt of the connection box, power cable connected to the lamp holder through the connection box entry.



- ◆ For 250 and 400 versions, take the clamp spring out of the connection box, take off the lamp holder, power cable connected to the lamp holder through the connection box entry, ensuring no loosen connection, and then put back the lamp holder and press the clamp spring.

Relamp

Check the lamp type and wattage on the nameplate, ensuring you take the right one, unavailable lamp is not allowed.



- ◆ For 125 and 250 versions, loosen the flexible bolt of the glass cover, open the transparent cover, screw the lamp into the holder, ensuring good contact, and then close the transparent cover, tighten the flexible bolt.



- ◆ For 400, loosen the flexible bolt of the connection box, open the connection box, screw the lamp into the holder (inside the connection box), tighten, ensuring good contact, then close the connection box, and screw the flexible bolt tight.

Technical Data

Explosion-proof light fittings BAD-125 □

Explosion protection

Gas explosion protection

⊕ II 2G Exd II BT4

Certificates

For gas explosion protection

PTB 03 ATEX 1077; IECEx CQM 07.0010;

EN 50014:1997+A1+A2; EN 50018:2000+A1;

IEC 60079-0:2004; IEC 60079-1:2003;

Conformity to standards

Material

Housing

Aluminum alloy, powder-coated, yellow

Wire guard

Metal of zinc-powder, white

Transparent cover

Toughened glass

Reflector

Pure aluminum

Lamps

Lamp holder

E27

Available lamp and wattage (W)

Metal halide lamp: 70W, 100W

High pressure mercury lamp: 80W, 125W

Self ballast mercury lamp: 125W, 160W

High pressure sodium lamp: 70W, 100W

Incandescent lamp: 200W

AC 220V 50Hz (198V~242V)

Rated voltage

Earthing protection

M5 (earthing bolt inside and outside the light fittings)

Degree of protection

IP65

Ambient temperature

-20°C ~ +55°C

Connection

Terminals 3 x 1.5~2.5mm² (L+N+PE)

Weight

4.7kg

Hub

M25 x 1.5

Cable gland

With a cable seal and plastic nut, the plastic nut used to protect the connection thread when ex-works, but it is not used when the user install the equipment.

Available cable outer diameter

ø10~ø14 (mm)

Notes

1. The light fittings are supplied without lamp, PHILIPS is recommended.
2. The light fittings are supplied without external reflector; it is possible to supply on request.
3. If the ballast required, please select from BAZ51 series explosion-proof ballast in P2/68.

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



BAD-125



BAD-125 with external reflector

Pendant Light Fittings BAD Explosion-proof Light Fittings

Photometric Data (BAD-125)

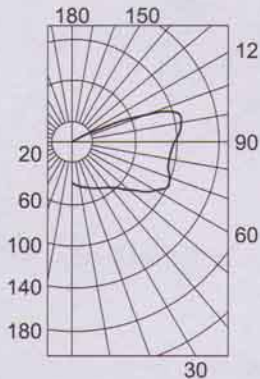


100W sodium lamp photometric data

Rated luminous flux: 8500lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm (lighting efficiency: 63.4%)



- For a 70W high pressure sodium lamp multiply by 0.70
- For a 70W metal halide lamp multiply by 0.66
- For a 80W high pressure mercury lamp multiply by 0.35
- For a 100W mercury halide lamp multiply by 0.94
- For a 125W high pressure mercury lamp multiply by 0.59

Angle	CP	Angle	CP	Angle	CP
0	340	60	790	120	102
5	365	65	875	125	42
10	399	70	833	130	0
15	416	75	816	135	0
20	425	80	824	140	0
25	433	85	828	145	0
30	444	90	833	150	0
35	467	95	892	155	0
40	485	100	918	160	0
45	510	105	927	165	0
50	603	110	722	170	0
55	705	115	493	175	0
				180	0

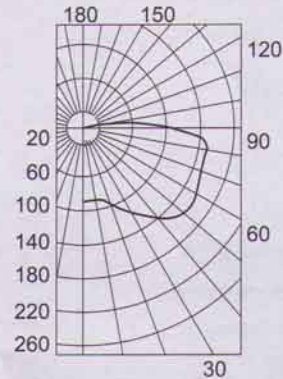


100W high pressure sodium lamp photometric data (With external reflector)

