

FLOODLIGHTING

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CI/SIB	(90.6)
UDC	696.6:628.971

HNF 001

Floodlight projector

A general-purpose high quality floodlight with wide or narrow beam light distribution, for use with mercury halide or high-pressure sodium lamps.

RANGE

Available in narrow or wide beam forms to take two 400W mercury halide lamps Type MBI/H, two 400W high-pressure sodium lamps Type SON/T or a single 1000W SON/T lamp.

A pre-wired control gear box enclosed to IP54 is available to operate the 400W SON/T lamp (Cat. No. PAS 400, see Data Sheet PL1744).

APPLICATIONS

General-purpose floodlighting, in situations such as:-

- Sports grounds
- Railway marshalling yards
- Car parks
- Buildings
- Major road constructions (high mast work)
- Shipping yards
- Skating rinks



Handbook Ref.

3.4.1

To reorder this data sheet quote 12.77 PL 1761/1

Replaces PL 1761

FEATURES

- High-grade aluminium reflector gives accurate beam control.
- Easy-to-operate stainless steel clips permit rear cover to be hinged down to facilitate lamp changing.
- Cast-on beam aiming sight and protractor scale permit quick and simple daylight adjustment.
- Reflector housing and rear cover are strong cast aluminium; low copper content ensures excellent corrosion resistance even in coastal and industrial areas.
- Ozone-resistant neoprene gaskets give dust and jetproof seal of front glass and rear cover.

DIMENSIONS & WEIGHT

mm (Inches)	mm (Inches)
A - 705 (27.75)	G - 258 (10.16)
B - 525 (20.67)	H - 130 (5.12)
C - 431 (16.97)	J - 422 (16.61)
D - 250 (9.84)	K - 485 (19.09)
E - 21 (0.83)	L - 572 (22.52)
F - 21 (0.83)	

Weight of luminaire complete with lamp - 17.5 kg (38.55 lb.)

MATERIALS & FINISH

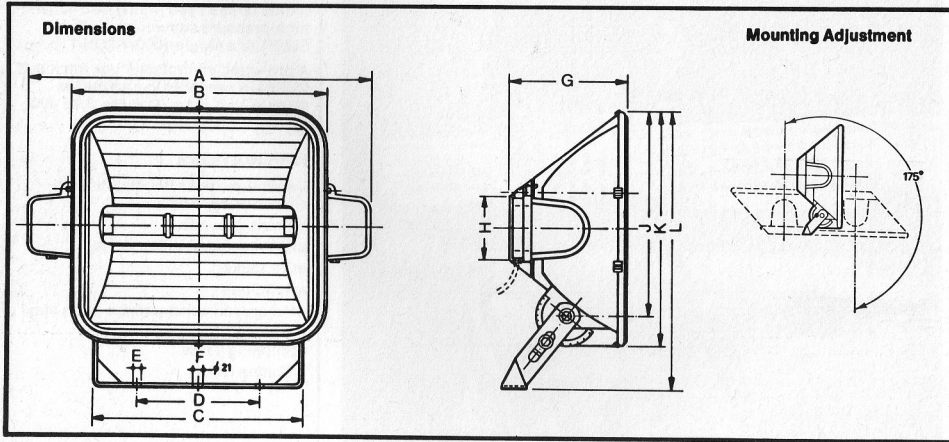
Reflector housing and rear cover: Cast aluminium.
Front glass: Toughened glass plate secured with stainless steel clips.
Sealing gaskets: Rubber. Ethylene propylene.
Mounting bracket: Stainless steel.

RANGE OF OPERATION

Temperature range (lamp) -18°C to 40°C 240V 50Hz.

SPECIFICATION

■ Type compliance with BS 4533 2.2 Class I Floodlight Luminaire Degree of Protection IP55 'Dustproof' 'Jet-proof'.
To specify state: Floodlight luminaire for mercury halide or high-pressure sodium lamps, corrosion-resistant cast aluminium housing, degree of protection IP55, hinged rear cover for easy access to lamp, substantially as Philips HNF 001.



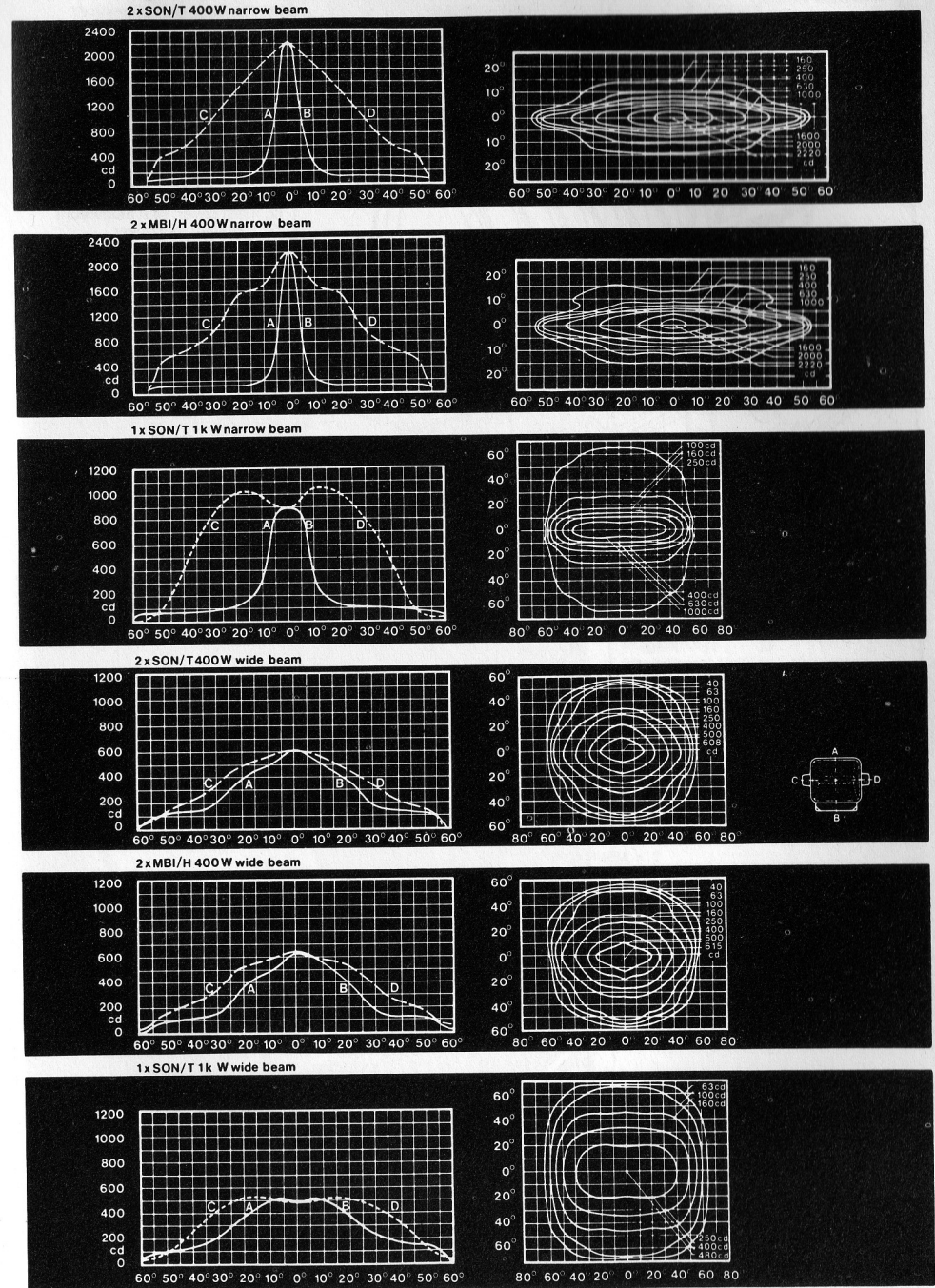
LAMP DATA

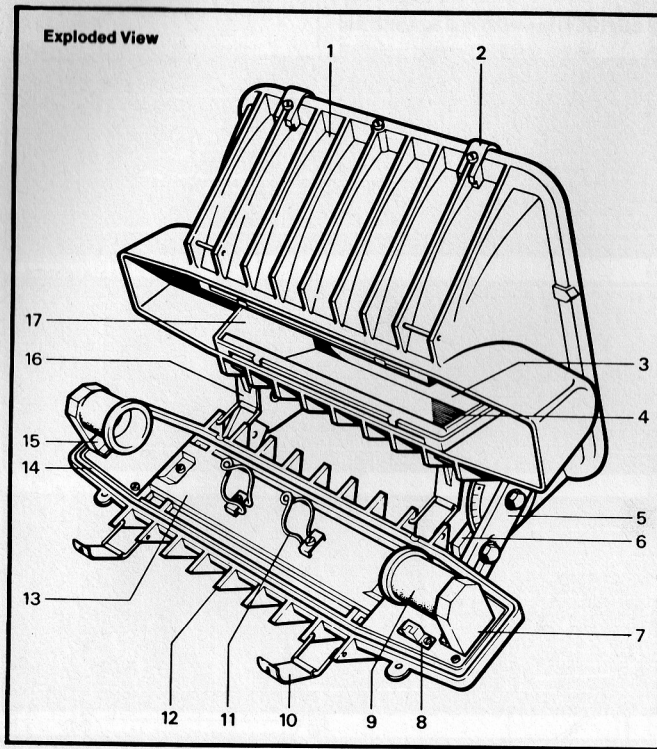
Catalogue Number	Lamp type	Lighting Design Lumens	Lamp Volts	Lamp Current (Amperes)	Total Circuit Watts	Cap	Control gear required per lamp	Ballast	Ignitor	PFC Capacitor
400 MBI/H	Mercury halide (two per luminaire)	29,200	125	3.4	424	GES	L5400BX	SI51	2 x L4016/07	
400 SON/T	High-pressure sodium (two per luminaire)	46,500	105 ±15	4.4	440	GES	L4404	SN50	2 x L4020/07	
1000W SON/T	High-pressure sodium (one per luminaire)	123,000	110	10.3	1100	GES	L4410	SN53	4 x L4025/07	

Further information on Philips lamps and control gear is contained in the following Data Sheets:-

Lamp type	Lamp Data Sheet	Control Gear Data Sheet
MBI/H	PL 1767	PL 1779
SON/T	PL 1776	PL 1778

Light Distribution cd/1000lm





- KEY TO ILLUSTRATION**
1. Housing; cast aluminium
 2. Front-glass clips; stainless steel
 3. Front-glass
 4. Reflector; aluminium
 5. Bracket; stainless steel
 6. Clamp
 7. Lampholder insulating plate
 8. Switch
 9. Lampholder
 10. Closing clips, top (2 x); stainless steel
 11. Lamp support; spring steel
 12. Rear cover; cast aluminium
 13. Reflector rear cover
 14. Gasket; silicone
 15. Lampholder bracket
 16. Closing clips, bottom (2 x); stainless steel
 17. Side reflector

ORDERING DATA

Catalogue Number	Light Distribution	Suitable lamp types	Packing quantity
HNF 001/1	Narrow beam	1 x SON/T 1 kW	Individually packed
HNF 001/2	Wide beam	1 x SON/T 1 kW	Individually packed
HNF 001/3	Narrow beam	2 x SON/T 400W or 2 x MBI/H 400W	Individually packed
HNF 001/4	Wide beam	2 x SON/T 400W or 2 x MBI/H 400W	Individually packed

Please order in the form given in the following example, in multiples of the packing quantity. Note that lamps and control gear components should be ordered separately.

- 12 Philips floodlight luminaires narrow beam HNF 001
- 24 Philips high-pressure sodium lamps 400W SON/T
- 24 Philips ballast units L4404
- 24 Philips ignitors S50
- 48 Philips capacitors L4020/07

An external control gear box for housing 1 set of 400W MBI/H or 400W SON/T control gear is also available. Catalogue number R6416.

A pre-wired gear box is available for the 400W SON/T lamp. Catalogue number PAS 400.

Made in Holland

CI/SIB	(90.6)
UDC	696.6:628.973

HNF 002

Floodlight projector

A range of general-purpose floodlights with wide or narrow beam light distribution, for use with mercury halide lamps.

RANGE

Available in two models for mercury halide lamps, with wide or narrow beam light distribution.

APPLICATIONS

General-purpose floodlighting, in situations such as:-

- Sports grounds
- Railway marshalling yards
- Car parks
- Buildings
- Major road construction work
- Shipping yards
- Skating rinks



Handbook Ref.	3.4.2
To reorder this data sheet quote	12.77 PL1760/1
Replaces	PL 1760

FEATURES

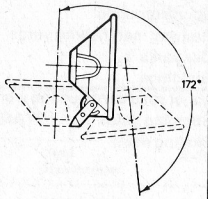
- High-grade aluminium reflector gives accurate beam control.
- Easy-to-operate stainless steel clips permit rear cover to be hinged down to facilitate lamp changing.
- Cast-on beam aiming sight and protractor scale permit quick and simple daylight adjustment.
- Reflector housing and rear cover are strong cast aluminium; low copper content ensures excellent corrosion resistance even in coastal and industrial areas.
- Ozone-resistant neoprene gaskets give dust and jet proof seal of front glass and rear cover.

DIMENSIONS & WEIGHT

mm (inches)	mm (inches)
A - 707 (27.83)	G - 285 (11.22)
B - 545 (21.45)	H - 188 (7.40)
C - 431 (16.96)	J - 588 (23.14)
D - 250 (9.84)	K - 676 (26.61)
E - 21 (0.83)	L - 755 (29.72)
F - 21 (0.83)	M - 150 (5.91)

Weight of luminaire complete with lamp - 24.5 kg (54 lb.)

Mounting Adjustment



MATERIALS & FINISH

- Reflector housing and rear cover:** Cast aluminium.
- Front glass:** Toughened glass plate secured with stainless steel clips.
- Sealing gaskets:** Rubber ethylene propylene.
- Mounting bracket:** Stainless steel.

RANGE OF OPERATION

Temperature range (lamp) -18°C to 40°C. 240V 50Hz (MBI/U), 415V 50Hz (MBI/H lamp).

