

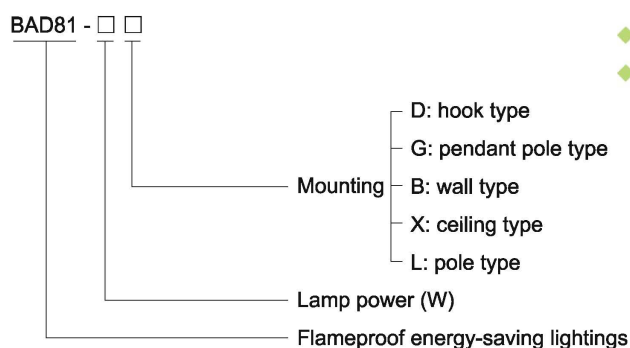


Energy-saving Lightings

BAD81 Series Flameproof Energy-saving Lightings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 1 and Zone 2
 - Class I, Division 1, Groups A, B, C, D
- ◆ 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 P2/39).
 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

Ex II 2 G Ex d IIC T4

Dust explosion protection

Ex tD A21 T130°C IP66

Certificates

For gas explosion protection

LCIE 07 ATEX 6037; IECEX CQM 08.0002

For dust explosion protection

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

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

Wire guard

Powder coated carbon steel (white)

Transparent cover

Toughened glass, stands 4J impact

Internal reflector

High-purity aluminium

External reflector (optional)

Pure aluminium, anodicoxidation treatment for surface

Exposed fastener

Stainless steel

Lamp

Lamp holder

E27

Lamp brand

TCP (for sealed atmosphere)

Lamp power (W)

42W

68W

Rated voltage

220~240V AC 50/60Hz

Earthing protection

M5 (internal & external earth bolts)

Degree of protection

IP66

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

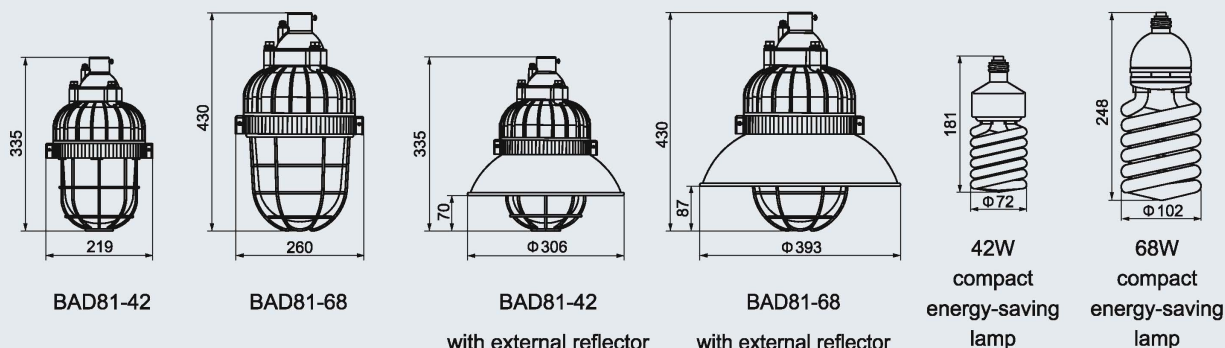
Available cable outer diameter

Φ 10~Φ 14 (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

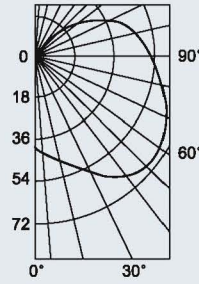
Dimension drawings (all dimensions in mm) - subject to alteration



Photometric data

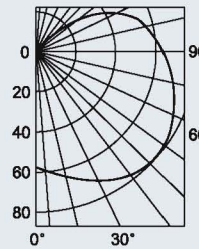


Photometric data of 42W compact energy-saving lamp
 Rated luminous flux:2800lm;
 The data from TCP lamp;
 Luminous intensity distribution cd/1000lm



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

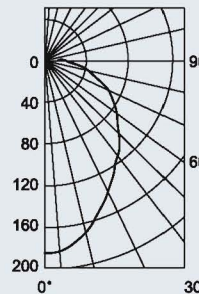
Photometric data of 68W compact energy-saving lamp
 Rated luminous flux:4200lm;
 The data from TCP lamp;
 Luminous intensity distribution cd/1000lm



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

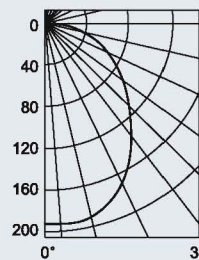


Photometric data of 42W compact energy-saving lamp (with wide reflector)
 Rated luminous flux:2800lm;
 The data from TCP lamp;
 Luminous intensity distribution cd/1000lm



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



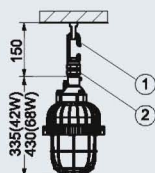
Angle	CP	Angle	CP
0	482	50	240
5	477	55	219
10	461	60	197
15	433	65	171
20	403	70	149
25	371	75	117
30	341	80	91
35	313	85	65
40	290	90	37
45	265		

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

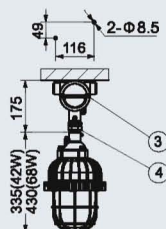
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

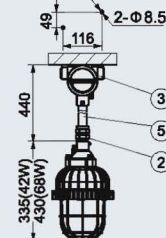
D: hook type



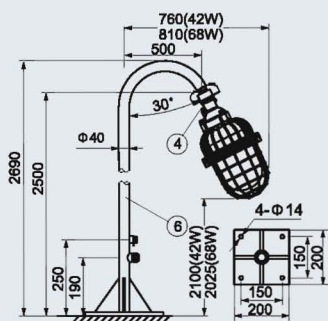
X: ceiling type



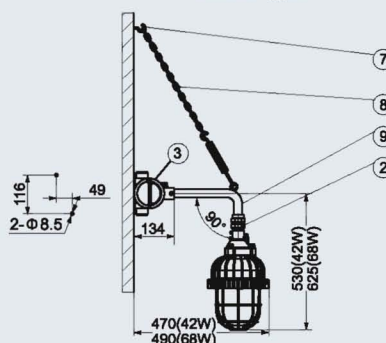
G: pendant pole type



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.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	-
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: 450mm	80B11	0.08
	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.

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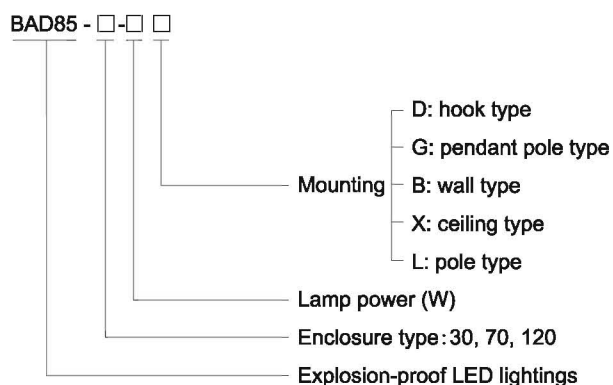


Energy-saving Lightings

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
 - Class I, Zone 1 and Zone 2
 - Class I, Division 1, Groups A, B, C, D
- ◆ 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 P2/42~43). 2. The product is supplied according to "Type/Ordering code" in the table with mounting accessories.	

Zones 1&2; 21&22

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Technical data

Explosion-proof LED lightings

BAD85-□-□□

Explosion protection

- Gas explosion protection
- Dust explosion protection

Certificates

Conformity to standards

Material

- Enclosure
- Transparent cover
- Power controller

Ex II 2 G Ex d IIC T6/T5 Gb

Ex II 2 D Ex t IIIC T80°C/T95°C Db IP66

DNV 12 ATEX 10807X; IECEx CQM 12.0009X; 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

Copper-free aluminium, powder coated 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

Stainless steel

Exposed fastener

Lamp

- Lamp specification
- Lamp power (W)

CREE plural white LED modules

20W, 30W

50W, 70W

100W, 120W

187~265V AC 50/60Hz

M5 (internal & external earth bolts)

IP66

-40°C~+55°C: T5/T95°C; -40°C~+40°C: T6/T80°C

3 x 1.5~4mm² (L+N+PE)

Ceiling type, pole type, pendant pole type, wall type, hook type

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)

See Mounting Accessories and Spare Parts Table

Φ 10~Φ 14 (mm)

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

Terminal

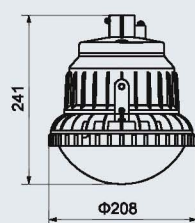
Mounting

Cable entries

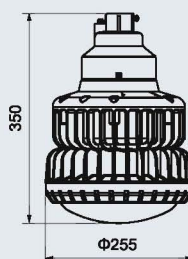
Cable gland

Applicable cable outer diameter

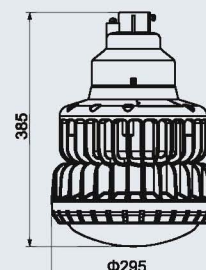
Dimension drawings (all dimensions in mm) - subject to alteration



