

Architectural Recessed Downlight Retrofits

February 26, 2016



TODAY'S AGENDA

- MaxLite Downlights – DLR Series
- Features / Construction
- Installation
- Lighting Layouts / LM79 Reports
- ROI

**Webinars**
A NEW WAVE OF LIGHT

MaxLite Presents:

**LED
Architectural
Downlight
Retrofits**
(DLR Series)

2/26/16 at 12pm



Join and learn more about:

- The features and specifications that make these retrofits stand out from the competition.
- How they can provide superior optical performance for hospitality, health care, lobbies, offices, education and retail.
- Designed for easy installation, no goof ring needed

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(If prompted to OPEN or SAVE, choose OPEN)

MAXLITE'S LED DOWNLIGHTS



LED Recessed Downlight Retrofits

The LED Recessed Downlight Retrofits are replacements for existing, less efficient incandescent and compact fluorescent (CFL) light sources commonly used in the recessed downlighting marketplace. ENERGY STAR®-qualified models are available.



LED Recessed Downlight Fixtures

The LED Recessed Downlight Fixtures are designed for new construction and remodel recessed projects.



LED Commercial Recessed Downlight Retrofits

The commercial-grade LED Recessed Downlight Retrofits are ideal for retrofitting inefficient fixtures in malls, hospitals, airports, offices, lobbies and other commercial applications. ENERGY STAR®-qualified models are available.



LED Commercial Recessed Downlight Fixtures

Offered in a variety of aperture sizes, color temperatures and wattages, MaxLite's ENERGY STAR-certified LED Commercial Recessed Downlights are an easy-to-install, high-performance lighting solution.



LED Faux Cans

ENERGY STAR-certified LED Faux Cans accomplish the task of recessed downlighting without the time and expense of working with drywall.



LED Architectural Downlight Fixtures

MaxLite's Energy Star qualified Architectural Downlight Fixtures are offered in 4, 6 and 8" aperture sizes, work with a wide variety of ceiling systems and can be vertically adjusted up to 5 inches.



ECO Series-Commercial Recessed Retrofit Downlight

The ENERGY STAR certified ECO Series LED Recessed Retrofit Downlight combines low up-front cost, minimal labor, best-in-class energy efficiency and architectural-quality light to deliver an exceptional value for customers.



Architectural Recessed Downlight Retrofits

LED Architectural Recessed Downlight Retrofits are ideal for replacing less efficient lighting in locations requiring superior optical performance, such as hospitality, health care, lobbies, offices, education and retail.

Architectural Recessed Downlight Retrofits



Overview:

LED Architectural Recessed Downlight Retrofits are ideal for replacing less efficient lighting in locations requiring superior optical performance, such as hospitality, health care, lobbies, offices, education and retail. The ENERGY STAR certified retrofits mount easily into existing recessed frames and connect to a standard junction box using the supplied quick connector and conduit whip for instant energy savings.

Validations & Accolades:



Choose from multiple lumen packages, color temperatures and custom options to create long-lasting, high quality illumination for any application.



The high lumen output and long life of the product make the DLR Series an ideal solution for high ceiling settings where maintenance can be expensive and labor intensive.

ARCHITECTURAL RECESSED DOWNLIGHT RETROFITS

Available in a full range of reflector sizes, lumen packages and color temperatures, the ENERGY STAR certified DLR Series is designed for applications that require superior optical performance and scalability, such as hospitality, health care, office, education and retail. The retrofits are available in 4", 6", 8" and 9" configurations, with outputs ranging from 1,000 – 5,000 lumens to suit a variety of general and accent downlighting needs.



4" DLR Downlight



6" DLR Downlight



8" DLR Downlight



9" DLR Downlight

ARCHITECTURAL RECESSED DOWNLIGHT RETROFITS

FEATURES:

- Universal Voltage 120-277V
- Mounts into existing recessed frame
- Optional retaining clips if existing frame does not have adequate friction springs to secure reflector
- min 80 CRI
- min 90% Power Factor
- A wide variety of CCTs available 3000K and 4000K come standard: 2700K, 3500K and 5000K by order
- Seven Years Limited Warranty
- Compatible with TRIAC (forward-phase or leading-edge) / ELV (reverse-phase or trailing-edge) 120V only and 0-10 V dimmers (DLR850 and DLR950 0-10V only)
- Flood beam standard. Spot beam by special order.
- L70 100khrs

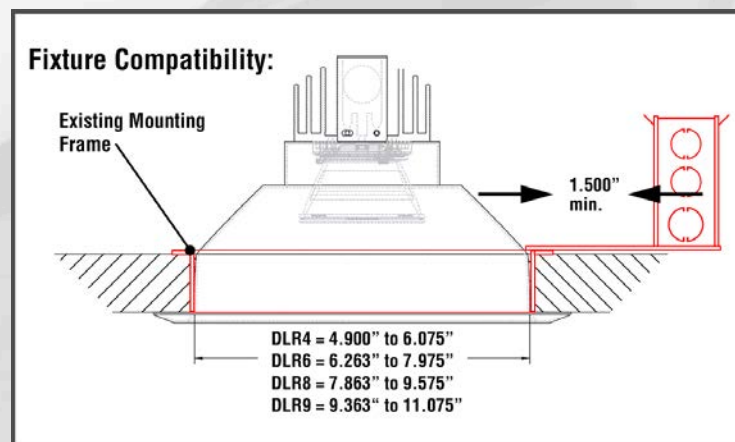
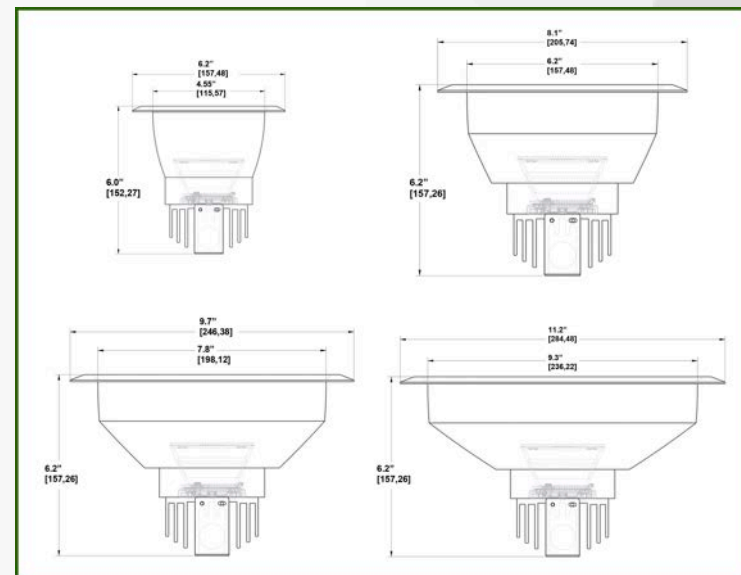
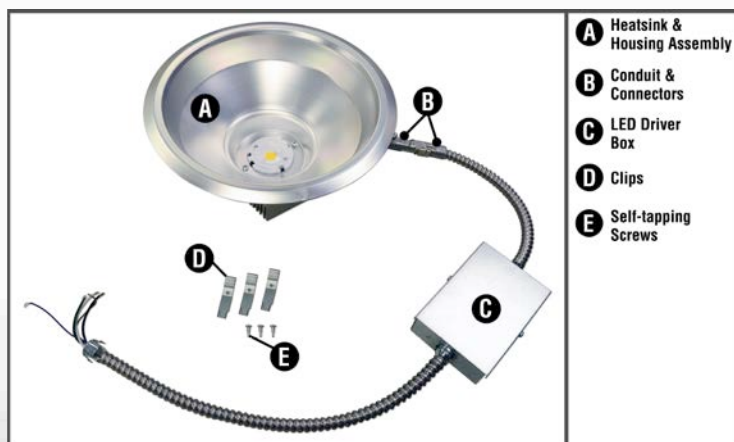