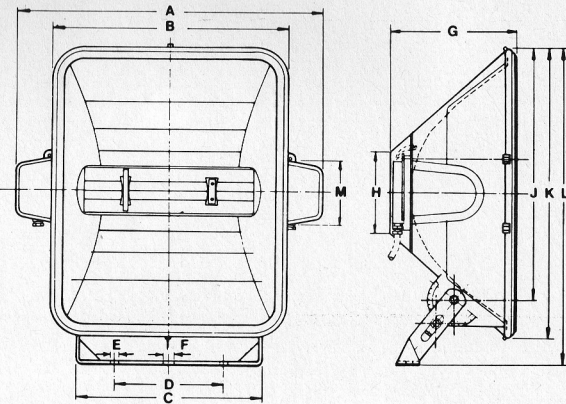
SPECIFICATION

- Type compliance with BS 4533 2.2 Class I Floodlight Luminaire Degree of Protection IP55 'Dustproof' 'Jet-proof'.

To specify state:

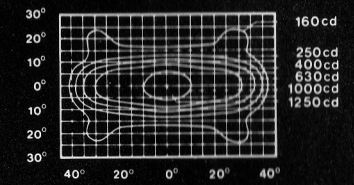
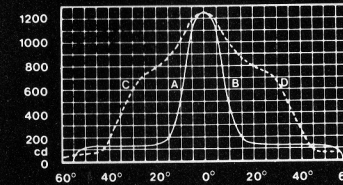
Floodlight luminaire for mercury halide lamp, corrosion-resistant cast aluminium housing, degree of protection IP55, hinged rear cover for easy access to lamp, substantially as Philips HNF 002.

Dimensions

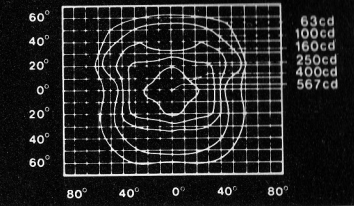
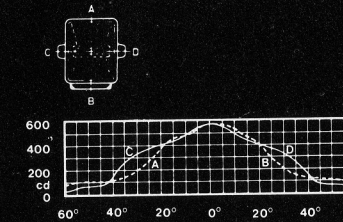


Light Distribution cd/1000lm

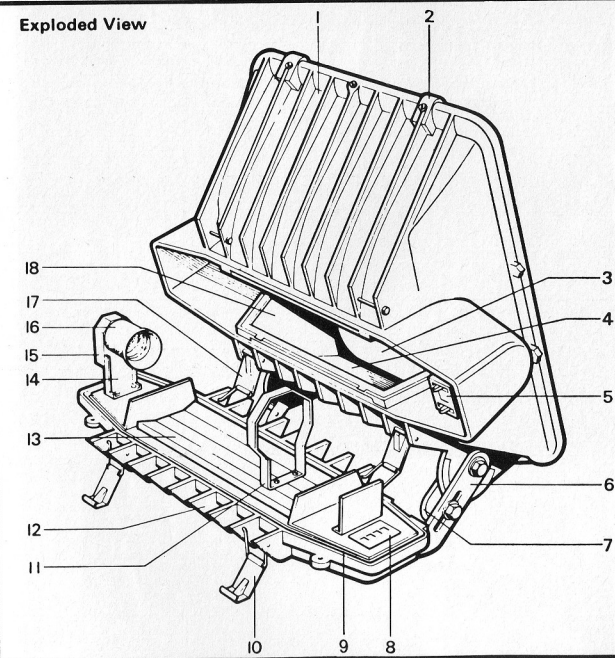
1xMBI/H2kW narrow beam



1xMBI/H2kW spread beam



Exploded View



- Housing; cast aluminium
- Front-glass clips; stainless steel
- Front-glass; toughened glass
- Reflector; aluminium
- Contact block
- Bracket; stainless steel
- Clamp
- Connection block
- Gasket; silicone rubber
- Fixing clips, top (2 x); stainless steel
- Lamp support; spring steel
- Rear cover; cast aluminium
- Reflector rear cover
- Lampholder bracket
- Lampholder insulating plate
- Lampholder
- Fixing clips, bottom (2 x); stainless steel
- Side reflector

LAMP DATA

Cat. No.	Lamp type	Lighting Design Lumens	Lamp Volts	Lamp Current (Amperes)	Total Circuit Watts	Cap	Ballast	Ignitor	PFC Capacitor
2kW MBI/H	Mercury halide 2000W	170,000	240	9.0	2080	GES	L4991	126689	4 x L4020/07
2kW MBI/U	Mercury halide 2000W	171,000	135	16.5	2080	GES	2 x L4990	S52	4 x L4025/07

Further information on Philips lamps and control gear is contained in the following Data Sheets:-

Lamp type	Lamp Data Sheet	Control Gear Data Sheet
MBI/H } MBI/U }	PL 1767	PL 1779

ORDERING DATA

Cat. No.	Light Distribution	Suitable lamp types	Packing quantity
HNF 002/1	Narrow beam	MBI/H 2 kW or MBI/U 2kW	Individually packed
HNF 002/2	Wide beam	MBI/H 2 kW or MBI/U 2kW	Individually packed

Please order in the form given in the following example, in multiples of the packing quantity. Note that lamps and control gear components should be ordered separately.

6 Philips floodlight luminaires HNF 002/1
6 Philips mercury halide lamps 2kW MBI/U
12 Philips ballast units L4990
6 Philips ignitors S52
24 Philips capacitors L4025/07



Made in Holland

CI/SIB	(90.6)
UDC	696.6:628.973

NLF 011

Floodlight projector

A general-purpose floodlight, particularly designed to be suitable for use in rough service applications. The luminaire can be fitted with tungsten filament GLS lamps up to 1000W, PowerWhite mercury fluorescent lamps of 400W or 700W ratings, high-pressure sodium lamps SON 400W and SON/T 400W, or mercury halide lamp MBI 400W. Degree of protection IP55.

Note: 400W MBI lamp for use within $\pm 20^\circ$ of horizontal only.

RANGE

NLF 011 floodlight projector – available complete and prewired from lampholder to supply terminals, less lamp and control gear (where necessary).

APPLICATIONS

General-purpose floodlighting, particularly in situations where the luminaire is subject to rough service such as:-

- Building and construction sites
- Industrial floodlighting
- Road construction



Handbook Ref.	3.4.3
To reorder this data sheet quote	11.77 PL 1766/2
Replaces	PL 1766/1

FEATURES

- Strong pressure diecast aluminium alloy housing is light in weight and resists corrosion.
- The reflector is formed by the inner surface of the housing, which is stove enamelled white covered with a heat-resistant silicone lacquer.
- Neoprene sealing gasket on the toughened front glass makes the luminaire jetproof. Degree of protection IP55.
- The lampholder is wired to the mains terminals, which are contained in a sealed box on the rear of the housing.
- Two glands are provided in the connection box to permit looped wiring of luminaires.
- The lamp is replaced simply by loosening the two captive screws by which the rear cover is fixed to the housing.

MATERIALS & FINISH

Housing: Pressure diecast aluminium alloy, finished white stoved enamel with a heat-resistant silicone lacquer to form reflector.

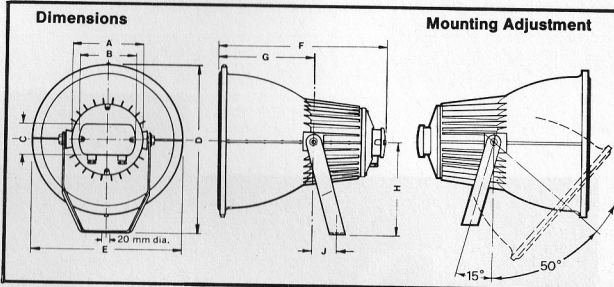
Mounting bracket: Steel plate, hot dipped galvanised.

Front glass: Toughened glass, sealed with Neoprene gasket.

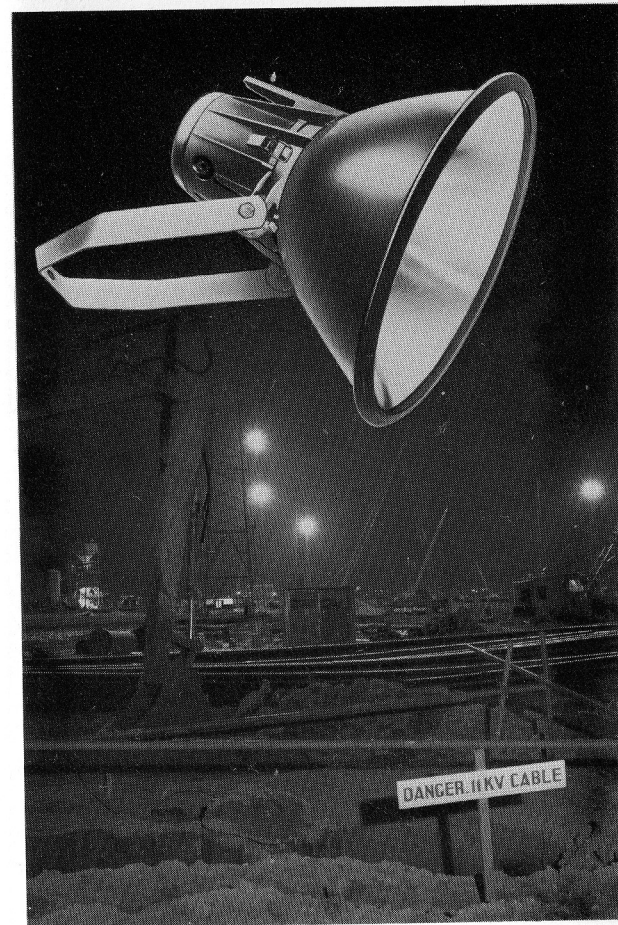
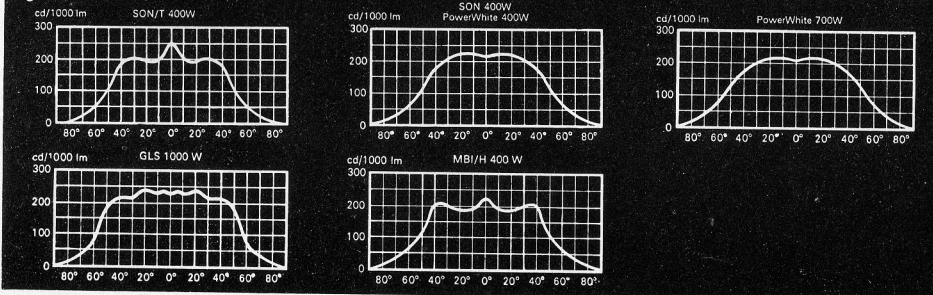
DIMENSIONS & WEIGHT

mm (inches)		mm (inches)	
A - 195 (7-68)	F - 460 (18-11)	G - 260 (10-24)	H - 225 (8-86)
B - 156 (6-14)	G - 260 (10-24)	H - 225 (8-86)	J - 65 (2-56)
C - 82 (3-23)	H - 225 (8-86)	J - 65 (2-56)	
D - 460 (18-11)	J - 65 (2-56)		
E - 410 (16-14)			

Weight of luminaire complete with lamp: 7-9 kg (17-5 lb.)



Light Distribution



CI/SIB	(90.6)
UDC	696.6:628.973

NNF 010

Floodlight Projector

A general-purpose floodlight projector with a spun-aluminium reflector fixed by means of stainless steel clips to a cast aluminium rear housing. Degree of protection IP54. For use with PowerWhite mercury fluorescent lamps up to 700W rating, high-pressure sodium lamps SON and SON/T of 250 and 400W rating, Mercury halide lamp of 400W rating and GLS lamps of 1000W rating.

Note: MBI lamps for use within $\pm 20^\circ$ of horizontal only.

RANGE

NNF 010 floodlight projector – available in narrow beam and wide beam versions.

APPLICATIONS

- General-purpose floodlighting, in situations such as:-
- Sports grounds
 - Buildings
 - Railway marshalling yards
 - Large road constructions (high mast installations)
 - Docks
 - Security lighting

LAMP DATA

Catalogue Number	Lamp type	Lighting Design Lumens	Lamp volts	Lamp current (Amperes)	Total circuit Watts	Cap	Ballast	Ignitor	PFC capacitor
1,000W GLS	Tungsten filament single coil	17,300	240/250	4-17	1,000	GES	—	—	—
700W MBF/U	PowerWhite mercury fluorescent	36,500	140	5-6	730	GES	L4700BX	—	2 x L4016/07
400W MBF/U	PowerWhite mercury fluorescent	21,300	140	3-2	424	GES	L5400BX	—	L4020/07
400W SON	High-pressure sodium	45,000	105	4-4	440	GES	L4404	SN50	2 x L4020/07
400W SON/T	High-pressure sodium (tubular)	46,500	105	4-4	440	GES	L4404	SN50	2 x L4020-07
400W MBI/H	Mercury halide	29,200	125	3-4	424	GES	L5400BX	S51	2 x L4016/07

ORDERING DATA

Cat. No.	Description	Packing quantity
79900 AG/OO	Floodlight projector Type NFL 011	Individually packed

Please order in the form given in the following example.
Note that lamps and control gear components should be ordered separately.

24 Philips floodlight projectors NLF 011
24 Philips mercury halide lamps 400W MBI/H
24 Philips ballast units L5400BX
24 Philips ignitors S51
48 Philips power factor correction capacitors L4016/07

Further information on Philips lamps and control gear is contained in the following Data Sheets:-

Lamp Type	Lamp Data Sheet	Control Gear Data Sheet
MBI/U	PL 1767	PL 1779
MBF/U	PL 1768	PL 1779
SON & SON/T	PL 1776	PL 1778

Made in Holland

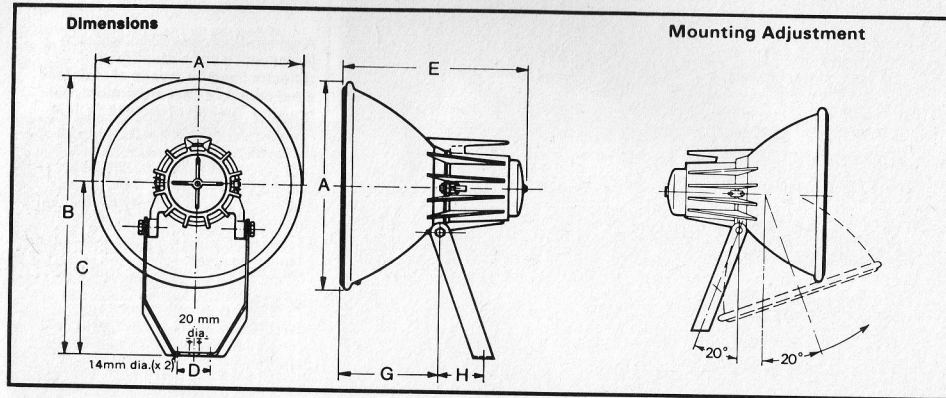
FEATURES

- Spun parabolic reflector housing of high purity aluminium also acts as the specular reflector.
- Focussing device enables the light distribution to be controlled very precisely.
- Available in narrow or wide beam versions for a wide range of applications.
- Lamp is very simply changed, by releasing toggles holding reflector to rear housing, without affecting focussing adjustment.

