

# **Building Envelope Cheat Sheet**

For Downlight Barriers AS/NZS 5110 (AS 60598.1:2013 AS 60598.2:2:2001)

### Why would a customer need a downlight cover?

- Improved heating and cooling energy efficiency
  - R-value above Downlights (without insulation)
- ✓ Smoke Proofing/Draught specification
- Sound Proofing specification
- Fire Ratings specification

# External 200mm Height 230mm Wall thickness 10mm DOWMIT02 Downlight Mitt DOWMI Loft Mit



### What DOESN'T comply to AS/NZS 5110?

- $\bullet$  Fixed or gimble downlight fittings using incandescent or halogen globes without an enclosure. These types of fittings can reach 91°C on the gyprock without an enclosure
- Anything with incandescent or halogen technology is extremely difficult to cover for energy efficiency requirements. (An Air tight Fitting)
- The DOWMIT02 and DOWMIT04 must not be covered with insulation, they must be (free of insulation) above the line shown on the cover. In order to be compatible with Fluorescent and LED lighting a downlight barrier/cover must be protruding above the insulation.

### For an installation from below the ceiling

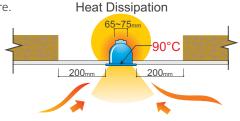
- 65-75 cut out downlights. Installing covers from below is near impossible up these sized fittings, Installation must be done from above use Downlight barrier/LED fitting combinations which comply with AS/NZS5110. refer to http://efficiencymatrix.com.au/downlight-cover-compatible-led-products/
- 80-110mm cut out downlights can be installed from below using the DOWMIT02
- 95-120mm cut out downlights can be installed from below using the DOWMIT04

# What CAN comply to AS/NZS 5110? Fitting is a Halogen globe INCOMPATIBLE fitting

- 1. Gimble fitting (90mm cutout) with GU10 LED Lamp installed complies using DOWMIT04
- 2. MR16 fittings retrofitted with an LED driver and a 10W LED\* for the DOWMIT02 and 20W LED\* for the DOWMIT04
- 3. Fixed whole fitting with or without control gear, 10W LED\* for the DOWMIT02 and 20W LED\* for the DOWMIT04
- \*at most unless a higher wattage is specified by the LED manufacturer)
  refer to http://efficiencymatrix.com.au/downlight-cover-compatible-led-products/

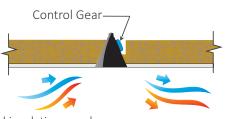
## Marketing Benefits of the Downlight Barrier

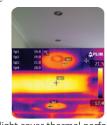
- When control gear is tied to the wire fixing on the cover, failure of control gear is less likely and insulation may be improved around the luminaire. Potential for reduced warranty claims on control gear that maybe inadvertently submerged in insulation.
- Tested sound proofing for enabling RW34+CTR, stacking can Achieve RW38 installations
- Savings for heating and cooling of \$7.50 per year per downlight without taking into consideration draught effect for ventilated fittings.
- Shields fittings from extreme roof temperatures.
- Bush fire prone areas require a fire rating under eaves and pergolas (AS1530 part 4)











Downlight cover thermal performance vs R-3.5 Batt

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