

INDUSTRIAL FLUORESCENT LUMINAIRES

	Page
Streamlite Batten Popular	151
Streamlite Trough & Wire Guard	155
Streamlite Angle Reflectors	159
Streamlite Protector Attachments	161
Feature Trough & Wire Guard	165
Feature Angle Reflectors	169
Feature Battens	171

PROTECTED

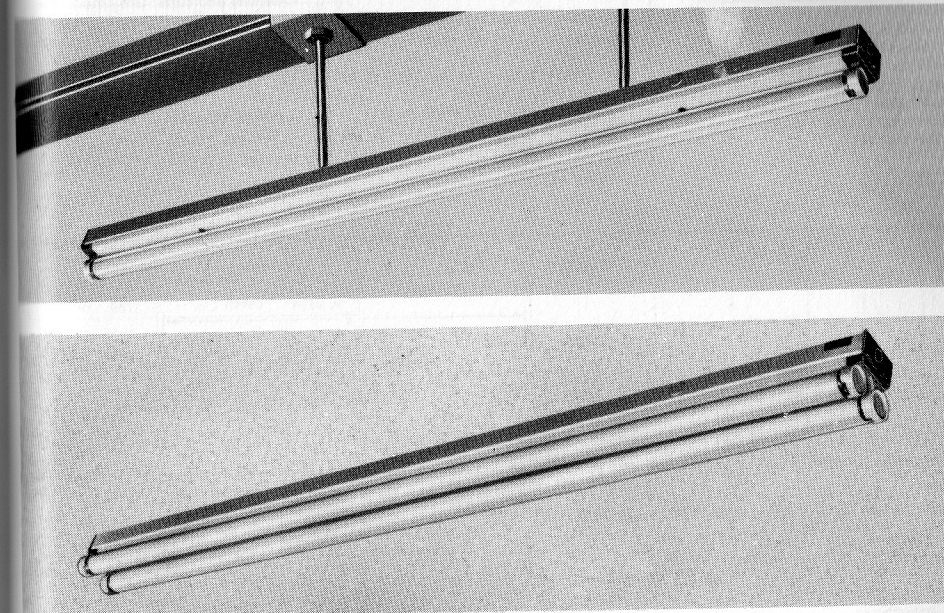
Commando GP	175
Commando A2420	179
Commando Flameproof	181

TRUNKING

Featureline Trunking	183
Litebeam Standard Trunking	187
Litebeam Flanged Trunking	191

STREAMLITE POPULAR

General-purpose luminaires
for fluorescent lamps



Streamlite luminaires may be used as battens, with trough or angle reflectors for industrial use, or with diffusers or prismatic controllers for commercial applications. The battens are attractively finished in white metalwork with mid-grey, rebated end caps. 125W 2400mm(8ft) packs are available in switchstart versions, or fitted with Philips E start ES06 electronic starters and low-loss ballasts.

RANGE

All available with one or two lamps.

Battens only:

40W 1200mm (4ft) switchstart
65W 1500mm (5ft) switchstart and starterless
85W 1800mm (6ft) starterless
125W 2400mm (8ft) switchstart

Packs with White 35 lamp(s):

20W 600mm (2ft) switchstart
40W 1200mm (4ft) switchstart
65W 1500mm (5ft) switchstart
85W 1800mm (6ft) starterless
125W 2400mm (8ft) switchstart
125W 2400mm(8ft) electronic start

APPLICATIONS

For use in normal indoor situations such as:-

- Small or large offices
- Shops and departmental stores
- Corridors
- Stock and store rooms
- Canteens
- Workshops

Handbook Ref.

2.2.1

To reorder this Data Sheet quote

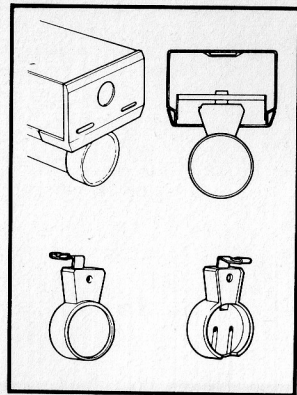
5.78.PL1713/2

Replaces

PL 8865/2.3

FEATURES

- Easily mounted on to a standard BS box which it covers completely.
- End caps feature 20mm (3/4 in.) knockouts for end conduit terminations and peg-and-socket locations to align luminaires mounted end-to-end.
- Low-loss ballasts are firmly attached with nuts and studs for efficient heat transfer. Terminals provide positive connections, with no screws to come loose.
- The steel channel and cover plate are Durawhite stoved finish for long service and retention of reflective properties.
- Miniature two-contact starter switches have tough insulated canisters and are neatly located in the side of the channel. In two-lamp luminaires, each starter switch is placed on the same side as the lamp it serves.
- PQ8E and PQ28E versions are fitted with Philips E start ES06 electronic starters to improve starting at low temperatures.



■ Spring-mounted, injection-moulded lampholders are fixed in seconds, and one person can re-lamp a luminaire from one end. Lampholders of two-lamp luminaires are individually mounted, so that one lamp can be removed without disturbing the other, and are keyed to prevent accidental cross-over.

SPECIFICATION

■ Type compliance with BS 4533 Part 1 Class I ordinary indoor.

To specify state:

Switchstart/ starterless types:-
Batten fluorescent lamp luminaires complying with BS 4533 2.2, with Durawhite finish, for metric and Imperial fixing, covering a BS box, similar to Philips Streamlite.

Electronic start types:-
As above, but low-loss ballast and ES06 electronic starter.

MATERIALS & FINISH

Channels and cover plates: Sheet steel, Durawhite stoved finish.

Channel end caps: Grey medium impact polystyrene.

Spring bi-pin lampholders: White urea mouldings fitted to plated spring steel supports.

RANGE OF OPERATION

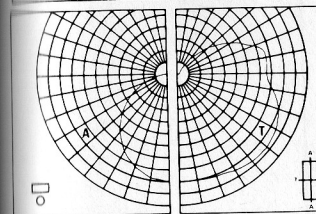
240V 50Hz.
Normal indoor conditions.

PHOTOMETRIC DATA

STREAMLITE BATTEN 1 LAMP

BATTEN WITHOUT ATTACHMENT

Mounting: SUSPENDED



CIE Flux Number 213955

SHR MAX (Square)	2.00
SHR MAX TR (Transverse)	2.67

ULORL	.24	Multiply by each Service Correction Factor
DLORL	.67	
LORL	.91	

Glare Data (IES)

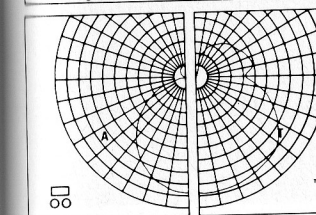
Flux Fraction Ratio	.36
ACG Classification	ACG2
For RI = 2.5 at SHR = NOM	BZ6
Luminous Area (sq cm)	
20W	450
40W	900
65W	1100
85W	1300
125W	1750

Measured BS 5225 Part 1 1975
Calculated I.E.S TR 2 and TR 10
Test No. A612 Dated: 76.08.26

STREAMLITE BATTEN 2 LAMP

BATTEN WITHOUT ATTACHMENT

Mounting: SUSPENDED



CIE Flux Number 234256

SHR MAX (Square)	1.86
SHR MAX TR (Transverse)	2.35

ULORL	.28	Multiply by each Service Correction Factor
DLORL	.65	
LORL	.93	

Glare Data (IES)

Flux Fraction Ratio	.43
ACG Classification	ACG2
For RI = 2.5 at SHR = NOM	BZ6
Luminous Area (sq cm)	
20W	600
40W	1150
65W	1450
85W	1750
125W	2300

Measured BS 5225 Part 1 1975
Calculated I.E.S TR 2 and TR 10
Test No. A617 Dated: 76.09.01

Photoset direct from Photometer tape output

Service Correction Factors

	20W 600 mm	40W 1200 mm	65W 1500 mm	85W 1800 mm	125W 2400 mm
Rating Factor	1.00	1.00	1.00	1.00	1.00
Amalgam Factor		1.00	1.00		
Ballast Lumen Factor SS	0.98	1.00	0.99		0.98
Ballast Lumen Factor XS			0.95	0.96	

Utilization Factors UF (F)

Room Reflectances				Room Index								
C	W	F		0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10		42	47	52	56	62	66	69	73	75
	30			35	40	45	49	56	60	64	68	72
	10			31	35	40	44	51	56	59	65	68
50	50	10		38	42	47	51	56	60	63	66	69
	30			33	37	41	45	51	55	58	63	66
	10			29	32	37	41	47	52	55	60	63
30	50	10		35	39	43	46	51	54	57	60	62
	30			31	34	38	42	47	51	53	57	60
	10			27	30	34	38	43	47	50	55	58
0	0	0		23	25	29	32	37	40	43	47	49

Multiply by each Service Correction Factor

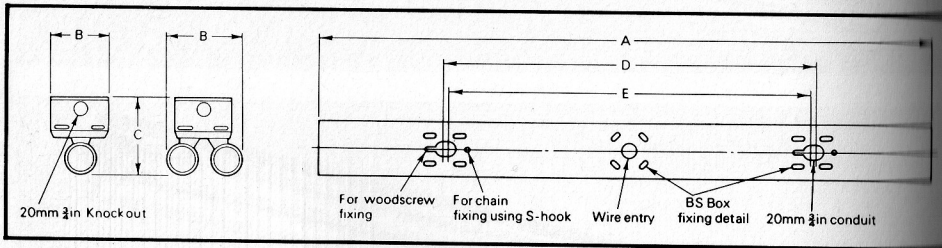
Service Correction Factors

	20W 600 mm	40W 1200 mm	65W 1500 mm	85W 1800 mm	125W 2400 mm
Rating Factor	1.00	1.00	1.00	1.00	1.00
Amalgam Factor		1.00	1.00		
Ballast Lumen Factor SS	0.98	1.00	0.99		0.98
Ballast Lumen Factor XS			0.95	0.96	

Utilization Factors UF (F)

Room Reflectances				Room Index								
C	W	F		0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10		45	50	55	59	65	69	72	76	78
	30			39	43	49	53	60	64	67	72	75
	10			34	38	44	48	55	60	63	68	72
50	50	10		41	45	50	54	59	62	65	68	71
	30			36	40	45	49	54	58	61	65	68
	10			32	36	40	45	51	55	58	63	66
30	50	10		38	41	45	48	53	56	59	62	64
	30			33	36	41	44	49	53	56	59	62
	10			30	33	37	41	46	50	53	57	60
0	0	0		26	28	31	35	39	42	45	48	51

Multiply by each Service Correction Factor



DIMENSIONS, WEIGHTS & ELECTRICAL DATA

Catalogue numbers	Rating	Overall length (A)	Fixing centres (E/D)	Weight with Lamp(s)	Electrical characteristics	Minimum Power Factor		
Packs (battens with White 35 lamps)	Battens only types	mm/in.	mm/in.	kg/lb.	Circuit Watts (running)	Circuit current (Amperes)		
Switchstart types								
P2	—	1-lamp 20W 600mm (2ft)	624/24-6	460/18	2-0/4-4	30-0	0-37	0-33
P22	—	2-lamp 20W 600mm (2ft)	624/24-6	460/18	3-9/7-8	51-5	0-23	0-66
P4	S4	1-lamp 40W 1200mm (4ft)	1234/48-6	600/24	3-0/6-6	51-5	0-23	0-66
P24	S24	2-lamp 40W 1200mm (4ft)	1234/48-6	600/24	4-3/9-5	103	0-46	0-66
P5	S5	1-lamp 65W 1500mm (5ft)	1534/60-5	600/24	4-2/9-4	77	0-34	0-66
P25	S25	2-lamp 65W 1500mm (5ft)	1534/60-5	600/24	6-6/14-5	154	0-68	0-66
P8	S8	1-lamp 125W 2400mm (8ft)	2409/95	1200/48	5-4/11-9	134	0-94	0-66 LDD
P28	S28	2-lamp 125W 2400mm (8ft)	2409/95	1200/48	8-4/18-5	268	1-88	0-66 LDD
Electronic start types								
PQ8E	—	1-lamp 125W 2400mm (8ft)	2409/95	1200/48	—	140	0-94	0-66 LDD
PQ28E	—	2-lamp 125W 2400mm (8ft)	2409/95	1200/48	—	280	1-88	0-66 LDD
Starterless types								
—	SQ5	1-lamp 65W 1500mm (5ft)	1534/60-5	600/24	4-4/9-7	77	0-33	0-0
—	SQ25	2-lamp 65W 1500mm (5ft)	1534/60-5	600/24	6-8/15-0	154	0-66	0-0
PQ6	SQ6	1-lamp 85W 1800mm (6ft)	1800/71	600/24	4-6/10-1	96	0-46	0-0
PQ26	SQ26	2-lamp 85W 1800mm (6ft)	1800/71	600/24	7-1/15-6	192	0-92	0-0

Overall width (B): (one lamp) 76mm (3in.)
(two lamps) 98mm (3-8in.)

Overall depth (C): 100mm (4in.)

CIRCUIT COMPONENTS

Catalogue number	Ballast catalogue number	Starter catalogue number	Capacitor
Switchstart			
P2	BCS20	S10	none
P22	BCS40	2 x S2	3.5 mfd 10% 250V
P4, S4	BCS40	S10	3.5 mfd 10% 250V
P24, S24	2 x BCS40	2 x S10	2 x 3.5 mfd 10% 250V
P5, S5	BCS65	S10	5.5 mfd 10% 250V
P25, S25	2 x BCS65	2 x S10	2 x 5.5 mfd 10% 250V
P8, S8	BBS125	S18	7.2 mfd 5% 440V
P28, S28	2 x BBS125	2 x S18	2 x 7.2 mfd 5% 440V
Electronic start			
PQ8E	1 x BCS125	ES06	7.2 mfd 5% 440V
PQ28E	2 x BCS125	ES06	7.2 mfd 5% 440V
Starterless			
SQ5	BBX65	none	8.4 mfd 5% 250V
SQ25	2 x BBX65	none	2 x 8.4 mfd 5% 250V
PQ6, SQ6	BBX85	none	8.4 mfd 5% 250V
PQ26, SQ26	2 x BBX85	none	2 x 8.4 mfd 5% 250V



ORDERING DATA

Rating	Circuit	Catalogue Number	
		Pack (battens with White 35 lamps)	Battens only
1-lamp 20W 600mm (2ft)	Switch	P2	—
2-lamp 20W 600mm (2ft)	Switch	P22	—
1-lamp 40W 1200mm (4ft)	Switch	P4	S4
2-lamp 40W 1200mm (4ft)	Switch	P24	S24
1-lamp 65W 1500mm (5ft)	Switch	P5	S5
1-lamp 65W 1500mm (5ft)	Starterless	—	SQ5
2-lamp 65W 1500mm (5ft)	Switch	P25	S25
2-lamp 65W 1500mm (5ft)	Starterless	—	SQ25
1-lamp 85W 1800mm (6ft)	Starterless	PQ6	SQ6
2-lamp 85W 1800mm (6ft)	Starterless	PQ26	SQ26
1-lamp 125W 2400mm (8ft)	Switch	P8	S8
2-lamp 125W 2400mm (8ft)	Switch	P28	S28
1-lamp 125W 2400mm (8ft)	E start	PQ8E	—
2-lamp 125W 2400mm (8ft)	E start	PQ28E	—

Battens and packs are supplied packed individually.

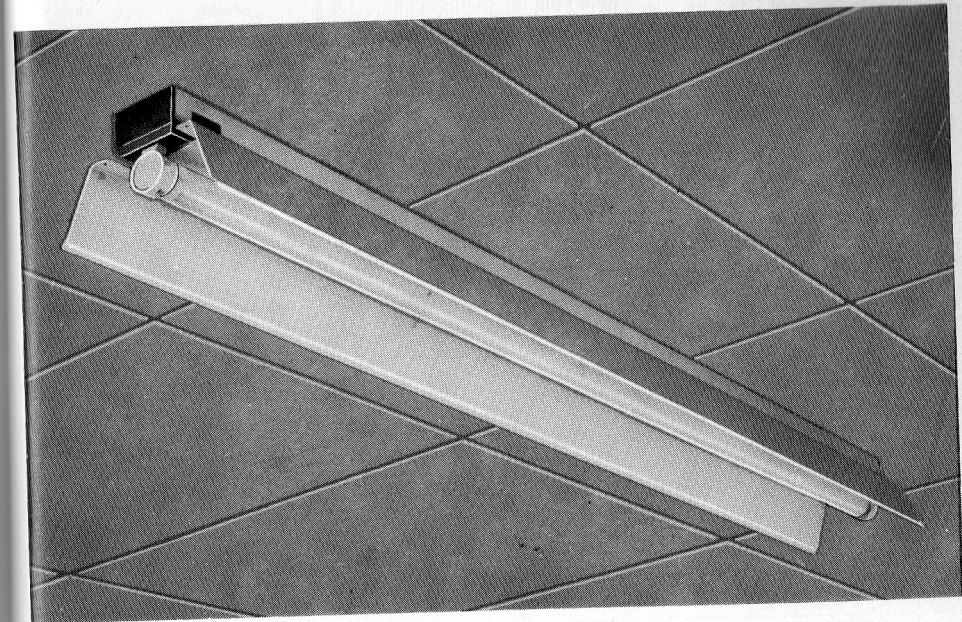
Please order in the form given in the following example:
50 Phillips luminaires SQ25.

Made in Great Britain.

CI/SIB	(63.1)
UDC	696.6:628.972

STREAMLITE POPULAR

Trough Reflectors & Optional Wireguards



The Durawhite stoved finish open-ended trough reflectors are easily fitted to the Streamlite Popular battens. One width fits both one- and two-lamp versions. Slots give a small amount of upward light, and clips are available to make a neat join between reflectors mounted end-to-end.