- Toughened front glass is sealed to reflector housing by means of a ethylene-propylene joint to render the luminaire dust and splashproof, IP54.
- The reflector housing itself is supported by the mounting bracket; its setting is therefore not affected by lamp changing.
- Aluminium rear cover, held by one captive screw, is easily removed to give access to mains connection block and focussing device. The mains entry is sealed by means of a gland.

MATERIALS & FINISH

- Reflector housing:** Spun high purity aluminium.
- Rear housing:** Cast aluminium.
- Lampholder:** GES; porcelain.
- Rear cover:** Aluminium.
- Front glass:** Toughened glass plate, sealed with ethylene-propylene gasket.
- Reflector housing clips:** Stainless steel.
- Mounting bracket:** Steel plate, hot-dipped galvanised.



DIMENSIONS & WEIGHT

mm (inches)	mm (inches)
A - 576 (22.68)	E - 500 (19.69)
B - 753 (29.65)	G - 275 (10.83)
C - 465 (18.31)	H - 125 (4.92)
D - 90 (3.54)	

Weight of luminaire complete with lamp:-
8.5 kg. (18.72 lb.)

LAMP DATA

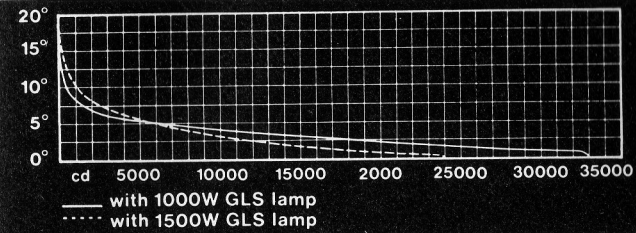
Catalogue Number	Lamp type	Lighting Design Lumens	Lamp volts	Lamp current (Amperes)	Total circuit Watts	Cap	Ballast	Ignitor	PFC capacitor
700W MBF/U	PowerWhite mercury fluorescent	36,500	140	5.6	730	GES	L4700BX	—	2 x L4016/07
400W MBF/U	PowerWhite mercury fluorescent	21,300	140	3.2	424	GES	L5400BX	—	L4020/07
400W SON	High-pressure sodium	45,000	105	4.4	440	GES	L4404	S50	2 x L4020/07
400W SON/T	High-pressure sodium tubular	46,000	105	4.4	440	GES	L4404	S50	2 x L4020/07
1000W	GLS	17,300	240	4.17	1000	GES	—	—	—
400W MBI/H	Mercury Halide lamps	29,200	125	3.4	424	GES	L5400BX	S51	2 x L4016/07

Further information on Philips lamps and control gear is contained in the following Data Sheets:

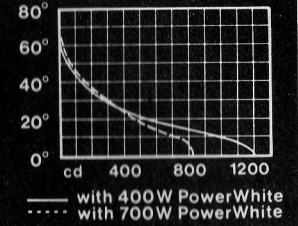
Lamp Type	Lamp Data Sheet	Control Gear Data Sheet
MBI/U	PL 1767	PL 1779
MBF/U	PL 1768	PL 1779
SON/T	PL 1776	PL 1778

Light Distribution

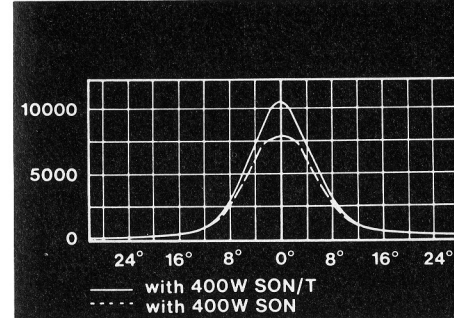
Narrow beam cd/1000 lm



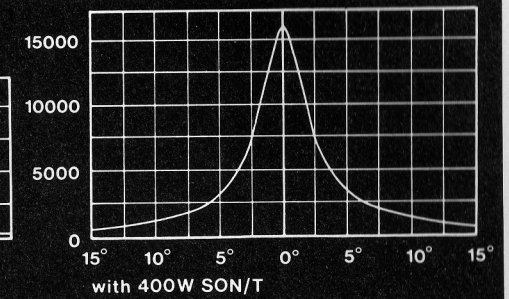
Narrow beam cd/1000 lm



Wide beam cd/1000 lm



Narrow beam cd/1000 lm

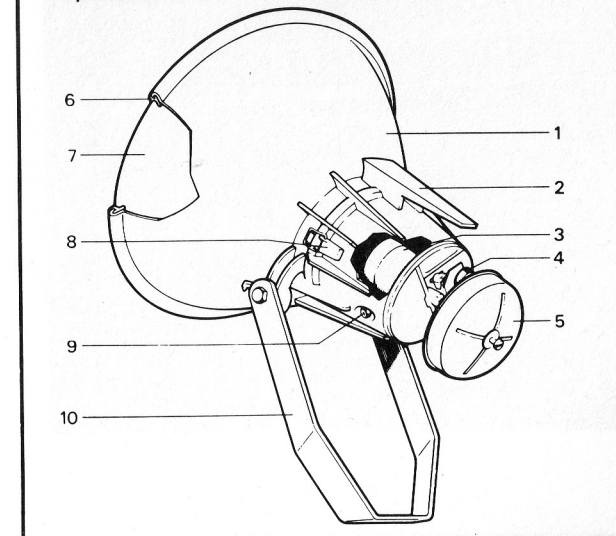


BEAM CHARACTERISTICS

	100W GLS	400W MBF	700W MBF	400W MB1	400W SON	400W SON/T
Narrow beam	2 x 2 1/2°	2 x 17°*	2 x 22°*	2 x 2°	2 x 15°*	2 x 2 1/2°
Wide beam	2 x 6°	2 x 17°*	2 x 22°*	2 x 4°	2 x 15°*	2 x 4°

*With the ovoid bulb type, the difference between narrow and wide beam versions is only 1-2°.

Exploded View



KEY TO ILLUSTRATION

- Reflector; anodised aluminium
- Housing with grip; die-cast aluminium
- Lampholder GES; porcelain
- Adjusting knob; brass nickel-plated
- Rear cover; aluminium plate
- Gasket; ethylene-propylene
- Front-glass; toughened glass
- Clip (2 x); stainless steel
- Gland; brass nickel-plated
- Bracket; steelplate, hot dipped, galvanised

ORDERING DATA

Catalogue Numbers Complete Luminaire	Description	Component parts Rear housing/lampholder assy.	Reflector and glass
NNF 010/1	Narrow beam floodlight projector	NNF 010/3	NNF 010/4
NNF 010/2	Wide beam floodlight projector	NNF 010/3	NNF 010/5

Please order in the form given in the following example:

36 Philips floodlight projectors NNF 010/1
36 Philips PowerWhite mercury fluorescent lamps 700W MBF/U.

Note that lamps should be ordered separately.

Luminaires and components are supplied individually packed.

Made in Holland.

CI/SIB (90.6)
UDC 696.6:628.973

HNF 012

Floodlight for 2kW MBI Mercury Halide lamp

A cast aluminium floodlight for one 2kW MBI/U or MBI/H Mercury Halide lamp, with the degree of protection IP55 'Dustproof', 'Jetproof'. The luminaire has an asymmetric distribution (beam width $1 \times 12^\circ / 1 \times 28^\circ$ vertical, $2 \times 50^\circ$ horizontal), and is ideal for the side-lighting of sports and training fields at a low mounting height (15m) and fixed aiming angle.

RANGE

HNF 012 floodlight luminaire, complete with mounting bracket and interchangeable lampholder compartment. The control gear is separately mounted.

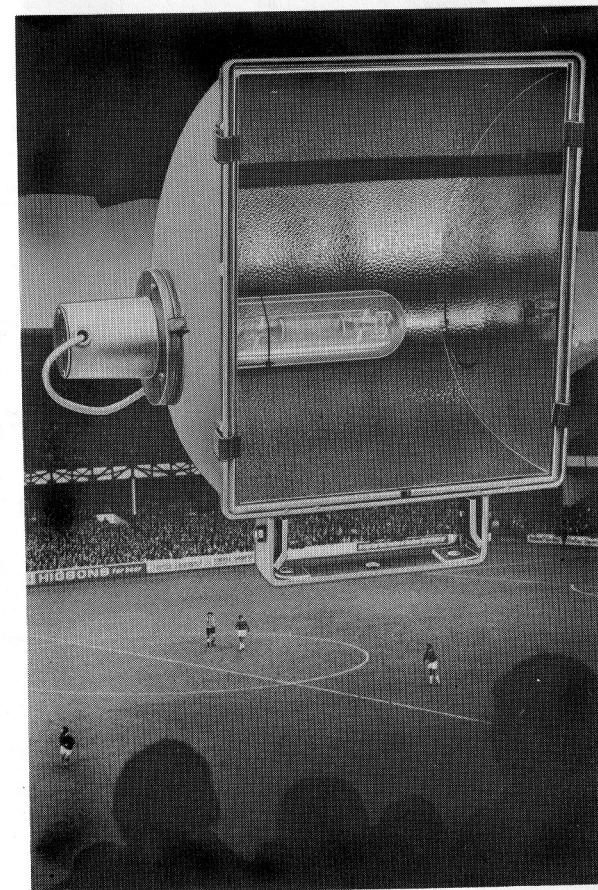
APPLICATIONS

Suitable for the side-lighting of large areas both indoors and outdoors such as:

- Football grounds
- Rugby and hockey fields
- Running tracks and training fields
- Sports and leisure centres
- Tennis courts
- Skating rinks
- Marshalling yards
- Ship yards

FEATURES

- Specially-designed optical system with built-in louvre reduces number of luminaires required in side-lighting installations.
- High-grade anodised aluminium reflector gives accurate beam control.
- Built-in louvre provides excellent glare control.



Handbook Ref.

3.45

To reorder this data sheet quote 11.77 PL 1740/1

Replaces PL 1740

■ Asymmetric optics give good light coverage from a low mounting height of 15m.

■ The lampholder casting is attached to one side of the reflector housing by means of three stainless steel screws. A hinged door is provided on the other side of the reflector housing, immediately opposite the lampholder, to allow easy lamp changing (see diagram). The positions of the hinged door and the lampholder casting are inter-changeable to allow floodlights to be mounted side-by-side (see diagram).

■ Lampholder casting, hinged door and front glass are sealed with silicone rubber gaskets to provide a jetproof and dustproof seal with the degree of protection IP55.

■ Cast-on beam aiming device allows daytime adjustment.

■ Mounting bracket can be fixed either below or above the floodlight.

■ Reflector housing, lampholder casting and side door are cast aluminium; low copper content ensures excellent corrosion resistance even in coastal and industrial areas.

MATERIALS & FINISH

Reflector housing, lampholder casting and side door: Cast aluminium.

Front glass: 5mm toughened glass plate secured with stainless steel clips.

Sealing gaskets: Silicone rubber.

Mounting bracket: Steel, hot-dipped galvanised finish.

SPECIFICATION

■ Type compliance with BS 4533 2.2 Class I Floodlight Luminaire.

■ Degree of protection IP55 'Dust-proof', 'Jetproof'.

To specify state:

■ Floodlight luminaire for 2kW mercury halide lamp, with asymmetric light distribution of beam $1 \times 12^\circ/1 \times 28^\circ$ vertical and $2 \times 50^\circ$ horizontal, corrosion-resistant cast aluminium housing, suitable for an installed height of 15m, substantially as Philips HNF 012.

RANGE OF OPERATION

Temperature range (lamp) —18°C to 40°C.

240V 50Hz (MBI/U lamp).

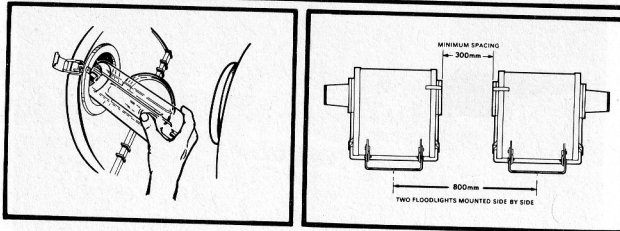
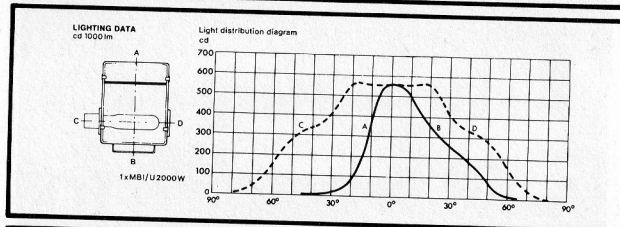
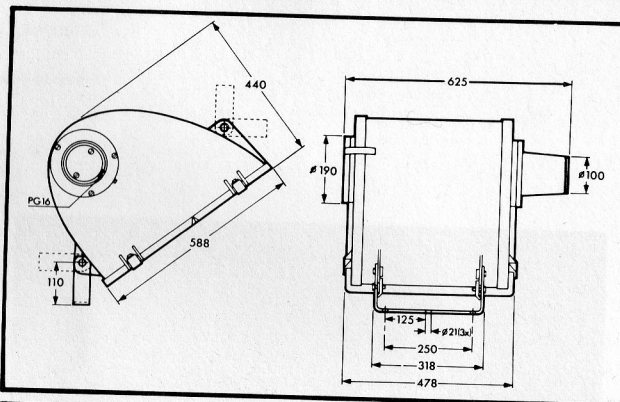
415V 50Hz (MBI/H lamp).

Lamp: Made in Holland.

Fitting: Made in Holland.

DIMENSIONS, WEIGHTS & ELECTRICAL DATA

Description	Weight including lamp (kg)	Lighting design Lumens	Supply voltage V	Lamp voltage V	Lamp current A	Total circuit Watts	Cap
Floodlight HNF 012 with 2kW MBI/H lamp	23.6	170,000	415	240	9.0	2080	GES
Floodlight HNF 012 with 2kW MBI/U lamp	23.6	171,000	240	135	16.5	2080	GES



ORDERING DATA

Description	Floodlight only	Lamp only	Ballast	Ignitor	Capacitor
Floodlight with gear and 2000 MBI/H lamp	HNF 012	2kW MBI/H	L4991	126689	4 x L4020/07
Floodlight with gear and 2000 MBI/U lamp	HNF 012	2kW MBI/U	2 x L4990	S52	4 x L4025/07

Packing quantities

Floodlight luminaires: individually packed.

