

Low pressure sodium lamps in MA50 lanterns lighting the new motorway junction M23 and M25 in Surrey.

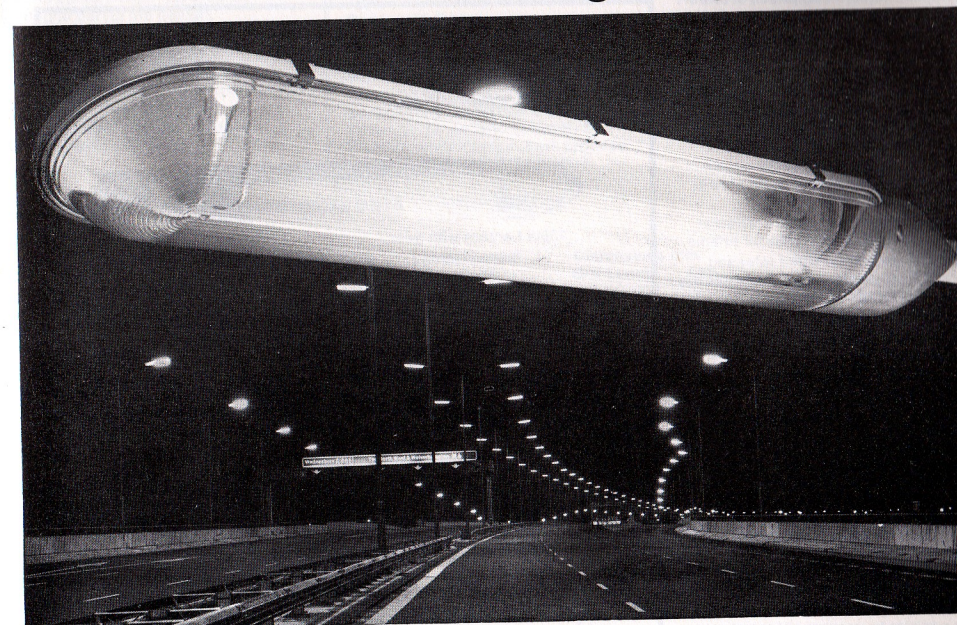
ROADLIGHTING

MASOX Major Road Lantern	195
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Low pressure sodium SOX lamps in MA90 lanterns lighting the A4 underpass to the M4 motorway at Chiswick.

MA SOX RANGE Roadlighting Lanterns



Highly efficient MA Lantern for use with 90W, 135W, and 180W SOX low pressure sodium lamps. Unique optics provide both 'cut-off' and 'semi cut-off' distribution in one lantern. The lantern, comprising of three interchangeable modules, minimises stock of spares.

RANGE

Modular construction comprising of bowl, canopy and spigot entry, available without gear or with hingeable gear shoe in the following ratings.

90W Overall length	819mm
90W Overall length	1002mm with gear shoe
135W Overall length	1066mm
135W Overall length	1249mm with gear shoe
180W Overall length	1411mm
180W Overall length	1594mm with gear shoe

APPLICATIONS

Modern motorway and major road where 'cut-off' and 'semi cut-off' distribution is required from one lantern-giving both efficiency and uniformity to the overall scheme.

The MASOX lantern-winner of the Design Council Award 1975.

Handbook Ref

3.1.1

To reorder this Data Sheet quote

11.77 PL 1266/1

Replaces

PL 1266

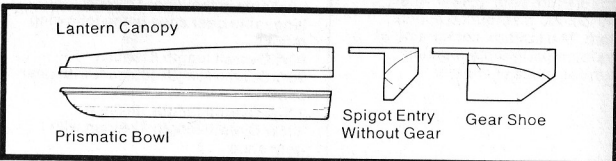
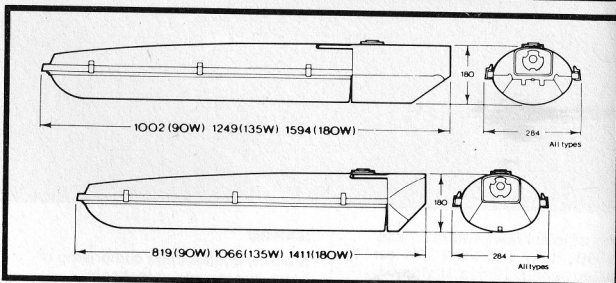
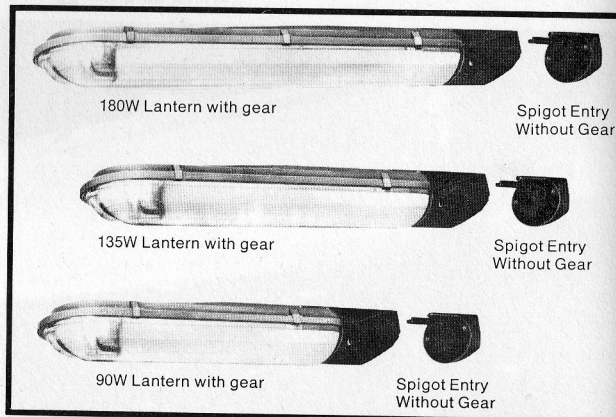
FEATURES

- Dual purpose lantern with unique optics provide both 'cut-off' and 'semi cut-off' distribution from a single lantern. A simple adjustment of the lampholder and lamp support bracket alters the position in the housing to provide the two light distributions with no additional components.
- Optical system designed to meet the BS1788 and the BS4533 'cut-off' and 'semi cut-off' and C.I.E. 12 'semi cut-off' requirements.
- Versatility of the product reduces spares stock and maintenance costs. Greater visible uniformity on lighting schemes.
- Basic modular construction. A complete lantern comprises of three separate components; canopy, prismatic bowl and spigot entry module.
- Canopy and bowl can be standardized throughout the scheme.
- Spigot entry module available without control gear housing or with integral hinged gear shoe. The modular construction offers easier installation, maintenance and lower maintenance stock.
- Injection moulded acrylic reflector bowl with high quality interior prisms.
- Hinged gear shoe when released from safety catches can be completely removed for replacement.
- Electrical connections are made by plug and socket and the integral gear version incorporates replaceable cartridge fuse link.
- The canopy is constructed in glass fibre re-inforced polyester (GRP) and formed by a special pressing method, giving a very smooth surface structure that discourages dust and grime from settling. The pressing method prevents inherent stresses from forming in the canopy during construction, and combines great mechanical and tensile strength when subject to vibration.
- The GRP canopy is self-coloured white throughout and combines an additive to improve UV resistance. It is light in weight, is resistant to chemical and weather influences and will not discolour.
- Lamp compartment is housed in the canopy module separate from the control gear module; a specification requirement now in force in many countries for motorway lighting.
- All internal wiring is of heat resistant material.
- Low profile canopy with low drag specially designed to minimise the windage area and so reduce the amount of stress on the column.

- Built in provision for one or two part photocells. The lantern can be supplied complete with photocell.
- Stainless steel used for all exposed bolts and screws to resist corrosion.
- Stainless steel spring clips allow reflector bowl to be safely hinged down for cleaning or complete removal of the bowls.
- Spigot entry module, made from die-cast non-corrosive aluminium alloy, designed for side entry mounting configuration for either 42 or 48mm spigots.
- Extruded neoprene gasket between canopy and bowl provides resilient seal. Spring clips ensure an even pressure all round.

MATERIALS & FINISH

- Reflector bowl:** injection moulded acrylic.
- Canopy:** glass fibre re-inforced polyester (GRP) pressing.
- Spigot:** Die-cast non-corrosive alloy.
- Gasket for housing:** extruded neoprene rubber.
- Fixing clips:** spring stainless steel.
- Internal wiring:** heat resistant PVC.



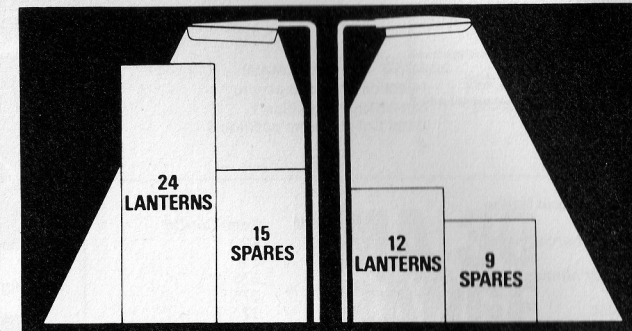
BASIC MODULAR CONSTRUCTION

For easy installation, maintenance and stock control, the new range of Lanterns are of modular construction. The canopy and bowl are basic components to which a spigot entry module, either without control gear or with hingeable gear shoe, is added.