Optional wireguards made from stout galvanised steel are available for certain starterless ratings only.

RANGE

Trough reflectors are available to fit one- and two-lamp versions of the Streamlite range of battens and packs in sizes 1200mm (4ft), 1500mm (5ft), 1800mm (6ft) and 2400mm (8ft). Wireguards can be supplied for 1500mm (5ft) and 1800mm (6ft) reflectors mounted on starterless luminaires only.

APPLICATIONS

- Factories
 - Workshops and repair areas
 - Instrument reading areas
 - Stock and store rooms.
- The wireguard provides additional protection in areas where the lamp may be exposed to damage.

Handbook Ref.

2.21/1

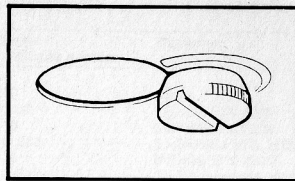
To reorder this Data Sheet quote 6.77 PL 1714

Replaces PL 8865/2.9 PL 9752

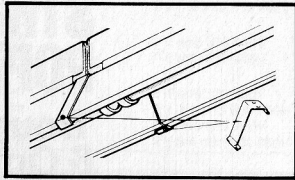
FLUORESCENT LUMINAIRE

FEATURES

- High-quality Durawhite stoved finish for high reflectance and long service life.
- Keyhole slot fixing for easy attachment, with detent for positive location once the fixing screws have been tightened.
- Upward light slots to reduce 'tunnel' effect.
- Optional clips to give a simple, neat join between reflectors mounted end-to-end (Type RJ1).
- Optional wireguards for additional protection of lamp.
- Wireguards cannot be fitted to luminaires mounted end-to-end.



Keyhole fitting

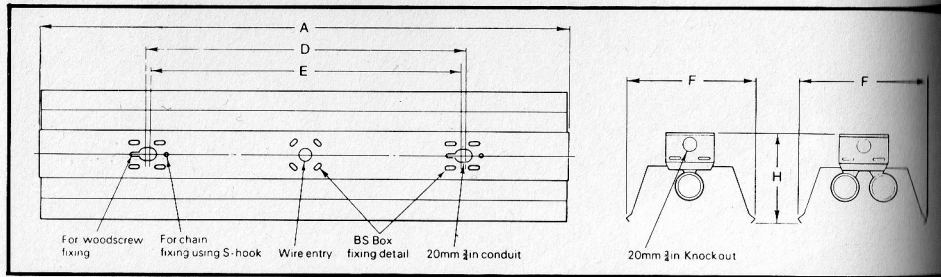


Type RJ1 clip

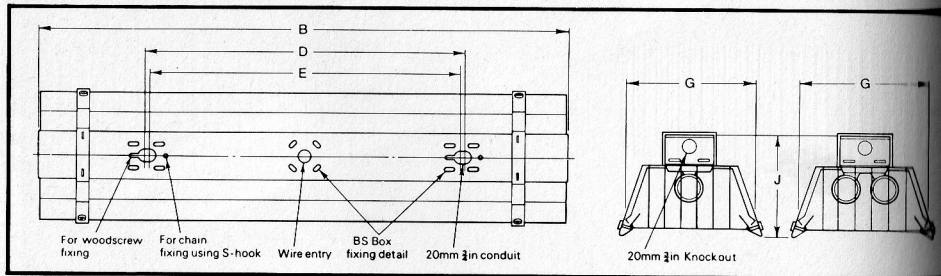
MATERIALS & FINISH

- Reflector:** Sheet steel, Durawhite stoved finish.
- Reflector joining clip:** Sheet steel, Durawhite stoved finish.
- Wireguard:** Mild steel wire, galvanised.
- Wireguard fixing bracket:** Sheet steel, Durawhite stoved finish.

Fixing Details – Reflector



Fixing Details – Wireguard



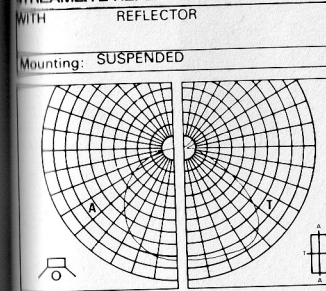
DIMENSIONS & WEIGHTS

Pack (batten with White 35 lamp)	Catalogue numbers			Wire-guard	Weight with lamp(s) reflector & wireguard (kg/lb)	Overall length		Fixing centres (E/D) (mm/in.)
	Batten only	Slotted open-end reflector	Weight with lamp(s) reflector (kg/lb)			With reflector (A) (mm/in.)	With reflector & wireguard (B) (mm/in.)	
P4	S4	R4	—	—	4.9/10.8	1234/48.6	—	800/34
P24	S24	R4	—	—	6.7/14.7	1234/48.6	—	800/34
P5	S5	R5	—	—	6.6/14.5	1534/60.4	—	800/34
—	SQ5	R5	G5	—	8.4/18.5	1534/60.4	1549/60.9	800/34
P25	S25	R5	—	—	9.0/19.8	1534/60.4	—	800/34
—	SQ25	R5	G5	—	10.5/23.1	1534/60.4	1549/60.9	800/34
PQ6	SQ6	R6	G6	—	7.5/16.5	1800/71	1815/71.5	800/34
PQ26	SQ26	R6	G6	—	10.0/22.0	1800/71	1815/71.5	800/34
P8	S8	R8	—	—	9.3/20.5	2409/95	—	1200/48
P28	S28	R8	—	—	12.3/27.1	2409/95	—	1200/48
PQ8E	—	R8	G8	—	9.3/20.5	2409/95	2424	1200/48
PQ78E	—	R8	G8	—	12.3/27.1	2409/95	2424	1200/48

All types:
 Width with reflector (F) 190mm (7.5in.)
 Width with reflector and wireguard (G) 223mm (8.8in.)
 Depth with reflector (H) 132mm (5.2in.)
 Depth with reflector and wireguard (J) 147mm (5.8in.)

PHOTOMETRIC DATA

STREAMLITE REFLECTOR 1 LAMP



CIE Flux Number 356276

SHR MAX	(Square)	1.92
SHR MAX TR	(Transverse)	2.27

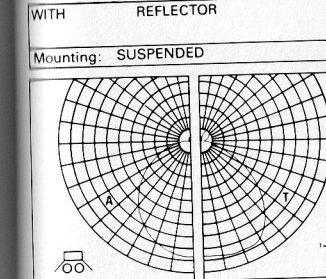
ULORL	.05	Multiply by each Service Correction Factor
DLORL	.79	
LORL	.84	

Glare Data (IES)

Flux Fraction Ratio	.06		
ACG Classification	ACG1		
For RI = 2.5 at SHR = NOM	BZ4		
Luminous Area (sq cm)			
40W	65W	85W	125W
2200	2750	3300	4400

Measured: BS 5225 Part 1 1975
 Calculated: I.E.S. TR 2 and TR 10
 Test No: A614 Dated: 76.08.26

STREAMLITE REFLECTOR 2 LAMP



CIE Flux Number 356072

SHR MAX	(Square)	1.74
SHR MAX TR	(Transverse)	1.99

ULORL	.08	Multiply by each Service Correction Factor
DLORL	.74	
LORL	.82	

Glare Data (IES)

Flux Fraction Ratio	.11		
ACG Classification	ACG1		
For RI = 2.5 at SHR = NOM	BZ4		
Luminous Area (sq cm)			
40W	65W	85W	125W
2200	2750	3300	4400

Measured: BS 5225 Part 1 1975
 Calculated: I.E.S. TR 2 and TR 10
 Test No: A618 Dated: 76.09.01

Photoset direct from Photometer tape output.

Service Correction Factors

		40W 1200mm	65W 1500mm	85W 1800mm	125W 2400mm
Rating Factor		1.00	1.00	1.00	1.00
Amalgam Factor			1.09		
Ballast Lumen Factor SS		1.00	0.99		0.98
Ballast Lumen Factor XS			0.95	0.96	

Utilization Factors UF (F)

Room Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10	51	55	60	64	69	73	75	78	80
		30	46	50	55	59	65	69	72	75	77
		10	42	46	51	55	62	66	69	73	75
50	50	10	50	53	58	62	67	70	72	75	77
		30	45	48	53	58	63	67	69	73	75
		10	42	45	50	54	60	64	67	71	73
30	50	10	48	52	56	60	65	68	70	73	74
		30	44	47	52	56	62	65	67	71	73
		10	41	44	49	53	59	63	65	69	71
0	0	0	39	42	47	51	56	60	62	66	68

Multiply by each Service Correction Factor

Service Correction Factors

		40W 1200mm	65W 1500mm	85W 1800mm	125W 2400mm
Rating Factor		1.00	1.00	1.00	1.00
Amalgam Factor			1.11		
Ballast Lumen Factor SS		1.00	0.99		0.98
Ballast Lumen Factor XS			0.95	0.96	

Utilization Factors UF (F)

Room Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10	45	53	58	61	67	70	72	75	77
		30	39	48	53	57	62	66	69	73	75
		10	35	44	49	53	59	63	66	70	73
50	50	10	43	51	55	59	64	67	69	72	74
		30	38	46	51	55	60	64	67	70	72
		10	34	43	48	52	57	61	64	68	70
30	50	10	41	49	53	56	61	64	66	69	71
		30	37	45	50	53	58	62	64	67	69
		10	34	42	47	50	56	59	62	66	68
0	0	0	31	39	44	47	52	56	59	62	64

Multiply by each Service Correction Factor

ORDERING DATA

Batten length	Catalogue number
Slotted open-end reflector	
1200mm (4ft)	R4
1500mm (5ft)	R5
1800mm (6ft)	R6
2400mm (8ft)	R8
Wireguards*	
1500mm (5ft)	G5
1800mm (6ft)	G6
Reflector joining clip	
—	RJ1

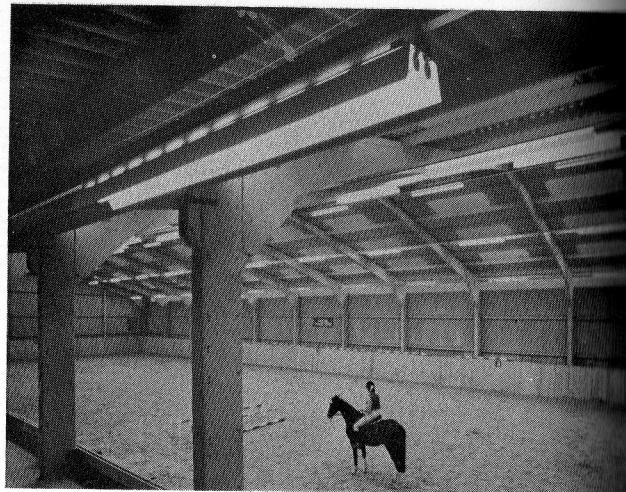
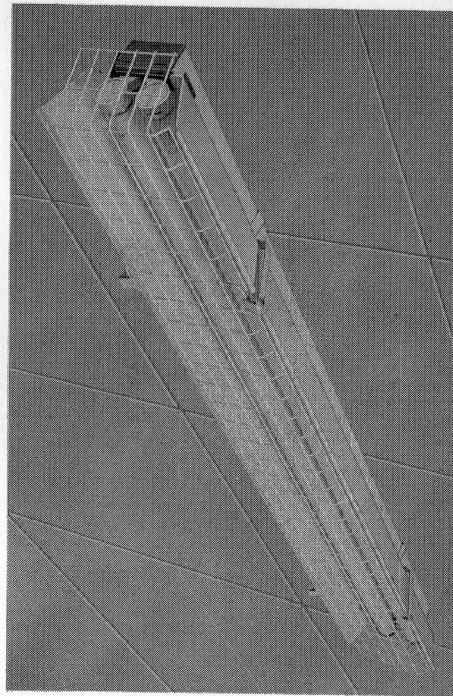
Packing quantities:

Reflectors – 5 per carton
Wireguards – 5 per carton
Reflector joining clip — To order.

*Starterless luminaires only

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

50 Philips luminaires SQ6
50 Philips trough reflectors R6
50 Philips wireguards G6
50 Philips reflector joining clips RJ1.



Made in Great Britain.

CI/SIB	(63.1)
UDC	696.6:628.972

STREAMLITE POPULAR Angle Reflectors

5

Durawhite stoved finish open-end angle reflectors are made from sheet steel and are easily fitted to the Streamlite Popular battens to give an angled light distribution.

RANGE

Angle reflectors are available to fit the Streamlite range of battens and packs in sizes 1500mm (5ft), 1800mm (6ft) and 2400mm (8ft). One width fits both one- and two-lamp versions.

APPLICATIONS

For use in normal indoor situations of a commercial or industrial nature where an angled light distribution is required, such as:

- Lighting for blackboards or wall charts.
- Cabinet type instrument panels.
- Task lighting to supplement general lighting.

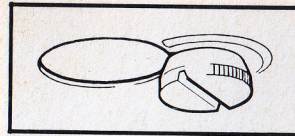


FLUORESCENT LUMINAIRE

Handbook Ref.	2.2.1/2
To reorder this Data Sheet quote	6.77 PL 1715
Replaces	PL 9623/19

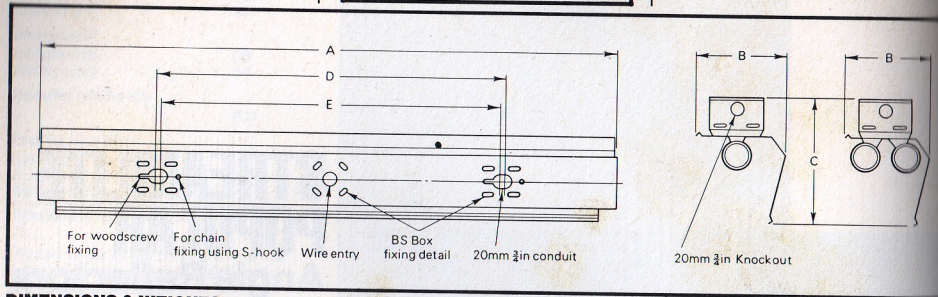
FEATURES

- High-quality Durawhite stoved finish for high reflectance and long service.
- Keyhole slot fixing for easy attachment, with detent for positive location once the fixing screws have been tightened.



MATERIALS & FINISH

Angle reflectors: Sheet steel, Durawhite stoved finish.



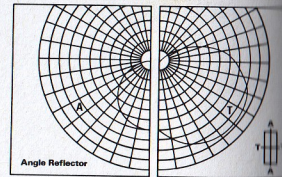
DIMENSIONS & WEIGHTS

Pack (batten with White 35 lamp)	Catalogue numbers Batten only	Open-end angle reflector	Weight with lamp(s) & reflector (kg/lb)	Overall length (A) (mm/in.)	Fixing centres (E/D) (mm/in.)
P5	S5	AR5	6.1/13.4	1534/60.4	600/24
—	SQ5	AR5	6.3/13.9	1534/60.4	600/24
P25	S25	AR5	8.5/18.7	1534/60.4	600/24
—	SQ25	AR5	8.7/19.4	1534/60.4	600/24
PQ6	SQ6	AR6	6.8/15.0	1800/71	600/24
PQ26	SQ26	AR6	9.4/20.7	1800/71	600/24
P8	S8	AR8	8.4/18.5	2409/95	1200/48
P28	S28	AR8	11.4/25.1	2409/95	1200/48
PQ8E	—	AR8	8.4/18.5	2409/95	1200/48
PQ28E	—	AR8	11.4/25.1	2409/95	1200/48

All types: Overall width (B): 115mm (4.5in.) Overall depth (C): 170mm (6.7in.)



POLAR CURVES



ORDERING DATA

Batten length	Catalogue numbers Batten Reflector
1500mm (5ft)	P5/S5 AR5
1500mm (5ft)	SQ5 AR5
1500mm (5ft)	P25/S25 AR5
1500mm (5ft)	SQ25 AR5
1800mm (6ft)	PQ6/SQ6 AR6
1800mm (6ft)	PQ26/SQ26 AR6
2400mm (8ft)	P8/S8 AR8
2400mm (8ft)	P28/S28 AR8

Packing quantity – 5 per carton.

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

- 50 Philips Streamlite Luminaires SQ26
- 50 Philips angle reflectors AR6

Made in Great Britain



Commando GP fitted into the handrail recess on the public stairways to the roof of the new terminal buildings at Jersey Airport.

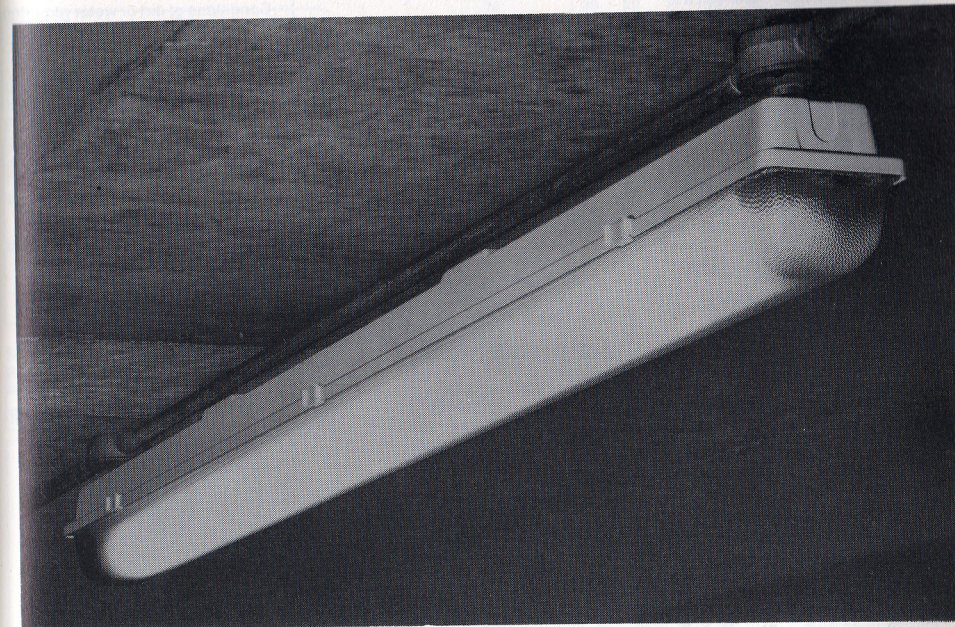


E.T. Planner widespread luminaires in the new passenger terminal at Jersey Airport.

