Escape route lighting EN1838
Optic 290, 532, 535 & 536 technical guide
Free-Form Optic Design

• Single optic per LED designed to produce a controlled defined illumination pattern.
• Designed to maximize the use of the light from a single LED hence the minimum battery needed
• Works must be 3535 packages and tested with Luxeon TX, Cree XP-G3 & XP-L2
• Mounts over the LED, and retained on MCPCB using glue or mechanical clip
• End unit can be made IP rated
• Located by two common pins that fit in to two location holes in the PCB.
• Manufactured in lens grade Polycarbonate
290 Corridor optic

Designed to give even illuminance this 4x0.8 optic will produce a rectangular beam which illuminates an area 4x the mounting height in length and 0.8x the mounting height in width.

Average illuminance mounted at a height of 2.5m with a 25 lumen 1mm die size Lambertian LED = 1 Lux

Performance values given are typical values and will vary dependent on LED type, binning, colour and drive profile.

Due to continuous product improvement, POL reserve the right to change specifications without notice.
532 Optic for 2.4X height
Narrow

Designed to give even illuminance over a square area using a single LED. For ceiling luminaires mounted in a square pattern separated by up to 2.4x the mounting height.

Measured Illuminance Map Of 275 Lumen Output Luxeon Rebel ES LED Mounted At 6m Above Floor Level

Exceptionally uniform illumination giving maximum to minimum ratios as low as 1.6:1

Performance values given are typical values and will vary dependent on LED type, binning, colour and drive profile.

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532 Optic for 2.4X height

MATERIAL: POLYCARBONATE

DIAMOND DOWEL DETAIL A
SCALE 10:1

5.0 GATE WIDTH

LED CHIP TO BE POSITIONED ON CENTRE TO ±0.2

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535 Optic for 3.33X height Medium

Designed to give even illuminance over a square area using a single LED. For ceiling luminaires mounted in a square pattern separated by up to 3.33x the mounting height.

Measured Illuminance Map Of 240 Lumen Output
Luxeon Rebel ES LED Mounted At 6m Above Floor Level

Exceptionally uniform illumination giving maximum to minimum ratios as low as 1.4:1

Performance values given are typical values and will vary dependent on LED type, binning, colour and drive profile.

Due to continuous product improvement, POL reserve the right to change specifications without notice.
535 Optic for 3.33X height

MATERIAL: POLYCARBONATE

DIAMOND DOWEL
DETAIL A
SCALE 10:1

5.0 GATE WIDTH

SECTION X-X

LED CHIP TO BE
POSITIONED ON
CENTRE TO ±0.2

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536 Optic for 5.5X height Wide

Designed to give even illuminance over a square area using a single LED. For ceiling luminaires mounted in a square pattern separated by up to 5.5X the mounting height.

Measured Illuminance Map Of 165 Lumen Output Luxeon Rebel ES LED Mounted At 3m Above Floor Level

Exceptionally uniform illumination giving maximum to minimum ratios as low as 1.6:1

Performance values given are typical values and will vary dependent on LED type, binning, colour and drive profile.

Due to continuous product improvement, POL reserve the right to change specifications without notice.
536 Optic for 5.5X height

MATERIAL: POLYCARBONATE

DIAMOND DOWEL DETAIL A
SCALE 10:1

5.0 GATE WIDTH

SECTION X-X

LED CHIP TO BE POSITIONED ON CENTRE TO ±0.2

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Key Facts

• Moulding in optical grade PC
• Location to PCB in 2 places
• Sold in packs of 400
• Exceptionally uniform to give the best ratios
• Simple to use for a number of different outputs
• Cutting edge FreeForm design
• Works with many industry standard LED’s
• Samples available for development
• Development MCPCB’s also stocked
Contact us

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