

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

### AMENDMENT 5 AMENDEMENT 5

The sheets contained in this amendment are to be inserted in IEC 60809  
Les feuilles de cet amendement sont à insérer dans la CEI 60809

#### Lamps for road vehicles – Dimensional, electrical and luminous requirements

Lampes pour véhicules routiers – Prescriptions dimensionnelles, électriques et lumineuse



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#### Lamps for road vehicles – Dimensional, electrical and luminous requirements

**Lampes pour véhicules routiers – Prescriptions dimensionnelles, électriques et lumineuse**

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ELECTROTECHNICAL  
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## FOREWORD

This amendment has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34: Lamps and related equipment.

The text of this amendment is based on the following documents:

| FDIS          | Report on voting |
|---------------|------------------|
| 34A/1574/FDIS | 34A/1592/RVD     |

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

### 1.1 Scope

*Replace the fourth paragraph by the following:*

For most of the requirements given in this standard, reference is made to the "relevant lamp data sheet". For all lamps listed in Clause 5, data sheets are contained in this standard or included by reference. For other lamps, the relevant data are supplied by the lamp manufacturer or responsible vendor. It could be based on national legislation.

### 1.2 Normative references

*Add the following:*

United Nations, *Agreement concerning the adoption of uniform technical prescription for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions, Addendum 36: Regulation No. 37, Uniform provisions concerning the approval of filament lamps for use in approved lamp units of power-driven vehicles and of their trailers* (in this standard referred to as UNECE Regulation 37 or R37; internet source: [www.unece.org/trans/main/wp29/wp29regs.html](http://www.unece.org/trans/main/wp29/wp29regs.html)) (website checked 2012-04-03)

United Nations, *Agreement concerning the adoption of uniform technical prescription for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions, Addendum 98: Regulation No. 99, Uniform provisions concerning the approval of gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles* (in this standard referred to as UNECE Regulation 99 or R99; internet source: [www.unece.org/trans/main/wp29/wp29regs.html](http://www.unece.org/trans/main/wp29/wp29regs.html)) (website checked 2012-04-03)

### **1.3.6 nominal voltage**

*Add the following note to entry to the definition:*

Note 1 to entry: The term used in the UNECE regulations is "rated voltage".

### **1.3.9 rated value**

*Add the following note to entry to the definition:*

Note 1 to entry: The term used in the UNECE regulations is "objective value".

### **1.3.17 production lamp**

*Add the following note to entry to the definition:*

Note 1 to entry: The term used in the UNECE regulations is "lamp of normal production".

*Add the following new Definitions 1.3.19 and 1.3.20:*

### **1.3.19 main beam**

No definition given.

Note 1 to entry: The term used in the UNECE regulations is "driving beam".

### **1.3.20 dipped beam**

No definition given.

Note 1 to entry: The term used in the UNECE regulations is "passing beam".

## **2.4.1 Colour of light**

*Replace the existing last paragraph by the following:*

For conformity of production purposes of amber and red colour only, at least 80 % of the measuring results shall lie within the required tolerance area.

## **2.4.2 Colour endurance**

*Replace the existing text of Subclause 2.4.2 by the following:*

Filament lamps, but for conformity of production purposes only colour coated lamps, for use in light signalling devices shall be operated under test conditions for colour endurance measurements as specified in Annex K.

Thereafter the colour of the light shall be measured by the method specified in Annex B, and all measuring results, but for amber and red colour at least 80 % of the measuring results for conformity of production purposes, shall be within the limits specified in 2.4.1.

In case of colour filter coatings, no cracks in these coatings shall be visible without specific optical tools.

Test samples that have been operated under conditions as specified in Annex K shall no longer be used in light signalling devices and are to be considered end of life for that purpose.

## 5.1 List of specific lamp types

Replace the list of specific lamp types with the following:

| IEC sheet no. <sup>1</sup> | UNECE sheet no. <sup>2</sup> | Category    | Voltage<br>V  | Wattage<br>W            | Cap                        |
|----------------------------|------------------------------|-------------|---------------|-------------------------|----------------------------|
| 60809-IEC-2110-            | R37-R2                       | R2          | 6<br>12<br>24 | 45/40<br>45/40<br>55/50 | P45t<br>P45t<br>P45t       |
| 60809-IEC-2120-            | R37-H4                       | H4          | 12<br>24      | 60/55<br>75/70          | P43t-38<br>P43t-38         |
| 60809-IEC-2125-            | -                            | H6          | 12            | 65/55                   | PZ43t                      |
| 60809-IEC-2130-            | R37-HS1                      | HS1         | 6<br>12       | 35/35<br>35/35          | PX43t<br>PX43t             |
| 60809-IEC-2132-            | R37-HS5                      | HS5         | 12            | 35/30                   | P23t                       |
| 60809-IEC-2135-            | -                            | HB1         | 12            | 65/45                   | P29t                       |
| 60809-IEC-2140-            | R37-S1/S2                    | S1          | 6<br>12       | 25/25<br>25/25          | BA20d<br>BA20d             |
| 60809-IEC-2150-            | R37-S1/S2                    | S2          | 6<br>12       | 35/35<br>35/35          | BA20d<br>BA20d             |
| 60809-IEC-2160-            | -                            | S4          | 6<br>12       | 15/15<br>15/15          | BAX15d<br>BAX15d           |
| 60809-IEC-2305-            | -                            | H5          | 12            | 50                      | PY43d                      |
| 60809-IEC-2310-            | R37-H1                       | H1          | 6<br>12<br>24 | 55<br>55<br>70          | P14.5s<br>P14.5s<br>P14.5s |
| 60809-IEC-2315-            | R37-H7                       | H7          | 12<br>24      | 55<br>70                | PX26d<br>PX26d             |
| 60809-IEC-2320-            | -                            | H2          | 6<br>12<br>24 | 55<br>55<br>70          | X511<br>X511<br>X511       |
| 60809-IEC-2325-            | R37-HB3                      | HB3<br>HB3A | 12<br>12      | 60<br>60                | P20d<br>P20d               |
| 60809-IEC-2330-            | R37-H3                       | H3          | 6<br>12<br>24 | 55<br>55<br>70          | PK22s<br>PK22s<br>PK22s    |
| 60809-IEC-2335-            | R37-HB4                      | HB4<br>HB4A | 12<br>12      | 51<br>51                | P22d<br>P22d               |
| 60809-IEC-2340-            | R37-HS2                      | HS2         | 6<br>12       | 15<br>15                | PX13.5s<br>PX13.5s         |
| 60809-IEC-2350-            | -                            | HS3         | 6             | 2,4                     | PX13.5s                    |
| 60809-IEC-2360-            | R37-S3                       | S3          | 6<br>12       | 15<br>15                | P26s<br>P26s               |
| 60809-IEC-2365-            | R37-H8                       | H8          | 12            | 35                      | PGJ19-1                    |
| 60809-IEC-2370-            | R37-H9                       | H9          | 12            | 65                      | PGJ19-5                    |
| 60809-IEC-2375-            | R37-H10                      | H10         | 12            | 42                      | PY20d                      |
| 60809-IEC-2380-            | R37-H11                      | H11         | 12<br>24      | 55<br>70                | PGJ19-2<br>PGJ19-2         |
| 60809-IEC-2385-            | R37-H12                      | H12         | 12            | 53                      | PZ20d                      |
| 60809-IEC-2410-            | R37-HIR1                     | HIR1        | 12            | 65                      | PX20d                      |

