



Cooper Lighting
by **EAT•N**

Innovation you can rely on™

Architectural LED Recessed Illumination – built your way

The impact that lighting can have on a space is unlimited. Portfolio LED Recessed lighting adds warmth, highlights areas of interest, and meets a wealth of functional needs. It provides the base upon which to build your interior design, performing without calling attention to itself.



Using Light to Define and Enhance an Architectural Environment

Portfolio LED applies a balance of art and science in the design and engineering of its luminaires. It mingles features, efficacy, superior optical control and color into a quality product that provides comfort and efficiency. Portfolio LED downlights are among the highest efficiency LED luminaires available and can be utilized to create a sustainable lighted environment, and meet federal and state energy savings regulations. Broad product offering can be specified for low or high ceilings in new construction, remodel and retrofit applications. Offered with narrow, medium, wide beam and wall wash reflectors. Designed to enhance any space, with exceptional glare control.

Benefits and features of Portfolio LED

Backed by Eaton's Cooper Lighting business commitment to industry-leading product development and technology innovation, Portfolio LED delivers on the promises of LED technology:

Environmental and Sustainable

By lowering the demand for electricity, power plants can generate less energy and lower the amount of carbon emissions discharged into the environment. LED is mercury free and lead free, eliminating any special handling for proper disposal.

Energy saving

Portfolio LED offers greater than 40% energy savings when compared to compact fluorescent, greater than 50% energy savings when compared to metal halide, and greater than 85% energy savings when compared to incandescent. The highly efficient reflector system combined with quality thermal management allows for exceptional luminaire efficacy resulting in significant output with low energy consumption.

Long life

LEDs are solid-state devices that do not have filaments or glass components that could break. The light source is not susceptible to vibration, thus reducing the risk of premature failure. It is designed to yield 70% lumen maintenance after 50,000 hours of operation with many thousands of hours of operation thereafter. The Portfolio LED is tested to IESNA LM-79 and LM-80 test standards for performance and reliability. The sustainability of Portfolio LED fixtures dramatically reduces maintenance and service costs over traditional sources.

Thermal Management

Proper thermal management of a LED system is critical for high efficiency and long life. Portfolio LED's heat sink features an aluminum construction that runs cooler than traditional lighting. This unique construction results in an extended lifespan, more lumens per watt, and optimal quality of light.

Quick Disconnect

Tool-less replacement of LED module. Modular design allows for quick and easy installation. UL listed for open plenum applications.

Light Control and Visual Comfort

Light emitted from a Portfolio LED downlight is made from a plurality of high brightness white LEDs, producing a quality high lumen light source with reliable color consistency. The LED array combined with a high reflectance upper white reflector and transitional defuse lens produces an even distribution with no pixilation or source brightness.

Optics and Efficiency

Efficient optical control is achieved through computer optimized designs to achieve high luminaire efficiency. Portfolio LED's patented optical system balances source brightness and performance to deliver a system with a smooth beam pattern and visual comfort.

Dimmability

Full range, continuous dimming is standard in all Portfolio LED luminaires and is available down to 1% depending on specified dimming driver. Exceptional performance when paired with Cooper Controls.



Compliances

- ENERGY STAR®
- cULus listed
- RoHS compliant
- Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED luminaire.

Warranty

Eaton's Cooper Lighting business warrants the Portfolio LED fixtures against defects in material or workmanship for a period of five years from date of original purchase.

High-Performing Optical System

Taking a total systems approach, Portfolio LED downlight components are specifically engineered for the latest in LED technology, ensuring optimal luminaire efficacy and quality performance.



Thermally Optimized

The integrated LED design provides quality thermal conductivity of the LED to the die cast thermal assembly ensuring optimal thermal management and maximum efficacy.

Superior LED

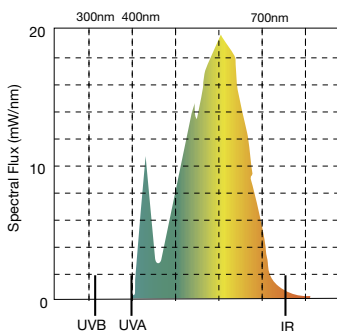
Portfolio's advanced LED system contains a plurality of high brightness white LEDs, producing a quality high lumen light source with reliable color consistency.

Precision Optics

Precisely engineered for use with LED technology, the highly transmissive transitional lens diffuses undesirable source brightness and evenly distributes light across the entire lens.

Visual Comfort

Lower reflectors are designed to provide aesthetically pleasing performance with equal cut-off to lens and lens image, and are available in all of Portfolio's standard finishes.



LED - Spectral Distribution and Color

Portfolio LED employs InGaN (Indium Gallium Nitride) semiconductor material devoid of uV with minimal IR wavelengths. The unique engineered plurality of diodes covered with a uniform phosphor coating provides for consistent color uniformity and tight color control even during dimming, exceeding the ANSI C78.377-2011 CCT ranges.

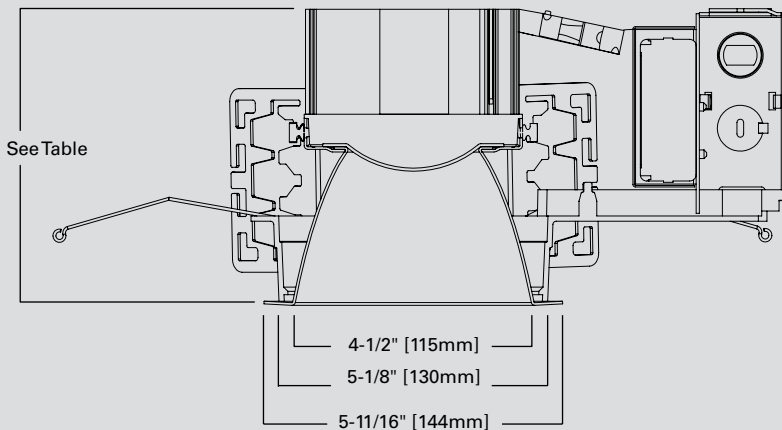
4 Inch

LED Downlight

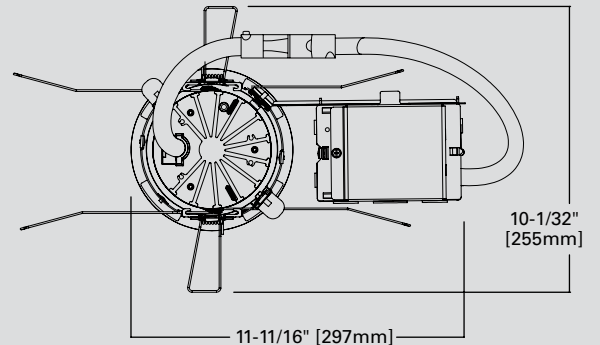
New construction or remodel Portfolio 4-inch LED downlight specially designed for LED technology features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. Lumen packages available in 900-2800 with a choice of 2700K, 3000K, 3500K and 4000K color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect allows for tool-less replacement of LED engine. Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life. Standard universal voltage (120-277V) dimming driver dims with 0-10V or 120V trailing edge controls making it ideal for remodel applications replacing existing incandescent downlights.



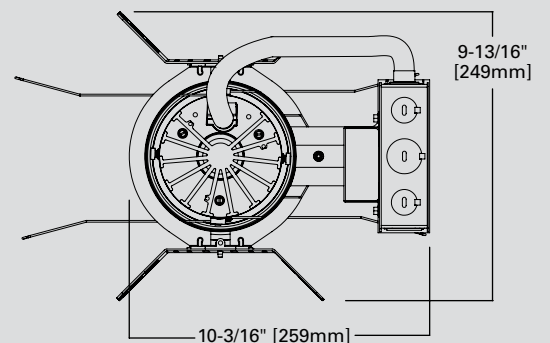
New Construction



Top View - Remodel



Top View - New Construction



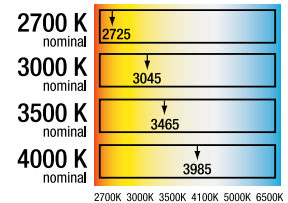
Distribution	Lumens	Height
Narrow	900/1300	5-7/16"
Medium	900/1300	5-11/16"
Wide	900/1300	5-11/16"
Narrow	1800/2800	7-7/16"
Medium	1800/2800	7-11/16"
Wide	1800/2800	7-11/16"

Features and Benefits

- Delivered lumens ranging from 900 to 2800
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Wall wash, narrow, medium and wide beam reflectors
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light, 1% or DMX dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Remodel/International plaster ring accommodates up to 1-inch ceiling thickness
- New construction housing features a 1-1/2-inch die-cast aluminum collar to accommodate various ceiling materials
- Extruded aluminum heat sink
- ENERGY STAR® qualified with select trims and CCT
- Downlights are cULus listed for wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- LED life testing completed in accordance with LM 80 standards
- 5 year warranty



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LD4A13D010TE ERM4A13835 4LW1H

Housing	Lumens ^①	Driver	Options	Power Module	Lumens	CRI	Color
LD4A=4" Aperture LD4ACP=4" Aperture, Chicago Plenum LD4AI=4" Aperture, International LD4AR=4" Aperture, Remodel LD4ARCP=4" Aperture, Remodel, Chicago Plenum	9=900 Lumens 13=1300 Lumens 18=1800 Lumens 28=2800 Lumens	D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light® (DALI) Dimming 1-100% DE010=1 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire DLT=1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming DMX=DMX Dimming 1-100% 900, 1300 and 1800 lumen D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch® IEMBOD=Bodine® Emergency Module with Integral Test Switch® ^{②③}	ERN4A=4", For Narrow Beam Reflector ERM4A=4", For Medium Beam Reflector ERW4A=4", For Wide Beam Reflector	09=900 Lumens 13=1300 Lumens 18=1800 Lumens 28=2800 Lumens	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K 27CP=2700 K, Chicago Plenum 30CP=3000 K, Chicago Plenum 35CP=3500 K, Chicago Plenum 40CP=4000 K, Chicago Plenum

Reflector	Finish	Options	Accessories
Narrow Beam 4LN0=White Polymer Trim Ring 4LN1=Self-flanged Medium Beam 4LM0=White Polymer Trim Ring 4LM0E=White Polymer Trim Ring, for Integral Emergency® 4LM1=Self-flanged 4LM1E=Self-flanged, for Integral Emergency® Wide Beam 4LW0=White Polymer Trim Ring 4LW1=Self-flanged Medium Beam Wall Wash 4LM110=Single Wall Wash, Polymer Trim Ring 4LM111=Single Wall Wash, Self-Flanged 4LM120=Double Wall Wash, Polymer Trim Ring 4LM121=Double Wall Wash, Self-flanged Wide Beam Wall Wash 4LW110=Single Wall Wash, Polymer Trim Ring 4LW111=Single Wall Wash, Self-flanged 4LW120=Double Wall Wash, Polymer Trim Ring 4LW121=Double Wall Wash, Self-flanged	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=VWheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White 4LM0 and 4LW0 Only BB=Black Baffle WB=White Baffle	Self-flanged Only WF=White Painted Flange	H347=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA HSA4=Slope Adapter for 4" Aperture Housings, Specify Slope® TRM4P=Metal Trim Ring, White® TRM4MB=Metal Trim Ring, Black® TRR4=Trimless Trim Ring® LGSKT4IP66=IP66 Gasket Kit® HB26=C-channel Bar Hanger, 26" Long, Pair® HB50=C-channel Bar Hanger, 50" Long, Pair® RMB22=Wood Joist Bar Hanger, 22" Long, Pair®

- Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
 ② Order trim with polymer trim ring - Consult accessory specification sheet for ordering information and options.
 ③ Not available with Chicago Plenum.
 ④ For use in accessible ceiling only.
 ⑤ Available with select trims.
 ⑥ Downlight only. Not for wall wash or integral emergency.
 ⑦ For use with new construction downlights.

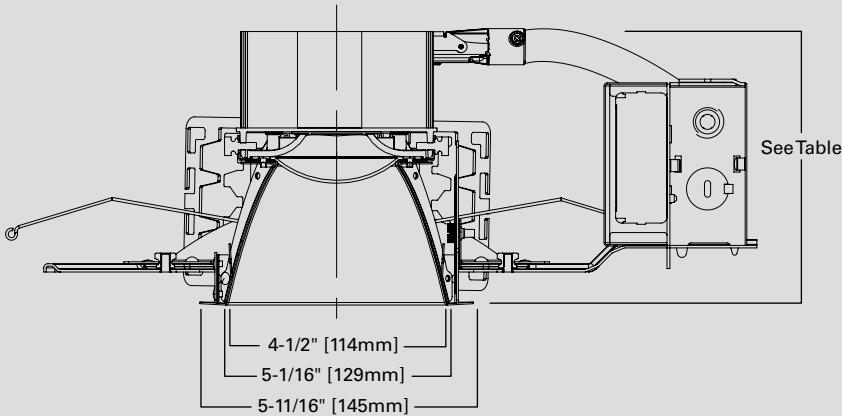
4 Inch

Square LED Downlight

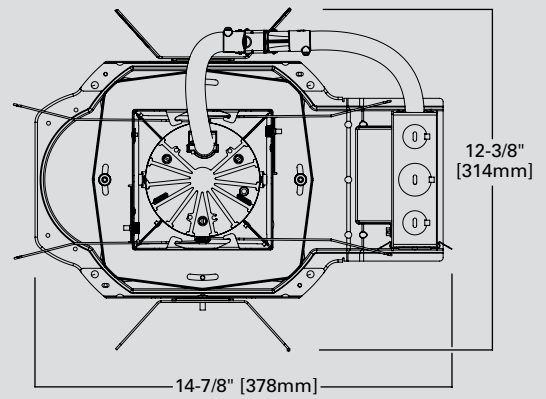
The Portfolio 4-inch LED downlight specially designed for LED technology features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. Lumen packages available in 900-2800 with a choice of 2700K, 3000K, 3500K and 4000K color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect allows for tool-less replacement of LED engine. Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life. Standard universal voltage (120-277V) dimming driver dims with 0-10V or 120V trailing edge controls.