Lamp 2kW MBI/H: packs of 4.

Lamp 2kW MBI/U: packs of 4.

CI/SIB (90.6)
UDC 696.6:628.973

TIVOLI DHF 015

outdoor floodlight luminaire for PAR 38 spot and flood lamps

The Philips Tivoli floodlight is intended for use in any small floodlighting application where versatility is of prime importance.

RANGE

DHF 015 body offering alternative mountings
DHF base
DHF spike
for use with full range of PAR 38 clear and coloured lamps. (except coolspot)

APPLICATIONS

Applications include:

- Floodlighting shrubs, trees and bushes in gardens and parks
- Farm yards and buildings
- Driveways
- Statues
- Terraces and patios
- Building facades and other areas where a directional beam of light is required.



Top: DHF 015 mounted on base plate, with PAR 38 lamp
Bottom: DHF 015 mounted on ground spike, with PAR 38 lamp

Handbook Ref.

3.4.6

To reorder this data sheet quote 11.77 PL 1219/1

Replaces PL 1219

FEATURES

■The body of the floodlight is made of asbestos "Phillite" in an attractive shade of dark green. The body is fitted with an ES lampholder.

■The floodlight can be mounted three ways, using the base plate for wall mounting or pole mounting (the disc of the base plate unit being removed) or using the ground spike.

■The base plate is fully rotational through 360° for ease of adjustment.

■The base plate and the ground spike, both of aluminium alloy, are easily attached to the floodlight body by a locking screw.

■A silicone rubber gasket mounted between the housing and the lamp ensures a jet proof seal.

■The Tivoli floodlight is splashproof IP34 and is double insulated Class II.

■Two cable glands are provided – one open and one blind – offering the facility of through wiring, if required.

■The floodlight is mechanically locked and requires the use of a screw driver to gain access for the mains wiring.

IMPORTANT: loosen the two screws on the rear of the housing before attempting to unscrew the body. Failure to loosen the screws will result in damage to the floodlight.

MATERIALS & FINISH

Floodlight body: Green asbestos "Phillite"

Gasket: Silicone rubber

Base: Die-cast aluminium

Spike: Aluminium

SPECIFICATION

■Type compliance with BS4533 2.5

■International Protection category IP34.

■Class II electrical protection (double insulated).

To specify state:

■PAR 38 lamp luminaire for outdoor floodlighting similar to Philips Tivoli DHF 015. The luminaire shall comply with BS4533 2.5 and protection requirements IP34 and Class II electrical.

RANGE OF OPERATION

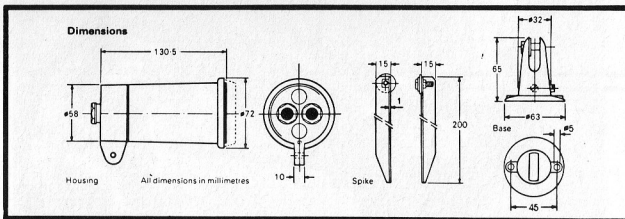
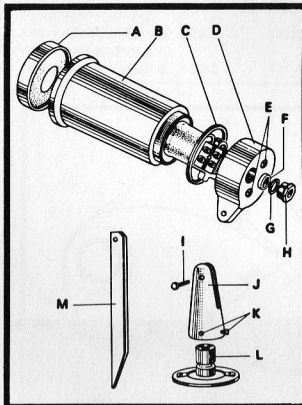
Supply Voltage: 240V 50Hz nominal.

Earthing: Tivoli DHF 015 has Class II electrical protection and an earth lead is not required.

Ambient Temperature: For use in normal outdoor conditions.

INSTALLATION

The method of mounting the Tivoli DHF 015 is as follows:-



1 The baseplate or spike should be fixed before the floodlight is wired and mounted.

2 The supply cable should be of suitable current rating and have an outside diameter which will ensure an adequate seal within the gland.

3 For access to the mains terminals loosen the screws (E) approximately four turns and then unscrew and remove the front housing (B).

4 Loosen the open cable gland (H) and feed in the supply cable. Make the electrical connections to the appropriate terminal block. Tighten the cable gland and replace the front housing and tighten the locking screws (E).

5 Mount the body to the base plate or ground spike and insert the lamp through the sealing ring (A).

6 For mounting on a pole of suitable diameter, remove the base plate (L) and connecting the spigot (J) to the pole by tightening the two screws (K).

LAMP DATA:

Description	Watts	Volts	Finish	Cap	Pack Quantity
PAR 38 spot	100	240	Clear	ES	15
PAR 38 flood	100	240	Clear	ES	15
PAR 38 flood	100	240	Blue	ES	15
PAR 38 flood	100	240	Yellow	ES	15
PAR 38 flood	100	240	Green	ES	15
PAR 38 flood	100	240	Red	ES	15
PAR 38 spot	150	240	Clear	ES	15
PAR 38 flood	150	240	Clear	ES	15
PAR 38 spot	150	240	Red	ES	15
PAR 38 spot	150	240	Green	ES	15
PAR 38 spot	150	240	Yellow	ES	15
PAR 38 spot	150	240	Blue	ES	15

DHF 015 body, base plate, spike and PAR 38 lamps made in Holland.

ORDERING DATA:

Catalogue No.	Description	Pack Quantity	Weight Kg.
DHF 015	Floodlight body	4	0-235
DHF Base	Base plate for floodlight body	12	0-090
DHF Spike	Spike for floodlight body	12	0-040

ACCESSORIES & SPARES

W9225	Spare sealing ring for DHF 015	Bulk
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CI/SIB	(90.6)
UDC	696.6:628.973

HNF 006

Floodlight projector

A high-performance and very durable floodlight projector with a spun-aluminium reflector held in a cast ring, to which the cast aluminium rear housing is attached by means of stainless steel clips. For use with mercury halide lamps rated at 2kW, mercury fluorescent PowerWhite lamps rated at 1kW and 2kW, and high-pressure sodium lamps rated at 1kW.

Note: Mercury fluorescent lamps
UK marking MBF = Philips
International marking HPL-N
Mercury halide lamps
UK marking MBI = Philips
International marking HPI

RANGE

HNF 006 floodlight projector available in narrow beam and wide beam versions, with lampholder assemblies for the following lamps:-

Mercury halide 2kW
Mercury fluorescent PowerWhite 1kW
Mercury fluorescent PowerWhite 2kW
High-pressure sodium 1kW SON/T

APPLICATIONS

General-purpose floodlighting, particularly in such arduous environments as:-

- Sports grounds
- Buildings
- Railway marshalling yards
- Large road constructions (high most installations)
- Football and sports stadia
- Shipping yards
- Quarries

Handbook Ref.

3.4.7

To reorder this data sheet quote 3.78 PL 1758/1

Replaces PL 1758

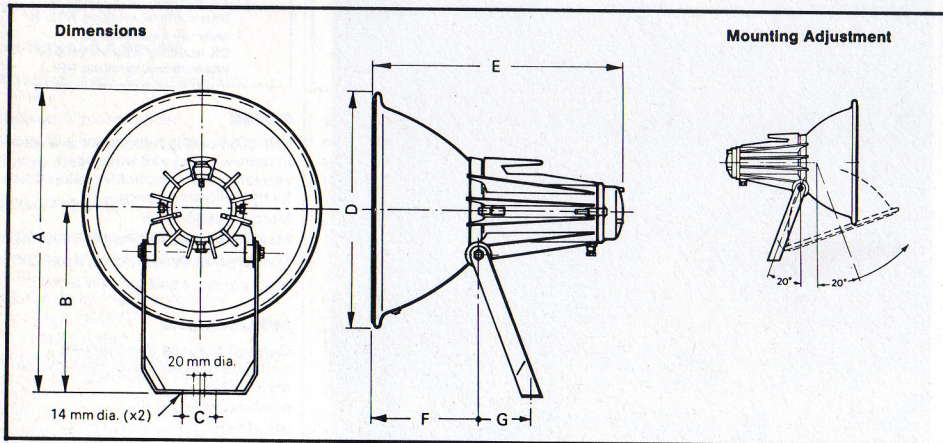
FEATURES

- Sturdy construction and excellent performance make the luminaire suitable for many outdoor applications.
- Spun parabolic reflector housing of high-purity aluminium also acts as the specular reflector.
- Available in narrow or wide beam versions, and with a wide choice of lamps, to suit most needs.
- Lamp is very simply changed, by releasing toggles holding reflector to rear housing.
- Toughened front glass is sealed to the reflector housing by means of a ethylene-propylene gasket to render the luminaire splash proof. IP54.

- Built-in aiming sight and protractor scale permit simple daytime adjustment.
- The reflector housing itself is supported on the mounting bracket; its setting is therefore not affected by lamp changing.
- Cast-on handle simplifies removal of rear casting.
- Castings of low copper content (0.05%) ensures high resistance to corrosion.
- Luminaire finished in grey lacquer.

MATERIALS & FINISH

- Reflector housing:** Spun aluminium, grey lacquer finish.
- Rear housing:** Diecast from low copper content aluminium, grey lacquer finish.
- Lampholder:** GES, porcelain.
- Rear cover:** Diecast aluminium, grey lacquer finish.
- Front glass:** Toughened glass plate, sealed with ozone resistant ethylene-propylene gasket.
- Reflector housing clips:** Stainless steel.
- Mounting bracket:** Steel plate, hot-dipped galvanised.



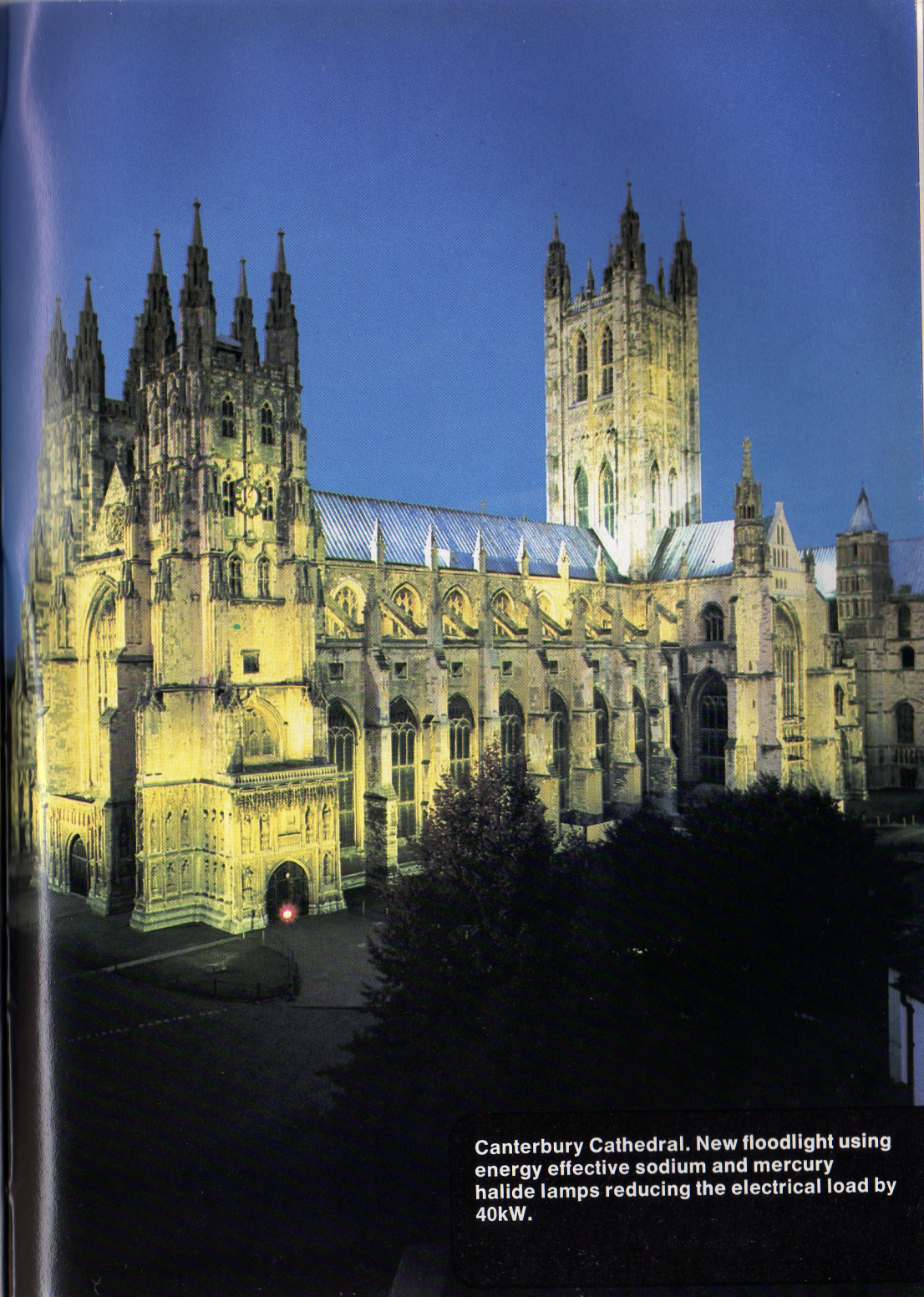
DIMENSIONS & WEIGHTS

mm (Inches)	mm (Inches)
A - 920 (36.22)	E - 690 (27.17)
B - 588 (23.15)	F - 297 (11.69)
C - 100 (3.93)	G - 163 (6.42)
D - 664 (26.14) diameter.	