<sup>1</sup> If an UNECE sheet number is referenced in the second column, the IEC sheet number refers to a data sheet withdrawn with Amendment 5 of this standard and is given for information only.

<sup>2</sup> The number in front of the dash indicates the number of the UNECE regulation.

| IEC sheet no. <sup>1</sup> | UNECE sheet no. <sup>2</sup> | Category                 | Voltage<br>V         | Wattage<br>W         | Cap                                          |
|----------------------------|------------------------------|--------------------------|----------------------|----------------------|----------------------------------------------|
| 60809-IEC-2420-            | R37-HIR2                     | HIR2                     | 12                   | 55                   | PX22d                                        |
| 60809-IEC-3110-            | R37-P21/5W                   | P21/5W                   | 6<br>12<br>24        | 21/5<br>21/5<br>21/5 | BAY15d<br>BAY15d<br>BAY15d                   |
| 60809-IEC-3120-            | R37-P21/4W                   | P21/4W                   | 6<br>12<br>24        | 21/4<br>21/4<br>21/4 | BAZ15d<br>BAZ15d<br>BAZ15d                   |
| 60809-IEC-3130-            | R37-W21/5W                   | W21/5W                   | 12                   | 21/5                 | W3x16q                                       |
| 60809-IEC-3135-            | R37-WR21/5W                  | WR21/5W                  | 12                   | 21/5                 | WY3x16q                                      |
| 60809-IEC-3140-            | R37-P27/7W                   | P27/7W                   | 12                   | 27/7                 | W2.5x16q                                     |
| 60809-IEC-3141-            | R37-PY27/7W                  | PY27/7W                  | 12                   | 27/7                 | WX2.5x16q                                    |
| 60809-IEC-3310-            | R37-P21W                     | P21W                     | 6<br>12<br>24        | 21<br>21<br>21       | BA15s(BA15d)<br>BA15s(BA15d)<br>BA15s(BA15d) |
| 60809-IEC-3311-            | R37-PY21W                    | PY21W                    | 12<br>24             | 21<br>21             | BAU15s<br>BAU15s                             |
| 60809-IEC-3315-            | R37-P27W                     | P27W                     | 12                   | 27                   | W2.5x16d                                     |
| 60809-IEC-3320-            | R37-R5W                      | R5W                      | 6<br>12<br>24        | 5<br>5<br>5          | BA15s(BA15d)<br>BA15s(BA15d)<br>BA15s(BA15d) |
| 60809-IEC-3330-            | R37-R10W                     | R10W                     | 6<br>12<br>24        | 10<br>10<br>10       | BA15s(BA15d)<br>BA15s(BA15d)<br>BA15s(BA15d) |
| 60809-IEC-3340-            | R37-T4W                      | T4W                      | 6<br>12<br>24        | 4<br>4<br>4          | BA9s<br>BA9s<br>BA9s                         |
| 60809-IEC-3410-            | R37-H6W                      | H6W                      | 12                   | 6                    | BAX9s                                        |
| 60809-IEC-3420-            | R37-H21W                     | H21W                     | 12<br>24             | 21<br>21             | BAY9s<br>BAY9s                               |
| 60809-IEC-3430             | R37-H27W                     | H27W/1<br>H27W/2         | 12<br>12             | 27<br>27             | PG13<br>PGJ13                                |
| 60809-IEC-4110-            | R37-C5W                      | C5W                      | 6<br>12<br>24        | 5<br>5<br>5          | SV8.5<br>SV8.5<br>SV8.5                      |
| 60809-IEC-4120-            | R37-C21W                     | C21W                     | 12                   | 21                   | SV8.5                                        |
| 60809-IEC-4305-            | R37-W2.3W                    | W2.3W                    | 12                   | 2,3                  | W2x4.6d                                      |
| 60809-IEC-4310-            | R37-W3W                      | W3W                      | 6<br>12<br>24        | 3<br>3<br>3          | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d          |
| 60809-IEC-4320-            | R37-W5W                      | W5W                      | 6<br>12<br>24        | 5<br>5<br>5          | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d          |
| 60809-IEC-4321-            | R37-W5W                      | WY5W                     | 6<br>12<br>24        | 5<br>5<br>5          | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d          |
| 60809-IEC-4330-            | R37-W21W                     | W21W                     | 12                   | 21                   | W3x16d                                       |
| 60809-IEC-4335-            | R37-WY21W                    | WY21W                    | 12                   | 21                   | WX3x16d                                      |
| 60809-IEC-4340-            | R37-W16W                     | W16W                     | 12                   | 16                   | W2.1x9.5d                                    |
| 60809-IEC-5010-            | R37-T1.4W                    | T1.4W                    | 12                   | 1,4                  | P11.5d                                       |
| 60809-IEC-7110-            | R99-DxS                      | D1S<br>D2S<br>D3S<br>D4S | 12<br>12<br>12<br>12 | 35<br>35<br>35<br>35 | PK32d-2<br>P32d-2<br>PK32d-5<br>P32d-5       |