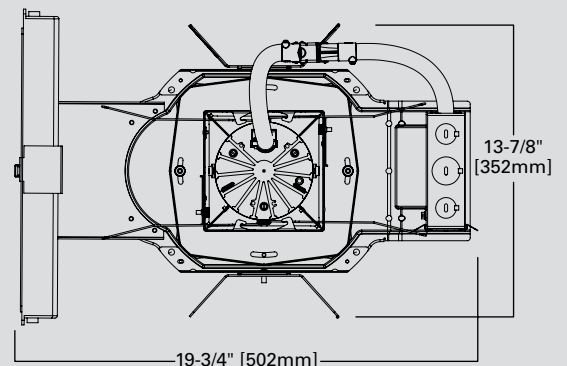
New Construction



Top View - New Construction



Top View - New Construction with Battery



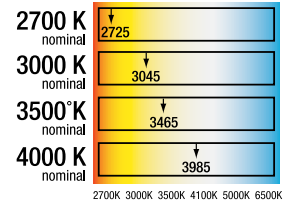
Lumens	Driver	Height
900/1300	D010TE D010TR DL3 DLT	5-9/16"
900/1300	D5LT DMX DE010	7-9/16"
1800/2000	All	7-9/16"

Features and Benefits

- Delivered lumens ranging from 900 to 2800
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Downlight or lensed wall wash reflectors
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light, Lutron, DMX or 1% dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Aperture rotates +/- 7.5° for precise alignment
- Field-adjustable aperture allows for up to 2-inch vertical adjustment
- J-box with 1/2-inch and 3/4-inch pryouts for eight 12-gauge 90°C connectors
- ENERGY STAR® qualified with select trims and CCT
- Downlights are cULus listed for wet locations
- Wall wash are cULus listed for wet locations
- Photometric testing completed in accordance with IES LM 79 standards
- LED life testing completed in accordance with LM 80 standards
- 5 year warranty



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LDSQ4A13D010TE ESQ4A13835 4LSQ0LI

Housing	Lumens ①	Driver	Options	Power Module	CRI	Color
LDSQ4A=4" Square Aperture LDSQ4ACP=4" Square Aperture, Chicago Plenum	9=900 Lumens 13=1300 Lumens 18=1800 Lumens 28=2800 Lumens	D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT= Fifth Light® (DALI) Dimming 1-100% DE010=1 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire DLT=1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming DMX=DMX Dimming 1-100% 900, 1300 and 1800 Lumen D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch®	ESQ4A09=4", 900 Lumen ESQ4A13=4", 1300 Lumen ESQ4A18=4", 1800 Lumen ESQ4A28=4", 2800 Lumen	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K 27CP=2700 K, Chicago Plenum 30CP=3000 K, Chicago Plenum 35CP=3500 K, Chicago Plenum 40CP=4000 K, Chicago Plenum

Reflector	Finish	Options	Accessories
4LSQ0=4" Square Reflector Lens Assembly, Polymer Trim Ring 4LSQ1=4" Square Reflector Lens Assembly, Self-Flanged 4LSQLWWO=4" Square Lensed Wall Wash, Polymer Trim Ring 4LSQLWW1=4" Square Lens Wall Wash Reflector, Self-flanged	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White	IP66=IP66 Gasket Self-flanged Only WF=White Painted Flange	H347=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair

Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
② Not available with Chicago Plenum.

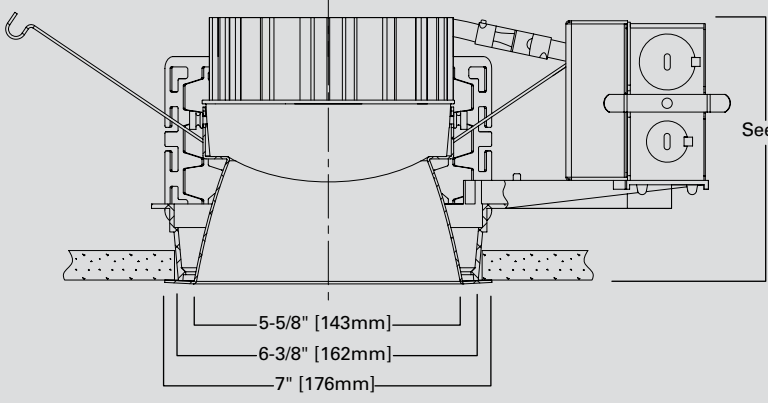
6 Inch

LED Downlight

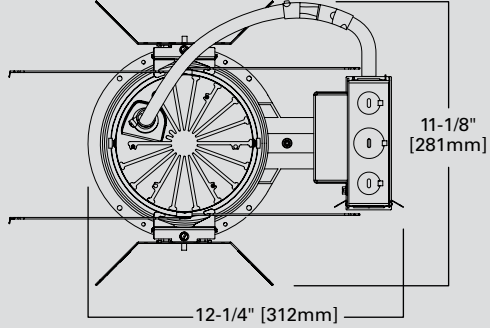
New construction or remodel Portfolio 6-inch LED downlight specially designed for LED technology features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. Lumen packages available in 1000-3000 with a choice of 2700K, 3000K, 3500K and 4000K color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect capability allows for tool-less replacement of LED engine. Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life. Standard universal voltage (120-277V) dimming driver dims with 0-10V or 12V trailing edge controls making it ideal for remodel applications replacing existing incandescent downlights.



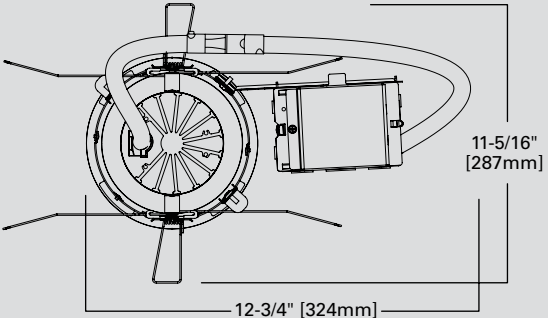
New Construction



Top View - New Construction



Top View - Remodel/International



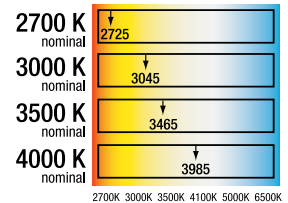
Distribution	Lumens	Height
Narrow	1000/1500	6-3/16"
Medium	1000/1500	6-9/16"
Wide	1000/1500	5-5/8"
Narrow	2000/3000	8-3/16"
Medium	2000/3000	8-9/16"
Wide	2000/3000	6-1/2"

Features and Benefits

- Delivered lumens ranging from 1000 to 3000
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Wall wash, narrow, medium and wide beam reflectors
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light, 1% or DMX dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Remodel plaster ring accommodates up to 1-inch ceiling thickness
- New construction housing features a 1-1/2-inch die-cast aluminum collar to accommodate various ceiling materials
- Extruded aluminum heat sink
- ENERGY STAR® qualified with select trims and CCT
- Downlights are cULus listed for wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- LED life testing completed in accordance with LM 80 standards
- 5 year warranty



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

SAMPLE NUMBER: LD6A15D010TE ERM6A15835 4LW1H

Housing	Lumens ^①	Driver	Options	Power Module	Lumens ^①	CRI	Color
LD6A=6" Aperture, New Construction LD6ACP=6" Aperture, New Construction, Chicago Plenum LD6AI=6" Aperture, International LD6AR=6" Aperture, Remodel LD6ARCP=6" Aperture, Remodel, Chicago Plenum	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens	1000, 1500, 2000 and 3000 lumen D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5It= Fifth Light® (DALI) Dimming D13=1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3-Wire DIt=1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming Dmx=DMX Dimming 1 to 100% DE010=120-277V 0-10V 1% Dimming 1000, 1500 and 2000 lumen D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch ^② IEMBOD=Bodine® Emergency Module with Integral Test Switch ^{②③}	ERW6A=6" , For Wide Beam Reflector ERM6A=6" , For Medium Beam Reflector ERN6A=6" , For Narrow Beam Reflector	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K 27CP=2700 K, Chicago Plenum 30CP=3000 K, Chicago plenum 35CP=3500 K, Chicago Plenum 40CP=4000 K, Chicago Plenum

Reflector	Finish	Options	Accessories
Narrow Beam 6LN0=White Polymer Trim Ring 6LNOE=White Polymer Trim Ring, for Integral Emergency 6LN1=Self-flanged 6LN1E=Self-flanged, for Integral Emergency Medium Beam 6LM0=White Polymer Trim Ring 6LMOE=White Polymer Trim Ring, for Integral Emergency 6LM1=Self-flanged 6LM1E=Self-flanged, for Integral Emergency Wide Beam 6LW0=White Polymer Trim Ring 6LW1=Self-flanged Medium Beam Wall Wash 6LM110=Single Wall Wash, Polymer Trim Ring 6LM111=Single Wall Wash, Self-Flanged 6LM120=Double Wall Wash, Polymer Trim Ring 6LM121=Double Wall Wash, Self-flanged Wide Beam Wall Wash 6LW110=Single Wall Wash, Polymer Trim Ring 6LW111=Single Wall Wash, Self-flanged 6LW120=Double Wall Wash, Polymer Trim Ring 6LW121=Double Wall Wash, Self-flanged	LI=Specular Clear H=Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White 6LM0 and 6LW0 Only BB=Black Baffle WB=White Baffle	Self-flanged Only WF=White Painted Flange	H347=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA HSA6=Slope Adapter for 6" Aperture Housings, Specify Slope ^④ TRM6P=Metal Trim Ring, White ^⑤ TRM6MB=Metal Trim Ring, Black ^⑤ TRR6=Rimless Trim Ring ^⑤ DT6=Deco trim Ring ^⑤ HB26=C-channel Bar Hanger, 26" Long, Pair ^⑥ HB50=C-channel Bar Hanger, 50" Long, Pair ^⑥ LGSKT6IP66=IP66 Gasket Kit ^⑦ RMB22=Wood Joist Bar Hanger, 22" Long, Pair ^⑦

- Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
 ② Not available with Chicago Plenum.
 ③ Downlight only. Not for wall wash or integral emergency.
 ④ Order trim with polymer trim ring. Consult specification sheet for color ordering information and options.
 ⑤ Available with select trims.
 ⑥ Consult accessory specification sheet for ordering information and options.
 ⑦ For use with new construction downlights.

6 Inch

LED Retrofit

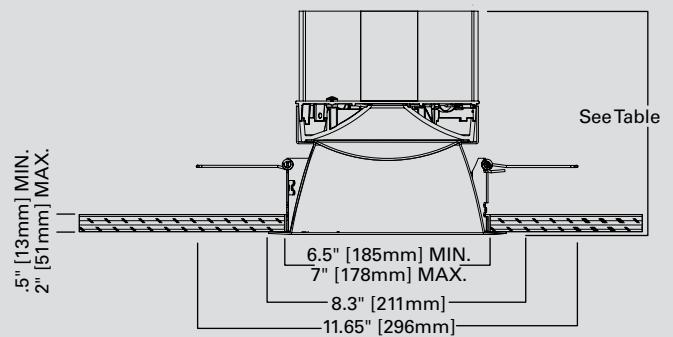
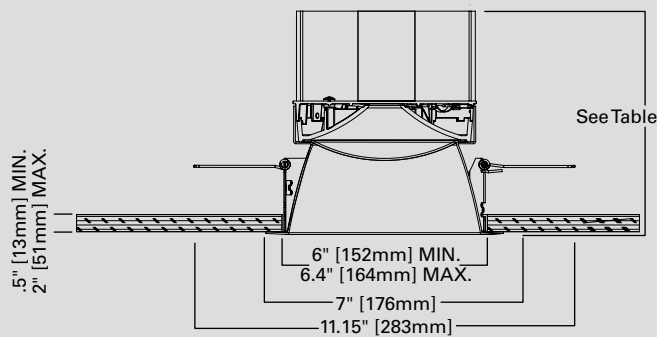
Offered in multiple outputs up to 3000 lumens, the retrofit kit converts existing 6-inch HID, incandescent and compact fluorescent downlights to energy-saving LED. Specially designed for LED technology this retrofit features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. Available in 2700K, 3000K, 3500K and 4000K color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect capability allows for tool-less replacement of LED engine. Standard universal voltage (120-277V) dimming driver dims with 0-10V or 120V trailing edge controls making it ideal for retrofit applications replacing existing high energy consuming downlights.



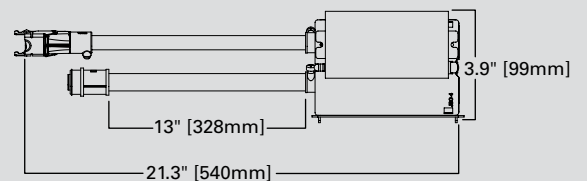
LD6ART installs in ceiling openings from 6" to 6-7/16"

Housing Compatibility LD6ART, LD67ART*

Manufr.	Series	Nom. Size	Housing Aperture	Housing Catalog #	Retrofit Kit
Cooper®	Portfolio	6	6.00	C6, MD6, H760, HD6, MLW6, LD6	LD6ART
Cooper®	PDS	6	6.00	PD6	
Philips™	Omega	6	6.25	OM6	
Philips™	Lightolier Calculite	6	6.31	S6, C6, B600	
Philips™	Capri	6	6.43	CM6	
Juno®	Indy Performance Series (Elate)	6	6.56	A6, C6, M6	LD67ART
Juno®		6	6.56	CH6, CV6, MX6, TC906	
Lithonia®	Commercial	6	6.75	LF6, LP6	
Philips™	Lightolier Lyte-caster	6	6.75	1102	
Lithonia®	Gotham	6	6.75	AF and LG	
Cooper®	Portfolio CFL (New)	6	6.75	CD6	
Cooper®	Halo	7	6.87	M700, H600, H803E	
Philips™	Lightolier Calculite	7	7.50	S7 and CS7	
Cooper®	Portfolio	7	7.70	C7, CLW7, HD7, MD7	LD67ART
Juno®	Indy Performance Series (Elate)	8	7.81	A8, C8, M8	



Distribution	Lumens	Height
Narrow	1000/1500	6-3/16"
Medium	1000/1500	6-9/16"
Wide	1000/1500	5-5/8"
Narrow	2000/3000	8-3/16"
Medium	2000/3000	8-9/16"
Wide	2000/3000	6-1/2"



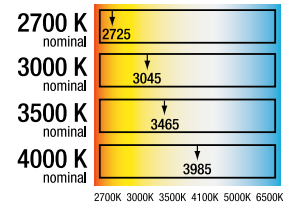
*Juno®, Lithonia Lighting®, Philips™ Lighting and their product brand names, where identified above, are tradenames or trademarks of each respective company and Cooper Lighting by Eaton makes no representations on these trademarks.

