To LED or not to LED-up a store

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Agenda

The visibility of coloured LED in stores
The impact of coloured LED in stores
The added value of coloured LED in stores
Visibility: study by students

Flash shoe store, Hasselt BE

Planet Perfume, Hasselt BE
Visibility: study by students

RESULTS

*Have you noticed the coloured lighting in the store?*
20 people questioned outside the store (of which 19 people had visited the store before that day)

Flash shoe store, Hasselt BE

- Yes: 13
- No: 7

Contribution to the store’s image: 20/20

Planet Perfume, Hasselt BE

- Yes: 4
- No: 16

Contribution to the store’s image: 12/20
Visibility: experiment Real Supermarket

630 lux/3000K

480 Lux/2750K

870lux/4800K

Red LED-wand

Blue LED-wand
Visibility: experiment Real Supermarket

METHOD

- During a period of 11 days, 664 people were questioned, 441 after the shopping experience and 213 during their shopping behaviour.
- Behaviour was measured during 21 weeks.
- Participants were unaware of the exact goal of the study.
MEASURES

**Mood**: Short Mood Form (Brengman, 2002)


**Atmosphere**: a tool to quantify the ‘perceived atmosphere’ (Vogels, 2008)

**Image of Plus store**

**Behaviour**: time spent, products bought, amount spent
Visibility: experiment Real Supermarket

AWARENESS SHORT TERM

Are the consumers aware of the light setting they just saw?

Recognition of the colour of the LED-wall (outside supermarket via 3 photographs)
Visibility: experiment Real Supermarket

AWARENESS LONG TERM

*Have the consumers noticed the change of the lighting during the last weeks?*

- Change of lighting during the last 3 months: 25%
- Colour change of the LED-wall: 17.5%
Visibility: experiment Real Supermarket

**IMAGE**

*Does the perceived atmosphere correspond with Plus’ image?*

**Based on light setting** (based on 5-point scale)

<table>
<thead>
<tr>
<th>LED-Wall</th>
<th>IMAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>4,17</td>
</tr>
<tr>
<td>On</td>
<td>3,99</td>
</tr>
</tbody>
</table>

*no significant effect of light setting*

<table>
<thead>
<tr>
<th>SettingLux</th>
<th>IMAGE LSMEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>480lux</td>
<td>4,23</td>
</tr>
<tr>
<td>2750K</td>
<td></td>
</tr>
<tr>
<td>500lux</td>
<td>4,10</td>
</tr>
<tr>
<td>4000K</td>
<td></td>
</tr>
<tr>
<td>630lux</td>
<td>3,86</td>
</tr>
<tr>
<td>3000K</td>
<td></td>
</tr>
<tr>
<td>650lux</td>
<td>4,09</td>
</tr>
<tr>
<td>5400K</td>
<td></td>
</tr>
<tr>
<td>870lux</td>
<td>4,11</td>
</tr>
<tr>
<td>4800K</td>
<td></td>
</tr>
</tbody>
</table>
## Impact: experiment Real Supermarket

### BEHAVIOUR

<table>
<thead>
<tr>
<th>Led-coloured wall &amp; lightsettings →</th>
<th>Note: tested for areas with changing light-settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attracts more people →</td>
<td>No relevant difference</td>
</tr>
<tr>
<td>More sales</td>
<td>No relevant difference</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Led-coloured wall →</th>
<th>Note: Tested for areas nearby coloured wall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attracts more customers to area →</td>
<td>3% difference in % customers that visit area nearby coloured wall; less visitors with led-wall on</td>
</tr>
<tr>
<td>More sales</td>
<td>no</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Led-coloured wall &amp; lightsettings →</th>
<th>Note: tested for wine-area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer changes routing in shop</td>
<td>No relevant difference in routing</td>
</tr>
<tr>
<td>Customer moves faster to led-wall</td>
<td>speed ↑ 2.5% for trolleys to reach wine area</td>
</tr>
</tbody>
</table>
Visibility/impact: coloured light on site
Visibility/impact: coloured light on site

MEASURES

- Subjective appreciation (interview): 30 people (5 per colour - purple/yellow/green/white/red/blue)
- Observation camera’s
- Products of those shelves sold: 37 days of which 20 days the lighting was on (green).
Visibility/impact: coloured light on site

RESULTS

➤ Subjective appreciation:
  75% says positive to the atmosphere

➤ Observation:
  no change in behaviour

➤ Products of those shelves sold:
  no significant difference
Added value

Preference blue backlighting
Even with 50% power reduction, no effect on sales number

Source: LRC (2005)
Added value: lab experiment

COLOUR PERCEPTION
80 men/women between 18 and 70

On a 6-point scale:
lively-boring
safeness-danger
warm-cool
relaxing-arousing
pleasing-displeasing
happy-depressing
aggressive-soft
oppressive-casual
inviting-distant
Added value: lab experiment
Added value?: case study

SHOEBALOO ROTTERDAM
Added value!: case study

SHOEBALOO AMSTERDAM (fluorescence)
Added value!: case study

SNOG LONDON: The sound system is specially curated and the lighting patterns respond in real time to the sound in the store. Inside each ribbon are hundreds of LEDs that shuffle and change depending the sound.
Added value!: case study

SNOG LONDON: The sound system is specially curated and the lighting patterns respond in real time to the sound in the store. Inside each ribbon are hundreds of LEDs that shuffle and change depending the sound.
Thank you for your attention

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