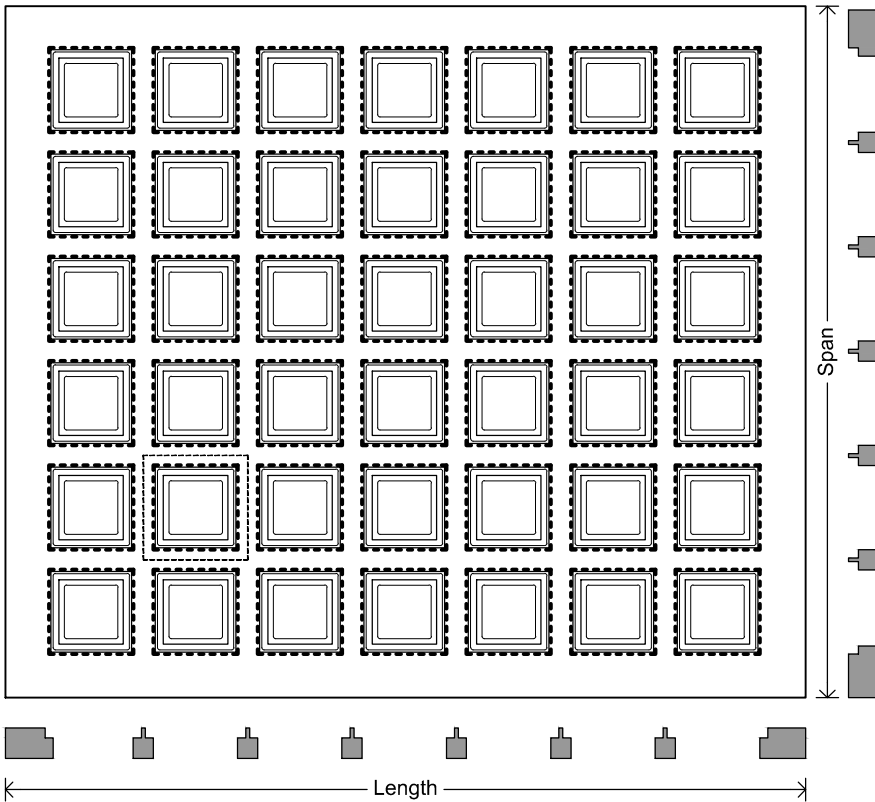


Technical Details - Cast-Iron Pavement-Light - Natural Finish - 5" x 5" lens



Plan and Sections of Cast-Iron Frame - Scale 1:10

Cast-iron pavement lights are extremely strong and a load test on a Haywards Foundry, 1.8 x 1.2 m Cast-Iron Light fitted to the Charing Cross Underground Convenience, supported over 5 tonnes per square metre (50 kN/sq.m) without failure⁽¹⁾.

Cast-Iron pavement-lights are suitable for use in any location including pavements adjacent to the highway. The lights are durable and, in the event that a lens becomes broken, easily repaired.

1. Test effected on a pavement-light by Charles Mason Assoc. M Inst. C.E., ARIBA, Surveyor for Haywards Limited Engineers and Founders circa 1900. Copy of test available on request.

Technical Information

Loading: 20 kN/sq.m UDL or 100 kN concentrated

Glass lens size: 127 mm x 127 mm (5"x5")

Cast-iron grid centres: 138 mm x 138 mm

Light transmittance: 42% (clear glass - sandblasted 25%)

U-value: 6.41 W/sq.mK

Calculation of self-weight.

The self-weight of the glazed area of the pavement-light excluding the margin: 72 kg/sq.m

The self-weight of margin per mm width: 0.288 kg/m

Example for the light shown.

Number of lenses along length: 7 no.

Number of lenses along span: 6 no.

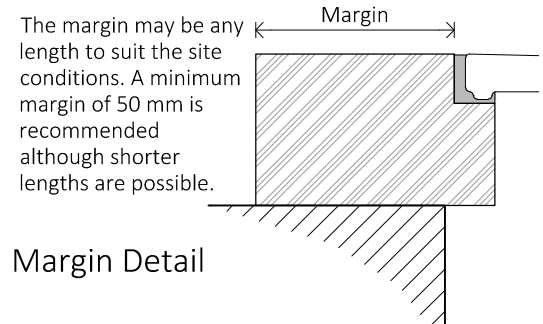
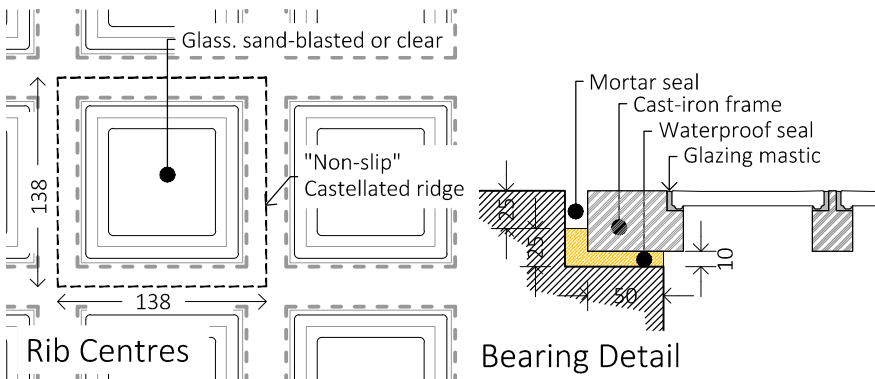
Depth of margin: 50 mm

Glazed area: $7 \times 138 \times 6 \times 138 \times 10^{-6} = 0.989 \text{ m}^2$

Margin length: $2 (6 + 7) \times 138 \times 10^{-3} = 3.588 \text{ m}$

Mass of margin per metre: $0.288 \times 50 \text{ mm} = 14.4 \text{ kg/m}$

Self-weight: $72 \times 0.989 + 14.4 \times 3.588 = 110 \text{ kg}$



The margin may be any length to suit the site conditions. A minimum margin of 50 mm is recommended although shorter lengths are possible.

Margin Detail

New Age Glass provide all drawings and reports required for the installation of cast-iron pavement lights including providing Building Control and Health and Safety information. All designs are supplied in PDF and DWG formats. Design using Revit available. BIW experience. For complicated loading or other special requirements, our design team can help.

New Age Glass

Unit 4, Phoenix Business Centre, Spur Road, Chichester, West Sussex, PO19 8PN
01243 720414 - www.newageglass.co.uk

NAG-CAST-T3

Drawn Hemis

2 September 2017