Features and Benefits

- Delivered lumens ranging from 1000 to 3000
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Wall wash, narrow, medium and wide beam reflectors
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light, 1% or DMX dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Galvanized steel ring installs with 2 mouse trap springs for secure installation. Ring accommodates up to 2-inch ceiling thickness
- ENERGY STAR® qualified with select trims and CCT
- Downlights are cULus listed for wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- LED life testing completed in accordance with LM 80 standards
- 5 year warranty



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LD6ART15D010TE ERM6A15835 6LM0LI

Housing	Lumens ^①	Driver	Options	Power Module	Lumens ^①	CRI
Ceiling Openings 6-1/2" to 7" LD6ART =6" Aperture LED Downlight Retrofit LD6ARTCP =6" Aperture LED Downlight Retrofit, Chicago Plenum, includes adapter	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens	1000, 1500, 2000 AND 3000 LUMEN D010TE =120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT =Fifth Light® (DALI) Dimming DL3 =1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3-Wire DLT =1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming DMX =DMX Dimming DE010 =120-277V 0-10V 1% Dimming 1000, 1500 AND 2000 Lumen D010TR =0-10V 10% Dimming of 120V Leading Edge	EMBOD =Bodine® Emergency Module with Remote Test Switch ^②	ERW6A =6", For Wide Beam Reflector ERM6A =6", For Medium Beam Reflector ERN6A =6", For Narrow Beam Reflector	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens	8=80 9=90
Ceiling Openings 6" to 6-7/16" LD6ART =6" Aperture LED Downlight Retrofit LD6ARTCP =6" Aperture LED Downlight Retrofit, Chicago Plenum						

Color	Reflector	Finish	Options	Accessories
27=2700 K 30=3000 K 35=3500 K 40=4000 K 27CP=2700 K, Chicago Plenum 30CP=3000 K, Chicago Plenum 35CP=3500 K, Chicago Plenum 40CP=4000 K, Chicago Plenum	Narrow Beam 6LN0=White Polymer Trim Ring 6LN1=Narrow Beam Reflector with Self-flange Medium Beam 6LM0=White Polymer Trim Ring 6LM1=White Polymer Trim Ring Wide Beam 6LW0=White Polymer Trim Ring 6LW1=Self-flange Wall Wash (LD6ART only) 6LW110=White Polymer Trim Ring 6LW111=Self-flange	LL=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White 6LM0 and 6LW0 Only BB=Black Baffle WB=White Baffle	Self-flanged Only WF=White Painted Flange	LGSKT6IP66=IP66 Gasket Kit ABR7P=Remodel Adapter Ring for 8" OD ABR8P=Remodel Adapter Ring for 9" OD

Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
② Not available with Chicago Plenum.

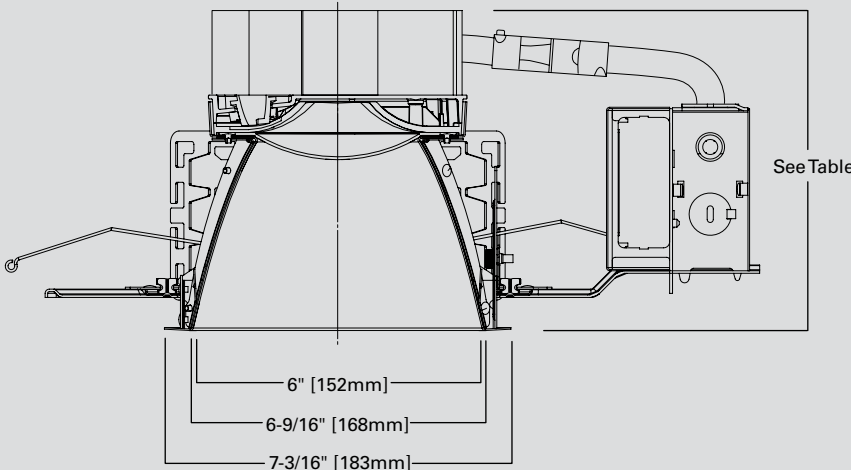
6 Inch

Square LED Downlight

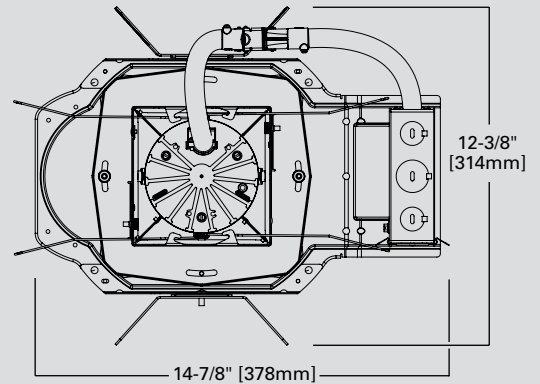
The Portfolio 6-inch LED downlight specially designed for LED technology features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. Lumen packages available in 1000-3000 with a choice of 2700K, 3000K, 3500K and 4000K color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect allows for tool-less replacement of LED engine. Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life. Standard universal voltage (120-277V) dimming driver dims with 0-10V or 120V trailing edge controls.



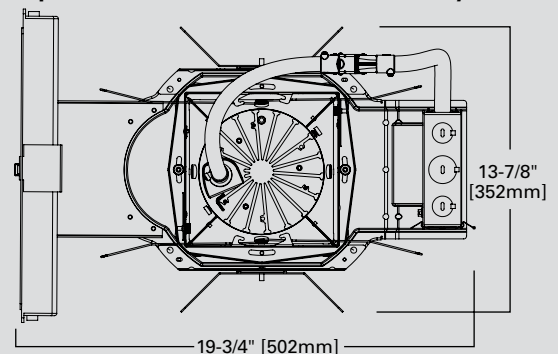
New Construction



Top View - New Construction



Top View - New Construction with Battery



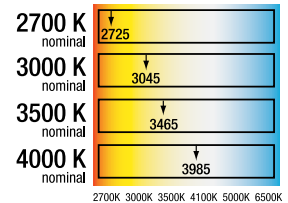
Lumens	Driver	Height
1000/1500	D010TE D010TR DL3 DLT	6-5/8"
1000/1500	D5LT DMX DE010	7-1/2"
2000/3000	All	7-1/2"

Features and Benefits

- Delivered lumens ranging from 1000 to 3000
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Downlight or lensed wall wash reflectors
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light, 1% or DMX dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Aperture rotates +/- 7.5° for precise alignment
- Field-adjustable aperture allows for up to 2-inch vertical adjustment
- J-box with 1/2-inch and 3/4-inch pryouts for eight 12-gauge 90°C connectors
- ENERGY STAR® qualified with select trims and CCT
- Downlights are cULus listed for wet locations
- Wall wash are cULus listed for wet locations
- Photometric testing completed in accordance with IES LM 79 standards
- LED life testing completed in accordance with LM 80 standards
- 5 year warranty



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LDSQ6A15D010TE ESQ6A13835 6LSQ0LI

Housing	Lumens ^①	Driver	Options	Power Module	CRI	Color
LDSQ6A=6" Square Aperture LDSQ6ACP=6" Square Aperture, Chicago Plenum	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens	D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT= Fifth Light® (DALI) Dimming 1-100% DE010=1 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire DLT=1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming DMX=DMX Dimming 1-100% 1000, 1500 and 2000 lumen D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch ^②	ESQ6A10=6", 1000 Lumen ESQ6A15=6", 1500 Lumen ESQ6A20=6", 2000 Lumen ESQ6A30=6", 3000 Lumen	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K 27CP=2700 K, Chicago Plenum 30CP=3000 K, Chicago Plenum 35CP=3500 K, Chicago Plenum 40CP=4000 K, Chicago Plenum

Reflector	Finish	Options	Accessories
6LSQ0=6" Square Reflector Lens Assembly, Polymer Trim Ring 6LSQ1=6" Square Reflector Lens Assembly, Self-Flanged 6LSQLWW0=6" Square Lensed Wall Wash, Polymer Trim Ring 6LSQLWW1=6" Square Lensed Wall Wash Reflector, Self-flanged	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White	Self-flanged Only WF=White Painted Flange	H347=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long Pair IP66=IP66 Gasket

Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
② Not available with Chicago Plenum.

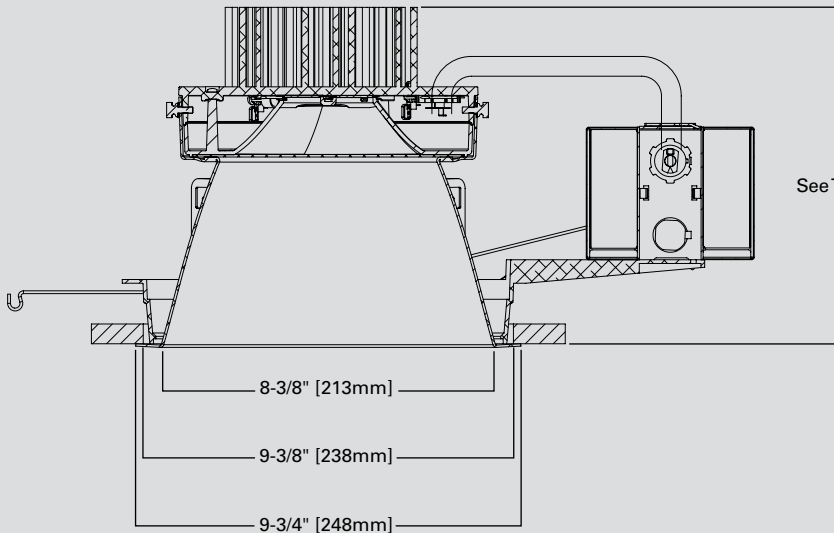
8 Inch

LED Downlight

The Portfolio 8-inch LED downlight specially designed for LED technology features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. Lumen packages available in 3000-6500 with a choice of 2700K, 3000K, 3500K and 4000K. color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect allows for tool-less replacement of LED engine. Forged aluminum heat sink conducts heat away from the LED module for optimal performance and long life. Standard dimming driver dims with 0-10V or 120V trailing edge controls.

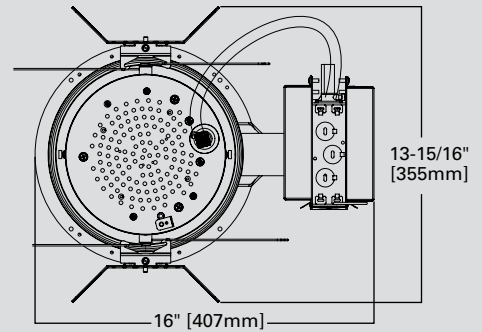


New Construction

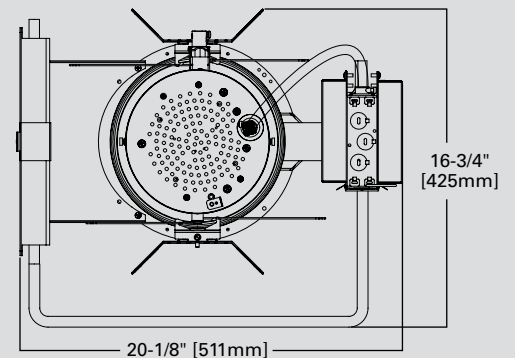


Distribution	Height
Narrow	9-1/16"
Medium	8-5/8"
Wide	7-7/8"

Top View - New Construction



Top View - New Construction with Battery

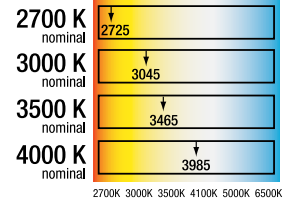


Features and Benefits

- Delivered lumens ranging from 3000 to 6500
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Wall wash, narrow, medium and wide beam reflectors
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light, 1% or DMX dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Housing features a 1-1/2-inch die-cast aluminum collar accommodates various ceiling materials
- ENERGY STAR® qualified with select trims and CCT
- Downlights are cULus listed for wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- LED life testing completed in accordance with LM 80 standards
- 5 year warranty



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LD8A401D5LT ER8A835 8LW1LI

Housing	Lumens ^①	Voltage	Driver	Options	Power Module	CRI	Color
LD8A=8" Aperture LED Downlight LD8ACP=8" Aperture LED Downlight, Chicago Plenum	30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens	1=120V 2=277V	3000, 4000, 5000 and 6000 Lumen D010TE=0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light® (DALI) Dimming 1-100% DL3=1 to 100% Dimming Lutron® Hi-Lume, Ecosystem or 3-Wire DMX=DMX Dimming 1-100% DE010=0-10V 1% Dimming 4000, 5000 and 6000 Lumen D010TR=0-10V 10% Dimming or Leading Edge 120V Dimming 6500 Lumen D010=0-10V Dimming DE010=0-10V 1% Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch® IEMBOD=Bodine® Emergency Module with Integral Test Switch®	ER8A30=8", 3000 Lumen ER8A40=8", 4000 Lumen ER8A50=8", 5000 Lumen ER8A60=8", 6000 Lumen ER8A65=8", 6500 Lumen ER8ACP30=8", 3000 Lumen, Chicago Plenum ER8ACP40=8", 4000 Lumen, Chicago Plenum ER8ACP50=8", 5000 Lumen, Chicago Plenum ER8ACP60=8", 6000 Lumen, Chicago Plenum ER8ACP65=8", 6500 Lumen, Chicago Plenum	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K

Reflector	Finish	Options	Accessories
Narrow Beam 8LN0=White Polymer Trim Ring 8LN1=Self Flange 8LNOE=White Polymer Trim Ring, for Integral Emergency 8LN1E=Self Flange, for Integral Emergency Medium Beam 8LM0=White Polymer Trim Ring 8LM1=Self Flange 8LM0E=White Polymer Trim Ring, for Integral Emergency 8LM1E=Self Flange, for Integral Emergency Wide Beam 8LW0=White Polymer Trim Ring 8LW1=Self Flange 8LW0E=White Polymer Trim Ring, for Integral Emergency 8LW1E=Self Flange, for Integral Emergency Wall Wash 8LW110= Single Wall Wash, White Polymer Trim Ring 8LW111=Single Wall Wash, Self Flange 8LW120= Double Wall Wash, White Polymer Trim Ring 8LW121= Double Wall Wash, Self Flange	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White 8LM0 Only BB=Black Baffle WB=White Baffle	Self-flanged Only WF=White Painted Flange	H347=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA HB26=C- Channel Bar Hangers, 26" Long, Pair HB50=C- Channel Bar Hangers, 50" Long, Pair RMB22=Wood joist Bar Hanger, 22' Long, Pair LGSKT8IP65=IP65 Gasket Kit HSA8=Slope Adapter for 8" Aperture Housings, Specify Slope®

- Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
 ② Not available with Chicago Plenum.
 ③ Available with select trims.
 ④ Consult accessory specification sheet for ordering information.

8 Inch

LED Retrofit

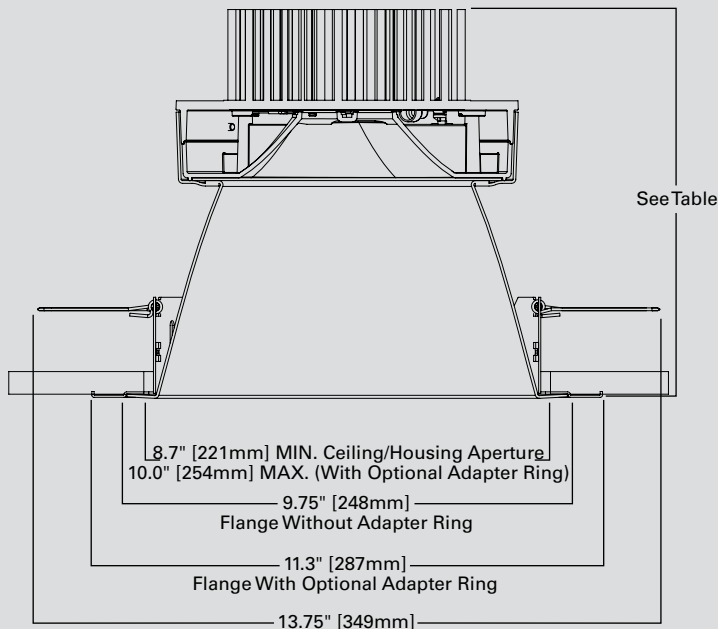
Offered in multiple outputs up to 6500 lumens, the retrofit kit converts existing 8-inch HID, incandescent and compact fluorescent downlights to energy-saving LED. Specially designed for LED technology this retrofit features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. Available in 2700K, 3000K, 3500K and 4000K color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect capability allows for tool-less replacement of LED engine. Forged aluminum heat sink conducts heat away from the LED module for optimal performance and long life. Standard dimming driver dims with 0-10V or 120V trailing edge controls making it ideal for retrofit applications replacing existing high energy consuming downlights.



