



British Approvals Service  
for  
Electrical Equipment  
in  
Flammable Atmospheres

## Certificate of Assurance

APPARATUS CERTIFICATE NO Ex 88Y4074X

Issued to ANDREW CHALMERS & MITCHELL LIMITED

of Glasgow G52 4QW

**THIS IS TO CERTIFY THAT CHALMIT 2400 SERIES STAINLESS STEEL LUMINAIRES**

designed and constructed in accordance with the specification set out in the Schedule and the documents therein referred to, including any variation specified in the Schedule, complies with the requirements of BS 4533 : Section 102.51 : 1986.

This Certificate is granted subject to the general conditions of the British Approvals Service for Electrical Equipment in Flammable Atmospheres and any additional conditions as may be prescribed.

This Certificate does not imply that the apparatus meets all statutory requirements in any particular industry or circumstance.

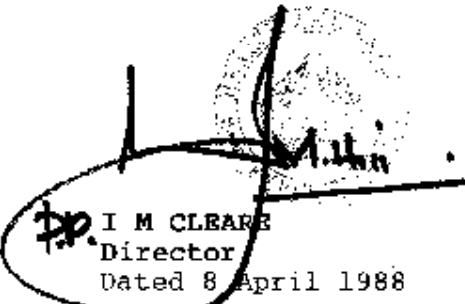
File : EECS 0068/03/001

Test Report No: ERA Ref 3628/117  
Dated March 1988

Code : Ex N II T3

Sheet 1/4

103

  
I. M. CLEARE  
Director  
Dated 8 April 1988

# Certificate of Assurance

## Schedule

NUMBER Ex 88Y4074X

DATED 8 April 1988

### APPARATUS

CHALMIT 2400 SERIES STAINLESS STEEL LUMINAIRES, comprise a restricted breathing enclosure for use with high pressure sodium (SON), metal halide (MBI) or elliptical high pressure mercury vapour (MBF/U) lamps. The Type 2484 luminaire is intended for use with SON/T and MBI/T lamps, whilst the Type 2486 luminaire is intended for use with SON, MBF/U and MBI/E lamps.

The apparatus covered by this certificate is listed below :-

TYPE NO.	LAMP WATTS	LAMP TYPE	BALLAST TYPE
2484	150	SON/T	HSN 155
2484	250	SON/T	HDN 255
2484	400	SON/T	HSN 405
2484	600	SON/T	HSM 605
2484	250	MBI/T	HDN 255
2484	400	MBI/T	HMN 405
2486	150	SON	HSN 155
2486	250	SON	HDN 255
2486	400	SON	HSN 405
2486	250	MBF/U	MN 255
2486	400	MBF/U	MN 405
2486	250	MBI/E	HDN 255
2486	400	MBI/E	HMN 405

# Certificate of Assurance

## Schedule

NUMBER Ex 88Y4074X

DATED 8 April 1988

The luminaires may be used on any of the following supply voltage/frequency combinations :-

SUPPLY VOLTS (a.c. r.m.s.)	SUPPLY FREQUENCY (Hz)
200	50
210	50
220	50/60
230	50/60
240	50/60
250	50/60
260	60
270	60

Each luminaire comprises a lamp enclosure integrally connected to a control gear enclosure, fitted with a stirrup mounting to give angular adjustment of the light beam.

The lamp enclosure consists of a pressed or fabricated stainless steel body, containing an A. G. Hackney Type 95222 E40 porcelain lampholder covered by BASEEFA Approval Number 4153U (Code Ex N II), an anodised reflector and a removable (hinged) front frame with clear toughened glass secured to the body by two snap lever action stainless steel fasteners. A closed cell silicone rubber sponge gasket is fitted between the glass and the body. The lampholder is attached to an aluminium bracket with dual fixing positions, the lower position being used with tubular lamps, and the higher position with elliptical lamps.

The control gear enclosure consists of a body and a removable cover, fixed by six M5 screws. The body contains a Parry BS 4782 choke, a BS 4017 power factor correction capacitor or capacitors, a Klippon Type AK2 terminal rail assembly covered by BASEEFA Approval Number 4025 U/B (Code Ex N II) and in the case of high pressure sodium and metal halide lamps, a Parry Type PBA electronic ignitor covered by BASEEFA Approval Number 4131U (Code Ex N II). A closed cell neoprene rubber gasket is located between the cover and the body of the control gear enclosure. Cable entry is by means of a clearance hole (or holes in the case of the loop-in facility) on the side of the body to accept an approved gland appropriate to the cable being used.