CI/SIB	(63.8)
UDC	696.6:628.978

STREAMLITE POPULAR Protector Attachment

5



For use in exacting environments (IP23)

The Protector extends the uses of the Streamlite Popular batten range to include indoor applications of a more exacting nature than normally encountered in commerce and light industry, and also suits some outdoor applications. It is constructed from inert glass-fibre composites with a clear one-piece acrylic cover.

RANGE

Available to fit one- and two-lamp versions of the Streamlite starterless 65W 1500mm (5ft) batten.

APPLICATIONS

The Streamlite Popular batten with Protector enclosure is suitable for many indoor sites where dirt, water, or some corrosive vapours are present. It can be used in food processing areas where it is required

that lamps are protected against accidental damage, and outdoors in semi-exposed situations such as parking buildings, loading bays and under canopies.

NOTE: The batten is not suitable for flammable atmospheres (Zone 1, Zone 2).

FLUORESCENT LUMINAIRE

Handbook Ref.	2.21/3
To reorder this Data Sheet quote	6.77 PL 1716
Replaces	8865/13.1

FEATURES

- Easy to install and service – the lightweight top housing is installed before the batten, which is simply attached to the top housing by two large-headed screws.
- One-piece resin-impregnated glass-fibre top housing for strength, corrosion resistance and light weight.
- Drill starts are provided internally for fixing, and knockouts for conduit and cable entry. The absence of grommets and bungs maintains integrity; and all entries are sealed until required for use.
- One-piece clear acrylic moulded cover with internal pin-spot markings to give a pleasing appearance.
- Positive sealing between top housing and cover by means of a gasket fitted into a water-shedding U-section in the top housing.
- Cover retained securely by six snap-fix fastenings attached to top housing.
- Choice of fixing methods to suit application. Each enclosure is supplied with conduit sealing kits and full fixing instructions.

GUIDE TO IP CLASSIFICATION

The enclosures of luminaires protected against dust and/or water are now classified by IP numbers. These indicate tests passed, and replace terms like 'Rainproof'.
The IP classification enables a specifier to select a luminaire appropriate for the site conditions of dust and water. The luminaire chosen should also withstand corrosion, and should be suitably rated (ta rating) for the ambient air temperature.

MATERIALS & FINISH

- Batten:**
Channel and cover plate: Sheet steel, Durawhite stoved finish.
Channel end caps: Grey medium-impact polystyrene mouldings.
Sprung bi-pin lampholders: white urea mouldings on plated steel supports.
Enclosure:
Top housing: Grey resin-impregnated glass-fibre one-piece pressure moulding with acetel fasteners and polyurethane gasket.
Cover: Clear acrylic one-piece moulding with internal pin-spot design.

SPECIFICATION

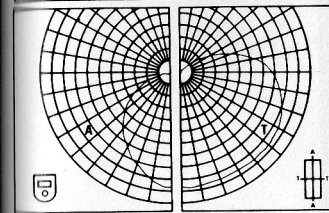
- Type compliance with BS 4533 Class I.
 - Resin-impregnated glass-fibre moulding with clear acrylic cover, with the degree of enclosure IP23.
- To specify state:**
 ■ Batten luminaire with protective enclosure to IP23, the diffuser to be acrylic and the fasteners to be non-metallic, similar to Phillips Streamlite Protector.

RANGE OF OPERATION

240V 50Hz, over the ambient temperature range -5°C to 25°C (single lamp 30°C) with occasional increases not exceeding 5°C.
 Conditions of dirt or water requiring the degree of enclosure IP23.

PHOTOMETRIC DATA STREAMLITE PROTECTOR 1 LAMP

WITH NARROW PROTECTOR
ENCLOSURE
Mounting: SUSPENDED



CIE Flux Number 193548

SHR MAX	(Square)	1.85
SHR MAX TR	(Transverse)	2.50

ULORL	.14	Multiply by each Service Correction Factor
DLORL	.59	
LORL	.73	

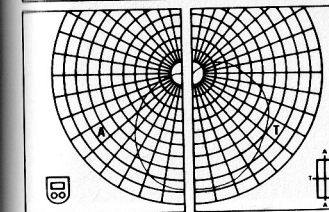
Glare Data (IES)

Flux Fraction Ratio	.24
ACG Classification	ACG2
For RI = 2.5 at SHR = NOM	BZ6
Luminous Area (sq cm)	65W 1964

Measured: BS 5225 Part 1 1975
 Calculated: I.E.S. TR 2 and TR 10
 Test No: A613 Dated: 76.08.26

STREAMLITE PROTECTOR 2 LAMP

WITH WIDE PROTECTOR
ENCLOSURE
Mounting: SUSPENDED



CIE Flux Number 203647

SHR MAX	(Square)	1.72
SHR MAX TR	(Transverse)	2.11

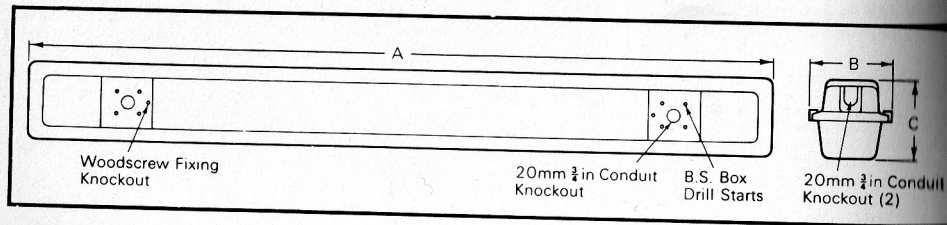
ULORL	.09	Multiply by each Service Correction Factor
DLORL	.55	
LORL	.64	

Glare Data (IES)

Flux Fraction Ratio	.16
ACG Classification	ACG2
For RI = 2.5 at SHR = NOM	BZ6
Luminous Area (sq cm)	65W 2640

Measured: BS 5225 Part 1 1975
 Calculated: I.E.S. TR 2 and TR 10
 Test No: A620 Dated: 76.09.02

Photoset direct from Photometer tape output.



DIMENSIONS & WEIGHTS

Catalogue numbers Batten only	Enclosure only	Overall length A	Overall width B	Overall depth C	Weight complete including lamp(s) (kg/lb)
SQ5	W5	1610mm	122mm	125mm	5.9/13.0
SQ25	W25	1610mm	164mm	125mm	8.3/18.3

Service Correction Factors

			65W 1500 mm		
Rating Factor			1.00		
Amalgam Factor					
Ballast Lumen Factor SS					
Ballast Lumen Factor XS			0.95		

Utilization Factors UF (F)

Room Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10	35	38	42	46	50	54	56	59	62
	30		29	33	37	40	46	49	52	56	58
	10		25	28	32	36	41	45	48	53	56
50	50	10	32	35	39	42	47	50	52	55	57
	30		28	31	34	38	43	46	49	52	55
	10		24	27	31	34	39	43	46	49	52
30	50	10	30	33	36	39	43	46	48	51	53
	30		26	29	32	35	40	43	45	49	51
	10		23	25	29	32	37	40	43	46	49
0	0	0	21	22	25	28	32	35	38	41	44

Multiply by each Service Correction Factor

Service Correction Factors

			65W 1500mm		
Rating Factor			1.00		
Amalgam Factor					
Ballast Lumen Factor SS					
Ballast Lumen Factor XS			0.95		

Utilization Factors UF (F)

Room Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10	31	35	39	42	46	49	51	54	56
	30		26	30	35	38	42	46	48	51	54
	10		23	27	31	34	39	42	45	49	52
50	50	10	29	33	37	40	44	46	48	51	53
	30		25	29	33	36	40	43	46	49	51
	10		22	26	30	33	37	41	43	46	49
30	50	10	28	31	35	37	41	44	46	48	50
	30		24	28	31	34	38	41	43	46	48
	10		21	25	29	32	36	39	41	44	47
0	0	0	19	22	26	29	32	35	38	40	43

Multiply by each Service Correction Factor



ORDERING DATA

Rating & circuit	Catalogue numbers	
	Batten only	Enclosure only
1 x 65W 1500mm (5ft) starterless	SQ5	W5
2 x 65W 1500mm (5ft) starterless	SQ25	W25

Spare

Clear acrylic cover for W5 – Cat. No. A5106
 Clear acrylic cover for W25 – Cat. No. A5107

Battens, enclosures and spare covers are individually cartoned.
 Lamp should be ordered separately

Please order in the form given in the following example:

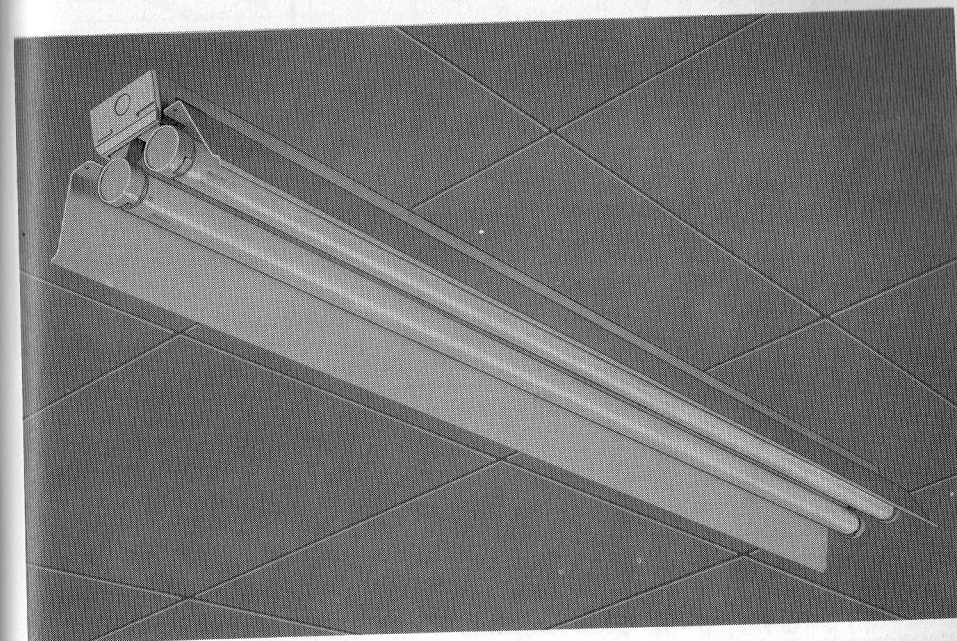
50 Philips SQ5 Streamlite battens
 50 Philips W5 Protector enclosures

Made in Great Britain.

CI/SIB	(63.1)
UDC	696.6:628.972

FEATURE Trough Reflectors

Including information on optional wire guards available for certain ratings only.



The Durawhite stoved open-ended trough reflectors are easily fitted to the high-quality Feature battens. One width fits both one- and two-lamp versions. Slots give a small amount of upward light, and clips are available to make a neat join between reflectors mounted end-to-end. Optional wire guards are made from stout galvanised steel wire.

RANGE

Trough reflectors are available to fit one- and two-lamp versions of the Feature range in sizes 1200mm (4ft), 1500mm (5ft), 1800mm (6ft) and 2400mm (8ft). Wire guards can be supplied for the 1500mm (5ft) and 1800mm (6ft) luminaires only.

APPLICATIONS

For use in normal indoor applications of an industrial or utility nature, such as:

- Factories
- Workshops and repair areas
- Instrument reading areas
- Stock and store rooms.

The wire guard provides additional protection in areas where the lamp may be exposed to damage.

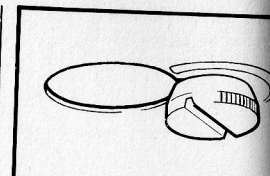
Handbook Ref.	2.21/4
To reorder this Data Sheet quote	PL1720/1
Replaces	PL1720

FEATURES

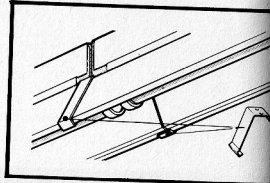
- High-quality Durawhite stoved finish for high reflectance and long service.
- Keyhole slot fixing for easy attachment, with detent for positive location once the fixing screws have been tightened.
- Upward light slots to reduce 'tunnel' effect.
- Optional clips to give a simple, light-tight seal between reflectors mounted end-to-end. (Type RJ1).
- Optional wireguards for additional protection of lamp. Wireguards cannot be fitted to luminaires mounted end-to-end.

MATERIALS & FINISH

- Reflector:** Sheet steel, Durawhite stoved finish.
- Reflector joining clip:** Sheet steel, Durawhite stoved finish.
- Wireguard:** Mild steel wire, galvanised.
- Wireguard fixing bracket:** Sheet steel, Durawhite stoved finish.

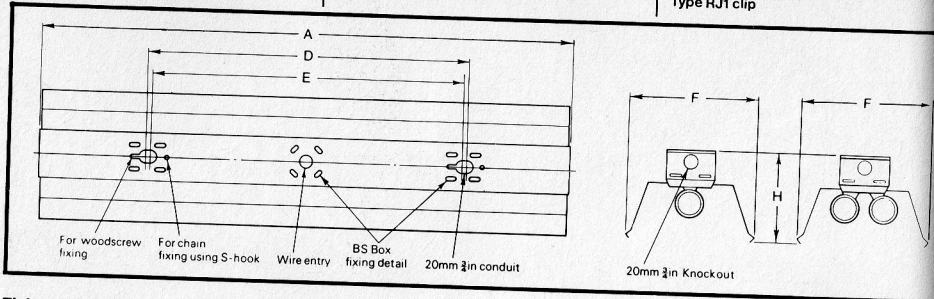


Key slot fitting

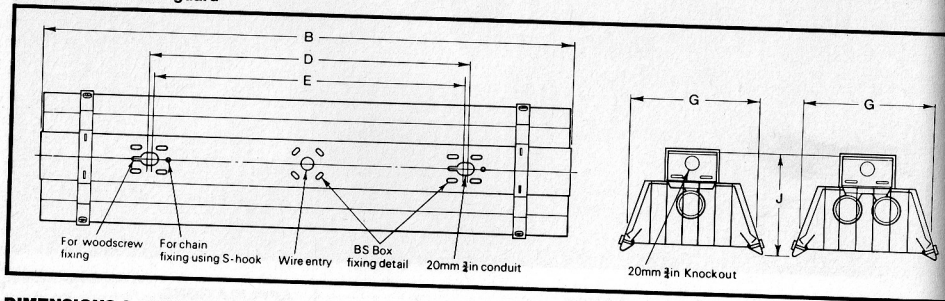


Type RJ1 clip

Fixing Details - Reflector



Fixing Details - Wireguard



DIMENSIONS & WEIGHTS

Batten only	Catalogue numbers		Weight with lamp(s) & reflector (kg/lb)	Weight with reflector & wire guard (kg/lb)	Overall length		Fixing centres (mm/in.) D/E
	Slotted open-end reflector only	Wire guard only			With reflector (mm/in.) A	With reflector & wire guard (mm/in.) B	
FSQ4	R4	—	5.3/11.7	—	1234/48.6	—	600/24
FSQ24	R4	—	7.7/16.9	—	1234/48.6	—	600/24
FSQ5	R5	G5	6.7/14.8	8.4/18.5	1534/60.4	1549/60.9	600/24
FSQ25	R5	G5	9.2/20.3	10.5/23.1	1534/60.4	1549/60.9	600/24
FSQ6	R6	G6	7.5/16.5	9.3/20.5	1800/71	1815/71.5	600/24
FSQ26	R6	G6	10.0/22.0	11.4/25.1	1800/71	1815/71.5	600/24
FSQ85	R8	G8	10.4/22.9	12.8/28.1	2409/95	2424/95.5	1200/48
FSQ285	R8	G8	14.1/30.9	16.5/36.3	2409/95	2424/95.5	1200/48
FSQ8E	R8	G8	11.2/24.7	13.6/29.9	2409/95	2424/95.5	1200/48
FSQ28E	R8	G8	15.9/35.2	18.3/40.26	2409/95	2424/95.5	1200/48

Width with reflector (one or two lamps) F: 190/7.48

Width with reflector and wireguard (one or two lamps) G: 223/8.78

Depth with reflector H: 132/5.20

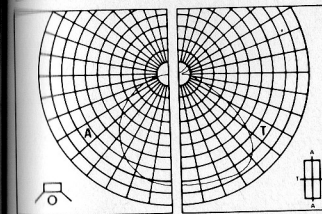
Depth with reflector and wireguard J: 147/5.78

PHOTOMETRIC DATA

FEATURE 1 LAMP

WITH REFLECTOR

Mounting: SUSPENDED



CIE Flux Number 356276

SHR MAX	(Square)	1.92
SHR MAX TR	(Transverse)	2.27

ULORL	.05	Multiply by each Service Correction Factor
DLORL	.79	
LORL	.84	

Glare Data (IES)

Flux Fraction Ratio	.06
ACG Classification	ACG1
For RI = 2.5 at SHR = NOM	BZ4
Luminous Area (sq cm)	
40W	2200
65W	2750
85W	3300
85W	4400
125W	4400

Measured: BS 5225 Part 1 1975

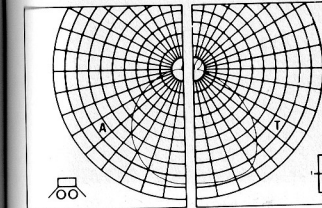
Calculated: I.E.S. TR 2 and TR 10

Test No: A614 Dated: 76.08.26

FEATURE 2 LAMP

WITH REFLECTOR

Mounting: SUSPENDED



CIE Flux Number 356072

SHR MAX	(Square)	1.74
SHR MAX TR	(Transverse)	1.99

ULORL	.08	Multiply by each Service Correction Factor
DLORL	.74	
LORL	.82	

Glare Data (IES)

Flux Fraction Ratio	.11
ACG Classification	ACG1
For RI = 2.5 at SHR = NOM	BZ4
Luminous Area (sq cm)	
40W	2200
65W	2750
85W	3300
85W	4400
125W	4400

Measured: BS 5225 Part 1 1975

Calculated: I.E.S. TR 2 and TR 10

Test No: A618 Dated: 77.09.01

Photoset direct from Photometer tape output.