BAD85-30



BAD85-70



BAD85-120

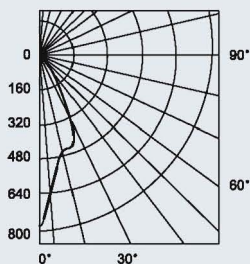
Photometric data



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

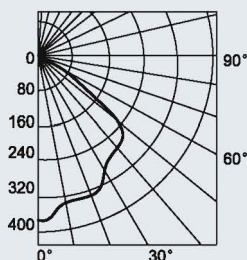
Angle	CP	Angle	CP	Angle	CP
0	1254	80	75	120	0
5	1013	65	60	125	0
10	766	70	51	130	0
15	668	75	45	135	0
20	675	80	30	140	0
25	525	85	17	145	0
30	310	90	10	150	0
35	165	95	6	155	0
40	128	100	0	160	0
45	105	105	0	165	0
50	85	110	0	170	0
55	80	115	0	175	0
				180	0



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

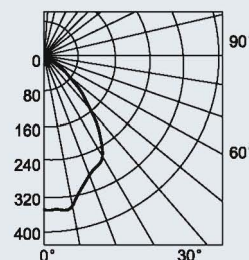
Angle	CP	Angle	CP	Angle	CP
0	1561	60	332	120	0
5	1475	65	149	125	0
10	1420	70	52	130	0
15	1398	75	22	135	0
20	1394	80	13	140	0
25	1382	85	10	145	0
30	1282	90	8	150	0
35	1164	95	0	155	0
40	1174	100	0	160	0
45	1178	105	0	165	0
50	940	110	0	170	0
55	830	115	0	175	0
				180	0



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

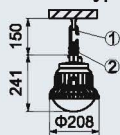
Angle	CP	Angle	CP	Angle	CP
0	4362	60	268	120	0
5	4434	65	159	125	0
10	4329	70	83	130	0
15	3934	75	46	135	0
20	3623	80	30	140	0
25	3406	85	27	145	0
30	3136	90	18	150	0
35	2782	95	12	155	0
40	1956	100	10	160	0
45	1482	105	0	165	0
50	1041	110	0	170	0
55	580	115	0	175	0
				180	0

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

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

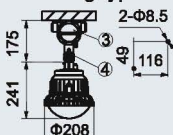
Installation reference

D: hook type



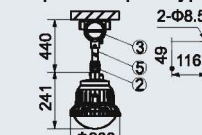
Weight: 3.64kg

X: ceiling type



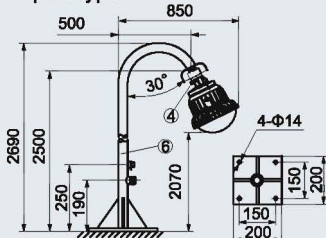
Weight: 4.05kg

G: pendant pole type



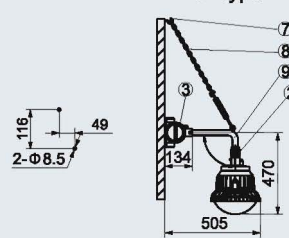
Weight: 4.45kg

L: pole type



Weight: 3.25kg (without pole ⑥)

B: wall type



Weight: 4.42kg

Mounting accessories and spare parts table (for BAD85-30 type)

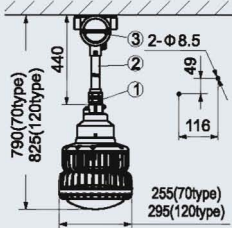
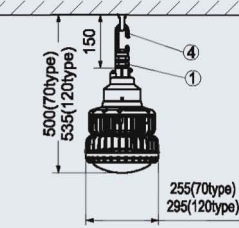
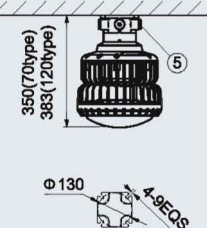
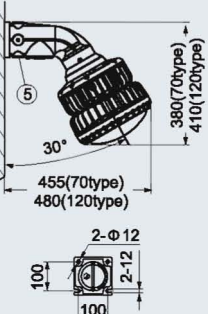
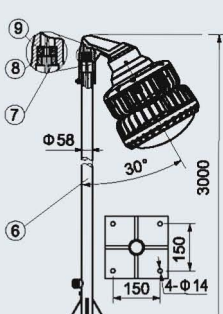
Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: hook type	①.Hook (stainless steel)	1	See P2/39	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
	⑦.Hook expansion bolt	1	See P2/39	52017	0.03
	⑧.Chain	1	Length: 450mm	80B11	0.08
	⑨.Elbow pipe 90° (M25 x 1.5)	1	Length: 400mm	51022	0.55

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

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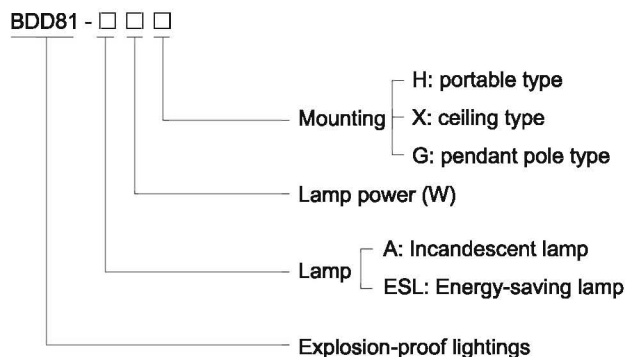


Energy-saving Lightings

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
 - Class I, Zone 1 and Zone 2
 - Class I, Division 1, Groups A, B, C, D
- ◆ Available lamp and power:
 - Low power incandescent lamp (max.100W)
 - Compact energy-saving lamp (max.11W)
- ◆ Enclosure in copper-free aluminium, powder coated 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

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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; IECEx CQM 12.0036X; 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

Copper-free aluminium, powder coated 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;

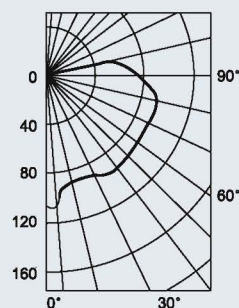
The data from PHILIPS lamp;

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

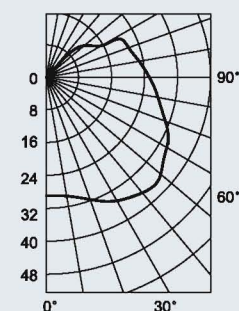
energy-saving lamp

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

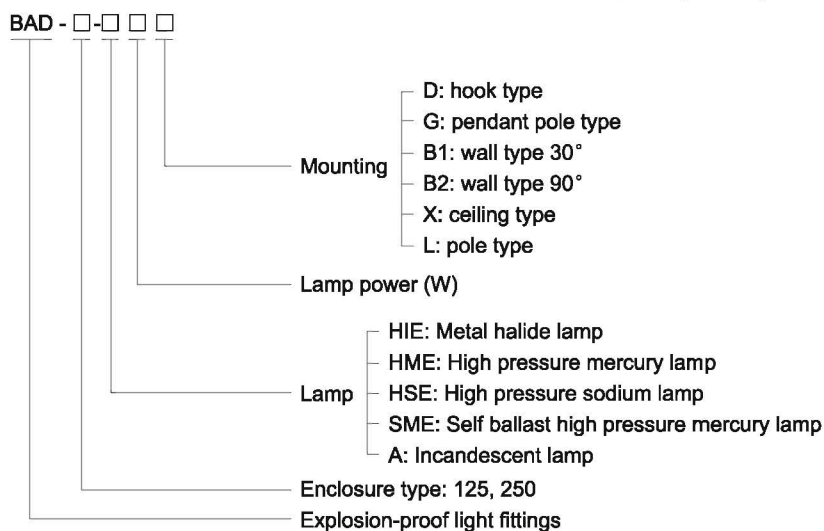


Pendant Light Fittings

BAD Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ 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

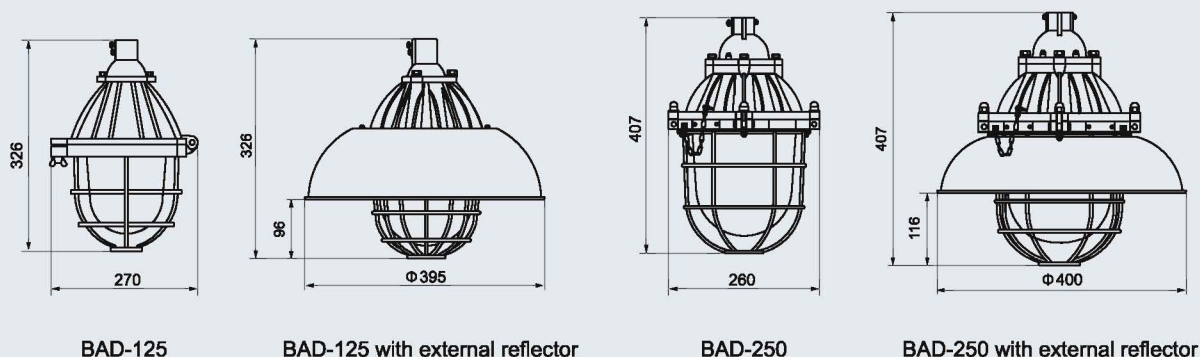
1. Mounting accessories are not supplied with light fittings. Please specify when ordering (See Mounting Accessories & Spare Parts Table on P2/50~51)
2. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
3. BAZ51 explosion-proof ballast is optional. See P2/102~103.
4. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2