“MaxLite introduces the DLR Series of Architectural Recessed Downlight Retrofits as a simple, cost-effective way to upgrade commercial interiors to more efficient lighting.”

ARCHITECTURAL RECESSED DOWNLIGHT RETROFITS

CONSTRUCTION:

- Supplied with heavy gauge anodized aluminum reflector in a haze finish
- Reflectors have extended trims to conceal imperfections in drywall openings
- Extruded aluminum heatsinks for best thermal performance
- External driver for easy retrofit and maintenance
- Long lasting LED driver for maximum performance
- LED Driver Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac



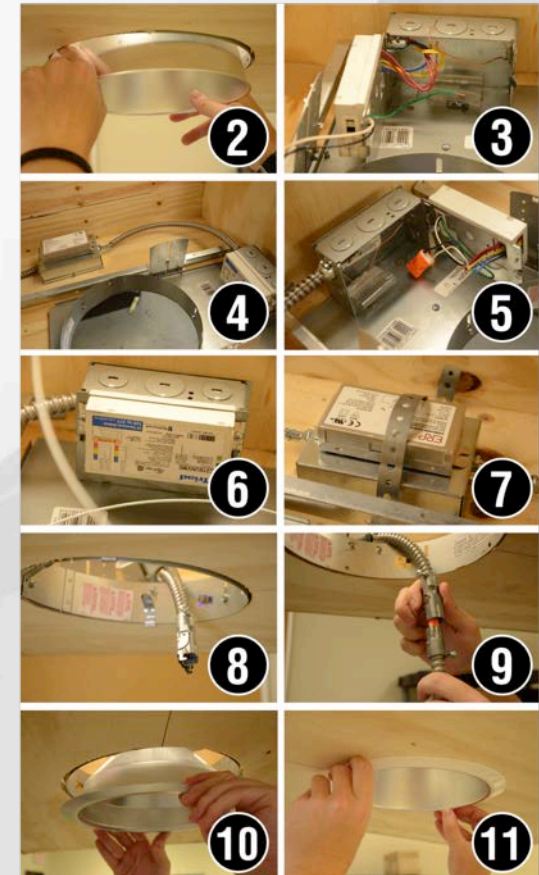
DLR SERIES – AN EASY RETROFIT INSTALLATION

INSTALLATION MANUAL:

- Installation manual is available to help make it an easy retrofit when upgrading from traditional fluorescent fixtures.



Example of existing fluorescent fixture before retrofit.



LED 4" RECESSED ARCHITECTURAL SERIES:

LED 4" RECESSED ARCHITECTURAL SERIES DLR4 SERIES



FEATURES:

- Universal Voltage 120-277V
- Mounts into existing recessed frame
- Optional retaining clips if existing frame does not have adequate friction springs to secure reflector
- min 80 CRI
- min 90% Power Factor
- A wide variety of CCTs available 3000K and 4000K come standard. 2700K, 3500K and 5000K by order
- Seven Years Limited Warranty
- Compatible with TRIAC (forward-phase or leading-edge) / ELV (reverse-phase or trailing-edge) 120V only and 0-10 V dimmers
- Flood beam standard. Spot beam by special order.
- L70 100khrs

CONSTRUCTION:

- Supplied with heavy gauge anodized aluminum reflector in a haze finish
- Reflectors have extended trims to conceal imperfections in drywall openings
- Extruded aluminum heatsinks for best thermal performance
- External driver for easy retrofit and maintenance
- Long lasting LED driver for maximum performance
- LED Driver Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac

PHOTOMETRIC: ALL .IES FILES AVAILABLE ONLINE. PLEASE SEE PAGE 4 FOR POLAR CANDELA LAYOUTS

PRODUCT DESCRIPTION:

The all improved Architectural Grade LED Downlight Retrofit Series is supplied with a quick connector and a conduit whip and fitter to make an easy connection to an existing recessed fixture frame junction box.

