

GTB Document No. **CE-4991**

Date: 2014-03-10

GTB Working Group

Light Sources

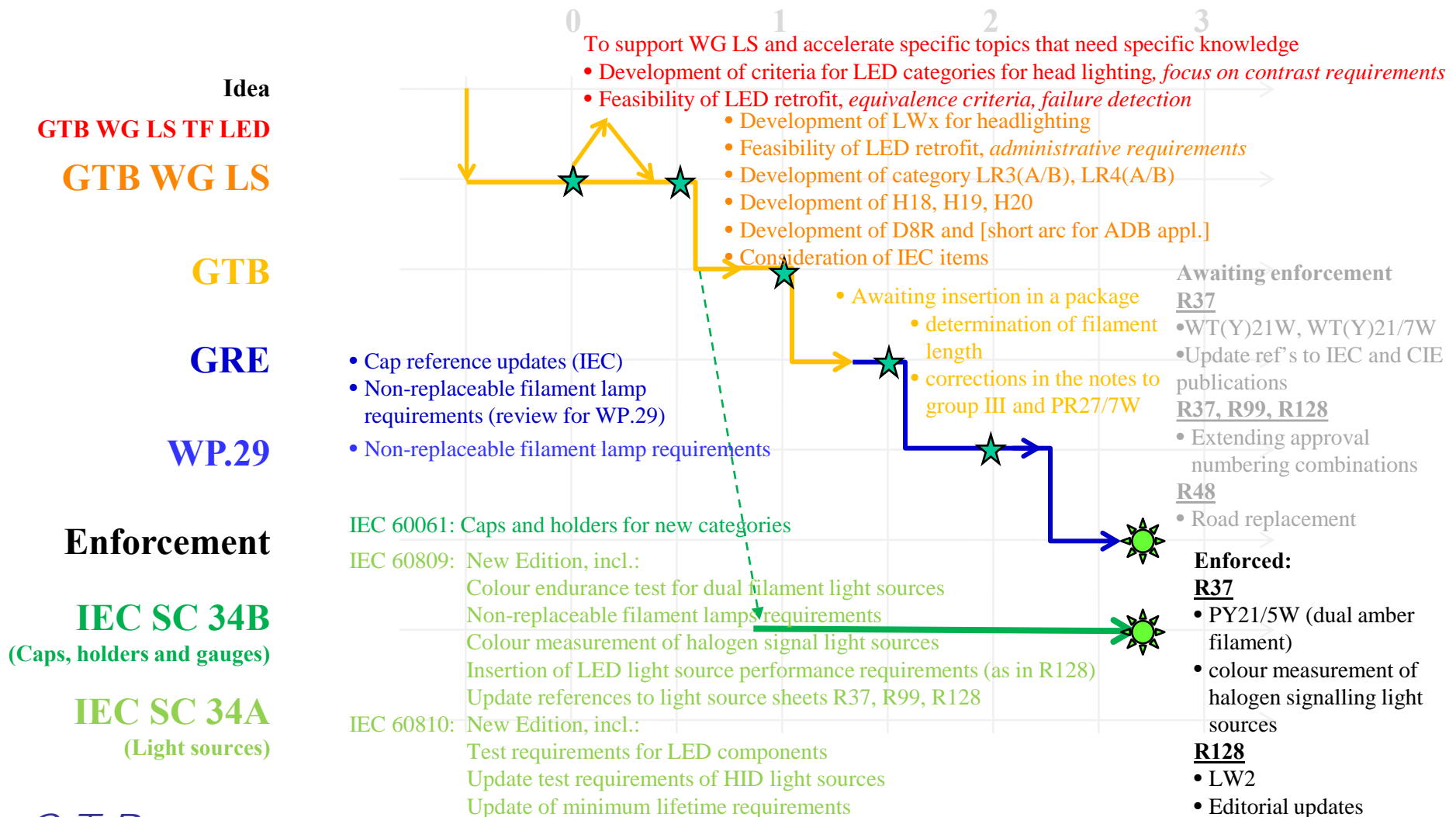
Status **March** 2014