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Technical data															
Explosion-proof light fittings		BAD-125-□□□	BAD-250-□□□												
Explosion protection		 II 2 G Ex d IIB T4													
Gas explosion protection															
Certificates		PTB 03 ATEX 1077; IECEx CQM 07.0010	PCEC(China)												
Conformity to standards		EN 50014:1997+A1+A2, EN 50018:2000+A1	IEC 60079-0: 2007												
		IEC 60079-0: 2004, IEC 60079-1: 2003	IEC 60079-1: 2007												
Material		Copper-free aluminium, powder coated surface, yellow (RAL1021) Powder coated carbon steel, white Toughened glass, stands 4J impact High-purity aluminium Pure aluminium, anodicoxidation treatment for surface Stainless steel													
Enclosure															
Wire guard															
Transparent cover															
Internal reflector															
External reflector (optional)															
Exposed fastener															
Lamp		<table><tr><td>E27</td><td>E40</td></tr><tr><td>HIE: 70W, 100W, 150W</td><td>HIE: 175W, 250W</td></tr><tr><td>HME: 80W, 125W</td><td>HME: 175W, 250W</td></tr><tr><td>SME: 125W, 160W</td><td>SME: 250W</td></tr><tr><td>HSE: 70W, 100W</td><td>HSE: 150W, 250W</td></tr><tr><td>A: 200W</td><td>A: 300W</td></tr></table>		E27	E40	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
E27	E40														
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														
Lamp holder															
Available lamp and lamp power (W)															
Rated voltage		220~240V AC 50/60Hz													
		M5 (internal & external earth bolts)													
		IP65													
		-20℃~+55℃													
		3 x 1.5~2.5mm ² (L+N+PE)													
		G3/4" (NPT3/4" or M25 x 1.5 with reducer on request)													
		See Mounting Accessories and Spare Parts Table													
		Φ 10~Φ 14 (mm)													

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



Pendant Light Fittings

BAD Series Explosion-proof Light Fittings

Photometric data (BAD-125)

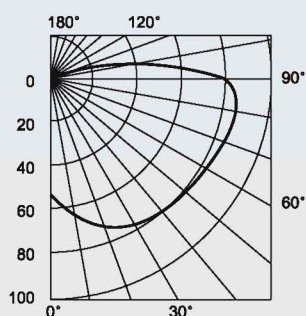


Photometric data of 100W high pressure sodium lamp

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

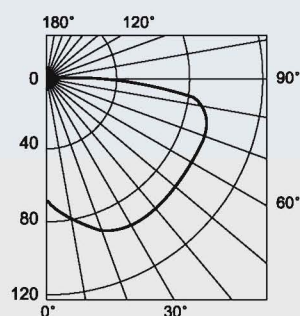


Photometric data of 100W high pressure sodium lamp (with wide reflector)

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.

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Photometric data (BAD-250)

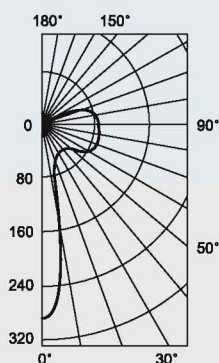


Photometric data of 175W metal halide lamp

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

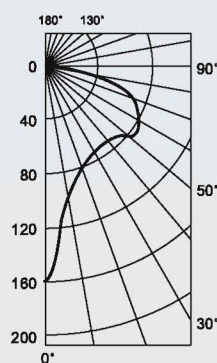


Photometric data of 175W metal halide lamp (with wide reflector)

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

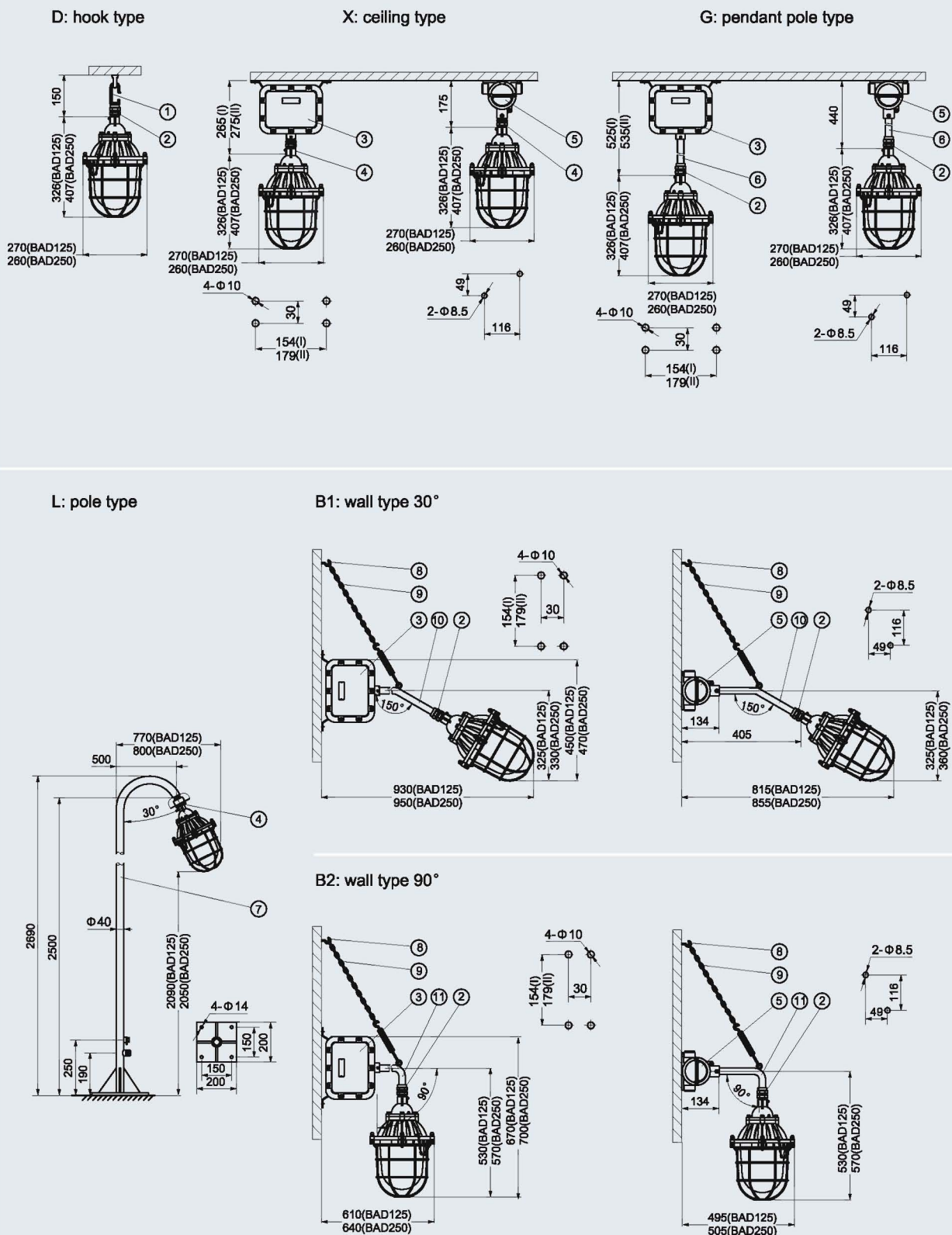
Angle	CP	Angle	CP	Angle	CP
0	2277	60	1174	120	12
5	1818	65	1097	125	8
10	1460	70	1017	130	0
15	1319	75	757	135	0
20	1229	80	280	140	0
25	1170	85	142	145	0
30	1153	90	56	150	0
35	1095	95	45	155	0
40	1007	100	45	160	0
45	1081	105	49	165	0
50	1255	110	151	170	0
55	1358	115	119	175	0
				180	0

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

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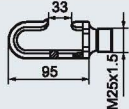
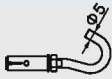
Mounting type (all dimensions in mm) - subject to alteration

Installation reference



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 P2/102
	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 P2/102
	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
L: pole type	④.BGJ-III Explosion-proof connector	1	M25 x 1.5 (M)/ G3/4" (M), Carbon steel	81X01	0.30
	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 P2/102
	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: 450mm	80B11	0.08
	⑩.Elbow pipe 30° (M25 x 1.5)	1	Length: 300mm	51021	0.42
B2: wall type 90°	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 P2/102
	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	0.08
	⑪.Elbow pipe 90° (M25 x 1.5)	1	Length: 400mm	51022	0.55

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.