Service Correction Factors

	40W 1200mm	65W 1500mm	85W 1800mm	85W 2400mm	125W 2400mm
Rating Factor	1.00	1.00	1.00	1.00	1.00
Amalgam Factor					
Ballast Lumen Factor SS					
Ballast Lumen Factor XS	1.02	0.95	0.96	0.99	1.00

Utilization Factors UF (F)

Room Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10	51	55	60	64	69	73	75	78	80
		30	46	50	55	59	65	69	72	75	77
		10	42	46	51	55	62	66	69	73	75
50	50	10	50	53	58	62	67	70	72	75	77
		30	45	48	53	58	63	67	69	73	75
		10	42	45	50	54	60	64	67	71	73
30	50	10	48	52	56	60	65	68	70	73	74
		30	44	47	52	56	62	65	67	71	73
		10	41	44	49	53	59	63	65	69	71
0	0	0	39	42	47	54	56	60	62	66	68

Multiply by each Service Correction Factor

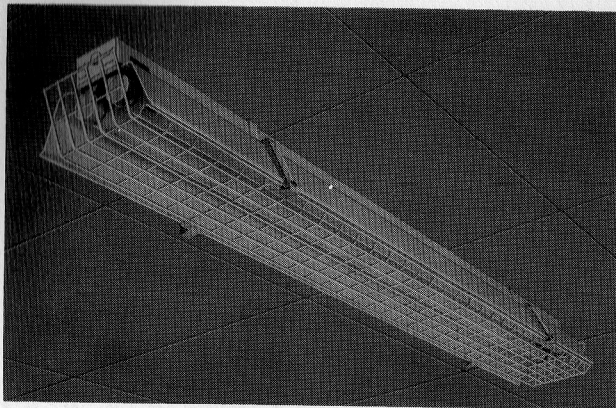
Service Correction Factors

	40W 1200mm	65W 1500mm	85W 1800mm	85W 2400mm	125W 2400mm
Rating Factor	1.00	1.00	1.00	1.00	1.00
Amalgam Factor					
Ballast Lumen Factor SS					
Ballast Lumen Factor XS	1.02	0.95	0.96	0.99	1.00

Utilization Factors UF (F)

Room Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10	45	53	58	61	67	70	72	75	77
		30	39	48	53	57	62	66	69	73	75
		10	35	44	49	53	59	63	66	70	73
50	50	10	43	51	55	59	64	67	69	72	74
		30	38	46	51	55	60	64	67	70	72
		10	34	43	48	52	57	61	64	68	70
30	50	10	41	49	53	56	61	64	66	69	71
		30	37	45	50	53	58	62	64	67	69
		10	34	42	47	50	56	59	62	66	68
0	0	0	31	39	44	47	52	56	59	62	64

Multiply by each Service Correction Factor



ORDERING DATA

Description	Batten only	Catalogue numbers	
		Slotted open-end reflector only	Wire guard only
1 x 40W 1200mm (4ft)	FSQ4	R4	—
2 x 40W 1200mm (4ft)	FSQ24	R4	—
1 x 65W 1500mm (5ft)	FSQ5	R5	G5
2 x 65W 1500mm (5ft)	FSQ25	R5	G5
1 x 85W 1800mm (6ft)	FSQ6	R6	G6
2 x 85W 1800mm (6ft)	FSQ26	R6	G6
1 x 85W 2400mm (8ft)	FSQ85	R8	—
2 x 85W 2400mm (8ft)	FSQ285	R8	—
1 x 125W 2400mm (8ft)	FSQ8E	R8	—
2 x 125W 2400mm (8ft)	FSQ28E	R8	—
Reflector joining clip (optional)	RJ1		

Please order in the form given in the following example, in multiples of the packing quantities:-

- 50 Philips Feature luminaires FSQ25.
- 50 Philips slotted open-end reflector R5.
- 50 Philips wire guards G5.
- 50 Philips reflector joining clips RJ1 (optional for end-to-end mounting).

Packing quantities:

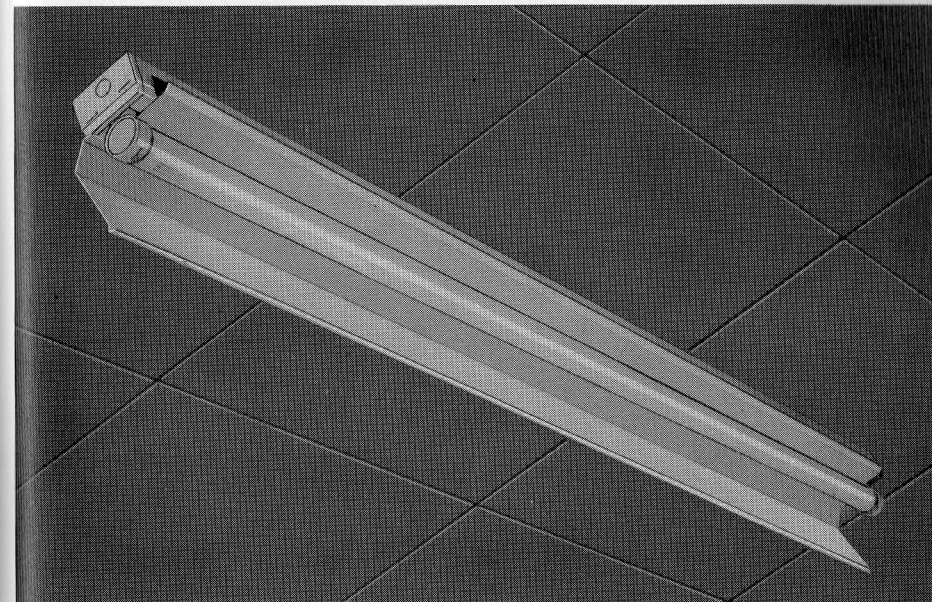
- Battens: individually packed.
- Reflectors: 5 per carton.
- Wire guards: 5 per carton.
- Reflector joining clips: packed to order.

Made in UK

CI/SIB	(63.1)
UDC	696.6 : 628.972

FEATURE Angle Reflectors

5



Durawhite stoved finish open-end angle reflectors are made from sheet steel and are easily fitted to the high-quality Feature battens to give an angled light distribution.

RANGE

Angle reflectors are available to fit the Feature range of battens and packs in sizes 1500mm (5ft), 1800mm (6ft) and 2400mm (8ft). One width fits both one- and two-lamp versions.

APPLICATIONS

For use in normal indoor situations of a commercial or industrial nature where an angled light distribution is required, such as:-

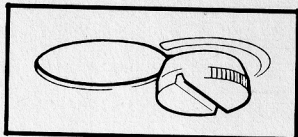
- Lighting for blackboards or wall charts.
- Cabinet type instrument panels.
- Task lighting where general lighting is not adequate.

FLUORESCENT LUMINAIRE

Handbook Ref.	2.21/5
To reorder this Data Sheet quote	6.77 PL1721/1
Replaces	PL9623/19

FEATURES

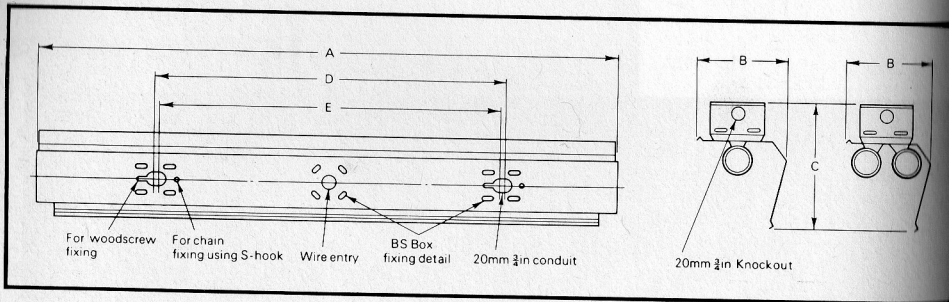
- High-quality Durawhite finish for high reflectance and long service life.
- Keyhole slot fixing for easy attachment, with detent for positive location once the fixing screws have been tightened.



MATERIALS & FINISH

Angle reflectors: Sheet steel, Durawhite stoved finish.

CI/SIB	(63.1)
UDC	696.6:628.972



DIMENSIONS & WEIGHTS

Batten only	Catalogue Nos. Open-end angle reflector only	Weight with lamp(s) & reflector (kg/lb)	Overall length (A) (mm/in.)	Fixing centres (E/D) (mm/in.)
FSQ5	AR5	6.3/13.8	1534/60.4	600/24
FSQ25	AR5	8.7/19.2	1534/60.4	600/24
FSQ6	AR6	6.8/15.1	1800/71	600/24
FSQ26	AR6	9.4/20.8	1800/71	600/24
FSQ85	AR8	9.5/20.9	2409/95	1200/48
FSQ285	AR8	13.2/28.9	2409/95	1200/48
FSQ8E	AR8	10.3/22.7	2409/95	1200/48
FSQ28E	AR8	15.0/33.1	2409/95	1200/48

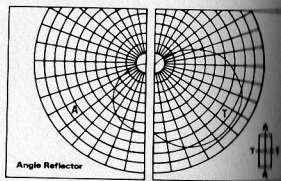
All types:
Overall width B: 115mm (4.5in.)
Overall depth C: 170mm (6.7in.)

ORDERING DATA

Description	Catalogue Numbers	
	Batten only	Open-end angle reflector only
1 x 65W 1500mm (5ft)	FSQ5	AR5
2 x 65W 1500mm (5ft)	FSQ25	AR5
1 x 85W 1800mm (6ft)	FSQ6	AR6
2 x 85W 1800mm (6ft)	FSQ26	AR6
1 x 85W 2400mm (8ft)	FSQ85	AR8
2 x 85W 2400mm (8ft)	FSQ285	AR8
1 x 125W 2400mm (8ft)	FSQ8E	AR8
2 x 125W 2400mm (8ft)	FSQ28E	AR8

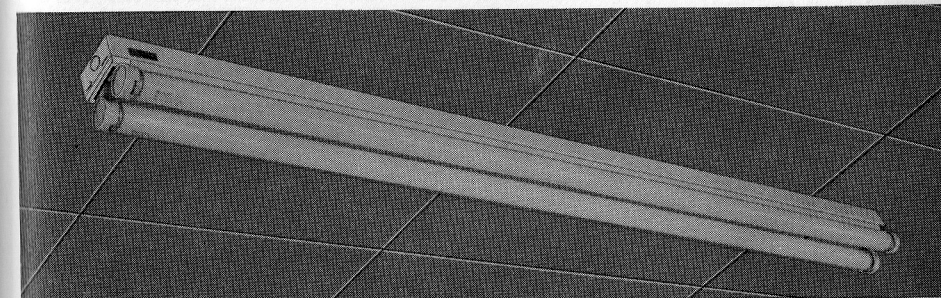
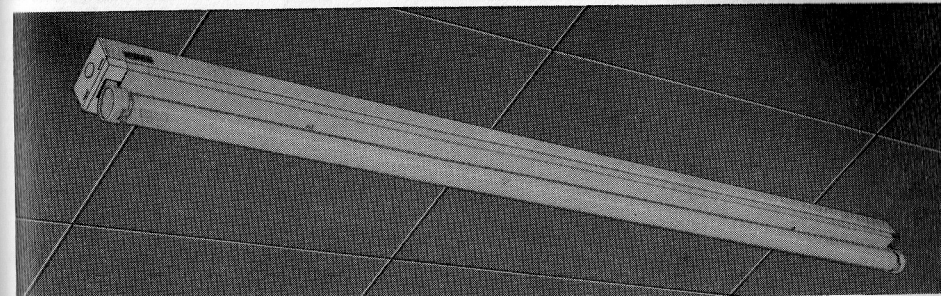
Please order in the form given in the following example, in multiples of the pack size:-
50 Philips Feature luminaires FSQ285.
50 Philips open-end angle reflectors AR8.

POLAR CURVES



Made in Great Britain

FEATURE



High-quality Luminaires for Fluorescent Lamps

Feature high quality fused luminaires may be used as Battens, with Trough or Angle Reflectors for industrial use, or with Diffusers or Prismatic Controllers for commercial applications. The Battens are attractively finished in Durawhite stoved finish with white chamfered end caps.

RANGE

One- and two-lamp batten luminaires in:
1200mm (4ft), 1500mm (5ft), 1800mm (6ft) and 2400mm (8ft) sizes. 2400mm (8ft) ratings available in electronic "E start"

All battens are supplied fitted with low-loss control gear.

Full details of the attachment can be found in Data Sheets:
PL 1720 Trough Reflectors
PL 1721 Angled Reflectors
PL 1722 Opal Diffuser
PL 1723 Prismatic Controller

APPLICATIONS

For use in any normal indoor situation such as:-

- Small or large offices
- Shops and departmental stores
- Corridors
- Stock and store rooms
- Canteens
- Workshops

FLUORESCENT LUMINAIRE

Handbook Ref	2.2.1/6
To reorder this Data Sheet quote	11.77 PL1719/1
Replaces	PL1719

FEATURES

- Easily mounted onto a standard BS box, which it covers completely.
- The channel and cover plates are finished in Durawhite stoved finish for long service life and retention of reflective properties.
- Attractively chamfered end caps feature 20mm (3/4 in.) knockouts for end conduit terminations.
- Spring-mounted, injection-moulded lampholders are fixed in seconds, and one person can re-lamp a luminaire from one end. Lampholders of two-lamp luminaires are individually mounted, so that one lamp can be removed without disturbing the other, and are keyed to prevent accidental cross-over.
- Low-loss starterless control gear conserves energy.
- Each batten is provided with a 3-way terminal block of 2 x 2.5mm² section cable capacity, and a side-mounted fuse. Internal wiring is held by cleats, and additional cleats are provided down one side for contractors' wiring.
- 125W versions of Feature in "E start".

MATERIALS & FINISH

- Channels and cover plates: Sheet steel, Durawhite stoved finish.
- Channel end caps: White medium-impact polystyrene.
- Sprung bi-pin lampholders: White urea mouldings fitted to plated spring steel supports.

SPECIFICATION

- Type compliance with BS 4533 2.2 Class I Ordinary Indoor.

To specify state:

Batten fluorescent lamp luminaires complying with BS 4533 2.2, with Durawhite stoved finish, fuse and starterless control gear, covering a BS box, similar to Philips Feature luminaires.

CIRCUIT COMPONENTS

Batten	Catalogue numbers	Ballast	Capacitor part numbers	Capacitor (dry film type)
FSQ4		BBX40	H1655	5.5mfd ±5% (250V)
FSQ24		2 x BBX40		2 x 5.5mfd ±5% (250V)
FSQ5		BBX65	H1684	8.4mfd ±5% (250V)
FSQ25		2 x BBX65		2 x 8.4mfd ±5% (250V)
FSQ6		BBXK85		8.4mfd ±5% (250V)
FSQ26		2 x BBXK85		2 x 8.4mfd ±5% (250V)
FSQ85		BBX85	H1650/1	5.0mfd ±5% (440V)
FSQ285		2 x BBX85		2 x 5.0mfd ±5% (440V)
FSQ8E		1 x BBE125*	H1672	7.2mfd ±5% (440V)
FSQ28E		2 x BBE125*	H1672	2 x 7.2mfd ±5% (440V)

*With ES06 electronic starters see data sheet PL 1785/1

Harmonic content

Third harmonic content will not normally exceed 45% for 40W-85W 1800mm and 2400mm 125W ratings, or 30% for 2400mm 85W ratings, measured in the neutral of a balanced 3-phase 4-wire supply. Divide by three for equivalent single-phase values.

All information quoted relates to average luminaires on a 240V 50Hz supply at 25°C.

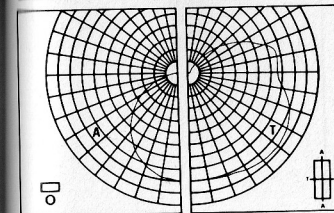
RANGE OF OPERATION

240V 50Hz.
Normal indoor conditions.