| IEC sheet no. <sup>1</sup> | UNECE sheet no. <sup>2</sup> | Category                                                                                            | Voltage<br>V                                                   | Wattage<br>W                                                   | Cap                                                                                                                              |
|----------------------------|------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 60809-IEC-7120-            | R99-DxR                      | D1R<br>D2R<br>D3R<br>D4R                                                                            | 12<br>12<br>12<br>12                                           | 35<br>35<br>35<br>35                                           | PK32d-3<br>P32d-3<br>PK32d-6<br>P32d-6                                                                                           |
| 60809-IEC-9310-            | -                            | B1.13W                                                                                              | 2,7                                                            | 1,13                                                           | PX13.5s                                                                                                                          |
| 60809-IEC-9610-            | -                            | B0.6W                                                                                               | 6                                                              | 0,6                                                            | E10                                                                                                                              |
| 60809-IEC-9620-            | -                            | B2.4W                                                                                               | 6                                                              | 2,4                                                            | EP10/14x11                                                                                                                       |
| -                          | R37-H10W                     | H10W/1<br>HY10W                                                                                     | 12<br>12                                                       | 10<br>10                                                       | BAU9s<br>BAU29s                                                                                                                  |
| -                          | R37-H11                      | H11B                                                                                                | 12<br>24                                                       | 55<br>70                                                       | PGJY19-2<br>PGJY19-2                                                                                                             |
| -                          | R37-H13                      | H13<br>H13A                                                                                         | 12<br>12                                                       | 55/60<br>55/60                                                 | P26.4t<br>PJ26.4t                                                                                                                |
| -                          | R37-H14                      | H14                                                                                                 | 12                                                             | 55/60                                                          | P38t                                                                                                                             |
| -                          | R37-H15                      | H15                                                                                                 | 12<br>24                                                       | 15/55<br>20/60                                                 | PGJ23t-1<br>PGJ23t-1                                                                                                             |
| -                          | R37-H16                      | H16<br>H16B                                                                                         | 12<br>12                                                       | 19<br>19                                                       | PGJ19-3<br>PGJY19-3                                                                                                              |
| -                          | R37-H21W                     | HY21W                                                                                               | 12<br>24                                                       | 21<br>21                                                       | BAW9s<br>BAW9s                                                                                                                   |
| -                          | R37-H6W                      | HY6W                                                                                                | 12                                                             | 6                                                              | BAZ9s                                                                                                                            |
| -                          | R37-H8                       | H8B                                                                                                 | 12                                                             | 35                                                             | PGJY19-1                                                                                                                         |
| -                          | R37-H9                       | H9B                                                                                                 | 12                                                             | 65                                                             | PGJY19-5                                                                                                                         |
| -                          | R37-HS5A                     | HS5A                                                                                                | 12                                                             | 45/40                                                          | PX23t                                                                                                                            |
| -                          | R37-P13W                     | P13W<br>PW13W                                                                                       | 12<br>12                                                       | 13<br>13                                                       | PG18.5d-1<br>WP3.3x14.5-7                                                                                                        |
| -                          | R37-P19W                     | P19W<br>PY19W<br>PR19W<br>PS19W<br>PSY19W<br>PSR19W<br>PW19W<br>PWR19W<br>PWY19W                    | 12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12             | 19<br>19<br>19<br>19<br>19<br>19<br>19<br>19<br>19             | PGU20-1<br>PGU20-2<br>PGU20-5<br>PG20-1<br>PG20-2<br>PG20-5<br>WP3.3x14.5-1<br>WP3.3x14.5-2<br>WP3.3x14.5-5                      |
| -                          | R37-P24W                     | P24W<br>PX24W<br>PY24W<br>PR24W<br>PS24W<br>PSX24W<br>PSY24W<br>PSR24W<br>PW24W<br>PWR24W<br>PWY24W | 12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12 | 24<br>24<br>24<br>24<br>24<br>24<br>24<br>24<br>24<br>24<br>24 | PGU20-3<br>PGU20-7<br>PGU20-4<br>PGU20-6<br>PG20-3<br>PG20-7<br>PG20-4<br>PG20-6<br>WP3.3x14.5-3<br>WP3.3x14.5-4<br>WP3.3x14.5-6 |
| -                          | R37-P27/7W                   | P27/7W                                                                                              | 12                                                             | 27/7                                                           | WU2.5x16                                                                                                                         |
| -                          | R37-PC16W                    | PC16W<br>PCY16W<br>PCR16W<br>PW16W<br>PWR16W<br>PWY16W                                              | 12<br>12<br>12<br>12<br>12<br>12                               | 16<br>16<br>16<br>16<br>16<br>16                               | PU20d-1<br>PU20d-2<br>PU20d-7<br>WP3.3x14.5-8<br>WP3.3x14.5-9<br>WP3.3x14.5-10                                                   |
| -                          | R37-PR21/4W                  | PR21/4W                                                                                             | 12<br>24                                                       | 21/4<br>21/4                                                   | BAU15d<br>BAU15d                                                                                                                 |
| -                          | R37-PR21/5W                  | PR21/5W                                                                                             | 12<br>24                                                       | 21/5<br>21/5                                                   | BAW15d<br>BAW15d                                                                                                                 |