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## Schedule

NUMBER Ex 88Y4074X

DATED 8 April 1988

The lamp enclosure and control gear enclosure are connected by two welded stainless steel brackets, one each end, which also provide the stirrup mounting. Additionally, a connecting tube, threaded at each end and gasketed, is fitted between the lamp enclosure and the control gear enclosure to enable the lampholder cables to pass from one to the other.

### DRAWINGS

Number	Issue	Date	Description	
D1136 Sheet 1	3	10-3-88	General Arrangement	✓
D1136 Sheet 2	4	10-3-88	Material Specification	✓
5474	-	1-2-88	Label for 2484	
5475	-	1-2-88	Label for 2485	
4812	-	22-1-81	H.V. Nameplate	

### SPECIAL CONDITION FOR SAFE USE

The luminaires may only be used with the major lamp axis horizontal.



**BASEEFA**

British Approvals Service  
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## Certificate of Assurance

**THIS IS TO CERTIFY THAT CERTIFICATE NO. EX 88Y4074X**

Issued to : **ANDREW CHALMERS & MITCHELL LIMITED**  
of **Glasgow, G52 4QW.**

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

File : **EECS 0068/03/001**

Test Report : **ERA ref. 3628/137**  
Dated **September 1988**

**CERTIFICATE NO. EX 88Y4074X/1**  
Sheet **1/2**  
**AES/105**

**I M CLEARE**  
**DIRECTOR**  
Dated **20 September 1988**

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

# Certificate of Assurance

## Schedule

**NUMBER** Ex 88Y4074X/1

**DATED** 20 September 1988

### VARIATION ONE

Alternative mounting by means of an external stirrup bracket.

### DRAWINGS

Number	Issue	Date	Description
D1136 Sheet 1	06	30/8/88	General Arrangement
D1136 Sheet 2	05	29/8/88	Material Specification

### VARIATION TWO

Reversal of the control gear box to allow access from the rear of the fitting.

### VARIATION THREE

Various minor drawing modifications to clarify construction.

### VARIATION FOUR

To permit mounting of the luminaire with the lamp axis vertical with the lamp cap at the bottom. The following Special Conditions for Safe use will apply.

### SPECIAL CONDITIONS FOR SAFE USE

1. The luminaire may only be used with the lamp axis a) horizontal or b) vertical with the lamp cap at the bottom.
2. The restricted breathing qualities must be maintained in service.



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## Certificate of Assurance

THIS IS TO CERTIFY THAT APPARATUS CERTIFICATE NO Ex 88Y4074X

Issued to ANDREW CHALMERS & MITCHELL LIMITED  
of Glasgow, G52 4QW

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

### SCHEDULE

VARIATION FIVE      The AXEM earth terminals are omitted and the Klippon Type SSch busbar system is incorporated for earthing purposes. The SSch system is covered by BASEEFA Component Certificate Number Ex 813098U.

DRAWING  
Number:

Issue

Date

Description

5620	03	23.9.88	Arrangement of busbar inside the control gear box
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SPECIAL CONDITIONS FOR SAFE USE

As for the original schedule.

File: EECS 0068/03/001



I M'CLEARE  
DIRECTOR

CERTIFICATE NO: Ex 88Y4074X/2 dated 3 October 1988  
AH

BASEEFA Harpur Hill Buxton Derbyshire SK17 9JN Tel 0298 8211 Telex 668113 RLSD G



**BASEEFA**

British Approvals Service  
for  
Electrical Equipment  
in  
Flammable Atmospheres

## Certificate of Assurance **VARIATION**

**THIS IS TO CERTIFY THAT APPATUS CERTIFICATE No Ex 88Y4074X**

held by **ANDREW CHALMERS & MITCHELL LIMITED**  
of Glasgow, G52 4QW

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

**VARIATION SIX** Permits a stainless steel anti-glare shield to be screwed to the luminaire bezel.

### DRAWINGS

Number	Issue	Date	Description
B455	-	6.11.89	Anti-glare shield attached to luminaire
5713	-	6.11.89	Anti-glare shield

### SPECIAL CONDITIONS FOR SAFE USE

As for the original schedule.

File: EECS 0068/03/001

Test Report No: 89(N)334  
dated 24 November 1989

CERTIFICATE NO: Ex 88Y4074X/3 dated 24 November 1989  
AH

Re-issued 26 May 1993 to correct certificate number

I M CLEARE  
DIRECTOR EECS





British Approval Service for Electrical  
Equipment in Flammable Atmospheres

### CERTIFICATE OF ASSURANCE VARIATION

**THIS IS TO CERTIFY THAT CERTIFICATE No Ex 88Y4074X**

Held by: **ANDREW CHALMERS & MITCHELL LIMITED**  
of Glasgow, G52 4QW

for the CHALMIT 2400 SERIES STAINLESS STEEL LUMINAIRES  
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.