SPECIFICATION

To specify state:

- Lanterns shall be certified by the British Standards Institution as fully complying with the requirements of BS 4533: Part 2: Section 2. 7: 1976.
- Lanterns shall be of a type currently acceptable to the Department of the Environment.
- The Lantern shall have a downward light output ratio of 0.74 (cut-off) or 0.75 (semi cut-off).
- The Lantern shall be totally enclosed, side entry mounting on 42/48 mm. o.d. spigots 100 mm. long and suitable for use with SOX low pressure sodium lamps.
- The Lantern shall have, as an integral part of the design, adjustment for both 'semi cut-off' light distribution and 'cut-off' light distribution.
- The Lantern shall have International Protection category IP23.
- The Lantern shall be similar to Philips MA SOX range.



Typical U.K. Group 'A' SOX Lantern Range with Spares

New Philips Range and Spares to cover same range of Application

Comparison of the number of separate stock types required to cover the full range of Group 'A' SOX applications, using first a typical Group 'A' range, and secondly the new Philips MA range. Both produce the same application capability.

DIMENSIONS, WEIGHTS & ELECTRICAL DATA

LAMP DATA

Lamp Rating	Lighting Design Lumens	Lamp, Volts V	Lamp, Current A Nominal	Dimensions mm O/A Length	Dia.	Cap	Packing Qty.
90W	12,250	112	0.95	528	66	BC	9
135W	21,200	164	0.95	775	66	BC	9
180W	31,500	245	0.90	1120	66	BC	9

CONTROL GEAR DATA

Catalogue No.	Description	Rating	Total Circuit Watts	Voltage @ 50Hz	Dimensions mm. Length O/A	Width	Body	Fixing Centre	Weight kg	Packing Qty.
L5090BX	90W Ballast	—	118	230/250	188	101.5	139.5	171.5	5.40	6
L4025/07	Capacitor	25 μ F \pm 10%	—	250	95	45	—	—	0.14	30
L4135	135/180W Ballast	—	*	190/250	188.5	106	130	176.5	6.80	4
L5020/07	Capacitor	20 μ F \pm 10%	—	300	95	45	—	—	0.12	30

*135W circuit 175 Watts
180W circuit 220 Watts

PHOTOCELL DATA

Description	Cat. No.	Voltage Range	Switch Differential	Weight, kg.	Packing, Qty.
3-pin twist (one-part)	SS4	200/250V	1:2	0.20	10

REPLACEMENT PARTS AVAILABLE

Catalogue Number	Description	Packing Qty.	Catalogue Number	Description	Packing Qty.
R8020	90W Gear Unit	1	R8154	90W Refractor Bowl	1
R8021	135W/180W Gear Unit	1	R8155	135W Refractor Bowl	1
			R8156	180W Refractor Bowl	1

PHOTOMETRIC DATA

Lantern

Type	MA90	MA50	MA60
Reflector type	Injection moulded acrylic		
Lampholder position	Cut-off Lamp position 1		
Angle of tilt	4°		

Light Output Ratios

	Cut-Off	Semi Cut-Off
Upper hemisphere	.02	.02
Lower hemisphere	Total	.74
	Road side	.37
	Kerb side	.37
Total	.76	.77

Cut-off

Light output in lower hemisphere (downward flux lumens)

SOX	90W	135W	180W
	9060	15700	23500

Semi Cut-off

Light output in lower hemisphere (downward flux lumens)

SOX	90W	135W	180W
	9200	15900	23600

Lamp(s)

Type	SOX	90W	135W	180W
Luminous flux		12250	21200	31500

Type of distribution

Downward light output ratio

Angle of elevation, upper limit of beam

lower limit of beam

Peak intensity ratio

Downward zone Maximum Intensity Ratio

Minimum Intensity Ratio

Maximum Intensity

Peak Intensity

0° to 30° from vertical in all directions.

Angle of elevation at which the intensity ratio is 1.2 in the vertical plane parallel to the street axis

Intensity ratio at the horizontal in the vertical plane parallel to the street axis

Angle of Azimuth between beam centre and road axis

Cut-Off

0.74

70°

58°

2.12

1.50

0.92

70%

74½°

0.12

1°

Semi Cut-Off

0.75

80°

73°

1.92

1.44

0.93

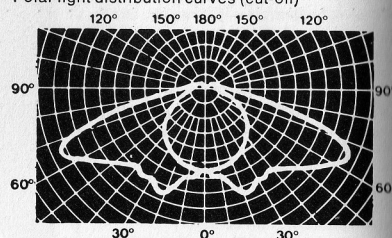
74%

83°

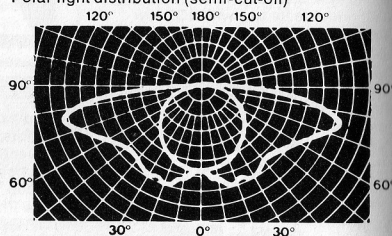
0.17

1°

Polar light distribution curves (cut-off)



Polar light distribution (semi-cut-off)



LANTERN ORDERING DATA

Ordering Code	Rating	Downward Light Output Ratio		Dimensions mm		Control Gear	NEMA Photo Cell Socket Fitted	Weight Kg	Windage	
		Semi Cut-Off	Cut-Off	Length	Depth				Plan M ²	Elevation M ²
MA 90	{ 090XDS00 090XDS00*1 090XDSD0 090XDSD0*1 }	1 x 90W SOX	0.75	0.74	819 819 1002 1002	180	LOOSE " YES INTEGRAL " YES	6.10 6.30 14.50 14.70	0.21	0.13
MA 50	{ 135XDS00 135XDS00*1 135XDSD0 135XDSD0*1 }	1 x 135W SOX	0.75	0.74	1066 1066 1249 1249	180	LOOSE " YES INTEGRAL " YES	7.50 7.70 17.30 17.50	0.28	0.17
MA 60	{ 180XDS00 180XDS00*1 180XDSD0 180XDSD0*1 }	1 x 180W SOX	0.75	0.74	1411 1411 1594 1594	180	LOOSE " YES INTEGRAL " YES	9.40 9.60 19.20 19.40	0.38	0.23

C/S/B	(90.6)
UDC	696.6 : 628.971

MA 30 RANGE

Roadlighting Lantern

For Group 'A' Road lighting and Area Lighting offering a choice of SON lamps or PowerWhite (MBF/U=HPL) lamps. Cut-off or Semi cut-off light distribution from one lantern. For use with remote mounted control gear.

RANGE

Choice of two lamp types and five wattages:

Energy saving SON lamp 150W, 250W and 400W

or alternative

PowerWhite (MBF/U=HPL) 250W and 400W.

APPLICATIONS

Possible applications include:

- Motorways
- Highways
- Secondary roads
- Area lighting
- Security lighting
- Factory perimeter lighting
- Garage forecourts

FEATURES

■ Lightweight lantern canopy, of spun aluminium construction, pre-treated stove-enamelled white, both outside and inside.

■ Spigot entry corrosion resistant die-cast aluminium alloy (LM6M).

■ One piece acrylic bowl attached to the body with stainless steel clips.