Installs in ceiling openings from 8.7" to 10" with optional adapter ring

Housing Compatibility LD8ART*

Manufr.	Series	Nom. Size	Housing Aperture	Housing Catalog #	Retrofit Kit	Adaptor Ring
Juno®	Indy Performance Series (Elate)	8	7.81	A8, C8, M8	LD8ART	None
Juno®		8	8.18	MX8 and TC908		
Lithonia®	Gotham	8	8.56	GRSF		
Lithonia®	Commercial	8	8.56	LF8, LP8		
Cooper®	Portfolio	8	8.73	C8042E		
Philips™	Lightolier Calculte	8	8.75	S8		
Philips™	Capri	8	8.87	CM8		
Cooper®	PDS	8	8.87	PD8		
Juno®		9	8.93	C9H		
Juno®	Indy Performance Series (Elate)	9	9.00	C9 and M9		
Juno®	Indy Performance Series (Elate)	10	9.87	M10	LD8ART	ABR10 (accessory)
Cooper®	Portfolio	9	10.00	C9242E		
Lithonia®	Gotham	10	10.12	GRSF		
Lithonia®	Gotham	10	10.12	AF, LGF, LGH, AH, A		
Lithonia®	Gotham	10	10.25	GRSH		



Distribution	Lumens	Height
Narrow	3000/6500	9-1/16"
Medium	3000/6500	8-5/8"
Wide	3000/6500	7-7/8"

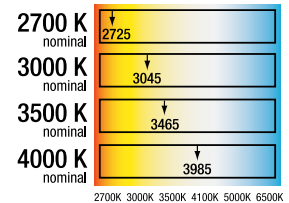
*Juno®, Lithonia Lighting®, Philips™ Lighting and their product brand names, where identified above, are tradenames or trademarks of each respective company and Cooper Lighting by Eaton makes no representations on these trademarks.

Features and Benefits

- Delivered lumens ranging from 3000 to 6500
- Color variation within 3-step MacAdam ellipses
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Two-stage reflector system produces smooth beam
- Wall wash, narrow, medium and wide beam reflectors
- Lumen maintenance of L70 at 50,000 hours
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light, 1% or DMX dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Galvanized steel ring installs with 2 mouse trap springs for secure installation. Ring accommodates up to 2-inch ceiling thickness.
- 5 year warranty
- ENERGY STAR® qualified with select trims and CCT
- Downlights are cULus listed for wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- LED life testing completed in accordance with
- LM 80 standards



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LD8ART501D010TE ER8A50835 8LM0LI

Housing	Lumens ^①	Voltage	Driver	Options	Power Module	CRI	Color
LD8ART=8" Aperture LED Downlight Retrofit	30=3000 Lumens 40=4000 Lumens	1=120V 2=277V	3000, 4000, 5000 and 6000 Lumen D010TE=0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light® (DALI) Dimming 1-100% DL3=1 to 100% Dimming Lutron® Hi-Lume, Ecosystem or 3-Wire DMX=DMX Dimming 1-100% DE010=0-10V 1% Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch ^②	ER8A30=8", 3000 Lumen ER8A40=8", 4000 Lumen ER8A50=8", 5000 Lumen ER8A60=8", 6000 Lumen ER8A65=8", 6500 Lumen ER8ACP30=8", 3000 Lumen, Chicago Plenum ER8ACP40=8", 4000 Lumen, Chicago Plenum ER8ACP50=8", 5000 Lumen, Chicago Plenum ER8ACP60=8", 6000 Lumen, Chicago Plenum ER8ACP65=8", 6500 Lumen, Chicago Plenum	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K
LD8ARTCP=8" Aperture LED Downlight Retrofit, Chicago Plenum	50=5000 Lumens 60=6000 Lumens 65=6500 Lumens		4000, 5000 and 6000 Lumen D010TR=0-10V 10% Dimming or Leading Edge 120V Dimming 6500 Lumen D010=0-10V Dimming DE010=1 to 100% Dimming, 50/60Hz, 0-10V				

Reflector	Finish	Options	Accessories
Narrow Beam 8LN0=Polymer Trim Ring 8LN1=Self-flange ^③ Medium Beam 8LM0=White Polymer Trim Ring 8LM1=White Polymer Trim Ring Wide Beam 8LW0=White Polymer Trim Ring 8LW1=Self-flange ^③ Wall Wash 8LW110= Single Wall Wash, White Polymer Trim Ring 8LW111=Single Wall Wash, Self-flange ^③ 8LW120=Double Wall Wash, White Polymer Trim Ring 8LW121=Double Wall Wash, Self-flange	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White 8LM0 Only BB=Black Baffle WB=White Baffle	Self-flanged Only WF=White Painted Flange	LGSKT8IP65=IP65 Gasket Kit ABR10P=Oversize Trim Ring for Max 10" Ceiling Opening-11.3 Flange

Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
② Not available with Chicago Plenum.
③ Damp location listed.

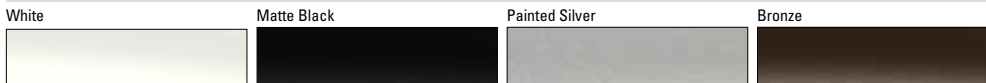
6 Inch

LED Cylinders

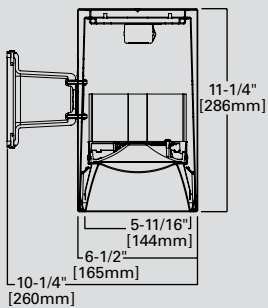
Portfolio 6-inch LED cylinders are designed to compliment any space. The standard driver is dimmable with 0-10V or trailing edge, making it ideal for replacing existing incandescent cylinders with LED. Offered in wall mount or ceiling mount with optional pendant and aircraft cable kits in a variety of finishes. Diffused optical system provides superior light control and low aperture brightness while delivering over 80 lm/W. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. The cylinder is available in lumen packages ranging from 1000-2000 lumens with a choice of 2700K, 3000K, 3500K and 4000K color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect capability allows for tool-less replacement of LED engine. The cylinders are universal voltage (120-277V).



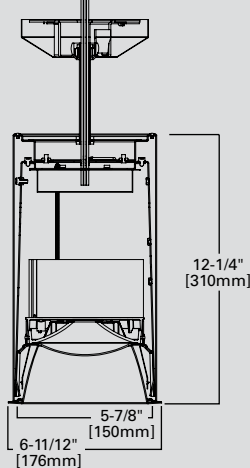
Finish



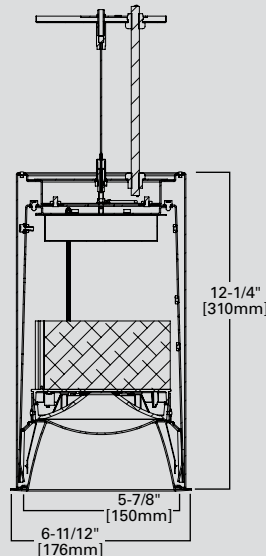
Wall Mount



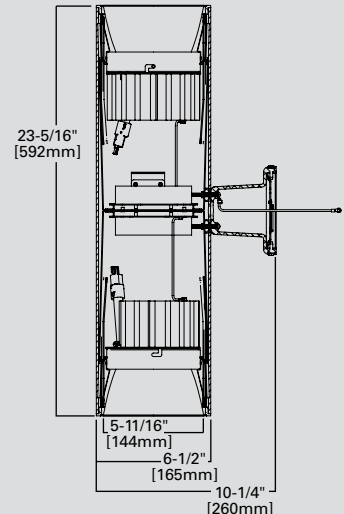
Pendant Mount



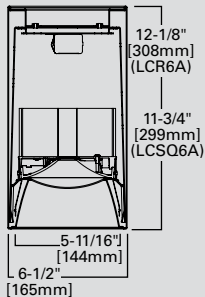
Aircraft Mount



Up/Down Wall Mount



Surface Mount

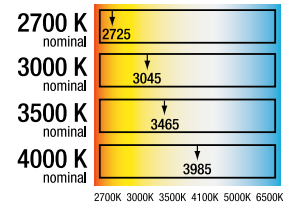


Features and Benefits

- Delivered lumens ranging from 1000 to 2000
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Wall wash, narrow, medium and wide beam reflectors
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light or 1% dimming drivers
- Three part system with flexible disconnect for easy LED engine replacement and installation
- Surface ceiling, pendant, wall mount or up/down wall mount
- Matte white, black, bronze or silver paint finish
- Optional stem mount or aircraft cable
- cULus listed for wet locations
- Photometric testing completed in accordance with IES LM 79 standards
- 5 year warranty



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LCR6A15D010TEP ERCM6A15835 6LM0LI

Housing	Lumens ^①	Driver	Cylinder Finish	Power Module	Lumens	CRI	Color
LCR6A =6" Surface Mount, Cylinder LCRW6A =6" Wall Mount Cylinder LCRWMUD6A =6" Wall Mount Up/Down, Cylinder ^② Square LCSQ6A =6" Surface Mount, Square LCSQWM6A =6" Wall Mount, Square LCSQWMUD6A =6" Wall Mount Up/Down, Square ^②	10 =1000 Lumens 15 =1500 Lumens 20 =2000 Lumens	1000, 1500, or 2000 Lumen D010TE =120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming DL3 =1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire DLT =1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming 1000 or 1500 Lumen D5LT =Fifth Light® (DALI) Dimming DE010 =120-277V 0-10V 1% Dimming	P =White MB =Matte Black SL =Painted Silver BZ =Bronze	ERCN6A =6", For Narrow Beam Reflector ERCM6A =6", For Medium Beam Reflector ERCW6A =6", For Wide Beam Reflector	10 =1000 Lumens 15 =1500 Lumens 20 =2000 Lumens	8 =80 9 =90	27 =2700° K 30 =3000° K 35 =3500° K 40 =4000° K

Reflector	Finish	Accessories
Narrow Beam 6LN0 =6" Narrow Reflector Medium Beam 6LM0 =6" Medium Reflector Wide Beam 6LW0 =6" Wide Reflector Medium Beam Wall Wash 6LM110 =6" Medium Reflector, Wall Wash Wide Beam Wall Wash 6LW110 =6" Wide Reflector, Wall Wash	L =Specular Clear H =Semi-Specular Clear WMH =Warm Haze G =Specular Gold WH =Wheat WHH =Wheat Haze GP =Graphite GPH =Graphite Haze B =Specular Black W =Gloss White	Pendant Kit for Round L836P =Pendant Kit, White, 36" L836BZ =Pendant Kit, Bronze, 36" L836MB =Pendant Kit, Matte Black, 36" L836SL =Pendant Kit, Painted Silver, 36" Aircraft Cable for Round LAC120P =120" Aircraft Cable- White LAC48P =48" Aircraft Cable- White LAC120MB =120" Aircraft Cable- Black LAC48MB =48" Aircraft Cable- Black Pendant Kit for Square LSQ836P =Pendant kit, White 36" LSQ836BZ =Pendant kit, Bronze, 36" LSQ836MB =Pendant kit, Matte Black, 36" LSQ836SL =Pendant kit, Painted Silver, 36" Kit Aircraft Cable for Square LACSQ120P = 20" Aircraft Cable- White LACSQ48P =48" Aircraft Cable- White LACSQ120MB =120" Aircraft Cable- Black LACSQ48MB =48" Aircraft Cable- Black Type 120 =3 conductor for use with 120/277V 2-wire dimming Blank =5 conductor for use with 0-10V dimming drivers DL3 =6 conductor for use with DL3 3-wire dimming drivers Example: LAC 48P 48" cable with white cord for use with 0-10V driver

Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
② Order two trims and light engines.

8 Inch

LED Cylinders

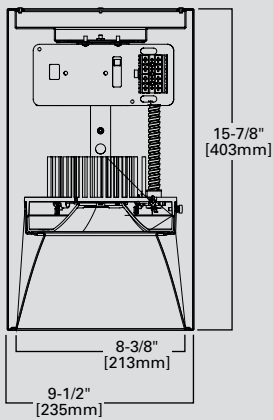
Architecturally designed to complement any space, Portfolio's 8-inch LED cylinder is perfect for high ceiling applications. The standard driver is dimmable with 0-10V or trailing edge, making it ideal for replacing existing incandescent cylinders with LED. Offered in wall mount or ceiling mount with optional pendant and aircraft cable kits in a variety of finishes. Diffused optical system provides superior light control and low aperture brightness while delivering over 80 lm/W. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing even illumination. Available lumen packages range from 3,000-6,500 lumens with a choice of 2700K, 3000K, 3500K and 4000K color temperatures in 80 or 90 CRI. System life is designed for 50,000 hours at 70 percent lumen maintenance. Color variation is within 3-step MacAdam ellipses ensuring color consistency from fixture to fixture. Flexible disconnect capability allows for tool-less replacement of LED engine. The cylinders are universal voltage (120-277V).