Rated luminous flux: 8500lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm (lighting efficiency: 52.7%)



- For a 70W high pressure sodium lamp multiply by 0.70
- For a 70W metal halide lamp multiply by 0.66
- For a 80W high pressure mercury lamp multiply by 0.35
- For a 100W metal halide lamp multiply by 0.94
- For a 125W high pressure mercury lamp multiply by 0.59

Angle	CP	Angle	CP	Angle	CP
0	773	60	1326	120	0
5	765	65	1283	125	0
10	756	70	1266	130	0
15	782	75	1249	135	0
20	883	80	1275	140	0
25	935	85	1190	145	0
30	1003	90	918	150	0
35	1105	95	612	155	0
40	1207	100	340	160	0
45	1283	105	9	165	0
50	1360	110	0	170	0
55	1343	115	0	175	0
				180	0

Technical Data

Explosion-proof light fittings BAD-250 □

Explosion protection

Gas explosion protection

Ex II 2G Exd II BT4

Certificates

For gas explosion protection

PCEC (China)

Conformity to standards

IEC 60079-0:2004; IEC 60079-1:2003

Material

Housing

Aluminum alloy, powder-coated, yellow

Wire guard

Metal of zinc-powder, white

Transparent cover

Toughened glass

Reflector

Pure aluminum

Lamps

Lamp holder

E40

Available lamp and wattage (W)

Metal halide lamp: 175W, 250W

High pressure mercury lamp: 175W, 250W

Self ballast mercury lamp: 250W

High pressure sodium lamp: 150W, 250W

Incandescent lamp: 300W

AC 220V 50Hz (198V~242V)

Rated voltage

M5 (earthing bolt inside and outside the light fittings)

Earthing protection

Degree of protection

IP65

Ambient temperature

-20°C ~ +55°C

Connection

Terminals 3 x 1.5 ~ 2.5mm² (L+N+PE)

Weight

5.5kg

Hub

M25 x 1.5

Cable gland

With a cable seal and plastic nut, the plastic nut used to protect the connection thread when ex-works, but it is not used when the user install the equipment.

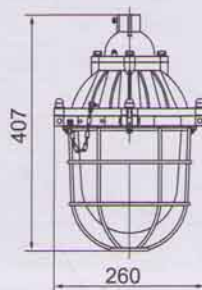
Available cable outer diameter

ø10 ~ ø14 (mm)

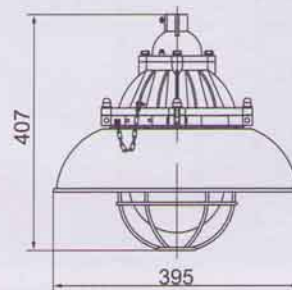
Notes

1. The light fittings are supplied without lamp, PHILIPS is recommended.
2. The light fittings are supplied without external reflector; it is possible to supply on request.
3. If the ballast required, please select from BAZ51 series explosion-proof ballast in P2/68.

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



BAD-250



BAD-250 with external reflector

Photometric Data (BAD-250)

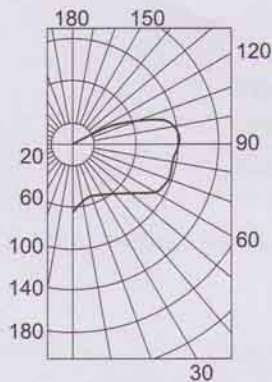


175W metal halide lamp photometric data

Rated luminous flux: 14000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm (lighting efficiency: 51.5%)



- For a 150W high pressure sodium lamp multiply by 1.14
- For a 250W high pressure sodium lamp multiply by 2
- For a 250W metal halide lamp multiply by 1.46
- For a 175W high pressure mercury lamp multiply by 0.53
- For a 250W high pressure mercury lamp multiply by 0.79

Angle	CP	Angle	CP	Angle	CP
0	924	60	1316	120	42
5	868	65	1344	125	28
10	812	70	1358	130	14
15	770	75	1351	135	0
20	756	80	1330	140	0
25	784	85	1372	145	0
30	798	90	1428	150	0
35	840	95	1414	155	0
40	882	100	1400	160	0
45	938	105	1218	165	0
50	1092	110	980	170	0
55	1176	115	560	175	0
				180	0

