







# 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 Cooper Lighting Solutions' 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

Cooper Lighting Solutions 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**

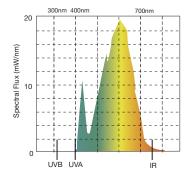
Portfolio's advanced LED system contains a plurality of high brightness white LEDs, producing a quality high lumen light source with reliable color consistency.

# **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**

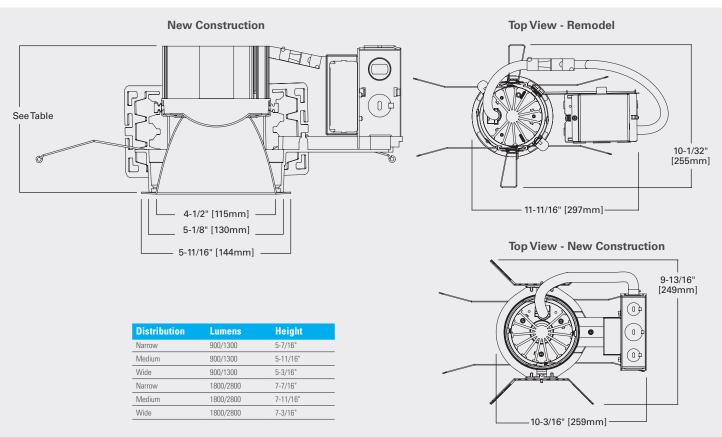
Portfolio LED employs InGaN (Indium Gallium Nitride) semiconductor material devoid of uV with minimal IR wavelengths. The unique engineered plurality of diodes covered with a uniform phosphor coating provides for consistent color uniformity and tight color control even during dimming, exceeding the ANSI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

# 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.





- 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 100%-0% Fifth Light, 0-10V, 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 covered wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79
- L70 at 50,000 hours, projected in accordance with IES TM-21
- 5 year warranty



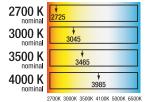








Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LD4A13D010TE ERM4A13835 4LW1H

Housing	Lumens <sup>①</sup>	Driver	Options <sup>38</sup>	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=Fitth Light® (DALI) Dimming 0-100% DE010=0 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 0-100%  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® EM7=TW Emergency Module with Remote Test Switch EM14=14W Emergency Module with Remote Test Switch IEM7=TW Emergency Module with Integral Test Switch® IEM14=14W Emergency Module with Integral Test Switch® IEM14=14W Emergency Module with Integral Test Switch®	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	<b>8</b> =80 <b>9</b> =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	LI=Specular Clear	Self-flanged Only	H347=347 to 120V Step Down Transformer, 75VA
4LN0=White Polymer Trim Ring	H=Semi-Specular Clear	WF=White Painted Flange	H347200=347 to 120V Step Down Transformer, 200VA
ILN1=Self-flanged	WMH=Warm Haze		HSA4=Slope Adapter for 4" Aperture Housings, Specify Slope <sup>®</sup>
	G=Specular Gold		TRM4P=Metal Trim Ring, White <sup>®</sup>
Medium Beam	WH=Wheat		TRM4MB=Metal Trim Ring, Black®
LM0=White Polymer Trim Ring	WHH=Wheat Haze		TRR4=Rimless Trim Ring <sup>®</sup>
ILMOE=White Polymer Trim Ring, for Integral Emergency®	GP=Graphite		LGSKT4IP66=IP66 Gasket Kit®
4LM1=Self-flanged	GPH=Graphite Haze		HB26=C-channel Bar Hanger, 26" Long, Pair <sup>②</sup>
4LM1E=Self-flanged, for Integral Emergency®	B=Specular Black		HB50=C-channel Bar Hanger, 50" Long, Pair <sup>®</sup>
	W=Gloss White		RMB22=Wood Joist Bar Hanger, 22" Long, Pair <sup>⊙</sup>
Wide Beam			
4LW0=White Polymer Trim Ring			
4LW1=Self-flanged	4LM0 and 4LW0 Only		
	BB=Black Baffle		
Medium Beam Wall Wash	WB=White Baffle		
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			
ILW110=Single Wall Wash, Polymer Trim Ring			
ILW111=Single Wall Wash, Self-flanged			
4LW120=Double Wall Wash, Polymer Trim Ring			
4LW121=Double Wall Wash, Self-flanged			

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

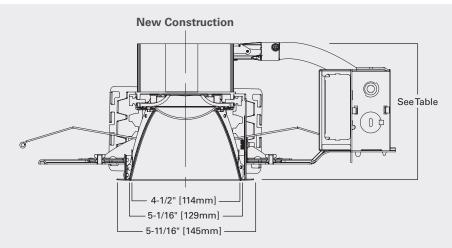
- © Order trim with polymer trim ring Consult accessory specification sheet for ordering information and options. Not for use with wall wash.
- 3 Not available with Chicago Plenum.
- For use in accessible ceiling only.
- (5) Available with select trims.
- 6 Downlight only. Not for wall wash or integral emergency.
- 7 For use with new construction downlights.
- Not CSA approved.

# Inch

# **Square LED Downlight**

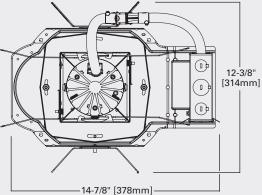
The Portfolio 4-inch LED downlight specially designed for LED technology features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing 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.



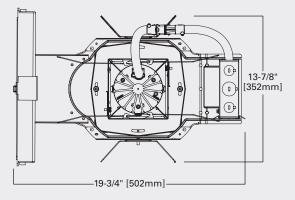


Lumens	Driver	Height
900/1300	D010TE D010TR DL3 DLT	5-9/16"
900/1300	D5LT DMX DE010	7-9/16"
1800/2000	All	7-9/16"

**Top View - New Construction** 



Top View - New Construction with Battery



- 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 100%-0% Fifth Light, 0-10V, or DMX dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Aperture rotates +/- 7.5° for precise alignment

- Field-adjustable collar 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 covered wet locations
- · Wall wash are cULus listed for wet locations
- Photometric testing completed in accordance with IES LM 79 standards
- L70 at 50,000 hours, projected in accordance with IESTM-21
- 5 year warranty



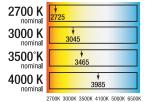








Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

### Sample Number: LDSQ4A13D010TE ESQ4A13835 4LSQ0LI

Housing	Lumens <sup>①</sup>	Driver	Options <sup>®</sup>	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 0-100% DE010=0 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 0-100%  900, 1300 and 1800 lumen D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMB0D=Bodine® Emergency Module with Remote Test Switch EM7=7W Emergency Module with Remote Test Switch EM14=14W 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 40CP=4000 K, Chicago Plenum

Reflector	Finish	Options	Accessories
4LSQD=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 HB26E-C-channel Bar Hanger, 26* Long, Pair HB50E-C-channel Bar Hanger, 50* Long, Pair RMB22=Wood Joist Bar Hanger, 22* Long, Pair 4SQPR=Plaster Lathing Ring <sup>®</sup>

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

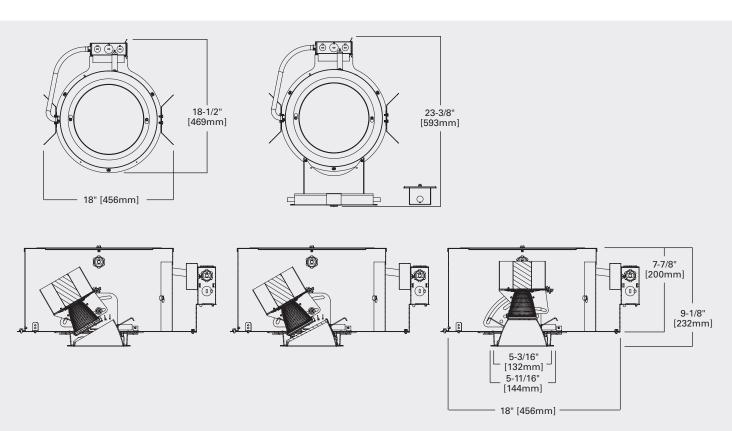
- 2 Not available with Chicago Plenum.
- 3 Order trim with polymer trim ring.

# Inch

# **LED Adjustable Downlight**

Portfolio 4-1/2 inch aperture adjustable accent/slope LED fixture for flat or sloped ceilings. Lockable 365° rotation and tool-less 40° tilt with center beam optics provides full output without flash back. Offered in three field interchangeable beam distributions providing a smooth beam. Available with lumen packages of 900 to 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. Standard dimmable driver can be dimmed with 0-10V or trailing edge controls. Accessible from above or below the ceiling plane.