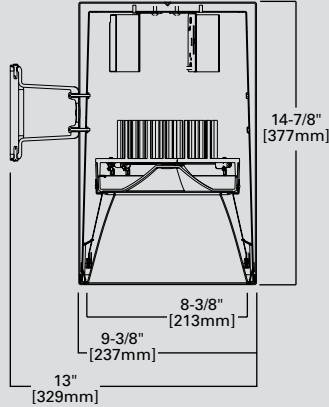
Finish



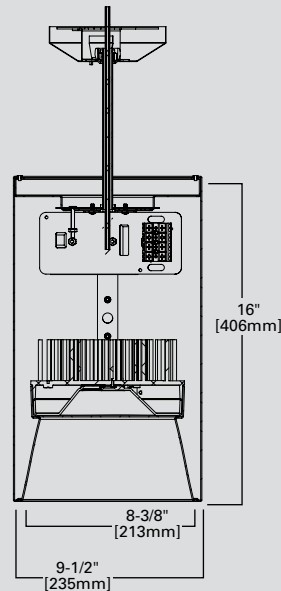
Surface Mount



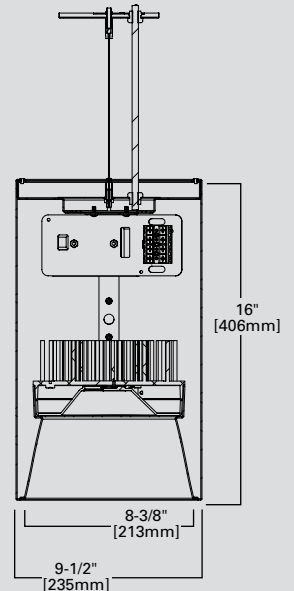
Wall Mount



Pendant Mount



Aircraft Mount

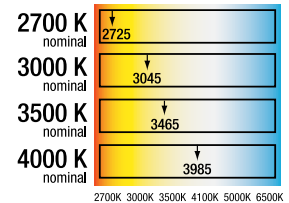


Features and Benefits

- Delivered lumens ranging from 3000 to 6500
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Wall wash, narrow, medium and wide beam reflectors
- Lumen maintenance of L70 at 50,000 hours
- Standard dual dimming driver, 0-10V or trailing edge
- Optional Fifth Light or 1% dimming drivers
- Three part system with flexible disconnect for easy LED engine replacement and installation
- Surface ceiling, pendant, wall mount
- Matte white, black, bronze or silver paint finish
- Optional stem mount or aircraft cable
- cULus listed for wet locations
- Photometric testing completed in accordance with IES LM 79 standards
- LED life testing completed in accordance with LM 80 standards
- 5 year warranty



Refer to ENERGY STAR® Qualified Products List.
Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



Ordering Information:

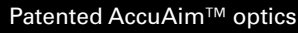
Order Housing, Power Module, Trim and Accessories Separately

SAMPLE NUMBER: LCR8A40D010TEP ER8A40835 8LM0LI

Housing	Lumens ^①	Driver	Cylinder Finish	Power Module	Lumens	CRI	Color
LCR8A=8" Aperture Surface, Cylinder LCRWM8A=8" Aperture Wall Mount, Cylinder	30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens	3000, 4000, 5000 and 6000 Lumen D010TE=0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light® (DALI) Dimming 1-100%2 DL3=1 to 100% Dimming Lutron® Hi-Lume, Ecosystem or 3-Wire2 DE010=0-10V 1% Dimming 4000 5000, 6000 and 6500 Lumen D010TR=0-10V 10% Dimming or Leading Edge 120V Dimming 6500 Lumen D010=0-10V Dimming DE010=1 to 100% Dimming, 50/60Hz, 0-10V	P=White MB=Matte Black SL=Painted Silver BZ=Bronze	ER8A=8" Module	30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K

Reflector	Finish	Accessories
Narrow Beam 8LN0=8" Narrow Reflector	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze	Pendant Kit for Round L836P=Pendant Kit, White, 36" L836BZ=Pendant Kit, Bronze, 36" L836MB=Pendant Kit, Matte Black, 36" L836SL=Pendant Kit, Painted Silver, 36"
Medium Beam 8LM0=8" Medium Reflector	G=Specular Gold WH=Wheat WHH=Wheat Haze	Aircraft Cable for Round LAC120P=120" Aircraft Cable-White LAC48P=48" Aircraft Cable-White LAC120MB=120" Aircraft Cable-Black LAC48MB=48" Aircraft Cable-Black
Wide Beam 8LW0=8" Wide Reflector	GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White	
	8LM0 Only WB=White Baffle BB=Black Baffle	
Type 120 =3 conductor for use with 120/277V 2-wire dimming Blank =5 conductor for use with 0-10V dimming drivers DL3 =6 conductor for use with DL3 3-wire dimming drivers Example: LAC 48P 48" cable with white cord for use with 0-10V driver		

Notes: ① Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.



Patented AccuAim™ optics

Precisely controlled light output

WaveStream™ LED

Taking Control of Light.

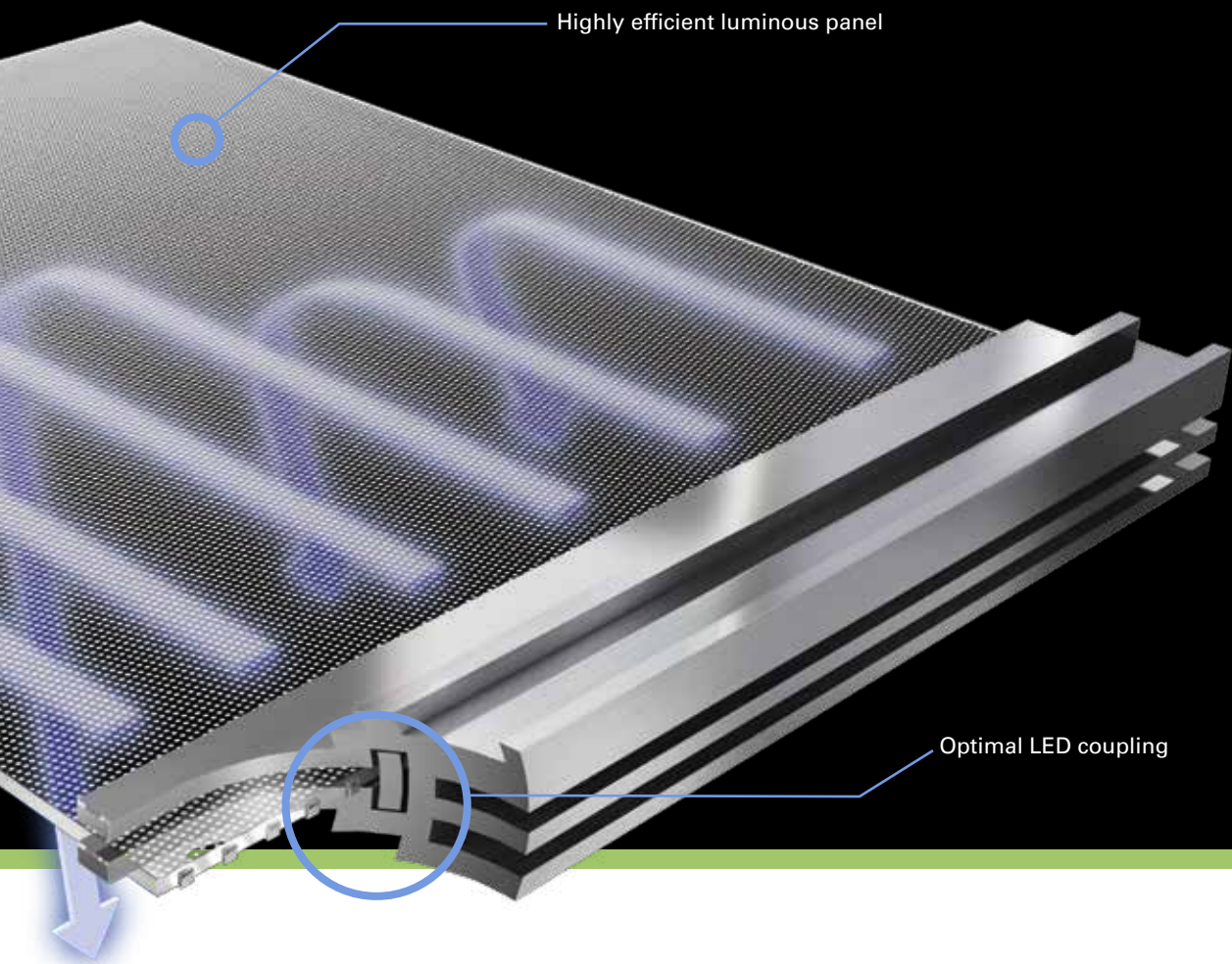
Design Freedom
Optical Control
Energy Efficiency
Brightness Control
Mainstream Value

The Breakthrough You've Been Waiting For

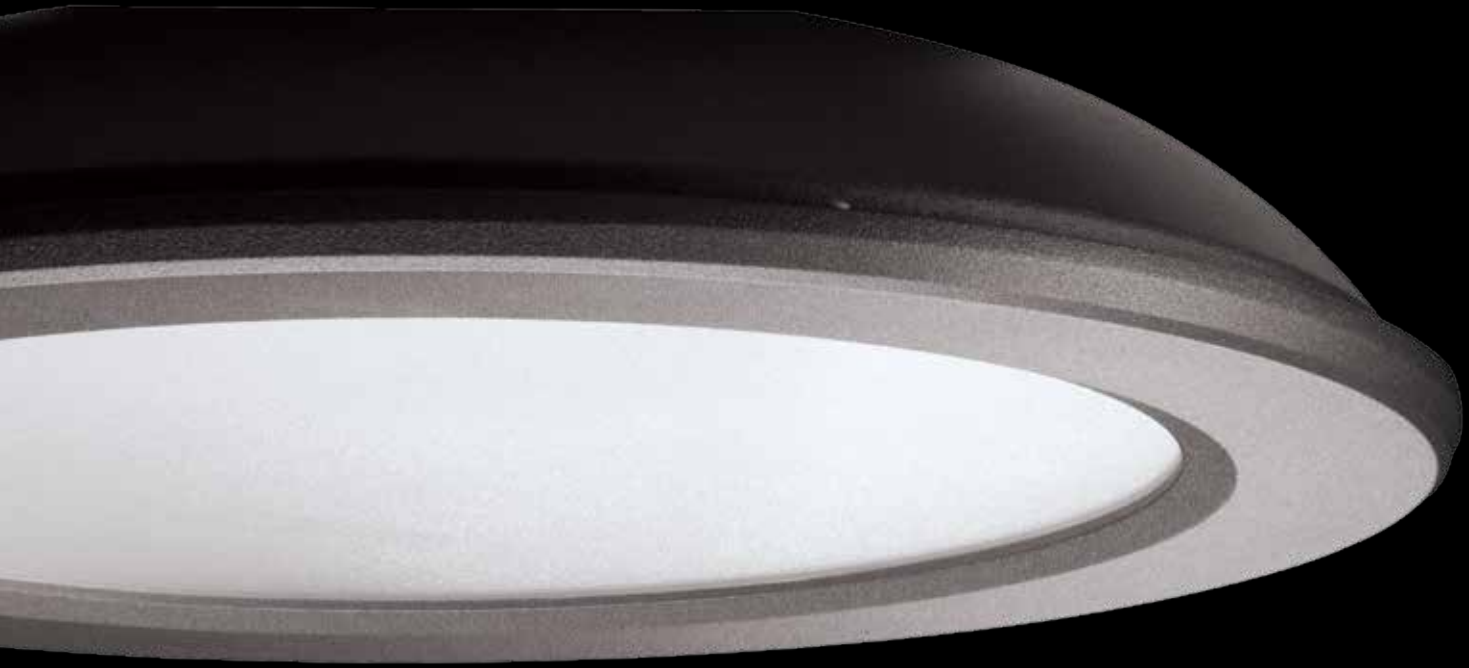
WaveStream™ LED technology presents a new paradigm that will take LEDs mainstream in a way that hasn't been possible before — transforming the LED point source into a highly efficient and elegant luminous plane. It's a groundbreaking technology that delivers unparalleled design freedom, maximum energy efficiency and unrivaled optical and brightness control.

The Science Behind the Beauty

A patented optical coupling process maximizes the amount of light injected into the WaveStream panel, dramatically improving luminaire efficiency. Laser-precise, patented AccuAim™ optics arranged in exacting patterns provide unparalleled brightness control while delivering optimal distributions tailored to each fixture and application.



WaveStream is the first lighting technology designed and optimized exclusively for LEDs — with form and function that allows mainstream adoption like never before. Once you factor in all the ways you can build and customize WaveStream lighting solutions, over 500,000 configurations are available to address nearly every major lighting application.



LED Surface Luminaire

Portfolio's newest surface mount fixtures deliver an unparalleled combination of aesthetics and performance. Utilizing the patented WaveStream™ LED technology with AccuAim™ optics, these products deliver optimal distribution and efficiency in a low-profile form factor. Ideal for high ceiling applications in architectural and commercial spaces, the Portfolio surface mount will add artistic flare to many spaces. Replacing high wattage incandescent, halogen and metal halide sources, the architecturally designed surface-mount pendant provides significant energy savings with a quick payback.

Features and Benefits

- Five lumen packages (4500, 5500, 7000, 8000 and 9000)
- Efficacy: delivers up to 101 lm/W
- 80 or 90 CRI
- Color Temperatures: 2700K, 3000K, 3500K and 4000K
- Lumen maintenance 85% at 60,000 hours
- Available for ceiling, wall, aircraft cable or stem mounting
- Standard 0-10V 10% or trailing edge combination driver
- Optional Fifth Light, 0-10V 1% or Lutron driver
- Matte black, white, bronze or silver finishes
- 85% lumen output at 60,000 hours of operation
- UL/cUL listed for wet locations
- Five-year warranty



powered by
fifthlight
technology

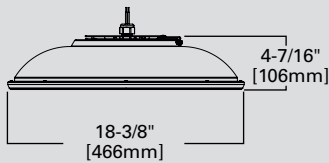


DesignLights Consortium® Qualified.
Refer to www.designlights.org
Qualified Products List under Family
Models for details.

