



**LED REPLACEMENT LAMPS** DEPLOYED THROUGHOUT R-10 HEADQUARTERS

## Focus on LED Downlight Lamps

MATCHED CFL LIGHT QUALITY WHILE GREATLY LOWERING ENERGY COSTS

It's rare for a GPG assessment to be as simple as replacing a lightbulb but sometimes that's all that's required. After a successful test-bed evaluation of plug-and-play LED downlight lamps at GSA's regional headquarters in Auburn, Washington, Marty Novini, R-10's Energy Program Manager, expanded deployment to the entire facility, an additional 605 lamps. "Downlight fixtures are expensive, so replacing the entire thing can be cost-prohibitive," says Marty. "LED replacement lamps offer a low-cost alternative." R-10 was able to buy the LED lamps and hand them over to their O&M contractor to install as part of their building maintenance contract. Over a six-month period, the contractor replaced all of the compact fluorescent lamps (CFLs), providing GSA with appreciable energy savings while at the same time reducing future maintenance—LED lamps last about twice as long as CFLs. Inspired by the successful installation of plug-and-play LEDs, the regional headquarters also replaced all of its high-intensity discharge (HID) exterior lighting with LED lamps from the same manufacturer. "It really was as easy as screwing in a light bulb," says Marty, "though there are several things to watch out for. The replacement lamps only work with electronic ballasts and specifying the correct replacement lamp requires matching the pin configuration, orientation and color temperature." **GPG recommends replacing all CFL downlight lamps with LED lamps. Where dimming is desired and the existing CFL ballast does not support it, an LED retrofit kit is recommended.**

**Plug-and-play LED downlight replacement lamps reduced lighting energy by 50%, matched or exceeded pre-existing light levels, and produced positive ROI at all utility rates.**

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*"Lighting changes often elicit occupant complaints, but with the change from CFL to LED lamps, occupants didn't even notice a difference."*

– Marty Novini, Energy Program Manager, GSA Northwest Arctic Region (R-10)

## LED Downlight Lamps for CFL Fixtures

- LED light level and quality comparable to existing CFLs
- Occupants were satisfied with the lamps and noticed little difference
- 40% to 50% energy savings
- \$6.37 annual savings per unit over typical CFL lamp at GSA average utility rate of \$0.11/kWh
- < 3 year retrofit payback at GSA average utility rate

## RESOURCES

### Learn More About LED Downlight Replacement Lamps for CFL Fixtures

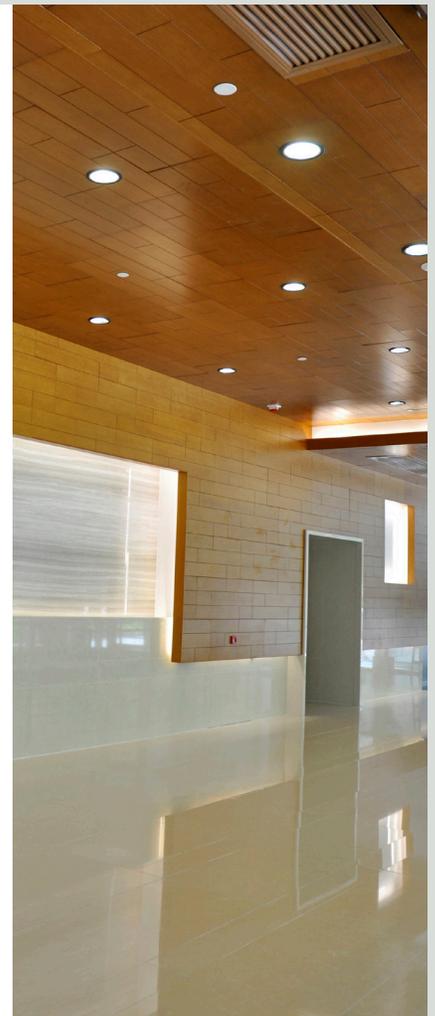
[GPG Findings 026 & Report by the Pacific Northwest National Laboratory »](#)

[Webinar Recording, 03.22.18 »](#)

[Webinar Presentation Slides »](#)

[Map of GSA Deployment of LED Downlight Replacement Lamps »](#)

For more information about GSA's Proving Ground program and the technologies it evaluates: contact Michael Hobson [michael.hobson@gsa.gov](mailto:michael.hobson@gsa.gov) or go to [www.gsa.gov/gpg](http://www.gsa.gov/gpg)



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