

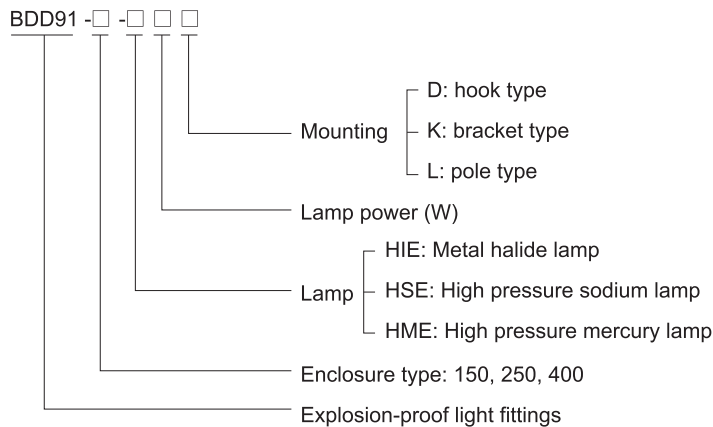


Pendant Light Fittings

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

Technical data					
Explosion-proof light fittings	BDD91-150-□□□		BDD91-250-□□□ BDD91-400-□□□		
Explosion protection Gas explosion protection Dust explosion protection	Ⓔ II 2 G Ex d IIC Tx ¹⁾ Gb Ⓔ II 2 D Ex t IIIC Txxx°C ¹⁾ Db IP66 ¹⁾ See Selection Table		Ⓔ II 2 G Ex d IIC T3 Gb Ⓔ II 2 D Ex t IIIC T190°C Db IP66		
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 Transparent cover Internal reflector External reflector (optional) Wire guard Ballast Trigger Capacitor 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 Chock ballast, rapid starting, stable performance General trigger Power factor ≥ 0.90 (compensated) 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	E27
	BDD91-250	175W, 250W	150W, 250W	175W, 250W	E40
	BDD91-400	400W	400W	400W	E40
Rated voltage Earthing protection Degree of protection Ambient temperature Terminal Mounting Cable entries Cable gland (optional)	Note: HPI European standard ballast is available in general 220~240V AC 50Hz (60Hz is optional) M5 (internal & external earth bolts) IP66 -60°C~+55°C 3 x 1.5~4mm ² (L+N+PE) Bracket type, pole type, hook type 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°C Db IP66
HME	80		
HSE	70, 100		
HIE	150	Ⓔ II 2 G Ex d IIC T142°C Gb	Ⓔ II 2 D Ex t IIIC T142°C Db IP66
HME	125	Ⓔ II 2 G Ex d IIC T147°C Gb	Ⓔ II 2 D Ex t IIIC T147°C Db IP66

Pendant Light Fittings BDD91 Series Explosion-proof Light Fittings

Photometric data



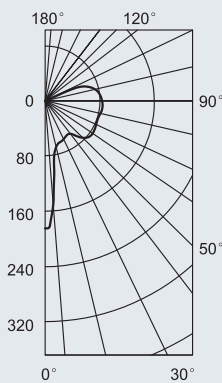
BDD91-150

Photometric data of 100W metal halide lamp

Rated luminous flux:9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



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

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



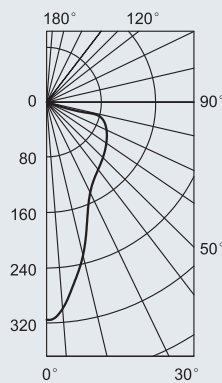
BDD91-150

Photometric data of 100W metal halide lamp(with wide reflector)

Rated luminous flux:9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



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

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



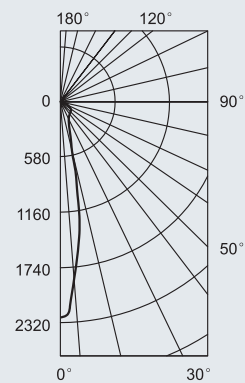
BDD91-150

Photometric data of 100W metal halide lamp(with deep reflector)

Rated luminous flux:9000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



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

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



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

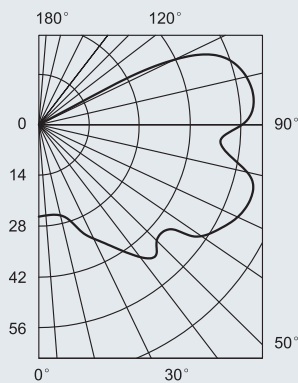
Photometric data



BDD91-250

Photometric data of 250W metal halide lamp

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



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

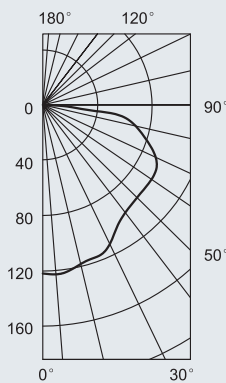
Angle	CP	Angle	CP	Angle	CP
0	660	60	1772	120	545
5	691	65	1740	125	110
10	600	70	1752	130	60
15	592	75	1635	135	45
20	642	80	1449	140	40
25	808	85	1392	145	36
30	1025	90	1461	150	37
35	1017	95	1626	155	40
40	1260	100	1641	160	42
45	1408	105	1586	165	45
50	1250	110	1481	170	0
55	1497	115	1169	175	0
	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