PHOTOMETRIC DATA

FEATURE 1 LAMP

BATTEN	WITHOUT	ATTACHMENT
Mounting: SUSPENDED		



CIE Flux Number 213955

SHR MAX	(Square)	2.00
SHR MAX TR	(Transverse)	2.67

ULORL	.24	Multiply by each Service Correction Factor
DLORL	.67	
LORL	.91	

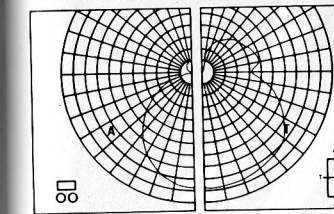
Glare Data (IES)

Flux Fraction Ratio	.36			
ACG Classification	ACG2			
For RI = 2.5 at SHR = NOM	BZ6			
Luminous Area (sq cm)				
40W	65W	85W	85W	125W
900	1100	1300	1750	1750

Measured: BS 5225 Part 1 1975
Calculated: I.E.S. TR 2 and TR 10
Test No: A612 Dated: 76.08.26

FEATURE 2 LAMP

BATTEN	WITHOUT	ATTACHMENT
Mounting: SUSPENDED		



CIE Flux Number 234256

SHR MAX	(Square)	1.86
SHR MAX TR	(Transverse)	2.35

ULORL	.28	Multiply by each Service Correction Factor
DLORL	.65	
LORL	.93	

Glare Data (IES)

Flux Fraction Ratio	.43			
ACG Classification	ACG2			
For RI = 2.5 at SHR = NOM	BZ6			
Luminous Area (sq cm)				
40W	65W	85W	85W	125W
1150	1450	1750	2300	2300

Measured: BS 5225 Part 1 1975
Calculated: I.E.S. TR 2 and TR 10
Test No: A617 Dated: 76.09.01

Photoset direct from Photometer tape output.

Service Correction Factors

	40W 1200mm	65W 1500mm	85W 1800mm	85W 2400mm	125W 2400mm
Rating Factor	1.00	1.00	1.00	1.00	1.00
Amalgam Factor		1.00			
Ballast Lumen Factor SS					
Ballast Lumen Factor XS	1.02	0.95	0.96	0.99	1.00

Utilization Factors UF (F)

Room Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10	42	47	52	56	62	66	69	73	75
	30		35	40	45	49	56	60	64	68	72
	10		31	35	40	44	51	56	59	65	68
50	50	10	38	42	47	51	56	60	63	66	69
	30		33	37	41	45	51	55	58	63	66
	10		29	32	37	41	47	52	55	60	63
30	50	10	35	39	43	46	51	54	57	60	62
	30		31	34	38	42	47	51	53	57	60
	10		27	30	34	38	43	47	50	55	58
0	0	0	23	25	29	32	37	40	43	47	49

Multiply by each Service Correction Factor

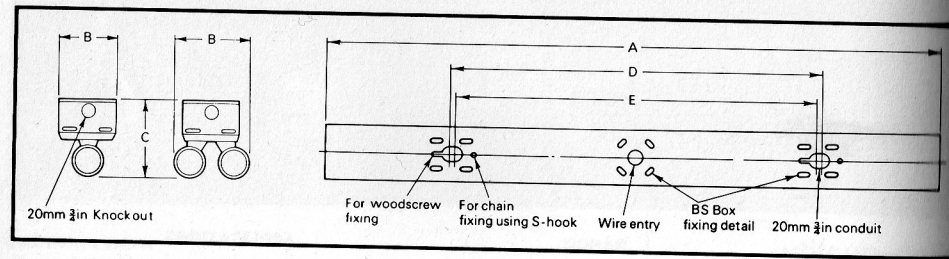
Service Correction Factors

	40W 1200mm	65W 1500mm	85W 1800mm	85W 2400mm	125W 2400mm
Rating Factor	1.00	1.00	1.00	1.00	1.00
Amalgam Factor		1.00			
Ballast Lumen Factor SS					
Ballast Lumen Factor XS	1.02	0.95	0.96	0.99	1.00

Utilization Factors UF (F)

Room Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	10	45	50	55	59	65	69	72	76	78
	30		39	43	49	53	60	64	67	72	75
	10		34	38	44	48	55	60	63	68	72
50	50	10	41	45	50	54	59	62	65	68	71
	30		36	40	45	49	54	58	61	65	68
	10		32	36	40	45	51	55	58	63	66
30	50	10	38	41	45	48	53	56	59	62	64
	30		33	36	41	44	49	53	56	59	62
	10		30	33	37	41	46	50	53	57	60
0	0	0	26	28	31	35	39	42	45	48	51

Multiply by each Service Correction Factor



DIMENSIONS, WEIGHTS & ELECTRICAL DATA

Catalogue number	Rating	Overall length A (mm/in.)	Fixing centres (mm/in.)	Weight with lamp(s) (kg/lb)	Circuit Watts (running)	Electrical characteristics	Minimum power factor
FSQ4	1 lamp 40W 1200mm (4ft)	1234/48-6	600/24	3.4/7.5	55	0.25	0.9
FSQ24	2 lamp 40W 1200mm (4ft)	1234/48-6	600/24	5.8/12.7	110	0.5	0.9
FSQ5	1 lamp 65W 1500mm (5ft)	1534/60-5	600/24	4.4/9.6	82	0.4	0.9
FSQ25	2 lamp 65W 1500mm (5ft)	1534/60-5	600/24	6.8/15.0	164	0.8	0.9
FSQ6	1 lamp 85W 1800mm (6ft)	1800/71	600/24	4.6/10.0	100	0.5	0.9
FSQ26	2 lamp 85W 1800mm (6ft)	1800/71	600/24	7.1/15.6	200	1.0	0.9
FSQ85	1 lamp 85W 2400mm (8ft)	2409/95	1200/48	6.5/14.3	105	0.5	0.9
FSQ285	2 lamp 85W 2400mm (8ft)	2409/95	1200/48	10.2/22.3	210	1.0	0.9
FSQ8E	1 lamp 125W 2400mm (8ft)	2409/95	1200/48	5.4/11.9	134	0.94	0.66 LDG
FSQ28E	2 lamp 125W 2400mm (8ft)	2409/95	1200/48	8.4/18.5	268	1.98	0.66 LDG

Overall width: One lamp 76mm (3in.)
Two lamp 98mm (3.8in.)
Overall depth (all fittings): 100mm (4in.)

ORDERING DATA

Catalogue Number	Rating	Circuit
FSQ4	1 x 40W 1200mm (4ft)	Starterless
FSQ24	2 x 40W 1200mm (4ft)	Starterless
FSQ5	1 x 65W 1500mm (5ft)	Starterless
FSQ25	2 x 65W 1500mm (5ft)	Starterless
FSQ6	1 x 85W 1800mm (6ft)	Starterless
FSQ26	2 x 85W 1800mm (6ft)	Starterless
FSQ85	1 x 85W 2400mm (8ft)	Starterless
FSQ285	2 x 85W 2400mm (8ft)	Starterless
FSQE	1 x 125W 2400mm (8ft)	Electronic "E Start"
FSQ28E	2 x 125W 2400mm (8ft)	Electronic "E Start"

All battens are supplied packed individually.

Lamps should be ordered separately.

Please order as in the form given in the following example:
50 Philips FSQ25 fluorescent luminaires.

Made in Great Britain

CI/SIB (63.8)
UDC 696.6:628.978

COMMANDO -GP-

Philips International
Type TMW062

Corrosion Resistant Fluorescent Luminaires - Category of Protection IP55

Philips Commando -GP- luminaires are intended for use in arduous conditions for which normal batten luminaires would not be suitable, but where there is no hazard requiring luminaires which are 'Flameproof' or 'Type N'.

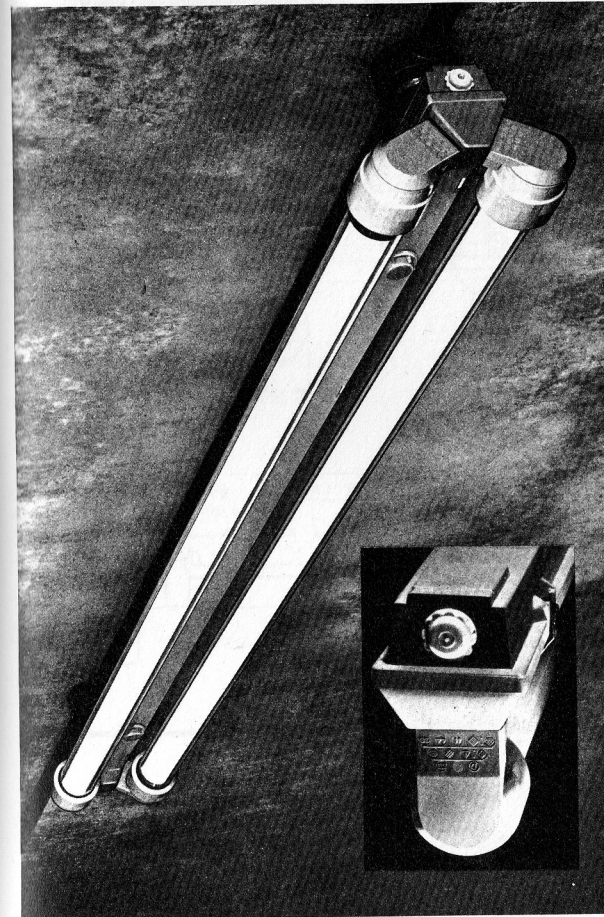
RANGE

Standard Commando -GP- luminaires in 3 ratings
65W 1500mm (5ft) 1-Lamp
65W 1500mm (5ft) 2-Lamp
20W 600mm (2ft) 1-Lamp

APPLICATIONS

Possible applications include:

- Loading bays
 - Multi-storey car parks
 - Bottling plant
 - Laundries
 - Food processing
 - Outbuildings
 - Industrial kitchens
 - Bakeries
 - Furniture factories
 - Chemical works
 - Garage forecourts
 - Bus terminals
 - Tunnels/underpasses
- and other applications where dust, moisture or corrosion can be a problem.



Handbook Ref.

2.2.2/1

To reorder this leaflet quote 1.78 PL 1242/1

Replaces PL 1242

PROTECTED LUMINAIRES

FEATURES

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

- Glassfibre reinforced polyester body with neoprene gasket. The GRP body is durable, will not corrode and needs no painting.
- Corrosion-resistant stainless steel clips ensure a tight seal and are easily closed by hand.

Designed to simplify and to speed installation

- The lightweight GRP top housing is mounted first and fixed by two screws using the quick fix devices supplied.

- Class II (Double Insulated) means two-core cable is used. No EARTH is necessary for the luminaire resulting in fewer connections – cheaper and easier installation.

- Two support straps take the weight of the lower housing, leaving both hands free to make internal cable connections.

- The two body halves are tightly clamped together by the stainless steel spring clips that are easily closed by hand. A lever tool is necessary when unfastening (safety feature).

- Single piece lamp seals. All parts are fixed together to form a single component. Gives tight seal around each end of lamp.

- Commando · GP · luminaires are particularly suited for use with Philips Reflectalite, the fluorescent lamp with an internal reflector. This reflector, which is not affected by dust settlement or tarnish, leads to improved maintenance of the illumination level.

- Protective clear over-tubes also available. These give extra protection to lamps if required e.g. where food is being processed. Also permit lower temperature operation e.g. protection against cold winds under canopies.

MATERIALS & FINISH

Housing: Glass fibre re-inforced polyester shells, light grey
Fixing Clips: Stainless steel
Gasket for housing: Neoprene
Lampholders: Urea formaldehyde
Oversleeves: Acrylic (clear) with protective metal inserts and GRP/Neoprene sealing rings.

DIMENSIONS, WEIGHTS AND ELECTRICAL DATA

Cat No.	Rating	Dimensions mm		Weight	Electrical Characteristics		Minimum Power Factor
		L	L ₁		Circuit Watts (Running)	Circuit Current (Amperes)	
A2430/S	1-Lamp 65W 1500mm (5ft)	1560	1250	3.5kg (8 lbs)	75	0.4	0.95
A2431/S	2-Lamp 65W 1500mm (5ft)	1560	1250	4.9kg (11 lbs)	150	0.8	0.95
A2432/S	1-Lamp 20W 600mm (2ft)	650	340	1.8kg (4 lbs)	30	0.37	0.50

20mm conduit hole in each end. Double diaphragm cable gland suitable for 7–8mm dia cable.

SPECIFICATION

- Type compliance with BS4533 2.2 and with IEC 162.
- Degree of Protection category IP55. Protected against ingress of fine dust (and larger) and against jets of water from all directions, as defined in BS4533.

- Class II electrical protection (double insulated).

- 'F' symbol. Luminaire may be mounted on wooden surfaces.

To specify state:

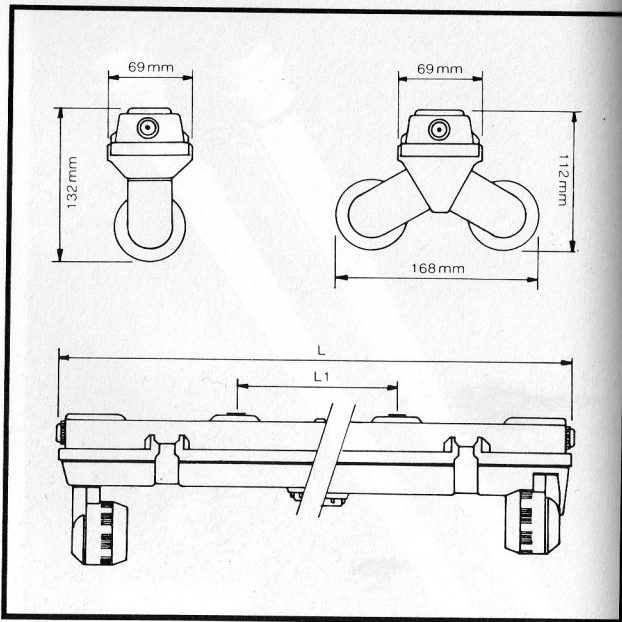
- Fluorescent lamp luminaire for arduous conditions, with GRP body, similar to Philips Commando-GP. The luminaire shall comply with IEC 162, and shall meet protection requirements IP55, Class II Electrical, and F-symbol.

RANGE OF OPERATION

Supply Voltage: for 240V 50Hz supplies subject to statutory tolerances.

Earthing: Commando · GP · has Class II electrical protection and an earth lead is not required. Electrical conduit, if used, may be of the insulating type.

Ambient Temperature: Normal service life relates to operation in a 25°C ambient. Higher ambients, up to 35°C, are acceptable, but with some reduction in performance. Luminaires without overtubes operate down to 0°C, and with overtubes down to minus 5°C. Philips MCFE or MCFRE (Reflectalite) lamps should be used (i.e. types with silicone coating).



PHOTOMETRIC DATA

Utilisation factors

One lamp corrosion resistant batten

Room Index	Ceiling 70%				Floor 10%			Ceiling 30%
	Walls 30%		10%		Ceiling 50%		Walls 10%	
	50%	10%	50%	10%	30%			
.6	.31	.24	.20	.27	.22	.18	.19	.16
.8	.38	.32	.27	.33	.28	.25	.25	.21
1.0	.42	.37	.32	.38	.33	.29	.29	.26
1.25	.48	.42	.37	.43	.37	.33	.33	.29
1.5	.52	.46	.41	.46	.41	.37	.36	.33
2.0	.57	.52	.47	.51	.46	.42	.40	.37
2.5	.61	.57	.52	.54	.50	.46	.43	.41
3.0	.64	.60	.56	.57	.53	.50	.46	.44
4.0	.68	.64	.60	.60	.57	.54	.50	.47
5.0	.70	.67	.64	.66	.59	.57	.52	.50

LOR 88% LOR UP 34% LOR DOWN 54%
 BZ7 UFF .39 DFF .61 MAX SH RATIO 1.7

For twin lamp luminaires multiply UF or LOR's by 1.02

For overtube luminaires multiply UF or LOR's by 0.82

(N.B. For twin overtube factor will be 1.02 x 0.82)

One lamp corrosion resistant batten with reflector lamp

Room Index	50%	30%	27	36	30	26	29	25
.6	.39	.32	.27	.36	.30	.26	.29	.25
.8	.48	.41	.36	.45	.39	.34	.37	.33
1.0	.54	.47	.42	.51	.45	.40	.43	.38
1.25	.59	.53	.47	.56	.50	.46	.47	.43
1.5	.64	.58	.53	.59	.54	.50	.51	.47
2.0	.70	.64	.59	.65	.60	.56	.56	.53
2.5	.74	.69	.65	.69	.65	.61	.60	.57
3.0	.77	.73	.68	.72	.68	.64	.63	.61
4.0	.81	.77	.73	.75	.72	.69	.67	.65
5.0	.84	.80	.77	.79	.75	.72	.70	.68

LOR 86% LOR UP 17% LOR DOWN 69%
 BZ7 UFF .2 DFF .8 MAX SH RATIO 1.6

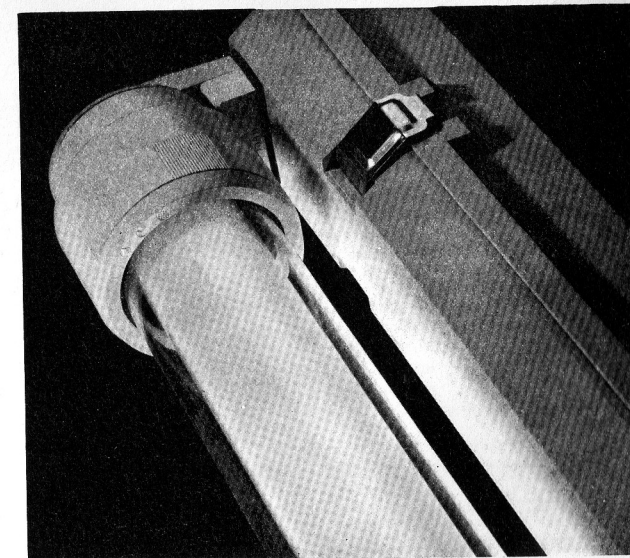
Use lumens as for non reflector lamps

For twin lamp luminaires multiply UF or LOR's by 1.02

For overtube luminaires multiply UF or LOR's by 0.82

(N.B. For twin overtube factor will be 1.02 x 0.82)

Commando · GP · Luminaire showing overtube and lamp seals.



