

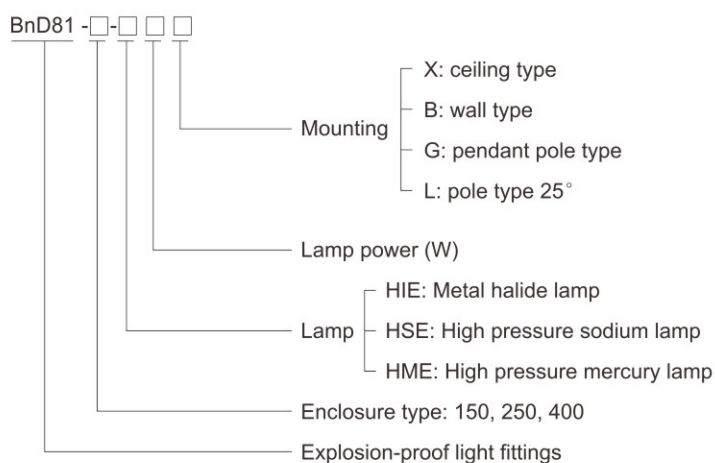
Pendant Light Fittings

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 (E26)	8.05	6.15
BnD81-250	175, 250	150, 250	250	E40 (E39)	13.00	10.20
BnD81-400	400	400	400	E40 (E39)	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

Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

Technical data																
Explosion-proof light fittings		BnD81-150-□□□														
Explosion protection Global (IECEX) Gas and dust Europe (ATEX) Gas and dust	IECEX CQM 12.0045X Ex nR IIC T4 or T3 Gc ¹⁾ Ex tb IIIC T130°C or T190°C Db ¹⁾ LCIE 12 ATEX 1018X(gas) LCIE 12 ATEX 3093X(dust) ⚠ II 3 G Ex nR IIC T4 or T3 Gc ¹⁾ ⚠ II 2 D Ex tb IIIC T130°C or T190°C Db IP65 ¹⁾ ¹⁾ See Selection table															
	Certificates IECEX; ATEX; UL Conformity to standards EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31 UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15 CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15															
Material Enclosure Transparent cover External reflector (optional) Wire guard (optional) Ballast Trigger Power factor Exposed fastener	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021) Toughened glass, stands 4J impact Pure aluminium, anodic-oxidation treatment for surface Stainless steel Electromagnetic ballast, rapid starting, stable performance General trigger COS $\phi \geq 0.90$ (compensated) Stainless steel															
	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)	American Standard: E26; European Standard: E27															
	<table border="1"> <thead> <tr> <th>Available lamp</th><th>American Standard</th><th>European Standard</th></tr> </thead> <tbody> <tr> <td>HIE</td><td>120V/208V/240V/277V/480V AC</td><td>220~240V, 250V AC</td></tr> <tr> <td>HSE</td><td>70W, 100W, 150W</td><td>70W, 100W, 150W</td></tr> <tr> <td>HME</td><td>70W, 100W</td><td>70W, 100W</td></tr> <tr> <td>HME</td><td>-</td><td>80W, 125W</td></tr> </tbody> </table> Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/22) 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)		Available lamp	American Standard	European Standard	HIE	120V/208V/240V/277V/480V AC	220~240V, 250V AC	HSE	70W, 100W, 150W	70W, 100W, 150W	HME	70W, 100W	70W, 100W	HME	-
Available lamp	American Standard	European Standard														
HIE	120V/208V/240V/277V/480V AC	220~240V, 250V AC														
HSE	70W, 100W, 150W	70W, 100W, 150W														
HME	70W, 100W	70W, 100W														
HME	-	80W, 125W														
Rated voltage Earthing protection Degree of protection Ambient temperature Terminal Mounting Cable entries Cable gland (optional)	M5 (internal & external earth bolts) IP65 ATEX / IECEX: -60°C~+55°C(+40°C); UL: -60°C~+45°C 3 x 1.5~4mm ² (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 P7/18~21.															



