Minimum Energy & Performance Draft Technical Standard For Street Lighting and Public Lighting Luminaires

Industry Briefing Session

02 December 2022

Compare

to

IP65   16,000hrs   50 lm/w

IP68   150,000hrs   180 lm/w

Compare

to

IP64 · 15000hrs · 80 lm/w
Waterproof
High Efficiency
Long Life

IP68 · 150,000hrs · 180 lm/w

Basis for the MEPS:

- Standardised minimum energy luminaire efficiency,

- Standardised minimum luminaire performance,

- Contributing to the National Energy Efficiency Strategy Plan

- Supporting end users in the procurement of quality energy efficient lighting products that are compliant,

- Harmonised and Regulated lighting products for importation / exportation

- Stimulus within industry and growth of local content,

- More efficient and sustainable delivery of service, and

- Reduced impact on the environment, less waste.

Draft Technical Standard

Implementing MEPS - Example

Replacing Existing Lighting Infrastructure – Current Scenario

Existing Lighting

10 x 150W HPS
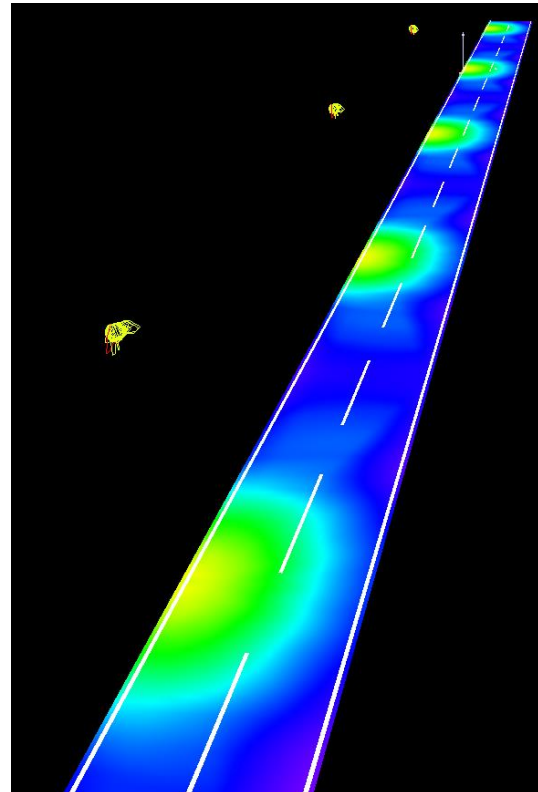
40m Pole Spacing

7m wide road

2 lanes

10 Lux,

44% Uniformity

Luminaire Efficacy:

lm/W   =   80 lm/W

Installation Efficiency:

W/m²   =   0,55

PDI   =   0,055 W/lx.m^{-2}

AECI   =   2 287,5 Wh/m²

*4270 hours per annum

Implementing MEPS - Example

Proposing an Energy Efficient Alternative #1 – 60% Energy Saving
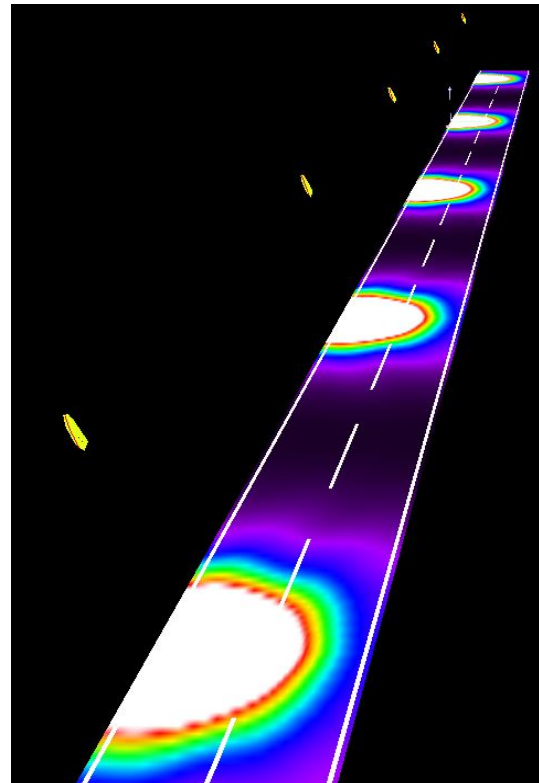
NEW Lighting

10 x 60W LED

40m Pole Spacing

7m wide road

2 lanes

15 Lux

8% Uniformity – Non Compliant

Luminaire Efficacy:

lm/W   =   160 lm/W

Installation Efficiency:

W/m^2 =   0,21

PDI   =   0,014 W/lx.m^{-2}

AECI   =   915 Wh/m^2

*4270 hours per annum

Implementing MEPS - Example

Proposing an Energy Efficient Alternative #2 – 40% Energy Saving
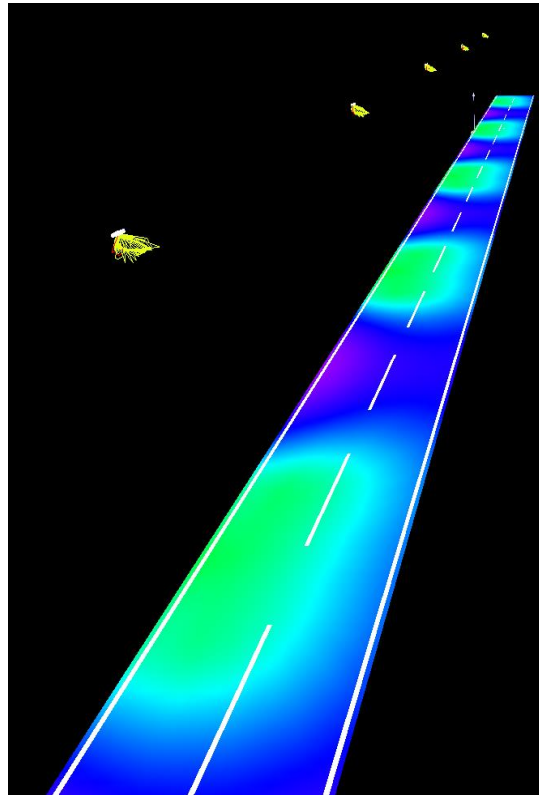
NEW Lighting

10 x 90W LED

40m Pole Spacing

7m wide road

2 lanes

13 Lux,

55% Uniformity - Compliant

Safe Direct replacement

Luminaire Efficacy:

lm/W   =   120 lm/W

Installation Efficiency:

W/m^2 =   0,32

PDI   =   0,024 W/lx.m^{-2}

AECI   =   1 372,5 Wh/m^2

*4270 hours per annum

Next Steps

- Circulation of Presentations and Draft Technical Standard for comment
- Review and consideration of comments received, by *date to be confirmed*
- Amendment to the Draft Report and Draft Technical Standard
- Presentation of Final Draft MEPS to Key Stakeholders

THANK YOU