

LIGHT & SPACE

**SPECIFYING MAXIMUM
REFLECTANCE CAN
LOWER ENERGY NEEDS**



“ Light & Space helped the design team to achieve homes that are light and welcoming and at the same time help improve energy efficiency levels. We are really happy with the results. ”



Ian Hogarth
Architect



Front Cover & Above: Russell Garden Mews, Kensington

NOW IT'S POSSIBLE TO SAVE ENERGY AND STILL HAVE A LIGHTER ROOM

Creating the illusion of more space within a room without actually building bigger rooms has been a problem for generations.

Many of today's new build properties have smaller windows and corridors with little natural light, which underlines the need to find ways of brightening living and working environments. Specifiers are also being increasingly obliged to consider environmental and energy saving factors when specifying building materials.

WE ARE COMMITTED TO DOING MORE WITH LESS

Dulux Trade is committed to **Planet Possible**, the global **AkzoNobel** initiative to create a brighter future by delivering more value from fewer resources.

Planet Possible is designed to drive innovation and promote radical resource efficiency, allowing ourselves and our customers to realise our sustainability ambitions together. At **Dulux Trade** we offer solutions that deliver positive sustainability benefits, as well as reducing our products' environmental impact.

MORE LIGHT, A SENSE OF SPACE AND ENHANCED ENERGY EFFICIENCY*

Light & Space is a range of colours from **Dulux Trade** that uses groundbreaking **Lumitec** technology to significantly enhance the light levels in a room.[†]

Light that would be absorbed by conventional paint colours is instead reflected back. The effect goes beyond simply making the room lighter and brighter. It will also seem more spacious.

Decorating with **Light & Space** colours will mean less artificial light is required. That can mean a significant cost and energy saving over the lifetime of the building.

The **Light & Space** colour range is available in five **Dulux Trade** finishes: Vinyl Matt, Diamond Matt and Diamond Eggshell, allowing you to experience all the durability benefits of the Diamond range in **Light & Space** colours.



*Being more reflective and less absorbent of light, the **Dulux Trade Light & Space** range, it uses up to 22% less light energy. See † on page 6.

BRE TESTING CONFIRMS THE ADVANTAGES OF USING LIGHT & SPACE

Light & Space was subjected to rigorous testing by the BRE (Building Research Establishment Ltd), designed to assess the impact of paint type on light levels in rooms.

THE TEST

Four model rooms were created simulating small domestic rooms. The models were illuminated either with simulated daylight (from an artificial sky with cool white fluorescent lighting) passing through a side window, or with tungsten lighting placed centrally below the model's ceiling within the model.

Amongst its conclusions, BRE stated: "Using higher reflectance surfaces could result in lighting energy savings, for two reasons. Firstly, it is possible that less electric lighting could be installed. Secondly, the increased levels of daylight could mean that electric lighting would be required for less of the time, provided suitable controls were fitted to turn off the lighting when daylight was sufficient".

Testing went on to show that **Light & Space** reflects 12% more daylight than conventional **Dulux Trade Vinyl Matt** product.*



*BRE Test Report: Light levels into model rooms with different paint finishes. Test Report Number: 237065.

CASE STUDY

SOCIAL HOUSING RETROFIT, BELFAST



“ We chose to use Light & Space colours as they reflect much more light than normal points. ”

Peter Keig
Director, Eco-Energy (NI) Ltd

CLIENT: ECO-ENERGY (NI) LTD

The energy saving properties of **Dulux Trade Light & Space** colours played a major role in the award winning retrofit of a late 19th century solid wall mid-terrace house in Belfast.

Inspired by the UK's need to retrofit over 12,000 homes per week in order to meet its target of an 80% reduction in carbon emissions by 2050, the UK Technology Strategy Board initiated a competition for exemplar retrofit social housing properties.

The result in Belfast is a renovation so successful it won the DECC/BRE UK Retro Expo award for Retrofit Project of the Year.

Peter Keig, Director of project leaders Eco-Energy (NI) Ltd, says: “Our retrofit model used a combination of Passivhaus, Minergie and Active-House principles... a holistic approach that tackled every element of the building fabric, including the decorative finishes”.

Ample daylight is a critical requirement of the Active-House standard, so contractors William Stevenson and Sons recommended using **Dulux Trade Light & Space** colours including Absolute White in Diamond Eggshell and Vinyl Matt.