MODEL SELECTION (Full list of order codes on pg. 2)

Typical order example: DLR41530

| DLR | 4 | | | | |
|-------------------------|-------|-----------------|----------------------------|------------------------|--------------|
| FAMILY | SIZE | REFLECTOR COLOR | LUMEN PACKAGE | CCT | OPTION |
| DLR= Downlight Retrofit | 4= 4" | (OMIT)= None | 10= 10 15= 15 20= 20 | 30= 3000K 40= 4000K | (OMIT)= None |

COMPATIBLE DIMMERS:

| BRAND | MODEL | DIMMING | NOTE |
|--------------|-------------------|-----------|--|
| Triac (120V) | Lutron DCVL-153P* | 3 to 100% | *Pop on is a situation that arises when the lights cannot be turned on immediately to their minimum level. |
| | Lutron DV-600P* | 8 to 100% | |
| | Lutron TGCL-153P | 7 to 100% | |
| | Lutron G-600P* | 3 to 100% | |
| | Lutron LG-600P* | 9 to 100% | |
| | Lutron 6631-2" | 1 to 100% | |
| | Lutron 6683-1W" | 8 to 100% | |
| | Lutron 6633-P" | 2 to 100% | |
| | Lutron DLC03P | 3 to 100% | |
| | Lutron SLL03P | 2 to 100% | |
| Cooper | DAL06P | 2 to 100% | |

| BRAND | MODEL | DIMMING |
|-------------------|---------------|---------|
| Lutron DIVA | DVTV | 0-10V |
| Lutron NOVA | NVTV | |
| Lutron NOVAT | NTFTV W/PP20 | |
| Leviton RENOID II | AWRMG-7XX | |
| | AWSMG-7XX | |
| | AWSMT-7XX | |
| Leviton | IP710-LFZ/DLX | 10-100% |

SPECIFICATIONS:

| | | DLR41030 | DLR41040 | DLR41530 | DLR41540 | DLR42030 | DLR42040 |
|---------------------|-----------------------|--|----------|----------|----------|----------|----------|
| ITEM | SPECIFICATION | DETAILS | | DETAILS | | DETAILS | |
| GENERAL PERFORMANCE | Power Consumption (W) | 11.6 | 11 | 20.4 | 20 | 29.7 | 28 |
| | Lumens Delivered (lm) | 1,134 | 1,100 | 1,841 | 1,800 | 2,362 | 2,300 |
| | Efficacy (lm/W) | 98 | 100 | 90 | 90 | 80 | 82 |
| | Color Temperature | 3000, 4000 (Additional CCT available, contact MaxLite for info.) | | | | | |
| | L70 Lifetime (hours) | 100,000 | | | | | |
| | Color Consistency | Proprietary binning for uniform color | | | | | |
| ELECTRICAL | CRI | Minimum 80 | | | | | |
| | Power Factor | > 90% | | | | | |
| | Input Voltage | 120-277V | | | | | |
| | Compatible Dimmers | Refer to list of approved dimmers | | | | | |
| CERTIFICATION | Mounting | Mounts into existing recessed frame | | | | | |
| | Operating Temperature | -4° to 113°F | | | | | |
| | Humidity | 20% - 85% RH, non-condensing | | | | | |
| | Certification | cULus, Energy Star, FCC | | | | | |
| | Material Usage | RoHS compliant, no mercury | | | | | |
| | Environment | Damp | | | | | |
| | Warranty | Seven Years Limited Warranty | | | | | |

Preliminary Data until LM79 is available

ORDERING*:

| ORDER CODE | MODEL | DESCRIPTION | CCT |
|------------|----------|---|-------|
| 76410 | DLR41030 | 4" Architectural Downlight, 1000 Lumens | 3000K |
| 75515 | DLR41040 | 4" Architectural Downlight, 1000 Lumens | 4000K |
| 75530 | DLR41530 | 4" Architectural Downlight, 1500 Lumens | 3000K |
| 75540 | DLR41540 | 4" Architectural Downlight, 1500 Lumens | 4000K |
| 75555 | DLR42030 | 4" Architectural Downlight, 2000 Lumens | 3000K |
| 75565 | DLR42040 | 4" Architectural Downlight, 2000 Lumens | 4000K |

*Please contact your MaxLite representative to order products that don't have order codes listed here.

| LUMEN MULTIPLIER | |
|------------------|-------|
| 2700K | 1.000 |
| 3000K | 1.047 |
| 3500K | 1.073 |
| 4000K | 1.097 |
| 5000K | 1.118 |

| BASELINE VALUES AND REPLACEMENTS | | |
|----------------------------------|------|-------------|
| DLR41027 | 975 | 26W CFL |
| DLR41527 | 1650 | 32W CFL |
| DLR42027 | 2200 | (2) 26W CFL |

LED 6" RECESSED ARCHITECTURAL SERIES:



PROJECT NAME: _____ CATALOG NUMBER: _____
NOTES: _____ FIXTURE SCHEDULE: _____

Page: 1 of 3

LED 6" RECESSED ARCHITECTURAL SERIES DLR6 SERIES



FEATURES:

- Universal Voltage 120-277V
- Mounts into existing recessed frame
- Optional retaining clips if existing frame does not have adequate friction springs to secure reflector
- min 80 CRI
- min 90% Power Factor
- A wide variety of CCTs available 3000K and 4000K come standard: 2700K 3500K and 5000K by order
- Seven Years Limited Warranty
- Compatible with TRIAC (forward-phase or leading-edge) / ELV (reverse-phase or trailing-edge) 120V only and 0-10 V dimmers
- Flood beam standard. Spot beam by special order.
- L70 100khrs

CONSTRUCTION:

- Supplied with heavy gauge anodized aluminum reflector in a haze finish
- Reflectors have extended trims to conceal imperfections in drywall openings
- Extruded aluminum heatsinks for best thermal performance
- External driver for easy retrofit and maintenance
- Long lasting LED driver for maximum performance
- LED Driver Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac

PRODUCT DESCRIPTION:

The all improved Architectural Grade LED Downlight Retrofit Series is supplied with a quick connector and a conduit whip and fitter to make an easy connection to an existing recessed fixture frame junction box.

