

Developing OLED Lighting Products

2016 DOE Solid State Lighting
R&D Workshop

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About Workrite

- Privately held company founded in 1991
- Our hardware product focus is to address ergonomics issues created by today's workplace environments
- Distribute via office furniture dealers, specialty resellers, architecture & design firms, ecommerce
- Primary customers include major corporations, education, government & healthcare
- North America's largest provider of Sit/Stand Desks & Adjustable Keyboard Platforms

Sit/Stand Workcenters



Adjustable Keyboard Platforms



Monitor Arms



Task Lighting



Task Lighting Portfolio

Under-Cabinet Task Lighting



Dazz-SL



Verano



Ciglio

Desktop Task Lighting



Fundamentals



Natural OLED



Astra Double Arm

The Natural OLED Desk Light

The Best Light is NATURAL

Using OLED technology, the Natural produces no glare, UV or blue light risk, while rendering colors in amazing accuracy. Perfect for reading intensive environments the Natural OLED Desk Light allows users eyes to work in absolute comfort.

Performance

- Foot Candle Power (@ 15"): 108 fc
- Light Output (Lumens): 442 lm
- Power Consumption (Wattage): 13.7 W
- Lumens Per Watt: 32 lm/W
- Light Color Temperature (CCT): 3900 K
- Color Rendering Index (CRI): 94 CRI
- 30,000+ hour OLED life (L70 rating)
 - Based on lowest brightness



List Price: \$399

What's Working?

Thin form factor

- Design community loves it
- Consumers love it

Light Quality

- Consumers enjoy using it
- Well received by our ergonomist community



What's NOT Working?

- Efficacy (*It's everything*)
 - High operating costs scare away savvy facilities management buyers focused on Green Building Council & LEED credits
 - Price premiums would be accepted if efficacy levels could meet or exceed LED
 - OLED will remain in niche lighting application until efficacy levels or panel prices drop low enough to build a fixture and show a total cost of ownership below comparable LED fixtures (over at least a 7 year period)
- Panel Lifetime (L70)
 - Again needs to match LED to break into mainstream lighting applications and disrupt the market
 - DOE OLED Panel & Luminaire Milestones for FY17 & beyond do not contain targets
- Driver Size Issues
 - Currently bulky and do not reflect the slim form factor of OLED panels to be more easily integrated into fixtures
 - *D.5.3 of the OLED Product Development Task list makes no mention of size constraints*

Compliance Issues

- OLED panels cannot meet Energy Star's light distribution requirements
 - Example of Portable Desk Task Light category:
“Luminaire shall deliver a minimum of 60% of total lumens within the 0-75° zone (symmetric about the center of the beam)”
 - *C.6.3 of the OLED Product Development Task list mentions light shaping but not to a specific standard. Is this the intent?*
 - *Should the standard be reconsidered by Energy Star?*



So Why Are We Still Excited?

- Fixture design possibilities with both rigid & flexible OLEDs
 - Design community will pay a premium for iconic fixtures*
- Compact & minimalistic fixture possibilities align with the direction of office environments
- User health benefits from the quality of light
- Elimination of heat syncs, lenses and corresponding fixture requirements reduce build requirements – more environmentally friendly.

Thank You!