Content

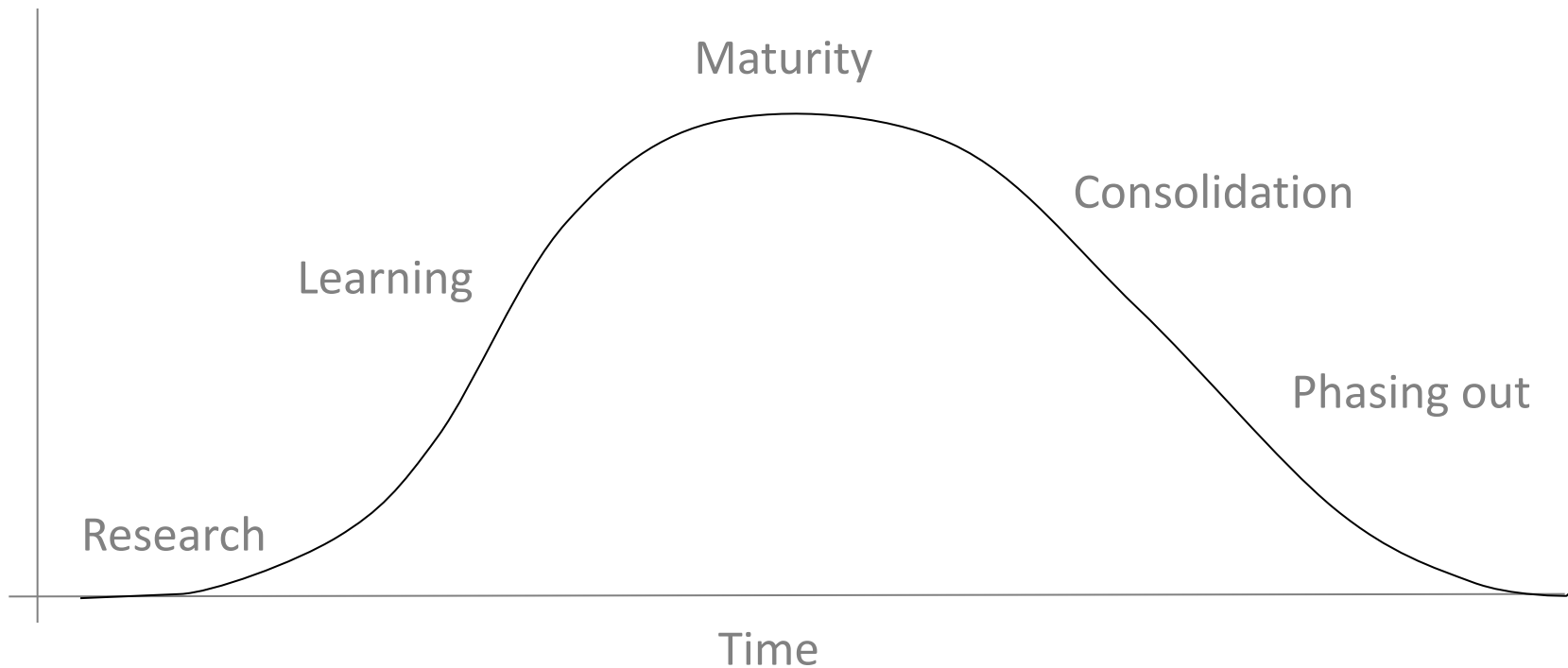
1. Light source work items in the pipeline
2. Proposals that may be expected in GRE-72