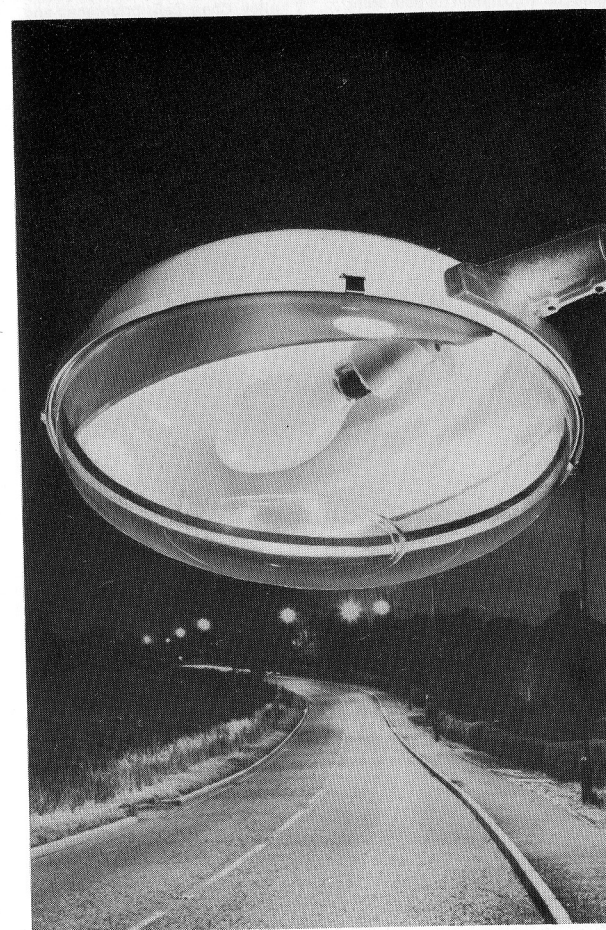
■ No clips on bowls ensuring easy storage without scratching bowls.

■ Nylon bowl retaining straps – unclip easily to allow full access for maintenance.

■ Neoprene gasket ensures dust and weatherproof seal.

■ Degree of Protection IP23.

■ 42mm diameter (1½" BSP) spigot entry, 100mm long.



Handbook Ref.

3.1.2

To reorder this data sheet quote

3.78 PL 1822

Replaces

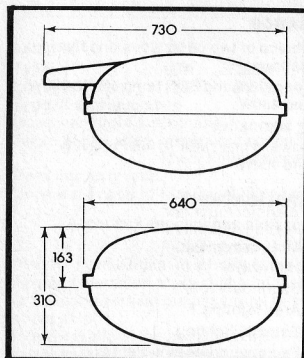
PL 1270/1

Features continued

- Lanterns pre-wired with heat resistant cables to terminal block and GES lampholder with separate cable clamp.
- Lantern to accept NEMA sockets or two part photocell supplied if required.
- Optical system uses highly polished side reflectors, made from super purity aluminium alloy, chemically brightened and anodised.
- Cut-off and semi cut-off light distribution achieved by simple adjustment of the lampholder position and the mirrors.
- Lanterns designed to comply with BS 1788 and BS 4533.
- Lanterns supplied in semi cut-off form, ready for 250W SON/MBF light distribution.
- Suitable earthing facilities adjacent to terminal block.

INSTALLATION

- See C.I.S. No. 42.



LAMP & CONTROL GEAR DATA

Lamp type	Lumens	Cap	Ballast type	Voltage tapped	Ignitor type	Lamp Voltage (V)	Lamp Current (A)	Total Circuit Watts	Recommended P.F. Capacitor	Mains Current Start	Run	Fuse Rating HRC
150W SON	13,500	GES	L4154BX	240	S50	100	1.8	174	L4016/07	1.2	0.9	10
250W SON	24,000	GES	L4254	210/225/240	S50	100	3.0	280	2 x L4016/07	1.8	1.3	10
400W SON	45,000	GES	L4404	210/225/240	S50	105	4.4	440	2 x L4020/07	3.0	2.2	15
250W MBF/U = HPL	12,000	GES	L5250BX	240	—	135	2.0	268	L4016/07	2.1	1.3	10
400W MBF/U = HPL	21,500	GES	L5400BX	240	—	140	3.2	424	L4020/07	3.5	2.1	15

ORDERING DATA

Catalogue number	Description	Dimensions(mm) Length	Depth	Weights Kg.	Packing Quantity
MA30	Roadlighting Lantern for 150, 250 and 400W SON and 250 and 400W MBF/U = HPL	730	310	5.0	1
MA30 *1	Roadlighting Lantern for 150, 250 and 400W SON and 250 and 400W MBF/U = HPL with NEMA Socket fitted	730	310	5.2	1

Specify lamp and control gear required when ordering.
When using 400 Watt Semi cut-off a bowl patch is required and available free of charge on request.

SPECIFICATION

- Certified by the British Standards Institution as fully complying with BS 4533 and BS 1788.
- Lanterns are of a type currently acceptable to the Department of the Environment.
- The downward light output ratio exceeds 0.75.
- Lanterns are totally enclosed, side entry mounting on a 42-48mm o.d. spigot 100mm long and suitable for use with:
 1. High-pressure Sodium (SON) discharge lamps.
 2. High-pressure Mercury Fluorescent (MBF) discharge lamps.
- Integral adjustment for both semi cut-off and cut-off light distribution.
- Control gear situated remote from lantern.
- Provision for fixing and wiring NEMA socket, if required.

To specify state:

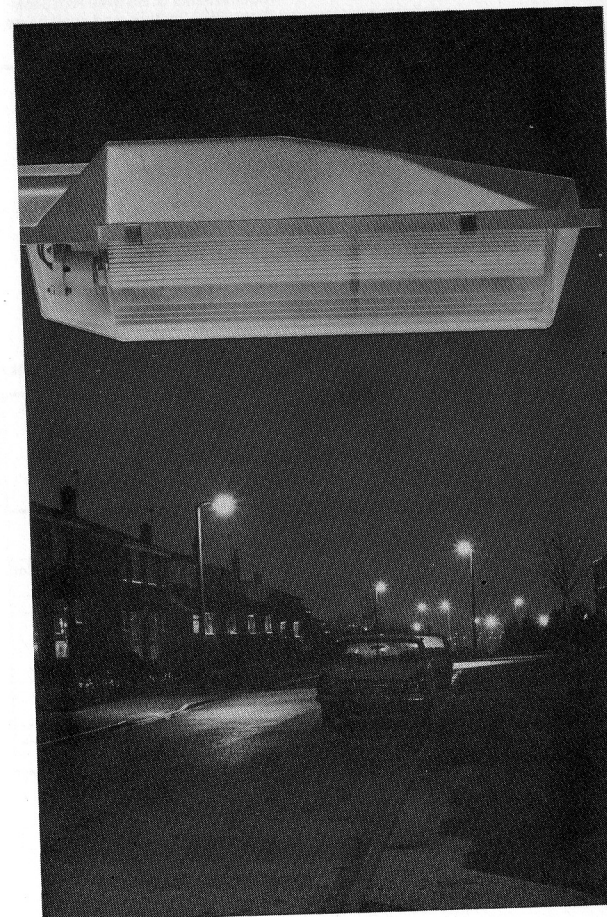
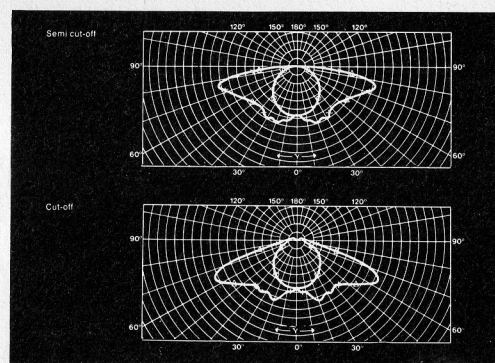
Roadlighting lantern which fully complies with the requirements of BS 4533 and BS 1788. The lantern shall have, as an integral part of its construction, the facility for providing either cut-off or semi cut-off light distribution by simple adjustment of the lampholder and mirror and shall be Philips MA 30 or similar.

MATERIALS & FINISH

- Canopy: Spun aluminium finished white stoved enamel.
- Bowl: Acrylic plastic.
- Sealing gasket: Neoprene seal.
- Spigot entry: Cast aluminium LM6M.
- Reflectors: Super purity aluminium alloy. Chemically brightened and anodised.

RANGE OF OPERATION

- Supply Voltage: 240 Volt 50 Hz supply subject to statutory tolerances.
- Earthing: Suitable facilities adjacent to lampholder.



C.I.S/B	(90.6)
UDC	696.6:628.971

MI 8

Lantern for Group B roadlighting

This aluminium-bodied lantern houses one 55W low-pressure sodium (SOX) lamp, and is available with integral control gear or for use with loose control gear mounted in the column base. Either version is available with or without NEMA socket and single-part photocell and acrylic or vandal resistant bowls.

RANGE

- MI 8-055XBSOO – Lantern without control gear.
- MI 8-055XBSGO – Lantern with integral control gear.