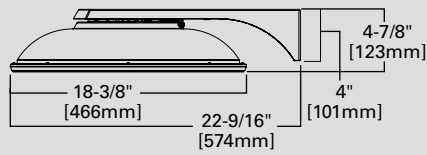
LED Surface Luminaire



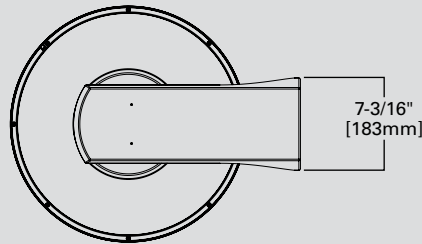
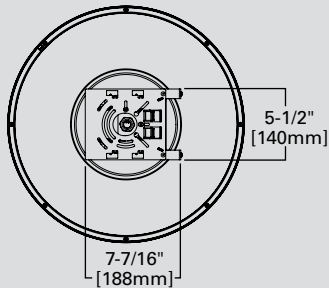
SURFACE MOUNT



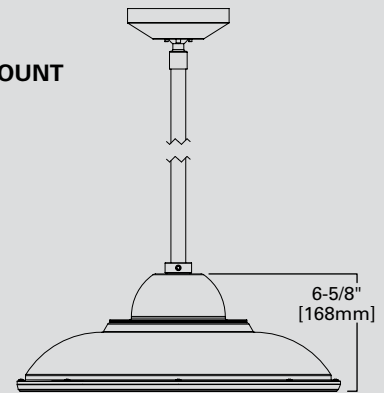
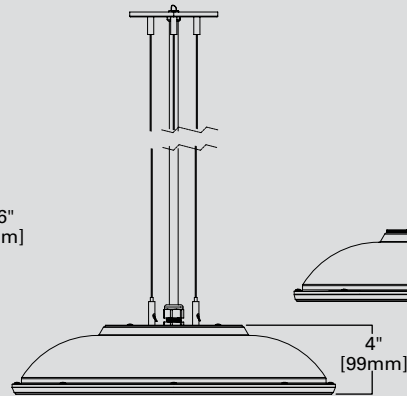
WALL MOUNT



PENDANT MOUNT



AIRCRAFT CABLE MOUNT



Ordering Information:

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LSM45W8027D010TE MBLPS36MB

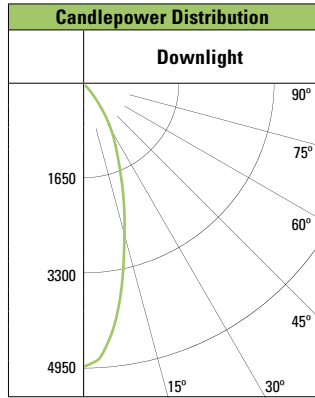
Housing	Lumens [®]	Distribution	CRI	CCT	Driver	Color
LSM =LED Surface Ceiling LSMP =LED Pendant Mount LSWM =LED Wall Mount LSMAC48 =LED Aircraft Cable Mount 48" LSMAC120 =LED Aircraft Cable Mount 120"	45=4500 Lumens 55=5500 Lumens 70=7000 Lumens 80=8000 Lumens 90=9000 Lumens	W=Wide	80=80 CRI 90=90 CRI	27=2700 K 30=3000 K 35=3500 K 40=4000 K	4500, 5500, 7000, 8000 and 9000 Lumen D010TE =120-277 0-10V 10% Dimming or Trailing Edge 120V 4500, 5500, 7000, 8000 Lumen D5LT =120-277 Fifth Light DALI Dimming D010TR =120-277 0-10V 10% Dimming or Leading Edge 120V DE010 =120-277 0-10V 1% Dimming 4500, 5500, 7000 Lumen DL3 =120-277, 1-100% Lutron Dimming DLT =120-277, 1-100% Lutron Dimming	MB =Matte Black P =White SL =Silver BZ =Bronze

Stem Kits	Color	Accessories
LPS36 =36-Inch LPS48 =48-Inch LPS96 =96-Inch	MB =Matte Black P =White SL =Silver BZ =Bronze	Blank =5 Conductor for use with 0-10V Dimming Drivers 120 =3 Conductor for use with 120V or 277V 2-wire Dimming DL3 =6 Conductor for use with DL3 3-wire Dimming Drivers D5LT =5 Conductor for use with D5LT Drivers

Notes: ① For pendant mount order stem kit.



Photometry – 4-Inch Rounds



Test Number	P98715
LD4A18D010TE	ERN4A835 4LN1LI
Lumens	2224
Efficacy	70.6 Lm/W
Watts	31.5
CCT	3500K
SC	0.53

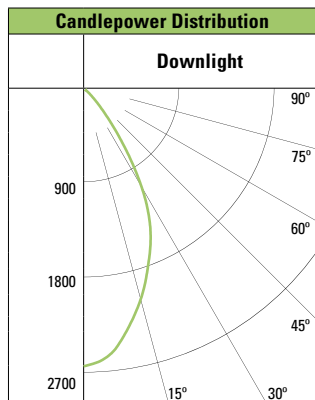
Luminance	
Average Candella Degrees	Average 0° Luminance
45	12349
55	629
65	415
75	0
85	0

Candela Table	
Degrees Vertical	Candela
0	4844
5	4478
15	2662
25	1354
35	576
45	90
55	4
65	2
75	0
85	0
90	0

Cone of Light		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	160	2.8
7'	98	3.6
8'	75	4.2
9'	59	4.6
10'	48	5.2
12'	33	6.2

Lumen	Multipier
900	.41
1300	.62
1800	1.00
2800	1.02

Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	1774	79.8
0-40	2135	96.0
0-60	2223	100
0-90	2224	100
90-180	0	0
0-180	2224	100



Test Number	P97827
LD4A18D010TE	ERM4A835 4LM1LI
Lumens	2354
Efficacy	74.7 Lm/W
Watts	31.5
CCT	3500K
SC	0.75

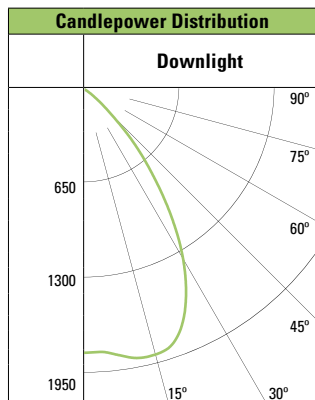
Luminance	
Average Candella Degrees	Average 0° Luminance
45	8628
55	1308
65	922
75	715
85	0

Candela Table	
Degrees Vertical	Candela
0	3575
5	3479
15	2800
25	1722
35	612
45	63
55	8
65	4
75	2
85	0
90	0

Cone of Light		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	118	4.0
7'	73	5.2
8'	55	6.0
9'	44	6.6
10'	35	7.4
12'	24	9.0

Lumen	Multipier
900	.42
1300	.62
1800	1.00
2800	1.18

Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	1882	79.9
0-40	2276	96.7
0-60	2348	99.8
0-90	2354	100
90-180	0	0
0-180	2354	100



Test Number	P98763
LD4A18D010TE	ERW4A835 4LW1LI
Lumens	2416
Efficacy	76.7 Lm/W
Watts	31.5
CCT	3500K
SC	1.14

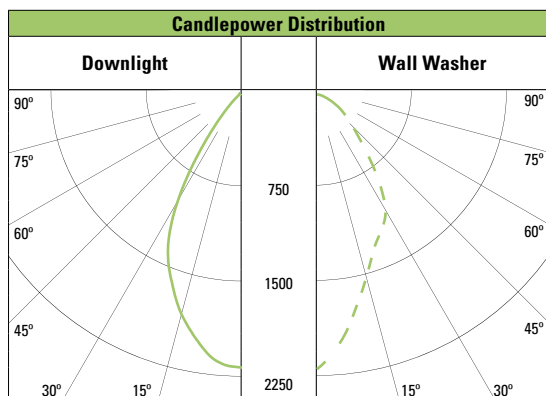
Luminance	
Average Candella Degrees	Average 0° Luminance
45	12349
55	629
65	415
75	0
85	0

Candela Table	
Degrees Vertical	Candela
0	1785
5	1791
15	1862
25	1625
35	1005
45	361
55	59
65	4
75	2
85	0
90	0

Cone of Light		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	59	6.2
7'	36	7.8
8'	27	9.0
9'	22	10.2
10'	17	11.4
12'	12	13.6

Lumen	Multipier
900	.44
1300	.65
1800	1.0
2800	1.2

Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	1435	59.4
0-40	2058	85.2
0-60	2410	99.7
0-90	2416	100
90-180	0	0
0-180	2416	100

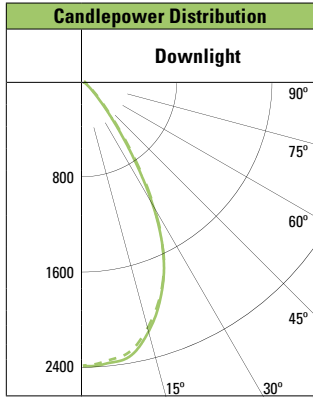


Test Number	P97891
LD4A18D010TE	ERW4A18835 4LW11LI
Lumens	2288
CCT	3500K

Single Unit Footcandles				Multiple Unit Footcandles															
DD	3' From Wall (Distance From Fixture Along Wall)			2.5' From Wall (Spacing Between Fixtures)						3' From Wall (Spacing Between Fixtures)									
	1'	2'	3'	2'	3'	4'	5'	6'	7'	8'	9'	2'	3'	4'	5'	6'	7'	8'	9'
1'	7	5	3	1	19	20	19	16	13	16	10	11	10	8	8	8	8	8	8
2'	20	17	10	4	43	49	43	35	36	35	30	33	30	25	26	26	25	25	25
3'	21	18	12	6	44	48	44	36	38	36	33	36	33	27	30	27	30	27	27
4'	20	17	12	7	38	42	38	31	35	31	32	35	32	27	30	27	30	27	27
5'	15	14	11	7	28	30	28	23	27	23	27	29	27	23	26	23	26	23	23
6'	11	11	9	7	20	21	20	17	20	17	20	21	20	18	20	18	20	18	18
7'	8	8	7	6	14	14	14	13	14	13	15	15	15	15	14	15	14	15	14
8'	6	6	5	5	10	10	10	10	10	10	11	11	11	11	10	11	10	11	10
9'	4	4	4	4	8	8	8	7	8	7	8	8	8	8	8	8	8	8	8
10'	3	3	3	3	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

LEGEND:
0-deg: - - - - -
90-deg: _____

Photometry – 4-Inch Squares

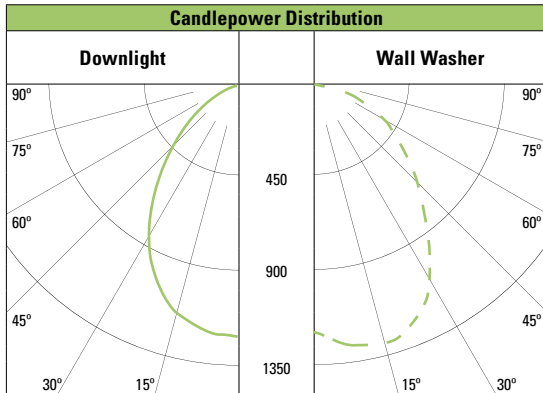


Candlepower Distribution	
Test Number	P97907
	LDSQ4A18D010TE ESQ4A835 4LSQ1LI
Lumens	2206
Efficacy	70 Lm/W
Watts	31.5
CCT	3500K
SC	0.93
Luminance	
Average Candella Degrees	Average 0° Luminance
45	13975
55	2923
65	1087
75	562
85	0

Candela Table	
Degrees Vertical	Candela
0	2373
5	2339
15	2119
25	1590
35	662
45	129
55	22
65	6
75	2
85	0
90	0

Cone of Light		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	78	5.0
7'	48	6.4
8'	37	7.4
9'	29	8.3
10'	23	9.2
12'	16	11.1

Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	1774	79.8
0-40	2135	96.0
0-60	2223	100
0-90	2224	100
90-180	0	0
0-180	2224	100



Candlepower Distribution	
Test Number	P100844
	LDSQ4A18D010TE ESQ4A18835 4LSQLWW1H
CCT	3500K
SC	1

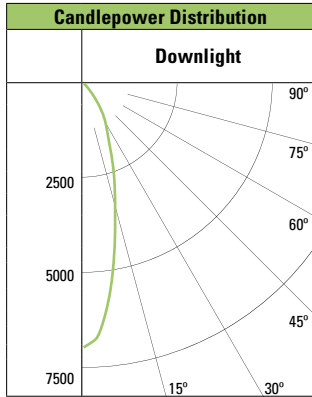
Single Unit Footcandles				Multiple Unit Footcandles												
	3' From Wall (Distance From Fixture Along Wall)			2.5' From Wall (Spacing Between Fixtures)						3' From Wall (Spacing Between Fixtures)						
DD		1'	2'	3'	2'	3'	2'	3'	2'	3'	2'	3'	2'	3'		
1'	14	10	5	2	50	50	50	44	29	44	18	20	18	16	14	16
2'	20	16	10	5	53	58	53	45	41	45	30	33	30	25	26	25
3'	18	15	10	6	40	44	40	33	35	33	28	31	28	24	26	24
4'	14	13	9	6	27	29	27	22	25	22	23	25	23	20	22	20
5'	10	10	8	6	17	18	17	15	17	15	18	19	18	16	17	16
6'	7	7	6	5	11	12	11	10	11	10	13	14	13	12	13	12
7'	5	5	4	4	8	8	8	7	8	7	10	10	10	9	10	9
8'	4	4	3	3	5	6	5	5	5	5	7	7	7	7	7	7
9'	3	3	3	2	4	4	4	4	4	4	5	5	5	5	5	5
10'	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4

LEGEND:
 0-deg: - - - - -
 90-deg: —————

Lumen	Multiplier
900	.44
1300	.65
1800	1.0
2800	1.2

Multiplier Factor from 35K		
CCT [K]	From 35K	80 -> 90 CRI
2700	0.93	.79
3000	0.99	.80
3500	1.00	.84
4000	1.01	.85

Photometry – 6-Inch Rounds



Test Number	P97571
LD6A30DE010 ERN6A30835 6LN1LI	
Lumens	2685 Lm
Efficacy	61.5 Lm/W
Watts	43.6 W
CCT	3500K
SC	0.46

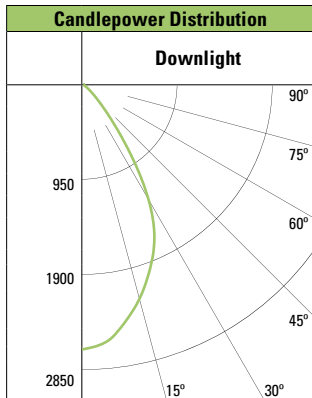
Luminance	
Average Candella Degrees	Average 0° Luminance
45	8244
55	513
65	221
75	0
85	0

Candela Table	
Degrees Vertical	Candela
0	6704
5	6010
15	3137
25	1502
35	721
45	125
55	6
65	2
75	0
85	0
90	0

Cone of Light		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
10'	67	5
15'	30	7
20'	17	9.5
25'	11	12
30'	7	14

Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	2116	79
0-40	2560	95.5
0-60	2683	100
0-90	2685	100
90-180	0	0
0-180	2685	100

Lumen	Multipier
1000	.37
1500	.54
2000	.82
3000	1.0



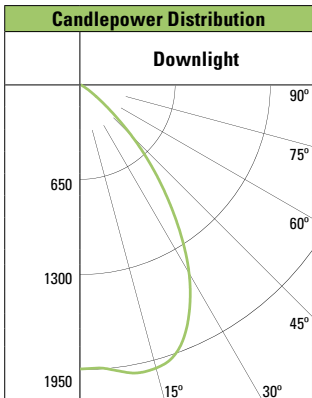
Test Number	P97647
LD6A30DE010 ERM6A30835 6LM1LI	
Lumens	2809 Lm
Efficacy	64.4 Lm/W
Watts	43.6 W
CCT	3500K
SC	0.8

Luminance	
Average Candella Degrees	Average 0° Luminance
45	8385
55	1087
65	595
75	464
85	0

Candela Table	
Degrees Vertical	Candela
0	3589
5	3557
15	3159
25	2082
35	848
45	104
55	11
65	4
75	2
85	0
90	0

Cone of Light		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	73	6
8'	56	7
9'	44	7.5
10'	36	8.5
12'	25	10
15'	16	12.5

Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	2159	77
0-40	2691	96
0-60	2803	100
0-90	2809	100
90-180	0	0
0-180	2809	100