- Delivered lumens ranging from 900 to 2800+
- Available in 2700K, 3000K, 3500K, or 4000K
- Offered in 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- ENERGY STAR® qualified. Learn more at energystar.gov
- Interchangeable 15, 25 and 35 degree upper reflector
- Included media holder accepts two lens media
- Locking 365° rotation and 40° tilt holds any aiming position
- Color variation within 3-step MacAdam ellipses
- Standard dual dimming driver, 0-10V or trailing edge

- IC rated up to 1800 lumens
- Optional 100%-0% Fifth Light (DALI), 0-10V or DMX drivers
- · Angle cut, lensed wall wash, lensed and flat cut downlight reflectors
- Open trims are cULus listed for damp locations
- Lensed trims are cULus listed for covered wet locations
- Photometric testing in accordance with IES LM79 standards
- L70 at 50,000 hours, projected in accordance with IES TM-21
- 5 year warranty

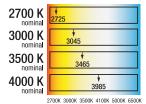








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# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LDA4A09835D010TE LAR25NF 4LLWW1LI

Housing	Lumens <sup>①</sup>	CRI	Color	Driver	Options <sup>®</sup>
LDA4A=4" Aperture adjustable/slope LDA4ACP=4" Aperture adjustable/slope, Chicago Plenum	09=900 Lumens (IC Rated) 13=1300 Lumens (IC Rated) 18=1800 Lumens (IC Rated) 28=2800 Lumens (Non-IC) ⊗	8=80 9=90	<b>27</b> =2700 K <b>30</b> =3000 K <b>35</b> =3500 K <b>40</b> =4000 K	900, 1300, 1800 and 2800 lumen  D010TE=120-277V 0-10V 10% dimming or trailing edge 120V  D5LT=120-277V Fifth Light DALI 0% dimming  DE010=120-277V, 1-100% dimming  DL3=120-277V, 1-100% Lutron dimming  DLT=Hi-Lume Forward Phase 2-wire dimming 120V  DMX=120-277V DMX 0% dimming  900, 1300 and 1800 lumen  D010TR=120-277V 0-10V 10% dimming or leading edge 120V	EMBOD=7W Bodine® Emergency Module with Remote Test Switch EM7=7W Emergency Module with Remote Test Switch EM14=14W Emergency Module with Remote Test Switch

### **Beam Forming Reflector**

LAR15SP=15° Reflector LAR25NF=25° Reflector LAR35NF=35° Reflector

Reflector	Finish	Options	Accessories	
4LA0=4" Adjustable Accent, Polymer Trim Ring 4LA1=4" Adjustable Accent, Self Flanged 4LLWW0=4" Lensed Wall Wash, Polymer Trim Ring 4LLWW1=4" Lensed Wall Wash, Self Flanged 4LAL0=4" Lensed Adjustable Accent, Polymer Trim Ring 4LA1-4" Lensed Adjustable Accent, Self Flanged 4LFC0=Flat Cut Cone, Polymer Trim Ring 4LFC1=Flat Cut Cone, Self Flanged 4LAPIN=4" Pinhole ®	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	HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair RM947=347 to 120V Step DownTransformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA TRM4P=Metal Trim Ring, White ® TRM4MB=Metal Trim Ring, Black ® TRM4-Rinless Trim Ring © LGSKT4IP66=IP66 Gasket Kit ® Color Filters F22-20=Red F33-20-Blue F44-20=Green F55-20-Yellow F66-20=Mercury	Dichronic Filters F71-20=Peach F72-20=Amber F73-20=Green F74-20=Medium Blue F75-20=Vellow F76-20=Red F77-20=Dark Blue F78-20=Light Blue F78-20=Meutral Density F80-20=Magnta Beam-Modifying Lenses LSL20=Linear Spread Lens DIF-20=Diffused Lens Louvers LWR-20=Hex Cell Louver Snoot PLNC-SN-B=Snoot

- Notes: ① Nominal Lumens will vary depending on selected color, driver and reflector finish.
  - ② Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).
    ③ Not available with Chicago Plenum and requires above ceiling access. Not for use with insulation.

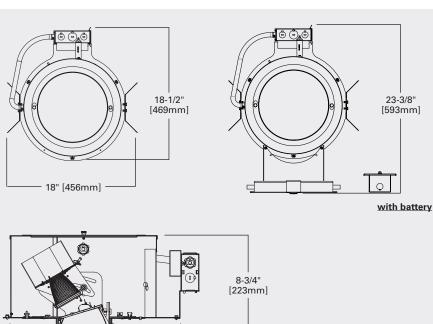
  - 4 Pinhole finish standard white with black occulus (omit finish code).
  - (5) Required for T-24 compliance with lensed trims.
  - ⑥ Product is marked spacing and must be installed with the following minimum spacing: Center to center of adjacent luminaires: 36" Center of luminaire to side of building member: 18' Minimum overhead clearance: 1/2" (7) Not CSA approved.

# Inch

# **Square Adjustable Downlight**

4-1/2" aperture adjustable accent/slope fixture for flat or sloped ceilings. Lockable 365° rotation and toolless 40° tilt provides full output without flashback. Offered in three field interchangeable beam distributions providing a smooth beam. Available in lumen packages of 900 to 2800 with a choice of 2700K, 3000K, 3500K, and 4000K color temperature, 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. Standard dimmable driver can be dimmed with 0-10V or trailing edge controls. Accessible from above or below the ceiling plane The square adjustable accent is the ideal companion for the Portfolio square downlights and lensed wall wash.





5-3/16" [132mm] 5-3/4" [146mm] 16-3/4" [412mm]

- Delivered lumens ranging from 900 to 2800+
- Available in 2700K, 3000K, 3500K, or 4000K
- Offered in 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- Interchangeable 15, 25 and 35 degree upper reflector
- Included media holder accepts two lens media
- Locking 365° rotation and 40° tilt holds any aiming position
- Color variation within 3-step MacAdam ellipses
- Standard dual dimming driver, 0-10V or trailing edge

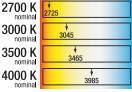
- IC rated up to 1800 lumens
- Optional 100%-0% Fifth Light (DALI), 0-10V or DMX drivers
- · Angle cut or lensed angle cut reflectors
- Open trims are cULus listed for damp locations
- Lensed trims are cULus listed for covered wet locations
- Photometric testing in accordance with IES LM79 standards
- L70 at 50,000 hours, projected in accordance with IES TM-21
- 5 year warranty







Refer to ENERGY STAR® Qualified Products List.



# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LDSQA4A09835D010TE LAR25NF 4LSQA0H

Housing	Lumens <sup>①</sup>	CRI	Color	Driver	Options <sup>®</sup>
LDSQA4A=4" Square Aperture adjustable/slope LDSQA4ACP=4" Square Aperture adjustable/slope, Chicago Plenum	09=900 Lumens (IC Rated) 13=1300 Lumens (IC Rated) 18=1800 Lumens (IC Rated) 28=2800 Lumens (Non-IC)	8=80 9=90	<b>27</b> =2700 K <b>30</b> =3000 K <b>35</b> =3500 K <b>40</b> =4000 K	900, 1300, 1800 and 2800 lumen  D010TE=120-277V 0-10V 10% dimming or trailingedge 120V  D5LT=120-277V Fifth Light DALI 0% dimming  DE010=120-277V, 1-100% Lutron dimming  DLT==Hi-Lume Forward Phase 2-wiredimming 120V  DMX=120-277V DMX 0% dimming  900, 1300 and 1800 lumen  D010TR=120-277V 0-10V 10% dimming or leading edge 120V	EMBOD=7W Bodine® Emergency Module with Remote Test Switch EM7=7W Emergency Module with Remote Test Switch © EM14=14W Emergency Module with Remote Test Switch ©

### **Beam Forming Reflector**

LAR15SP=15° Reflector LAR25NF=25° Reflector LAR35NF=35° Reflector

Reflector	Finish	Options	Accessories	
<b>4LSQA</b> 0=4" Adjustable Accent, Polymer Trim Ring <b>4LSQA1</b> =4" Adjustable Accent, Self Flanged <b>4LSQA1</b> =4" Lensed Adjustable Accent, Polymer Trim Ring <b>4LSQAL1</b> =4" Lensed Adjustable Accent, Self Flanged	H=Semi-Specular Clear WMH=Warm Haze WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze B=Specular Black MB=Matte Black MW=Matte White	Self-flanged Only WF=White Painted Flange	HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair HB50=C-channel Bar Hanger, 22" Long, Pair HB47=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA LGSKT4IP66=IP66 Gasket Kit <sup>©</sup> Color Filters F22-20-Red F33-20=Blue F44-20-Green F55-20=Yellow F66-20=Mercury	Dichronic Filters F71-20=Peach F72-20=Amber F73-20=Green F74-20=Medium Blue F75-20=Yellow F76-20=Red F77-20=Dark Blue F78-20=Light Blue F78-20=Wautral Density F80-20=Magenta  Beam-Modifying Lenses LSL20=Linear Spread Lens OSL20=Overall Spread Lens DIF-20=Diffused Lens Louvers LWR-20=Hex Cell Louver Snoot PLNC-SN-B=Snoot

Notes: ① Nominal Lumens will vary depending on selected color, driver and reflector finish.

- © Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).

  ③ Not available with Chicago Plenum and requires above ceiling access. Not for use with insulation.
- 4 Required for T-24 compliance with lensed trims.
- (5) Not CSA approved.

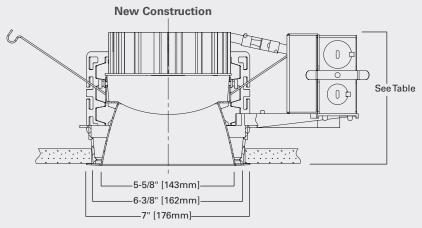
PORTFOLIO Architectural LED Lighting

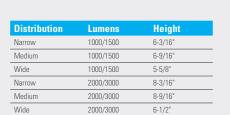


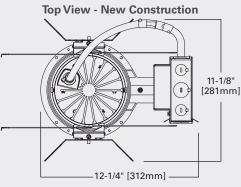
# **LED Downlight**

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 120V trailing edge controls making it ideal for remodel applications replacing existing incandescent downlights.

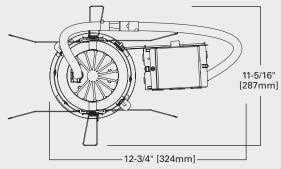








Top View - Remodel/International



- 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 100%00% Fifth Light, 0-10V, 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 covered wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- L70 at 50,000 hours, projected in accordance with IES TM-21
- 5 year warranty



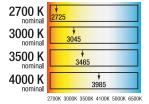








Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

### SAMPLE NUMBER: LD6A15D010TE ERM6A15835 6LW1H

Housing	Lumens <sup>①</sup>	Driver	Options <sup>28</sup>	Power Module	Lumens <sup>①</sup>	CRI	Color
LD6A=6" Aperture, New Construction LD6ACP=6" Aperture, New Construc- tion, 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 D5LT=Fifth Light® (DALI) 0% Dimming D13=1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3-Wire D17=1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming DMX=DMX Dimming 0 to 100% DE010=120-277V 0-10V 0% 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 IEMBOD=Bodine® Emergency Mod- ule with Integral Test Switch® EMT=TW Emergency Module with Remote Test Switch EM14=14W Emergency Module with Remote Test Switch IEM7=TW Emergency Module with Itegral Test Switch® IEM14=14W Emergency Module with Integral Test Switch® IEM14=14W Emergency Module with Integral Test Switch®	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	<b>8</b> =80 <b>9</b> =90	27=2700 K 30=3000 K 35=3500 K 40=4000 K 27CP=2700 K, Chicago Plenum 30CP=3000 K, Chicago Plenum 40CP=4000 K, Chicago Plenum

Reflector	Finish	Options	Accessories
Narrow Beam 6LN0=White Polymer Trim Ring 6LN0=White Polymer Trim Ring, for Integral Emergency 6LN1=Self-flanged 6LN1=Self-flanged, for Integral Emergency  Medium Beam 6LM0=White Polymer Trim Ring 6LM0E=White Polymer Trim Ring, for Integral Emergency 6LM1=Self-flanged 6LM1E=Self-flanged 6LM1E=Self-flanged, for Integral Emergency  Wide Beam 6LW0=White Polymer Trim Ring 6LW1=Self-flanged, for Integral Emergency  Wide Beam 6LW10=Single Wall Wash, Polymer Trim Ring 6LM110=Single Wall Wash, Polymer Trim Ring 6LM111=Single Wall Wash, Polymer Trim Ring 6LM120=Double Wall Wash, Self-flanged  Wide Beam Wall Wash 6LW110=Single Wall Wash, Polymer Trim Ring 6LW111=Single Wall Wash, Polymer Trim Ring 6LW112=Double Wall Wash, Self-flanged 6LW121=Double Wall Wash, 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 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®© TRM6P=Metal Trim Ring, White® TRM6MB=Metal Trim Ring, Black® TRR6=Rimless Trim Ring® DT6=Deco trim Ring®© HB26=C-channel Bar Hanger, 26" Long, Pair® HB50=C-channel Bar Hanger, 50" Long, Pair® LGSKT6IP66=IP66 Gasket Kit® 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.
  - 3 Downlight only. Not for wall wash or integral emergency.
  - Order trim with polymer trim ring. Consult specification sheet for color ordering information and options.
     Available with select trims.

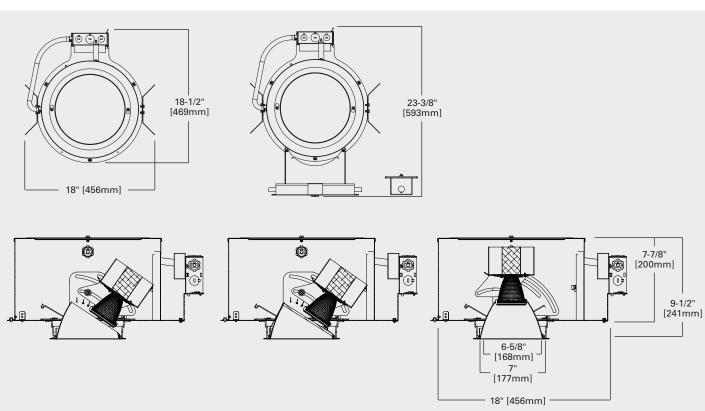
  - 6 Consult accessory specification sheet for ordering information and options.
  - 7 For use with new construction downlights.
  - Not CSA approved.



# **LED Adjustable Downlight**

Portfolio 6 inch aperture adjustable accent/slope LED fixture for flat or sloped ceilings. Lockable 365° rotation and tool-less 45° tilt with center beam optics provides full output without flash back. Offered in three field interchangeable beam distributions providing a smooth beam. Available with lumen packages of 1000 to 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. Standard dimmable driver can be dimmed with 0-10V or trailing edge controls. Accessible from above or below the ceiling plane.





15

- Delivered lumens ranging from 1000 to 6500+
- Available in 2700K, 3000K, 3500K, or 4000K
- Offered in 80 or 90 CRI
- Color variation within 3-step MacAdam ellipses
- ENERGY STAR® qualified. Learn more at energystar.gov
- Interchangeable 15, 25 and 35 degree upper reflector
- Included media holder accepts two lens media
- Locking 365° rotation and 45° tilt holds any aiming position
- Color variation within 3-step MacAdam ellipses
- Standard dual dimming driver, 0-10V or trailing edge

- Optional 100%-0% Fifth Light (DALI), 0-10V or DMX drivers
- Angle cut, lensed wall wash, lensed and flat cut downlight reflectors
- · Open trims are cULus listed for damp locations
- Lensed trims are cULus listed for covered wet locations
- Photometric testing in accordance with IES LM79 standards
- L70 at 50,000 hours, projected in accordance with IES TM-21
- 5 year warranty

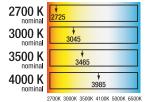








Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LDA6A15930D010TE LAR620NF 6LA1LI

Housing	Lumens <sup>①</sup>	CRI	Color	Driver	Options <sup>36</sup>
LDA6A=6" Aperture adjustable/slope LDA6ACP=6" Aperture adjustable/slope, Chicago Plenum	10=10900 Lumens (IC Rated) 15=1500 Lumens (IC Rated) 20=2000 Lumens (IC Rated) 30=3000 Lumens (Non-IC) ⊚ 45=4500 Lumens (Non-IC) ⊚ 55=5500 Lumens (Non-IC) ⊚ 65=6500 Lumens (Non-IC) ⊗	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K	1000, 1500, 2000, 3000, and 4500 lumen  D010TE=120-277V 0-10V 10% dimming or trailing edge 120V  1000, 1500, 2000, and 3000 lumen  D010TR=120-277V 0-10V 10% dimming or leading edge 120V  D5LT=120-277V Fifth Light DALI 0% dimming  D610=120-277V 0-10V 0% dimming  DL3=120-277V, 1-100% Lutron dimming  DLT=Hi-Lume Forward Phase 2-wire dimming 120V  DMX=120-277V DMX 0% dimming  5500 and 6500 lumen  D010=120-277 0-10V 10% dimming	EMB0D=7W Bodine® Emergency Module with Remote Test Switch EM7=7W Emergency Module with Remote Test Switch EM14=14W Emergency Module with Remote Test Switch