APPLICATIONS

Especially suitable for the controlled lighting of minor roads, and for other applications such as:-

- Security lighting
- Residential lighting
- Car parks
- Hotel forecourts
- Shopping precincts
- Railway stations

Please order lanterns in the form given in the following example:

- 80 Philips lanterns MA30
- 80 Philips mercury fluorescent lamps 250W MBF/U
- 80 Philips ballasts L5250BX
- 80 Philips PF capacitors L4016/07

Note that lamps and control gear should be ordered separately.

Made in Great Britain.

Handbook Ref

3.1.4

To reorder this data sheet quote 3.78 PL No. 1824

Replaces PLM 9298/1

FEATURES

- Corrosion-resistant die-cast aluminium body (LM6M), primed with zinc chromate and stove-enamelled grey outside, white inside.
- Acrylic refractor bowl injection-moulded to close tolerances to ensure effective light control and made to a constant thickness to eliminate inbuilt stresses.
- Stainless steel hinges on one side of bowl and stainless steel catches secured with non-slip rubber inserts hold the bowl securely yet enable it to be opened easily for relamping. The bowl is easily removed for cleaning.
- Durable, resilient gasket made from distortion-resistant, close-cell plastic foam prevents dust and water from entering between bowl and canopy.
- Side entry mounted, with entry for 76mm maximum of 1in BSP (34mm o.d.) plain barrel spigot, secured by two socket head screws.
- Available without control gear or with integrally-mounted and wired gear mounted on white stove-enamelled steel tray, hinged at spigot end to drop down for easy servicing. An ignitor circuit – low loss control gear – may be fitted instead of conventional auto leakage transformer on request.
- Available with or without NEMA socket and single-part photocell.
- Rigidly-mounted BC lampholder and lamp support maintains correct light distribution. Lamp support is covered by glass-fibre silicone rubber-impregnated sleeving.
- Light distribution conforms with requirement of BS 5489 Part 3 for Class B5/6 luminaires, required for installations which conform to CP 1004 Part 3.

MATERIALS & FINISH

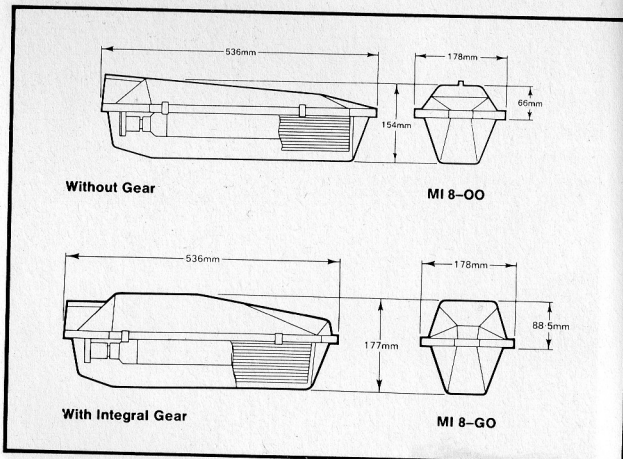
Canopy: High-pressure die-cast aluminium LM6M, zinc chromate primed and stove enamelled grey outside, white inside.
Bowl: Injection-moulded acrylic.
Bowl clips & hinges: Stainless steel.
Gear tray: Sheet steel, stove-enamelled white.

SPECIFICATION

■ Group B roadlighting lantern for loose or integral control gear. Integral gear mounted on hinged tray. Fitted with acrylic refractor or vandal resistant bowl. Spigot entry for 34mm o.d. spigot. Available with or without NEMA socket. For use with 55W SOX lamp. Complies with requirements of BS 5489 Part 3 for Class B5/6 luminaires required for installations which conform to CP 1004 Part 3.

To specify state:

■ Group B roadlighting lantern for use with 55W SOX lamps, fitted either with integral gear on hinged tray or with provision for mounting remote gear. The lantern shall comply with the requirements of BS 5489 Part 3 for Class B5/6 lighting, and shall be as Philips Type MI 8.

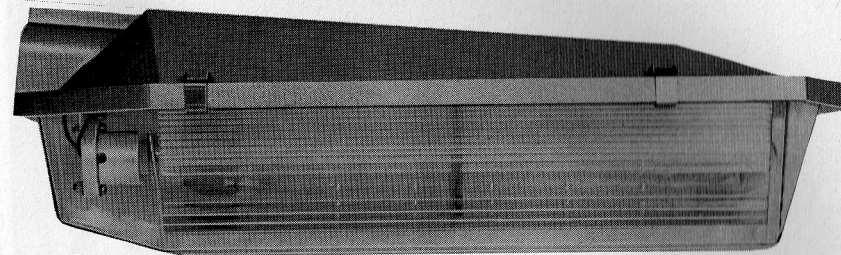


LAMP & CONTROL GEAR DATA

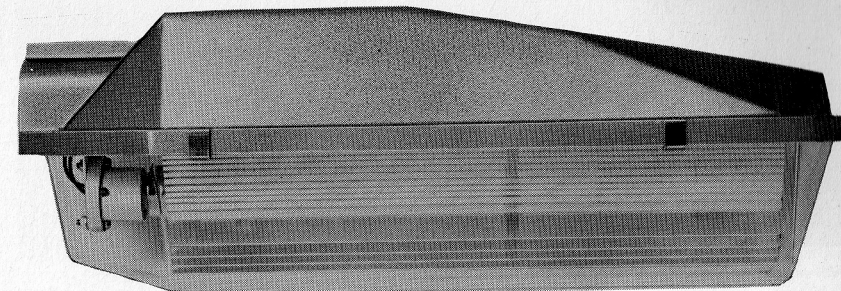
Lamp type	Lumens	Lamp Volts	Lamp Current	Total Circuit Watts	Cap	Ballast	PFC Capacitor	Ignitor
MI 8-00—Loose gear								
55W SOX	7150	104	0.6	80	BC	L4045BX	L4016/07	—
55W SOX	7150	104	0.6	75	BC	L5035BX	L4016/07	—
55W SOX	7150	104	0.6	68	BC	L6355	L4008/07	SX71
MI 8-GO—Integral gear								
55W SOX	7150	104	0.6	75	BC	L5035BX	L4016/07	—
55W SOX	7150	104	0.6	68	BC	L6355	L4008/07	SX71*

*Supplied with low loss gear on request.

