

LIGHTING HISTORY

Office technology has progressed over the past 40 years and lighting has continually had to adapt. Vivant™ addresses the office of today and tomorrow by using the latest T5 lamp technology, and materials, fully meeting current legislation and most critically by enhancing the working environment.

1960

Basic
batten

- No computers
- Bright rooms
- Wide light distribution

1980

Cross
blade
louvreWedge
blade
louvre

- Some computers
- CIBSE TM6 55° cut off
- Dark walls
- Oppressive atmosphere

1989

- Computers are common
- CIBSE LG3 published
- Better louvre design
- Designs for computers not people

1996

Basket
luminaireSuspended
fluorescent
luminaire

- Positive contrast (Windows software) now prominent
- LG3 revision
- Introduction of 200, 500 and 1000 cd/m² thresholds
- Architectural designs start to add interest to space

2000

Vivant™



- 500 cd/m² and 1000 cd/m² luminaires are now common in modern offices
- T5 lamp takes over from T8 and compact fluorescent
- Vivant™ combines design and technology delivering the most advanced lighting solution for the new millennium.

The advanced T5 architectural lighting solution

Vivant™

(vee'von) [alive or living]

MOTIVATION

Vivant™ is French for living or alive. Vivant™ the product has been developed with these emotions in mind and will set a new direction for the future of interior lighting. It creates a humane, living environment by minimising distracting contrasts and maximising visual comfort.

Living Luminance Technology™ is the heart of Vivant™ adding life into and projecting light onto the ceiling. This, new and exciting technology has been developed in conjunction with over 50 leading lighting specifiers.

VIVANT™ – VERSUS TRADITIONAL LIGHTING

A typical compact fluorescent downlight showing a sharp cut off on the walls and a dark ceiling.



A typical Cat 2 louvred product showing a sharp cut off on the walls and a dark ceiling.

VIVANT™ – THE ADVANCED SOLUTION

Vivant™



- LG3 Cat 2.500 and 2.1000
- Integrated design
- Smoothly graduated wall wash
- Ceiling spill creates a soft edge
- Easy to clean
- **Vivant™**
Protrusion into room only 28mm

Typical basket luminaire



- Not LG3 in open plan
- Two disparate components
- Sharp contrast between luminaire coffer and ceiling
- Basket soon becomes a dirt trap
- Difficult to clean
- Visually intrusive

A typical recessed basket luminaire is non LG3 in open plan offices. Sharp contrast between luminaire and ceiling is apparent and the basket can be visually intrusive.



Vivant™ with 'lift' profiler showing walls smoothly washed and the luminaire edge softened. The space comes to life and visual comfort is maximised.

Typical T5 luminaire



- LG3 Cat 2
- Side panels needed to fill 600 x 600 grid
- Side panels give no ceiling or wall wash
- No enhancement to environment

MOTIVATION

Living Luminance Technology™ has been developed with two distinct functional elements:-

Luminance Profilers

Luminance Profilers deliver a smoothly, graduated wall wash and light spill onto the ceiling despite a projection into the room of only 28mm. The material of the profilers can be specified to create different levels of ceiling illumination and add visual interest whilst the design allows quick and easy cleaning.



"Lift" profiler
LG3 2.500



"Blend" profiler
LG3 2.1000



"Matrix" profiler
LG3 2.1000

Living Louvre

Concave louvre blades add lift and create visual interest to relieve the oppressive flatness of the ceiling. Finished in a special shimmering metallised finish the louvre gives the ceiling a feeling of life.



Living louvre

Glare Control

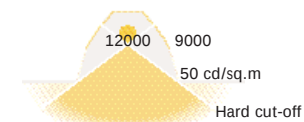
The optical system incorporates a reflector with intermediate brightness zones (IBZ). Each having a brightness within a ratio of 5:1 compared to it's neighbour. This reduces the need for the human eye to continuously adapt, further maximising visual comfort and solving the glare problems associated with T5 and TC-L lamps.

The example of the car headlights below sums up the principle behind the Vivant™ optic. If there is more background brightness around a light source then the source itself doesn't look as bright. Glare is therefore reduced which is a common cause of visual discomfort in modern offices.