MODEL SELECTION (Full list of order codes on pg. 2)

Typical order example: DLR61530

| DLR | 6 | | | | |
|-------------------------|-------|-----------------|--------------------------------------|------------------------|--------------|
| FAMILY | SIZE | REFLECTOR COLOR | LUMEN PACKAGE | CCT | OPTION |
| DLR= Downlight Retrofit | 6= 6" | (OMIT)= None | 10= 10 15= 15 20= 20 30= 30 | 30= 3000K 40= 4000K | (OMIT)= None |

COMPATIBLE DIMMERS:

| BRAND | MODEL | DIMMING | NOTE |
|--------------|---------|------------|-----------|
| Triac (120V) | Lutron | DCVL-153P* | 3 to 100% |
| | | DV-600P* | 8 to 100% |
| | | TGCL-153P | 7 to 100% |
| | | S-600P* | 3 to 100% |
| | Leviton | LG-600P* | 9 to 100% |
| | | 6631-2* | 1 to 100% |
| | | 6653-1W* | 8 to 100% |
| | | 6633-P* | 2 to 100% |
| | Cooper | DLC03P | 3 to 100% |
| | | SLL03P | 2 to 100% |
| | | DAL06P | 2 to 100% |

*Pop on is a situation that arises when the lights cannot be turned on immediately to their minimum level.

| BRAND | MODEL | DIMMING | NOTE |
|-------|----------------------|---------------|---------------------------------|
| 0-10V | Lutron DIVA | DVTV | 10-100% with On/Off function |
| | Lutron NOVA | NVTV | |
| | Lutron NOVAT | NTFTV W/PP20 | |
| | Leviton RENOIR II | AWRMG-7XX | |
| | | AWSMG-7XX | |
| | | AWSM7-7XX | |
| | Leviton | IP710-LFZ/DLX | |

MAX15071

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LED 6" RECESSED ARCHITECTURAL SERIES DLR6 SERIES

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SPECIFICATIONS:

| | | DLR61030 | DLR61040 | DLR61530 | DLR61540 | DLR62030 | DLR62040 | DLR63030 | DLR63040 |
|---------------------|-----------------------|--|----------|----------|----------|----------|----------|----------|----------|
| ITEM | SPECIFICATION | DETAILS | | DETAILS | | DETAILS | | DETAILS | |
| GENERAL PERFORMANCE | Power Consumption (W) | 11.2 | 11 | 20.3 | 20.2 | 29.2 | 29.6 | 38 | 38 |
| | Lumens Delivered (lm) | 1,165 | 1,100 | 1,838 | 1,994 | 2,451 | 2,545 | 3,100 | 3,200 |
| | Efficacy (lm/W) | 104 | 100 | 91 | 96 | 84 | 86 | 82 | 84 |
| | Color Temperature | 3000, 4000 (Additional CCT available, contact MaxLite for info.) | | | | | | | |
| | L70 Lifetime (hours) | 100,000 | | | | | | | |
| | Color Consistency | Proprietary binning for uniform color | | | | | | | |
| ELECTRICAL | CRI | Minimum 80 | | | | | | | |
| | Power Factor | > 90% | | | | | | | |
| | Input Voltage | 120-277V | | | | | | | |
| | Compatible Dimmers | Refer to list of approved dimmers | | | | | | | |
| CERTIFICATION | Mounting | Mounts into existing recessed frame | | | | | | | |
| | Operating Temperature | -4° to 113°F | | | | | | | |
| | Humidity | 20% - 85% RH, non-condensing | | | | | | | |
| | Certification | cULus, Energy Star, FCC | | | | | | | |
| | Material Usage | RoHS compliant; no mercury | | | | | | | |
| | Environment | Damp | | | | | | | |
| | Warranty | Seven Years Limited Warranty | | | | | | | |

Preliminary Data until LM79 is available

ORDERING*:

| ORDER CODE | MODEL | DESCRIPTION | CCT |
|------------|----------|---|-------|
| 75655 | DLR61030 | 6" Architectural Downlight, 1000 Lumens | 3000K |
| 75665 | DLR61040 | 6" Architectural Downlight, 1000 Lumens | 4000K |
| 75680 | DLR61530 | 6" Architectural Downlight, 1500 Lumens | 3000K |
| 75690 | DLR61540 | 6" Architectural Downlight, 1500 Lumens | 4000K |
| 75705 | DLR62030 | 6" Architectural Downlight, 2000 Lumens | 3000K |
| 75715 | DLR62040 | 6" Architectural Downlight, 2000 Lumens | 4000K |
| 75730 | DLR63030 | 6" Architectural Downlight, 3000 Lumens | 3000K |
| 75740 | DLR63040 | 6" Architectural Downlight, 3000 Lumens | 4000K |

*Please contact your MaxLite representative to order products that don't have order codes listed here.

| LUMEN MULTIPLIER | | BASELINE VALUES AND REPLACEMENTS | |
|------------------|-------|----------------------------------|------------------|
| 2700K | 1.000 | DLR61027 | 975 26W CFL |
| 3000K | 1.047 | DLR61527 | 1650 32W CFL |
| 3500K | 1.073 | DLR62027 | 2200 (2) 26W CFL |
| 4000K | 1.097 | DLR63027 | 2943 (2) 32W CFL |
| 5000K | 1.118 | | |

MAX15071

Revised: 02-02-16



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LED 8" RECESSED ARCHITECTURAL SERIES:



PROJECT NAME: _____ CATALOG NUMBER: _____
NOTES: _____ FIXTURE SCHEDULE: _____

Page: 1 of 3

LED 8" RECESSED ARCHITECTURAL SERIES DLR8 SERIES



FEATURES:

- Universal Voltage 120-277V
- Mounts into existing recessed frame
- Optional retaining clips if existing frame does not have adequate friction springs to secure reflector
- min 80 CRI
- min 90% Power Factor
- A wide variety of CCT's available 3000K and 4000K come standard: 2700K 3500K and 5000K by order
- Seven Years Limited Warranty
- Compatible with TRIAC (forward-phase or leading-edge) / ELV (reverse-phase or trailing-edge) 120V only and 0-10 V dimmers (DLR850 model is only 0-10V)
- Flood beam standard. Spot beam by special order.
- L70 100khrs

CONSTRUCTION:

- Supplied with heavy gauge anodized aluminum reflector in a haze finish
- Reflectors have extended trims to conceal imperfections in drywall openings
- Extruded aluminum heatsinks for best thermal performance
- External driver for easy retrofit and maintenance
- Long lasting LED driver for maximum performance
- LED Driver Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac

PRODUCT DESCRIPTION:

The all improved Architectural Grade LED Downlight Retrofit Series is supplied with a quick connector and a conduit whip and fitter to make an easy connection to an existing recessed fixture frame junction box.

| MODEL SELECTION (Full list of order codes on pg. 3) | | Typical order example: DLR81530 | | | |
|---|-------|---------------------------------|--|------------------------|--------------|
| DLR | 8 | | | | |
| FAMILY | SIZE | REFLECTOR COLOR | LUMEN PACKAGE | CCT | OPTION |
| DLR= Downlight Retrofit | 8= 8" | (OMIT)= None | 10= 10 15= 15 20= 20 30= 30 50= 50 | 30= 3000K 40= 4000K | (OMIT)= None |