Selection table					
Rated power (W)		Temperature classes			
		-60°C ≤ Ta ≤ +40°C		-60°C ≤ Ta ≤ +55°C	
		Gas	Dust	Gas	Dust
European Standard	HIE 70W, 100W	T4	T130°C	T4	T130°C
	HIE 150W			T3	T190°C
	HME 80W			T4	T130°C
	HME 125W			T3	T190°C
	HSE 70W, 100W			T4	T130°C
American Standard	HIE 70W, 100W, 150W	T4	T130°C	T4	T130°C
	HSE 70W, 100W				

Pendant Light Fittings

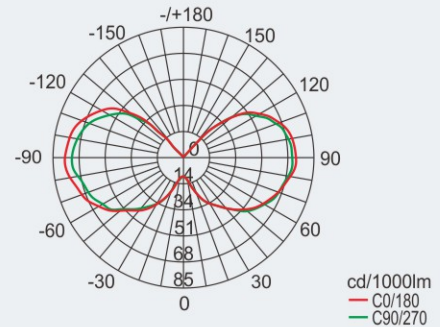
BnD81 Series Explosion-proof Light Fittings

Photometric data

BnD81-150-□□□(Without external reflector)



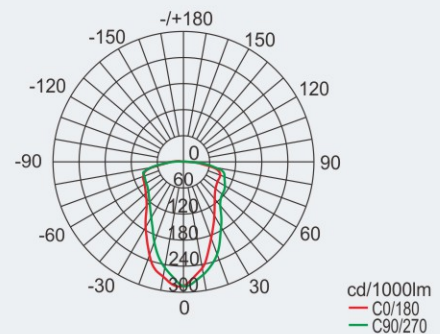
Rated luminous flux
 70W High pressure sodium lamp: 6600 lm
 100W High pressure sodium lamp: 10200 lm
 80W High pressure mercury lamp: 3800 lm
 125W High pressure mercury lamp: 6300 lm
 70W Metal halide lamp: 5800 lm
 100W Metal halide lamp: 8700 lm
 150W Metal halide lamp: 13500 lm
 The data from Philips lamp



BnD81-150-□□□(With wide reflector)



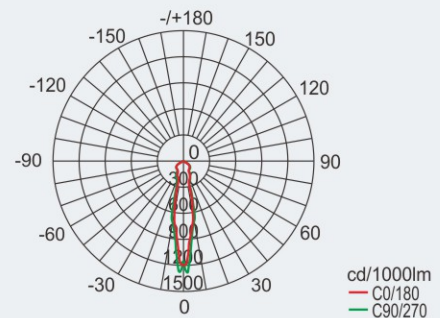
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 The data from Philips lamp



BnD81-150-□□□(With deep reflector)



Rated luminous flux
 70W High pressure sodium lamp: 6600 lm
 100W High pressure sodium lamp: 10200 lm
 80W High pressure mercury lamp: 3800 lm
 125W High pressure mercury lamp: 6300 lm
 70W Metal halide lamp: 5800 lm
 100W Metal halide lamp: 8700 lm
 150W Metal halide lamp: 13500 lm
 The data from Philips lamp



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Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

Technical data																
Explosion-proof light fittings		BnD81-250-□□□														
Explosion protection																
Global (IECEX)	IECEX CQM 12.0010X															
Gas and dust	Ex nR IIC T3 Gc															
	Ex tb IIIC T190°C Db															
Europe (ATEX)	LCIE 12 ATEX 1011X(gas); LCIE 12 ATEX 3044X(dust)															
Gas and dust	Ⓔ II 3 G Ex nR IIC T3 Gc Ⓔ II 2 D Ex t IIIC T190°C Db IP65															
Certificates	IECEX; ATEX; UL															
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31 UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15 CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15															
Material																
Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)															
Transparent cover	Toughened glass, stands 4J impact															
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface															
Wire guard (optional)	Stainless steel															
Ballast	Electromagnetic ballast, rapid starting, stable performance															
Trigger	General trigger															
Power factor	COS φ ≥0.90 (compensated)															
Exposed fastener	Stainless steel															
Lamp																
Lamp holder	American Standard: E39; European Standard: E40															
Available lamp and lamp power (W)	<table> <tr> <th rowspan="2">Available lamp</th><th>American Standard</th><th>European Standard</th></tr> <tr> <th>120V/208V/240V/277V/480V AC</th><th>220~240V, 250V AC</th></tr> <tr> <td>HIE</td><td>175W, 250W</td><td>250W</td></tr> <tr> <td>HSE</td><td>150W, 250W</td><td>150W, 250W</td></tr> <tr> <td>HME</td><td>-</td><td>250W</td></tr> </table>		Available lamp	American Standard	European Standard	120V/208V/240V/277V/480V AC	220~240V, 250V AC	HIE	175W, 250W	250W	HSE	150W, 250W	150W, 250W	HME	-	250W
Available lamp	American Standard	European Standard														
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HIE	175W, 250W	250W														
HSE	150W, 250W	150W, 250W														
HME	-	250W														
	Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/22)															
Rated voltage	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)															
Earthing protection	M5 (internal & external earth bolts)															
Degree of protection	IP65															
Ambient temperature	ATEX / IECEX: -60°C~+55°C; UL: -60°C~+45°C															
Terminal	3 x 1.5~4mm ² (L+N+PE)															
Mounting	Ceiling type, wall type, pendant pole type, pole type 25°															
Cable entries	1 x M25 x 1.5															
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/18~21.															



