BASEEFA

British Approvals Service
for
Electrical Equipment
in
Flammable Atmospheres

Certificate of Assurance

THIS IS TO CERTIFY THAT THE "CHALMIT" FLOODLIGHT NO 503
manufactured by
ANDREW CHALMERS AND MITCHELL LIMITED
of Glasgow

designed and constructed in accordance with the Specification set out in the Schedule and the documents therein referred to, has been found to comply with the requirements of BS 4533 : 2.1 : 1976 for restricted breathing luminaires

This Certificate also applies to other apparatus conforming to the specification set out in the Schedule.

This Certificate is granted subject to the general conditions applicable to the Approval Service and any special conditions as may be prescribed.

This Certificate does not necessarily indicate that the apparatus may lawfully be used in particular industries or circumstances because such usage may be subject to statutory requirements.

File No: SFA 14/23/04

Codes : Ex N II T2
Ex N II T3

Test Reports:
81(N)213 (13.11.81)
Paisley College Reports
WAB/EM/80/8 (19.12.80)
WAB/AG/80/9 (18.12.80)
WAB/AG/80/10 (19.12.80)

p.p. B HILL
Director

CERTIFICATE NO: Ex 81267X dated 13 November 1981
7/41/42

Certificate of Assurance

NUMBER Ex 81267X

DATED 13 November 1981

Schedule

APPARATUS

A 'CHALMIT' FLOODLIGHT, No 503, is a restricted breathing luminaire for use with a 700W MBF/U (high pressure mercury vapour) lamp, a 2000W T/HAL (double envelope tungsten halogen) lamp or a 1000W SON/T (high pressure sodium) lamp.

The temperature class, maximum ambient and electrical supply parameters of the control gear vary according to the type of lamp fitted:

LAMP	RATING	CONTROL GEAR SUPPLY	T CLASS	t_a
MBF/U	700W	220/250V 50Hz	T3	40
		240/270V 60Hz	T3	40
T/HAL	2000W	200/240V a.c./d.c.	T2	40
SON/T	1000W	200/250V 50Hz	T3	40
		220/270V 60Hz	T3	40

The luminaire may be set to narrow or wide angle beam by use of the plain or mottled reflector respectively. The 700W MBF/U lamp is used with a narrow angle beam whereas the two other lamps are used with the narrow or wide angle beam.

The luminaire comprises a gravity die cast body, together with a toughened glass window which is set with a silicone-based sealant into the cast body and retained by four clips. The standard casting material is aluminium alloy LM6 to BS 1490 but gunmetal LG2 to BS 1400 or brass DCB3 to BS 1400 may be used. A protective coating of PTFE may be provided.

The lamp housing, which contains the lampholder, is mounted at one end of the cast body and a lamp steady assembly is fitted at the other end. Silicon rubber gaskets are provided at both these entries to the luminaire body. The luminaire is either foot mounted or, by the addition of a pole mounting back plate and 'V' bracket to the foot mounting brackets, the luminaire may be pole mounted.

On the foot mounting bracket, adjacent to the lamp holder housing, is mounted a Klippon K4 or K5 terminal box (BASEEFA Component Approval No 3031U/B). The K4 box contains a BK4 Klippon terminal block (BASEEFA Component Approval No 4021U/B) to connect the supply from the control gear to the 700W MBF/U or the 2000W T/HAL lamps.

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The K5 box contains a BK4 Klippon terminal block and a 1000W ignitor type PBA000 manufactured by W J Parry (Electrical) Ltd (BASEEFA Component Approval No 4131U). The terminal block connects the cable from the control gear to the input of the ignitor. The output of the ignitor is connected via a glanded cable to a Metway twin way porcelain connector type 560/CF mounted on a Tufnol insulating sheet on the lampholder mounting plate within the lamp housing. This is connected to an enclosed break E40 lampholder manufactured by F W Thorpe, type TG3016 (BASEEFA Component Approval No 4037U) by Intemp 250 cable. In the version for use with the high pressure sodium lamp, the Intemp cable is sealed into the lampholder base which is filled with a silicone based sealant.