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

File No: EECS 0068/03/001

ERA Report Ref 3628/167  
dated April 1991

CERTIFICATE No Ex 88Y4074X/4  
Sheet 1/3  
ref/R0135B/REP4

Reissued 17 October 1994 to amend the variation and  
supplementary certificate numbers

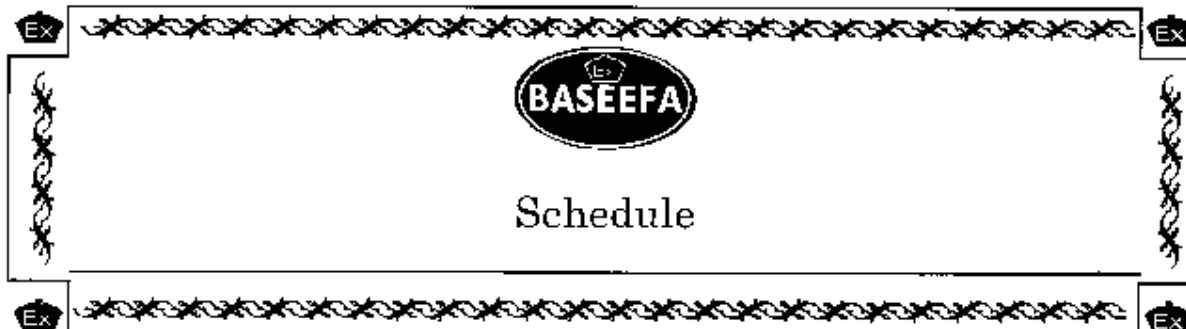


*J.P.* **I M CLEARE**  
**DIRECTOR EECS**  
3 May 1991



**Electrical Equipment Certification Service**  
Health and Safety Executive  
Harlow - Boxton, Derbyshire, SK17 9JN United Kingdom  
tel 0798 262 fax 0798 79514 telex 668113 ALSO G





Certificate of Assurance No Ex 88Y4074X/4 dated 3 May 1991

#### **VARIATION SEVEN**

Revision of the number and construction of the lamp housing cover retaining clamps from 2 to 4 clamps to provide a Degree of Protection of IP66, or 2 heavy duty clamps to provide Degree of Protection IP65, together with associated label changes.

#### **DRAWINGS**

<b>Number</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
D1136 Sheet 1	08	21/2/91	GA
5779	-	4/6/90	Label 2484
5780	-	4/6/90	Label 2486

#### **VARIATION EIGHT**

Clarification of control gear capacitor details

#### **DRAWING**

<b>Number</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
D1136 Sheet 2	06	1/3/91	Certification Data

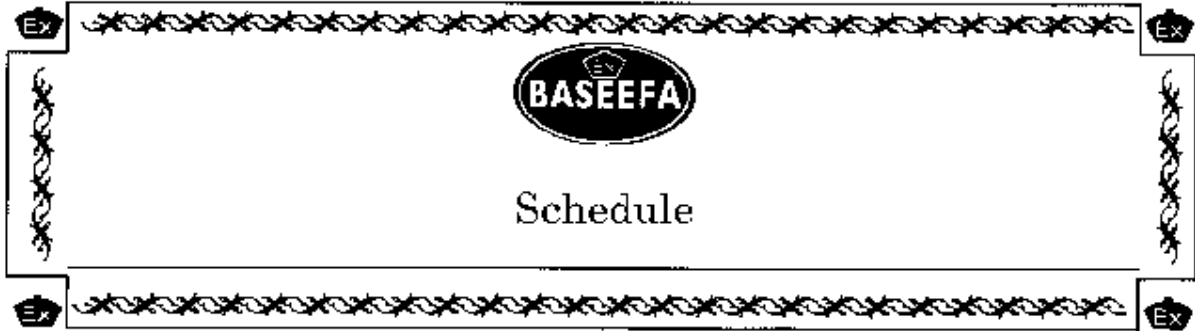
#### **VARIATION NINE**

To allow for the addition of an external cover glass wire guard.

#### **DRAWING**

<b>Number</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
C489	01	2/11/90	Guard Detail

Sheet 2/3



Certificate of Assurance No Ex 88Y4074X/4 dated 3 May 1991

**VARIATION TEN**

Minor modifications to the drawing notes with reference to cable entries.

**VARIATION ELEVEN**

To allow an alternative terminal assembly Klippon Type MK 6/6 certified according to Component Certificate Ex 813095L.