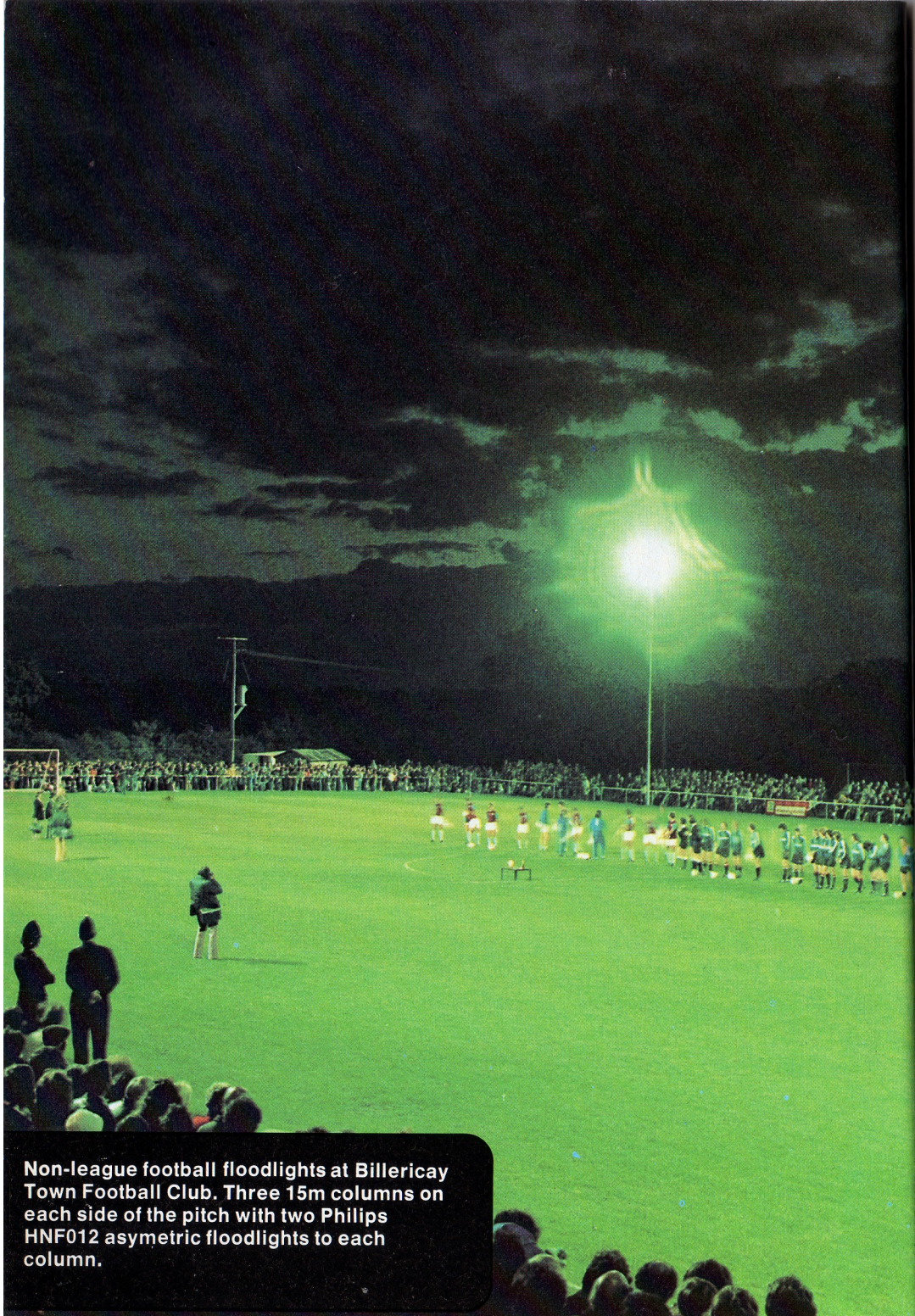
Weight of luminaire complete with lamp:
16.3 kg (35.9 lb.)

BEAM CHARACTERISTICS

	MBI/U 2kW	SON/T 1kW	MBF 2kW	MBF 1kW
Narrow Beam	2 × 4°	2 × 2.5°	2 × 26°	2 × 22°
Wide Beam	2 × 6°	2 × 6°	—	—

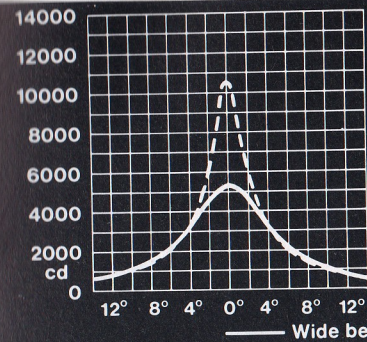


Canterbury Cathedral. New floodlight using energy effective sodium and mercury halide lamps reducing the electrical load by 40kW.

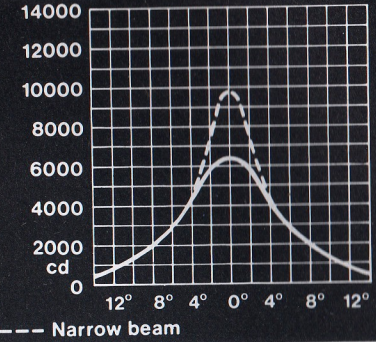


Non-league football floodlights at Billericay Town Football Club. Three 15m columns on each side of the pitch with two Philips HNF012 asymmetric floodlights to each column.

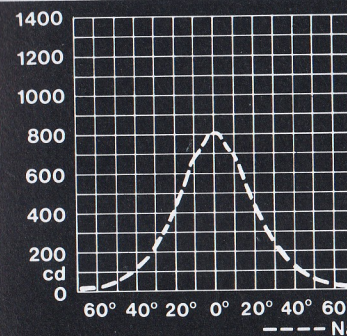
Light Distribution cd/1000lm
High Pressure Sodium 1kW



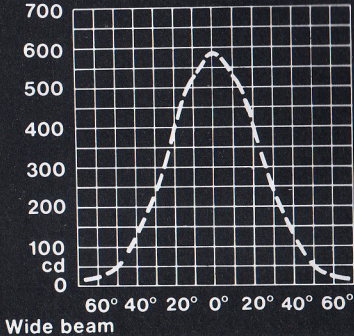
Mercury Halide 2kW



Mercury Fluorescent 1kW



Mercury Fluorescent 2kW



With these lamps both reflector types produce a similar light distribution.

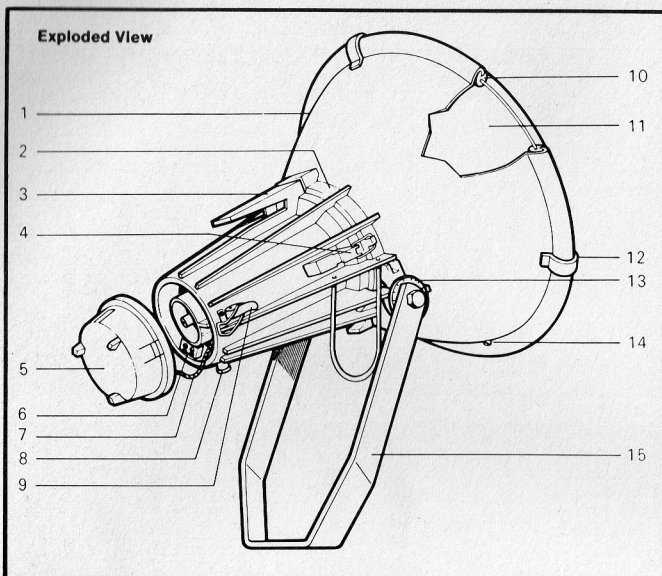
LAMP DATA

Catalogue number	Lamp type	Lighting design lumens	Lamp volts	Lamp current (Amperes)	Total circuit Watts	Cap	Ballast	Ignitor	PFC capacitor
2kW MBI/U	Mercury halide 2kW	171,000	135	16.5	2080	GES	2 x L4990	S52	4 x L4025/07
1kW MBF/U	Mercury fluorescent PowerWhite 1kW	52,200	145	7.3	1040	GES	L4990	—	2 x L4025/07
2kW MBF/U	Mercury fluorescent PowerWhite 2kW	110,000	270	8.0	2080	GES	L4991	—	3 x L4025/07
1kW SON/T	High-pressure sodium tubular 1kW	123,000	110	10.3	1100	GES	L4410	S53	4 x L4025/07

Further information on Philips lamps and control gear is contained in the following data sheets:

Lamp type	Lamp data sheet	Control gear data sheet
MBI/U	PL 1767	PL 1779
MBF/U	PL 1768	PL 1779
SON/T	PL 1776	PL 1778

CI/SIB	(90.6)
UDC	696.6:628.973



KEY TO ILLUSTRATION

1. Reflector; spun aluminium, grey lacquer finish
2. Reflector ring; cast aluminium
3. Housing with grip; cast aluminium
4. Clip (2 x); stainless steel
5. Rear-cap; cast aluminium
6. Connection block
7. Earth connection rear-cap
8. Gland; aluminium
9. Clip (2 x); stainless steel
10. Gasket; ethylene-propylene
11. Front-glass; toughened glass
12. Clip (3 x); stainless steel
13. Vernier scale
14. Vent screw
15. Bracket; steelplate, hot dipped, galvanised

ORDERING DATA

Cat.No.	Description
HNF 006/1	Narrow beam floodlight projector for 2kW MBI/U lamp
HNF 006/2	Wide beam floodlight projector for 2kW MBI/U lamp
HNF 006/3	Narrow beam floodlight projector for PowerWhite, and SON/T lamps
HNF 006/4	Wide beam floodlight projector for SON/T lamps
Component parts:	
HNF 006/5	Lampholder assembly for 2kW MBI/U lamp
HNF 006/6	Lampholder assembly for PowerWhite and SON/T lamps
HNF 006/7	Narrow beam reflector and glass
HNF 006/8	Wide beam reflector and glass

Complete luminaires and component parts individually packed.

Please order in the form given in the following example:

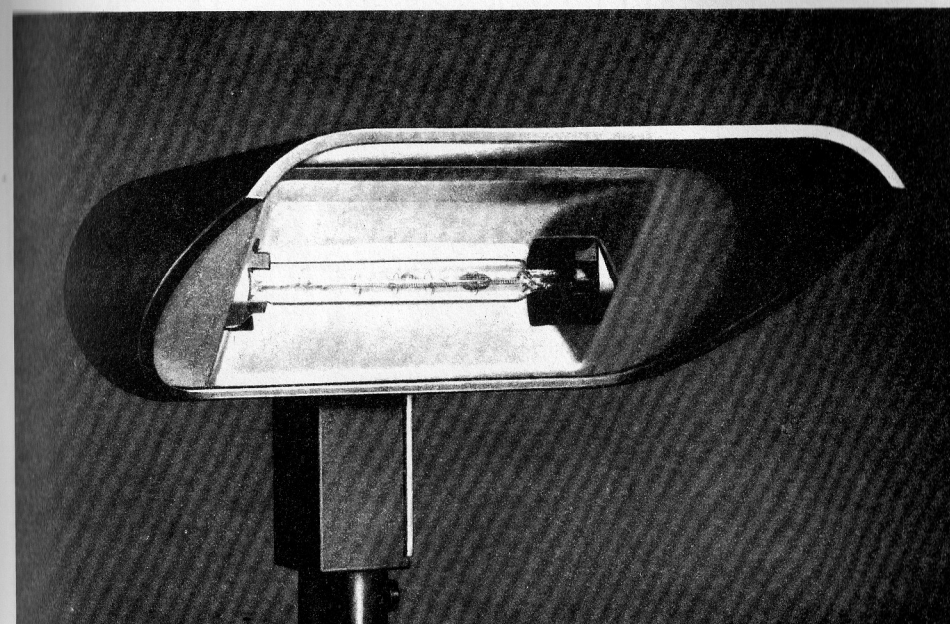
- 16 Philips floodlight projectors HNF 006/1
- 16 Philips mercury halide lamps 2kW MBI/U
- 32 Philips ballast units L4990
- 16 Philips ignitors S52
- 64 Philips PFC capacitors L4025/07

Note: Mercury fluorescent lamps
UK marking MBF = Philips
International marking HPL-N
Mercury halide lamps
UK marking MBI = Philips
International marking HPI

Made in Holland

APOLLO

Tungsten Halogen Floodlights



A high-quality open-body floodlight, designed for use with Philips 300W and 500W tungsten halogen linear lamps. Its high design standards, makes the luminaire a ready solution to many floodlighting problems in commercial or industrial environments.

RANGE

Both Apollo 500 and 300 KombiPaks are available complete with rated lamp, wall mounting bracket, plugs and screws.

The following optional accessories are available:-

- Wireguard
- Spigot cap for mounting on the end of poles
- U-bolt clamp for 48mm (1½ in. GAS) diameter pole.
- Universal mounting bracket.

APPLICATIONS

Suitable for most floodlighting applications, particularly where appearance is important, in situations such as:-

- Floodlighting gardens and statues
- Security lighting around factories, building sites and offices
- Outdoor sports complexes
- Shop fascia lighting
- Car parks
- Farm yards
- Work lighting on scaffolding
- School playgrounds

Handbook Ref.

3.4.8

To reorder this data sheet quote 2.78 PL 1764/1

Replaces PL 1764

FLOODLIGHTING

FEATURES

- Attractive new-styled body, die-cast from corrosion-resistant aluminium alloy. Body painted with polyester-based paint, to provide full protection against all outdoor weather conditions.
- Optically-designed aluminium alloy reflector, chemically brightened and anodised.
- Spring-loaded porcelain lampholders have heat-resisting leads welded to high-temperature terminals; the metal lampholder housings are designed to ensure adequate heat dissipation. The simple integrated lampholder design avoids excessive temperatures at the lamp pinch.
- Large friction area between floodlight body and knuckle joint enables adjustment to remain fixed.
- Wiring is taken through knuckle joint to low temperature mains wiring chamber.
- Mains wiring chamber contains a terminal block with an insulation shield; a tapped boss provides an easily-accessible screw-down earth terminal.
- Cover for mains wiring chamber sealed with a Neoprene gasket.
- Entry is tapped for 20mm threaded conduit.
- Designed in compliance with BS 4533, and suitable for ambients up to 25°C.

MATERIALS & FINISH

Body: Aluminium alloy (LM24) die-cast, finished brown, heat-resisting and weatherproof gloss paint.

Mains wiring chamber: Aluminium alloy die-casting, finished black heat-resisting and weatherproof paint.

Lampholders: Porcelain R7s-15, spring-loaded and fitted with heat-dissipating covers.