| IEC sheet no. <sup>1</sup> | UNECE sheet no. <sup>2</sup> | Category                                           | Voltage<br>V                   | Wattage<br>W                     | Cap                                                      |
|----------------------------|------------------------------|----------------------------------------------------|--------------------------------|----------------------------------|----------------------------------------------------------|
| -                          | R37-PR21W                    | PR21W                                              | 12<br>24                       | 21<br>21                         | BAW15s<br>BAW15s                                         |
| -                          | R37-PSX26W                   | PSX26W                                             | 12                             | 26                               | PG18.5d-3                                                |
| -                          | R37-R10W                     | RR10W<br>RR10W<br>RR10W<br>RY10W<br>RY10W<br>RY10W | 6<br>12<br>24<br>6<br>12<br>24 | 10<br>10<br>10<br>10<br>10<br>10 | BAW15s<br>BAW15s<br>BAW15s<br>BAU15s<br>BAU15s<br>BAU15s |
| -                          | R37-R5W                      | RR5W                                               | 6<br>12<br>24                  | 5<br>5<br>5                      | BAW15s<br>BAW15s<br>BAW15s                               |
| -                          | R37-W10W                     | W10W<br>W10W<br>WY10W<br>WY10W                     | 6<br>12<br>6<br>12             | 10<br>10<br>10<br>10             | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d         |
| -                          | R37-W15/5W                   | W15/5W                                             | 12                             | 15/5                             | WZ3x16q                                                  |
| -                          | R37-W16W                     | WY16W                                              | 12                             | 16                               | W2.1x9.5d                                                |
| -                          | R37-W5W                      | WR5W                                               | 6<br>12<br>24                  | 5<br>5<br>5                      | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d                      |
| -                          | R37-WP21W                    | WP21W<br>WPY21W                                    | 12<br>12                       | 21<br>21                         | WY2.5x16d<br>WZ2.5x16d                                   |
| -                          | R37-WR21/5W                  | WR21/5W                                            | 12                             | 21/5                             | WY3x16q                                                  |
| -                          | R37-WY2.3W                   | WY2.3W                                             | 12                             | 2,3                              | W2x4.6d                                                  |
| -                          | R37-WY21W                    | WY21W                                              | 12                             | 21                               | WX3x16d                                                  |

## Data sheets

Remove the following data sheets:

60809-IEC-2110, 60809-IEC-2120, 60809-IEC-2130, 60809-IEC-2132, 60809-IEC-2140, 60809-IEC-2150,  
60809-IEC-2310, 60809-IEC-2315, 60809-IEC-2325, 60809-IEC-2330, 60809-IEC-2335, 60809-IEC-2340,  
60809-IEC-2360, 60809-IEC-2365, 60809-IEC-2370, 60809-IEC-2375, 60809-IEC-2380, 60809-IEC-2385,  
60809-IEC-2410, 60809-IEC-2420, 60809-IEC-3110, 60809-IEC-3120, 60809-IEC-3130, 60809-IEC-3135,  
60809-IEC-3140, 60809-IEC-3141, 60809-IEC-3310, 60809-IEC-3311, 60809-IEC-3315, 60809-IEC-3320,  
60809-IEC-3330, 60809-IEC-3340, 60809-IEC-3410, 60809-IEC-3420, 60809-IEC-3430, 60809-IEC-4110,  
60809-IEC-4120, 60809-IEC-4305, 60809-IEC-4310, 60809-IEC-4320, 60809-IEC-4321, 60809-IEC-4330,  
60809-IEC-4335, 60809-IEC-4340, 60809-IEC-5010, 60809-IEC-7110 and 60809-IEC-7120.

## **Annex B – Measurement method of the colour of filament lamps**

*Replace the existing Clause B.1 by the following:*

### **B.1 General**

Measurements shall be made on finished lamps. Filament lamps with secondary (outer) bulb acting as colour filter shall be handled as filament lamp with primary bulb.

Tests shall be made at an ambient temperature of  $23\text{ °C} \pm 5\text{ °C}$ .

Tests shall be made at test voltage as specified in the relevant filament lamp data sheet.

Filament lamps shall be measured preferably in the normal operating position. In case of dual filament lamps, the high wattage (major or driving-beam) filament shall be operated only.

Before starting a test, the stabilisation of the temperature of the filament lamp shall be obtained by operating at test voltage for 10 min.

*Replace the existing Clause B.3 by the following (Figure B.1 and Figure B.2 remain unchanged):*

### **B.3 Measuring directions**

#### **B.3.1 General**

Initially, the receiver shall be positioned perpendicular to the lamp axis and to the filament axis (or plane in case of a curved filament). After measurement, the receiver shall be moved around the filament lamp in bi-directional steps of about  $30^\circ$  until the area specified in B.3.2 or B.3.3 is covered. In each position, a measurement shall be made. However, no measurement shall be made when:

- the centreline of the receiver coincides with the filament axis; or
- the line of sight between the receiver and the filament is blocked by opaque (non-transmit tent) parts of the light source, such as lead wires or a second filament, if any.

#### **B.3.2 Filament lamps used in headlamps**

Measurements shall be made in directions around the filament lamp with the centreline of the receiver aperture located within an angle  $\pm 30^\circ$  from the plane perpendicular to the lamp axis and with the origin in the centre of the filament (see Figure B.1). In case of filament lamps with two filaments, the centre of the driving-beam filament shall be taken.

#### **B.3.3 Filament lamps used in light signalling devices**

Measurements shall be made around the filament lamp (see Figure B.2), with exception of:

- the area claimed or covered by the cap of the filament lamp; or
- the immediate transition area along the cap.

In case of filament lamps with two filaments, the centre of the major filament shall be taken.

## Annex K – Test conditions for colour endurance measurements

### K.1 General

*Replace the first sentence by the following:*

The test conditions for colour endurance measurements shall apply to filament lamps for use in light signalling devices.

*Replace the existing Table K.1.b by the following:*

**Table K.1.b – Applicable boxes of the test racks**

| Filament lamps' maximum wattage <sup>a</sup>                                                                                                                                           |      |     |   |      | Applicable box in Table K.2 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---|------|-----------------------------|
| >                                                                                                                                                                                      | 0 W  | and | ≤ | 10 W | A                           |
| >                                                                                                                                                                                      | 10 W | and | ≤ | 20 W | B                           |
| >                                                                                                                                                                                      | 20 W | and | ≤ | 30 W | C                           |
| >                                                                                                                                                                                      | 30 W | and | ≤ | 45 W | D                           |
| <sup>a</sup> Wattage – at test voltage;<br>– of the higher wattage (major) filament in case of dual filament lamps.<br>(IEC 60809: rated wattage; ECE/R37: objective value of wattage) |      |     |   |      |                             |