ORDERING DETAILS

Catalogue No.	Description	Packing Quantity
Battens		
A2430/S	1 lamp 65W 1500mm (5ft) switchstart batten	1
A2431/S	2 lamp 65W 1500mm (5ft) switchstart batten	1
A2432/S	1 lamp 20W 600mm (2ft) switchstart batten	1
Accessories		
A2434	Acrylic overtube set – 1500mm (5ft)	10
A2435	Acrylic overtube set – 600mm (2ft) (1 set per lampway required)	10
Spares		
A2438	Spare lampholder assembly – suitable for 1 lamp and 2 lamp luminaires (2 assemblies per lampway required)	2
A2439	Spare stainless steel clips – set of 10 clips	10 sets
BTP 65 L25	65W switchstart ballast	1
S10	Starter switch	10

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

5 Philips Commando GP luminaires A2431/S
10 Philips overtube sets A2434

Note : Lamps should be ordered separately.

Recommended lamp types –

Philips, MCFE White 35 or Philips MCFRE Reflectalite
White 35 will be suitable for most applications of an industrial nature.

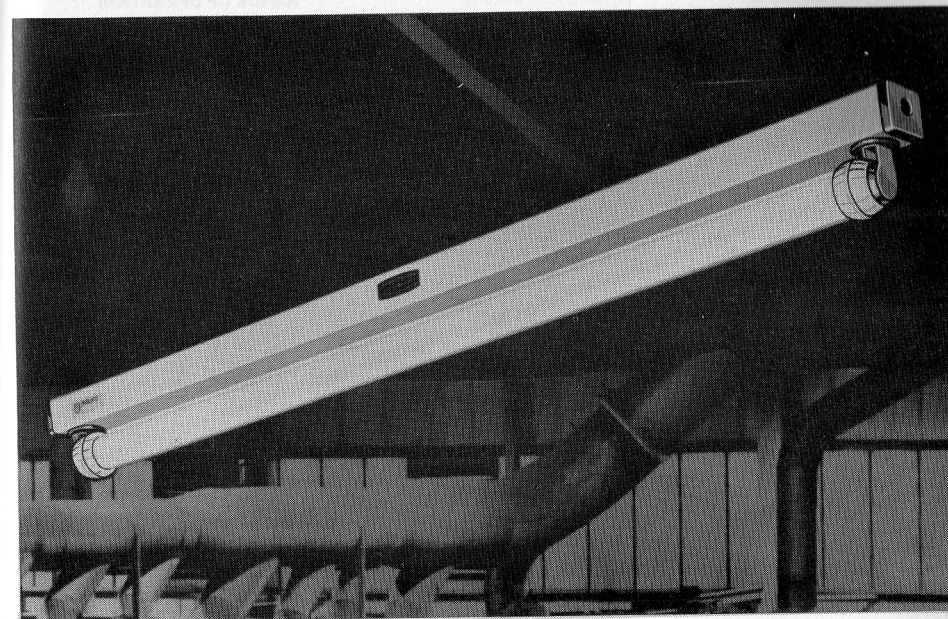
Philips Reflectalite lamps give a preferential distribution of light due to the internal reflector which covers approximately two-thirds of the inner surface and directs 90% of the light through the remaining 130° window.

For explanation of IP system see
leaflet C.I.S. 38.
Lamps made in Great Britain
Luminaires made in West Germany

C1/S1B	(63.8)
UDC	696.6:628.978

COMMANDO

**A2420 Series luminaire for
Zone II IP55**



Sealed luminaires with protective finishes and enclosed to degree of protection IP55.

RANGE

A2420X 1 x 1500mm (5ft) starterless
A2421X 2 x 1500mm (5ft) starterless

APPLICATIONS

For Zone II. Also for use in arduous environments (e.g. where dust, water, steam or corrosive vapours may be present) in which normal luminaires would not be suitable, but where the Flameproof (Zone I) type is not required, such as:-

- Heavy industry
- Chemical and oil plants
- Laundries
- Food processing plants

Handbook Ref.

2.2.2/2

To reorder this data sheet quote

3.78 PL1821/1

Replaces

PL1821

PROTECTED LUMINAIRES

FEATURES

■ Backplate and coverplate fabricated from 0.8mm zinc-coated sheet steel, welded together to protect control gear from ingress of injurious or hazardous substances.

■ Luminaire assembly is sheathed in a seamless white PVC tube, sealed by h.f. welding at each end. Black nylon mouldings fit tightly over the ends of the assembly to enhance corrosion resistance and prevent foreign matter from entering luminaire.

■ Circular apertures at each end of the coverplate provide access for wiring; these are closed and sealed when the lampholder assemblies are inserted.

■ Lamps are protected by 50mm o.d. clear acrylic tubes (3mm wall thickness), which are retained by the lampholder assemblies.

■ Two terminal blocks, supplied connected in parallel and mounted one under each lampholder aperture, permit wiring to either end of the luminaire.

■ Approved for use in Zone II (BS CP 1003). Enclosure has the Degree of Protection IP55.

■ Lampholder contacts are fully shielded when the lamp is withdrawn; each lampholder rotor is indexed at 15° intervals to enable the light distribution from Reflectalite lamps (see Data Sheet PL 1762) to be directed as required.

■ Installed by means of mounting holes at each end of the backplate channel, normally covered by the PVC sheath. Alternatively, the luminaire may be suspended from optional plastic-coated steel brackets that are clamped around the channel at any reasonable spacing before inserting the lampholder assemblies.

MATERIALS & FINISH

Body: Zinc-coated sheet steel, 0.8 mm thick, welded together and sheathed in seamless white PVC, sealed by h.f. welding.

End caps: Black nylon mouldings.

Lampholders: White plastic; holders indexed every 15° to permit rotation of Reflectalite lamps. Contacts are fully shielded when the lamps are withdrawn.

Protective tubes for lamps: Clear acrylic, 50mm o.d., 3mm wall thickness.

SPECIFICATION

■ Designed and constructed in accordance with BS 4533 2.1 & 2.2; Control gear type compliance with BS 2818 and BS 4017.

■ Approved by H.M. Factory Inspectorate for use in Zone II as defined by BS Code of Practice CP 1003: 1964.

■ Enclosure has the Degree of Protection IP55.

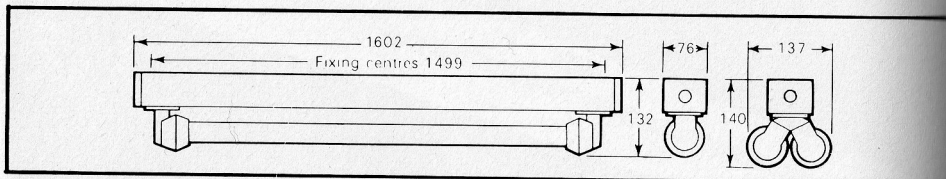
To specify state:

Fluorescent luminaire with starterless control gear, for use in Zone II areas. Constructed from PVC sheathed zinc-coated sheet steel. Enclosure to be of the Degree of Protection IP55. Similar to Philips Commando Type A 2420X.

RANGE OF OPERATION

For indoor or outdoor use on 240V 50Hz supplies, in ambient temperatures from 1°C to 35°C. If the luminaire is to operate in ambient temperatures below 5°C, it is recommended that Philips lamps types MCFA or MCFRA Reflectalite, fitted with an external earth strip for improved starting, be used.

DIMENSIONS



WEIGHTS & ELECTRICAL DATA

Catalogue No.	Rating	Luminaire Current (A)	Luminaire Watts	Weight (kg/lb)
A2420X	1 × 65W 1500mm (5ft)	0.4	77	6.5/14.3
A2421X	2 × 65W 1500mm (5ft)	0.8	154	10.2/22.4

ORDERING DATA

Cat. No.	Description	Packing quantity
A2420X	1 × 65W 1500mm (5ft)	Individually packed
A2421X	2 × 65W 1500mm (5ft)	Individually packed

Optional accessory

A2419	1 pair suspension brackets	Packed to order
-------	----------------------------	-----------------

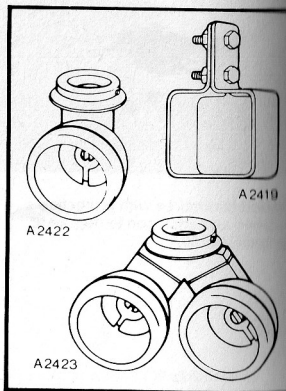
Spares

A2422	Spare lampholder assembly complete for A2420X	Packed to order
A2423	Spare lampholder assembly complete for A2421X	Packed to order
A2424	Spare 1500mm (5ft) acrylic tube for A2420X and A2421X	Packed to order

Note that lamps should be ordered separately.

Please order in the form given in the following example:
25 Philips Commando Zone II luminaires A2421X.

OPTIONAL ACCESSORY & SPARE



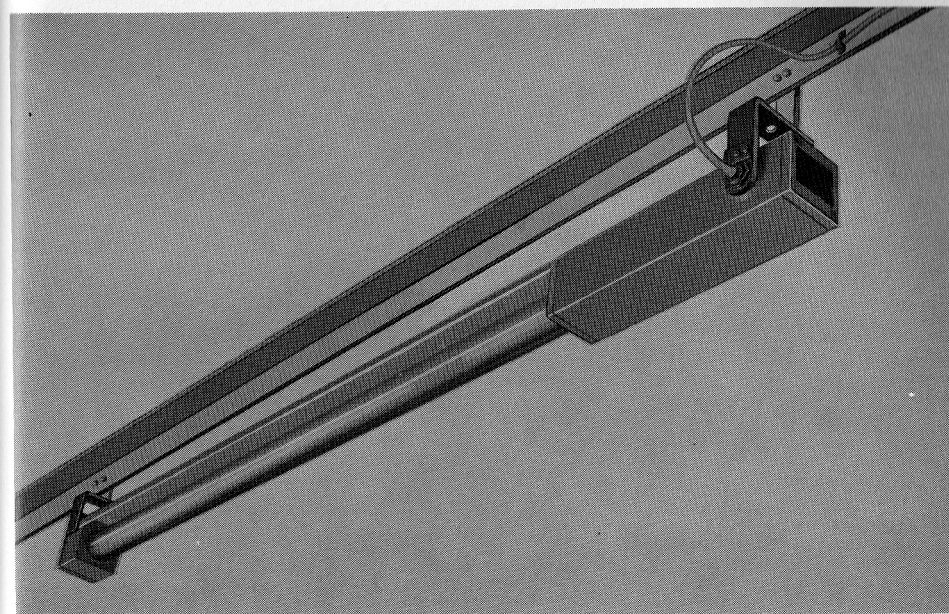
Made in Great Britain

CI/SIB	(63.8)
UDC	696.6 : 628.978

COMMANDO FLAMEPROOF Fluorescent luminaire

Zone I IP65

5



Fluorescent luminaire for Zone I, certified by BASEEFA, and with the Degree of Protection IP65.

RANGE

One lamp 65W 1500mm (5ft)
Two lamp 65W 1500mm (5ft)
Starterless control gear.

APPLICATIONS

For use in areas designated as Zone I, where flammable gases as listed in BS229 Groups II and III are present. Not for use in methane or coal gas (Group M) atmospheres. The luminaire may also be used indoors or outdoors, and has the Degree of Protection IP65.

Handbook Ref.

2.2.3

To reorder this data sheet quote

1.78 PL1801/1

Replaces

PL1801

PROTECTED LUMINAIRE

FEATURES

- Main components are strong die-castings of corrosion-resistant LM4 aluminium alloy.
 - Quickly and easily installed; the suspension brackets are fitted first and the body of the luminaire is lifted up and hung in position.
 - Simple to relamp from the 'small' end of the luminaire, which may be lowered to assist the operation.
 - Two-lamp luminaires consist of two one-lamp luminaires on the same suspension brackets, supplied complete with interconnections.
 - Easily wired; access to the terminal block is gained by removal of the spigot-type end cover and sealing gasket. The terminal block is of the clamp type, for live, neutral and earth, and is removable. Terminals have capacity for up to two 4mm² conductors. Cables enter the terminal chamber via swivel bushes incorporating a weatherproof sealing ring.
- Note: Bushes are normally earthed via the outer of MI cable; the luminaire must be earthed by separate connection to the earth terminal.*
- In cold conditions, MCFA or MCFRA lamps with external earth strip may be used for improved starting.
 - Recommended for use with Philips Reflectalite (MCFRA) lamps. These give a preferential distribution of light due to the internal reflector which covers approximately two thirds of the inner surface and directs 90% of the light through the remaining 130° window. This increases the luminous intensity in the direction of the window by a factor of about 1.8 over conventional lamps, and makes the light output less affected by dust settling on the upper surface of the luminaire.

RANGE OF OPERATION

For indoor or outdoor use on 240V 50Hz supplies in ambient temperatures from 0°C to 35°C. For horizontal mounting only.

DIMENSIONS, WEIGHTS & ELECTRICAL DATA

Catalogue No.	Rating	Circuit Watts (running)	Circuit Current (amperes)	Weight (kg/lb)	Packing quantity
A2480X	1 x 65W 1500mm (5ft)	76W	0.4	15/33	1
A2481X	2 x 65W 1500mm (5ft)	152W	0.8	30/66	1

Note:

When installing luminaires, it is necessary to check that there is sufficient clearance for the luminaire to be swung vertically downwards for relamping.

SPECIFICATION

- Class I electrical protection (earth required).
- Complies with BS229: 1957 and BS889: 1965.
- Certified Flameproof by the British Approvals Service for Electrical Equipment in Flammable Atmospheres. Certificate of Assurance No. EX.71011. For use in Zone I hazardous areas Groups II and III.
- Enclosure has the Degree of Protection IP65.

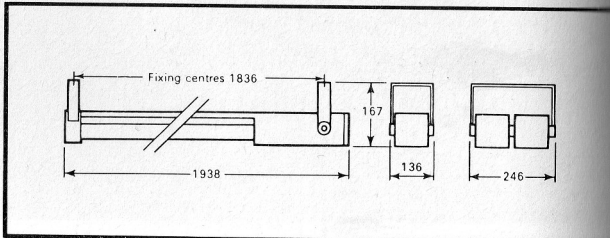
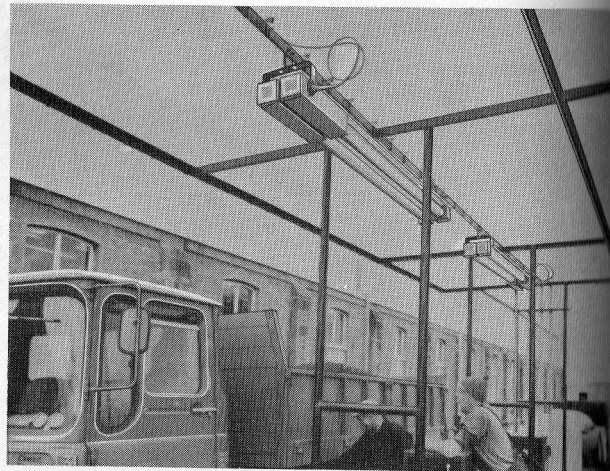
To specify state:

Fluorescent luminaire for use in Zone I hazardous areas, and with the Degree of Protection IP65. Similar to Philips Commando flameproof luminaires.

MATERIALS & FINISH

Body, glazing castings and end covers: Gravity die-castings, LM4 aluminium alloy to BS1490: 1970, stove-enamelled two-tone grey.

Protective sleeve for lamp: Borosilicate glass, cemented to glazing castings.



ORDERING DATA

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

Philips Commando flameproof A2480X luminaires.

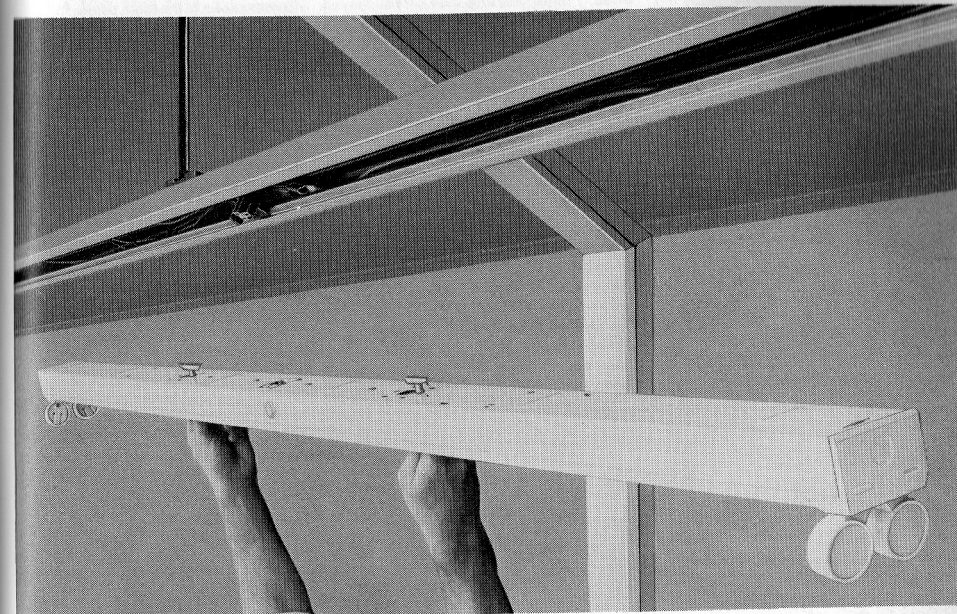
Lamps should be ordered separately.