LAMP DATA

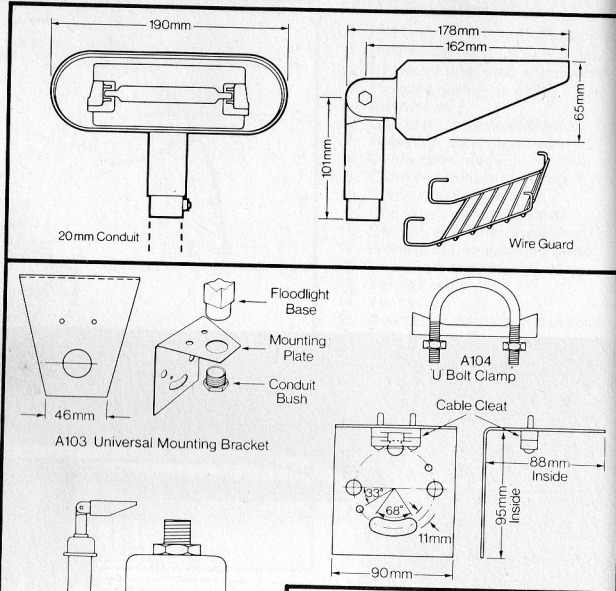
Catalogue Number	Type	Voltage	Wattage
7785R	K1 Tungsten halogen	240/250	500
12113R	K9 Tungsten halogen	240/250	300

ORDERING DATA

Catalogue Number	Description
A500	Apollo KombiPak complete with 500W lamp and mounting bracket
A300	Apollo KombiPak complete with 300W lamp and mounting bracket
A101	Wireguard
A102	Spigot cap (for 2 inch scaffold pole mounting)
A103	Universal mounting bracket
A104	U-bolt clamp for 48mm (1½ in. GAS) pole

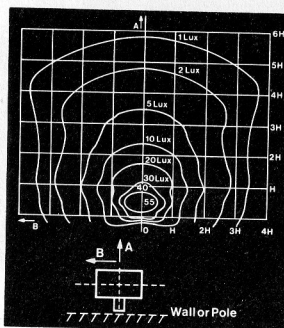
Please order in the form given in the following example:-
 24 Philips Apollo floodlights A500 KombiPaks
 24 Philips Apollo floodlights A300 KombiPaks
 Apollo packs and accessories are individually packed.

DIMENSIONS



500 Apollo KombiPak Floodlight Tilt 0° (Horizontal)

Relative ISO-Lux diagram



INSTRUCTIONS

The Lux figures shown apply to a mounting height (H) of 5m. Figures for other mounting heights can be obtained by multiplying the Lux figures shown by a correction factor given below.

Mounting height	Correction factor
8	0.39
7	0.51
6	0.69
5	1.00
4	1.56

CI/SIB	(90.6)
UDC	696.6:628.973

HNF 003

Floodlight Projector

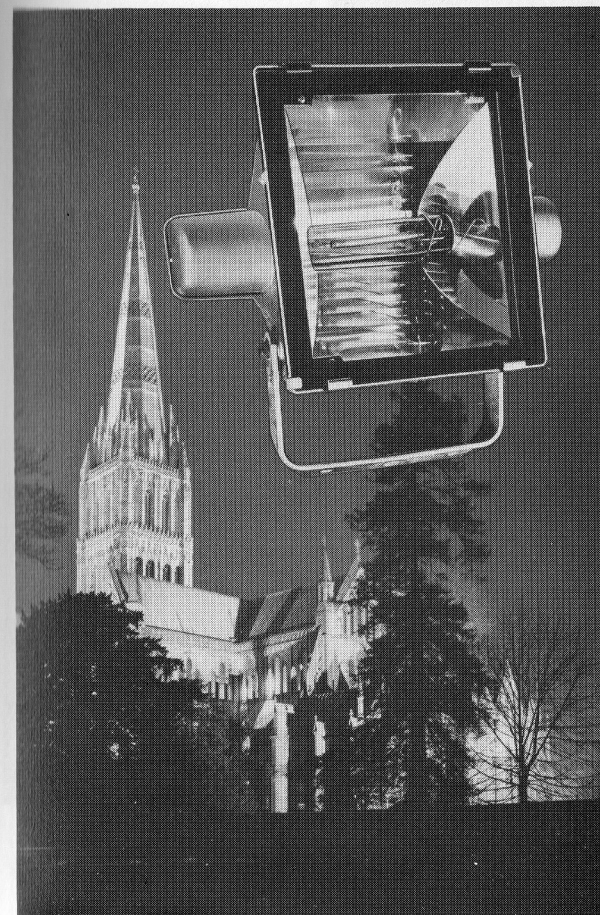
A range of floodlights that combines both efficiency in performance with versatility in application where optical efficiency and mechanical durability are required. Degree of protection IP55.

RANGE

Available in both narrow and wide beam versions for 1 x 400W SON/T or 1 x 400W MBI/H lamps. A pre-wired control gear box enclosed to IP54 is available to operate the 400W SON/T lamp (Cat. No. PAS 400, see Data Sheet PL1744).

APPLICATIONS

- Applications include:
- Sports grounds
 - Marshalling yards
 - Car parks
 - Skating rinks
 - High mast road lighting
 - Indoors sports halls
 - Shipyards
 - Floodlighting buildings
 - Security lighting



Handbook Ref.	3.49
To reorder this data sheet quote	11.77 PL 1267/1
Replaces	PL 1267

FEATURES

Careful choice of materials ensures a non-corrodible luminaire to give a long life in fairly arduous conditions.

- A silicone rubber gasket for jet-proof and dustproof sealing of front glass.
- The floodlight housing and rear cover are high pressure die-cast aluminium.
- The castings have a low copper content for excellent corrosion resistance in coastal and industrial outdoor conditions.
- Reflectors made of high grade aluminium for precise beam control.
- A cast, beam-aiming sight and protractor scale for accurate daylight adjustment.

KEY TO ILLUSTRATION

1. Front glass clips (4 ×)
2. Housing
3. Front glass
4. Parabolic reflector
5. Side reflector
6. Bracket
7. Gasket rear cover
8. Lampholder bracket
9. Lampholder
10. Rear cover
11. Rear reflector
12. Closing clip top (2 ×)
13. Terminal block
14. Cable entry
15. Lamp support
16. Closing clip bottom (2 ×)
17. Safety bracket (2 ×)

SERVICING

Access to the lamp compartment for maintenance is by releasing the 2 top closing clips (12) and the 2 bottom closing clips (16). The floodlight rear housing then hinges backwards.

To replace front glass:

Remove the two safety brackets. Open the four clips by placing a screwdriver in the appropriate holes.

■ Access for lamp installation and replacement made simple by the removal of the rear cover. Particularly important when the floodlights are mounted on a gantry.

■ Easily operated clips on the rear cover can be opened only with a simple tool and closed by hand. This ensures the floodlight cannot be opened by unauthorised persons.

■ Luminaire is dustproof and jetproof. Degree of protection IP55.

MATERIALS & FINISH

Housing and rear cover: high pressure die-cast aluminium.

Reflectors: High grade aluminium.

Clips: Stainless steel

Front glass: 5.5 mm thick toughened plate glass.

Gaskets: Silicone rubber.

SPECIFICATION

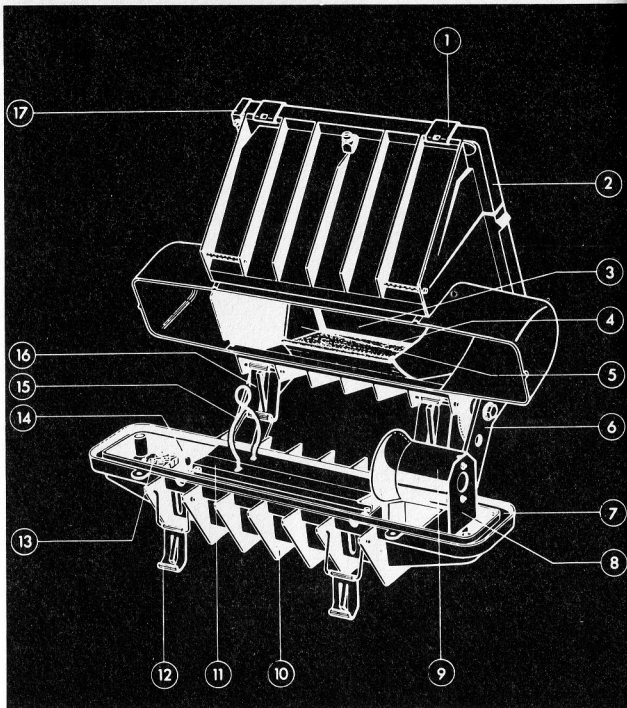
■ Type compliance with BS 4533 2:2

■ International Protection category IP55

■ Class I electrical protection (this luminaire requires an earth connection).

To specify state:

A die-cast aluminium luminaire for 1 × SON/T 400W and 1 × MBI/H 400W lamps, similar to Philips HNF 003. The luminaire shall comply with BS 4533 2:2 and shall meet protection requirements IP55 and Class I electrical.



LAMP DATA

Cat. No.	Lamp type	Lighting Design Lumens	Lamp Volts	Lamp Current (Amperes)	Total Circuit Watts	Cap	Ballast	Ignitor	PFC Capacitor
400 MBI/H	Mercury halide 400W	29,200	125	3.4	424	GES	L5400BX	S51	2 × L4016/07
400 SON/T	High-pressure sodium 400W	46,500	105	4.4	440	GES	L4404	S50	2 × L4020/07

RANGE OF OPERATION

Supply voltage:

240V 50Hz nominal.

Control Gear is required to run the lamp.

Earthing:

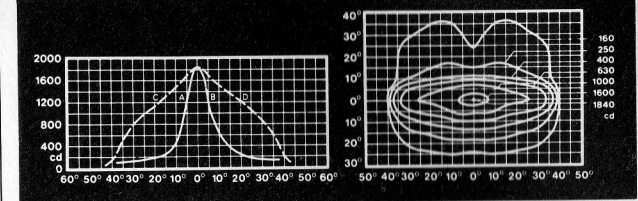
HNF 003 has Class I electrical protection. An earth is therefore required.

Ambient Temperature:

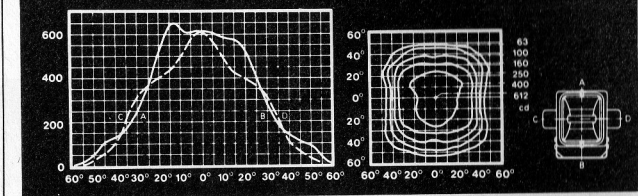
Max 40 °C.

Light Distribution cd/1000lm

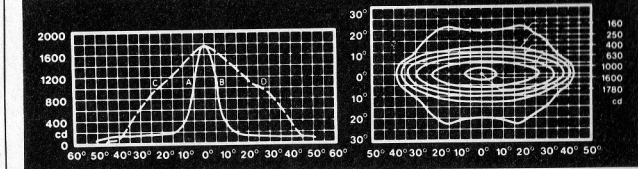
1 × MBI/H 400W narrow beam



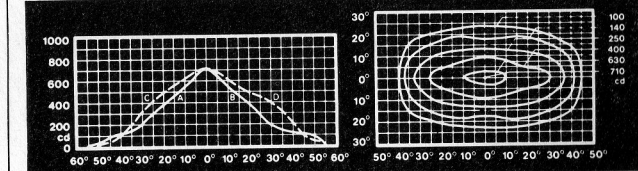
1 × MBI/H 400W wide beam



1 × SON/T 400W narrow beam



1 × SON/T 400W wide beam

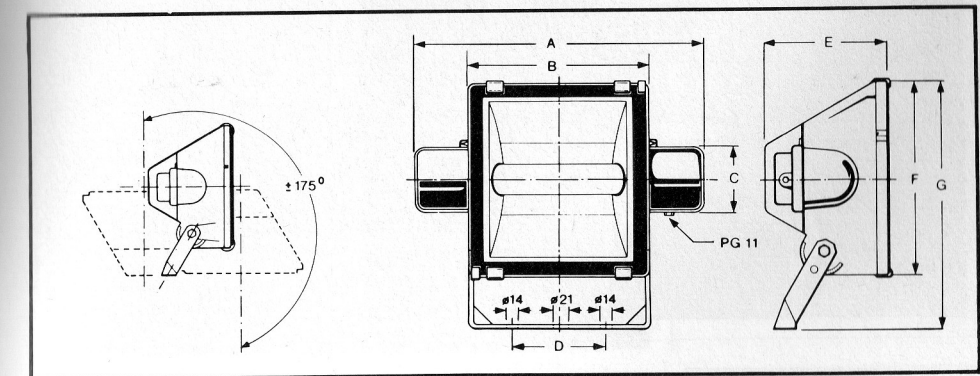


DIMENSIONS & WEIGHTS

mm (inches)

- A = 495 (19.49)
- B = 308 (12.13)
- C = 100 (3.94)
- D = 170 (6.69)
- E = 238 (9.37)
- F = 350 (13.78)
- G = 435 (17.13)

Weight of luminaire complete with lamp – 7.0kg (16.08lb.)



ORDERING DATA

Cat. No.	Light Distribution	Suitable Lamp types	Packing quantity
HNF 003/1	Narrow beam	MBI/H 400W or SON/T 400W	Individually packed
HNF 003/2	Wide beam	MBI/H 400W or SON/T 400W	Individually packed

Please order in the form given in the following example, in multiples of the packing quantity. Note that lamps and control gear components should be ordered separately.

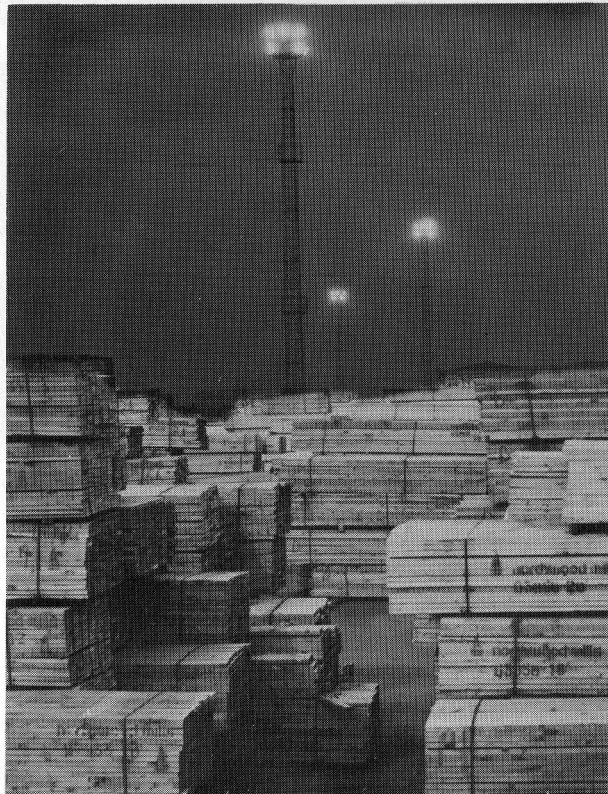
6 Philips floodlights HNF 003/1
 6 Philips high-pressure sodium lamps 400 SON/T
 6 Philips ballasts L4404
 6 Philips ignitors S50
 12 Philips capacitors L4020/06

An external control gear box for housing 1 set of 400W MBI/H or 400W SON/T control gear is also available, Catalogue No. R3416.

