

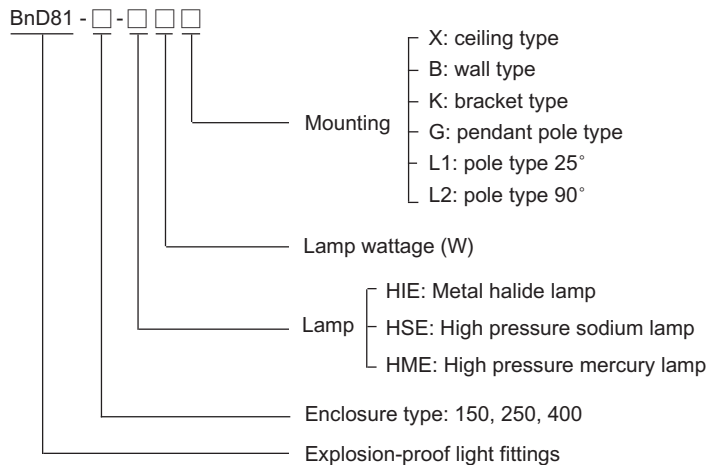


## Pendant Light Fittings

### BnD81 Series Explosion-proof Light Fittings

- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 2
  - Zone 21 and Zone 22
- ◆ Available lamp (max.400W):
  - Metal halide lamp (HIE)
  - High pressure sodium lamp (HSE)
  - High pressure mercury lamp (HME)
- ◆ Three enclosure types: 150, 250, 400
- ◆ Integral control gear, easy installation and maintenance.
- ◆ Both American standard and European standard are available.

### Catalogue number logic



### Selection table

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

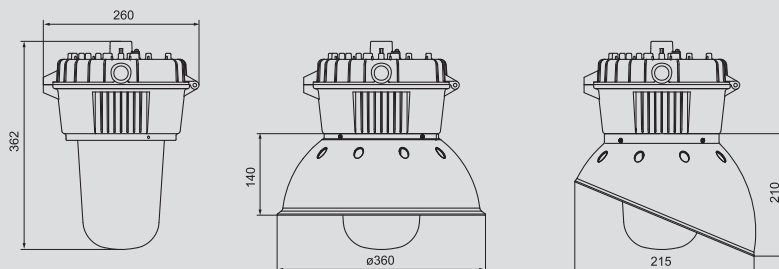
- Note:**
1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
  2. The light fittings are supplied without external reflector. Please specify when ordering.
  3. High pressure mercury lamp is not available in American standard products.

# Zones 2; 21&22

Technical data																
<b>Explosion-proof light fittings</b>	<b>BnD81-150-□□□</b>															
<b>Explosion protection</b> Gas explosion protection Dust explosion protection	<p>⊕ II 3 G Ex nR II T4 Gc ⊕ II 2 D Ex tD A21 T130°C IP66</p>															
<b>Certificates</b>	Nemko 11 ATEX____; FM (USA); GOST.R (Russia); IECEx															
<b>Conformity to standards</b>	EN 60079-0:2009, EN 60079-15:2005, EN 61241-0:2006, EN 61241-1:2004 IEC 60079-0:2007, IEC 60079-15:2005, IEC 61241-0:2004, IEC 61241-1:2004															
<b>Material</b>																
Enclosure	Copper-free aluminium, powder coated external surface, rape 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 (optional)	Stainless steel															
Ballast	Chock ballast,rapid starting,stable performance															
Trigger	General trigger															
Capacitor	Power factor ≥ 0.85 (compensated)															
Exposed fastener	Stainless steel															
<b>Lamp</b>																
Lamp holder	E27															
Available lamp and lamp wattage (W)	<table border="1"> <thead> <tr> <th>Available lamp</th> <th>American standard</th> <th>European standard</th> </tr> </thead> <tbody> <tr> <td></td> <td>120V/208V/240V/277V/480V AC</td> <td>220~240V AC</td> </tr> <tr> <td>HIE</td> <td>70W, 100W,150W</td> <td>70W, 100W, 150W</td> </tr> <tr> <td>HSE</td> <td>70W,100W</td> <td>70W, 100W</td> </tr> <tr> <td>HME</td> <td>-----</td> <td>80W, 125W</td> </tr> </tbody> </table>	Available lamp	American standard	European standard		120V/208V/240V/277V/480V AC	220~240V AC	HIE	70W, 100W,150W	70W, 100W, 150W	HSE	70W,100W	70W, 100W	HME	-----	80W, 125W
Available lamp	American standard	European standard														
	120V/208V/240V/277V/480V AC	220~240V AC														
HIE	70W, 100W,150W	70W, 100W, 150W														
HSE	70W,100W	70W, 100W														
HME	-----	80W, 125W														
	Note: Please see Seletion table of American standard HID lamp and corresponding electrical components (See P2/5)															
<b>Rated voltage</b>	American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional) European standard: 220~240V AC 50Hz (60Hz is optional)															
<b>Earthing protection</b>	M5 (internal & external earth bolt)															
<b>Degree of protection</b>	IP66															
<b>Ambient temperature</b>	-60°C ~ +55°C															
<b>Terminal</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)															
<b>Mounting</b>	Ceiling type, wall type, bracket type, pendant pole type, pole type 25° , pole type 90°															
<b>Cable entries</b>	2 x M25 x 1.5 for ceiling type and wall type ,1 x M25 x 1.5 for pendant pole type and pole type															
<b>Cable gland (optional)</b>	DQM-I (Ex e) is recommended. Please see P7/16~19.															