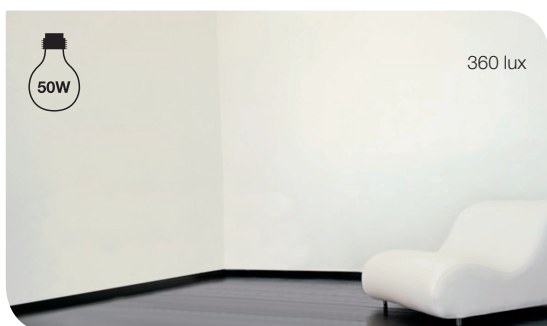
A BRIGHT SOLUTION TO ENERGY EFFICIENCY CONCERNS

Light & Space has also been developed specifically to meet growing concerns about the environment. Being more reflective and less absorbent of light, it uses up to 22%[†] less light energy. Lighting can be set to a lower level or switched on for shorter periods.

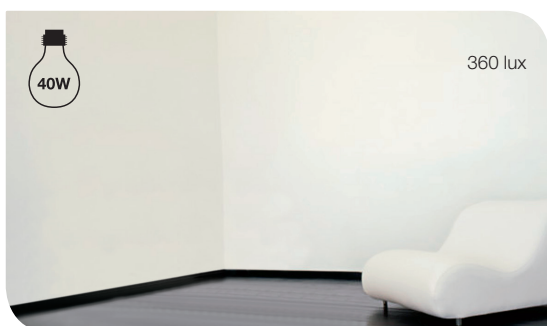
AN EXAMPLE USING ELECTRIC LIGHT

The illustrations below show two rooms – both lit with conventional tungsten bulbs. The room decorated with **Light & Space** paint has Absolute White on the ceiling and Moon Shimmer on the walls. The other room is decorated with conventional paint of similar hues. The **Light & Space** room achieves the same levels of illumination, despite using 22% less lighting energy.

That's equivalent to reducing the wattage of the bulb in that room from 50W to only 40W, adding up to a significant environmental and cost saving over time.



Conventional colours requiring 22% more light energy



Energy-saving **Light & Space** colours
Lux: A unit of visible light power falling on a surface

LIGHT ABSORPTION VALUES

Dulux Trade Colour Palette v **Light & Space**
colour of similar hue.



Colour Palette (61YY 85/050)
Light absorption value = 16%

Light & Space (Morning Light)
Light absorption value = 8%

HOW DOES IT WORK?

Dulux Trade Light & Space paint has been produced using groundbreaking **Lumitec** technology. It uses highly reflective paint components that reflect substantially more light back into and around the room.

In tests to compare light absorption values, walls decorated with **Light & Space** paint absorbed 8% of the visible light compared to conventional emulsion from the **Dulux Trade Colour Palette** which absorbed 16%.



[†]This figure is based on theoretical calculations on pairs of bare rooms of dimensions 4 x 3 x 2.4m where the light incident on all surfaces is averaged. The rooms all have the same mid-grey floor colour (LRV 50). They have a white ceiling and a colour on the walls. In one of each pair these are from the **Light & Space** range. In the other they are conventional products. The **Dulux Trade Light & Space** and the **Dulux Trade** conventional colours have similar hue (colour family) and chroma (intensity of colour). The energy savings will not always equate to 22%. They will vary depending on the contents, dimensions and floor colour of the room and will differ if lighting in particular areas needs to be controlled. The calculated figure varies from 14% to 28% depending on the wall colour chosen. The actual light energy savings achieved in practice may differ from the calculations.

CASE STUDY

LEARNSPACE, CORBY, NORTHAMPTONSHIRE



Neil Kitson
Education Strategy Manager,
Northampton County Council



“ The design scheme had to be delivered on a tight budget, so we needed something that was inspiring and practical, but also affordable.”

CLIENT: NORTHAMPTONSHIRE COUNTY COUNCIL

A disused industrial unit in Corby has been converted into an innovative education research centre in a pioneering project led by Northamptonshire County Council, with **Dulux Trade Light & Space** colours helping to ensure that the interior is a suitably bright and inspiring 21st century learning space.

The council commissioned GSS Architecture to deliver the project on a tight budget that called for a flexible, affordable design scheme. The interior was going to be a high traffic environment as well as needing to be as bright as possible, so lead architect Tom Lyons specified **Dulux Trade Light & Space** colours in finishes from the outstandingly durable Diamond range.