### K.2 Ageing

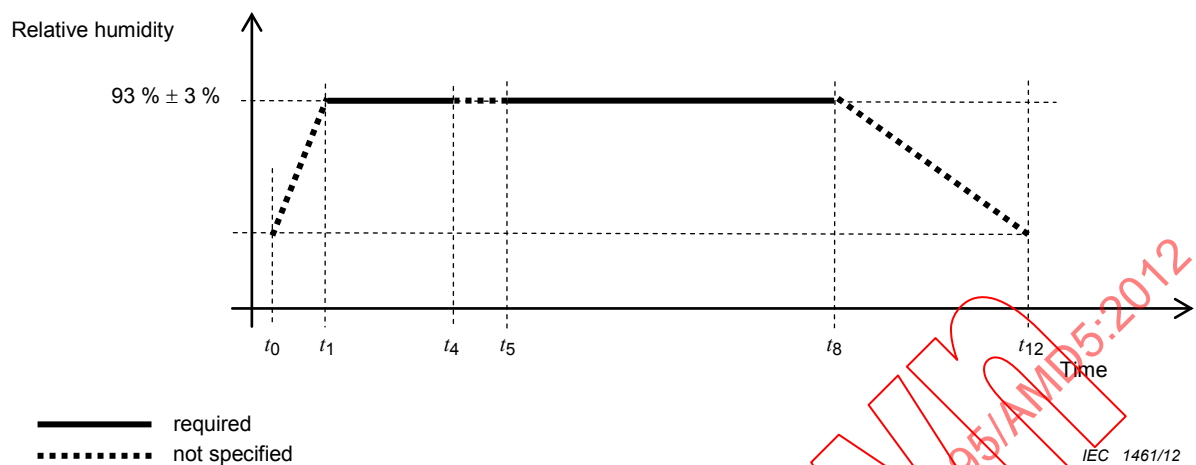
*Replace the existing Clause K.2 by the following:*

#### K.2 Calibration and ageing

The climate chamber shall be calibrated while empty and before filament lamps on test racks are placed in the climate chamber.

Filament lamps shall be aged at their test voltage for 60 min ± 5 min. For dual filament lamps, only the major filament shall be aged. Filament lamps which fail during the ageing period shall be replaced and the ageing process re-applied.

Replace the existing Figure K.4 by the following:



**Figure K.4 – Relative humidity in the climate chamber during one operating cycle**

## K.7 Closure

Replace the existing text of Clause K.7 by the following:

Filament lamps shall be held at rest, switched off, at a room temperature of  $23\text{ °C} \pm 2\text{ °C}$  for at least 2 h after the end of the 10 operating cycles and shall no longer be used in light signalling devices but to be considered end of life for that purpose.

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Withdrawn

## AVANT-PROPOS

Le présent amendement a été établi par le sous-comité 34A: Lampes, du comité d'études 34 de la CEI: Lampes et équipements associés.

Le texte du présent amendement est issu des documents suivants:

| FDIS          | Rapport de vote |
|---------------|-----------------|
| 34A/1574/FDIS | 34A/1592/RVD    |

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cet amendement.

Le comité a décidé que le contenu de cette publication ne sera pas modifié avant la date de stabilité indiquée sur le site web de la CEI sous "<http://webstore.iec.ch>" dans les données relatives à la publication recherchée. A cette date, la publication sera

- reconduite,
- supprimée,
- remplacée par une édition révisée, ou
- amendée.

### 1.1 Domaine d'application

Remplacer le quatrième alinéa existant par le suivant:

Pour la plupart des exigences de la présente norme, le texte renvoie à la "feuille de caractéristiques de lampe correspondante". Pour toutes les lampes énumérées à l'Article 5, les feuilles de caractéristiques figurent dans la présente norme ou sont incluses par référence. Pour d'autres lampes, les données correspondantes sont fournies par le fabricant ou le vendeur responsable. Cela peut être en rapport avec la législation nationale.

### 1.2 Références normatives

Ajouter ce qui suit:

Nations Unies, *Accord concernant l'adoption de prescriptions techniques uniformes applicables aux véhicules à roues, aux équipements et aux pièces susceptibles d'être montés et/ou utilisés sur un véhicule à roues et les conditions de reconnaissance réciproque des homologations délivrées conformément à ces prescriptions, Addendum 36: Règlement No. 37, Prescriptions uniformes relatives à l'homologation des lampes à incandescence destinées à être utilisées dans les feux homologués des véhicules à moteur et de leurs remorques* (dans la présente norme, il est désigné sous la référence Règlement UNECE 37 ou R37; source internet: [www.unece.org/trans/main/wp29/wp29regs.html](http://www.unece.org/trans/main/wp29/wp29regs.html)) (site internet contrôlé le 2012-04-03)

Nations Unies, *Accord concernant l'adoption de prescriptions techniques uniformes applicables aux véhicules à roues, aux équipements et aux pièces susceptibles d'être montés et/ou utilisés sur un véhicule à roues et les conditions de reconnaissance réciproque des homologations délivrées conformément à ces prescriptions, Addendum 98: Règlement No. 99, Prescriptions uniformes relatives à l'homologation des sources lumineuses à décharge pour projecteurs à décharge homologués de véhicules à moteur* (dans la présente norme, il est

désigné sous la référence Règlement UNECE 99 ou R99; source internet: [www.unece.org/trans/main/wp29/wp29regs.html](http://www.unece.org/trans/main/wp29/wp29regs.html)) (site internet contrôlé le 2012-04-03)

### 1.3.6

#### **tension nominale**

*La correction ne concerne que le texte anglais.*

### 1.3.9

#### **valeur assignée**

*Ajouter la note à l'article suivante à la définition:*

Note 1 à l'article: Le terme utilisé dans les règlements UNECE est "valeur normale".

### 1.3.17

#### **lampe de fabrication**

*La correction ne concerne que le texte anglais.*

*Ajouter les nouvelles Définitions 1.3.19 et 1.3.20 suivantes:*

### 1.3.19

#### **feu de route**

Pas de définition donnée.

### 1.3.20

#### **feu de croisement**

Pas de définition donnée.

### 2.4.1

#### **Couleur de la lumière**

*Remplacer le dernier alinéa existant par le suivant:*

Afin de satisfaire aux exigences relatives à la conformité de production des couleurs jaune-auto et rouge uniquement, au moins 80 % des valeurs mesurées doivent se situer dans la zone de tolérance exigée.

### 2.4.2

#### **Maintien en durée de la couleur**

*Remplacer le texte du Paragraphe 2.4.2 existant par le suivant:*

Les lampes à incandescence, mais à des fins de conformité de la production uniquement les lampes enduites de couleur, destinées à être utilisées dans les dispositifs de signalisation lumineuse doivent être mises en fonctionnement dans les conditions d'essai des mesurages de maintien en durée de la couleur spécifiées à l'Annexe K.

