



TEST REPORT

Location : Valkenswaard, Netherlands
Date : September 22th 2006

Investigation of the Contrast and Brightness of MIGHTY BRIGHTY Projection Screen Paint compared to conventional wall paint.

Description

The company Golden Care bv has requested Konica Minolta Sensing Europe B.V. to investigate the brightness and the contrast of different projection surfaces in order to show the quality of Mighty Brighty (MB) Screen Paint in relation to conventional wall paint. In order to determine the luminance values, 16 different panels with variations in concentration of the additional Mighty Brighty ContrastBooster (CB) and BrightnessBooster (BB) are measured. These values are compared to the luminance values of conventional wall paint.

The used panels are:

1. Wall paint RAL 9010
2. Wall paint RAL 9003
3. 16 x Mighty Brighty (4 variations of CB X 4 variations of BB):

16 panels Mighty Brighty			BrightnessBooster (BB)			
			0%	33%	66%	100%
Contrast Booster (CB)	0%	White	1	2	3	4
	33%	Light grey	5	6	6	8
	66%	Mid grey	9	10	11	12
	100%	Dark grey	12	14	15	16

Test conditions

The above mentioned panels have been measured with a Konica Minolta Luminance meter type LS-100 (body no.: 71413026)

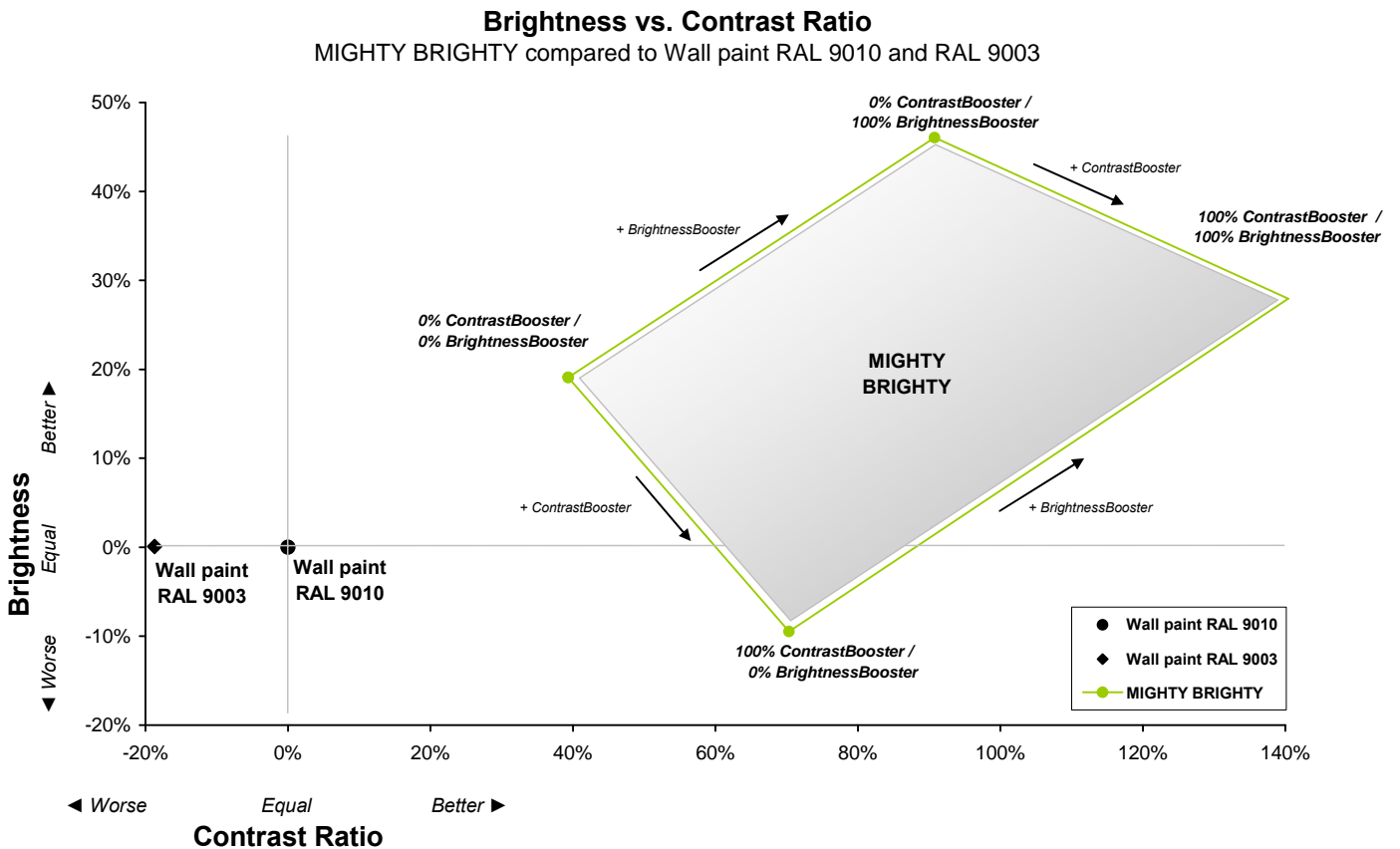
With a average home cinema projector (Benq model PB 6100) a colour test pattern has been projected on the panels from a distance of 3 meters. The room was illuminated with soft daylight at a sunny day. Of each panel the Luminance in cd/m² has been measured on a white, green and black test pattern.



