EPSRC/LINK-DfT
Future Integrated Transport Environments Programme

‘Inclusive Transport Environments: Colour design, lighting and visual impairment’

South Bank University, Colour Design Research Centre

The University of Reading, Centre for Inclusive Environments
‘Real World’ Tests

360 degree Panorama scanning test
“Standing at one wayfinding decision point, ‘P’, each participant facing ahead at 0 degrees turn slowly clockwise, take your time and talk us through everything that you can see.”
Paddington Real World Site Tests
360 degree Panorama
360 degree Panorama Test

- Photographs all objects and infrastructure elements
- Measurement Data collected 36 sets on each:
  - Distance
  - Lux levels H & V
  - Visual angle
  - CieLab colour measurement
  - Icd/m² – backlit signage
  - Overall Dimension
  - Font size on signs

- Analysed raw results - 6,912 measurements
• Distance
• Performance

Paddington Real World Site Tests
Control Group C 0128
Diabetic Retinopathy, Macular Degeneration
General field loss
Score 8 – Good residual vision
Areas of no sightings

1. MONITOR DEPARTURE TIMETABLE
2. SIGNAGE – CASH MACHINES, HEATHROW AIRPORT CHECK-IN
3. SIGNAGE – TICKETS
   MONITOR DEPARTURE TIMETABLE
   SEATING
   FACILITIES – LADIES
   WAY OUT
Areas of no definition - 1

Departure monitors
Areas of no definition - 2

Signage
Cash machines
Heathrow Airport Check-in
Areas of no definition - 3

Signage
Tickets
Departure monitors
Seating
Ladies
Way Out
Visibility for VIP’s of between 85 –100%
Sign in Quadrant 2 (Q2)

- 2 Emergency Exit Signs Q2 & Q4
- Q2 distance 64metres - Q4 distance 15metres*
- Q2 Lux 51 – Q4 Lux 286*
- Q2 Visual Angle V 0.2 – Q4 Visual Angle V 0.7*
- Q2 \text{lcd/m}^2 750= – Q4 \text{lcd/m}^2 750=
- Both 43% visibility!
- Q2 Predominantly Yellow, Yellow-Red, Red, Red-Blue environment
- Q4 Predominantly Green-Blue
- Hue context could be very important as well as luminance and contrast
- Opposing colours react in a dynamic way
Projectors
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