Par la suite, la couleur de la lumière doit être mesurée selon la méthode spécifiée à l'Annexe B et tous les résultats de mesure, ou pour les couleurs jaune-auto ou rouge au moins 80 % des résultats de mesure à des fins de conformité de la production, doivent se situer dans les limites spécifiées en 2.4.1.

Dans le cas de recouvrements filtres colorés, aucune craquelure ne doit être visible dans ces recouvrements sans outils optiques spécifiques.

Les échantillons d'essai ayant été mis en fonctionnement dans les conditions spécifiées à l'Annexe K ne doivent plus être utilisés dans les dispositifs de signalisation lumineuse et doivent, à cet effet, être considérés comme étant en fin de vie.

## 5.1 Liste des types de lampes

Remplacer la liste des types de lampes spécifiques par ce qui suit:

| Feuille CEI no. <sup>1</sup> | Feuille UNECE no. <sup>2</sup> | Catégorie   | Tension<br>V  | Puissance<br>W          | Culot                      |
|------------------------------|--------------------------------|-------------|---------------|-------------------------|----------------------------|
| 60809-IEC-2110-              | R37-R2                         | R2          | 6<br>12<br>24 | 45/40<br>45/40<br>55/50 | P45t<br>P45t<br>P45t       |
| 60809-IEC-2120-              | R37-H4                         | H4          | 12<br>24      | 60/55<br>75/70          | P43t-38<br>P43t-38         |
| 60809-IEC-2125-              | -                              | H6          | 12            | 65/55                   | PZ43t                      |
| 60809-IEC-2130-              | R37-HS1                        | HS1         | 6<br>12       | 35/35<br>35/35          | PX43t<br>PX43t             |
| 60809-IEC-2132-              | R37-HS5                        | HS5         | 12            | 35/30                   | P23t                       |
| 60809-IEC-2135-              | -                              | HB1         | 12            | 65/45                   | P29t                       |
| 60809-IEC-2140-              | R37-S1/S2                      | S1          | 6<br>12       | 25/25<br>25/25          | BA20d<br>BA20d             |
| 60809-IEC-2150-              | R37-S1/S2                      | S2          | 6<br>12       | 35/35<br>35/35          | BA20d<br>BA20d             |
| 60809-IEC-2160-              | -                              | S4          | 6<br>12       | 15/15<br>15/15          | BAX15d<br>BAX15d           |
| 60809-IEC-2305-              | -                              | H5          | 12            | 50                      | PY43d                      |
| 60809-IEC-2310-              | R37-H1                         | H1          | 6<br>12<br>24 | 55<br>55<br>70          | P14.5s<br>P14.5s<br>P14.5s |
| 60809-IEC-2315-              | R37-H7                         | H7          | 12<br>24      | 55<br>70                | PX26d<br>PX26d             |
| 60809-IEC-2320-              | -                              | H2          | 6<br>12<br>24 | 55<br>55<br>70          | X511<br>X511<br>X511       |
| 60809-IEC-2325-              | R37-HB3                        | HB3<br>HB3A | 12<br>12      | 60<br>60                | P20d<br>P20d               |
| 60809-IEC-2330-              | R37-H3                         | H3          | 6<br>12<br>24 | 55<br>55<br>70          | PK22s<br>PK22s<br>PK22s    |
| 60809-IEC-2335-              | R37-HB4                        | HB4<br>HB4A | 12<br>12      | 51<br>51                | P22d<br>P22d               |
| 60809-IEC-2340-              | R37-HS2                        | HS2         | 6<br>12       | 15<br>15                | PX13.5s<br>PX13.5s         |
| 60809-IEC-2350-              | -                              | HS3         | 6             | 2,4                     | PX13.5s                    |
| 60809-IEC-2360-              | R37-S3                         | S3          | 6<br>12       | 15<br>15                | P26s<br>P26s               |
| 60809-IEC-2365-              | R37-H8                         | H8          | 12            | 35                      | PGJ19-1                    |
| 60809-IEC-2370-              | R37-H9                         | H9          | 12            | 65                      | PGJ19-5                    |
| 60809-IEC-2375-              | R37-H10                        | H10         | 12            | 42                      | PY20d                      |
| 60809-IEC-2380-              | R37-H11                        | H11         | 12<br>24      | 55<br>70                | PGJ19-2<br>PGJ19-2         |

<sup>1</sup> Si un numéro de feuille UNECE est cité en référence dans la deuxième colonne, le numéro de feuille CEI fait référence à une feuille de caractéristiques retirée par l'Amendement 5 de la présente norme et il est donné pour information uniquement.

<sup>2</sup> Le numéro figurant devant le tiret indique le numéro du règlement UNECE.