Conclusion

The results show a big difference in brightness (luminance) and contrast-ratio between the different test panels (see test results and graph):

- The **Contrast Ratio** of the Mighty Brighty Projection Screen Paint is at least 40% higher compared to the tested wall paint RAL 9010.
- The **Brightness** of the Mighty Brighty Projection Screen Paint is 20% higher on average, with a maximum of 45%.



Konica Minolta Sensing Europe B.V.

F.J.M. Kwakkenbos
Branch Manager Benelux

Test Results

1. Luminance of White light (Brightness)

Wall paint RAL 9010 226,9 Cd/m²
 Wall paint RAL 9003 227,1 Cd/m²

MIGHTY BRIGHTY Luminance (Cd/m ²)			BrightnessBooster (BB)				Compared to RAL 9010			
			0%	33%	66%	100%	0%	33%	66%	100%
Contrast Booster (CB)	0%	White	270,2	306,4	316,7	331,4	19%	35%	40%	46%
	33%	Light grey	252,0	281,2	306,1	326,3	11%	24%	35%	44%
	66%	Mid grey	221,8	263,9	286,9	290,0	-2%	16%	26%	28%
	100%	Dark grey	205,4	243,8	268,5	290,3	-9%	7%	18%	28%

2. Luminance of Black light

Wall paint RAL 9010 17,15 Cd/m²
 Wall paint RAL 9003 20,75 Cd/m²

MIGHTY BRIGHTY Luminance (Cd/m ²)			BrightnessBooster (BB)			
			0%	33%	66%	100%
Contrast Booster (CB)	0%	White	14,98	15,16	14,36	13,62
	33%	Light grey	13,49	13,53	14,28	13,99
	66%	Mid grey	10,07	10,75	10,64	10,01
	100%	Dark grey	9,41	9,28	9,70	9,55

3. Contrast Ratio [= (White - Black) / Black]

Wall paint RAL 9010 12,23
 Wall paint RAL 9003 9,94

MIGHTY BRIGHTY Luminance (Cd/m ²)			BrightnessBooster (BB)				Compared to RAL 9010			
			0%	33%	66%	100%	0%	33%	66%	100%
Contrast Booster (CB)	0%	White	17,04	19,21	21,05	23,33	39%	57%	72%	91%
	33%	Light grey	17,68	19,78	20,44	22,32	45%	62%	67%	83%
	66%	Mid grey	21,03	23,55	25,96	27,97	72%	93%	112%	129%
	100%	Dark grey	20,83	25,27	26,68	29,40	70%	107%	118%	140%