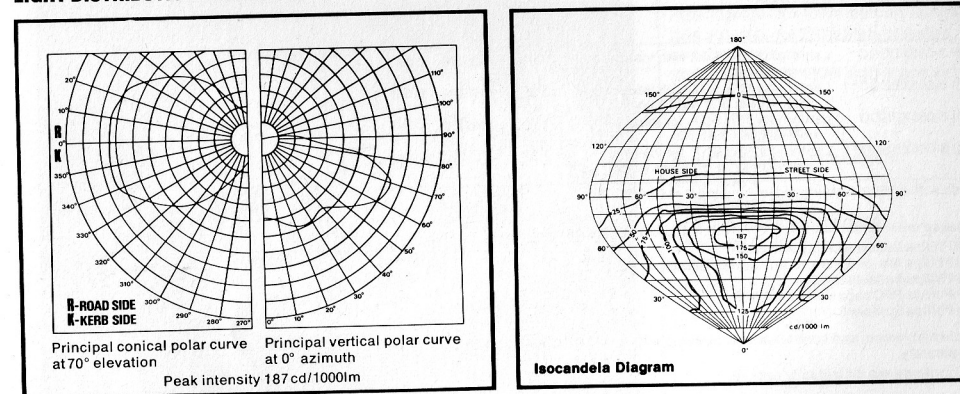
MI 8 without gear



MI 8 with integral gear

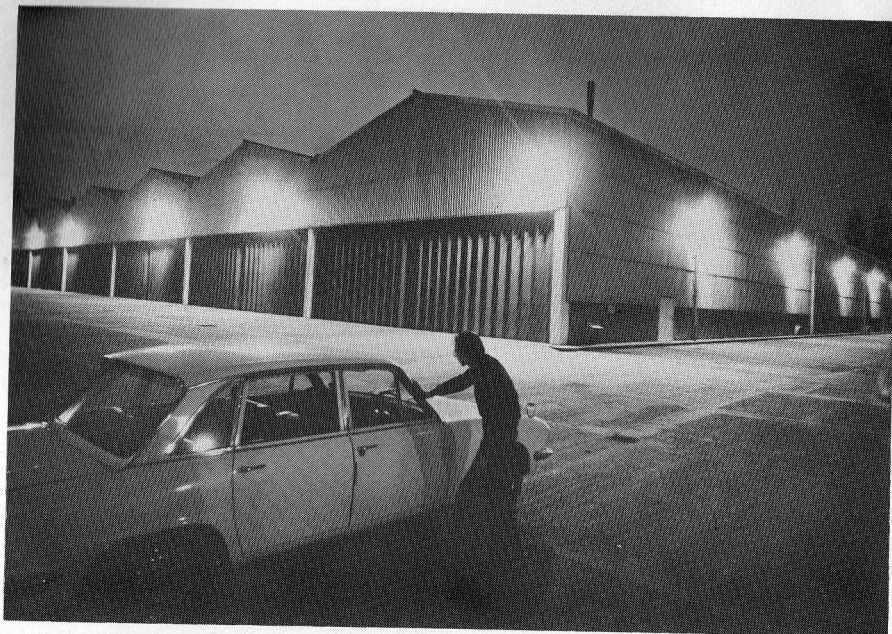


LIGHT DISTRIBUTION DIAGRAMS



PHOTOMETRIC DATA

Light Output Ratios
 Light Output Ratio: 0.80
 Downward Light Output Ratio: 0.72



MI 8 used for security lighting

ORDERING DATA

Catalogue No.	Description	Weight (kg)	Windage area Plan (m ²)	Elevation (m ²)
MI 8-055XBSGO	Lantern for 55W SOX with integral control gear	7.40	0.086	0.081
MI 8-055XBSGO*1	Lantern for 55W SOX with integral control gear and NEMA socket	7.65	0.086	0.081
MI 8-055XBSOO	Lantern for 55W SOX, for loose control gear	2.72	0.086	0.061
MI 8-055XBSOO*1	Lantern for 55W SOX, for loose control gear, with NEMA socket	2.97	0.086	0.061

Add suffix /VR to Catalogue No. for vandal resistant bowl.

Please order lanterns in the form given in the following example:-

80 Philips lanterns MI 8-055XBSOO
80 Philips low-pressure sodium lamps 55W SOX
80 Philips ballasts L6355
80 Philips PFC capacitors L4008/07
80 Philips ignitors SX71

Note that lamps, and control gear for lanterns without integral gear, should be ordered separately.

All lanterns are individually packed.

Made in Great Britain

CI/SIB	(90.6)
UDC	696.6:628.973

HGS SGS 201/250 & 201/400

Dual entry lantern cut-off and semi cut-off distribution for high-pressure sodium and mercury lamps

These lanterns, for side or bottom entry mounting, are fitted with integral control gear for ease of maintenance.

The lampholder is adjustable to give a CIE semi cut-off or a CIE cut-off light distribution. The reflectors are also easily adjustable to give different toe-in angles.

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

RANGE

HGS 201/250—for 250W mercury lamps.
HGS 201/400—for 400W mercury lamps.
SGS 201/250—for 250W high-pressure sodium lamps.
SGS 201/400—for 400W high-pressure sodium lamps.

APPLICATIONS

Possible applications include:

- Highways
- Secondary roads
- Factory perimeter lighting
- Security lighting
- Car parks
- Shopping precincts

Top: HGS 201/250 lantern, side entry mounted.

Bottom: SGS 201/400 lantern bottom entry mounted, side and bottom entry facility combined on both lanterns.

Handbook Ref.	3.1.5
To reorder this data sheet quote	8.78 PL 1268/1
Replaces	PL 1268

FEATURES

- Light weight glass fibre re-inforced polyester housing of outstanding quality.
- High-pressure die-cast mast-entry pieces of non-corrosive aluminium.
- High-purity aluminium anodised reflector for perfect optical control.
- Easily adjustable toe-in angles of 5-10-15-20° towards the road axis. Standard position 15°.
- Adjustable lamp position for different cut-off light distributions.
- Standard version suitable for mounting on mast-arms of 60 mm O.D. or on mast-tops of 78 mm O.D.
- All exposed parts made of stainless steel.
- Clear transparent acrylic bowl for maximum lantern efficiency.
- The Bowl hinges automatically on the housing, after the clips have been removed.
- Integral control gear.
- Dual mast or arm mounting.

MATERIALS & FINISH

Housing: Polyester, Blueish Grey.

Spigot-entry piece: Natural aluminium colour.

Bowl: Acrylic.

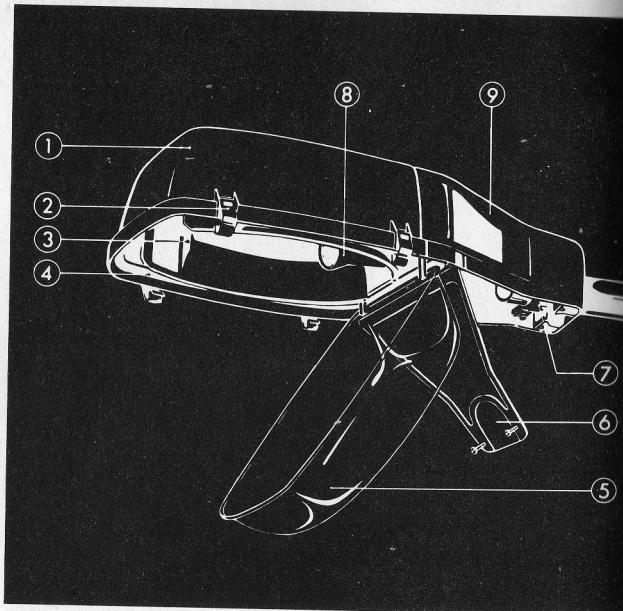
SPECIFICATION

■ Roadlighting lantern complying with CIE Standards for cut-off and semi cut-off light distribution. The lantern has the Degree of Protection IP23, and complies with BS 4533 Class I Electrical Protection (earth required).

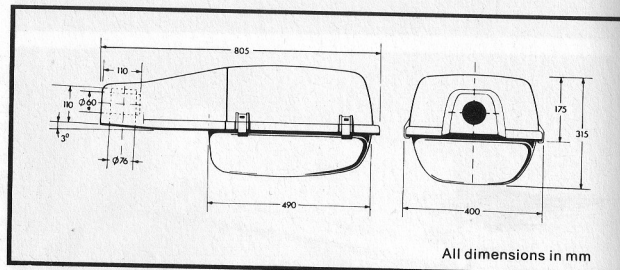
To specify state:

Roadlighting lantern with GRP canopy and integral control gear, offering dual distribution in compliance with CIE Standards for cut-off and semi cut-off light distribution. To have the Degree of Protection IP23 and to be similar to Philips Type HGS 201 or SGS 201.

HGS/SGS 201/250

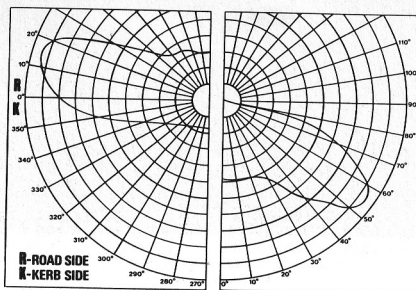


DIMENSIONS



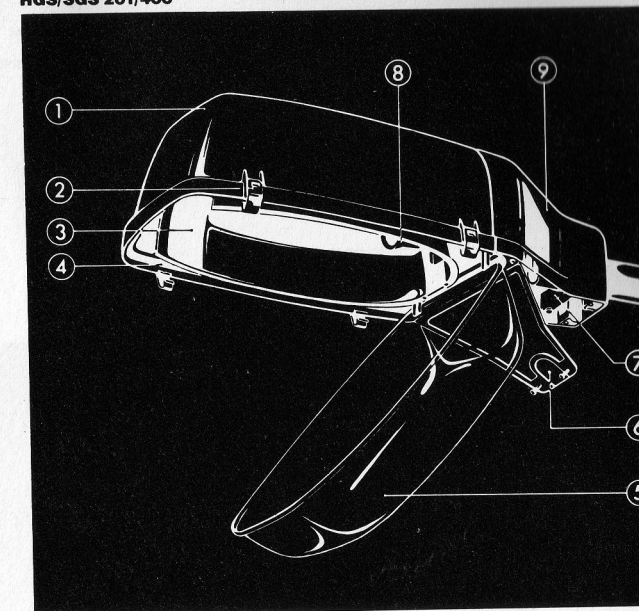
LIGHT DISTRIBUTION DIAGRAMS

Semi cut-off mirror 10°

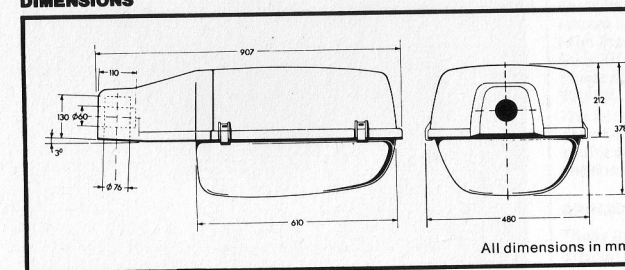


Principal conical polar curve at 55° elevation
Principal vertical polar curve at 13° azimuth
Peak intensity 420 cd/1000lm