Made in Great Britain.

CI/SIB	(63.1)
UDC	696.6:628.972

FEATURELINE

Pre-wired trunking and lighting system with plug-in range of fluorescent luminaires



Pre-wired trunking system offering large-scale savings in installation time. Luminaires simply plug-in to the trunking system, which arrives complete with all wiring, connectors and luminaire sockets. Luminaires can be quickly moved or replaced without re-wiring and with little disturbance to production process beneath.

RANGE

Lengths of pre-wired trunking (4-5m) with a range of accessories for installation in most situations. Tile hanger strips are available for use with the trunking recessed within suspended ceilings. Luminaires are available in one- and two-lamp switch-start versions in ratings: 65W 1500mm (5ft) 125W 2400mm (8ft) and in one- or two-lamp starterless versions in ratings: 65W 1500mm (5ft) 85W 1800mm (6ft) 125W 2400mm (8ft) and in electronic start: 125W 2400mm (8ft)

APPLICATIONS

Industrial and commercial applications, such as:-

- Factories
- Warehouses
- Production and assembly shops
- Offices (in recessed or suspended form)
- Departmental stores (in recessed or suspended form)
- Public buildings
- Supermarkets

Handbook Ref.

2.24

To reorder this Data Sheet quote 5 78 PL1729/1

Replaces

PL 1729

TRUNKING

FEATURES

■ Each trunking length is pre-wired with 4mm² section (24A) cables, so reducing installation time and materials handling on site. Once trunking is erected, installation is in an advanced state, and can be left for easy connection of battens at a later date.

■ Luminaires 'plug-in' to trunking. Each batten contains a special three-pin plug which locates with a socket recessed into the trunking mouth. Once plugged in, the luminaires are held by turning two latches. The socket can be moved up to 1.5m in either direction to allow positioning and repositioning of luminaires as required. There are two sockets per 4.5m trunking length, allowing for any position and spacing.

■ Installation time is greatly reduced. Luminaires can be easily resited or removed without disturbance to wiring.

■ Luminaires are earthed to a bush on the trunking body by means of an earth wire connected to the socket.

The trunking is also available un-wired (TC2) for use with luminaires other than Featureline battens.

RANGE OF OPERATION

240V 50Hz.

Normal indoor conditions.

MATERIALS & FINISH

Batten channel: Sheet steel, Durawhite stoved finish.

Batten end caps: White medium-impact polystyrene.

Spring bi-pin lampholders: White urea mouldings fitted to plated spring steel supports.

Trunking: Cold-rolled mild steel, 1.2mm gauge, hot-dipped zinc coating.

Wiring: Two wires, 4mm² section (24A), PVC insulated and colour-coded for L and N, with push-in electrical connectors between trunking lengths.

Electrical socket with leads: Two wires, 1.5mm² section (13A), PVC insulated and colour-coded for L and N. The earth contact is connected to the trunking.

Electrical plug: Special 3-pin plug in luminaire. Earth contact makes first and breaks last.

Trunking spigot: Mild steel, 3mm gauge, hot-dipped zinc coating. Fastens with 8 screws.

Mechanical junctions: Die-cast aluminium, self-finish.

Trunking hanger: Mild steel, hot-dipped zinc coating.

Metal cover strip: Mild steel, hot-dipped zinc coating.

Plastic coverstrip: White PVC.

Tile hanger: Mild steel, Durawhite stoved finish.

Cover plates: Sheet steel, Durawhite stoved finish.

SPECIFICATION

Type compliance with BS 4533 2.0 where applicable and BS 4533 2.0 Ordinary Indoor Class I.

To specify state:

■ Pre-wired trunking system equipped with 24A cable and with three-contact sockets with earthing studs to trunking body; plug-in battens of same cross section as trunking; similar to Philips Featureline trunking system.

INSTALLATION DATA

Featureline trunking can accommodate additional cables up to the maximum number shown in the table below, in compliance with IEE wiring regulations.

Cable size	No. of cables
4mm ²	16
6mm ²	14
10mm ²	8

Wiring supplied is of 4mm² section (24A), and can supply the following number of lampways per single run of trunking:-

Batten type	No. of lampways
T25W 2400mm switchstart	24
T25W 2400mm electronic start	24
85W 1800mm starterless	48

Installation

Featureline should not be suspended at wider centres than 4.0m. At 4.0m centres, the following deflections were measured:-

15kg load at centre	12mm
Continuous run of TSQ28E	9mm

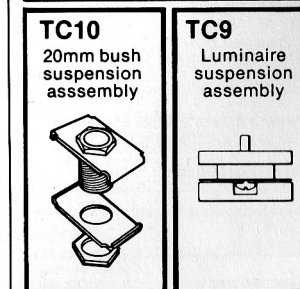
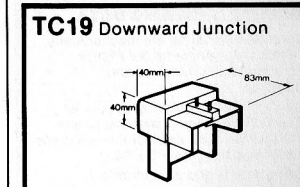
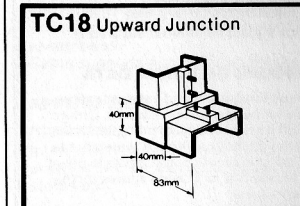
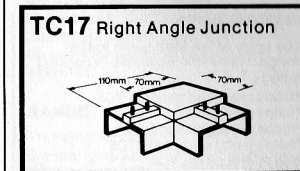
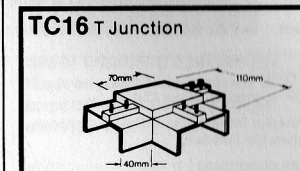
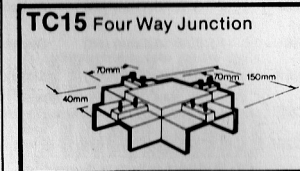
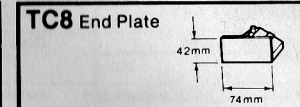
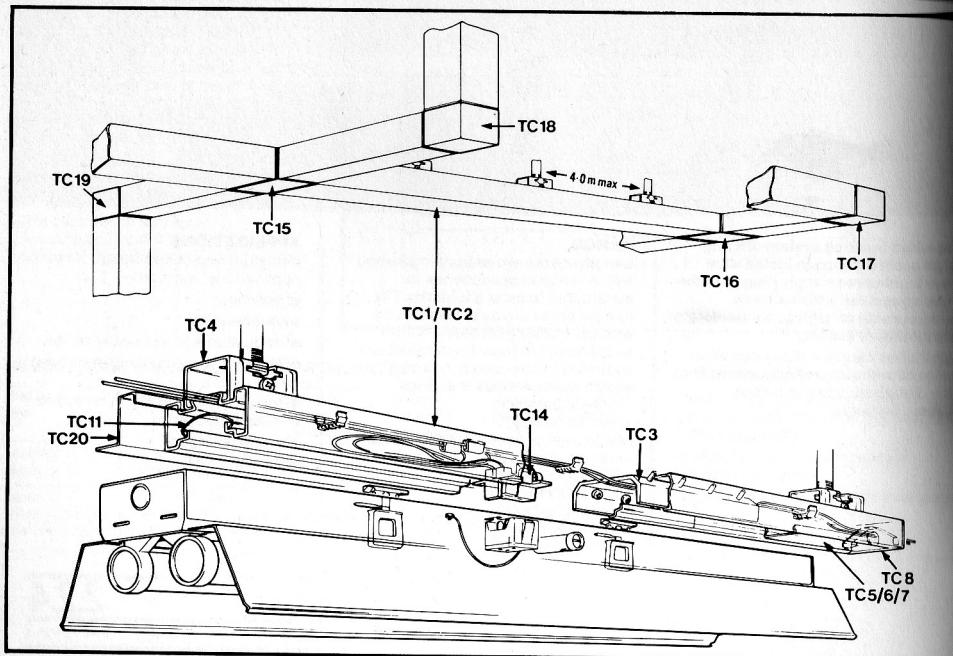
ORDER QUANTITY GUIDE

Catalogue Number and Description	Quantity guide
Installation using TC1 pre-wired trunking	
TC1 – pre-wired trunking	Total length of all runs in metres divided by 4.5. Same quantity as lengths and part lengths of TC1.
TC3 – spigot	One per hanging point (multiply total quantity of TC1 by 1.13 (minimum)).
TC4 – trunking hanger	Calculate total length of all luminaires in metres, and subtract from total length of trunking. Divide result by 1.5 and round up answer to nearest 20.
TC5, TC6, TC7 – cover strips	Two per complete run (if used). Five per length of TC1 if extra cables are to be run.
TC8 – end plates	If required.
TC11 – cable support	One per run.
TC12 – spare crimp connector	If required.
TC13 – Mains connector (screw)	As required (see diagram for guide).
TC14 – spare electrical socket with leads	
TC15, TC17, TC18, TC19 – X, L, upward and downward junctions	Two per run if using perimeter trunking, or as required.
TC16 – T junction	Double the length of all horizontal runs of trunking in metres, and divide by 1.5.
TC20 – tile hanger (if required)	One per batten of appropriate type if angle or trough reflectors are not used; otherwise one reflector per batten.
TC21, TC22, TC23 – batten cover plates	
Installation using TC2 un-wired trunking	
TC2 – un-wired trunking	Total length of all runs in metres divided by 4.5. Same quantity as lengths or part lengths of TC2.
TC3 – spigot	One per hanging point (multiply total quantity of TC2 by 1.13 (minimum)).
TC4 – trunking hanger	See calculation for TC1 pre-wired trunking above.
TC5, TC6, TC7 – cover strips	Two per complete run (if used).
TC8 – end plates	Two per luminaire (if TC10 cannot be used).
*TC9 – luminaire suspension assembly	Two per luminaire if provided with 20mm entries.
*TC10 – 20mm bush suspension assembly	Five per length of TC2.
TC11 – cable support	As required (see diagram for guide).
TC15, TC17, TC18, TC19 – X, L, upward and downward junctions	
TC16 – T junction	Two per run if using perimeter trunking. See calculation for TC1 pre-wired trunking above.
TC20 – tile hanger (if required)	See above.
TC21, TC22, TC23 – batten cover plates	See above.

*For use with luminaires other than Featureline.

WEIGHTS & PACKING QUANTITIES

Catalogue No.	Description	Weight (kg/lb)	Packing quantity
TC1	Pre-wired trunking 4.5m length with two electrical sockets	9.9/21.8	20
TC2	Un-wired trunking 4.5m length	9.1/20	20
TC3	Spigot	0.6/1.3	2
TC4	Trunking hanger (suspension stirrup)	0.1/0.2	20
TC5	Metal cover strip 1.5m length	0.5/1.1	20
TC6	PVC cover strip (narrow) 1.5m length	0.5/1.1	20
TC7	PVC cover strip (wide) 1.5m length	1.2/2.64	20
TC8	End plate	0.1/0.2	10
TC9	Luminaire suspension assembly for un-wired trunking	0.3/0.66	50
TC10	20mm bush suspension assembly for un-wired trunking	0.6/1.3	ten pieces
TC11	Cable support	0.1/0.2	25
TC12	Spare crimp connector	0.3/0.66	ten pieces
TC13	Mains connector (screw)	0.6/1.3	ten pieces
TC14	Electrical socket with leads & connectors	0.1/0.2	10
TC15	X (four-way) junction	0.4/0.88	Packed to order
TC16	T (three-way) junction	0.3/0.66	Packed to order
TC17	L (right-angle) junction	0.3/0.66	Packed to order
TC18	Upward junction	0.3/0.66	Packed to order
TC19	Downward junction	0.3/0.66	Packed to order
TC20	Tile hanger 1.5m length	0.7/1.54	10
TC21	1800mm batten cover plate	0.6/1.3	5
TC22	2400mm batten cover plate	0.8/1.76	5
TC23	1500mm batten cover plate	0.5/1.1	5



ELECTRICAL DATA

Luminaire catalogue No.	Rating	Circuit	Ballast	Capacitor	Starter Switch	Circuit Watts (running)	Circuit current (Amperes)	Minimum power factor (lagging)
TSS5	1 x 65W 1500mm (5ft)	Switchstart	BCS65	5.0mfd 10% 250V	S10	77	0.34	0.85
TSS25	2 x 65W 1500mm (5ft)	Switchstart	2 x BCS65	2 x 5.0mfd 10% 250V	2 x S10	154	0.68	0.85
TSQ6	1 x 85W 1800mm (6ft)	Starterless	BBXK85	8.4mfd 5% 250V	—	96	0.46	0.9
TSQ26	2 x 85W 1800mm (6ft)	Starterless	2 x BBXK85	2 x 8.4mfd 5% 250V	—	192	0.92	0.9
TSQ8E	1 x 125W 2400mm (8ft)	Electronic start	BBS125	7.2mfd	ES06	134	0.94	0.66LDG
TSQ28E	2 x 125W 2400mm (8ft)	Electronic start	2 x BBS125	2 x 7.2mfd	2 x ES06	268	1.88	0.66 LDG
TSS8	1 x 125W 2400mm (8ft)	Switchstart	BBS125	7.2mfd 5% 440V	K3125	134	0.94	0.66 LDG
TSS28	2 x 125W 2400mm (8ft)	Switchstart	2 x BBS125	2 x 7.2mfd 440V	2 x K3125	268	1.88	0.66 LDG

Trunking

Cable connector rating: 25A.

Connector impedance: 1.5 mΩ (1.5mV per ampere per junction).

Cable rating: 24A.

Cable volt drop: 10mV per ampere per metre.

Trunking impedance: 0.5 mΩ per metre. Impedance of 100 metre run (trunking and junctions): 80 mΩ.

Impedance from luminaire earth terminal to socket earth terminal: 30 mΩ.

Each junction spigot is secured by eight screws, avoiding the need for bonding straps.

ORDERING DATA

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

20 Philips pre-wired trunking TC1
20 Philips spigots TC3
40 Philips trunking hanger TC4
60 Philips metal cover strip TC5
10 Philips end plates TC8
50 Philips battens TSQ26
50 Philips batten cover plates TC21.
Lamps should be ordered separately.

TRUNKING ORDERING DATA

Consult illustration and order quantity guide for part numbers required. Orders should be rounded up to multiples of the packing quantities. Please remember to add sufficient extra components to offset site losses and to provide spares for the eventual user.

LUMINAIRE ORDERING DATA

Featureline luminaires are mechanically and electrically similar to the Philips Feature range of luminaires and accessories.

The table gives the ordering details for the Featureline range of battens; photometric and electrical data for these battens are contained in leaflet PL 1719.

Ordering details and photometric information for accessories for use with Featureline are contained in Feature leaflets as follows:-

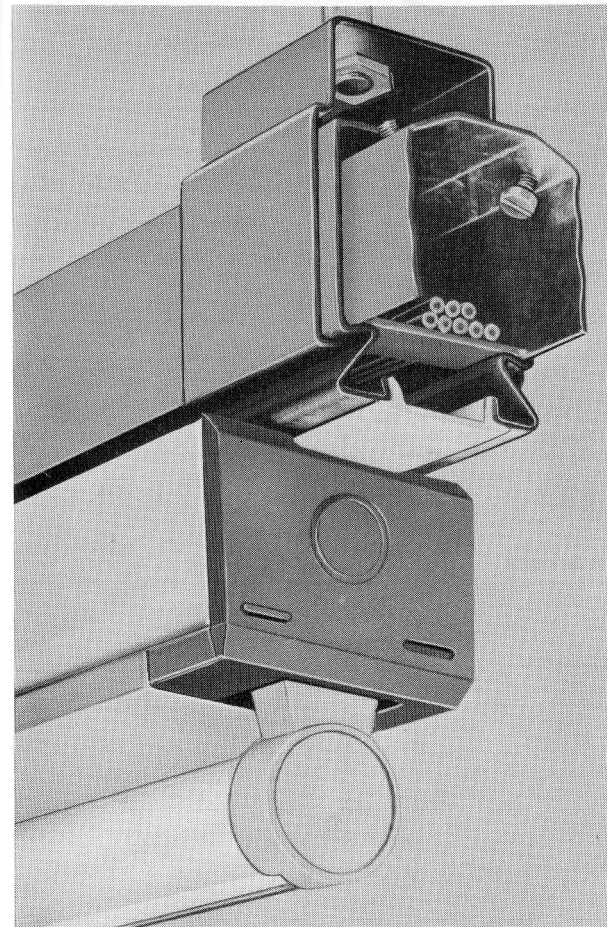
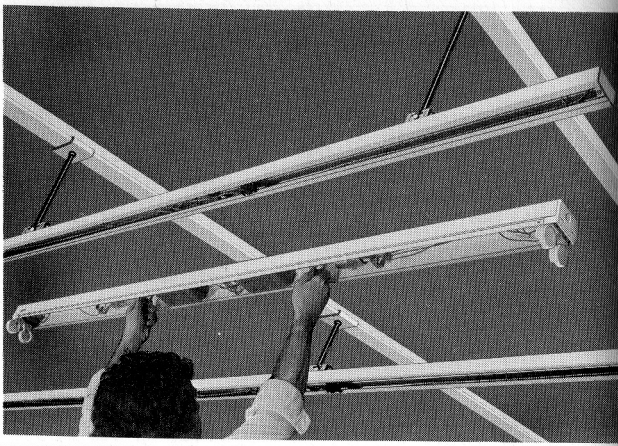
Opal diffusers - PL 1722
Prismatic controllers - PL 1723
Trough reflectors and wireguards - PL 1720
Open-end angle reflectors - PL 1721

For further details of **ES06 Electronic Starter** see Data Sheet PL 1785.

Made in Great Britain.