### **Beam Forming Upper Reflector**

1000 to 3000 lumen 4500 to 6500 lumen LARL15SP=15° Reflector LARH20SP=20° Reflector LARL20NF=20° Reflector LARH30NF=30° Reflector LARL35NF=35° Reflector LARH40NF=40° Reflector

Reflector	Finish	Options	Accessories	
6LA1=6" Adjustable Accent, Polymer Trim Ring 6LA1=6" Adjustable Accent, Self Flanged 6LLWW0=6" Lensed Wall Wash, Polymer Trim Ring 6LLWW1=6" Lensed Wall Wash, Self Flanged 6LAL0=6" Lensed Adjustable Accent, Polymer Trim Ring 6LAL1=6" Lensed Adjustable Accent, Self Flanged 6LAL1=6" Lensed Taylor Trim Ring 6LFC1=6" Flat Cut, Polymer Trim Ring 6LFC1=6" Flat Cut, 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	HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair HB47=24" to 120V Step DownTransformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA TRM4P=Metal Trim Ring, White © TRM4MB=Metal Trim Ring, Black © TRM4MB=Metal Trim Ring, Black © Color Filters FC2-20=Red F33-20=Blue F44-20=Green F55-20=Yellow F66-20=Mercury	Dichronic Filters F71-20=Peach F72-20=Amber F73-20=Green F74-20=Medium Blue F75-20=Yellow F76-20=Red F77-20=Dark Blue F78-20=Neutral Density F80-20=Magenta Beam-Modifying Lenses LSt20=Linear Spread Lens OSL20=Overall Spread Lens DIF-20=Diffused Lens Louvers LVR-20=Hex Cell Louver

Notes: (1) Nominal Lumens will vary depending on selected color, driver and reflector finish.

- ② Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).
- 3 Not available with Chicago Plenum and requires above ceiling access. Not for use with insulation.
- Required for T-24 compliance with lensed trims.
   Product is marked spacing and must be installed with the following minimum spacing: Center to center of adjacent luminaires: 36"
  - Center of luminaire to side of building member: 18" Minimum overhead clearance: 1/2"
- Not CSA approved.

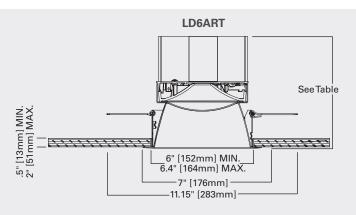


## **LED Retrofit**

Offered in multiple outputs exceeding 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.

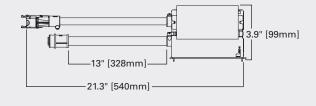


LD6ART installs in ceiling openings from 6" to 6-7/16"



	LD0/AKI	
.5" [13mm] MIN. 2" [51mm] MAX. 	6.5" [185mm] MIN. 8" with optional adapter bands [178mm] MAX. 8.3" [211mm] —11.65" [296mm]	See Table

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"



<sup>\*</sup>Juno®, Lithonia Lighting®, Philips™ Lighting and their product brand names, where identified above, are tradenames or trademarks of each respective company and Cooper Lighting Solutions makes no representations on these trademarks.

- 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, DMX, or 1% 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 with covered ceiling
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- L70 at 50,000 hours, projected in accordance with IESTM-21
- 5 year warranty



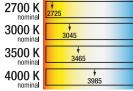


Refer to ENERGY STAR® Qualified Products List.









### 2700K 3000K 3500K 4100K 5000K 6500K

# **Ordering Information:**

Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LD6ART15D010TE ERM6A15835 6LM0LI

Housing	Lumens <sup>①</sup>	Driver	Options <sup>23</sup>	Power Module	Lumens <sup>①</sup>	CRI
Ceiling Openings 6-1/2" to 7" LD67ART-6" Aperture LED Downlight Retrofit LD67ARTCP-6" Aperture LED Downlight Retrofit, Chicago Plenum, includes adapter  Ceiling Openings 6" to 6-7/16" LD6ART-6" Aperture LED Downlight Retrofit LD6ARTCP-6" Aperture LED Downlight Retrofit, 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 D5LT=Fifth Light® (DALI) 0% 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 0% Dimming DMX=DMX 0% Dimming DE010=120-277V 0-10V 0% Dimming 1000,1500 AND 2000 Lumen D010TR=0-10V 10% Dimming of 120V Leading Edge	EMBOD=Bodine® Emergency Module with Remote Test Switch EM7=TW Emergency Module with Remote Test Switch EM14=14W Emergency Module with Remote Test Switch Switch	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

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 6LW0=White Polymer Trim Ring	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  6LM0 and 6LW0 Only	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
	Wall Wash (LD67ART only) 6LW110=White Polymer Trim Ring 6LW111=Self-flange	BB=Black Baffle WB=White Baffle		

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

2 Not available with Chicago Plenum.3 Not CSA approved.

Housin	ng Compatibility	LD6A	RT, LD67	ART*			
Manufr.	Series	Nom. Size	Housing Aperture	Housing Catalog #	Retrofit Kit	Oversize Trim Ring	Goof Ring
CLS	Portfolio	6	6.000	C6, MD6, H760, HD6, MLW6, LD6			N/A
CLS	PDS	6	6.000	PD6		None	
Philips™	Omega	6	6.250	OM6	LD6ART		
Philips™	Lightolier Calculite	6	6.310	S6, C6, B600			
Philips™	Capri	6	6.430	CM6			
Juno®	Indy Performance Series (Elate)	6	6.563	A6, C6, M6			
Juno®		6	6.563	CH6, CV6, MX6, TC906			
Lithonia®	Commercial	6	6.750	LF6, LP6		6-1/2" Min	ABR7
Philips	Lightolier Lytecaster	6	6.750	1102	LD67ART	8" Max	(included)
Lithonia	Gotham	6	6.750	AF and LG	-		
CLS	Portfolio CFL (New)	6	6.750	CD6	-		
CLS	Halo	7	6.875	M700, H600, H830E	-		

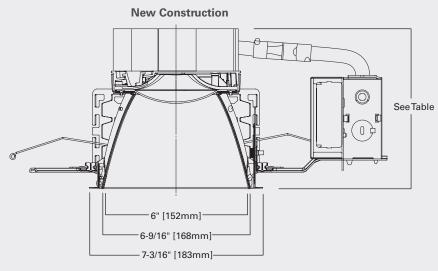
Manufr.	Series	Nom. Size	Housing Aperture	Housing Catalog #	Retrofit Kit	Oversize Trim Ring	Goof Ring
CLS	Halo Commercial	6	7.125	PD6 (New)		6-1/2" Min 8" Max	
Philips™	Lightolier Calculite	7	7.500	S7 and CS7	_		
CLS	PDS	7	7.625	PD7	_		(included)
CLS	Portfolio	7	7.700	C7, CLW7, HD7, MD7			ABR8
Juno <sup>®</sup>	Indy Performance Series (Elate)	8	7.813	A8, C8, M8	_		
Juno		8	7.813	CH8 and CV8	_		
CLS	Halo	8	7.875	H42T and H46T	_	6-1/2" Min	
Juno		8	8.188	MX8 and TC908	LD6ART	9" Max	(acces- sory)
Lithonia®	Gotham	8	8.438	AF and LG	_		301 y)
Lithonia®	Gotham	8	8.563	GRSF	_		
Philips	Omega	8	8.563	OM8	_		
Lithonia®	Commercial	8	8.563	LF8, LP8	_		



# **Square LED Downlight**

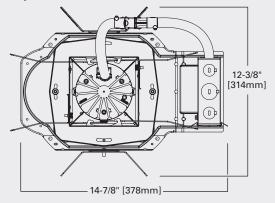
The Portfolio 6-inch LED downlight specially designed for LED technology features a two stage diffused optical system providing superior light control and low aperture brightness. The transitional lens design reduces LED source brightness and evenly distributes light across the entire lens producing 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.