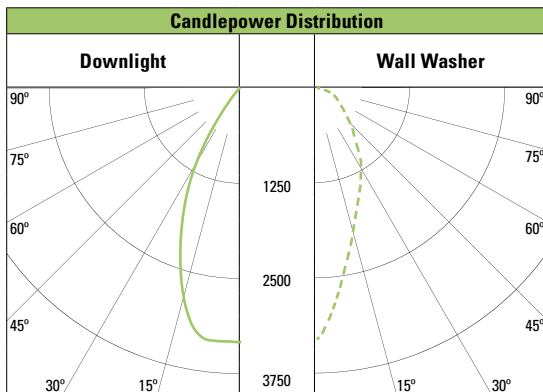
Test Number	P97731
LD6A30DE010 ERW6A30835 6LW1LI	
Lumens	2838 Lm
Efficacy	65 Lm/W
Watts	43 W
CCT	3500K
SC	1.1

Luminance	
Average Candella Degrees	Average 0° Luminance
45	42439
55	10791
65	830
75	445
85	0

Candela Table	
Degrees Vertical	Candela
0	1917
5	1919
15	1983
25	1761
35	1195
45	547
55	113
65	6
75	2
85	0
90	0

Cone of Light		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	39	8
8'	30	9
9'	24	10.5
10'	19	11.5
12'	13	14
15'	8.5	17.5

Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	1546	54.5
0-40	2287	80.5
0-60	2824	99.5
0-90	2838	100
90-180	0	0
0-180	2838	100

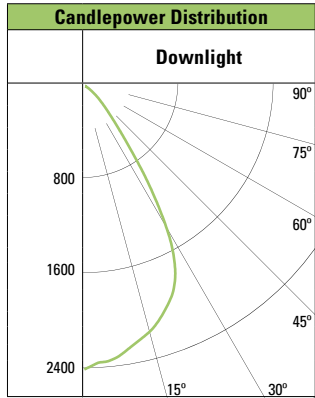


Test Number	P101671
LD6A30D010TE ERW6A30835 6LW11LI	
Lumens	2817
CCT	3500K

Single Unit Footcandles				Multiple Unit Footcandles						
	3' From Wall (Distance From Fixture Along Wall)			2.5' From Wall (Spacing Between Fixtures)			3' From Wall (Spacing Between Fixtures)			
DD	1'	2'	3'	2'	3'	2'	3'	2'	3'	
1'	14	12	6	2	34	39	34	28	27	28
2'	23	20	12	6	48	54	48	39	41	39
3'	23	20	13	7	48	54	48	39	43	39
4'	21	19	14	8	42	46	42	35	40	35
5'	17	16	13	8	32	35	32	27	31	27
6'	13	12	10	8	23	24	23	21	23	21
7'	9	9	8	7	17	17	17	15	17	15
8'	7	7	6	5	12	13	12	12	12	12
9'	5	5	5	4	9	9	9	9	9	9
10'	4	4	4	4	7	7	7	7	7	7

LEGEND:
0-deg: - - - -
90-deg: ————

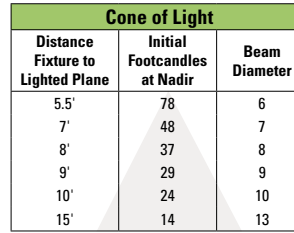
Photometry – 6-Inch Squares



Test Number	P2858
LDSQ6A30DE010 ESQ6A30835 6LSQ1LI	
CCT	3500K
SC	.92
Lumens	2858

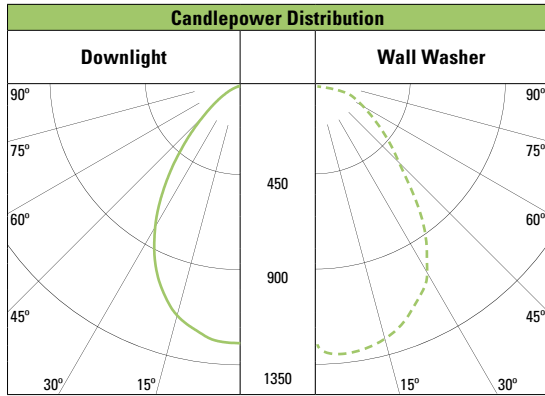
Luminance	
Average Candella Degrees	Average 0° Luminance
45	13870
55	5410
65	1967
75	856
85	636

Candela Table	
Degrees Vertical	Candela
0	2363
5	2302
15	2120
25	1795
35	786
45	228
55	72
65	19
75	5
85	1
90	0



Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	1641	63
0-40	2271	88
0-60	2561	99
0-90	2589	100
90-180	0	0
0-180	2589	100

CCT Multiplication Factors	CCT [K]	Multiplier from 3500K	80 -> 90 CRI
80 CRI	2800 & 3000 Lumen	2700	0.93
		3000	0.99
		3500	1.00
		4000	1.01
90 CRI	2800 & 3000 Lumen	2700	0.88
		3000	0.94
		3500	1.00
		4000	1.03



Test Number	P101745
LDSQ6A30D010TE ESQ6A30835 6LSQLWW1LI	
CCT	3500K
SC	1

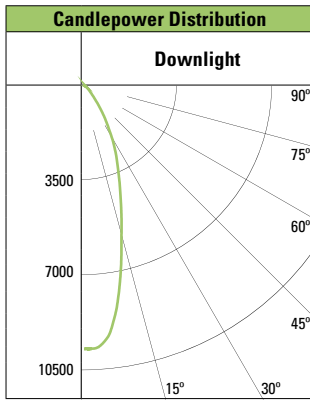
LEGEND:
 0-deg:
 90-deg:

DD	3' From Wall (Distance From Fixture Along Wall)			2.5' From Wall (Spacing Between Fixtures)						3' From Wall (Spacing Between Fixtures)						
	1'	2'	3'	2'		3'		2'		3'						
1'	19	14	6	2	38	42	38	33	28	33	25	28	25	21	20	21
2'	25	21	13	6	52	58	52	42	45	42	38	42	38	31	34	31
3'	24	21	15	8	50	55	50	41	46	41	39	43	39	32	37	32
4'	21	19	14	9	39	42	39	33	37	33	35	37	35	30	33	30
5'	15	14	12	8	27	29	27	24	26	24	27	29	27	24	26	24
6'	11	10	9	7	19	20	19	17	18	17	20	21	20	18	19	18
7'	8	7	7	5	13	14	13	12	13	12	14	15	14	13	14	13
8'	6	5	5	4	10	10	10	9	9	9	11	11	11	10	10	10
9'	4	4	4	3	7	7	7	7	7	7	8	8	8	7	8	7
10'	3	3	3	3	5	6	5	5	5	5	6	6	6	6	6	6

Lumen	Multiplier
1000	.37
1500	.54
2000	.81
3000	1.0

Multiplier Factor from 35K		
CCT [K]	From 35K	80 -> 90 CRI
2700	0.93	.79
3000	0.99	.80
3500	1.00	.84
4000	1.01	.85

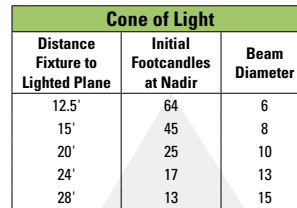
Photometry – 8-Inch Rounds



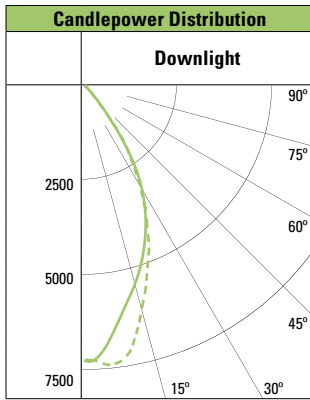
Test Number	P112471
LD8A50D010TE ER8A50835 8LNOLI	
Lumens	4603 Lm
Watts	62W
Efficacy	74Lm/W
CCT	3500K
SC	0.6

Luminance	
Average Candella Degrees	Average 0° Luminance
45	5157
55	524
65	812
75	0
85	4430

Candela Table	
Degrees Vertical	Candela
0	10069
5	9738
15	5643
25	2940
35	1045
45	118
55	10
65	11
75	0
85	13
90	0



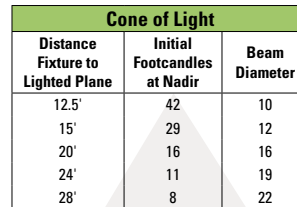
Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	3785	82
0-40	4441	96
0-60	4567	99
0-90	4603	100
90-180	0	0
0-180	4603	100



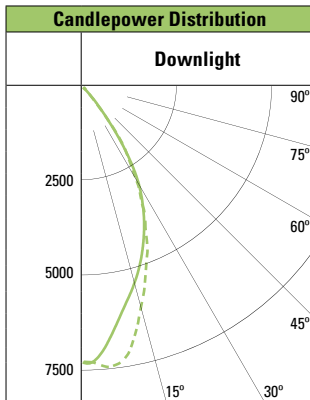
Test Number	P112343
LD8A50D010TE ER8A50835 8LMOLI	
Lumens	4962 Lm
Watts	62W
Efficacy	80 Lm/W
CCT	3500K
SC	0.8

Luminance	
Average Candella Degrees	Average 0° Luminance
45	13773
55	1421
65	0
75	166
85	0

Candela Table	
Degrees Vertical	Candela
0	6445
5	6573
15	5323
25	3488
35	1582
45	316
55	26
65	0
75	1
85	0
90	0



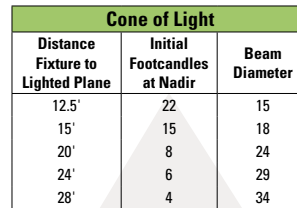
Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	3598	72
0-40	4641	93
0-60	4952	99
0-90	4962	100
90-180	0	0
0-180	4962	100



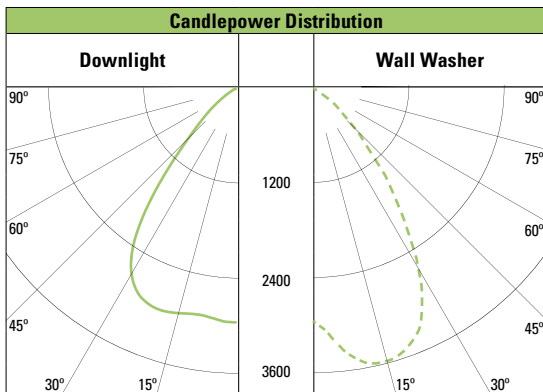
Test Number	P110167
LD8A50D010TE ER8A50835 8LWOLI	
Lumens	5083 Lm
Watts	62W
Efficacy	81.9 Lm/W
CCT	3500K
SC	1

Luminance	
Average Candella Degrees	Average 0° Luminance
45	42170
55	10921
65	1320
75	166
85	0

Candela Table	
Degrees Vertical	Candela
0	1917
5	1919
15	1983
25	1761
35	1195
45	547
55	113
65	6
75	2
85	0
90	0



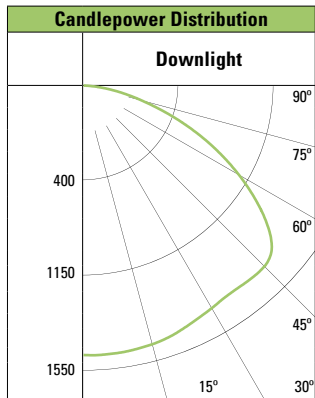
Zonal Lumen Summary		
Zone	Lumens	%Fixture
0-30	2740	54
0-40	4147	81
0-60	5052	99
0-90	5083	100
90-180	0	0
0-180	5083	100



Test Number	P112727
LD8A50D010TE ER8A50835 8LMOLI	
Lumens	5035
CCT	3500K

Single Unit Footcandles				Multiple Unit Footcandles												
DD	3' From Wall (Distance From Fixture Along Wall)			2.5' From Wall (Spacing Between Fixtures)			3' From Wall (Spacing Between Fixtures)									
	1'	2'	3'	2'	3'	2'	3'	3'								
1'	1	1	0	0	2	2	1	1	1	1	1	1				
2'	8	5	2	1	30	32	30	27	18	27	10	11	10	9	7	9
3'	32	25	12	4	79	88	79	66	61	66	44	50	44	36	36	36
4'	43	36	22	10	87	97	87	70	78	70	64	72	64	53	59	53
5'	39	35	25	14	73	80	73	61	70	61	64	69	64	53	60	53
6'	31	29	23	15	54	58	54	47	53	47	54	57	54	46	52	46
7'	23	22	19	14	39	41	39	35	38	35	42	43	42	37	41	37
8'	17	16	14	12	28	29	28	26	28	26	31	32	31	29	31	29
9'	13	12	11	10	21	21	21	20	20	20	24	24	24	22	23	22
10'	10	9	8	8	16	16	16	15	15	15	18	18	18	17	18	17

Photometry – LED Surface Luminaire



LSM55W8035D010TEP	
Lumens	5808
Efficacy	103 Lm/W
Watts	57
CCT	3500K
SC	1.45 / 1.43 / 1.73

Luminance

Average Candella Degrees	Average 0° Luminance
45	22030
55	23021
65	20356
75	15144
85	8865

Candela Table

Degrees Vertical	Candela
0	1516
5	1518
15	1506
25	1465
35	1432
45	1439
55	1220
65	795
75	362
85	71
90	0

Cone of Light

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
8'	24	11
9'	19	13
10'	15	14
13'	9	19
16'	6	23

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30	1247	22
0-40	2153	37
0-60	4452	77
0-90	5807	100
90-180	0	0
0-180	5807	100

Delivered lumens with 80CRI, 35K LED and Specular clear reflector

Lumens	Wattage	Narrow	Narrow LPW	Medium	Medium LPW	Wide	Wide LPW
1000	14.1	1005	71	1046	74	1077	76
1500	22.4	1450	65	1509	67	1552	69
2000	31	2209	62	2301	74	2349	76
3000	44	2685	68	2809	65	2838	66
4000	58	3729	64	4216	72	4373	75
5000	62	4603	74	4962	80	5083	82
6000	77	5514	71	5945	77	6090	79
6500	84	6190	73	6674	79	6837	86







Lamps and Comparisons

Common Lighting Source	Average Delivered Lumens *	Wattage	Luminaire Efficacy	Life (hrs)
Compact Fluorescent				
2-42W Horizontal	3684	93	40 lpw	12000
2-32W Horizontal	2682	69	39 lpw	12000
2-26W Horizontal	1921	55	35 lpw	12000
1-42W Horizontal	1628	48	34 lpw	12000
1-32W Horizontal	1361	36	36 lpw	12000
1-26W Horizontal	1050	29	36 lpw	12000
1-18W Horizontal	650	21	31 lpw	12000
1-42W Vertical	1628	48	34 lpw	12000
1-32W Vertical	1301	36	36 lpw	12000
1-26W Vertical	960	29	33 lpw	12000
1-18W Vertical	570	21	27 lpw	12000
Metal Halide				
100W ED17	3300	115	29 lpw	20000
150W ED17	6480	165	39 lpw	20000
250W ED28	9375	274	34 lpw	15000
70W T6	3550	86	41 lpw	12000
70W PAR30	3040	86	35 lpw	12000
150W PAR38	7917	165	48 lpw	12000
Incandescent				
75W PAR30	820	75	11 lpw	2500
90W PAR38	1126	90	12 lpw	2500
120W PAR38	1729	120	14 lpw	3000
250 PAR38	3096	250	12 lpw	4500
150W A21	2245	150	15 lpw	750
200W A21	2610	200	11 lpw	1000
500W PAR56	6000	500	12 lpw	4000

* Delivered lumens based on mean lumens and typical fixture efficiency in the smallest aperture luminaire. For reference only.