HGS/SGS 201/400

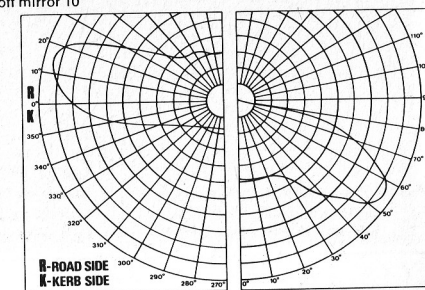


DIMENSIONS



LIGHT DISTRIBUTION DIAGRAMS

Semi cut-off mirror 10°



Principal conical polar curve at 55° elevation
Principal vertical polar curve at 13° azimuth
Peak intensity 420 cd/1000lm

Key to illustrations

1. Housing
2. Closing clip (4 x)
3. Mirror (2 x)
4. Gasket
5. Bowl
6. Coverplate
7. Mast-fixing bracket
8. Lampholder
9. Rear compartment

LAMP DATA

Lamp Type	Lighting Design Lumens	Cap	Ballast	Voltage	Ignitor Type	Circuit Watts (Hot)	Capacitor	Capacitance μF	Mains Current (Amperes) Start Running	Fuse Rating Amperes
SGS 201										
250W SON	24,000	GES	L4254	210/225/240	S50	280	2 x L4016/07	32	1.8	1.3
400W SON	45,000	GES	L4404	210/225/240	S50	440	2 x L4020/07	40	3.0	2.2
HGS 201										
250W MBF/U	13,500	GES	L5250BX	240	—	268	L4016/07	16	2.1	1.3
400W MBF/U	21,500	GES	L5400BX	240	—	424	L4020/07	20	3.5	2.1
										HRC
										10
										15

ORDERING DATA

Catalogue Number	Description
SGS 201/250	Lantern for 250W high-pressure sodium lamps with integral control gear
SGS 201/400	Lantern for 400W high-pressure sodium lamps with integral control gear
HGS 201/250	Lantern for 250W mercury lamps with integral control gear
HGS 201/400	Lantern for 250W mercury lamps with integral control gear

Please order lanterns in the form given in the following example:—

80 Philips lanterns SGS 201/400

80 Philips high-pressure sodium lamps 400W SON

All lanterns are individually packed.

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

Lamps: Made in Holland.
Lanterns: Made in Holland.
Control gear: Made in UK.
Ignitors: Made in Holland.

C/SIB	(90.6)
UDC	696.6:628.971

XGS HGS SGS

Lanterns for group B roadlighting

Manufactured of plastic materials, these lanterns combine strength and attractiveness with efficiency and light weight. Control gear is mounted integrally and dual mounting facilities ensure versatility.

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

RANGE

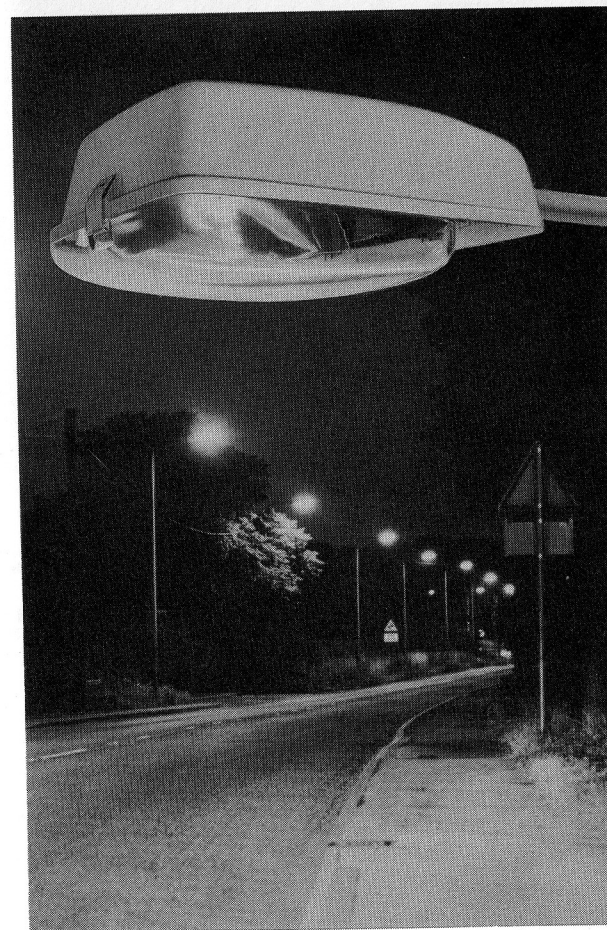
Designed for use with three lamps: For 35W Low Pressure Sodium the lantern is XGS 201/035, for 70W High Pressure Sodium the lantern is SGS 201/070 and for 125W Mercury Fluorescent the lantern is HGS 201/125.

The lantern housing is identical in each type but the reflector system and/or control gear change depending on the type required.

APPLICATIONS

These lanterns are suitable for use in:

- Group B roadlighting
- Residential lighting
- Security lighting
- Car parks
- Hotel forecourts
- Shopping precincts
- Railway stations
- Site lighting



Handbook Ref.	3.1.6
To reorder this data sheet quote	PL 1775/2
Replaces	PL 1775/1

FEATURES

- Strong, lightweight glass-fibre reinforced polyester canopies.
- Vandal-resistant polycarbonate bowls.
- Integral control gear simplifies maintenance.
- Special bracket provides the option of bottom entry or side entry mounting.
- Super high purity aluminium reflectors ensure high reflectivity and light output ratio.
- Available with NEMA socket for photocell control.

MATERIALS & FINISH

Canopy: Lightweight glass-fibre reinforced polyester (GRP) grey

Bowl: Polycarbonate (vandal resistant)

Reflectors: Super high purity aluminium

Control gear: Mounted integrally

Bowl clips: Stainless steel

Control gear cover: Anodised aluminium.

RANGE OF OPERATION

240 volts 50 Hz.

SPECIFICATION

Group B roadlighting lantern with grey GRP canopy and fitted with integral control gear. The lantern housing is designed to accept 70W High Pressure Sodium, 35W Low Pressure Sodium and 125W Mercury Fluorescent lamps with the appropriate control gear. The lantern has the facility for accepting bottom or side entry spigots of 76 mm o.d. or 42/48 mm o.d. respectively.

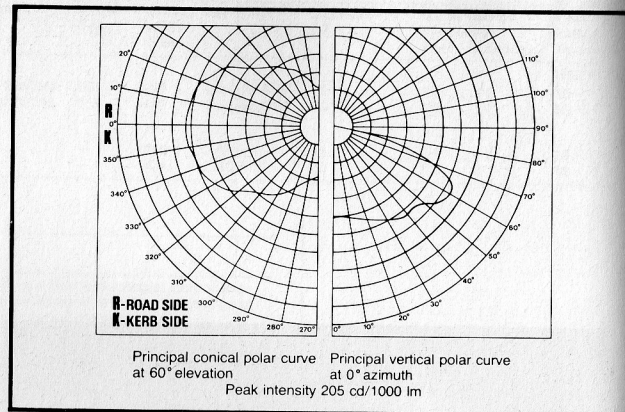
Degree of Protection IP23.