The K4 and K5 Klippon boxes are omitted when connection to the lamps is made directly from the control gear box.

DRAWINGS

Number	Issue	Date	Description
D745	04	10.11.81	CHALMIT No 503 Zone 2 Luminaire G.A.
B115	01	10.11.81	Case
4473	01	5.1.81	Foot Mounting Bracket
4702	01	10.12.80	Pole Mounting Back Plate
4703	01	10.12.80	'V' Brackets
4447	-	9.5.77	Plain Reflector
4448	-	9.5.77	Mottled Reflector
3703R/1	1	15.11.77	Silicone Sealant
4263	02	22.12.80	Glass Retaining Bracket
4449	-	9.5.77	Safety Glass
4451	02	10.11.81	No 503 Gasket
4456	01	10.11.81	Lamp Steady Mounting Plate
4457	01	10.11.81	Lamp Steady Mounting Plate
4462	-	9.5.77	Lamp Steady Head
4463	-	9.5.77	Lamp Steady Head
4464	-	9.5.77	Lamp Steady Head
4461	-	9.5.77	Lamp Steady Plunger
4459	-	9.5.77	Compression Spring
4458	-	9.5.77	Locating Pin
4472	01	10.11.81	Lamp Housing
4480	-	15.11.77	Twin Way Connector Nameplates
4810	01	5.1.81	700W MBF/U
4478	01	5.1.81	2000W T/HAL
4477	01	5.1.81	1000W HPS SON/T
4139	-	21.11.73	Restricted Breathing Label
4483	-	14.3.78	Warning Label
4812	-	22.1.81	High Voltage

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SPECIAL CONDITIONS FOR SAFE USE

1) The method of cable entry shall be such as to retain the restricted breathing properties of the luminaire. In particular, if conduit entry is used, a stopper gland shall be inserted in the conduit.

2) Mercury vapour Lamps shall be used only in conjunction with ballasts complying with BS 4782 or other appropriate specification.

3) High Pressure Sodium Lamps shall be used only in conjunction with ballasts which limit the power input to a lamp to its rated value, when operating at the rated supply voltage. The igniter circuit shall not produce a pulse voltage in excess of 4.5kV peak.

Note: Unless authoritative information to the contrary is available from the manufacturer of a particular lamp, it must be assumed that the use of a lamp with an internal ignitor will infringe this requirement.

4) For luminaires fitted with high pressure mercury vapour lamps or tungsten halogen lamps the cable from the luminaire to the adjacent leg mounted junction box or the control gear box shall be suitable for 150°C (Silicone Rubber or better).

5) For luminaires fitted with high pressure sodium lamps the cable from the luminaire to the adjacent leg mounted junction box or the control gear box shall be suitable for 120°C and shall comply with one of the following:

a) Glass braided cores (300/500 volt grade to Table 10 of BS 6500), formed in a 3-core cable with an outer sheath selected from Table 8 in BS 6500.

b) 450/750 volt grade cable to Table 8 in BS 6500 but with the thickness of the outer sheath increased to approximately 1½ times the value given in the table.

6) With the exception of item 5a, the cores of the incoming cable shall be sleeved with the glass braided sleeving provided by the manufacturer.

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Certificate of Assurance

THIS IS TO CERTIFY THAT APPARATUS CERTIFICATE NO Ex 81267X

Issued to ANDREW CHALMERS AND MITCHELL
of Glasgow

is hereby extended to apply to the apparatus conforming to the specification set out in the Schedule of the said Certificate but having the variation specified in the attached Schedule.