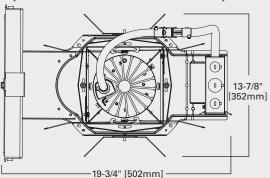


Lumens	Driver	Height
1000/1500	D010TE D010TR DL3 DLT	6-5/8"
1000/1500	D5LT DMX DE010	7-1/2"
2000/3000	All	7-1/2"

**Top View - New Construction** 



**Top View - New Construction with Battery** 



- 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 100%-0% Fifth Light, DMX, or 1% dimming drivers
- Flexible disconnect for easy LED engine replacement and installation
- Aperture rotates +/- 7.5° for precise alignment

- Field-adjustable collar 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 covered wet locations
- Wall wash are cULus listed for wet locations
- Photometric testing completed in accordance with IES LM 79 standards
- L70 at 50,000 hours, projected in accordance with IESTM-21
- 5 year warranty



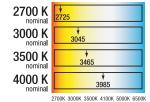








Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LDSQ6A15D010TE ESQ6A13835 6LSQ0LI

Housing	Lumens <sup>①</sup>	Driver	Options <sup>@®</sup>	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 EM7=7W Emergency Module with Remote Test Switch EM14=14W Emergency Module with Remote Test Switch	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.

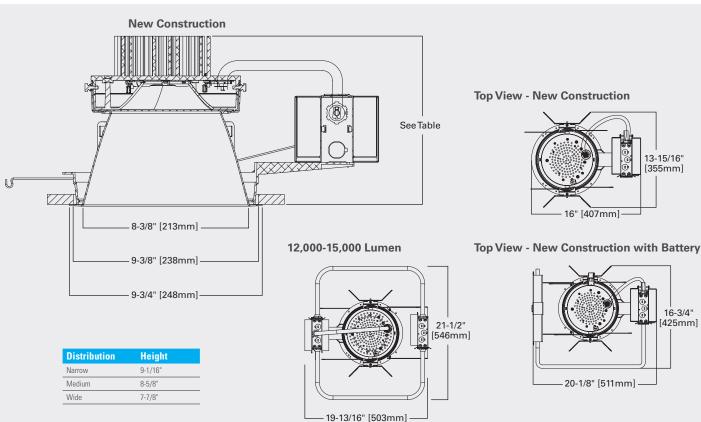
- Not available with Chicago Plenum.Not CSA approved.

# 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 1000-15,000 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.





- Delivered lumens ranging from 1000 to 15,000
- 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 covered wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- L70 at 50,000 hours, projected in accordance with IES TM-21
- 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 3000 K 3500 K 4000 K 3985

2700 K

### 2700K 3000K 3500K 4100K 5000K 6500K

# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LD8A401D5LT ER8A40835 8LW1LI

Housing	Lumens <sup>①</sup>	Voltage	Driver	Options <sup>26</sup>	Power Module	CRI	Color
LD8A=8" Aperture LED	10=1000 Lumens	1000-2000 Lumen	1000 and 2000	EMBOD=Bodine®	ER8A10=8", 1000 Lumen	<b>8</b> =80	<b>27</b> =2700 K
Downlight	<b>15</b> =1500 Lumens	Blank=120-277V	DE010=0-10V 1% Dimming	Emergency Module with	ER8A15=8", 1500 Lumen	<b>9</b> =90	<b>30</b> =3000 K
LD8ACP=8" Aperture LED	<b>20</b> =2000 Lumens			Remote Test Switch	ER8A20=8", 2000 Lumen		<b>35</b> =3500 K
Downlight, Chicago	<b>30</b> =3000 Lumens	3000-15,000 Lumen	3000, 4000, 5000, 6000, 8000, 9000	IEMBOD=Bodine®	ER8A30=8", 3000 Lumen		<b>40</b> =4000 K
Plenum	<b>40</b> =4000 Lumens	<b>1</b> =120V	and 10,000 Lumen	Emergency Module with	ER8A40=8", 4000 Lumen		
	<b>50</b> =5000 Lumens	<b>2</b> =277V	<b>D010TE</b> =0-10V 10% Dimming or	Integral Test Switch®	ER8A50=8", 5000 Lumen		
	<b>60</b> =6000 Lumens		Trailing Edge Dimming	EM7=7W Emergency	ER8A60=8", 6000 Lumen		
	<b>65</b> =6500 Lumens		D010TR=0-10V 10% Dimming or	Module with Remote Test	ER8A65=8", 6500 Lumen		
	<b>80</b> =8000 Lumens <sup>®</sup>		Leading Edge	Switch	<b>ER8A80</b> =8", 8000 Lumen <sup>®</sup>		
	<b>90</b> =9000 Lumens <sup>®</sup>			EM14=14W Emergency	<b>ER8A90</b> =8", 9000 Lumen <sup>®</sup>		
	<b>100</b> =10,000 Lumens <sup>®</sup>		3000, 4000, 5000, 6000 and 8000	Module with Remote Test	ER8A100=8", 10,000 Lumen®		
	<b>120</b> =12,000 Lumens <sup>®</sup>		Lumen	Switch	ER8A120=8", 12,000 Lumen®		
	<b>150</b> =15,000 Lumens <sup>®</sup>		<b>D5LT</b> =Fifth Light® DALI 0% Dimming	IEM7=7W Emergency	ER8A150=8", 15,000 Lumen®		
			DMX=DMX Driver	Module with Integral Test	ER8ACP10=8", 1000 Lumen, Chicago Plenum		
			<b>DE010</b> =0-10V 0% Dimming	Switch <sup>®</sup>	ER8ACP15=8", 1500 Lumen, Chicago Plenum		
				IEM14=14W Emergency	ER8ACP20=8", 2000 Lumen, Chicago Plenum		
			3000, 4000, 5000 and 6000 Lumen	Module with Integral Test	ER8ACP30=8", 3000 Lumen, Chicago Plenum		
			DL3=1% Lutron Hi-Lume 3-Wire or	Switch <sup>®</sup>	ER8ACP40=8", 4000 Lumen, Chicago Plenum		
			Ecosystem		ER8ACP50=8", 5000 Lumen, Chicago Plenum		
					ER8ACP60=8", 6000 Lumen, Chicago Plenum		
			6500 Lumen		ER8ACP65=8", 6500 Lumen, Chicago Plenum		
			<b>D010</b> =0-10V 10% Dimming		ER8ACP80=8", 8000 Lumen, Chicago Plenum®		
			<b>DE010</b> =0-10V 1% Dimming		ER8ACP90=8", 9000 Lumen, Chicago Plenum®		
					ER8ACP100=8", 10,000 Lumen, Chicago Plenum®		
			12,000 and 15,000 Lumen		ER8ACP120=8", 12,000 Lumen, Chicago Plenum®		
			<b>D010TE</b> =0-10V 10% Dimming or		ER8ACP150=8", 15,000 Lumen, Chicago Plenum®		
			Trailing Edge Dimming				

Reflector		Finish	Options	Accessories
Narrow Beam 8LN0=White Polymer Trim Ring 8LN1=Self Flange 8LN0E=White Polymer Trim Ring, for Integral Emergency 8LN1E=Self Flange, for Integral Emergency	Wide Beam 8LWD=White Polymer Trim Ring 8LW1=Self Flange 8LW0E=White Polymer Trim Ring, for Integral Emergency 8LW1E=Self Flange, for Integral Emergency	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze	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
Medium Beam  8LM0=White Polymer Trim Ring  8LM1=Self Flange  8LM0E=White Polymer Trim Ring, for Integral Emergency  8LM1E=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	GP=Graphite GPH=Graphite Haze B=Specular Black W=Gloss White  8LM0 Only BB=Black Baffle WB=White Baffle		HSAB=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.
- ⑤ Product is marked spacing and must be installed with the following minimum spacing.
  - Center to Center of adjacent luminaires: 36"
    Center of Luminaire to Side of Building Member: 18"
  - Minimum Overhead Clearance: 9'
- 6 Not CSA approved.