Light source work items the pipeline



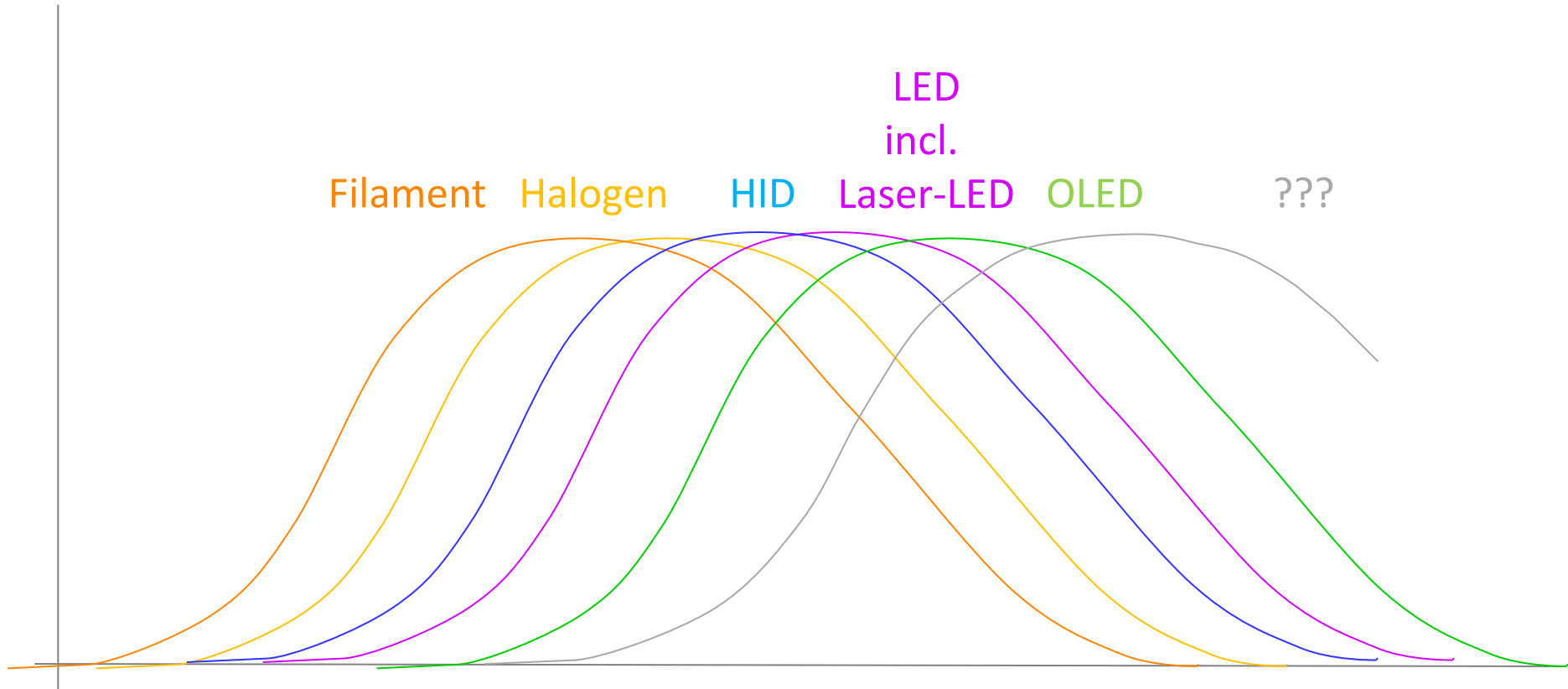
Proposals that may be expected in GRE72

Theoretical technology curve



Not on scale