Pendant Light Fittings

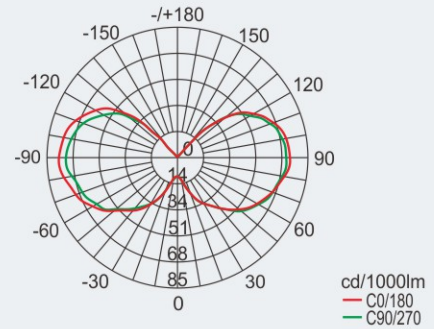
BnD81 Series Explosion-proof Light Fittings

Photometric data

BnD81-250-□□□(Without external reflector)



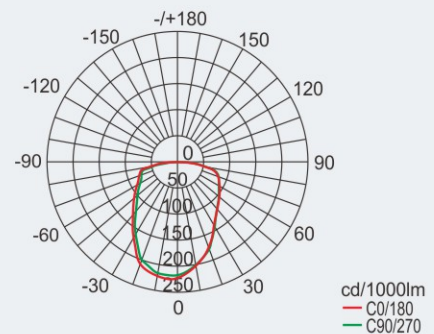
Rated luminous flux
 250W Metal halide lamp: 23200 lm
 250W High pressure sodium lamp: 33200 lm
 250W High pressure mercury lamp: 13000 lm
 The data from Philips lamp



BnD81-250-□□□(With wide reflector)



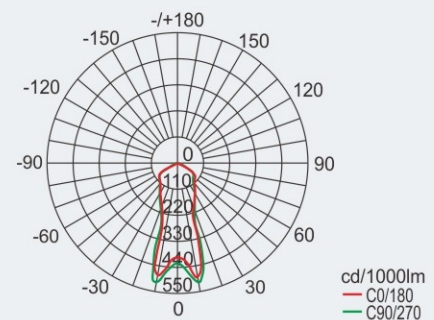
Rated luminous flux
 250W Metal halide lamp: 23200 lm
 250W High pressure sodium lamp: 33200 lm
 250W High pressure mercury lamp: 13000 lm
 The data from Philips lamp



BnD81-250-□□□(With deep reflector)



Rated luminous flux
 250W Metal halide lamp: 23200 lm
 250W High pressure sodium lamp: 33200 lm
 250W High pressure mercury lamp: 13000 lm
 The data from Philips lamp



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Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