# Solnch

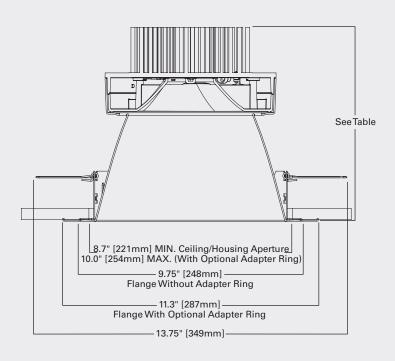
## **LED Retrofit**

Offered in multiple outputs up to 15,000 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

Manufr.	Series	Nom. Size	Housing Aperture		Oversize Trim Ring	Retrofit Kit	Adaptor Ring
CLS	Portfolio	8	8.730	C8			None
Phillips	Lightolier Calculite	8	8.750	S8	_		
Phillips	Capri	8	8.875	CM8	- - 8 73" MIN	I D8ART	
CLS	PDS	8	8.875	PD8	9" MAX	LUBANI	None
Juno		8	8.938	С9Н	=		
Juno	Indy Performance Series (Elate)	9	9.000	C9 and M9	-		
Phillips	Capri	10	9.625	CM10			
Philips	Omega	10	9.813	OM10 and S10	-		ABR10
Juno	Indy Performance Series (Elate)	10	9.875	M10	8.73" MIN		
CLS	Portfolio	9	10.000	C9	-10.3" MAX		(accessory)
Lithonia	Gotham	10	10.125	GRSF	  A		
Lithonia	Gotham	10	10.125	AF, LGF, LGH, AH, A			
Lithonia	Gotham	10	10.125	GRSH			



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

<sup>\*</sup>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 Cooper Lighting Solutions makes no representations on these trademarks.

- Delivered lumens ranging from 1000 to 15,000
- 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 100%-0% Fifth Light, 0-10V, 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 covered wet locations
- Wall wash are cULus listed for damp locations
- Photometric testing completed in accordance with IES LM 79 standards
- L70 at 50,000 hours, projected in accordance with IES TM-21



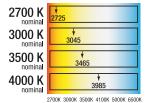








Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LD8ART501D010TE ER8A50835 8LM0LI

Housing	Lumens <sup>①</sup>	Voltage	Driver	Options <sup>©©</sup>	Power Module	CRI	Color
LD8ART=8" Aperture LED	<b>10</b> =1000 Lumens	1000-2000 Lumen	1000 and 2000	EMBOD=Bodine®	ER8A10=8", 1000 Lumen	<b>8</b> =80	<b>27</b> =2700 K
Downlight Retrofit	<b>15</b> =1500 Lumens	Blank=120-277V	<b>DE010</b> =0-10V 1% Dimming	Emergency Module with	ER8A15=8", 1500 Lumen	<b>9</b> =90	<b>30</b> =3000 K
LD8ARTCP=8" Aperture LED	<b>20</b> =2000 Lumens			Remote Test Switch	ER8A20=8", 2000 Lumen		<b>35</b> =3500 K
Downlight Retrofit,	<b>30</b> =3000 Lumens	3000-15,000 Lumen	3000, 4000, 5000, 6000, 8000, 9000	EM7=7W Emergency	ER8A30=8", 3000 Lumen		<b>40</b> =4000 K
Chicago Plenum	<b>40</b> =4000 Lumens	<b>1</b> =120V	and 10,000 Lumen	Module with Remote Test	ER8A40=8", 4000 Lumen		
	<b>50</b> =5000 Lumens	<b>2</b> =277V	<b>D010TE</b> =0-10V 10% Dimming or	Switch	ER8A50=8", 5000 Lumen		
	<b>60</b> =6000 Lumens		Trailing Edge Dimming	EM14=14W Emergency	ER8A60=8", 6000 Lumen		
	<b>65</b> =6500 Lumens		<b>D010TR</b> =0-10V 10% Dimming or	Module with Remote Test	ER8A65=8", 6500 Lumen		
	<b>80</b> =8000 Lumens <sup>®</sup>		Leading Edge	Switch	ER8A80=8", 8000 Lumen <sup>®</sup>		
	<b>90</b> =9000 Lumens <sup>4</sup>				ER8A90=8", 9000 Lumen <sup>®</sup>		
	<b>100</b> =10,000 Lumens <sup>®</sup>		3000, 4000, 5000, 6000 and 8000		ER8A100=8", 10,000 Lumen <sup>@</sup>		
	<b>120</b> =12,000 Lumens <sup>®</sup>		Lumen		ER8A120=8", 12,000 Lumen <sup>@</sup>		
	<b>150</b> =15,000 Lumens <sup>®</sup>		D5LT=Fifth Light® DALI 0%		ER8A150=8", 15,000 Lumen <sup>@</sup>		
			Dimming		ER8ACP10=8", 1000 Lumen, Chicago Plenum		
			DMX=DMX Driver		ER8ACP15=8", 1500 Lumen, Chicago Plenum		
			<b>DE010</b> =0-10V 0% Dimming		ER8ACP20=8", 2000 Lumen, Chicago Plenum		
					ER8ACP30=8", 3000 Lumen, Chicago Plenum		
			3000, 4000, 5000 and 6000 Lumen		ER8ACP40=8", 4000 Lumen, Chicago Plenum		
			DL3=1% Lutron Hi-Lume 3-Wire		ER8ACP50=8", 5000 Lumen, Chicago Plenum		
			or Ecosystem		ER8ACP60=8", 6000 Lumen, Chicago Plenum		
					ER8ACP65=8", 6500 Lumen, Chicago Plenum		
			6500 Lumen		ER8ACP80=8", 8000 Lumen, Chicago Plenum®		
			<b>D010</b> =0-10V 10% Dimming		ER8ACP90=8", 9000 Lumen, Chicago Plenum®		
			<b>DE010</b> =0-10V 1% Dimming		ER8ACP100=8", 10,000 Lumen, Chicago Plenum <sup>®</sup>		
					ER8ACP120=8", 12,000 Lumen, Chicago Plenum <sup>@</sup>		
			12,000 and 15,000 Lumen		ER8ACP150=8", 15,000 Lumen, Chicago Plenum <sup>@</sup>		
			<b>D010TE</b> =0-10V 10% Dimming or				
			Trailing Edge Dimming				

Reflector	Finish	Options	Accessories
Narrow Beam	LI=Specular Clear	Self-flanged Only	LGSKT8IP65=IP65 Gasket Kit
LNO=Polymer Trim Ring	H=Semi-Specular Clear	WF=White Painted Flange	ABR10P=Oversize Trim Ring for Max 10" Ceiling Opening-11.3 Flange
LN1=Self-flange <sup>②</sup>	WMH=Warm Haze		
	G=Specular Gold		
Medium Beam	<b>WH</b> =Wheat		
SLMO=White Polymer Trim Ring	WHH=Wheat Haze		
LM1=White Polymer Trim Ring	GP=Graphite		
	GPH=Graphite Haze		
<u> Vide Beam</u>	B=Specular Black		
SLW0=White Polymer Trim Ring	W=Gloss White		
ILW1=Self-flange®			
	8LM0 Only		
Vall Wash	BB=Black Baffle		
BLW110= Single Wall Wash, White Polymer Trim Ring	WB=White Baffle		
LW111=Single Wall Wash, Self-flange®			
LW120=Double Wall Wash, White Polymer Trim Ring			
LW121=Double Wall Wash, Self-flange			

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

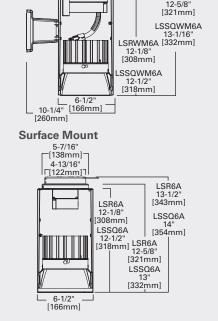
- ③ Damp location listed.
- $\widecheck{4}$  Product is marked spacing and must be installed with the following minimum spacing. Center to Center of adjacent luminaires: 36"
  Center of Luminaire to Side of Building Member: 18" Minimum Overhead Clearance: 9"
- ⑤ Not CSA approved.



# **LED Cylinders**

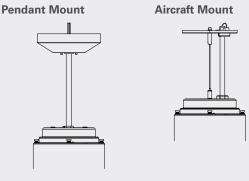
Portfolio 6-inch LED cylinders are designed to compliment any space. The standard driver is dimmable with 0-10V or trailing edge, making it ideal for replacing existing incandescent cylinders with LED. Offered in wall mount or ceiling mount with optional pendant and aircraft cable kits in a variety of 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).