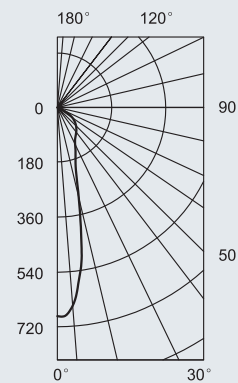
Angle	CP	Angle	CP	Angle	CP
0	2553	60	1687	120	25
5	2489	65	1728	125	20
10	2423	70	1721	130	10
15	2259	75	1656	135	0
20	1998	80	1360	140	0
25	1816	85	1340	145	0
30	1959	90	525	150	0
35	1917	95	130	155	0
40	1735	100	90	160	0
45	1552	105	70	165	0
50	1630	110	60	170	0
55	1662	115	30	175	0
		180		180	0



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		180	0



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Pendant Light Fittings BDD91 Series Explosion-proof Light Fittings

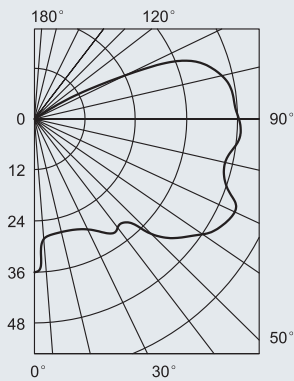
Photometric data



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

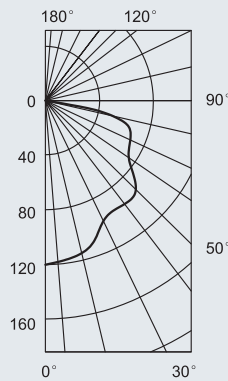
Angle	CP	Angle	CP	Angle	CP
0	1757	60	1961	120	445
5	1327	65	1984	125	87
10	1070	70	1886	130	71
15	1067	75	1793	135	60
20	1286	80	1725	140	50
25	1350	85	1783	145	41
30	1443	90	1738	150	35
35	1439	95	1717	155	34
40	1374	100	1697	160	36
45	1645	105	1621	165	34
50	1797	110	1459	170	27
55	1944	115	1014	175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

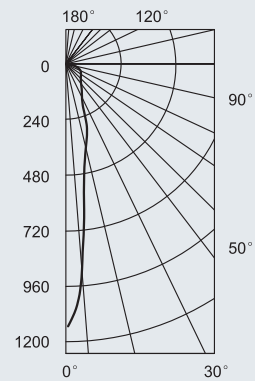
Angle	CP	Angle	CP	Angle	CP
0	4480	60	2137	120	0
5	4884	65	2143	125	0
10	4922	70	1981	130	0
15	1821	75	1711	135	0
20	4682	80	819	140	0
25	4224	85	248	145	0
30	3880	90	92	150	0
35	3394	95	60	155	0
40	3087	100	36	160	0
45	3138	105	20	165	0
50	2935	110	10	170	0
55	2355	115	0	175	0
				180	0



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



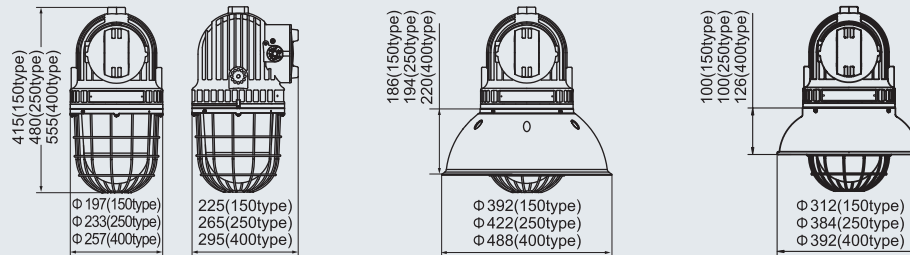
400W High pressure sodium lamp*1.26
400W High pressure mercury lamp*0.58

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



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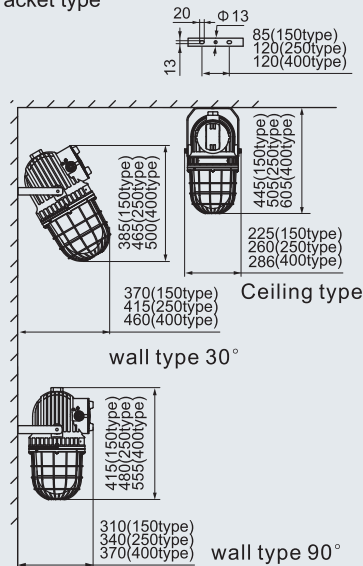
Dimension drawings (all dimensions in mm) - subject to alteration



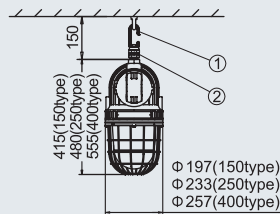
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

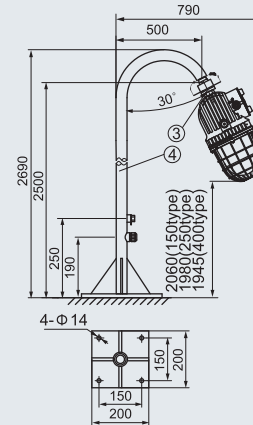
K: bracket type



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