Innovation

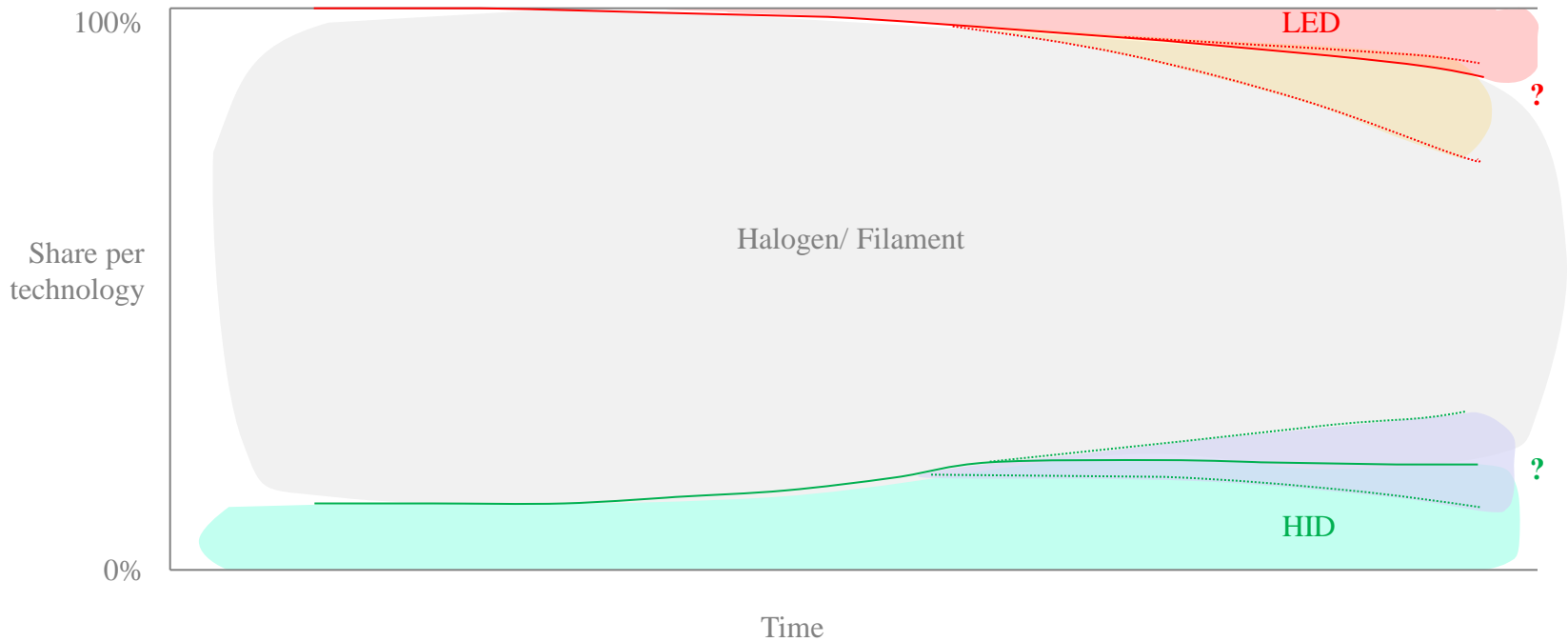


Not on scale

GRE-65-38
update
GRE-70-47

Outlook ?

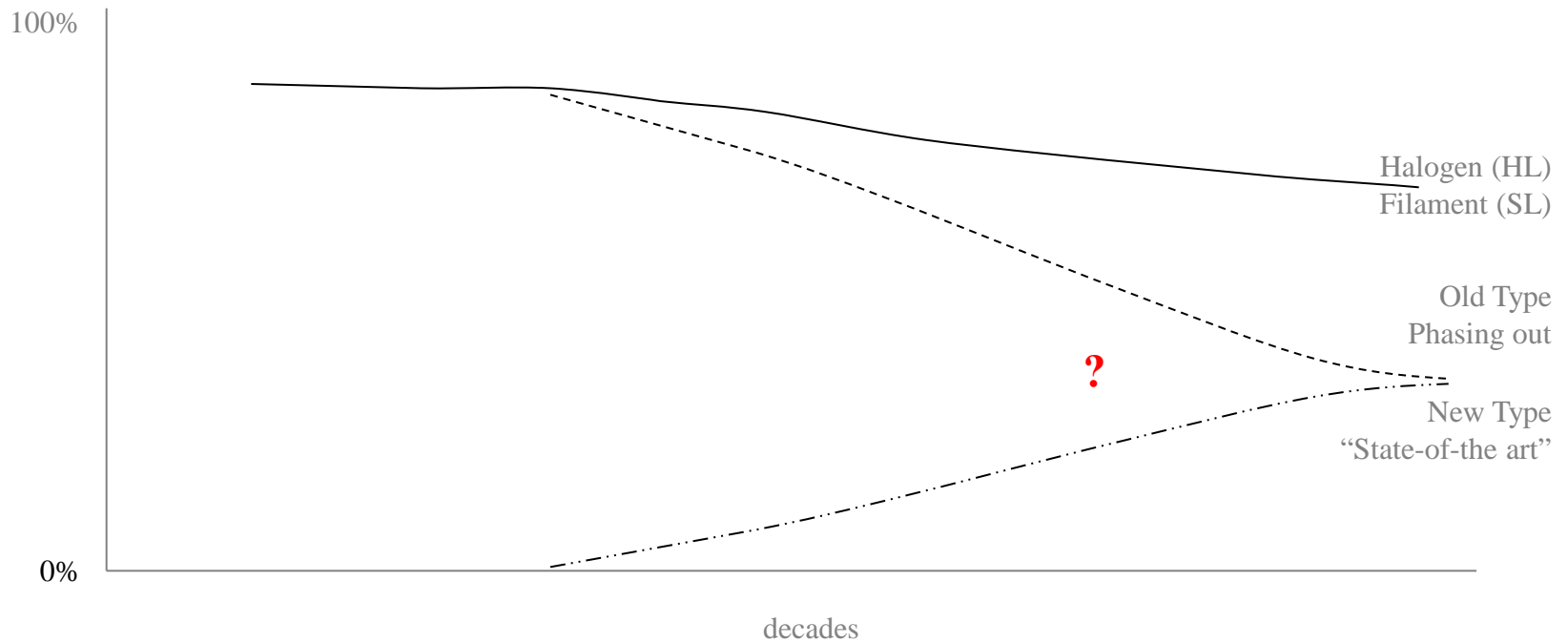
OLED?
Laserled?