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



### Technical data

#### Explosion-proof light fittings

**BnD81-250-□□□**

#### Explosion protection

Gas explosion protection

Dust explosion protection

#### Certificates

#### Conformity to standards

#### Material

Enclosure

Transparent cover

Internal reflector

External reflector (optional)

Wire guard (optional)

Ballast

Trigger

Capacitor

Exposed fastener

#### Lamp

Lamp holder

Available lamp and lamp wattage (W)

⊕ II 3 G Ex nR II T3 Gc

⊕ II 2 D Ex tD A21 T195°C IP66

Nemko 11 ATEX \_\_\_\_\_; FM (USA); GOST.R (Russia); IECEX

EN 60079-0:2009, EN 60079-15:2005, EN 61241-0:2006, EN 61241-1:2004

IEC 60079-0:2007, IEC 60079-15:2005, IEC 61241-0:2004, IEC 61241-1:2004

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

Toughened glass, stands 4J impact

High-purity aluminium

Pure aluminium, anodicoxidation treatment for surface

Stainless steel

Chock ballast, rapid starting, stable performance

General trigger

Power factor  $\geq 0.85$  (compensated)

Stainless steel

E40

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

Note: Please see Seletion table of American standard HID lamp and corresponding electrical components (See P2/5)

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

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

M5 (internal & external earth bolt)

IP66

-60°C ~ +55°C

3 x 1.5~4mm<sup>2</sup> (L+N+PE)

Ceiling type, wall type, bracket type, pendant pole type, pole type 25° , pole type 90°

2 x M25 x 1.5 for ceiling type and wall type , 1 x M25 x 1.5 for pendant pole type and pole type

#### Rated voltage

#### Earthing protection

#### Degree of protection

#### Ambient temperature

#### Terminal

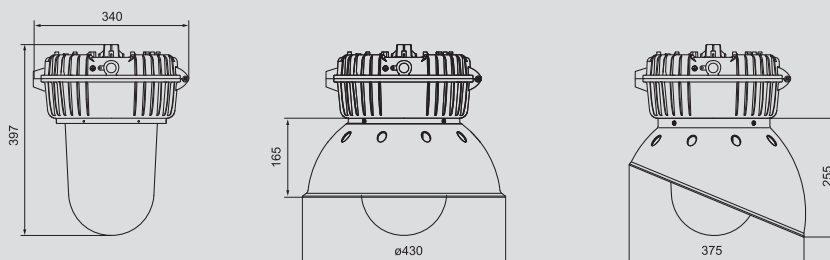
#### Mounting

#### Cable entries

#### Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/17 ~ 19.

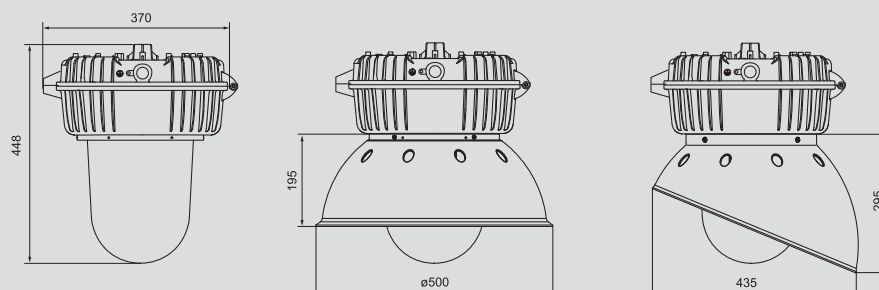
### Dimension drawings (all dimensions in mm) - subject to alteration



