

Fig. 9. (a) JND between mini-LED backlight LCD image and target image, (b) JND between OLED display image and target image. (c, d) represent Figure 9(a, b) with maximum scale bar = 20 JND.

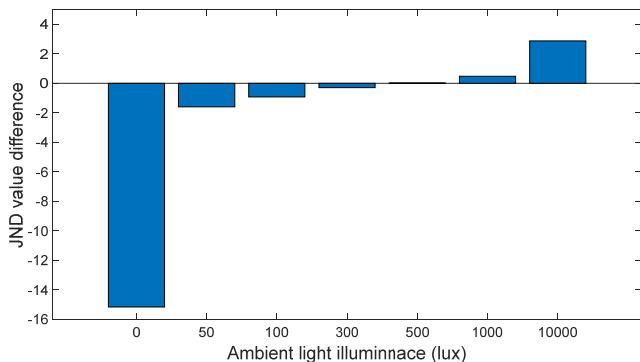


Fig. 10. Simulated average JND value difference between OLED and mini-LED backlight LCD at different ambient light illuminance.

4. Conclusion

We have analyzed the parallax error in a dual panel display and proposed a new LC splitting algorithm to relieve the parallax error, while retaining the image quality at normal angle. In addition, we discuss the ambient light effect on mini-LED LCD display. The undesirable halo effect is more forgiven as the ambient light increases. What's more, due to the tradeoff between brightness and

lifetime in OLED displays, the higher brightness mini-LED LCD can provide better image quality than OLED display at ambient lighting environment. In our simulations as mini-LED LCD is 2000 nits and OLED display is 1000 nits, the image quality of mini-LED LCD is better than OLED display as the ambient illuminance is larger than 500 lux.

5. Funding

a.u.Vista, Inc.

6. References

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