HELPING YOU MEET BUILDING REGULATIONS

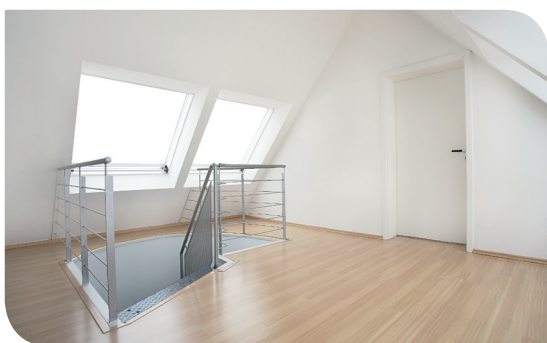
Light & Space can help you meet Part M and Part L with maximum freedom to choose colours.

CONSERVATION OF FUEL AND POWER

Building Regulations Part L has recently been revised in order to meet with the requirements of the EU Directive on the energy performance of buildings. Included in this directive is the need to install and maintain fixtures and fittings that make reasonable provision for reducing the environmental impact of buildings.

Reducing the size of windows is one way to reduce the overall impact of a building. However, by reducing the size of windows there is a danger of limiting the use of natural light within that room.

Due to the innovative light-reflecting nature of **Dulux Trade Light & Space**, it is possible to use colour in a room with reduced natural light and make the room look brighter and more spacious.



COLOUR AND CONTRAST: THE EQUALITY ACT

Light & Space offers you an innovative colour range, so for the first time you're not restricted to using just white to brighten up a room. Now you can choose from a wide palette of 26 harmonious colours in addition to white – from the palest of yellows to cool, calm aquamarine. Such a wide choice also allows for greater flexibility when meeting the recommendations of the Equality Act.

A well considered selection of colours will enhance the way a building looks and works – and that includes making it easier for visually impaired people to move around spaces more easily and safely.

The Equality Act guidelines recommend that adjacent expanses of colour such as walls and doors are clearly distinguishable through the use of contrasting colours. More specifically, Approved Document M and BS8300:2001 advise that such contrasting shades should vary in Light Reflectance Value (LRV) by at least 30 points.

Dulux Trade Light & Space offers significantly higher LRV values than conventional paints. So with **Light & Space** you have far greater freedom to create a colour scheme that meets current recommended standards and legal obligations without compromising on design freedom or creativity.



45YY 83/062

HUE LRV CHROMA

HUE – The colour family to which it belongs.

LIGHT REFLECTANCE VALUE (LRV) – The **Dulux Trade Colour Palette** notation system easily identifies the LRV. It is the second part of the code and consists of a number between 00 and 99. This easy-to-use notation helps simplify colour choice and compliance with Building Regulations Part M.

CHROMA – Its intensity, the higher the chroma number, the more intense the colour.

CASE STUDY

YSGOL GYMRAEG BRYNSIERFEL, LLANELLI



“Dulux Trade didn't just supply us with effective products, the team also worked hard to deliver a full added value service.”

Ewart Wilson
Senior Site Manager, The Kier Group

CLIENT: CARMARTHENSHIRE COUNTY COUNCIL

A key objective for Carmarthenshire County Council at this brand new primary school was to create an inspirational teaching space for pupils aged 3 to 11 by optimising natural light.

To achieve this vision, construction company The Kier Group worked closely with **Dulux Trade**, who recommended the innovative, light reflective

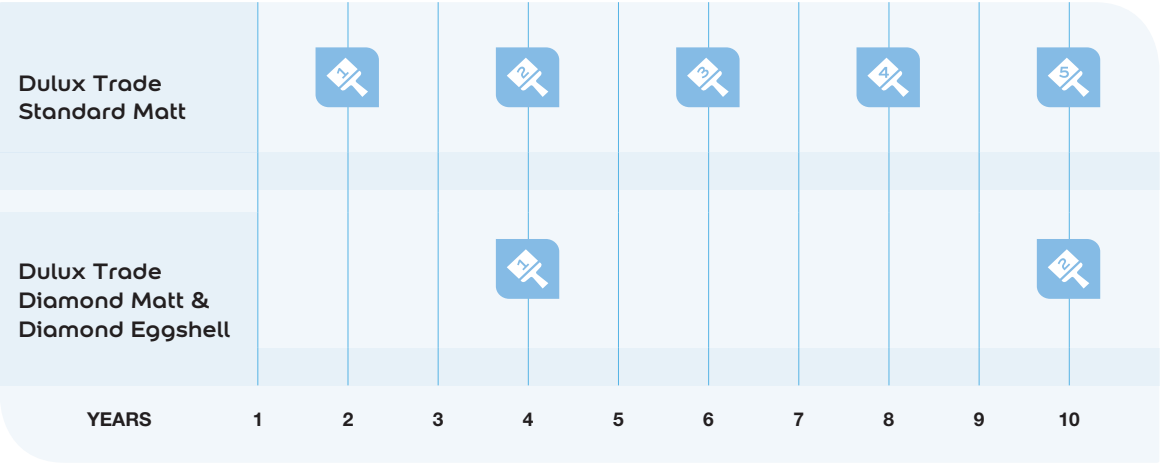
Light & Space colour range. By using the colours in tough, stain resistant Diamond Matt formulation, they were able to bring durability to the school's high traffic areas. They were also aware that **Dulux Trade Light & Space** colours can save up to 22% of lighting energy by allowing lower wattage bulbs to be used to the same effect as standard ones.