**DRAWING**

<b>Number</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
C486	-	6/9/90	Terminal Assembly



British Approvals Service for Electrical  
Equipment in Flammable Atmospheres

### *Certificate of Assurance Variation*

**THIS IS TO CERTIFY THAT APPARATUS CERTIFICATE No Ex 88Y4074X**

Held by **CHALMERS & MITCHELL LIMITED**

of **Glasgow G52 4QW**

for the **CHALMITT 2400 SERIES STAINLESS STEEL LUMINAIRE**

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.

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

File No: **EECS 0068/03/001**

ERA Ref: **3628/234**  
dated August 1994

**CERTIFICATE No Ex 88Y4074X/5**  
Sheet 1/3  
ref/R0135A/REP4



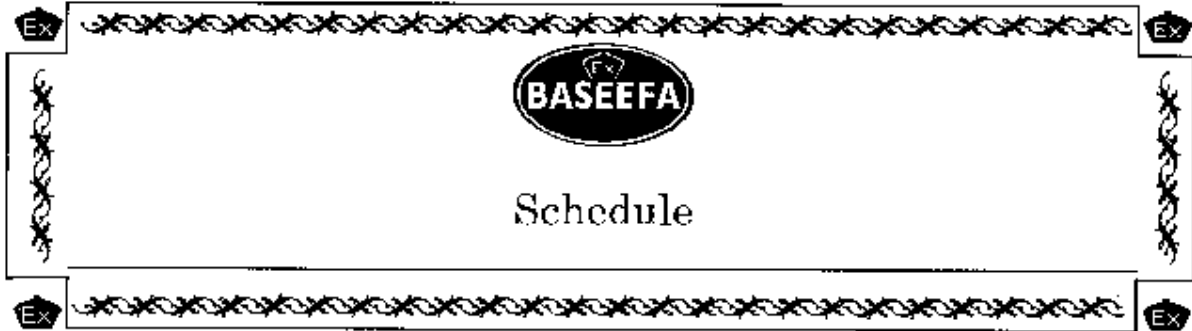
**I M CLEARE**  
**DIRECTOR EECS**  
**17 October 1994**

This certificate is issued under NACCB accreditation No. 020



**Electrical Equipment Certification Service**  
Health and Safety Executive  
Fleming Hill Buxton Derbyshire, S17 9, N, United Kingdom  
tel: 0298 252111 Fax: 0298 795171 Telex: 668112 RLSD G





Certificate of Assurance No Ex 88Y4074X/5 dated 17 October 1994

#### **VARIATION TWELVE**

To allow the maximum ambient temperature to be increased from 40°C to 55°C for the 2484 Series floodlights when in the HPS (SON/T) 400W, 250W and 150W configurations

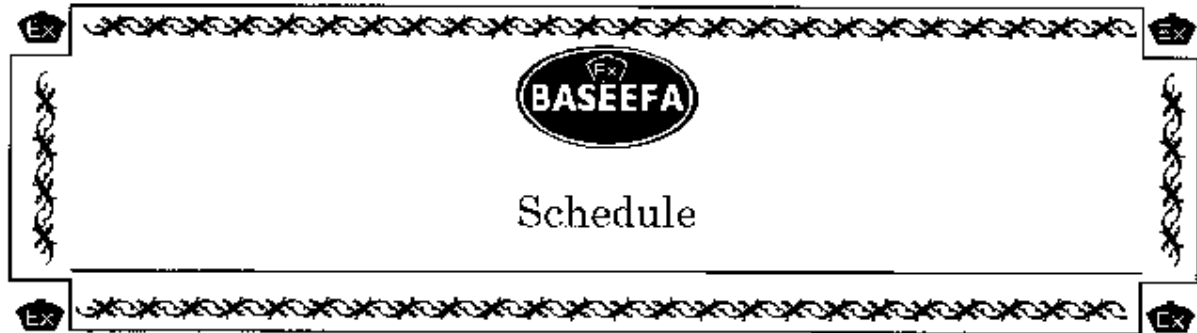
#### **DRAWINGS**

<b>Number</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
D1136 Sheet 1	10	16/6/93	GA
D1136 Sheet 2	07	16/6/93	Certification information
C569	01	16/6/93	Certification information

#### **VARIATION THIRTEEN**

To allow the marking for the Degree of Protection to be changed from IP66 to IP66/67 on the certification nameplate for floodlights in which the lamp housing cover is fitted with four retaining clamps and the control gear box is fitted with a silicone rubber gasket.