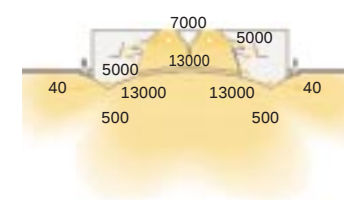


A conventional luminaire exhibits sudden and dramatic changes in brightness of its surfaces depending on the angle at which it is viewed.

Conventional louvred luminaire



Vivant™ with IBZ



Vivant™

ACKNOWLEDGMENTS

We would like to thank over 50 lighting specifiers who helped in the development of Vivant™. The following advice was given by more than one person but made very strongly by the people to whom it is attributed. We believe these comments encapsulate the very essence of Vivant™.

"The first objective of any lighting design is to produce a friendly and comfortable environment in which staff are able to work at maximum efficiency"

**John McGrath,
Farley McGrath,
Manchester**

"Brightness should be well graded from the centre of the luminaire across to the spill on the ceiling. A sharp contrast between a bright coffer and a dark ceiling tile is undesirable"

**Bob Venning,
Ove Arup, London**

"For a single recessed solution to provide light spill on the ceiling and a good and even vertical illumination is the holy-grail."

**Kevin Preston,
Preston Lee Chambers,
Hollingworth, Hyde,
Cheshire**

LIVING LUMINANCE TECHNOLOGY™

Vivant's Living Luminance Technology™ provides:

- **An exciting new aesthetic which gives a feeling of lift to the ceiling**
- **A method of eliminating dark patches on walls often associated with LG3 Cat 2 lighting**
- **Reduced discomfort glare with fewer shadows being created**
- **A solution to oppressive environments where low ceiling heights rule out uplighters and suspended fixtures**

"When PL and T5 lamps are used it is vital the optics are effective in controlling lamp brightness"

**Bob Venning,
Ove Arup, London**

"When entering a large open plan area lit with conventional category 2.200 recessed modules, ceilings can look dark and oppressive. The solution involves both putting light onto and adding life into the ceiling to create a productive humane environment"