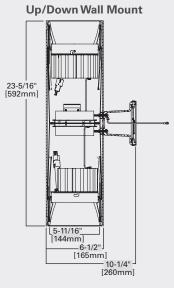




**Wall Mount** 

5-7/16" r [138mm] ¬





LSRWM6A

- 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 100-0% Fifth Light, DMX, or 1% dimming drivers
- Easy installation

- 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 covered wet locations
- Photometric testing completed in accordance with IES LM 79 standards
- 5 year warranty



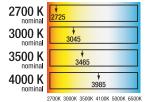








Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire



# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LSR6A15D010TEP ERCM6A15835 6LM0LI

	Housing	Lumens <sup>①</sup>	Driver	<b>Cylinder Finish</b>	Power Module	Lumens	CRI	Color
	LSR6A=6" Surface Mount, Cylinder	10=1000 Lumens	1000, 1500, or 2000 Lumen	P=White	ERCN6A=6", For Narrow Beam Reflector	<b>10</b> =1000 Lumens	<b>8</b> =80	<b>27</b> =2700° K
	LSRWM6A=6" Wall Mount Cylinder	<b>15</b> =1500 Lumens	<b>D010TE</b> =120-277V 0-10V 10% Dimming or	MB=Matte Black	ERCM6A=6", For Medium Beam Reflector	<b>15</b> =1500 Lumens	<b>9</b> =90	<b>30</b> =3000° K
	LSRWMUD6A=6" Wall Mount Up/Down,	<b>20</b> =2000 Lumens	Trailing Edge 120V Dimming	<b>SL</b> =Painted Silver	ERCW6A=6", For Wide Beam Reflector	<b>20</b> =2000 Lumens		<b>35</b> =3500° K
	Cylinder <sup>®</sup>		DL3=1 to 100% Dimming, 120-277V	BZ=Bronze				<b>40</b> =4000° K
			Lutron® Hi-Lume, Ecosystem or 3 Wire					
- 1	<u>Square</u>		DLT=1 to 100% Dimming, 120V Lutron®					
1	LSSQ6A=6" Surface Mount, Square		Hi-Lume Forward Phase Dimming					
- 1	LSSQWM6A=6" Wall Mount, Square							
-   1	LSSQWMUD6A=6" Wall Mount Up/Down,		1000 or 1500 Lumen					
	Square ②		D5LT=Fifth Light® (DALI) 0% Dimming					
			<b>DE010</b> =120-277V 0-10V 0% Dimming					
			DMX=DMX 0% Dimming Driver					

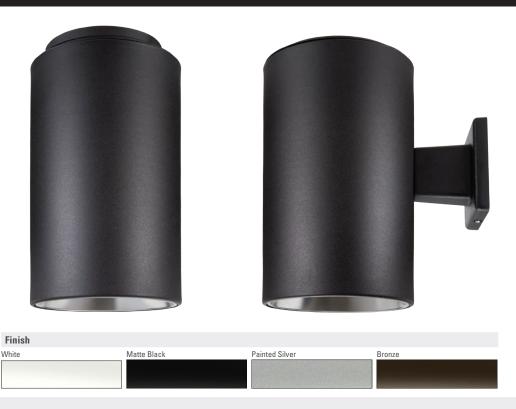
Reflector	Finish	Accessories	
Narrow Beam	LI=Specular Clear	Pendant Kit	Туре
6LN0=6" Narrow Reflector	H=Semi-Specular Clear	P836P=Pendant Kit, White, 36"	120=3 conductor for use with 120/277V 2-wire dimming
Mar Company	WMH=Warm Haze	P836BZ=Pendant Kit, Bronze, 36"	Blank=5 conductor for use with 0-10V dimming drivers
Medium Beam	G=Specular Gold	P836MB=Pendant Kit, Matte Black, 36"	DL3=6 conductor for use with DL3 3-wire dimming drivers
6LM0=6" Medium Reflector	WH=Wheat	P836SL=Pendant Kit, Painted Silver, 36"	DMX=DMX (no conductors) <sup>®</sup>
	WHH=Wheat Haze		
Wide Beam	<b>GP</b> =Graphite	Aircraft Cable	Example: LAC 48P 48"cable with white cord for use with 0-10V driver
6LW0=6" Wide Reflector	GPH=Graphite Haze	AC120P=120" Aircraft Cable- White	
	B=Specular Black	AC48P=48" Aircraft Cable- White	
Medium Beam Wall Wash	W=Gloss White	AC120MB=120" Aircraft Cable- Black	
6LM110=6" Medium Reflector, Wall Wash		AC48MB=48" Aircraft Cable- Black	
Wide Beam Wall Wash			
6LW110=6" Wide Reflector, Wall Wash			

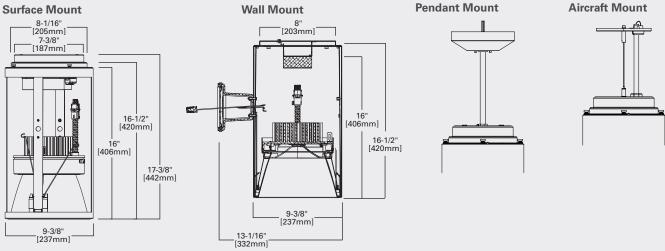
- Notes: 1) Nominal delivered lumens will vary depending on selected CCT, driver and reflector finish.
  - Order two reflectors and modules.
  - Not available with aircraft cable.

# 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 1,000-9,000 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).





- Delivered lumens ranging from 1000 to 9000
- 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 100%-0% Fifth Light, DMX, or 0-10V 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 covered wet locations
- Photometric testing completed in accordance with IES LM 79 standards
- L70 at 50,000 hours, projected in accordance with IES TM-21
- 5 year warranty



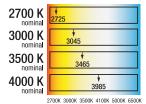








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# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

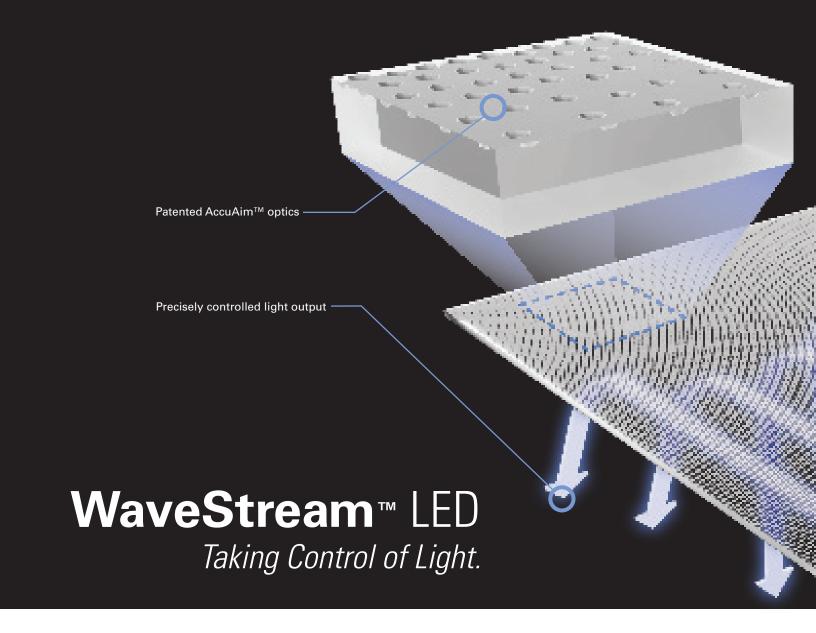
### SAMPLE NUMBER: LSR8A40D010TEP ER8A40835 8LM0LI

Housing	Lumens <sup>①</sup>	Driver	Cylinder Finish	Power Module	Lumens	CRI	Color
LSR8A=8" Aperture Surface, Cylinder LSRWM8A=8" Aperture Wall Mount, Cylinder	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 80=8000 Lumens 90=9000 Lumens	3000, 4000, 5000 and 6000 Lumen D010TE-0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light* (DALI) Dimming 0-100% 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=0 to 100% Dimming, 50/60Hz, 0-10V	P=White MB=Matte Black SL=Painted Silver BZ=Bronze	ER8A=8" Module	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 80=8000 Lumens 90=9000 Lumens	8=80 9=90	27=2700 K 30=3000 K 35=3500 K 40=4000 K

Reflector	Finish	Accessories	
Narrow Beam	LI=Specular Clear	Pendant Kit for Round	<u>Туре</u>
8LN0=8" Narrow Reflector	H=Semi-Specular Clear	P836P=Pendant Kit, White, 36"	120=3 conductor for use with 120/277V 2-wire dimming
	WMH=Warm Haze	P836BZ=Pendant Kit, Bronze, 36"	Blank=5 conductor for use with 0-10V dimming drivers
Medium Beam	G=Specular Gold	P836MB=Pendant Kit, Matte Black, 36"	DL3=6 conductor for use with DL3 3-wire dimming drivers
8LM0=8" Medium Reflector	WH=Wheat	P836SL=Pendant Kit, Painted Silver, 36"	DMX=DMX (no conductors) <sup>20</sup>
	WHH=Wheat Haze		
Wide Beam	GP=Graphite	Aircraft Cable for Round	Example: LAC 48P 48" cable with white cord for use with 0-10V driver
8LW0=8" Wide Reflector	GPH=Graphite Haze	AC120P=120" Aircraft Cable-White	
	B=Specular Black	AC48P=48" Aircraft Cable-White	
	W=Gloss White	AC120MB=120" Aircraft Cable-Black	
		AC48MB=48" Aircraft Cable-Black	
	8LM0 Only		
	WB=White Baffle		
	BB=Black Baffle		

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

② Not available with aircraft cable.