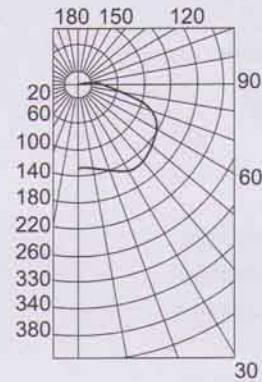


175W metal halide lamp photometric data (with external reflector)

Rated luminous flux: 14000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm (lighting efficiency: 65.3%)



- For a 150W high pressure sodium lamp multiply by 1.14
- For a 250W high pressure sodium lamp multiply by 2
- For a 250W metal halide lamp multiply by 1.46
- For a 175W high pressure mercury lamp multiply by 0.53
- For a 250W high pressure mercury lamp multiply by 0.79

Angle	CP	Angle	CP	Angle	CP
0	1792	60	1918	120	49
5	1806	65	1820	125	32
10	1820	70	1652	130	14
15	1862	75	1386	135	0
20	1974	80	980	140	0
25	2058	85	700	145	0
30	2114	90	560	150	0
35	2128	95	420	155	0
40	2100	100	308	160	0
45	2072	105	210	165	0
50	2030	110	140	170	0
55	2002	115	70	175	0
				180	0

Technical Data

Explosion-proof light fittings **BAD-400** □

Explosion protection

Gas explosion protection

Ex II 2G Exd II BT3

Certificates

For gas explosion protection

PCEC (China)

Conformity to standards

IEC 60079-0:2004; IEC 60079-1:2003

Material

Housing

Aluminum alloy, powder-coated, yellow

Wire guard

Metal of zinc-powder, white

Transparent cover

Toughened glass

Reflector

Pure aluminum

Lamps

Lamp holder

E40

Available lamp and wattage (W)

Metal halide lamp: 400W

High pressure mercury lamp: 400W

Self ballast mercury lamp: 500W

High pressure sodium lamp: 400W

AC 220V 50Hz (198V~242V)

M5 (earthing bolt inside and outside the light fittings)

IP65

-20°C ~ +55°C

Terminals 3 x 1.5~2.5mm² (L+N+PE)

7.1kg

M25 x 1.5

With a cable seal and plastic nut, the plastic nut used to protect the connection thread when ex-works, but it is not used when the user install the equipment.

ø10~ø14 (mm)

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

Connection

Weight

Hub

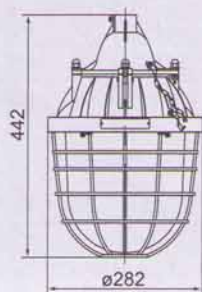
Cable gland

Available cable outer diameter

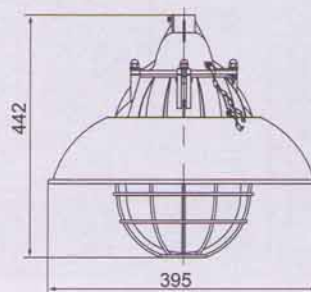
Notes

1. The light fittings are supplied without lamp, PHILIPS is recommended.
2. The light fittings are supplied without external reflector; it is possible to supply on request.
3. If the ballast required, please select from BAZ51 series explosion-proof ballast in P2/68.

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



BAD-400



BAD-400 with external reflector

Pendant Light Fittings BAD Explosion-proof Light Fittings

Photometric Data (BAD-400)

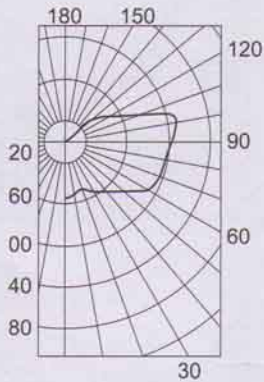


400W metal halide lamp photometric data

Rated luminous flux: 14000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm (lighting efficiency: 61.8%)



For a 400W high pressure sodium lamp multiply by 1.37
For a 400W high pressure mercury lamp multiply by 0.6