**Barrie Wilde, BDP,
London**



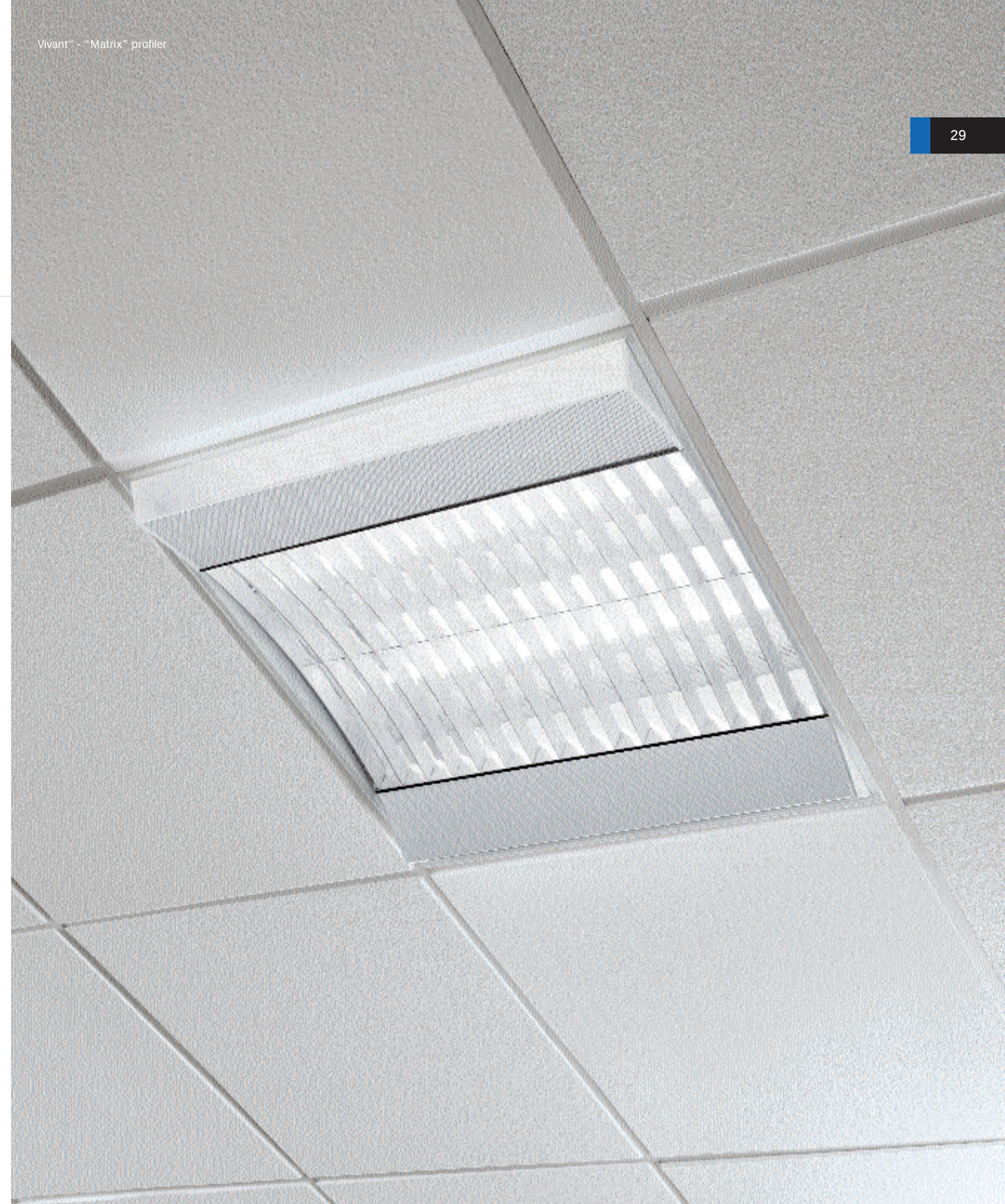
"Blend" profiler



"Lift" profiler

"To breath life into the environmental profile..."

Concept Design, Ivor Trimby, Whitecroft Lighting



Vivant™

APPLICATION

Commercial

- Lighting for computer screen areas, Cat 2.500 and 2.1000 versions
- Commercial offices
- Circulation areas
- Receptions
- Conference rooms
- Board rooms

Retail

- 2 x 55W giving 800 to 1066 lux dependent on ceiling height and spacing distances
- Ambient lighting in department stores
- Banks, both customer and back of house
- Other high street service providers: e.g.
 - Building societies
 - Travel agents
 - Job centres
- Car showrooms

SPECIFICATION

Body

- Body compatible with these ceiling types:
 - Exposed Tee 25mm and 15mm flat
 - 15mm Tegular
 - 15mm Decorative
 - Spring Tee
 - Cut aperture (plasterboard)
- Lamp options:
 - 2 x 24W T5 HO
 - 4 x 14W T5 HE
 - 2 x 55W TC-L
- Body:
 - 0.7mm gauge steel
 - Finished to RAL 9010 20% gloss
- High frequency gear or high frequency regulated gear
- Fused terminal block
- Push out ceiling suspension brackets
- 3 hour integral maintained emergency
- L.O.R. 62%
- Air handling as standard 40 litres per second
- Supplied without lamps

Optics

Luminance profilers

- Lift: Solid steel (RAL9010 20% gloss)
- Blend: Translucent opal (850°C hot wire test, low static, non toxic in fire)
- Matrix: Perforated steel (RAL9010 20% gloss)

Living louvre

- Concave injection moulded louvre, 17 blades
- Shimmer effect vacuum metallised blades
- Intermediate brightness zone glare control system
- Positively retained louvre