Reflector Color and Finishes

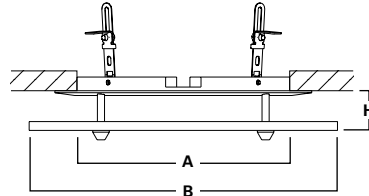
Finish	Description			
White		TRM4P=4" White	TRM6P=6" White	TRM7P=7" White
Chrome (C)		TRM6C=6" Chrome		
Black (MB)		TRM4MB=4" Black	TRM6MB=6" Black	TRM7MB=7" Black
Satin Nickel (SN)		TRM6SN=6" Satin Nickel		

Finish	Multipliers*	Description
Specular Clear (LI)	1.0	Specular clear Alzak finish delivers full light output.
Semi-Specular Clear (H)	.87	Semi-specular clear Alzak finish provides visual identity.
Gold (G)	.90	Champagne Gold specular Alzak finish provides visual warmth.
Warm Haze (WMH)	.86	Semi-specular Alzak finish provides visual identity with a hint of Gold for warmth.
Wheat (WH)	.86	Deep Gold specular Alzak finish adds significant visual warmth.
Wheat Haze (WHH)	.80	Clear, deep Gold semi-specular Alzak finish adds significant visual warmth.
Graphite (GP)	.60	Gun-metal Gray specular Alzak finish shows less dust.
Graphite Haze (GPH)	.57	Graphite with a semi-specular Alzak finish.
Black (B)	.48	Specular Alzak finish provides maximum aperture darkness.
Black Baffle (BB) Polymer trim ring only		
White Baffle (WB) Polymer trim ring only		
Gloss White (W) Polymer trim ring only		

Notes: * Values shown for quick reference. See ies files for output specified fixture type and finish.

6-Inch and 7-Inch Decorative Trims

Anodized Single Ring



Dimensions	A	B	H
6" Trim	6-1/8" [156 mm]	8-3/4" [222 mm]	2-1/4" [57 mm]

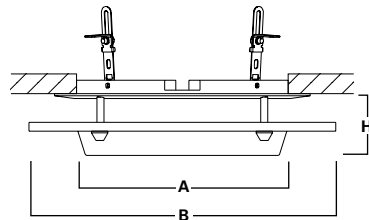
- Decorative anodized single aluminum ring
- 0.09-inch thick with a brushed surface
- Rings anodized to retain appearance over life

Sample Number: DT6RC

Size	Finish
DT6R=6" Single Ring Deco Trim	C=Anodized Clear

Notes: Δ Order trim with polymer trim ring

Glass Funnels



Dimensions	A	B	H
DT6	5-9/16" [141 mm]	8-3/4" [222 mm]	1-15/16" [49 mm]

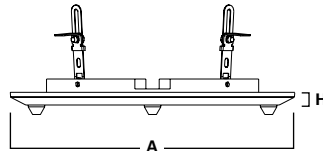
- Decorative glass funnel
- Etched finish on both surfaces to diffuse light and glow
- Crisp edge details provide architectural appearance
- 0.250-inch thick, molded glass funnel

Sample Number: DT7LF0

Size	Style	Color
DT6=6" Deco Trim	LF=Glass Funnel	0=Frosted 1=Cobalt Blue

Notes: Δ Order trim with polymer trim ring

Lensed



Dimensions	A	H
DT6	8-1/8" [206 mm]	3/8" [10 mm]

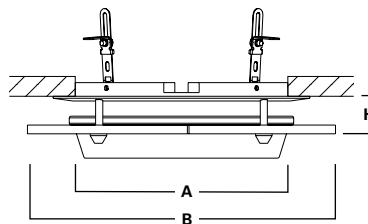
- UL listed for Wet locations
- 0.125-inch thick glass lens
- Upper surface frosted to diffuse the light

Sample Number: DT6L0

Size	Disc
DT6=6" Deco Trim	L0=Frosted Glass

Notes: Δ Order trim with polymer trim ring

Translucent Ring with Funnel



Dimensions	A	B	H
DT6	6" [152 mm]	8-3/4" [222 mm]	1-1/8" [28 mm]

- Glass and acrylic combination
- 0.250-inch thick, molded glass funnel
- Funnel has etched finish on both surfaces to diffuse light and glow
- Surrounding ring is acrylic, 0.250-inch thick
- Upper ring surface frosted to diffuse the light
- Available in a variety of color combinations

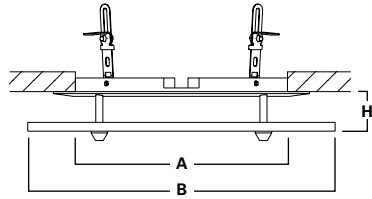
Sample Number: DT6R0F0

Size	Style/Color
DT6=6" Deco Trim	R0F0=Matte with Frosted Funnel R0F1=Matte with Cobalt Blue Glass Funnel R1F0=Cobalt Blue Acrylic with Frosted Funnel R2F0=Aqua Blue Acrylic with Frosted Funnel R2F1=Aqua Blue with Cobalt Blue Glass Funnel R8F0=Red Acrylic with Frosted Funnel R8F1=Red Acrylic with Cobalt Blue Glass Funnel

Notes: Δ Order trim with polymer trim ring

6-Inch and 7-Inch Decorative Trims

Translucent Single Ring



Dimensions	A	B	H
DT6	6-1/8" [156 mm]	8-3/4" [222 mm]	2-1/4" [57 mm]

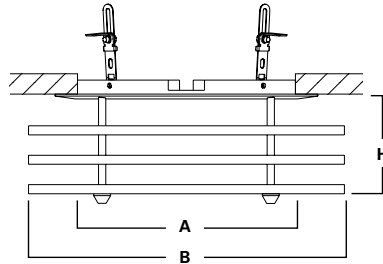
- Single decorative acrylic ring available in a choice of colors
- Ring edge polished for clean look to finished element
- 0.25-inch thick acrylic with frosted upper surface to diffuse light

Sample Number: DT6R0

Size	Color
DT6R=6" Single Ring Deco Trim	0=Matte 1=Cobalt Blue 2=Aqua Blue 8=Ruby Red

Notes: Δ Order trim with polymer trim ring

Translucent Triple Ring



Dimensions	A	B	H
DT6	6-1/8" [156 mm]	8-3/4" [222 mm]	2-3/4" [70 mm]

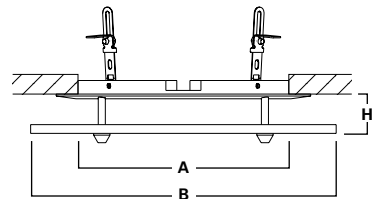
- Decorative triple acrylic ring
- Ring edge polished for clean look to finished element
- 0.25-inch thick acrylic with frosted upper surface to diffuse light

Sample Number: DT63R0

Size	Color
DT63R=6" Triple Ring Deco Trim	0=Matte 2=Aqua Blue Acrylic

Notes: Δ Order trim with polymer trim ring

Frosted Disc



Dimensions	A	B	H
DT6	6-1/8" [156 mm]	8-3/4" [222 mm]	1-1/8" [28 mm]

- Cut and polished glass disc
- Etched center diffuses light

Sample Number: DT6DISC

Size	Disc
DT6=6" Deco Trim	DISC=Etched Glass Disc

Notes: Δ Order trim with polymer trim ring

Metal Trim Rings

Metal Trim Rings of .050 die-formed aluminum for recessed fixtures. Provides strength and durability. Not for use with self-flanged reflectors.

	Catalog No.
White	TRM4P=4" White TRM6P=6" White
Black (MB)	TRM4MB=4" Black TRM6MB=6" Black

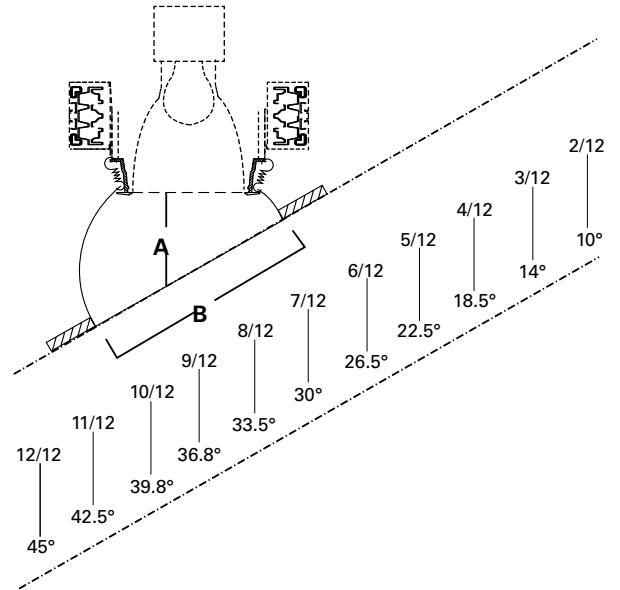
Accessories

Housing Slope Adapter (HSA)

Catalog No. HSA

Aperture	Height Of Plaster Ground 'A'	Ceiling Opening 'B'
4=4" Nominal housings	4-1/6"	10-3/8"
6=6" Nominal housings	4-5/16"	11-5/8"
6=6" Nominal housings for CFL	4-1/8"	11-5/8"
7=7" Nominal housings	4-7/8"	13-1/2"
8=8" Nominal housings	5-11/16"	15-3/4"
9=9" Nominal housings	5-7/16"	15-7/8"

Slope		
05=5°	20=20°	35=35°
10=10°	25=25°	40=40°
15=15°	30=30°	45=45°



Wood Joist Bar Hangers

Catalog No.	Description
RMB22	22-inch long wood joist mounting bars for use with any recessed fixture with Universal Mounting Brackets.



C-Channel Bar Hangers

Catalog No.	Description
HB26=1-1/2" C-Channel 26" long HB50=1-1/2" C-Channel 50" long	For use with any recessed fixture with Universal Mounting Brackets. (2 per set)



Adapter Band Rings

Catalog No.	Description
ABR6P=Remodel Adapter Ring for 7" OD ABR7P=Remodel Adapter Ring for 8" OD ABR8P=Remodel Adapter Ring for 9" OD ABR10P=Remodel Adapter Ring for 11" OD	Adapter band ring for LED remodelers and retrofit kits.



Shaper Farallon LED Recessed Glass Luminaires





Farallon LED Recessed Glass Luminaires

340 Series LED Decorative Downlights

340 Series LED Decorative Downlights feature 4-inch and 6-inch Portfolio Downlights with twelve Farallon decorative glass options, two light output choices and standard 0-10V dimming. Fixtures are designed for New Construction and utilize outer Cylindrical or Splayed Borosilicate Glass* available in various combinations of Clear and Frosted finishes, or with Shaper's exclusive sand-blasted patterns. The bottom edge of each glass trim is ground and polished to a beautiful finish. Optional inner Fluted Cylindrical Borosilicate Glass* is also available in Frosted or Clear finish.

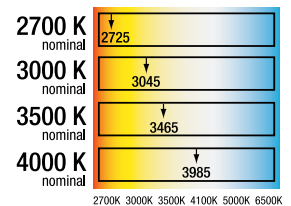


Farallon LED Recessed Glass Luminaires

Features and Benefits

- Delivered lumens ranging from 900 to 1500
- Available in 2700K, 3000K, 3500K, or 4000K
- 80 or 90 CRI (90 CRI available on special request)
- Color variation within 3-step MacAdam ellipses
- Two-stage reflector system produces smooth beam
- Flexible disconnect for easy LED engine replacement and installation
- Extruded aluminum heat sink
- LED life testing completed in accordance with LM 80 standards
- Glass has tool-less installation
- 5 year warranty

*Borosilicate Glass contains 5% or more of B2O3 . This component creates a low coefficient of expansion in the glass, making it highly resistant to heat and shock and ideal for downlighting application.



Ordering Information:

Order New Construction Housing separately

Sample Number: 340-6-DL-LED835/1/18-120V-SCSF-ERW6-SGPC-DMR7

Series	LED	Voltage	Finish/Power Module	Glass Options	Control
340-4-DL=Recessed 4" Dowlinght	LED827/1/14=80CRI, 2700K, 900/1000 Lumens	UNV – (120-277V)	SCSF-ERW4=4" Module for Wide Beam, Semi Specular Clear Self-Flanged Reflector SCSF-ERW6=6" Module for Wide Beam, Semi Specular Clear Self-Flanged Reflector Notes: Trim and Power modules available only in Wide Distribution.	SGPC=Splayed Glass, Polished-Clear Series SGPF=Splayed Glass, Polished-Frosted CYC=Cylindrical Glass, Polished-Clear CYF=Cylindrical Glass, Polished-Frosted CYF-DVN=Cylindrical Glass, Polished-Frosted Division CYF-QDE=Cylindrical Glass, Polished-Frosted Quadrate CYF-CRT=Cylindrical Glass, Polished-Frosted Crossette CYF-CTY=Cylindrical Glass, Polished-Frosted Catenary CYF-SGL=Cylindrical Glass, Polished-Frosted Spangle GIG-FIFO=Glass-in-a-Glass, Polished-Frosted Inside, Frosted Outside GIG-FICO=Glass-in-a-Glass, Polished-Frosted Inside, Clear Outside GIG-CICO=Glass-in-a-Glass, Polished-Clear Inside, Clear Outside	DMR7=0-10V Dimming with Optional TE Trailing Edge Wiring DML=Lutron Dimming
340-6-DL=Recessed 6" Dowlinght	LED827/1/18=80CRI, 2700K, 1300/1500 Lumens				
	LED827/1/25HO=80CRI, 80CRI, 3000K, 1800/2000 Lumens				
	LED830/1/14=80CRI, 2700K, 900/1000 Lumens				
	LED830/1/18=80CRI, 2700K, 1300/1500 Lumens				
	LED830/1/25HO=80CRI, 80CRI, 3000K, 1800/2000 Lumens				
	LED835/1/14=80CRI, 2700K, 900/1000 Lumens				
	LED835/1/18=80CRI, 2700K, 1300/1500 Lumens				
	LED835/1/25HO=80CRI, 80CRI, 3000K, 1800/2000 Lumens				
	LED840/1/14=80CRI, 2700K, 900/1000 Lumens				
	LED840/1/18=80CRI, 2700K, 1300/1500 Lumens				
	LED840/1/25HO=80CRI, 80CRI, 3000K, 1800/2000 Lumens				
	Notes: For 90 CRI, contact factory. All options above for 80 CRI.				

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