Complies with construction requirements of BS 4533.

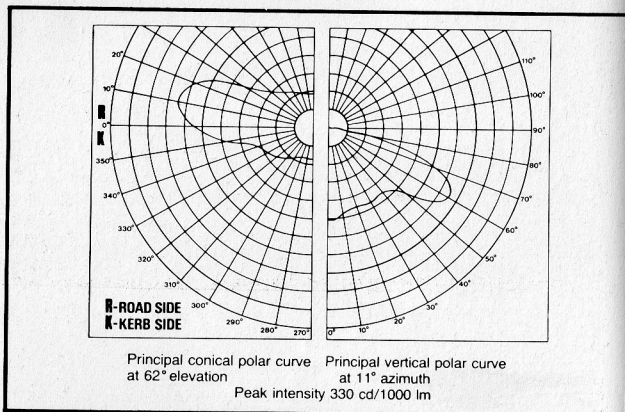
To specify state:

Group B roadlighting lantern for use with 35W SOX/125W MBF/70W SON with integral gear. The lantern shall have the facility for mounting as a post top or on side entry spigots. Philips Type XGS 201/035, HGS 201/125, SGS 201/070, or similar.

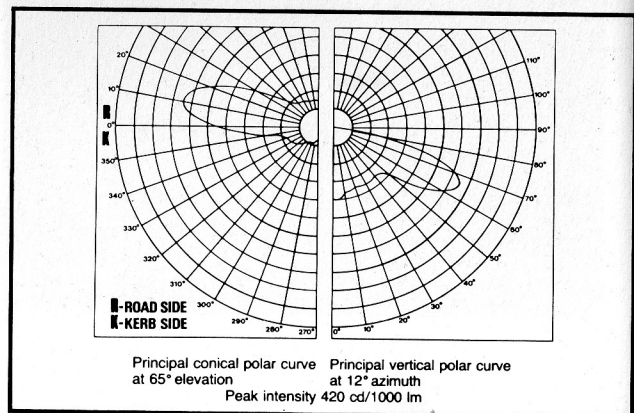
LIGHT DISTRIBUTION DIAGRAMS



XGS 201/035



HGS 201/125



SGS 201/070

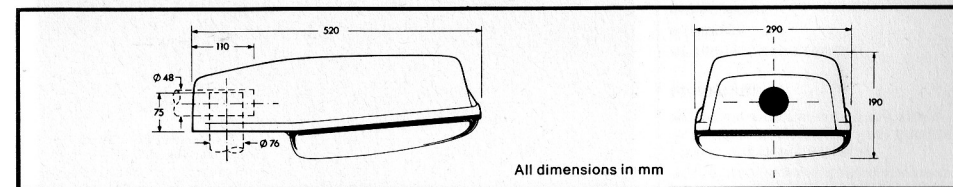


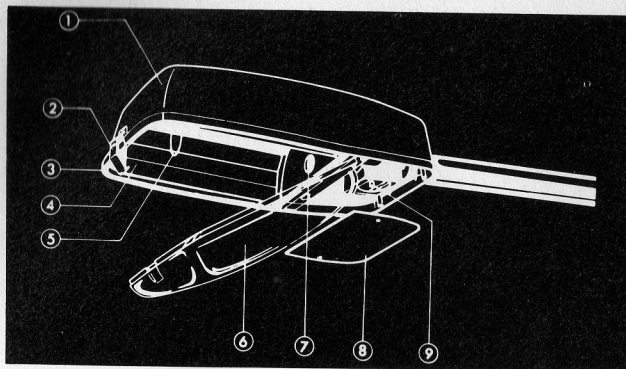
XGS 201/035

This photograph shows the versatility of the XGS lantern in that 3 sizes of column spigot entry are possible, 42 or 48 mm side entry and 76 mm top entry

The aesthetic design of this lantern is such that it complements both swan neck conversions, steel, aluminium and concrete columns alike.

DIMENSIONS





- Key to Illustration**
1. Housing
 2. Closing clip
 3. Gasket
 4. Reflector (2x)
 5. Lamp support (XGS only)
 6. Bowl
 7. Lampholder
 8. Cover-plate
 9. Mast-fixing bracket

ORDERING DATA

Catalogue No.	Description	Weight (kg)
XGS 201/035	Lantern for 35W low pressure sodium lamps with integral ignitor circuit	5.8
HGS 201/125	Lantern for 125W mercury lamps with integral gear	5.5
SGS 201/070	Lantern for 70W high pressure sodium lamps with integral gear	5.5

Add Suffix *1 to Catalogue No. for NEMA socket to be fitted.
Please order lanterns in the form given in the following example:-
80 Philips lanterns HGS 201/125
80 Philips 125W mercury fluorescent lamps.
Note that lamps should be ordered separately.
Lanterns are individually packed.

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

Lamp: SOX Made in U.K.
SON/MBF Made in Holland
Lantern: Made in U.K.
Control gear: Made in U.K.
Ignitor: Made in Holland



CI/SIB	(90.6)
UDC	696.6 : 628.971

SRP 013

High-mast lantern

This aluminium-bodied lantern can be supplied with integral control gear for two 250W or 400W high-pressure sodium SON or SON/T lamps, or for two 400W mercury halide lamps. It fits either side-entry mast arms of 60 mm o.d. or vertical-entry masts of 90–110 mm o.d.

Note: Mercury halide lamps
UK marking MBI = Philips
International marking HPI

RANGE

SRP 013 + 250W SON: Lantern complete with control gear for 2 x 250W SON or SON/T lamps.
SRP 013 + 400W SON: Lantern complete with control gear for 2 x 400W SON or SON/T lamps.
SRP 013 + 400W mercury halide: Lantern complete with control gear for 2 x 400W mercury halide lamps.

APPLICATIONS

For any application where a high-mast lantern with a high luminance level and good uniformity of distribution is required, such as:-

- Main roads
- Squares
- Motorway interchanges

FEATURES

- Die-cast aluminium canopy, stove enamelled white inside, grey outside for resistance to corrosion.
- Clear acrylic bowl, sealed to canopy with gasket to render the lantern resistant to ingress by rain and dust.
- Built-in control gear includes power factor correction capacitors.
- All exposed ferrous parts are made from stainless steel.

continued

Handbook Ref.	3.1.7
To reorder this data sheet quote	8.78 PL 1838
Replaces	PL 9597

Features continued

- High-purity (99.99%) aluminium reflectors provide highly efficient lighting with good beam control.
- Cut-off light distribution according to C.I.E. recommendations. Maximum intensity at 55°.
- Toe-in angle 20° towards the road axis.
- Fits side-entry mast arms of 60 mm o.d. (2 in. B.S.P.) or vertical-entry masts of 90–110 mm o.d. (3–3½ in. B.S.P.).

MATERIALS & FINISH

Canopy: Die-cast aluminium, stove enamelled white inside, grey outside.

Bowl: Clear acrylic.

Sealing gaskets: Neoprene close cell.

Bowl clips & hinges: Stainless steel.

SPECIFICATION

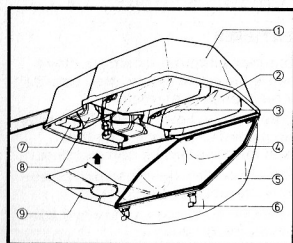
■ High-mast lantern for 250W or 400W SON or SON/T, or 400W mercury halide lamps, complete with integral control gear. Fitted with acrylic reflector bowl. Spigot entries for 60mm o.d. side-entry mast arm and 90–110mm o.d. vertical entry mast.

To specify state:

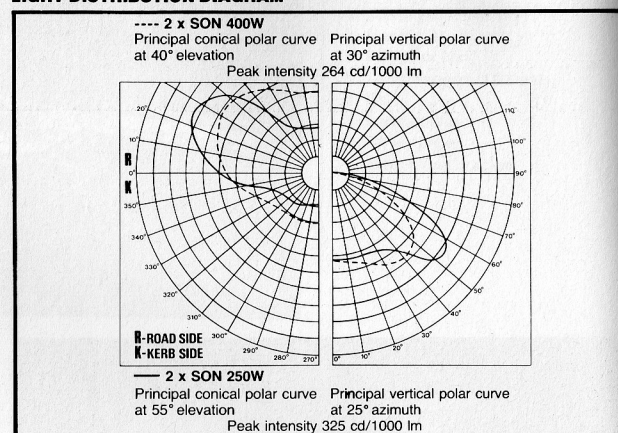
■ High-mast lantern with integral control gear for two 250/400W SON(T) lamps or two 400W mercury halide lamps with corrosion-resistant canopy and clear acrylic bowl. Similar to Philips SRP 013.