Angle	CP	Angle	CP	Angle	CP
0	1960	60	3220	120	1735
5	1890	65	3325	125	1400
10	1855	70	3360	130	1085
15	1820	75	3378	135	105
20	1715	80	3395	140	35
25	1750	85	3482	145	0
30	1995	90	3605	150	0
35	2065	95	3675	155	0
40	2205	100	3745	160	0
45	2310	105	3570	165	0
50	2625	110	2660	170	0
55	2870	115	2100	175	0
				180	0

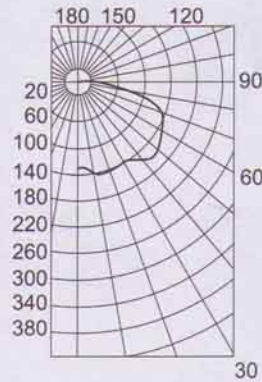


400W metal halide lamp photometric data (with external reflector)

Rated luminous flux: 14000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm (lighting efficiency: 53.2%)



For a 400W high pressure sodium lamp multiply by 1.37
For a 400W high pressure mercury lamp multiply by 0.6

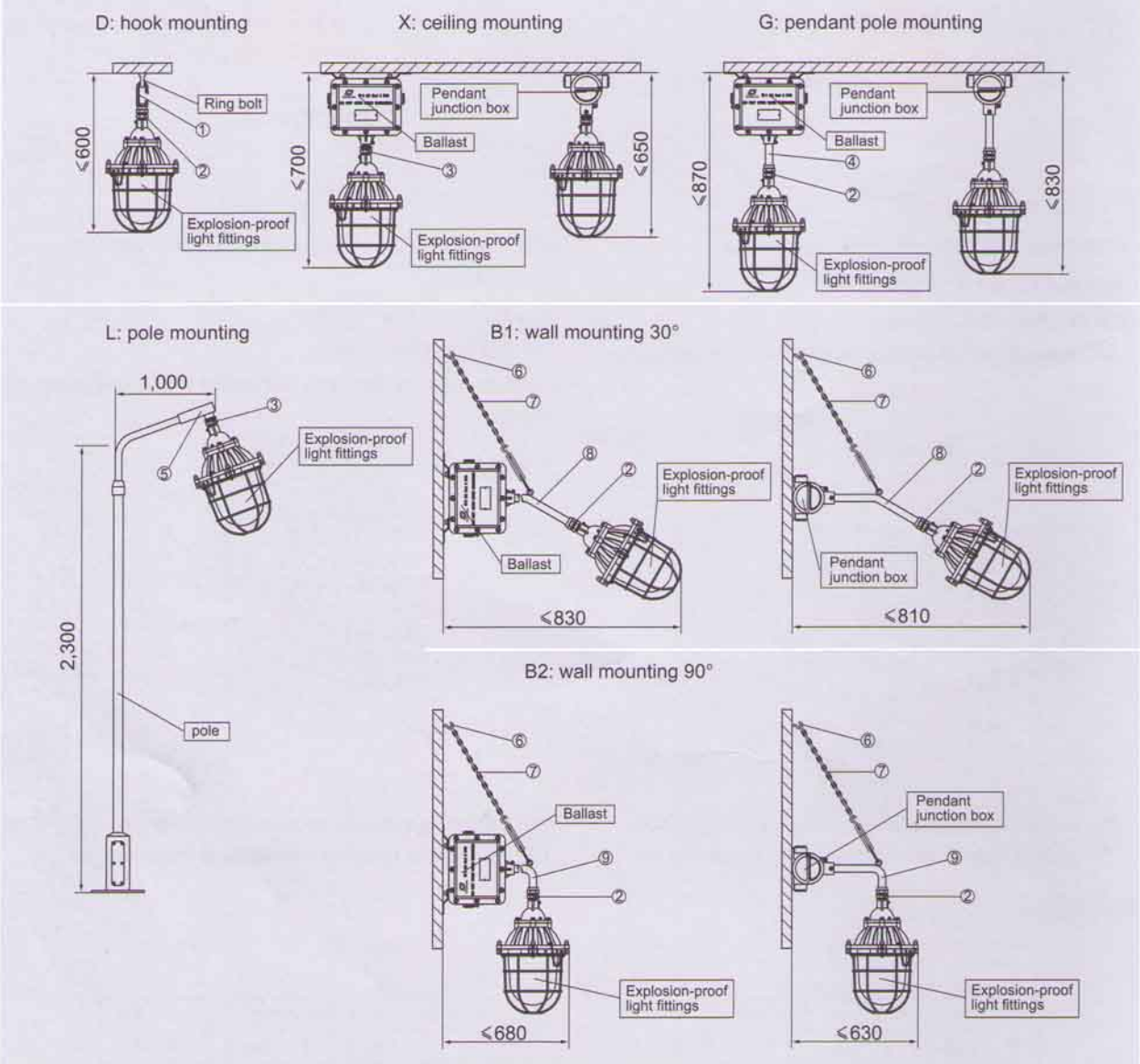
Angle	CP	Angle	CP	Angle	CP
0	4550	60	5145	120	175
5	4515	65	5005	125	133
10	4830	70	4725	130	105
15	5040	75	3990	135	70
20	5005	80	2800	140	35
25	4900	85	1750	145	17
30	4882	90	1120	150	0
35	5075	95	700	155	0
40	5355	100	525	160	0
45	5600	105	420	165	0
50	5565	110	350	170	0
55	5355	115	210	175	0
				180	0