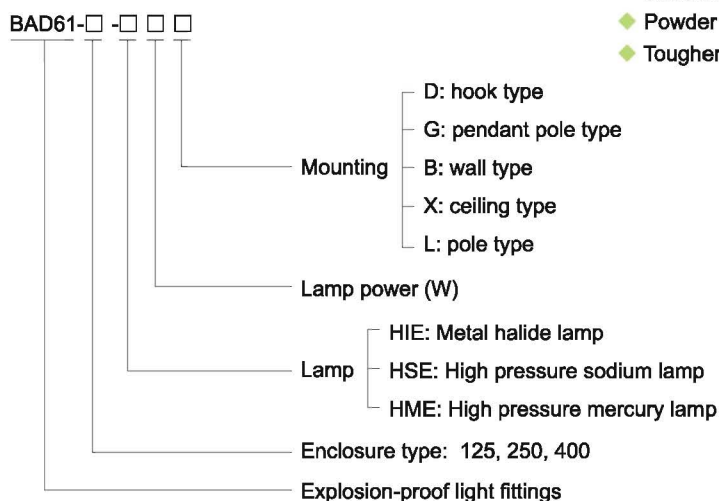


Pendant Light Fittings

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
 - Class I, Zone 1 and Zone 2
 - Class I, Division 1, Groups A, B, C, D
- ◆ 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

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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

Ex II 2 G Ex d IIC T4/T3 Gb

Ex II 2 D Ex tD A21 T135°C/T200°C IP66

DNV 10 ATEX 85533X; IECEx CQM 11.0010; FM(USA); POCC CN. F5 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 surface, yellow (RAL1021)

Powder coated carbon steel, white

Toughened glass, stands 4J impact

Choke ballast, rapid starting, stable performance

Explosion-proof trigger

Power factor ≥ 0.90 (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

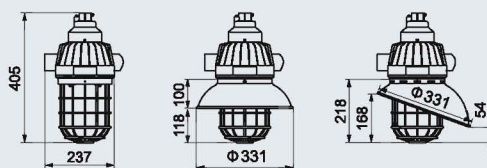
Terminal

Cable entries

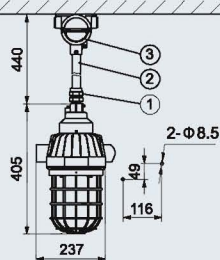
Cable gland

Available cable outer diameter

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



G: pendant pole type

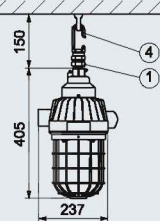


Weight: 10.35kg

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

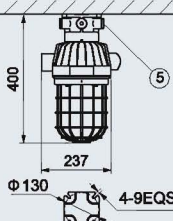


Weight: 9.30kg

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

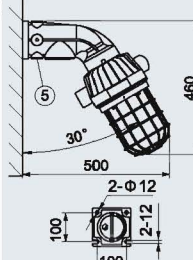


Weight: 9.45kg

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

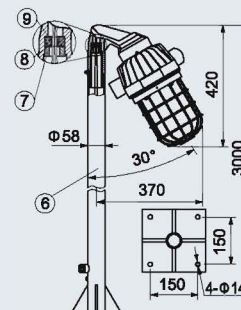


Weight: 11.20kg

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.

Pendant Light Fittings

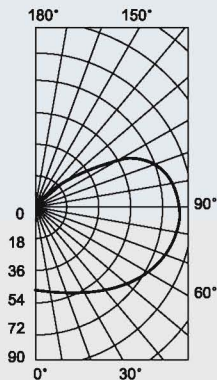
BAD61 Series Explosion-proof Light Fittings

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



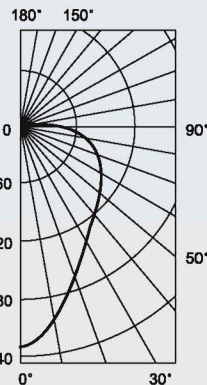
70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*1.0
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

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



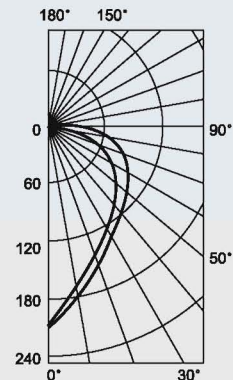
70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*1.0
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

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

Certificates

Conformity to standards

Material

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

Lamp

Lamp holder
Available lamp and lamp power (W)

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

Terminal

Cable entries

Cable gland

Available cable outer diameter

Ex II 2 G Ex d IIC T3 Gb

Ex II 2 D Ex tb IIIC T190°C Db IP65

LCIE 05 ATEX 6142; IECEx CQM 07.0003; FM (USA); GOST.R (Russia)

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

IEC 60079-0: 2011, IEC 60079-1: 2007, IEC 60079-31: 2008

Copper-free aluminium, powder coated 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 ≥ 0.90 (compensated)

High-purity aluminium

Pure aluminium, anodicoxidation treatment for surface

Stainless steel

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

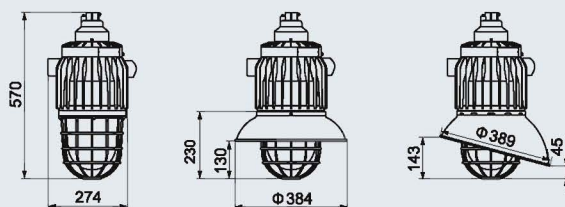
3 x 1.5~2.5mm² (L+N+PE)

1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1" (pole type)

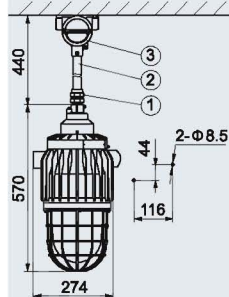
See Mounting Accessories and Spare Parts Table

Φ 10~Φ 14 (mm)

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



G: pendant pole type



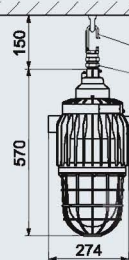
Weight: 17.20kg

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



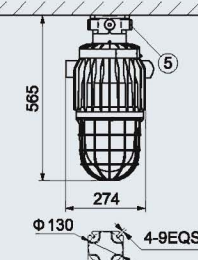
Weight: 14.55kg

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



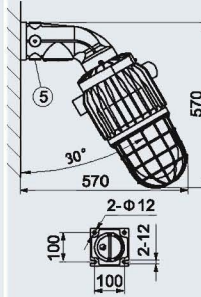
Weight: 15.20kg

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



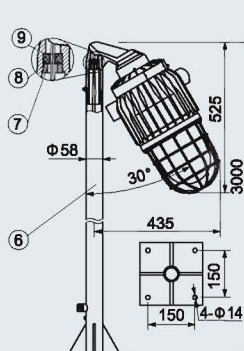
Weight: 16.95kg

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.

Pendant Light Fittings

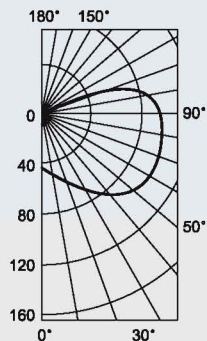
BAD61 Series Explosion-proof Light Fittings

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



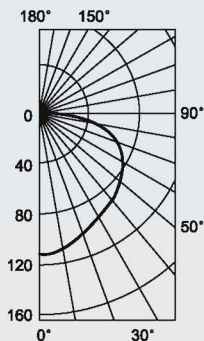
150W High pressure sodium lamp*1.07
250W High pressure sodium lamp*2
250W Metal halide lamp*1.64
175W High pressure mercury lamp*0.53
250W High pressure mercury lamp*0.91

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



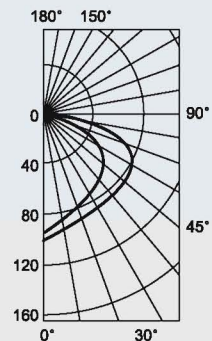
150W High pressure sodium lamp*1.07
250W High pressure sodium lamp*2
250W Metal halide lamp*1.64
175W High pressure mercury lamp*0.53
250W High pressure mercury lamp*0.91

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
5	1259	105	14
15	1246	115	6
25	1061	125	3
35	980	135	3
45	959	145	3
55	1116	155	3
65	1071	165	3
75	564	175	3
85	79	180	3
90	40		

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

Certificates

Conformity to standards

Ex II 2 G Ex d IIC T3 Gb

Ex II 2 D Ex tb IIIC T190°C Db IP65

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

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

IEC 60079-0: 2011, IEC 60079-1: 2007, IEC 60079-31: 2008

Material

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

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

Powder coated carbon steel, white

Toughened glass, stands 4J impact

Choke ballast, rapid starting, stable performance

General trigger

Power factor ≥ 0.90 (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): 400W

High pressure mercury lamp (HME): 400W

High pressure sodium lamp (HSE): 400W

Note: HPI European standard ballast is available in general

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

208V, 250V, 277V 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

Φ 10~Φ 14 (mm)

Rated voltage

Earthing protection

Degree of protection

Ambient temperature

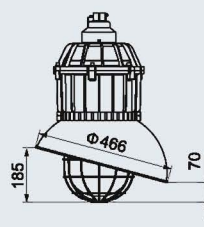
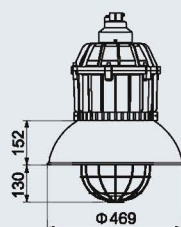
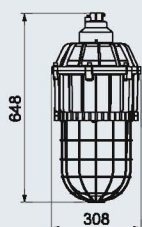
Terminal