KEY TO ILLUSTRATION

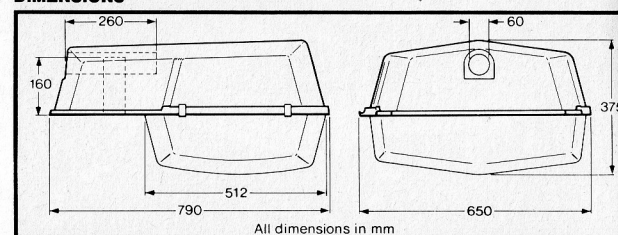
- 1 Canopy
- 2 Reflector
- 3 Lampholder
- 4 Gasket
- 5 Bowl
- 6 Toggle
- 7 Capacitor
- 8 Ballast
- 9 Cover plate



LIGHT DISTRIBUTION DIAGRAM



DIMENSIONS



LANTERN DATA

Specification	Total lamp Lumens LDL†	Lamp Volts V*	Lamp Current A*	Total Circuit Watts	Total Weight (kg)	Windage area Plan (m²)	Elevation (m²)
SRP 013 + 250W SON	48,000	100	3.0	560	34	0.45	0.20
SRP 013 + 250W SON/T	50,000	100	3.0	560	34	0.45	0.20
SRP 013 + 400W SON	90,000	105	4.4	880	37	0.45	0.20
SRP 013 + 400W SON/T	93,000	105	4.4	880	37	0.45	0.20
SRP 013 + 400W MBI/H	58,400	125	3.4	848	38	0.45	0.20

†After 2000 hours' burning.

*Per lamp.

ORDERING DATA

Catalogue No.	For lamp type
SRP 013 + 250W SON	250W SON or 250W SON/T
SRP 013 + 400W SON	400W SON or 400W SON/T
SRP 013 + 400W MBI/H	400W MBI/H

Please order lanterns in the form given in the following example:—

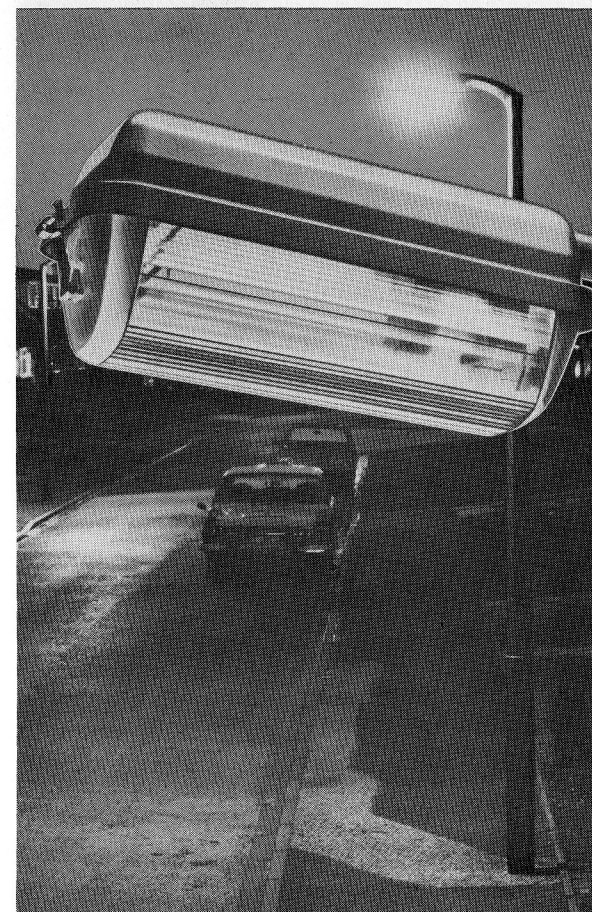
50 Philips lanterns SRP 013 + 400W MBI/H
50 Philips mercury halide lamps 400W MBI/H

Note that lamps should be ordered separately.

All lanterns are individually packed.

Note: Mercury halide lamps.
UK marking MBI = Philips
International marking HPI.

Lamp: Made in Holland.
Fitting: Made in Holland.



CI/SIB	(90.6)
UDC	696.6:628.971

MI 50

Lantern for Group B roadlighting

This aluminium lantern combines efficiency in operation with ease of installation and maintenance.

The lantern is designed for use with 35W Low Pressure Sodium (SOX) lamps, and is available with integral control gear (ignitor circuit) or loose control gear for mounting in the column base.

RANGE

MI 50-OO – Lantern without control gear.

MI 50-GO – Lantern with integral control gear.

A vandal-resistant bowl and a NEMA socket for photocell control are available, if required.

APPLICATIONS

The lantern is suitable for:

- Group B roadlighting
- Security lighting
- Residential lighting
- Car parks
- Hotel forecourts
- Shopping precincts
- Railway stations

Handbook Ref

3.1.11

To reorder this data sheet quote

7.78 PL 1774/2

Replaces

PL 1774/1

FEATURES

- Canopy is a high-pressure aluminium die casting to provide rigidity and durability.
- Integral control gear is mounted on a hinged gear tray for easy access.
- Ignitor circuit on integral gear lanterns gives fast re-ignition and low running costs.

MATERIALS & FINISH

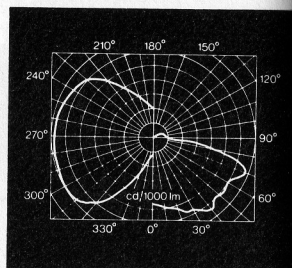
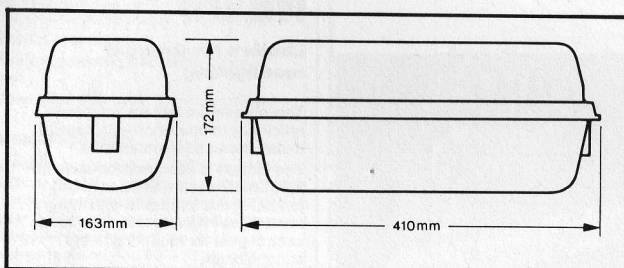
Canopy: High-pressure die cast aluminium LM6M.
Bowl: Vandal resistant material.
Bowl clips: Stainless steel.
Gear tray: Pre-coated sheet steel.

SPECIFICATION

Group B roadlighting lantern for loose or integral control gear. Integral gear (ignitor circuit) mounted on hinged gear tray. Fitted with vandal resistant bowl. Spigot entry accepts 34 mm O.D. spigot. Available fitted with NEMA socket. For use with 35W SOX lamp.

To specify state:

Group B roadlighting lantern for use with 35W SOX lamps and fitted with integral ignitor circuit on hinged gear tray or offering provision for remote mounting of control gear. Philips type MI 50 or similar.



LAMP & CONTROL GEAR DATA

Lamp type	Lumens	Lamp Volts	Lamp Current (A)	Total Circuit Watts	Cap	Ballast	Ignitor	PFC Capacitor
35W SOX	4300	70	0.6	48	BC	L6355	SX71	L4008/07

ORDERING DATA

Catalogue No.	Description	Weight (approx.)
*MI 50-OO	Lantern for 35W SOX	2.6 kg
MI 50-GO	Lantern with integral ignitor circuit for 35W SOX	4.8 kg

Add Suffix *1 to Catalogue No. for NEMA socket to be fitted.

Please order lanterns in the form given in the following example:

80 Philips lanterns MI 50-OO
 80 Philips low-pressure sodium lamps 35W SOX
 80 Philips ballasts L6355
 80 Philips ignitors SX71
 80 Philips PFC capacitors L4008/07.

Note that lamps and control gear for lanterns without integral gear, should be ordered separately.

Lanterns are individually packed

Lamp: Made in Great Britain
Lantern: Made in Great Britain
Ignitor: Made in Holland