Technical data																
<b>Explosion-proof light fittings</b>	<b>BnD81-400-□□□</b>															
<b>Explosion protection</b>	<p>Gas explosion protection <math>\text{Ex II 3 G Ex nR II T3 Gc}</math></p> <p>Dust explosion protection <math>\text{Ex II 2 D Ex tD A21 T195°C IP66}</math></p>															
<b>Certificates</b>	Nemko 11 ATEX____; FM (USA); GOST.R (Russia); IECEx															
<b>Conformity to standards</b>	EN 60079-0:2009, EN 60079-15:2005, EN 61241-0:2006, EN 61241-1:2004 IEC 60079-0:2007, IEC 60079-15:2005, IEC 61241-0:2004, IEC 61241-1:2004															
<b>Material</b>																
Enclosure	Copper-free aluminium, powder coated external surface, rape 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 (optional)	Stainless steel															
Ballast	Chock ballast, rapid starting, stable performance															
Trigger	General trigger															
Capacitor	Power factor $\geq 0.85$ (compensated)															
Exposed fastener	Stainless steel															
<b>Lamp</b>																
Lamp holder	E40															
Available lamp and lamp wattage (W)	<table border="1"> <thead> <tr> <th>Available lamp</th> <th>American standard</th> <th>European standard</th> </tr> </thead> <tbody> <tr> <td></td> <td>120V/208V/240V/277V/480V AC</td> <td>220~240V AC</td> </tr> <tr> <td>HIE</td> <td>400W</td> <td>400W</td> </tr> <tr> <td>HSE</td> <td>400W</td> <td>400W</td> </tr> <tr> <td>HME</td> <td>-----</td> <td>400W</td> </tr> </tbody> </table>	Available lamp	American standard	European standard		120V/208V/240V/277V/480V AC	220~240V AC	HIE	400W	400W	HSE	400W	400W	HME	-----	400W
Available lamp	American standard	European standard														
	120V/208V/240V/277V/480V AC	220~240V AC														
HIE	400W	400W														
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	Note: Please see Seletion table of American standard HID lamp and corresponding electrical components (See P2/5) American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional) European standard: 220~240V AC 50Hz (60Hz is optional)															
<b>Rated voltage</b>																
	M5 (internal & external earth bolt)															
<b>Earthing protection</b>	IP66															
<b>Degree of protection</b>	-60°C ~ +55°C															
<b>Ambient temperature</b>	3 x 1.5~4mm <sup>2</sup> (L+N+PE)															
<b>Terminal</b>	Ceiling type, wall type, bracket type, pendant pole type, pole type 25° , pole type 90°															
<b>Mounting</b>	2 x M25 x 1.5 for ceiling type and wall type ,1 x M25 x 1.5 for pendant pole type and pole type															
<b>Cable entries</b>	DQM-I (Ex e) is recommended. Please see P7/17~19.															
<b>Cable gland (optional)</b>																



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



## Pendant Light Fittings BnD81 Series Explosion-proof Light Fittings

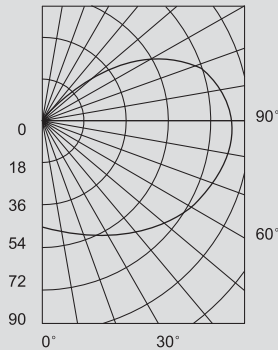
### Photometric data



#### 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

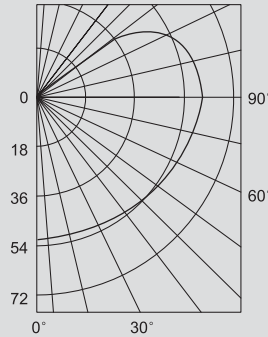
Angle	CP	Angle	CP	Angle	CP
0	230	60	692	120	443
5	185	65	730	125	206
10	169	70	750	130	65
15	252	75	758	135	15
20	292	80	754	140	10
25	390	85	750	145	5
30	463	90	750	150	0
35	515	95	755	155	0
40	574	100	745	160	0
45	611	105	720	165	0
50	650	110	672	170	0
55	659	115	620	175	0
				180	0



#### 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

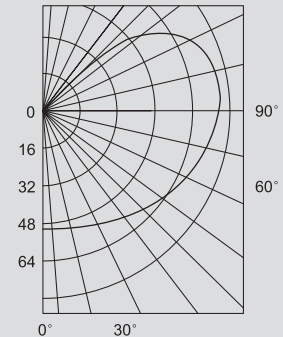
Angle	CP	Angle	CP	Angle	CP
0	1327	60	1068	120	921
5	1414	65	1006	125	685
10	930	70	1022	130	120
15	763	75	1064	135	30
20	584	80	1108	140	20
25	577	85	1122	145	15
30	534	90	1112	150	5
35	648	95	1100	155	4
40	763	100	1090	160	3
45	806	105	1063	165	3
50	893	110	1001	170	3
55	1138	115	976	175	3
				180	3