Not on scale

GRE-65-38
update
GRE-70-47

Technology curves ?

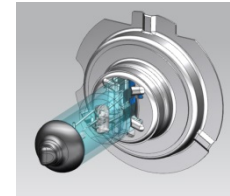


Not on scale

R37

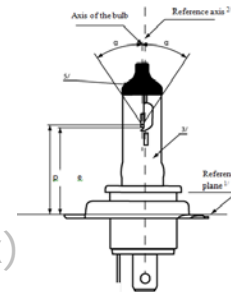
H18 High flux low beam filament lamp

- 1700lm @ 69W max
- H7 tolerances level
- Built-in space for headlamps is reduced



H19 High precision dual filament lamp

- 1650lm/1000lm @ 59W/53W max
- H17 tolerances level
- Designed for today's complex-shape optics
(to replace H4 1650lm/1000 lm @ 75W/ 68W max)



H20 5000K high beam lamp

- 1250 lm @ 75 W max
- To avoid confusion when
 - » high and low beam are operated together
 - » when halogen and LED technology is combined



Status of phasing out

Category	Sheet number(s)	As specified by transitional provisions in paragraph 8.3		Effective date enter into force	As specified by transitional provisions in paragraph 8.4		
		Supplement	Period		Supplement	Period	
C5W	*7, *8	C5W/1	38	12 months	26-07-2013	38	unlimited
C21W	*8	C21W/1 to 2	28	12 months	11-06-2008	28	unlimited
H1	*7	H1/1 to 3	38	12 months	26-07-2013	38	unlimited
H3	*7	H3/1 to 4	38	12 months	26-07-2013	38	unlimited
H12		H12/1 to 3	40	24 months	15-07-2015	40	unlimited
H13A		H13/1 to 4	40	24 months	15-07-2015	40	unlimited
H14		H14/1 to 4	38	12 months	26-07-2013	38	unlimited
HB3A		HB3/1 to 4	40	60 months	15-07-2014	40	unlimited
HB4A		HB4/1 to 4	40	60 months	15-07-2014	40	unlimited
HIR1	*3	HIR1/1 to 3	40	24 months	15-07-2015	40	unlimited
HS1	*7	HS1/1 to 5	38	12 months	26-07-2013	38	unlimited
HS2	*7	HS2/1 to 3	38	12 months	26-07-2013	38	unlimited
HS6	*4	HS6/1 to 4	40	60 months	15-07-2014	40	unlimited
P19W	*8	P19W/1 to 3	37	60 months	28-10-2016	37	unlimited
P21W	*7, *8	P21W/1 to 2	38	12 months	26-07-2013	38	unlimited
P21/5W	*7, *8	P21/5W/1 to 3	38	12 months	26-07-2013	38	unlimited
PC16W	*8	PC16W/1 to 3	37	60 months	28-10-2016	37	unlimited
PCR16W	*8	PC16W/1 to 3	37	12 months	28-10-2012	37	unlimited
PCY16W	*8	PC16W/1 to 3	37	60 months	28-10-2016	37	unlimited
PR19W	*8	P19W/1 to 3	37	12 months	28-10-2012	37	unlimited
PR21/4W	*8	PR21/4W/1 ; (P21/5W/2 to 3)	40	24 months	15-07-2015	40	unlimited
PR24W	*8	P24W/1 to 3	37	12 months	28-10-2012	37	unlimited
