GTB Working Group
Signal Lighting

Status Report
(March 2012)
Status Report for Signal Lighting

Welcome to Geneva
Demands and Trends for Signal Lighting

**Value**
- Increased Safety and Convenience
- Improved Lighting Performance
- Added Functionality
- Styling Enhancement
- Brand Differentiation

**Year of Availability**
- 96
- 98
- 02
- 06
- 10
- 2015+

**Improved Regulations**
- DRLs mandatory

**Improved Appearance**
- apparent surface
- Y-lamps

**Improved Performance/ Safety**
- Emergency Stop Signal
- variable intensity control
- planar light guides

**Reduced Weight**
- light guide design
- full LED rear lighting

**Reduced Package**
- multi color lens
- faceted reflectors

**Improved Styling, Performance, Functionality**
- cameras
- Sensors
- adaptive lighting

**Added Functionality, full light signaling systems**
Demands and Trends for Signal Lighting (History)

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GTB Document No. CE-XXXX
Demands and Trends for Signal Lighting

2006

2008

2009

2010
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Y-Lamps Inclusion of Regs. 6, 38 and 87
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Improved Failure Provisions (n-1)
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Improved Failure Provisions (n-1)
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Improved Failure Provisions (n-1)

Do we need to take a different approach for failure of multiple light sources and LED arrays?

a) How does the „n-1“ rule work in the context of many arrays of LEDs?

b) How do we decide when to use the “one-out-all-out“ approach?

c) What are the benefits / disadvantages of „n-1“ and “one-out-all-out“?
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Improved Failure Provisions (DRL)
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Adaptive DRL

What is an Adaptive DRL?

It is a daytime running lamp which adapts its intensity to the ambient light.

Why a Smart DRL?

Some DRLs are regarded as too bright in low ambient light conditions. Some DRLs are regarded as too dim in bright ambient light conditions.

Smart DRL might generate a broader public acceptance.

Smart DRL may reduce fuel consumption due to a delayed headlighting use.
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Adaptive DRL
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Phantom Light / Colour Wash-Out

Joint task with WG-Photometry
Thank you for your attention