| Feuille CEI no. <sup>1</sup> | Feuille UNECE no. <sup>2</sup> | Catégorie        | Tension<br>V  | Puissance<br>W       | Culot                                        |
|------------------------------|--------------------------------|------------------|---------------|----------------------|----------------------------------------------|
| 60809-IEC-2385-              | R37-H12                        | H12              | 12            | 53                   | PZ20d                                        |
| 60809-IEC-2410-              | R37-HIR1                       | HIR1             | 12            | 65                   | PX20d                                        |
| 60809-IEC-2420-              | R37-HIR2                       | HIR2             | 12            | 55                   | PX22d                                        |
| 60809-IEC-3110-              | R37-P21/5W                     | P21/5W           | 6<br>12<br>24 | 21/5<br>21/5<br>21/5 | BAY15d<br>BAY15d<br>BAY15d                   |
| 60809-IEC-3120-              | R37-P21/4W                     | P21/4W           | 6<br>12<br>24 | 21/4<br>21/4<br>21/4 | BAZ15d<br>BAZ15d<br>BAZ15d                   |
| 60809-IEC-3130-              | R37-W21/5W                     | W21/5W           | 12            | 21/5                 | W3x16q                                       |
| 60809-IEC-3135-              | R37-WR21/5W                    | WR21/5W          | 12            | 21/5                 | WY3x16q                                      |
| 60809-IEC-3140-              | R37-P27/7W                     | P27/7W           | 12            | 27/7                 | W2.5x16q                                     |
| 60809-IEC-3141-              | R37-PY27/7W                    | PY27/7W          | 12            | 27/7                 | WX2.5x16q                                    |
| 60809-IEC-3310-              | R37-P21W                       | P21W             | 6<br>12<br>24 | 21<br>21<br>21       | BA15s(BA15d)<br>BA15s(BA15d)<br>BA15s(BA15d) |
| 60809-IEC-3311-              | R37-PY21W                      | PY21W            | 12<br>24      | 21<br>21             | BAU15s<br>BAU15s                             |
| 60809-IEC-3315-              | R37-P27W                       | P27W             | 12            | 27                   | W2.5x16d                                     |
| 60809-IEC-3320-              | R37-R5W                        | R5W              | 6<br>12<br>24 | 5<br>5<br>5          | BA15s(BA15d)<br>BA15s(BA15d)<br>BA15s(BA15d) |
| 60809-IEC-3330-              | R37-R10W                       | R10W             | 6<br>12<br>24 | 10<br>10<br>10       | BA15s(BA15d)<br>BA15s(BA15d)<br>BA15s(BA15d) |
| 60809-IEC-3340-              | R37-T4W                        | T4W              | 6<br>12<br>24 | 4<br>4<br>4          | BA9s<br>BA9s<br>BA9s                         |
| 60809-IEC-3410-              | R37-H6W                        | H6W              | 12            | 6                    | BAX9s                                        |
| 60809-IEC-3420-              | R37-H21W                       | H21W             | 12<br>24      | 21<br>21             | BAY9s<br>BAY9s                               |
| 60809-IEC-3430-              | R37-H27W                       | H27W/1<br>H27W/2 | 12<br>12      | 27<br>27             | PG13<br>PGJ13                                |
| 60809-IEC-4110-              | R37-C5W                        | C5W              | 6<br>12<br>24 | 5<br>5<br>5          | SV8.5<br>SV8.5<br>SV8.5                      |
| 60809-IEC-4120-              | R37-C21W                       | C21W             | 12            | 21                   | SV8.5                                        |
| 60809-IEC-4305-              | R37-W2.3W                      | W2.3W            | 12            | 2,3                  | W2x4.6d                                      |
| 60809-IEC-4310-              | R37-W3W                        | W3W              | 6<br>12<br>24 | 3<br>3<br>3          | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d          |
| 60809-IEC-4320-              | R37-W5W                        | W5W              | 6<br>12<br>24 | 5<br>5<br>5          | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d          |
| 60809-IEC-4321-              | R37-W5W                        | WY5W             | 6<br>12<br>24 | 5<br>5<br>5          | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d          |
| 60809-IEC-4330-              | R37-W21W                       | W21W             | 12            | 21                   | W3x16d                                       |
| 60809-IEC-4335-              | R37-WY21W                      | WY21W            | 12            | 21                   | WX3x16d                                      |
| 60809-IEC-4340-              | R37-W16W                       | W16W             | 12            | 16                   | W2.1x9.5d                                    |
| 60809-IEC-5010-              | R37-T1.4W                      | T1.4W            | 12            | 1,4                  | P11.5d                                       |

| Feuille CEI no. <sup>1</sup> | Feuille UNECE no. <sup>2</sup> | Catégorie                                                                                           | Tension<br>V                                                   | Puissance<br>W                                                 | Culot                                                                                                                            |
|------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 60809-IEC-7110-              | R99-DxS                        | D1S<br>D2S<br>D3S<br>D4S                                                                            | 12<br>12<br>12<br>12                                           | 35<br>35<br>35<br>35                                           | PK32d-2<br>P32d-2<br>PK32d-5<br>P32d-5                                                                                           |
| 60809-IEC-7120-              | R99-DxR                        | D1R<br>D2R<br>D3R<br>D4R                                                                            | 12<br>12<br>12<br>12                                           | 35<br>35<br>35<br>35                                           | PK32d-3<br>P32d-3<br>PK32d-6<br>P32d-6                                                                                           |
| 60809-IEC-9310-              | -                              | B1.13W                                                                                              | 2,7                                                            | 1,13                                                           | PX13.5s                                                                                                                          |
| 60809-IEC-9610-              | -                              | B0.6W                                                                                               | 6                                                              | 0,6                                                            | E10                                                                                                                              |
| 60809-IEC-9620-              | -                              | B2.4W                                                                                               | 6                                                              | 2,4                                                            | EP10/14x11                                                                                                                       |
| -                            | R37-H10W                       | H10W/1<br>HY10W                                                                                     | 12<br>12                                                       | 10<br>10                                                       | BAU9s<br>BAUZ9s                                                                                                                  |
| -                            | R37-H11                        | H11B                                                                                                | 12<br>24                                                       | 55<br>70                                                       | PGJY19-2<br>PGJY19-2                                                                                                             |
| -                            | R37-H13                        | H13<br>H13A                                                                                         | 12<br>12                                                       | 55/60<br>55/60                                                 | P26.4t<br>PJ26.4t                                                                                                                |
| -                            | R37-H14                        | H14                                                                                                 | 12                                                             | 55/60                                                          | P38t                                                                                                                             |
| -                            | R37-H15                        | H15                                                                                                 | 12<br>24                                                       | 15/55<br>20/60                                                 | PGJ23t-1<br>PGJ23t-1                                                                                                             |
| -                            | R37-H16                        | H16<br>H16B                                                                                         | 12<br>12                                                       | 19<br>19                                                       | PGJ19-3<br>PGJY19-3                                                                                                              |
| -                            | R37-H21W                       | HY21W                                                                                               | 12<br>24                                                       | 21<br>21                                                       | BAW9s<br>BAW9s                                                                                                                   |
| -                            | R37-H6W                        | HY6W                                                                                                | 12                                                             | 6                                                              | BAZ9s                                                                                                                            |
| -                            | R37-H8                         | H8B                                                                                                 | 12                                                             | 35                                                             | PGJY19-1                                                                                                                         |
| -                            | R37-H9                         | H9B                                                                                                 | 12                                                             | 65                                                             | PGJY19-5                                                                                                                         |
| -                            | R37-HS5A                       | HS5A                                                                                                | 12                                                             | 45/40                                                          | PX23t                                                                                                                            |
| -                            | R37-R13W                       | P13W<br>PW13W                                                                                       | 12<br>12                                                       | 13<br>13                                                       | PG18.5d-1<br>WP3.3x14.5-7                                                                                                        |
| -                            | R37-P19W                       | P19W<br>PY19W<br>PR19W<br>PS19W<br>PSY19W<br>PSR19W<br>PW19W<br>PWR19W<br>PWY19W                    | 12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12             | 19<br>19<br>19<br>19<br>19<br>19<br>19<br>19<br>19             | PGU20-1<br>PGU20-2<br>PGU20-5<br>PG20-1<br>PG20-2<br>PG20-5<br>WP3.3x14.5-1<br>WP3.3x14.5-2<br>WP3.3x14.5-5                      |
| -                            | R37-P24W                       | P24W<br>PX24W<br>PY24W<br>PR24W<br>PS24W<br>PSX24W<br>PSY24W<br>PSR24W<br>PW24W<br>PWR24W<br>PWY24W | 12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12 | 24<br>24<br>24<br>24<br>24<br>24<br>24<br>24<br>24<br>24<br>24 | PGU20-3<br>PGU20-7<br>PGU20-4<br>PGU20-6<br>PG20-3<br>PG20-7<br>PG20-4<br>PG20-6<br>WP3.3x14.5-3<br>WP3.3x14.5-4<br>WP3.3x14.5-6 |
| -                            | R37-P27/7W                     | P27/7W                                                                                              | 12                                                             | 27/7                                                           | WU2.5x16                                                                                                                         |
| -                            | R37-PC16W                      | PC16W<br>PCY16W<br>PCR16W<br>PW16W<br>PWR16W<br>PWY16W                                              | 12<br>12<br>12<br>12<br>12<br>12                               | 16<br>16<br>16<br>16<br>16<br>16                               | PU20d-1<br>PU20d-2<br>PU20d-7<br>WP3.3x14.5-8<br>WP3.3x14.5-9<br>WP3.3x14.5-10                                                   |