COMPATIBLE DIMMERS:

| BRAND | MODEL | DIMMING | NOTE |
|--------------|------------|-----------|--|
| Triac (120V) | DCVL-153P* | 3 to 100% | *Pop on is a situation that arises when the lights cannot be turned on immediately to their minimum level. |
| | DV-600P* | 8 to 100% | |
| | TGCL-153P | 7 to 100% | |
| | S-600P* | 3 to 100% | |
| | LG-600P* | 9 to 100% | |
| | 6631-2" | 1 to 100% | |
| Leviton | 6683-1W* | 8 to 100% | 2 to 100% |
| | 6633-P* | 2 to 100% | |
| Cooper | DLC03P | 3 to 100% | 2 to 100% |
| | SLL03P | 2 to 100% | 2 to 100% |
| | DAL06P | 2 to 100% | 2 to 100% |

| BRAND | MODEL | DIMMING | NOTE |
|-------|------------------------|---------------|------------------------------|
| 0-10V | Lutron DIVA | DVTV | 10-100% with On/Off function |
| | Lutron NOVA | NVTV | |
| | Lutron NOVAT | NTFTV WPP20 | |
| | Leviton RENAISSANCE II | AWRMG-7XX | |
| | | AWSMG-7XX | |
| | Leviton | IP710-LFZ/DLX | |

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LED 8" RECESSED ARCHITECTURAL SERIES DLR8 SERIES

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SPECIFICATIONS:

| ITEM | SPECIFICATION | DLR81030 | DLR81040 | DLR81530 | DLR81540 | DLR82030 | DLR82040 | DLR83030 | DLR83040 | DLR85030 | DLR85040 |
|---------------------|-----------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| GENERAL PERFORMANCE | Power Consumption (W) | 11.1 | 12.8 | 20 | 19.9 | 29.4 | 29.2 | 38 | 38 | 60 | 60 |
| | Lumens Delivered (lm) | 1,216 | 1,223 | 1,915 | 1,991 | 2,552 | 2,741 | 3,200 | 3,300 | 5,100 | 5,200 |
| | Efficacy (lm/W) | 110 | 96 | 96 | 100 | 87 | 94 | 84 | 87 | 85 | 87 |
| | Color Temperature | 3000, 4000 (Additional CCT available, contact MaxLite for info.) | | | | | | | | | |
| | L70 Lifetime (hours) | 100,000 | | | | | | | | | |
| | Color Consistency | Proprietary binning for uniform color | | | | | | | | | |
| | CRI | Minimum 80 | | | | | | | | | |
| ELECTRICAL | Compatible Dimmers | Refer to list of approved dimmers TRIAC AND 0-10V | | | | | | | | | 0-10V Only |
| | Power Factor | > 90% | | | | | | | | | |
| | Input Voltage | 120-277V | | | | | | | | | |
| PHYSICAL | Mounting | Mounts into existing recessed frame | | | | | | | | | |
| | Operating Temperature | -4° to 113°F | | | | | | | | | |
| | Humidity | 20% - 85% RH, non-condensing | | | | | | | | | |
| | Certification | cULus, Eneergy Star, FCC | | | | | | | | | |
| CERTIFICATION | Material Usage | RoHS compliant, no mercury | | | | | | | | | |
| | Environment | Damp | | | | | | | | | |
| | Warranty | Seven Years Limited Warranty | | | | | | | | | |

Preliminary Data until LM79 is available

SPECIFICATIONS:

| ITEM | SPECIFICATION | DLR83030 | DLR83040 | DLR85030 | DLR85040 |
|---------------------|-----------------------|---|----------|----------|----------|
| GENERAL PERFORMANCE | Power Consumption (W) | 38 | 38 | 60 | 60 |
| | Lumens Delivered (lm) | 3081 | 3228 | 5329 | 5584 |
| | Efficacy (lm/W) | 81 | 85 | 89 | 93 |
| | Color Temperature | 3000K | 4000K | 3000K | 4000K |
| | L70 Lifetime (hours) | 100,000 | | | |
| | Color Consistency | Minimum 80 | | | |
| | CRI | Proprietary binning for uniform color | | | |
| ELECTRICAL | Compatible Dimmers | Refer to list of approved dimmers TRIAC AND 0-10V | | | |
| | Power Factor | > 90% | | | |
| | Input Voltage | 120-277V | | | |
| PHYSICAL | Weight | TBD | | | |
| | Mounting | Mounts into existing recessed frame | | | |
| | Operating Temperature | -4° to 113°F | | | |
| | Humidity | 20% - 85% RH, non-condensing | | | |
| CERTIFICATION | Certification | Pending | | | |
| | Material Usage | RoHS compliant, no mercury | | | |
| | Environment | Damp | | | |
| | Warranty | Seven Years Limited Warranty | | | |

Preliminary Data until LM79 is available

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LED 9" RECESSED ARCHITECTURAL SERIES:



PROJECT NAME: _____ CATALOG NUMBER: _____
NOTES: _____ FIXTURE SCHEDULE: _____

Page: 1 of 3

LED 9" RECESSED ARCHITECTURAL SERIES DLR9 SERIES



FEATURES:

- Universal Voltage 120-277V
- Mounts into existing recessed frame
- Optional retaining clips if existing frame does not have adequate friction springs to secure reflector
- min 80 CRI
- min 90% Power Factor
- A wide variety of CCTs available 3000K and 4000K come standard: 2700K 3500K and 5000K by order
- Seven Years Limited Warranty
- Compatible with TRIAC (forward-phase or leading-edge) / ELV (reverse-phase or trailing-edge) 120V only and 0-10 V dimmers (DLR950 model is only 0-10V)
- Flood beam standard. Spot beam by special order.
- L70 100khrs

CONSTRUCTION:

- Supplied with heavy gauge anodized aluminum reflector in a haze finish
- Reflectors have extended trims to conceal imperfections in drywall openings
- Extruded aluminum heatsinks for best thermal performance
- External driver for easy retrofit and maintenance
- Long lasting LED driver for maximum performance
- LED Driver Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac

PRODUCT DESCRIPTION:

The all improved Architectural Grade LED Downlight Retrofit Series is supplied with a quick connector and a conduit whip and fitter to make an easy connection to an existing recessed fixture frame junction box.