Technical data																	
Explosion-proof light fittings		BnD81-400-□□□															
Explosion protection	Global (IECEX)	IECEX CQM 12.0039X															
	Gas and dust	Ex nR IIC T□□ ¹⁾ Gc															
		Ex tb IIIC T□□ ¹⁾ Db															
Europe (ATEX)		LCIE 12 ATEX 1019X(gas); LCIE 12 ATEX 3094X(dust)															
Gas and dust		Ⓔ II 3 G Ex nR IIC T□□ ¹⁾ Gc															
		Ⓔ II 2 D Ex tb IIIC T□□ ¹⁾ Db IP65															
		¹⁾ See Selection Table															
Certificates		IECEX; ATEX; UL															
Conformity to standards		EN 60079-0, EN 60079-15, EN 60079-31															
		IEC 60079-0, IEC 60079-15, IEC 60079-31															
		UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15															
		CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15															
Material	Enclosure	Copper-free Aluminium Alloy, powder coated surface, yellow (RAL1021)															
	Transparent cover	Toughened glass, stands 4J impact															
	External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface															
	Wire guard (optional)	Stainless steel															
	Ballast	Electromagnetic ballast, rapid starting, stable performance															
	Trigger	General trigger															
	Power factor	COS φ ≥0.90 (compensated)															
	Exposed fastener	Stainless steel															
Lamp	Lamp holder	American Standard: E39; European Standard: E40															
	Available lamp and lamp power (W)	<table><tr><td>Available lamp</td><td>American Standard</td><td>European Standard</td></tr><tr><td></td><td>120V/208V/240V/277V/480V AC</td><td>220~240V, 250V 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></table>		Available lamp	American Standard	European Standard		120V/208V/240V/277V/480V AC	220~240V, 250V AC	HIE	400W	400W	HSE	400W	400W	HME	-
Available lamp	American Standard	European Standard															
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HSE	400W	400W															
HME	-	400W															
Rated voltage		Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/22)															
		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)															
Earthing protection		M5 (internal & external earth bolts)															
Degree of protection		IP65															
Ambient temperature		ATEX / IECEX: -60℃~+55℃(+40℃); UL: -60℃~+45℃															
Terminal		3 x 1.5~4mm ² (L+N+PE)															
Mounting		Ceiling type, wall type, pendant pole type, pole type 25°															
Cable entries		1 x M25 x 1.5															
Cable gland (optional)		DQM-I (Ex e) is recommended. Please see P7/18~21.															



Selection table					
Rated power (W)		Temperature classes			
		-60℃≤Ta≤+40℃		-60℃≤Ta≤+55℃	
		Gas	Dust	Gas	Dust
European Standard	HIE 400W	T3	T190℃	T3	T190℃
	HSE 400W				T212℃
	HME 400W			T212℃	T212℃
American Standard	HIE 400W	T3	T190℃	T3	T190℃
	HSE 400W	T4	T130℃		

Pendant Light Fittings

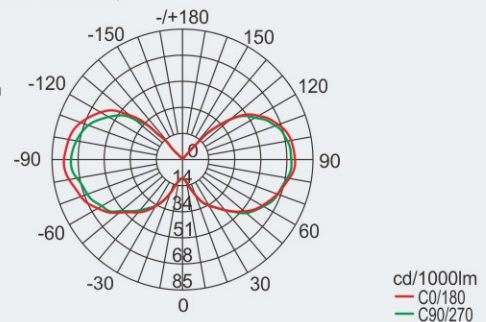
BnD81 Series Explosion-proof Light Fittings

Photometric data

BnD81-400-□□□(Without external reflector)



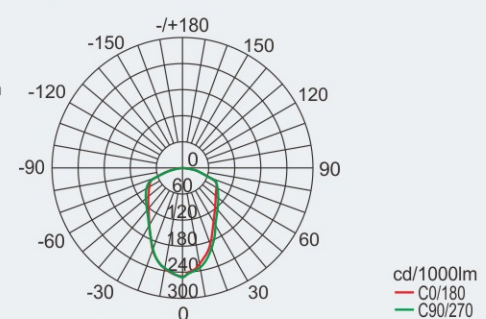
Rated luminous flux
 400W Metal halide lamp: 42000 lm
 400W High pressure sodium lamp: 56500 lm
 400W High pressure mercury lamp: 22000 lm
 The data from Philips lamp



BnD81-400-□□□(With wide reflector)



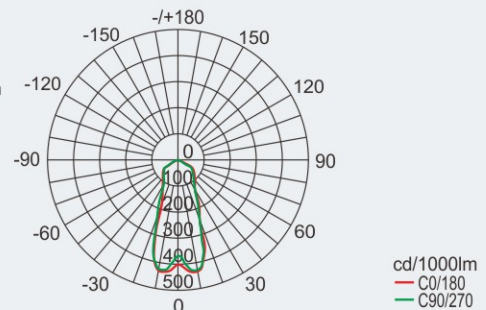
Rated luminous flux
 400W Metal halide lamp: 42000 lm
 400W High pressure sodium lamp: 56500 lm
 400W High pressure mercury lamp: 22000 lm
 The data from Philips lamp