| Feuille CEI no. <sup>1</sup> | Feuille UNECE no. <sup>2</sup> | Catégorie                                          | Tension<br>V                   | Puissance<br>W                   | Culot                                                    |
|------------------------------|--------------------------------|----------------------------------------------------|--------------------------------|----------------------------------|----------------------------------------------------------|
| -                            | R37-PR21/4W                    | PR21/4W                                            | 12<br>24                       | 21/4<br>21/4                     | BAU15d<br>BAU15d                                         |
| -                            | R37-PR21/5W                    | PR21/5W                                            | 12<br>24                       | 21/5<br>21/5                     | BAW15d<br>BAW15d                                         |
| -                            | R37-PR21W                      | PR21W                                              | 12<br>24                       | 21<br>21                         | BAW15s<br>BAW15s                                         |
| -                            | R37-PSX26W                     | PSX26W                                             | 12                             | 26                               | PG18.5d-3                                                |
| -                            | R37-R10W                       | RR10W<br>RR10W<br>RR10W<br>RY10W<br>RY10W<br>RY10W | 6<br>12<br>24<br>6<br>12<br>24 | 10<br>10<br>10<br>10<br>10<br>10 | BAW15s<br>BAW15s<br>BAW15s<br>BAU15s<br>BAU15s<br>BAU15s |
| -                            | R37-R5W                        | RR5W                                               | 6<br>12<br>24                  | 5<br>5<br>5                      | BAW15s<br>BAW15s<br>BAW15s                               |
| -                            | R37-W10W                       | W10W<br>W10W<br>WY10W<br>WY10W                     | 6<br>12<br>6<br>12             | 10<br>10<br>10<br>10             | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d         |
| -                            | R37-W15/5W                     | W15/5W                                             | 12                             | 15/5                             | WZ3x16q                                                  |
| -                            | R37-W16W                       | WY16W                                              | 12                             | 16                               | W2.1x9.5d                                                |
| -                            | R37-W5W                        | WR5W                                               | 6<br>12<br>24                  | 5<br>5<br>5                      | W2.1x9.5d<br>W2.1x9.5d<br>W2.1x9.5d                      |
| -                            | R37-WP21W                      | WP21W<br>WPY21W                                    | 12<br>12                       | 21<br>21                         | WY2.5x16d<br>WZ2.5x16d                                   |
| -                            | R37-WR21/5W                    | WR21/5W                                            | 12                             | 21/5                             | WY3x16q                                                  |
| -                            | R37-WY2.3W                     | WY2.3W                                             | 12                             | 2,3                              | W2x4.6d                                                  |
| -                            | R37-WY21W                      | WY21W                                              | 12                             | 21                               | WX3x16d                                                  |

## Feuilles de caractéristiques

Supprimer les feuilles de caractéristiques suivantes:

60809-IEC-2110, 60809-IEC-2120, 60809-IEC-2130, 60809-IEC-2132, 60809-IEC-2140, 60809-IEC-2150,  
60809-IEC-2310, 60809-IEC-2315, 60809-IEC-2325, 60809-IEC-2330, 60809-IEC-2335, 60809-IEC-2340,  
60809-IEC-2360, 60809-IEC-2365, 60809-IEC-2370, 60809-IEC-2375, 60809-IEC-2380, 60809-IEC-2385,  
60809-IEC-2410, 60809-IEC-2420, 60809-IEC-3110, 60809-IEC-3120, 60809-IEC-3130, 60809-IEC-3135,  
60809-IEC-3140, 60809-IEC-3141, 60809-IEC-3310, 60809-IEC-3311, 60809-IEC-3315, 60809-IEC-3320,  
60809-IEC-3330, 60809-IEC-3340, 60809-IEC-3410, 60809-IEC-3420, 60809-IEC-3430, 60809-IEC-4110,  
60809-IEC-4120, 60809-IEC-4305, 60809-IEC-4310, 60809-IEC-4320, 60809-IEC-4321, 60809-IEC-4330,  
60809-IEC-4335, 60809-IEC-4340, 60809-IEC-5010, 60809-IEC-7110 and 60809-IEC-7120.