MODEL SELECTION (Full list of order codes on pg. 2)

Typical order example: DLR91530

| DLR | 9 | | | | |
|-------------------------|-------|-----------------|--|------------------------|--------------|
| FAMILY | SIZE | REFLECTOR COLOR | LUMEN PACKAGE | CCT | OPTION |
| DLR= Downlight Retrofit | 9" 9" | (OMIT)= None | 10= 10 15= 15 20= 20 30= 30 50= 50 | 30= 3000K 40= 4000K | (OMIT)= None |

COMPATIBLE DIMMERS:

| BRAND | MODEL | DIMMING | NOTE |
|--------------|------------|-----------|--|
| Triac (120V) | DCVL-153P* | 3 to 100% | *Pop on is a situation that arises when the lights cannot be turned on immediately to their minimum level. |
| | DV-600P* | 8 to 100% | |
| | TGCL-153P | 7 to 100% | |
| | S-600P* | 3 to 100% | |
| | LG-600P* | 9 to 100% | |
| | 6631-2" | 1 to 100% | |
| Leviton | 6683-1W* | 8 to 100% | |
| | 6633-P* | 2 to 100% | |
| | DLC03P | 3 to 100% | |
| Cooper | SLL03P | 2 to 100% | |
| | DAL06P | 2 to 100% | |

| BRAND | MODEL | DIMMING | NOTE |
|-------|--------------------|---------------|------------------------------|
| 0-10V | Lutron DIVA | DVTV | 10-100% with On/Off function |
| | Lutron NOVA | NVTV | |
| | Lutron NOVAT | NITTV WPP20 | |
| | Leviton RENVOIR II | AWRMG-7XX | |
| | | AWSMG-7XX | |
| | Leviton | IP710-LFZ/DLX | |

MAX15073

Revised: 02-02-16



Phone: 1-800-555-5629 | Fax: 973-244-7333 | Web: www.maxlite.com | E-mail: info@maxlite.com



LED 9" RECESSED ARCHITECTURAL SERIES DLR9 SERIES

Page: 2 of 3

SPECIFICATIONS:

| SPECIFICATIONS: | | DLR 91030 | DLR 91040 | DLR 91530 | DLR 91540 | DLR 92030 | DLR 92040 | DLR 93030 | DLR 93040 | DLR 95030 | DLR 95040 |
|---------------------|-----------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| ITEM | SPECIFICATION | DETAILS | | DETAILS | | DETAILS | | DETAILS | | DETAILS | |
| GENERAL PERFORMANCE | Power Consumption (W) | 11.1 | 11 | 20.3 | 20.1 | 29.8 | 29.2 | 38 | 38 | 60 | 60 |
| | Lumens Delivered (lm) | 1,183 | 1,254 | 1,866 | 1,948 | 2,546 | 2,560 | 3,200 | 3,300 | 5,100 | 5,200 |
| | Efficacy (lm/W) | 107 | 114 | 92 | 97 | 85 | 88 | 84 | 87 | 85 | 87 |
| | Color Temperature | 3000, 4000 (Additional CCT available, contact MaxLite for info.) | | | | | | | | | |
| | L70 Lifetime (hours) | 100,000 | | | | | | | | | |
| | Color Consistency | Proprietary binning for uniform color | | | | | | | | | |
| ELECTRICAL | CRI | Minimum 80 | | | | | | | | | |
| | Compatible Dimmers | Refer to list of approved dimmers TRIAC AND 0-10V | | | | | | | | | 0-10V ONLY |
| | Power Factor | > 90% | | | | | | | | | |
| | Input Voltage | 120-277V | | | | | | | | | |
| CERTIFICATION | Mounting | Mounts into existing recessed frame | | | | | | | | | |
| | Operating Temperature | -4" to 113°F | | | | | | | | | |
| | Humidity | 20% - 85% RH, non-condensing | | | | | | | | | |
| | Certification | cULus, Energy Star, FCC | | | | | | | | | |
| | Material Usage | RoHS compliant, no mercury | | | | | | | | | |
| | Environment | Damp | | | | | | | | | |
| | Warranty | Seven Years Limited Warranty | | | | | | | | | |

Preliminary Data until LM79 is available

ORDERING*:

| ORDER CODE | MODEL | DESCRIPTION | CCT |
|------------|----------|---|-------|
| 76155 | DLR91030 | 9" Architectural Downlight, 1000 Lumens | 3000K |
| 76165 | DLR91040 | 9" Architectural Downlight, 1000 Lumens | 4000K |
| 76180 | DLR91530 | 9" Architectural Downlight, 1500 Lumens | 3000K |
| 76190 | DLR91540 | 9" Architectural Downlight, 1500 Lumens | 4000K |
| 76205 | DLR92030 | 9" Architectural Downlight, 2000 Lumens | 3000K |
| 76215 | DLR92040 | 9" Architectural Downlight, 2000 Lumens | 4000K |
| 76230 | DLR93030 | 9" Architectural Downlight, 3000 Lumens | 3000K |
| 76240 | DLR93040 | 9" Architectural Downlight, 3000 Lumens | 4000K |
| 76255 | DLR95030 | 9" Architectural Downlight, 5000 Lumens | 3000K |
| 76265 | DLR95040 | 9" Architectural Downlight, 5000 Lumens | 4000K |

*Please contact your MaxLite representative to order products that don't have order codes listed here.

| LUMEN MULTIPLIER | | BASLINE VALUES AND REPLACEMENTS | |
|------------------|-------|---------------------------------|------------------|
| 2700K | 1.000 | DLR91027 | 975 26W CFL |
| 3000K | 1.047 | DLR91527 | 1650 32W CFL |
| 3500K | 1.073 | DLR92027 | 2200 (2) 26W CFL |
| 4000K | 1.097 | DLR93027 | 2943 (2) 32W CFL |
| 5000K | 1.118 | DLR95027 | 5090 175W HID MH |

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6" DLR61040 – LIGHTING LAYOUT

► Luminaire

5 DLR61040

DLR61040
6" Arch Down 4000K

Show Luminaire Image

Light Loss Factor (LLF) : 1.00

▼ Geometry

▼ Reflectance

▼ Specify

▼ Layout (Advanced)