A pre-wired gear box is available for the 400W SON/T lamp, Catalogue No. PAS 400.

Further information on Philips lamps and control gear is contained in the following Data Sheets:

Lamp type	Lamp Data Sheet	Control Gear Data Sheet
MBI/H	PL 1767	PL 1779
SON/T	PL 1776	PL 1778



Technical Data

For explanation of IP system see leaflet C.I.S. 38.

HNF 003, Lamps and Ignitors made in HOLLAND. Ballasts and Capacitors made in U.K.

C/S/B (90.6)
UDC 696.6:628.973

QVF 410, 411, 412

Floodlight Projector

The Philips range of corrosion resistant, Halogen floodlights, combines optical efficiency with ease of installation and light weight construction. Heat and impact resistant, VAR front glass with stainless steel wire guard.

RANGE

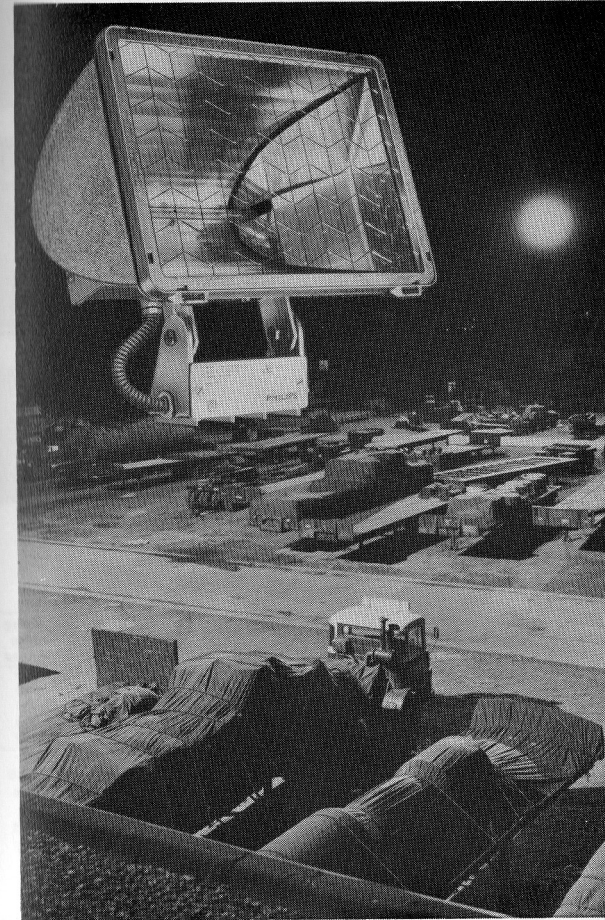
The standard floodlight fitting is available in three sizes
 500W)
 1000W Tungsten Halogen lamps.
 1500W)

APPLICATIONS

- Applications include:
- Sports fields
 - Sports halls
 - Security lighting
 - Facades
 - Advertising signs
 - Pedestrian crossings
 - Factory perimeters
 - Building sites
 - Sound and light shows
 - Skating rinks
 - Swimming pools
 - Car parks
 - Golf links
 - Fountains
 - Statues
 - Racecourses

FEATURES

- The optic is of an asymmetrical type and available in two beam widths viz. medium beam $1 \times 8^\circ/1 \times 14^\circ$
 wide beam $1 \times 20^\circ/1 \times 30^\circ$



Handbook Ref.	3.4.10
To reorder this data sheet quote	12.77 PL 1743
Replaces	PL 1269

■Due to the high-operating temperature and in accordance with the CEE safety regulations the lampholders are situated outside the mirror compartment.

■Hermetically sealed and totally corrosion resistant.

■Stainless steel clips for easy splashproof closing.

■Simple maintenance.

■Heat resistant VHR front glass.

■Heat resistant silicone rubber gasket.

■The light weight permits the use of inexpensive poles of simple construction.

■High quality integral mirror system is faceted to give maximum beam control.

■Ideal floodlighting for areas where heavy duty systems are not obligatory.

■Adjustable both vertically and horizontally.

■Stainless steel wire guard for protection against vandalism.

MATERIALS & FINISH

Reflector housing: extruded aluminium, anodised.

Conduit box: pressure die-cast aluminium.

Side-panels: pressure die-cast aluminium.

Glass rim: pressure die-cast aluminium.

Front glass: Heat resistant VHR glass.

Front glass seal: silicone rubber.

Wire guard: stainless steel.

SPECIFICATION

■Type compliance with BS4533 2:2.

■International Protection category IP54, splashproof.

■Class I electrical protection (this luminaire requires an earth connection).

To specify state:

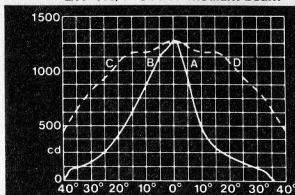
Tungsten Halogen luminaire with light weight aluminium body giving an asymmetric beam. The luminaire shall be fitted with an integral stainless steel wire guard, and shall meet protection requirement IP54 and Class I electrical. Similar to Philips QVF 410, 411 or 412.

DIMENSIONS, WEIGHTS & ORDERING DATA

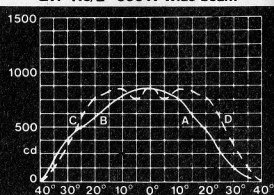
Catalogue Number	Description	Lamp	Weight kg	Dimensions			
				L	D	F	H
QVF 410/1	Medium Beam Floodlight	500W	2.57	220	170	220	295
QVF 410/2	Wide Beam Floodlight	500W	2.57	220	170	220	295
QVF 411/1	Medium Beam Floodlight	1000W	3.20	292	170	220	295
QVF 411/2	Wide Beam Floodlight	1000W	3.20	292	170	220	295
QVF 412/1	Medium Beam Floodlight	1500W	3.80	357	170	220	295
QVF 412/2	Wide Beam Floodlight	1500W	3.80	357	170	220	295

Light Distribution Diagram

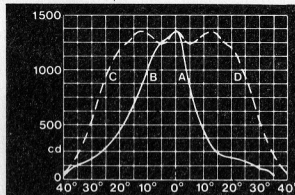
QVF 410/1 - 500W medium beam



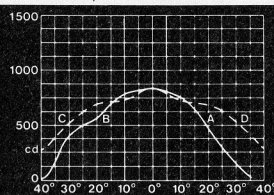
QVF 410/2 - 500W wide beam



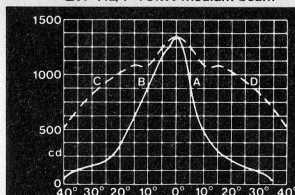
QVF 411/1 - 1 kW medium beam



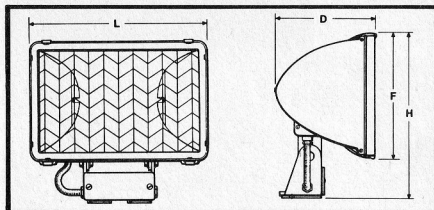
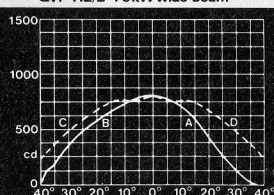
QVF 411/2 - 1 kW wide beam



QVF 412/1 - 15kW medium beam



QVF 412/2 - 15kW wide beam



LAMP DATA

Type	Catalogue Number	Wattage		Voltage		Cap	Lighting Design Lumens
		W	V	V	V		
K1	7785R	500	120	R7s-15			10,500
K1	7785R	500	240/250	R7s-15			9,500
K4	12013R	1000	120	R7s-15			22,000
K4	12013R	1000	240/250	R7s-15			22,000
K5	13021R	15000	240/250	R7s-15			33,000

Please order in the form given in the following example. Note that lamps should be ordered separately.

6 Philips floodlight projectors QVF 410/2

6 Philips tungsten halogen lamps 500W 240/250V Type 7785R



CI/SIB (90.6)

UDC 696.6:628.973

DVF 102

Floodlight Projector

Corrosion resistant floodlight, particularly suitable for areas where a weatherproof fitting IP34 is required.

RANGE

For use with PAR 56 Narrow Spot, Medium flood and Wide flood lamps.

APPLICATIONS

Applications include:

- "Sound and light" spectacles
- Park lighting
- Poster hoardings
- Festive lighting
- Floodlighting of buildings
- Monuments
- Advertising signs
- Statues
- Gardens etc.

FEATURES

- High-pressure die-cast aluminium housing with cooling fins for heat-dissipation.
- High-pressure die-cast aluminium rear cover with a cable-entry gland.
- High-pressure die-cast aluminium rim, in which the toughened front-glass is fixed.
- Galvanised mild steel bracket allowing all possible mounting positions.
- Silicone gaskets to withstand high operating temperatures.
- Inner-wiring: silicone-covered and glass-fibre protected.
- GLX/16D lampholder.
- Quick release clips for ease of maintenance.

Handbook Ref.

3.4.11

To reorder this Data Sheet quote 11.77 PL 1288/1

Replaces PL 1288

MATERIALS & FINISH

Housing: High pressure die-cast aluminium.

Rear cover: High pressure die-cast aluminium.

Front glass: High pressure die-cast rim holding a toughened front glass.

Trunnion arm: Galvanised mild steel.

Clips: Stainless steel.

Gaskets: Silicone rubber.

SPECIFICATION

■ Type compliance with BS4533 2:2.
Enclosure: IEC IP34.

■ Class I electrical protection (this luminaire requires an earth connection).

To specify state:

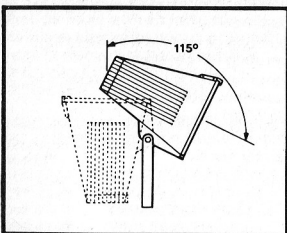
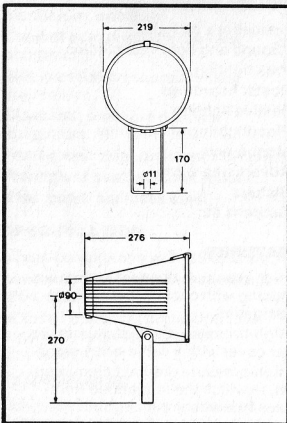
Floodlight of pressure die-cast aluminium for PAR 56 lamps similar to Philips DVF 102 floodlight.

Lamp: PAR 56 Holland

Fitting: Holland

RANGE OF OPERATION

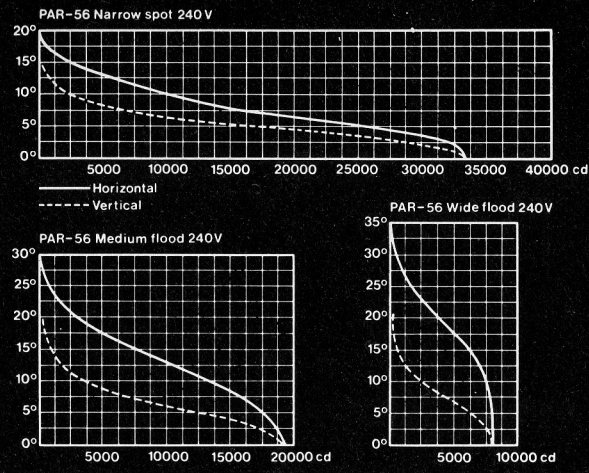
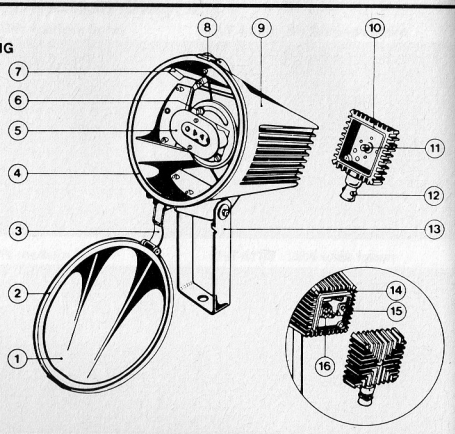
Determined by range of lamps.



ADJUSTMENT POSSIBILITIES

DETAILED DRAWING

1. Front glass
2. Front glass rim
3. Hinge clip
4. Silicone rubber gasket
5. Safety ring
6. Lampholder adjusting screw
7. Spring to keep lamp in position
8. Clip
9. Housing
10. Rear cover
11. Fixing screw
12. Gland
13. Bracket
14. Silicone rubber gasket
15. Earth screw
16. Terminal block



DIMENSIONS, WEIGHTS & ELECTRICAL DATA

Lamp Data

Type	Watts	Beam Pattern	Voltage	Cap
PAR 56	300	Narrow spot	240	GLX/16D
PAR 56	300	Medium flood	240	GLX/16D
PAR 56	300	Wide flood	240	GLX/16D

ORDERING DATA:

Catalogue Number	Weight kg.	Packing Qty.	Dimensions, mm	
			Width	Height
DVF 102	3.0	1	277	385

*Lamps should be ordered separately

CI/SIB	(90.6)
UDC	696.6:628.973

DHF 016

Floodlight Projector

A corrosion resistant and weather-proof floodlight to IP34, designed for applications where variation in colour and intensity is required.

RANGE

For use with:

- 1 x PAR 38 100W or 150W lamps;
- 1 x MBFR 125W PowerRay Mercury Reflector lamp;
- 1 x Blown bulb Reflector lamp 100/150W.

APPLICATIONS

Applications include:

- "Sound and light" spectacles
- Park lighting
- Poster hoardings
- Festive lighting
- Floodlighting of buildings
- Monuments
- Advertising signs
- Statues
- Gardens etc.

FEATURES

- High-pressure die-cast aluminium housing with cooling fins for heat dissipation.
- High-pressure die-cast aluminium rear cover with cable entry gland.
- High-pressure die-cast aluminium rim, in which the toughened front glass is fixed.
- Galvanised mild steel bracket allowing all possible mounting positions.
- Silicone gaskets to withstand high operating temperatures.
- Inner wiring: Silicone covered and glass fibre protected.
- ES (E27) porcelain lampholder.
- Stainless steel clips and fixing material.



Handbook Ref.	3.4.12
To reorder this Data Sheet quote	11.77 PL 1289/1
Replaces	PL 1289

MATERIALS & FINISH

Housing: High pressure die-cast aluminium.

Rear cover: High pressure die-cast aluminium.

Front Glass: High pressure die-cast rim holding a toughened front glass.