File: SFA 14/23/04

Code : Ex N II T2
Ex N II T3

B HILL
DIRECTOR

Sheet 1/2

CERTIFICATE NO: Ex 81267X/1 dated 19 May 1986
3/08

Certificate of Assurance

NUMBER Ex 81267X/1

DATED 19 May 1986

Schedule

VARIATION ONE

To permit the KLIPPON K4 or K5 Terminal Enclosure, Component Approval No 3031U, at present used as an Ignitor Box for the 1000W SONT Floodlight, or as an Indirect cable entry box for the 700W MBF/U and the 2000W T/HAL Floodlights, to be replaced by an enclosure, dimensionally identical to the K5 enclosure, cast in gunmetal, and manufactured by Andrew Chalmers and Mitchell Ltd.

This enclosure is fitted and used as previously specified in the original schedule for the CHALMIT FLOODLIGHT No 503.

DRAWINGS

Number	Issue	Date	Description
C 375	1	29.4.86	K5 Enclosure Base
B 282	3	1.4.86	K5 Enclosure Lid

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Issued to ANDREW CHALMERS AND MITCHELL LTD
of Glasgow

is hereby extended to apply to the apparatus conforming to the specification set out in the Schedule of the said Certificate but having the variation specified in the attached Schedule.

File: SFA 14/23/04

Code : Ex N II T3

Sheet 1/2

B HILL
DIRECTOR

CERTIFICATE NO: Ex 81267X/2 dated 14 July 1986
8/06

BASEEFA Harpur Hill Buxton Derbyshire SK17 9JN Tel 0298 6211 Telex 668113 RLSD G

Certificate of Assurance

NUMBER Ex 81267X/2

DATED 14 July 1986

Schedule

VARIATION TWO

To permit the 700W MBF/U lamp within the 'CHALMIT' FLOOD-LIGHT No 503 to be replaced by a 400W MBF/U lamp, when supplied from a suitable box containing appropriate control gear.

The conditions of use associated with the luminaire fitted with a 700W MBF/U lamp, apply equally to the luminaire fitted with a 400W MBF/U lamp. Also the limitation of supply voltage and frequency, ambient temperature and temperature classification for the 700W MBF/U luminaire are applicable to this fitting.

LAMP	RATING	CONTROL GEAR SUPPLY	T.CLASS	T_{amb}
MBF/U	400W	220 / 250V 50Hz	T3	40°C
		240 / 270V 60Hz	T3	40°C

DRAWINGS

Number	Issue	Date	Description
5371	-	9.6.86	Nameplate 400W MBF/U

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Certificate of Assurance Variation

THIS IS TO CERTIFY THAT APPARATUS CERTIFICATE NO Ex 81267X

Held by CHALMERS AND MITCHELL LIMITED
of 388 Hillington Road
Glasgow, G52 4BL

for the TYPE 503 LUMINAIRE

is hereby extended to apply to the Apparatus conforming to the specification set out in the Schedule of the said Certificate but having any variation specified in the attached Schedule.

A copy of this Supplementary Certificate shall be attached to the original certificate.

File No: EECS 0068/03/008

Certification Report No: 95(C)0456
dated: 28 June 1995

ELECTRICAL EQUIPMENT EECS CERTIFICATION SERVICE

I M CLEARE
DIRECTOR EECS
28 June 1995

Sheet 1/2
CERTIFICATE NO: Ex 81267X/3

RHW

This certificate is issued under NACCB accreditation No. 020

ELECTRICAL EQUIPMENT EECS CERTIFICATION SERVICE

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 26211 Fax: 0298 79514 Telex: 668113 RLSD G

HSE Health & Safety Executive

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Certificate of Assurance No Ex 81267X/3

VARIATION THREE To allow the luminaire to be fitted with a 600 watt SON/T lamp. With this arrangement the luminaire may be used in an ambient temperature of up to 60°C and the luminaire coded Ex N II T3.

DRAWINGS

Number	Revision	Date	Description
A6248	0	27.4.95	Name and rating plate

SPECIAL CONDITIONS FOR SAFE USE

1. As in the original certificate and variations.
2. The cable between the junction box at the back of the lampholder and the ignitor box must be suitable for use at 140°C.
3. The cable between the ignitor box and ballast must be suitable for use at 100°C.