BENEFITS AT A GLANCE

| | |
|--|---|
| High LRV (Light Reflectance Value) reflects up to twice as much light† | Makes rooms appear lighter and brighter. Uses up to 22% less lighting energy† |
| Our highest LRV white | Reflects even more light around the room† – perfect for ceilings |
| 26 high LRV colours available | Allows lighter walls whilst still meeting Part M visual contrast guidelines |
| Available in a range of products | No compromise on performance whatever the job |

EXTENDED MAINTENANCE CYCLES FOR ENHANCED SUSTAINABILITY

In addition to delivering significant light energy savings, **Light & Space** also extends maintenance cycles when used in the ultra-tough Diamond formulation. 10 times tougher than **Dulux Trade Vinyl Silk**, **Light & Space** Diamond Matt and Diamond Eggshell provide a resilient and wipeable matt finish with excellent durability and stain resistance.



See † on page 6 for further details.

A CHOICE OF ATTRACTIVE FINISHES

All products that are available in the **Light & Space** colour range are listed below. The products are available in Absolute White (our highest LRV white) and also 26 high LRV tinted colours.



Light & Space Vinyl Matt

Our best selling interior matt emulsion now available with the **Light & Space** colour range. All of the great application characteristics of standard Vinyl Matt.

- Excellent coverage and opacity
- Perfect for low traffic areas and ceilings



Light & Space Diamond Matt

A breakthrough in water-based technology. A tough and washable matt finish with excellent durability and stain resistance.

- Tough, wipeable matt finish
- Wipes clean, stays matt
- 10x tougher than **Dulux Trade** Vinyl Silk



Light & Space Diamond Eggshell

Ultra durable water-based eggshell with excellent stain resistance properties.

- Tough and wipeable mid-sheen finish
- Ideal for areas of high condensation such as kitchen and bathroom areas



PROVIDING ALL THE SUPPORT YOU NEED

Site Surveys

Specifier Account Managers can carry out a full site inspection. This will include assessment of the current condition of surface coatings, help with identification of difficult substrates and advice on extending maintenance cycles.

Specification Writing

Dulux Trade offers full specification support tailored to your individual requirements. This will ensure that correct preparation is highlighted and the products specified are the most appropriate for the location, environment and substrate type.

Contract Meetings

Specifier Account Managers can attend pre-contract, project review and post-contract assessment meetings, ensuring collaboration and clear communication from concept to completion.

Site Visits

During the course of the work, if required, site visits can be made to ensure that work is being carried out correctly and in accordance to the specification.

Report to Project Owners

A critical element of any project is minimising down time. Knowing the status of the work in progress and thus keeping control of events is equally important.

The Specifier Account Managers will ensure that Property Managers are kept closely informed about the status of all work in progress.

Colour Service

For larger painting projects, we can offer **Dulux Trade** Colour Consultants who provide help and advice on colour and may use **Dulux Previews**, our unique colour specification software.

Health and Safety

We can help and advise on Health and Safety issues relevant to the use of **Dulux Trade** products.

Waste Management

Waste from completed work can be disposed of safely and quickly with our wash systems and recycling services. **Dulux Trade** customer service team can advise on the best solution for your needs.

To discuss further the specifics of your project and how **Dulux Trade** can help you, contact your local **Dulux Trade** Specifier Account Manager or email us at duluxtrade.advice@akzonobel.com

Interact with Dulux Trade



Contact Us

For product/Health and Safety data sheets please visit our website duluxtrade.co.uk

For more information or technical advice please contact **Dulux Trade Technical Advice Centre** on **0333 222 70 70**

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