BATTEN WEIGHTS & PACKING QUANTITIES

Battens (without cover plates)		Batten weight inc. lamps (kg/lb)	Packing quantity
TSS5	1 x 1500mm (5ft) 65W switchstart	4.2/9.25	1
TSS25	2 x 1500mm (5ft) 65W switchstart	6.6/14.53	1
TSQ6	1 x 1800mm (6ft) 85W starterless	4.6/10.1	1
TSQ26	2 x 1800mm (6ft) 85W starterless	7.1/15.6	1
TSQ8E	1 x 2400mm (8ft) 125W electronic start	25.4/11.9	1
TSQ28E	2 x 2400mm (8ft) 125W electronic start	28.4/18.5	1
TSS8	1 x 2400mm (8ft) 125W switchstart	5.4/11.9	1
TSS28	2 x 2400mm (8ft) 125W switchstart	8.4/18.5	1



CI/SIB (63.9)
UDC 696.6:628.94

LITEBEAM STANDARD TRUNKING

Steel trunking system for fluorescent luminaires with capacity for other power services

■ Litebeam Standard - a versatile trunking system designed to support individual or continuous mounted fluorescent luminaires, that can also be used for carrying other power services.

RANGE

Trunking length 4.3m (14ft).
Coupling spigots, and hangers.
White cover strip, 2.4m (8ft) length.
Full range of junctions and angles.
End caps and luminaire suspension assemblies.
Cable supports and terminal blocks.

APPLICATIONS

Applications include:
Interior lighting for factories and drawing offices, exhibition halls, stores etc.

Handbook Ref.

2.25/1

To reorder this Data Sheet quote 11.77 PL 1709

Replaces PL8822

5

TRUNKING

FEATURES

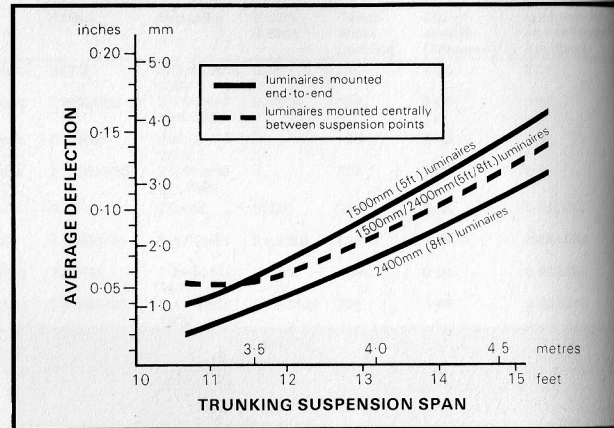
- A strong cross-section with support shoulders formed to accommodate suspension hangers in any position along the length of trunking.
- Simple suspension system of hangers secured to conduit tubes.
- Vertical alignment achieved by adjustment of the 20mm ($\frac{3}{4}$ " ET) conduit nuts on installation suspensions.
- Coupling spigots, for joining trunking lengths, slide into the sections and are secured by concealed screws.
- Hangers have been tested up to 200kg loading without distortion.
- Entry for cable, terminal blocks and support plates through trunking mouth.
- Luminaires are secured to trunking by suspension assembly that is inserted and rotated to engage on the trunking return flanges. Locking nuts are provided to secure the luminaire in its final position.
- Cover strip of white PVC is available to blank off trunking mouth between luminaires.
- Installation undertaken with minimum of tools. A 20mm ($\frac{3}{4}$ " ET) spanner and screwdriver are all that is required.
- Trunking cable capacity: over 30 cables of 2.5mm² or 4mm² or 6mm²; 15 cables of 10mm².
- The edges of the trunking are returned inwards adding strength to the section, as well as eliminating exposed edges.
- A range of junction pieces is available, for cross overs, tee and right angles. External angles for risers and internal angles for drops are also available.
- All junctions are of spot welded construction and are designed as a fast fit over the trunking section, eliminating the need to drill or cut to shape.

Junction pieces are not designed to be load bearing.

MATERIALS & FINISH

- Trunking:** 1.2mm steel hot dipped galvanised.
- Trunking hangers:** 1.6mm steel galvanised.
- Coupling Spigots:** 1.2mm steel hot dipped galvanised.
- End Caps:** 0.8mm zinc plated steel.
- Cable supports:** 0.6mm zinc plated steel.
- Cover strip:** Extruded PVC white.
- Luminaire suspension assemblies:** Zinc based alloy die cast with lacquered lock nuts.

TRUNKING DEFLECTION



Average deflection of Litebeam trunking in relation to distance between suspension points. The deflection values refer to heavy versions of luminaires and attachments (18-22kg), and are proportionately lower for lighter versions. Deflections are within the requirements of BS 449 'Use of

Structural Steel in Buildings' (deflection not to exceed 1/325 of span). Note: Deflection varies considerably in practice with tightness of coupling of adjacent trunking lengths, and with tightness of connection of luminaires to trunking.

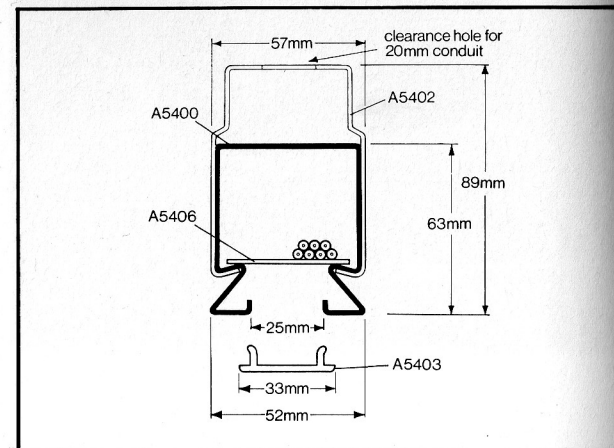
SPECIFICATION

Trunking cable capacity is calculated in accordance with IEE Regulation B118 governing cable volume to free space ratio in trunking installations.

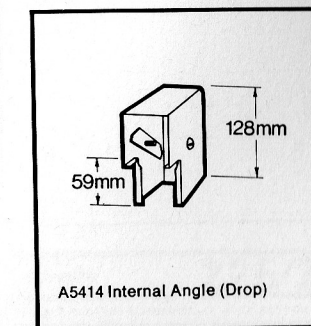
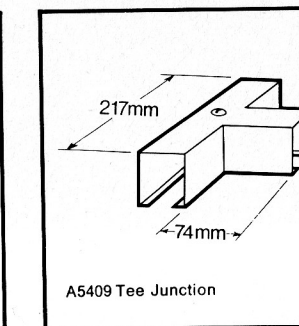
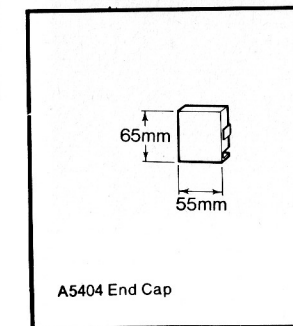
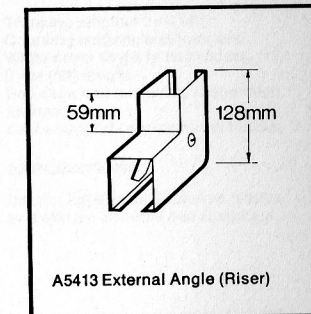
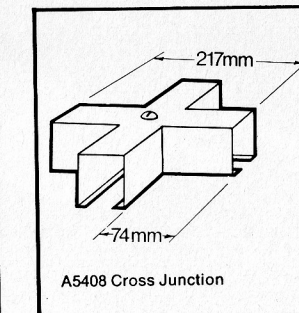
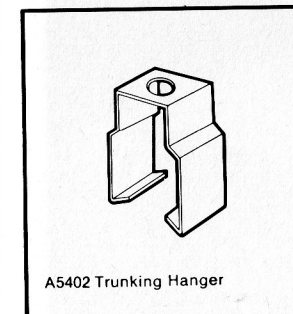
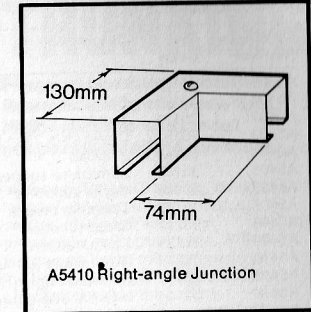
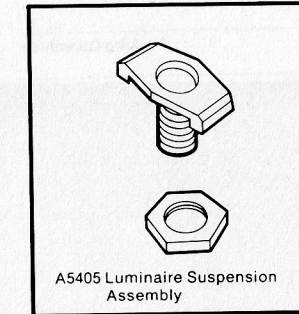
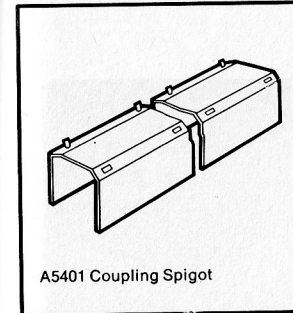
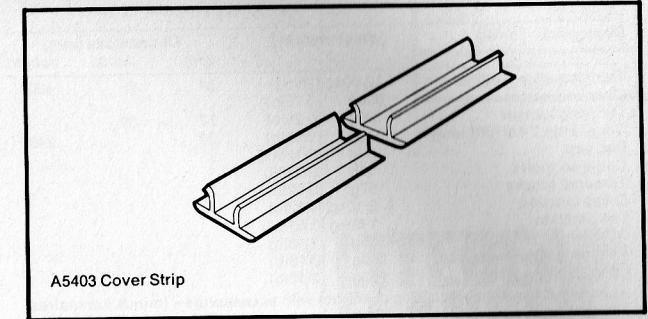
To specify state

Lighting trunking substantially as Philips 'Litebeam'. The width shall be approximately 55mm and the mouth width approximately 25mm.

DIMENSIONS



COMPONENTS



DIMENSIONS & WEIGHTS

Description	Weight (gross)	Dimensions (mm)		
		width	depth	length
Trunking 4.3m (14ft) length	12.00kg (28lbs)	57	63	4300
Coupling spigot	800g (1.75lb)			
Trunking hanger	120g (0.25lb)	57	89	
Cover strip 2.4m (8ft) length	370g (0.82lb)	33		2400
End cap	60g (0.125lb)			
Cable supports	28g (0.063lb)			
Terminal blocks	57g (0.125lb)			
Cross junction	2.10kg (4.62lb)			
Tee junction	1.69kg (3.51lb)			
Right angle junction	965g (2.13lb)			
External angle (riser)	965g (2.13lb)			
Internal angle (drop)	965g (2.13lb)			

Approximate weight of trunking complete with accessories – (minus luminaires)
3.3kg per metre.

ORDERING DATA

Catalogue Number	EWf Code	Description	Packing Quantities
A5400	70183	Trunking 4.3m (14ft) length	Packed 6 per bundle
A5401	35128	Coupling spigot	Packed 20 per pack
A5402	35131	Trunking hanger	" " " "
A5403	70167	Cover strip 2.4m (8ft) length	" " " "
A5404	35144	End cap	" " " "
A5405	35160	Luminaire suspension assembly*	Packed to order
A5406	35186	Cable supports*	Packed bags of 10
A5407	35199	Terminal blocks	Packed bags of 50
A5408	35212	Cross junction	Packed to order
A5409	35225	Tee junction	" " " "
A5410	35238	Right angle junction	" " " "
A5413	36431	External angle (riser)	" " " "
A5414	36444	Internal angle (drop)	" " " "

*order only in bags.

Made in U.K.

CI/SIB	(63.1)
UDC	696.6:628.972

LITEBEAM FLANGED TRUNKING

Flanged trunking system for fluorescent luminaires that is compatible with most suspended ceiling systems.

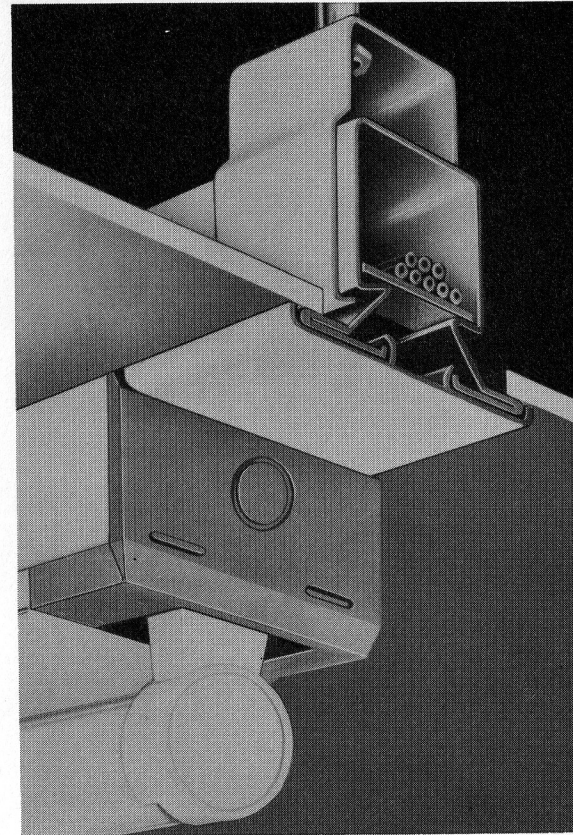
Litebeam flanged trunking, designed for use with suspended ceilings, can be integrated with most proprietary ceiling systems. Will support adjacent ceiling panels on the trunking flange, with the trunking concealed within the ceiling.

RANGE

Trunking length 4.3m (14ft)
Coupling spigots, and hangers.
White cover strips in two widths, 2.4m (8ft) length.
End caps and luminaire suspension assemblies.
Cable supports and terminal blocks.

APPLICATIONS

Interior lighting for Factories, shops and offices, Schools and Hospitals.



Handbook Ref.

2.25/2

To reorder this Data Sheet quote 11.77 PL 1294/1

Replaces PL 1294

TRUNKING

FEATURES

- Strong galvanised steel section trunking, with lower edges forming horizontal flange for support to adjacent ceiling panels enables the trunking body to be concealed within the ceiling.
- Designed for use with suspended ceilings, and can be integrated with most proprietary ceiling systems.
- Litebeam has all the advantages of a normal trunking system, plus a neat ceiling appearance.
- Flexibility of location and adaptability to subsequent changes to floor plan, or room layout.
- Simple suspension system of hangers secured to conduit tubes.
- Vertical alignment achieved by adjustment of the 20mm ($\frac{3}{4}$ " ET conduit nuts.
- Coupling spigots, for joining trunking lengths, slide into the sections and are secured by concealed screws.
- Hangers have been tested up to 200kg loading without distortion.
- Entry for cable, terminal blocks and support plates through trunking mouth.
- Luminaires are secured to trunking by two suspension assemblies that are inserted and rotated to engage on the trunking return flanges. Locking nuts are provided to secure the luminaire in its final position.
- Cover strips of White plastic are available in two widths to blank off trunking mouth between luminaires. The wider strip neatly covers the trunking flange completely.
- Installation undertaken with minimum of tools. A 20mm ($\frac{3}{4}$ " ET spanner and screwdriver are all that is required.
- Trunking cable capacity: over 30 cables of 2.5mm² or 4mm² or 6mm²; 15 cables of 10mm².

The ceiling manufacturer should be consulted to ensure that the trunking and ceiling system are integrated to the best advantage and adequate support is provided.

SPECIFICATION

Trunking cable capacity is calculated in accordance with IEE Regulations governing cable volume to free space ratio in trunking installations.

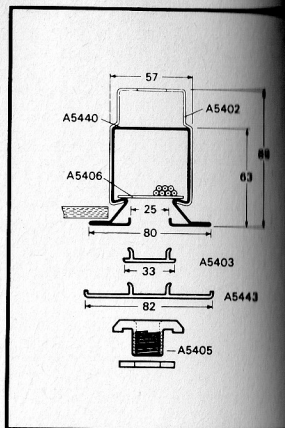
To specify state:

Lighting trunking with flanges for supporting ceiling panels substantially as Philips 'Litebeam Flanged'. The width over flanges shall be approximately 80mm and the mouth width approximately 25mm.

MATERIALS & FINISH

- Trunking:** 1.2mm steel pre-galvanised.
- Suspension hangers:** 1.6mm steel pre-galvanised.
- Coupling Spigots:** 1.6mm steel galvanised.
- End Caps:** 0.8mm Zinc plated steel.
- Cable supports:** 0.6mm Zinc plated steel.
- Cover strip:** Extruded P.V.C.
- Luminaire suspension assemblies:** Zinc based alloy die cast with lacquered lock nuts.

Made in U.K.



DIMENSIONS, WEIGHTS & ELECTRICAL DATA

Description	Weight (kg)	Dimensions (mm) nominal		
		width	depth	length
Trunking 4.3m (14ft) length	13.6	57	63	4300
Spigots	0.8			
Hanger	0.12	57	89	
Cover strip				
narrow (8ft) length	0.37	33		2400
wide (8ft) length	0.5	82		2400
End Caps	0.6			

ORDERING DETAILS

Catalogue No.	EFW Code	Description	
A5440	070183	Trunking 4.3m (14ft) length	Packed 6 per bundle
A5401	035128	Spigots	Packed 20 per pack
A5402	035131	Hanger	" "
A5403	070167	Cover strip narrow 2.4m (8ft) length	" "
A5443	068360	Cover strip wide 2.4m (8ft) length	" "
A5404	035144	End Cap	Packed to order
A5405	035160	Luminaire suspension assembly*	Packed bags of 10
A5406	035186	Cable supports*	Packed bags of 50
A5407	035199	Terminal blocks	Packed to order
A5408	035212	Cross junction	" "
A5409	035225	Tee junction	" "
A5410	035238	Right angle junction	" "
A5413	036431	External angle (riser)	" "
A5414	036444	Internal angle (drop)	" "

*order only in bags.