▼ Luminaire (Advanced)

▼ Units

▼ Output / Help

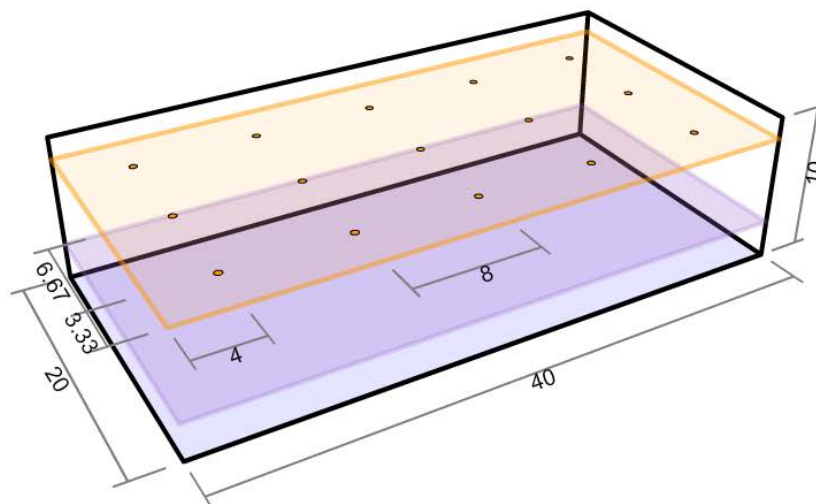
Average Illuminance : 22 fc

Number of Luminaires : 15

LPD : 0.2 W/ft²



▼ Dimensions



6" DLR62040 – LIGHTING LAYOUT

► **Luminaire**

9 DLR62040 ▼

DLR62040

Show Luminaire Image

Light Loss Factor (LLF) : 1.00

▼ **Geometry**

▼ **Reflectance**

▼ **Specify**

▼ **Layout (Advanced)**

▼ **Luminaire (Advanced)**

▼ **Units**

▼ **Output / Help**

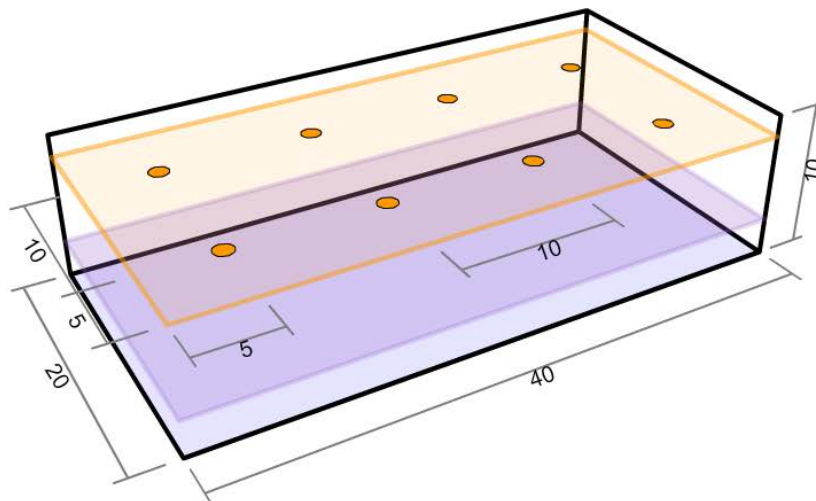
Average Illuminance : 24 fc

Number of Luminaires : 8

LPD : 0.29 W/ft²





▼ Dimensions



FlashIndoor 1.37 Build: 721-6593 | © 2004-2016 Lighting Analysts, Inc. | Calculations based on IESNA methods and recommendations. | Results derived from content of photometric files.



DLR SERIES ROI CALCULATIONS

| Factors | Existing | MaxLite |
|-------------------------------|---|---|
| Type * | Indoor Fixture | Indoor Fixture |
| | Halogen | Recessed Retrofits & I |
| Wattage * | 64.0 W | 10.5 W |
| Custom Wattage | 64.0 | |
| Product * | 6" Halogen Can | DLR61040 |
| |  |  |
| Lamp/Fixture Price * | 20.00 | 100.00 |
| Rebate on Lamp/Fixture | | 0.00 |
| Number of Lamps/Fixtures * | 15 | 15 |
| Electricity Cost Per kWh * | | 0.15 |
| Days of Runtime Per Year * | | 365 |
| Hours of Runtime Per Day * | | 12 |
| Dimming Level Percentage | | Dimming Percentage |
| Lamp/Fixture Lifetime (hrs) * | 10,000 | 100,000 |
| | | Calculate |

*Denotes required field

**Assumes new construction, if completing a retrofit calculation, please change the cost of the existing lamp/fixture to \$0

| | |
|--|-------------|
| Time Until Payback | 1.631 years |
| Total Energy Savings Over the Life of the MaxLite Lamp/Fixture | 28,084 kWh |
| Total Savings Over the Life of the MaxLite Lamp/Fixture | \$ 5,164.70 |

| Factors | Existing | MaxLite |
|-------------------------------|---|---|
| Type * | Indoor Fixture | Indoor Fixture |
| | Halogen | Recessed Retrofits & I |
| Wattage * | 64.0 W | 20.0 W |
| Custom Wattage | 64.0 | |
| Product * | 6" Halogen Can | DLR62040 |
| |  |  |
| Lamp/Fixture Price * | 20.00 | 100.00 |
| Rebate on Lamp/Fixture | | 0.00 |
| Number of Lamps/Fixtures * | 15 | 8 |
| Electricity Cost Per kWh * | | 0.15 |
| Days of Runtime Per Year * | | 365 |
| Hours of Runtime Per Day * | | 12 |
| Dimming Level Percentage | | Dimming Percentage |
| Lamp/Fixture Lifetime (hrs) * | 10,000 | 100,000 |
| | | Calculate |

*Denotes required field

**Assumes new construction, if completing a retrofit calculation, please change the cost of the existing lamp/fixture to \$0

| | |
|--|-------------|
| Time Until Payback | 0.538 years |
| Total Energy Savings Over the Life of the MaxLite Lamp/Fixture | 40,016 kWh |
| Total Savings Over the Life of the MaxLite Lamp/Fixture | \$ 7,668.98 |

CALDWELL LABS TEST REPORTS

NVLAP accredited LM79 photometric testing reports for the DLR series are available for download at:
<http://www.maxlite.com/products/architectural-recessed-downlight-retrofits>

CALDWELL
INDEPENDENT TESTING LABORATORY

INDEPENDENT PHOTOMETRIC TEST LABORATORY
 1-888-724-3784
NVLAP LAB CODE 201064-2

NVLAP
NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM

ABOUT US | **SERVICES** | **CONTACT US**

Caldwell Independent Testing Laboratories is a full-service photometric testing facility accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for testing energy efficient lighting products.