Cable entries

Cable gland

Available cable outer diameter

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



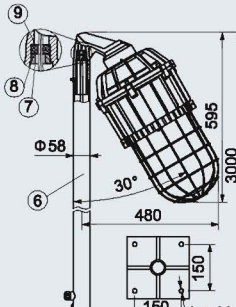
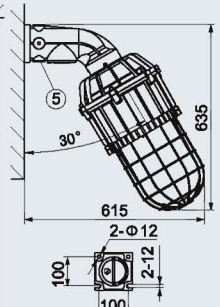
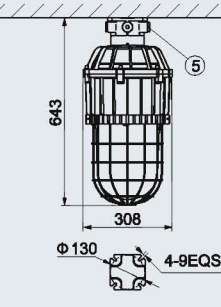
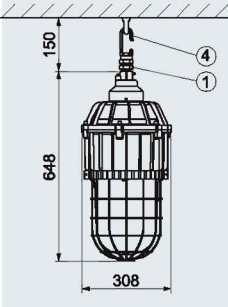
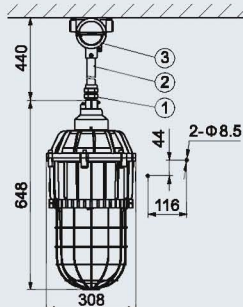
G: pendant pole type

D: hook type

X: ceiling type

B: wall type

L: pole type



Weight: 23.85kg

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, castiron), see P3/6.

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)

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.

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.

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.

Pendant Light Fittings

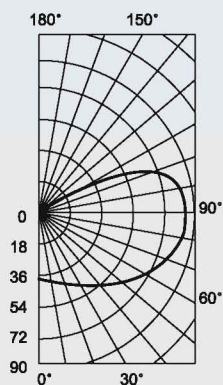
BAD61 Series Explosion-proof Light Fittings

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



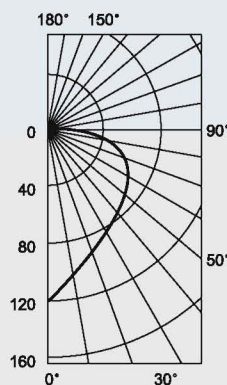
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

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



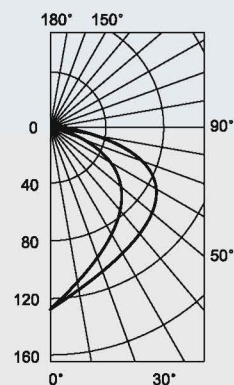
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

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

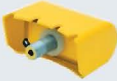


400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

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
	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.

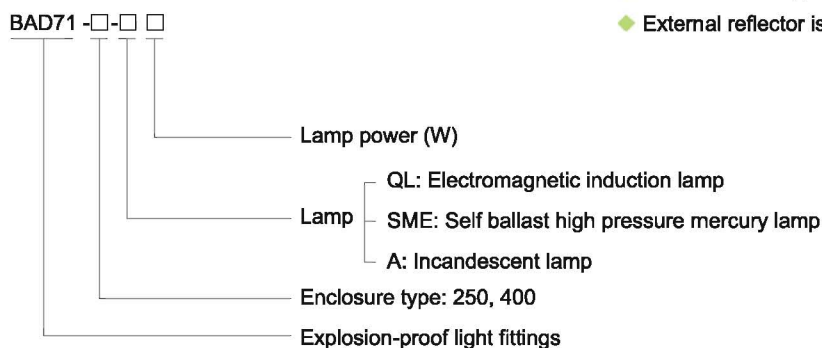


Pendant Light Fittings

BAD71 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 1 and Zone 2
 - Class I, Division 2, Groups A, B, C, D
- ◆ 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

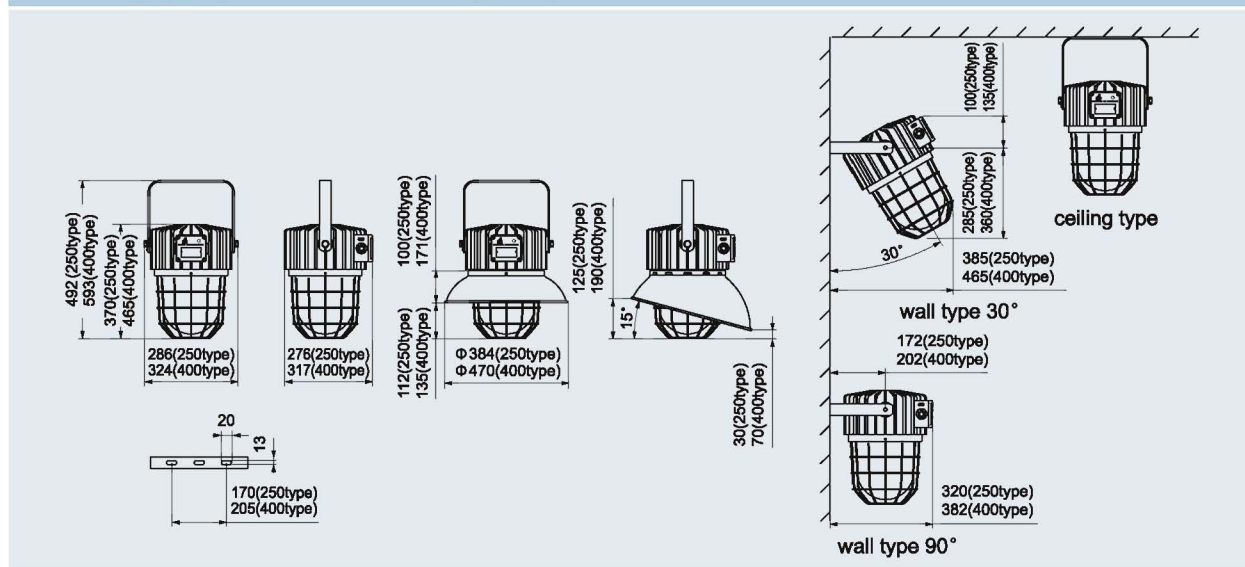
1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
2. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2; 21&22

www.casuarina.com.sg

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 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	-
Available lamp	Lamp power	Lamp holder																
SME	160W	E27																
	250W	E40																
A	200W	E27																
	300W	E40																
QL	85W	-																
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)

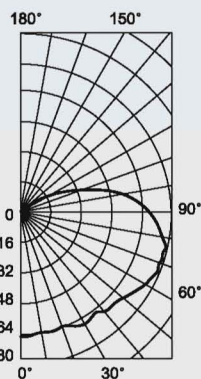


Photometric data of 250W self ballast high pressure mercury lamp

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

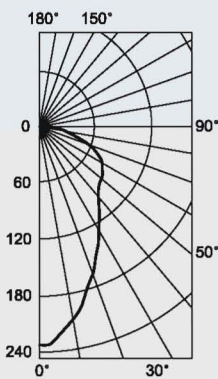


Photometric data of 250W self ballast high pressure mercury lamp (with wide reflector)

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	308	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

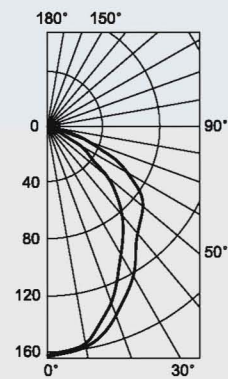


Photometric data of 250W self ballast high pressure mercury lamp (with angle reflector)

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
5	730	105	0
15	615	115	0
25	509	125	0
35	467	135	0
45	387	145	0
55	267	155	0
65	129	165	0
75	34	175	0
85	11	180	0
90	6		

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

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Photometric data (BAD71-400)

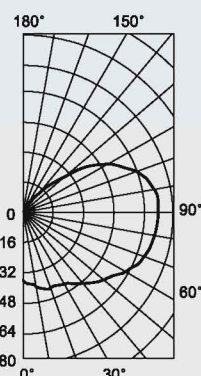


Photometric data of 500W self ballast high pressure mercury lamp

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	882	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

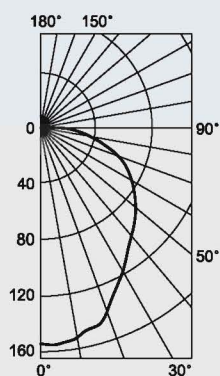


Photometric data of 500W self ballast high pressure mercury lamp (with wide reflector)

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

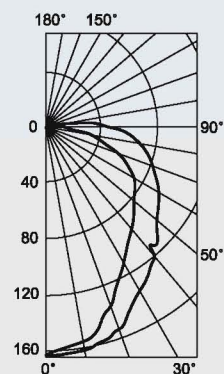


Photometric data of 500W self ballast high pressure mercury lamp (with angle reflector)

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	1068	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		

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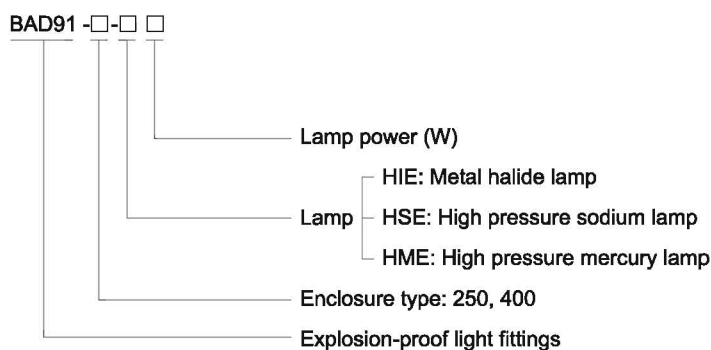


Pendant Light Fittings

BAD91 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 1 and Zone 2
 - Class I, Division 2, Groups A, B, C, D
- ◆ 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.
- ◆ Both American standard and Europe standard are available.