#### 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

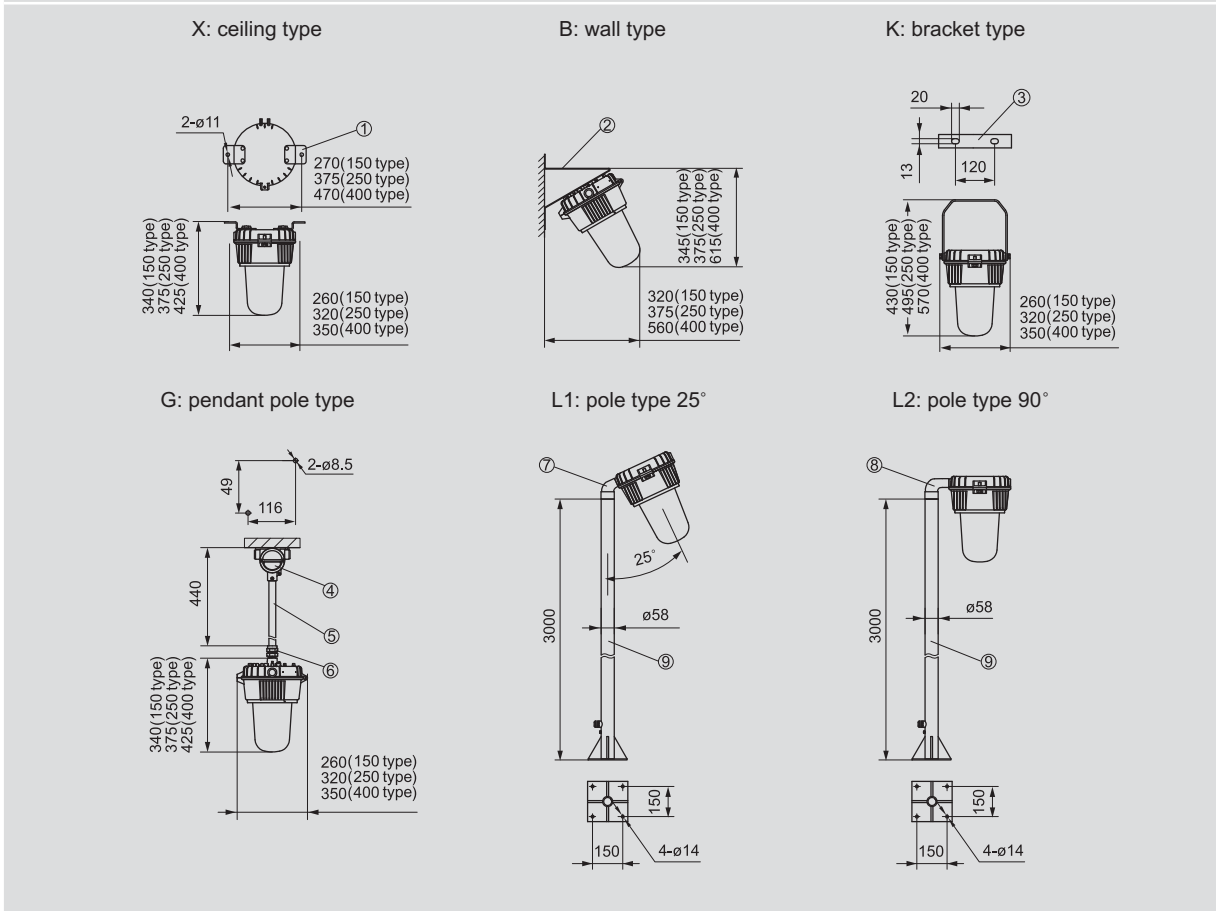
Angle	CP	Angle	CP	Angle	CP
0	2090	60	2290	120	2126
5	1366	65	2278	125	2049
10	1278	70	2439	130	1844
15	1115	75	2628	135	969
20	1122	80	2776	140	141
25	1168	85	2865	145	445
30	1294	90	2883	150	25
35	1521	95	2830	155	15
40	1872	100	2740	160	9
45	2108	105	2640	165	5
50	2197	110	2383	170	5
55	2288	115	2254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



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

## 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		
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	81B03	1.80
K: bracket type	③.Bracket (powder coated carbon steel)	1	150 type	81K01	0.50
			250 type	81K02	0.70
			400 type	81K03	1.00
G: pendant pole type	④.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
	⑥.BGJ-III Explosion-proof connector	1	G3/4"(M)/M25 x 1.5(F) Carbon steel	81D02	0.26
L1: pole type 25°	⑦.Pole type 25° connector	1	Copper-free aluminium	81L02	0.80
	⑧.Pole	1	ø58mm	81L03	-
L2: pole type 90°	⑧.Pole type 90° connector	1	Copper-free aluminium	81L04	0.90
	⑧.Pole	1	ø58mm	81L03	-

**Note:** 1. Accessories not in the table shall be supplied by user.  
2. Pole ⑧ shall not be supplied with light fittings; if required, please specify when ordering.