SERVICES

- IES Photometric Testing
- SSL Photometry
- LM-79 Test
- ISTMT (In-Situ)
- Roadway Photometric
- Floodlight Photometric
- Indoor Photometric

ACCREDITATION

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INDEPENDENT TESTING LABORATORY

NVLAP
NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM

CITL Sphere Test Report
 Sphere Testing and Evaluation in Accordance with LM79-2008
NVLAP LAB CODE 201064-2

Report Prepared For
 Ramesh Raghavan
 Product Manager
 MaxLite

Description of Sample: 6" ARCHITECTURAL DOWNLIGHT Model DLR1530, 8" x 6.25"

The sample(s) was (were) tested in accordance with the following applied standards/regulations:

IESNA LM79-2008 Approved for Electrical and Photometric Measurements of Solid State Lighting Products
 ANSI/IESNA E-18-2008 Specification of the Chromaticity of Solid State Lighting Products

CITL Test Number: CITL0001222
Sample Arrival Date: 09/24/2015
Date of Tests: 10/22/2015
Report Issue Date: 10/29/2015

Report Prepared By:
 Franklin Navarro
 Lab Technician

Report Approved By:
 Jon Xiang
 Lab Manager

Page 2 of 4

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Sample Number: 1153
Manufacturer: MaxLite
Notes: Tested in intended orientation

Equipment Used:

| Description | Model # | Serial # | Calibration Date | Calibration due date |
|---------------------------------|---------|-----------------|------------------|----------------------|
| Everfine DC Power Supply | WV305 | 6119867A8341132 | | |
| Integrating Sphere | 2 METER | CITL 0018 | 06/22/2015 | 11/20/2015 |
| Yokogawa Digital Power Meter | WT310 | C20202015V | 11/17/2014 | 11/17/2015 |
| Fluke Digital Thermometer | 518 | 29390172W5 | 04/09/2015 | 04/09/2016 |
| Temperature and Humidity logger | MX1101 | 10689441 | 03/20/2015 | 03/20/2016 |

Sphere Test Summary:

| | |
|-----------------------|-----------------------|
| Manufacturer: | MaxLite |
| Fixture Model Number: | DLR1530 |
| Driver Model Number: | ESMD30W-0500-42 |
| Lamp Model Number: | CLU034-120588-303M1A2 |

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Lumen and Electrical Measurements:

| | | |
|-----------------------------------|-----------------------|---------------------|
| Input Voltage: | 120VAC | 277VAC |
| Input Current: | 0.173 A | 0.082 A |
| Input Frequency: | 60 HZ | 60 HZ |
| Input Power: | 20.3 W | 20.3 W |
| Power Factor: | 0.9812 | 0.9099 |
| Total Harmonic Distortion: | 15.2 THD | 17.8 THD |
| Lumens: | 1818.3 lm | |
| Efficacy: | 90.48 lm/W | |
| Color Rendering Index (CRI): | R _a = 83.5 | R _a = 10 |
| Correlated Color Temperature (K): | 2915 K | |
| Chromaticity Coordinate x: | 0.4388 | |
| Chromaticity Coordinate y: | 0.4049 | |
| Ambient Temperature (°C): | 25°C | |
| Stabilization Time (Hours): | 45 Mins | |
| Total Operating Time (Hours): | 1 hrs | |
| W ₅₀ : | 0.2514 | |
| V _i : | 0.5220 | |
| Duv: | 8.58e-05 | |

Spectrum

Color Rendering Index

Page 3 of 4

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Test Methods:

Spectral Measurements – Integrating Sphere
 A sensing Spectrometer HSSA-2000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature (CCT) and the color rendering index (CRI) for each sample. Test Geometry Configuration # n.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 3ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

****END OF REPORT****

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For Lighting and Technology



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Lighting
Resources



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Library



Our mission is to provide our representatives, customers and employees with a complete understanding of lighting technologies and the MaxLite product line.

The MaxLite University Lighting Degree program offers three comprehensive courses in lighting fundamentals, ranging from beginner to advanced learning. All courses have been updated to include LED lighting education.

Whether you're a complete lighting novice or continuing your professional development, you are eligible to earn a certificate in our free online degree program. The courses are self-paced, but most lesson units can be completed in 30 minutes to an hour. You will receive a certificate upon completion of the program.

MaxLite University courses are currently eligible for the following continuing education units from the American Lighting Association:

MaxLite University has been updated for 2016! All three courses now include information on LED technology, fixtures, lamps, ENERGY STAR and other certifications.



CERTIFICATE OF COMPLETION

The MaxLite Lighting & Technology University is proud to award this certificate of completion to:

MAXLITE UNIVERSITY STUDENT

In recognition of your successful completion of **Lighting Fundamentals - Lighting 101** (ALA: 4 CLC Credit Hours) with a score of **100%**, **Lighting Fundamentals - Intermediate** (ALA: 2 CLC Credit Hours) with a score of **100%** and **Lighting Fundamentals - Advanced** (ALA: 3 CLC Credit Hours) with a score of **90%**.

Total Score Average: **97%**

[Signature]
Bill Fenimore
MaxLite Director of Project Sales & Training



MaxLiteUniversity.com

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- DLC / ENERGY STAR / LDL Product Listings
- Utility Rebate Paperwork Service



Email Joe Pater at jpater@maxlite.com for more info!

QUESTIONS/ANSWERS

Thank you everyone for your attention! Please feel free to use this opportunity to ask any questions you may have about MaxLite or the products shown in this presentation.

FOR MORE INFORMATION ABOUT OTHER MAXLITE PRODUCTS, OR
FOR LIGHTING QUESTIONS IN GENERAL; PLEASE CONTACT:

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<http://www.maxlite.com>

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