PR27/7W	*8	PR27/7W/1 ; (P27/7W/2 to 3)	40	24 months	15-07-2015	40	unlimited
PSR19W	*8	P19W/1 to 3	37	12 months	28-10-2012	37	unlimited
PSR24W	*8	P24W/1 to 3	37	12 months	28-10-2012	37	unlimited
PY19W	*8	P19W/1 to 3	37	60 months	28-10-2016	37	unlimited
R2		R2/1 to 3	28	12 months	11-06-2008	28	unlimited
R5W	*7, *8	R5W/1	38	12 months	26-07-2013	38	unlimited
R10W	*7, *8	R10W/1	38	12 months	26-07-2013	38	unlimited
RY10W	*7, *8	R10W/1	38	12 months	26-07-2013	38	unlimited
S1		S1/S2/1 to 2	28	12 months	11-06-2008	28	unlimited
S2	*7	S1/S2/1 to 2	38	12 months	26-07-2013	38	unlimited
S3		S3/1	38	12 months	26-07-2013	38	unlimited
T1.4W	*8	T1.4W/1	40	24 months	15-07-2015	40	unlimited
T4W	*7, *8	T4W/1	38	12 months	26-07-2013	38	unlimited
W3W	*7, *8	W3W/1	38	12 months	26-07-2013	38	unlimited
W5W	*7, *8	W5W/1	38	12 months	26-07-2013	38	unlimited
W10W	*7, *8	W10W/1	38	12 months	26-07-2013	38	unlimited
WY2.3W		WY2.3W/1	40	24 months	15-07-2015	40	unlimited
WY5W	*7	W5W/1	40	12 months	15-07-2014	40	unlimited
WY10W	*7, *8	W10W/1	38	12 months	26-07-2013	38	unlimited

		Effective date enter into force		
Supplement	Entered into force	+12 months	+24 months	+60 months
28	11-06-2007	11-06-2008		
37	28-10-2011	28-10-2012		28-10-2016
38	26-07-2012	26-07-2013		
40	15-07-2013	15-07-2014	15-07-2015	15-07-2016

*7 6 V types only

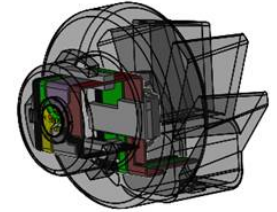
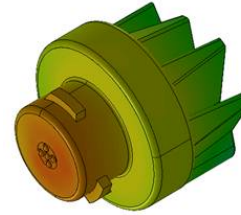
*8 Only for use in signalling lamps, cornering lamps, reversing lamps and rear registration plate lamps

R99

- D8R
 - 1900 lm @ 25W ± 3W
 - Version of D8S for reflector optics
- [Short arc, high luminance 35W HID for ADB systems]



R128



- LR3
 - Low cost, single level (circuit) red
 - 80 lm @ 3.5W
 - LED performance similar to PR21W filament lamp (110 lm @26.2W)
 - connector
 - LR3A elbow
 - LR3B straight
- LR4
 - Low cost, dual level (circuit) red
 - 80 lm/ 5 lm @ 3.5W/ 0.75W
 - LED performance similar to PR21/4W filament lamp (105 lm/ 4 lm @ 26.5W/ 5.5 W)
 - LED performance similar to PR21/5W filament lamp (105 lm/ 8 lm @ 26.5W/ 6.6 W)
 - connector
 - LR4A elbow
 - LR4B straight

END