BnD81-400-□□□(With deep reflector)

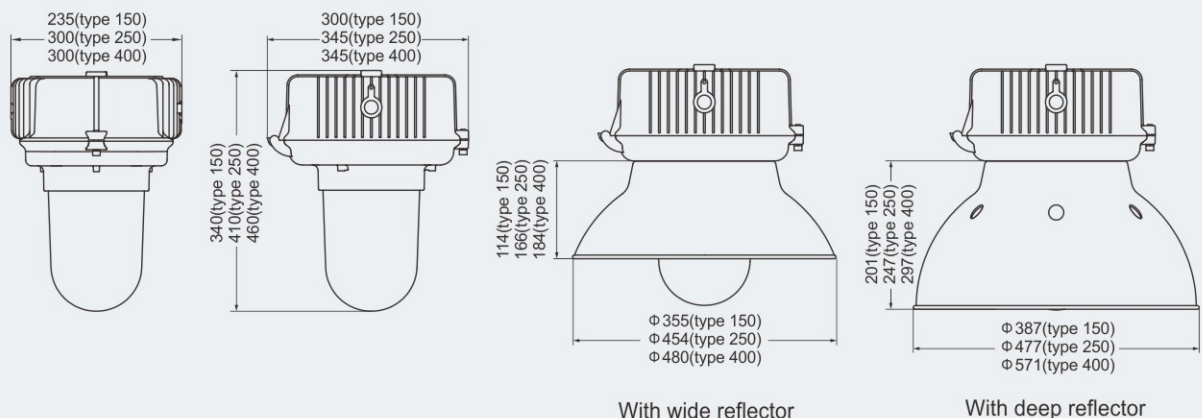


Rated luminous flux
 400W Metal halide lamp: 42000 lm
 400W High pressure sodium lamp: 56500 lm
 400W High pressure mercury lamp: 22000 lm
 The data from Philips lamp



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



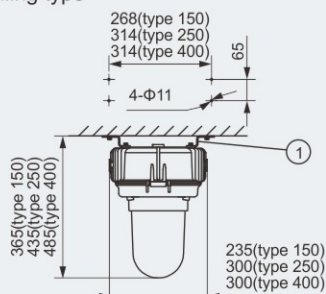
Pendant Light Fittings

BnD81 Series Explosion-proof Light Fittings

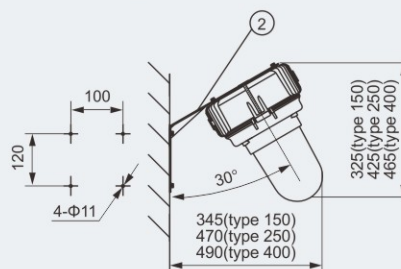
Mounting type (all dimensions in mm) – subject to alteration

Installation reference

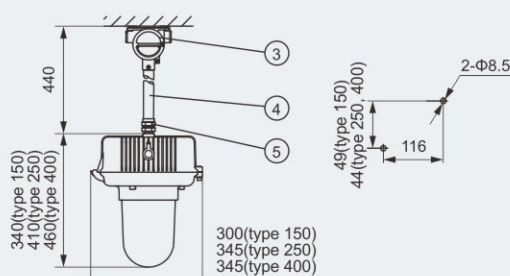
X: ceiling type



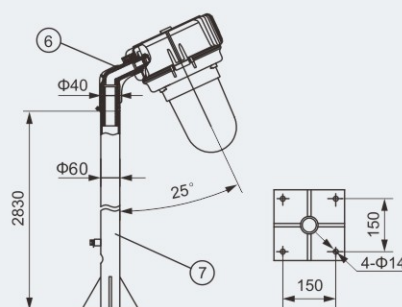
B: wall type



G: pendant pole type



L: pole type 25°



Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering	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) Stainless steel	81D02	0.26
L: pole type 25°	⑥.Pole type 25° connector	1	Copper-free aluminium	81L02	0.80
	⑦.Pole	1	Φ60mm	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)	Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	81001	0.25		150 Deep reflector	81004	0.43
	250 Wide reflector	81002	0.35		250 Deep reflector	81005	0.63
	400 Wide reflector	81003	0.50		400 Deep reflector	81006	0.91