Catalogue number logic



Selection table

Type/Ordering code	Lamp	Available lamp power (W)		Weight (kg)	
		American standard	European standard	American standard	European standard
BAD91-250	HIE	70, 100, 150, 175, 250	175, 250	16.55	14.45
	HSE	70, 100, 150, 250	150, 250	17.25	14.45
	HME	-	175, 250	-	14.45
BAD91-400	HIE	400	400	21.20	20.00
	HSE	400	400	22.30	20.00
	HME	-	400	-	20.00

Note

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

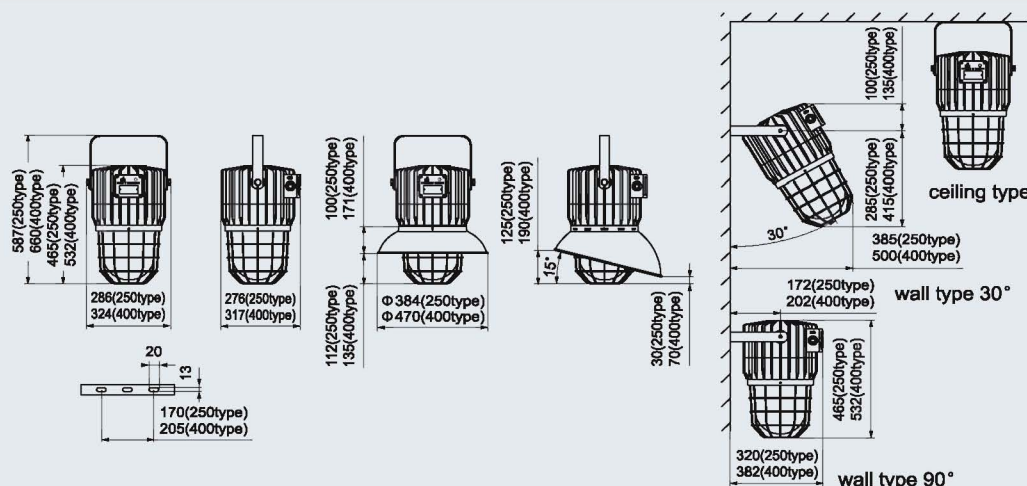
Zones 1&2; 21&22

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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 Ex tD A21 T190℃ IP65		Ⓔ II 2 G Ex de IIC T3 Ex de IIC T3 Gb Ex tD A21 T190℃ IP65		
	LCIE 08 ATEX 6106 IECEX CQM 08.0019; FM (USA) PCEC (China)		LCIE 08 ATEX 6112 IECEX CQM 11.0019X; FM (USA) 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 Available lamp and lamp power (W)	Copper-free aluminium, powder coated 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≥0.90 (compensated) Stainless steel				
	Type	Lamp	American standard		European standard
			Lamp holder		Lamp holder
			E27	E40	E40
	BAD91-250	HSE	70W, 100W	150W, 250W	150W, 250W
		HIE	70W, 100W, 150W	175W, 250W	175W, 250W
		HME	-	-	175W, 250W
	BAD91-400	HSE	-	400W	400W
		HIE	-	400W	400W
		HME	-	-	400W
Rated voltage Earthing protection Degree of protection Ambient temperature Terminal Cable entries Cable gland (optional)	American standard: 120V/208V/240V/277V AC 60Hz (50Hz is optional) European standard: 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.				

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



Pendant Light Fittings

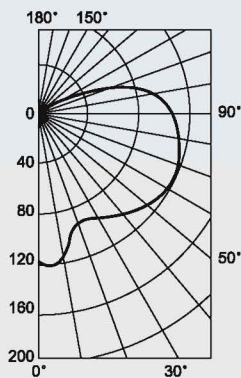
BAD91 Series Explosion-proof Light Fittings

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



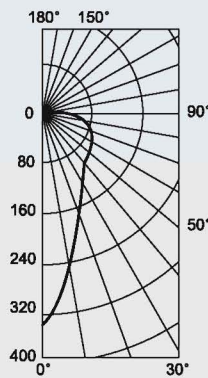
175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

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	1648	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



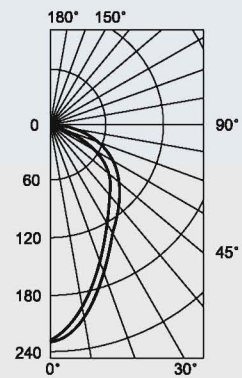
175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

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
5	4386	105	14
15	3495	115	8
25	2862	125	0
35	2063	135	0
45	1797	145	0
55	1687	155	0
65	1166	165	0
75	288	175	0
85	85	180	0
90	42		

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

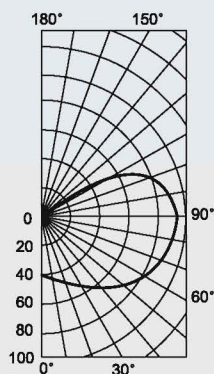
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Photometric data (BAD91-400)



Photometric data of 400W metal halide lamp

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



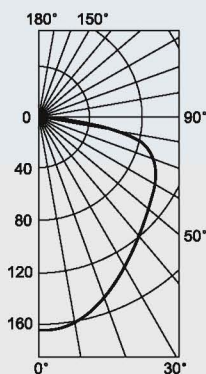
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

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



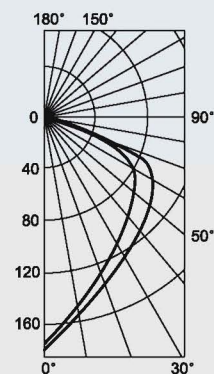
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

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

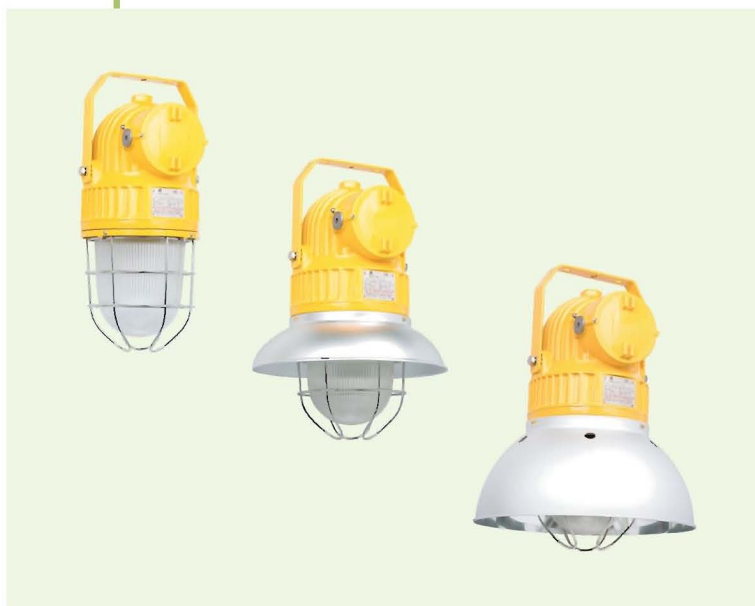


400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

0° Reflection angle	CP	90° Reflection angle	CP
0	6366	95	451
5	6629	105	128
15	5891	115	54
25	5155	125	16
35	4518	135	8
45	4207	145	0
55	3914	155	0
65	3680	165	0
75	3235	175	0
85	2640	180	0
90	1295		

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

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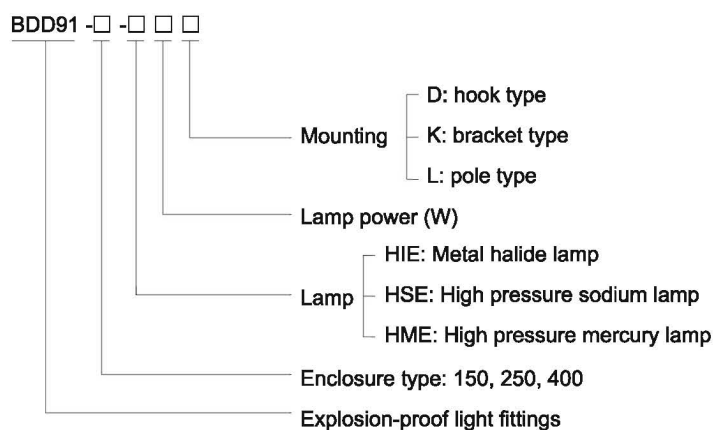


Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 1 and Zone 2
 - Class I, Division 1, Groups A, B, C, D
- ◆ Applicable lamp (max.400W):
 - Metal halide lamp (HIE)
 - High pressure sodium lamp (HSE)
 - High pressure mercury lamp (HME)
- ◆ Three enclosure types: 150, 250, 400
- ◆ Integral control gear, easy installation and maintenance.