"Blend" profiler
LG3 2.1000



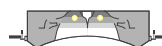
"Lift" profiler
LG3 2.500



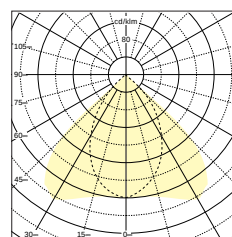
"Matrix" profiler
LG3 2.1000



Vivant™
LIFT PROFILER
2 x 24W T5 lamps



- SHR MAX = 1.64
- DLOR = 0.610
- ULOR = 0.006

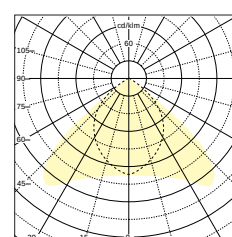


UTILISATION FACTORS UF(F)		SHR NOM=1.50									
Room Reflectance	Room Index	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
C	W	F	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.41	0.47	0.51	0.54	0.58	0.60	0.62	0.64	0.66
0.50	0.30	0.20	0.36	0.43	0.47	0.50	0.54	0.56	0.58	0.60	0.62
0.00	0.00	0.00	0.32	0.38	0.42	0.45	0.48	0.51	0.52	0.54	0.56

Vivant™
BLEND PROFILER
2 x 55W TCL lamps



- SHR MAX = 1.64
- DLOR = 0.499
- ULOR = 0.004



UTILISATION FACTORS UFF(F)											SHR NOM=1.50
Room Reflectance			Room Index								
C	W	F	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.30	0.36	0.40	0.42	0.46	0.48	0.50	0.52	0.53
0.50	0.30	0.20	0.26	0.32	0.36	0.38	0.42	0.44	0.46	0.48	0.50
0.00	0.00	0.00	0.23	0.28	0.32	0.34	0.38	0.40	0.41	0.43	0.44

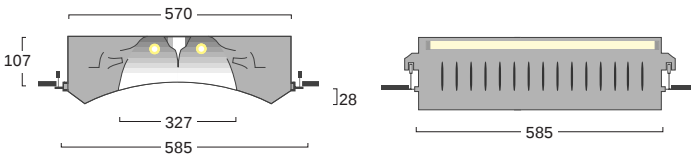




LAMP PERFORMANCE MATRIX

LAMP TYPE	TOTAL LUMEN OUTPUT	TOTAL CIRCUIT WATTS	LUMENS PER WATT	LAMP LIFE
2 x 24W T5	4000	51	83	16000
4 x 14W T5	5400	66	96	16000
2 x 55W TC-L	9600	116	87	12000

- Office applications:
2 x 24W T5 gives 350 – 400 lux (2.4m x 2.4m spacing)
- Retail applications:
2 x 55W TC-L gives 800 lux (2.4m x 2.4m spacing) or 1066 lux (1.8m x 2.4m spacing) and increased illumination of vertical surfaces



Vivant™

ORDER CODES

THE ADVANCED T5 ARCHITECTURAL LIGHTING SYSTEM

VIVANT™ OFFICE LG3 2.500

LIFT PROFILER	BLEND PROFILER	MATRIX PROFILER	T5 LAMP
VIVL224	—	—	2 x 24W HO
VIVL224HFR	—	—	



Either positive display e.g. Windows software or anti reflective treatment on screen. Typical PC's

VIVANT™ OFFICE LG3 2.1000

LIFT PROFILER	BLEND PROFILER	MATRIX PROFILER	T5 LAMP
—	VIVB224	VIVM224	2 x 24W HO
—	VIVB224HFR	VIVM224HFR	
VIVL414	VIVB414	VIVM414	4 x 14W HE
VIVL414HFR	VIVB414HFR	VIVM414HFR	



To be used where both of the above apply. Typical PC's

VIVANT™ RETAIL NON LG3

LIFT PROFILER	BLEND PROFILER	MATRIX PROFILER	T5 & TC-L LAMP
VIVL255	VIVB255	VIVM255	2 x 55W TC-L
VIVL255HFR	VIVB255HFR	VIVM255HFR	



Retail environments

OPTIONS Add suffix to order code

ST	Suitable for Spring Tee and plasterboard ceilings
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Note: HFR = High frequency dimming 1-10V

EMERGENCY Add suffix to order codes above

EMIN	3 hour integral emergency i.e. VIVL224EMIN
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To specify state:

Semi-recessed architectural 600 x 600 luminaire with a concave metallised living louvre and (lift/blend/matrix) luminance profilers projecting 28mm below the ceiling delivering light spill on the ceiling and a smoothly graduated wall wash. Optic to incorporate intermediate brightness zones for maximum visual comfort – as Whitecroft Lighting VIVANT™.