Trunnion arm: Galvanised mild steel.

Clips: Stainless steel.

Gaskets: Silicone rubber.

SPECIFICATION

■ Type compliance with BS4533 2:2. Enclosure: IEC IP34.

■ Class I electrical protection (this luminaire requires an earth connection).

To specify state:

Floodlight of High pressure die-cast aluminium for PAR 38 Blown Bulb and MBFR 125W lamps similar to Philips DHF 016 floodlight.

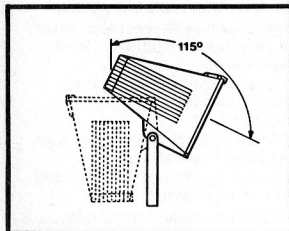
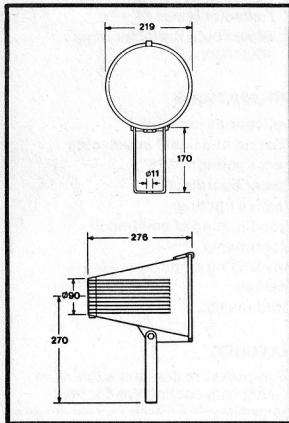
RANGE OF OPERATION

Determined by range of lamps.

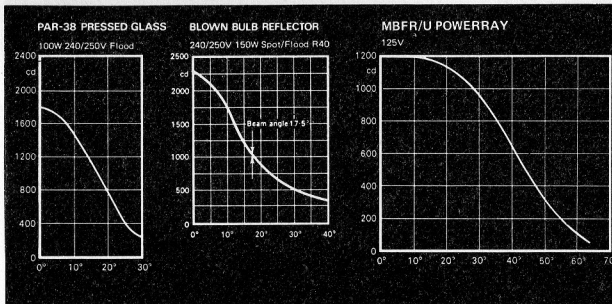
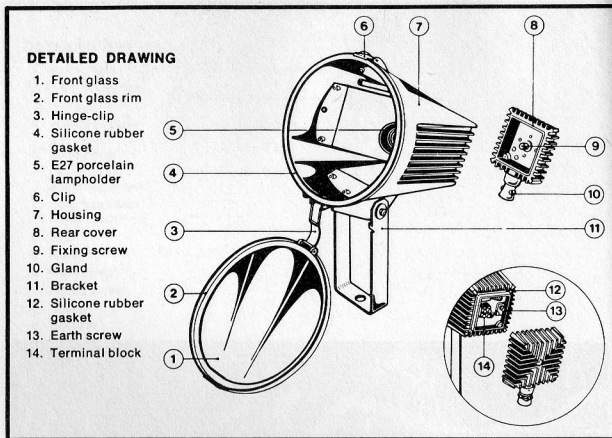
Lamp and Fitting: Made in Holland.

LIGHT DISTRIBUTION

Refer to data sheet of relevant lamp for photometric information.



ADJUSTMENT POSSIBILITIES



DIMENSIONS, WEIGHTS & ELECTRICAL DATA

Lamp Data	Wattage	Voltage	Cap	Finish
PAR 38 Spot	100	240	ES	Clear
PAR 38 Flood	100	240	ES	Clear
PAR 38 Flood	100	240	ES	Blue
PAR 38 Flood	100	240	ES	Yellow
PAR 38 Flood	100	240	ES	Green
PAR 38 Flood	100	240	ES	Red
PAR 38 Spot	150	240	ES	Clear
PAR 38 Flood	150	240	ES	Clear
PAR 38 Spot	150	240	ES	Yellow
PAR 38 Spot	150	240	ES	Green
PAR 38 Spot	150	240	ES	Red
PAR 38 Spot	150	240	ES	Blue
R30 Blown Bulb	75	240	ES	Diffused
R30 Blown Bulb	100	240	ES	Diffused
R30 Blown Bulb	150	240	ES	Diffused
PowerRay MBFR	125	*	ES	fluorescent coated

*Use with L5125 BX ballast and L4008/07 P.F. Capacitor.

ORDERING DETAILS

Catalogue No.	Weight kg.	Packing Quantity	Dimensions, mm	
			Width	Height
DHF 016	3.0	1	276	385

★Lamps should be ordered separately

The floodlights are scoop shaped vitreous-enamelled steel with dimensions as overleaf

C1/S1B	(90.6)
UDC	696.6:628.973

(Provisional)

W5000

Area floodlight

A sturdy adjustable area floodlight that is equally suitable for permanent installations, or for fixing to scaffold poles for the temporary lighting of building sites. An adjustable lampholder accommodates GLS and discharge lamps in a wide choice of ratings.

RANGE

W5010 – Floodlight complete with 3-position lampholder and reversible pole clamp, for 300W or 500W GLS, 125W or 250W HPL-N, 250W MLL, or 150W or 250W SON lamps.

W5020 – Floodlight complete with 3-position lampholder, 490mm reflector, and reversible pole clamp, for 750W or 1kW GLS, 400W or 700W HPL-N, 500W MLL or 400W SON lamps.

APPLICATIONS

Permanent and temporary flood-lighting of external areas such as:-

- Work yards
- Railway marshalling yards
- Sidings
- Car parks
- Building sites (temporary fixing to scaffold poles)
- Outdoor storage area

Handbook Ref	3.4.14
To reorder this data sheet quote	8/78 PL 1800/1
Replaces	PL 1800

FEATURES

- Wide choice of lamps and ratings to suit the majority of floodlighting applications.
- Luminaire is adjustable upwards and downwards to enable the cut-off to be set.
- Wiring to sturdy terminals on top of the canopy, protected by a removable cover, with entry for the cable through a clamp.
- Vitreous-enamelled steel reflector gives durability.
- Simple, precise lampholder adjustment permits a wide range of GLS and discharge lamps to be accommodated.
- Reversible pole clamp fits all poles with diameters from 2in. to 4in.

MATERIALS & FINISH

- Reflector:** Heavy gauge steel, vitreous enamelled finish.
- Neck and top cap:** Die-cast aluminium.
- Lampholder:** Porcelain, GES (adjustable).
- Reversible pole clamp:** Cast aluminium, natural finish.

LAMP DATA

Cat. No.	Lamp type	Lighting Design Lumens	Lamp Volts	Lamp current (Amperes)	Total circuit Watts	Cap	Ballast	Lampholder position	Ignitor	PFC capacitor	Packing quantity (lamps only)
300W GLS	Tungsten filament 300W	4300	240	1.25	300	GES	—	2	—	—	12
500W GLS	Tungsten filament 500W	7700	240	2.08	500	GES	—	2	—	—	12
1000W GLS	Tungsten filament 1000W	17300	240	4.17	1000	GES	—	2	—	—	6
125W HPL-N	PowerWhite mercury fluorescent 125W	5800	125	1.15	138	GES	L5125	1	—	L4008/07	24
250W HPL-N	PowerWhite mercury fluorescent 250W	12500	135	2.0	265	GES	L5250	1	—	L4016/07	9
400W HPL-N	PowerWhite mercury fluorescent 400W	21300	140	3.2	420	GES	L5400	1	—	L4020/07	6
700W HPL-N	PowerWhite mercury fluorescent 700W	39000	140	5.6	730	GES	L4700	2	—	2 x L4016/07	6
250W MLL	PowerBlend mercury/tungsten 250W	4840	240	1.1	250	GES	—	1	—	—	9
500W MLL	PowerBlend mercury/tungsten 500W	12300	240	2.2	500	GES	—	1	—	—	6
150W SON	High Pressure Sodium 150W	13500	100	1.8	174	GES	L4154	1	SN50	L4016/07	—
250W SON	High Pressure Sodium 250W	24000	100	3.0	280	GES	L4254	1	SN50	2 x L4016/07	—
400W SON	High Pressure Sodium 400W	45000	105	4.4	440	GES	L4404	2	SN50	2 x L4020/07	—

Note that with the exception of PowerBlend lamps, for which no control gear is required, discharge lamps MUST be operated with a current-limiting ballast in series with the lamp.

DIMENSIONS & WEIGHTS

Catalogue No.	Width mm/in.	Height mm/in.	Projection (from pole face) mm/in.	Weight kg/lb
W5010	490/19.5	400/15.75	660/26	6.6/14.5
W5020	650/25.5	465/18.25	730/28.75	8.2/18

ORDERING DATA

Catalogue No.	Description	Packing quantity
W5010	Floodlight complete for 300W or 500W GLS, 125W or 250W HPL-N, 250W MLL, 150W or 250W SON lamps	1
W5020	Floodlight complete for 750W or 1kW GLS, 400W or 700W HPL-N, 500W MLL or 400W SON lamps Includes lampholder assembly and pole clamp.	1

Note that lamps and control gear (if required) must be ordered separately.

Please order in the form given in the following example, in multiples of the packing quantity:—

24 Philips area floodlights W5010
24 Philips 250W HPL-N lamps
24 Philips ballasts L5250
24 Philips PFC capacitors L4016/07

SPECIFICATION

- General-purpose floodlight for normal outdoor applications.

To specify state:

General-purpose floodlight with adjustable lampholder, for GLS, HPL-N, MLL and SON lamps. Similar to Philips W5000.

RANGE OF OPERATION

- 240V 50Hz supplies.
- Normal outdoor operation.

Made in UK.

CI/SFB	(90.6)
UDC	696.6 : 628.971

R7758 R7788 R7798

Area floodlights

An inexpensive, self-contained floodlight luminaire complete with all control gear secured and wired inside the body, for use with high-pressure sodium, low-pressure sodium and mercury fluorescent lamps.

Note: Mercury fluorescent lamps
UK marking MBF = Philips
International marking HPL-N

RANGE

Available complete with universal mounting kit which enables the luminaire body to be mounted on feet, or secured to 2in., 3in. or 4in. diameter poles. Built-in control gear is supplied for a 250W high-pressure sodium lamp, a 90W low-pressure sodium lamp or a 250W mercury fluorescent lamp.

APPLICATIONS

Suitable for all external floodlighting applications for which a wide beam is appropriate, such as:—

- Buildings
- Large ground areas
- Car parks



Handbook Ref.

3.4.15

To reorder this data sheet quote

4/78 PL 1759/1

Replaces

PL 1759

FEATURES

- The body is a welded steel fabrication, primed and stove enamelled light grey for high resistance to corrosion.
- Completely self-contained, with integral control gear – installation is simplified, since the luminaire only needs connection to a suitable supply.
- Choice of lamp types (high-pressure sodium, low-pressure sodium or mercury fluorescent) makes the luminaire suitable for most applications.
- Luminaire is wired to 3-way terminal block above cable gland with $\frac{3}{4}$ in. (19mm) bushed cable entry.
- Individually fused. The gear tray is retained by eight bolts and supported by four captive bolts for easy access to fuse and gear components.
- Lamp replacement is simplified by removal of the lampholder cover, which allows the lamp to be withdrawn without disturbing the front of the luminaire.

MATERIALS & FINISH

- Body:** Steel, welded, primed and stove enamelled light grey.
- Trunnion arm and universal mounting kit:** Wrought iron, galvanised finish.
- Front glass:** Toughened sheet glass sealed with special rubber strip.

SPECIFICATION

To specify state:

Philips area floodlight with integral control gear using either 250W SON, 90W SOX or 250W mercury fluorescent lamp.

ORDERING DATA

Catalogue No.	Description	Packing quantity
R7758/U	Luminaire with control gear for 250W SON lamp	Individually packed
R7788/U	Luminaire with control gear for 90W SOX lamp	Individually packed
R7798/U	Luminaire with control gear for 250W MBF/U lamp	Individually packed

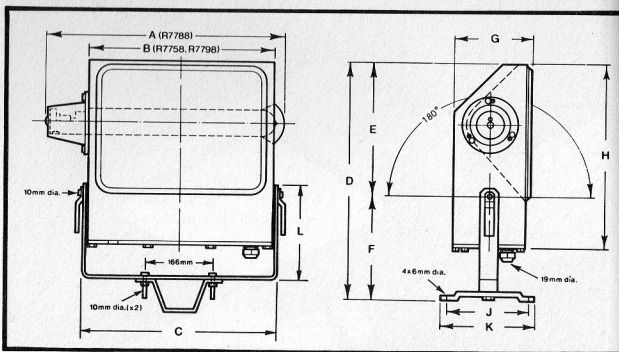
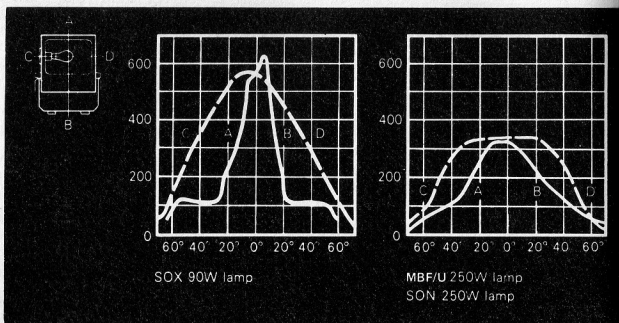
Please order in the form given in the following example:

10 Philips area floodlights R7758/U.
Lamps should be ordered separately.

WEIGHTS, ELECTRICAL & TECHNICAL DATA

Body Cat. No.	Lamp type	Weight complete with lamp kg (lb)	Lighting Design Lumens	Lamp volts	Lamp current (Amperes)	Total circuit Watts	Cap	Ignitor	Ballast	PF capacitor
R7758/U	SON 250W high-pressure sodium	21.4 (47.14)	24,000	100	3.0	280	GES	S50	L4254	2 x L4016/07
R7788/U	SOX 90W low pressure sodium	20.8 (45.81)	12,250	112	0.95	118	BC	—	L5090BX	L4025/07
R7798/U	MBF/U 250W mercury fluorescent PowerWhite	20.5 (45.15)	12,500	135	2.0	268	GES	—	L5250BX	L4016/07

Light Distribution cd/1000lm



RANGE OF OPERATION

For normal outdoor use.

DIMENSIONS

mm (Inches)	mm (Inches)
A — 578 (22.75)	G — 190 (7.48)
B — 453 (17.83)	H — 456 (17.95)
C — 472 (18.57)	J — 166 (6.53)
D — 604 (23.77)	K — 190 (7.48)
E — 336 (13.2)	L — 222 (8.74)
F — 268 (10.5)	

Note: Mercury fluorescent lamps
UK marking MBF = Philips
International marking HPL-N.
Mercury halide lamps
UK marking MBI = Philips
International marking HPI.

Luminaire: Made in UK
Lamps: Made in Holland and UK