Catalogue number logic



Selection table

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

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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		Ⓔ II 2 D Ex t IIIC T190℃ Db IP66	
		¹⁾ See Selection Table			
Certificates		DNV 11 ATEX 05977X		DNV 11 ATEX 06159X (BDD91-250) DNV 11 ATEX 06160X (BDD91-400)	
Conformity to standards		IECEX CQM 12.0016X; 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 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≥0.90 (compensated)			
Exposed fastener		Stainless steel			
Lamp					
Available lamp and lamp power (W)		Type	Available Lamp		Lamp holder
			HIE	HSE	HME
		BDD91-150	70W, 100W, 150W	70W, 100W	80W, 125W
		BDD91-250	175W, 250W	150W, 250W	175W, 250W
		BDD91-400	400W	400W	400W
Rated voltage		Note: HPI European standard ballast is available in general			
Earthing protection		220~240V AC 50Hz (60Hz is optional)			
Degree of protection		M5 (internal & external earth bolts)			
Ambient temperature		IP66			
Terminal		-60℃~+55℃			
Mounting		3 x 1.5~4mm² (L+N+PE)			
Cable entries		Bracket type, pole type, hook type			
Cable gland (optional)		2 x M25 x 1.5 for bracket type, 1 x M25 x 1.5 for pole type			
		DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~25.			

Selection Table (for BDD91-150)				
Lamp	Lamp power (W)	Explosion protection		
		Gas	Dust	
HIE	70, 100	Ⓔ II 2 G Ex d IIC T4 Gb	Ⓔ II 2 D Ex t IIIC T130 ^o C Db IP66	
HME	80			
HSE	70, 100	Ⓔ II 2 G Ex d IIC T142 ^o C Gb	Ⓔ II 2 D Ex t IIIC T142 ^o C Db IP66	
HIE	150			
HME	125	Ⓔ II 2 G Ex d IIC T147 ^o C Gb	Ⓔ II 2 D Ex t IIIC T147 ^o C Db IP66	

Photometric data



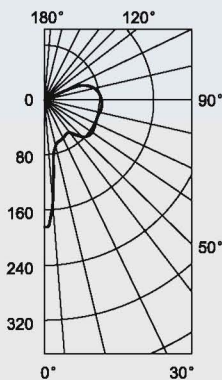
BDD91-150

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

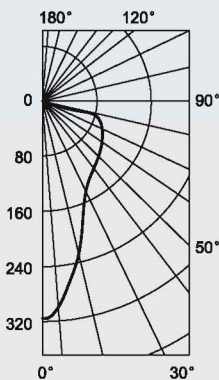
Photometric data of 100W

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	28	165	0
50	825	110	20	170	0
55	712	115	16	175	0
				180	0



BDD91-150

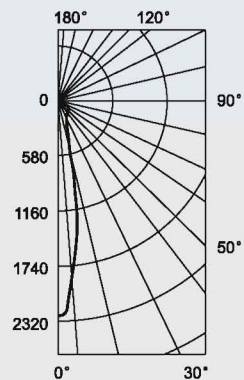
Photometric data of 100W

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



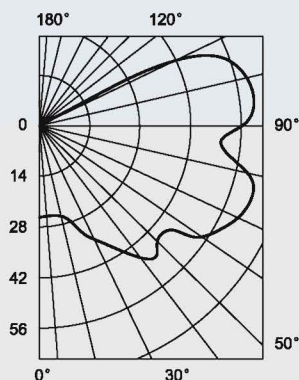
BDD91-250

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	1588	165	45
50	1250	110	1481	170	0
55	1497	115	1169	175	0
				180	0



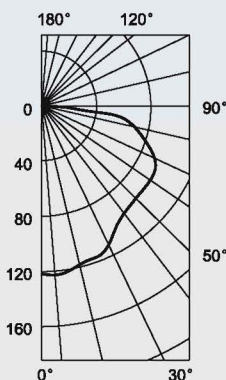
BDD91-250

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



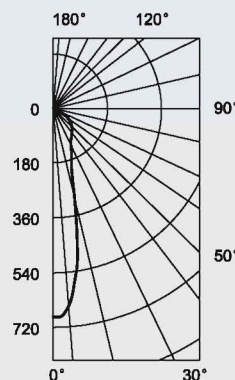
BDD91-250

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.

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Pendant Light Fittings

BDD91 Series Explosion-proof Light Fittings

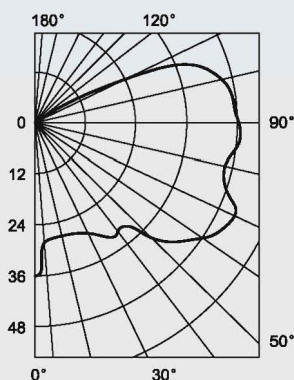
Photometric data



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

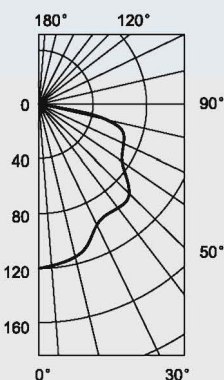
Angle	CP	Angle	CP	Angle	CP
0	1757	60	1961	120	445
5	1327	65	1984	125	87
10	1070	70	1886	130	71
15	1067	75	1793	135	60
20	1286	80	1725	140	50
25	1350	85	1783	145	41
30	1443	90	1738	150	35
35	1439	95	1717	155	34
40	1374	100	1697	160	36
45	1645	105	1621	165	34
50	1797	110	1459	170	27
55	1944	115	1014	175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

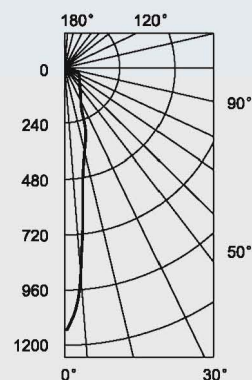
Angle	CP	Angle	CP	Angle	CP
0	4480	60	2137	120	0
5	4884	65	2143	125	0
10	4922	70	1981	130	0
15	1821	75	1711	135	0
20	4682	80	819	140	0
25	4224	85	248	145	0
30	3880	90	92	150	0
35	3394	95	60	155	0
40	3087	100	36	160	0
45	3138	105	20	165	0
50	2935	110	10	170	0
55	2355	115	0	175	0
				180	0



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



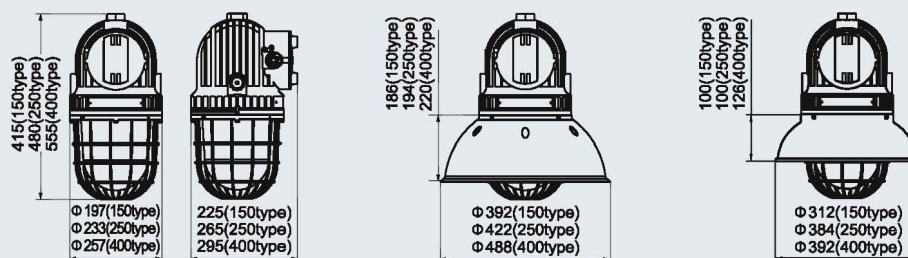
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

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.

Pendant Light Fittings BDD91 Series Explosion-proof Light Fittings

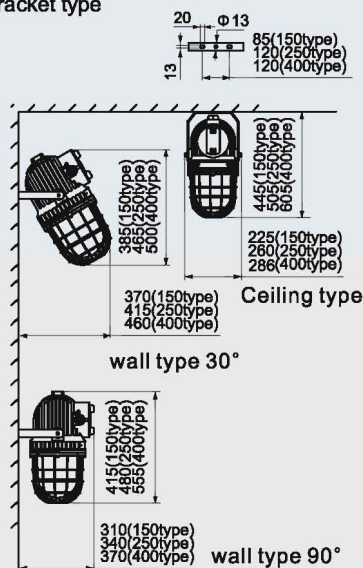
Dimension drawings (all dimensions in mm) - subject to alteration



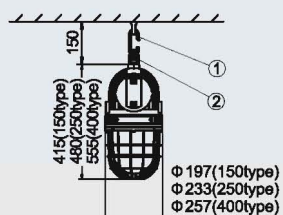
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

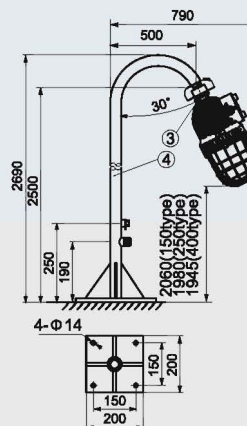
K: bracket type



D: hook type



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



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

Accessories

Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	91001	0.30
	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
Note: Ballast, trigger, capacitor see P1/19			