Sheet 2/3



Certificate of Assurance No Ex 88Y4074X/5 dated 17 October 1994

**VARIATION FOURTEEN**

To allow the removal of the power factor correction capacitor. This item is now optional.

**VARIATION FIFTEEN**

To allow the following minor mechanical changes:

- the control gear box cover fixing screws are now M5
- the addition of an external earth stud adjacent to the cable entry holes

**VARIATION SIXTEEN**

To allow the removal of the ballast and capacitors from the control gear box to form a lamp housing and ignitor box.

**SPECIAL CONDITION FOR SAFE USE**

For variation sixteen the lamp and ignitor must be supplied from a remote ballast as specified on the certified drawing which is in accordance with IEC 922 and IEC 923, but which does not form part of this certification,

British Approvals Service for Electrical  
Equipment in Flammable Atmospheres



## Certificate of Assurance - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 88Y4074X/6

This is to certify that Apparatus Certificate number:

**Ex 88Y4074X**

held by:

**SIMPLEX CHALMIT LIGHTING LTD**

of:

**Glasgow, G52 4BL**

for the:

**THE CHALMIT 2400 SERIES STAINLESS STEEL LUMINAIRES**

is hereby extended to apply to the apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 0068/03/001

Sheet 1 of 2

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. Representation of equipment as "Certified" is valid only when the number of the prime certificate to which this certificate is a supplement is given on the relevant FCCN Manufacturing License or Verification Certificate.



**I M CLEARE  
DIRECTOR**

**5 August 1997**



Registration Number  
0519  
The use of the Accreditation  
Mark indicates acceptance of  
approval of such bodies  
issued by the accreditor  
NACB (BSI) Ltd.



**Electrical Equipment Certification Service**  
Health and Safety Executive  
Harpur Hill, Boreton, Derbyshire, SK17 9JN, United Kingdom  
Tel: 01298 28600 Fax: 01298 28244

British Approvals Service for Electrical  
Equipment in Flammable Atmospheres



*Schedule*

Supplementary Certificate BAS No. Ex 88Y4074X/6

**VARIATION SEVENTEEN**

To allow the use of an alternative ignitor namely the type PXE 000 as assessed in BASEEFA  
Certification Report No 96(C)1064.

**DRAWING**

<u>Number</u>	<u>Issue</u>	<u>Date</u>	<u>Description</u>
D909	-	14.03.97	Table of alternatives

**SPECIAL CONDITIONS FOR SAFE USE**

As in the original certificate and variations.



Supplementary  
Certificate Number  
Ex 88Y4074X/7



Issued 13 August 2007  
Page 1 of 2

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### Certificate of Assurance - Variation

This is to certify that Equipment Certificate number: **Ex 88Y4074X/7**  
held by: **Chalmit Lighting**  
of: **388 Hillington Road, Glasgow, Scotland, G52 4BL**  
for the: **2400 Series Stainless Steel Luminaires**

is hereby extended to apply to the apparatus designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate

The Electrical Equipment Certification Service retains responsibility for its original documentation. Baseefa is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate that it has issued.

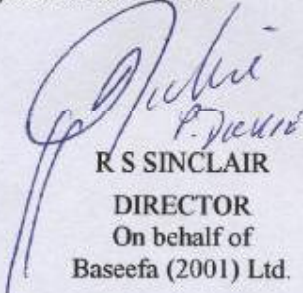
**NB. This certificate is issued not for the purposes of new manufacture (as the standard referred to is now superseded), but to allow modification of previously manufactured products in the field in line with the original certification.**

This certificate may only be reproduced in its entirety, without any change, Schedule included.

Baseefa Customer Reference No. **0068**

Project File No. **06/0879**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.



**R S SINCLAIR**  
DIRECTOR  
On behalf of  
Baseefa (2001) Ltd.

**Baseefa**  
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Buxton, Derbyshire SK17 9RZ  
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e-mail [info@baseefa.com](mailto:info@baseefa.com) web site [www.baseefa.com](http://www.baseefa.com)  
Baseefa is a trading name of Baseefa (2001) Ltd  
Registered in England No. 4305578 at the above address



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## Schedule

### Description of the variation

#### Variation 7.1

To permit the use of alternative ballasts meeting the requirements of EN 60922.

#### Variation 7.2

To permit the use of alternative capacitors covered under Component Approval BAS98ATEX3379U.

### Report No.

None

### Drawings

Number	Issue	Date	Description
A6599*	1	06/03/07	500 Series Gear Systems Certificate Ex81265X Lamp / Gear Schedule

\* Held with Ex 81265X/11

### Special Conditions for Safe Use

None in addition to those listed previously