Pendant Light Fittings

BAD Explosion-proof Light Fittings

Mounting versions

As a reference to the installation on the site


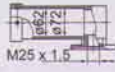



Note: 1. No wall mounting for BAD-400 light fittings

2. No ballast if self ballast mercury lamp or incandescent lamp, but explosion-proof pendant junction box for mounting, please select form BHD explosion-proof pendant junction box in catalogue P3/16.






Installation accessories and spare parts table

Supplied according to the mounting versions

Mounting version	Accessories supplied with the light fittings			Ordering code	Weight
	Name	Qty	Remark		
D: hook mounting	①.hook, stainless steel	1		61020	0.200 kg
	②.BGJ-03Explosion-proof connector (female M25 x 1.5, male G3/4")	1	carbonate steel	81D02	0.301 kg
X: ceiling mounting	③.BGJ-03Explosion-proof connector	1	M25 x 1.5 male/G3/4" male	81X01	0.285 kg
G: pendant pole mounting	②.BGJ-03Explosion-proof connector	1	The same as hook mounting	81D02	0.301 kg
	④.straight pipe (M25 x 1.5)	1	300mm	51G01	0.500 kg
L: pole mounting	③.BGJ-03Explosion-proof connector	1	The same as ceiling mounting	81X01	0.285 kg
	⑤.street lamp connector ² Casted iron	1		81L01	1.010 kg
B1: wall mounting 30°	②.BGJ-03Explosion-proof connector	1	The same as hook mounting	81D02	0.301 kg
	⑥.hook expansion bolt	1			0.060 kg
	⑦.chain fittings	1	580mm	80B11	0.206 kg
	⑧.bent pipe 30° (M25 x 1.5)	1	290mm	51021	0.474 kg
B2: wall mounting 90°	②.BGJ-03Explosion-proof connector	1	The same as hook mounting	61021	0.100 kg
	⑥.hook expansion bolt	1	The same as wall mounting 30°	51017	0.060 kg
	⑦.chain fittings	1	The same as wall mounting 30°	80B11	0.206 kg
	⑧.bent pipe 90° (M25 x 1.5)	1	400mm	51022	0.648 kg

Note: 1. Accessories not in the table should be supplied by user.
2. The quantity in the table is for one set of light fittings.

Accessories and spare parts

Picture	Accessories	Ordering code	Weight
	125 connection box	51001	0.215 kg
	250 connection box	51002	0.370 kg
	400 connection box	51003	0.797 kg
	125 external reflector	51004	0.610 kg
	250 external reflector	51005	0.616 kg
	400 external reflector	51006	0.623 kg
	125 wire guard	51007	0.412 kg
	250 wire guard	51008	0.360 kg
	400 wire guard	51009	0.510 kg
	125 glass cover	51010	0.215 kg
	250 glass cover	51011	0.370 kg
	400 glass cover	51012	0.797 kg
	125 E27 lamp holder	51013	0.610 kg
	250 E40 lamp holder	51014	0.616 kg
	400 E40 lamp holder	51015	0.623 kg