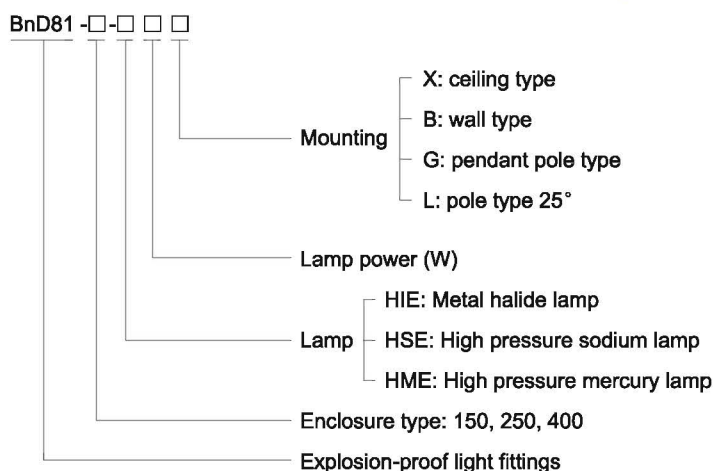


Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 2
 - Class I, Division 2, Groups A, B, C, D
- ◆ 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		American standard	European standard
BnD81-150	70, 100, 150	70, 100	80, 125	E27	8.05	6.15
BnD81-250	175, 250	150, 250	175, 250	E40	13.00	10.20
BnD81-400	400	400	400	E40	18.45	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

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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 IP65

LCIE 12 ATEX 1011X (Gas); LCIE 12 ATEX 3044X (Dust); IECEx CQM 12.0010X 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 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 ≥ 0.90 (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 Selection 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)

IP65

-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.

Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

Photometric data



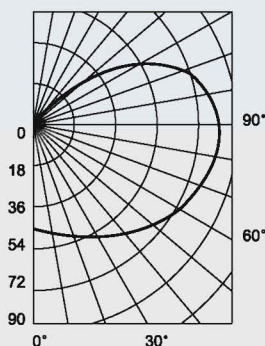
BnD81-150

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



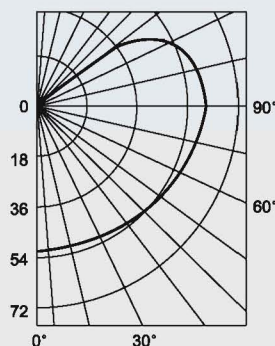
BnD81-250

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



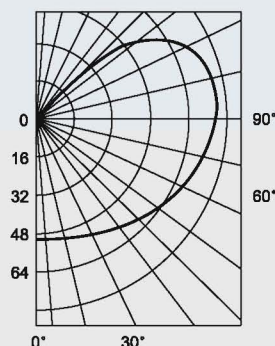
BnD81-400

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.

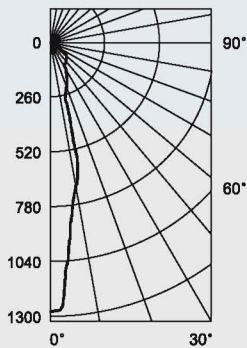
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Photometric data



BnD81-150

Photometric data of 100W
high pressure sodium lamp
(with deep reflector)
Rated luminous flux:9000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



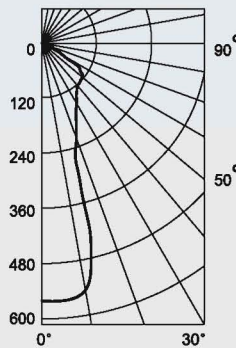
70W High pressure sodium lamp*0.67
70W Metal halide lamp*0.56
100W Metal halide lamp*0.94
80W High pressure mercury lamp*0.41
125W High pressure mercury lamp*0.68
150W Metal halide lamp*1.66

Angle	CP	Angle	CP	Angle	CP
0	10316	60	198	120	0
5	8041	65	93	125	0
10	6079	70	49	130	0
15	2480	75	33	135	0
20	1998	80	20	140	0
25	1580	85	10	145	0
30	1238	90	0	150	0
35	1094	95	0	155	0
40	1037	100	0	160	0
45	957	105	0	165	0
50	929	110	0	170	0
55	692	115	0	175	0
				180	0



BnD81-250

Photometric data of 250W
metal halide lamp(with deep reflector)
Rated luminous flux:23000lm;
The data from PHILIPS lamp;
Luminous intensity distribution cd/1000lm



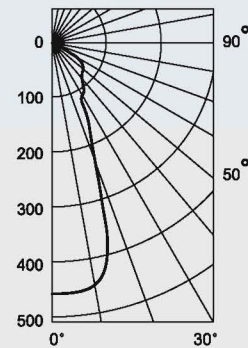
175W Metal halide lamp*0.61
175W High pressure mercury lamp*0.32
250W High pressure mercury lamp*0.55
150W High pressure sodium lamp*0.65
250W High pressure sodium lamp*1.22

Angle	CP	Angle	CP	Angle	CP
0	9327	60	1320	120	0
5	9180	65	291	125	0
10	9730	70	139	130	0
15	6570	75	70	135	0
20	4264	80	42	140	0
25	3651	85	20	145	0
30	2737	90	7	150	0
35	3070	95	0	155	0
40	2295	100	0	160	0
45	1858	105	0	165	0
50	2111	110	0	170	0
55	1827	115	0	175	0
				180	0



BnD81-400

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	18266	60	2980	120	0
5	19685	65	806	125	0
10	23404	70	332	130	0
15	18764	75	140	135	0
20	12150	80	58	140	0
25	9033	85	21	145	0
30	4936	90	5	150	0
35	5451	95	0	155	0
40	5094	100	0	160	0
45	4630	105	0	165	0
50	4010	110	0	170	0
55	3827	115	0	175	0
				180	0

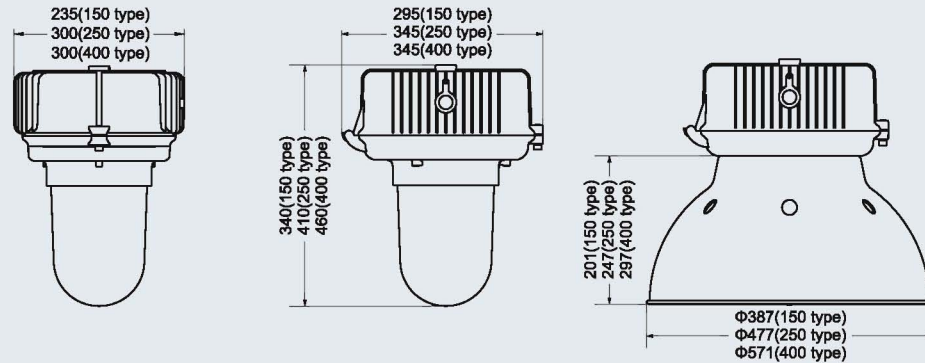
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

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Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

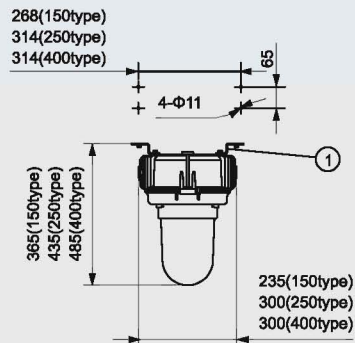
Dimension drawings (all dimensions in mm) - subject to alteration



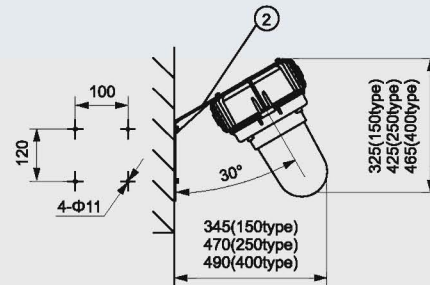
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

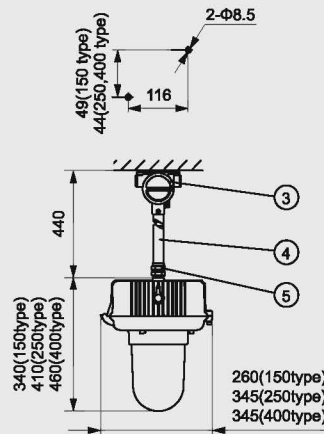
X: ceiling type



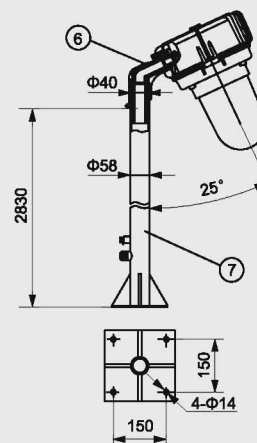
B: wall type



G: pendant pole type



L: 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-F Explosion-proof junction box	1	150 type: copper-free aluminium 250,400 type: cast iron	BHD51-F	0.80 2.10
	④.Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
	⑤.BGJ-III Explosion-proof connector	1	M25 x 1.5(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.

Accessories

Picture	Name	Ordering code	Weight (kg)
	150 Deep reflector	81001	0.43
	250 Deep reflector	81002	0.63
	400 Deep reflector	81003	0.91