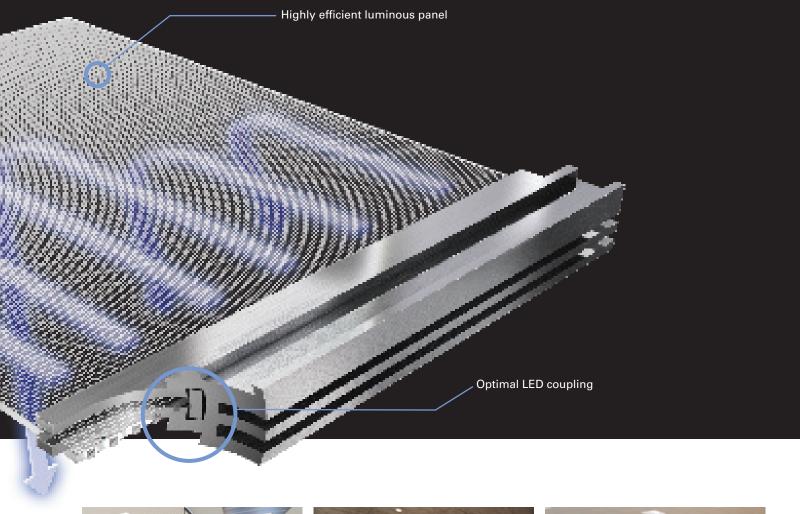
Design Freedom **Optical Control Energy Efficiency Brightness Control** Mainstream Value

# 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



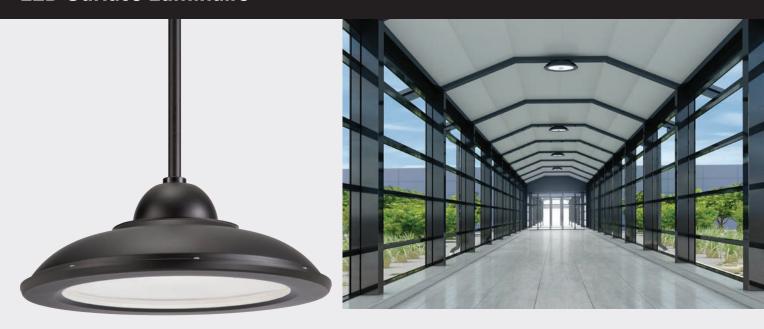


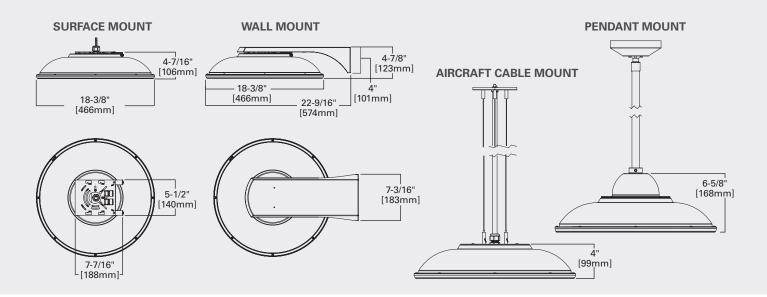




DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.

# LED Surface Luminaire





# **Ordering Information:**

Order Housing, Power Module, Trim and Accessories Separately

Sample Number: LSMP45W8027D010TEMBLPS36MB

Housing	Lumens	Distribution	CRI	CCT	Voltage	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	<b>W</b> =Wide <b>M</b> =Medium	<b>80</b> =80 CRI <b>90</b> =90 CRI	27=2700 K 30=3000 K 35=3500 K 40=4000 K	Blank=120-277V 3=347V	4500, 5500, 7000 Lumen D010TE=120-277 0-10V 10% Dimming or Trailing Edge 120V  4500, 5500, 7000, 8000 Lumen D5LT=120-277 Fifth Light DALI 0% Dimming D010TR=120-277 0-10V 10% Dimming or Leading Edge 120V DE010=120-277 0-10V 0% Dimming  4500, 5500, 7000 Lumen D13=120-277, 1-100% Lutron Dimming D1T=120-277, 1-100% Lutron Dimming	MB=Matte Black P=White SL=Silver BZ=Bronze

Stem Kits	Color	Driver Type	Accessories
LPS36=36-Inch LPS48=48-Inch LPS96=96-Inch	P=White SL=Silver	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	TT/WG=Wireguard

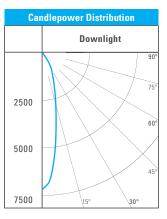
Notes: 1) For pendant mount order stem kit.



# **Photometry – 4-Inch Round**







Cone of Light							
00							
D	FC	L	W				
5.5'	233	2.2	2.2				
7'	144	2.8	2.8				
8'	110	3.2	3.2				
9'	87	3.6	3.6				
10'	71	4	4				
12'	49	4.8	4.8				

Cande	la Table	
Degrees Vertical	Candela	
0	7058	
5	6145	
15	2836	
25	1366	
35	564	
45	50	
55	3	
65	0	
75	0	
85	0	
90	0	

Zonal	Lumen S	ımmary
Zone	Lumens	%Fixture
0-30	1963	82.9
0-40	2313	97.7
0-60	2367	100
0-90	2368	100
90-180	0	0
0-180	2368	100

Lumii	nance	
Average Candela Degrees	Average 0° Luminance	
45	6933	
55	442	
65	0	
75	0	
85	0	

Test Number	P133746
Housing	LD4A18D010TE
Trim	ERM4A18835 4LM1L
Lumens	2507
Efficacy	76.4 Lm/W
SC	0.7



Candlepower Distribution		
	Downlight	
	90°	
1500	75°	
	60°	
3000	45°	
4500	15° 30°	

Co	Cone of Light			
0°/				
D	FC	L	W	
5.5'	148	3.6	3.6	
7'	92	4.6	4.6	
8'	70	5.2	5.2	
9'	55	5.8	5.8	
10'	45	6.6	6.6	
12'	31	7.8	7.8	

Cande	la Table
Degrees Vertical	Candela
0	4483
5	4316
15	3105
25	1751
35	594
45	43
55	0
65	0
75	0
85	0
90	0

Zonal	Lumen S	ummary
Zone	Lumens	%Fixture
0-30	2055	82.0
0-40	2449	97.7
0-60	2503	99.8
0-90	2507	100.0
90-180	0	0.0
0-180	2507	100.0

Luminance	
Average Candela Degrees	Average 0° Luminance
45	5954
55	0
65	0
75	0
85	0

Test Number	P134426
Housing	LD4A18D010TE
Trim	ERW4A18835 4LW1LI
Lumens	2572
Efficacy	78.4 Lm/W
SC	1.3



Candlepower Distribution		
	Downlight	
	90°	
650	75°	
	60°	
1300		
	45°	
1950	15° 30°	

Cone of Light			
0°		}	
D	FC	L	W
5.5'	58	6.6	6.6
7'	36	8.4	8.4
8'	27	9.6	9.6
9'	22	10.8	10.8
10'	18	12	12
12'	12	14.4	14.4

Cande	la Table
Degrees Vertical	Candela
0	1618
5	1666
15	1946
25	1787
35	1108
45	378
55	53
65	3
75	0
85	0
90	0

Zonal	Lumen Sı	nen Summary			
Zone	Lumens	%Fixture			
0-30	1520	59.1			
0-40	2205	85.7			
0-60	2567	99.8			
0-90	2572	100			
90-180	0	0			
0-180	2572	100			

L	Luminance					
Ave Can Deg	dela	Average 0° Luminance				
4	5	52140				
5	5	9022				
6	5	761				
7	5	0				
8	5	0				

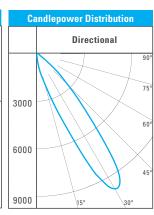
Candlepower Distribution							
Downlight		Wall Washer					
75°	600	75°					
60°	000	60°					
45°	1200	45°					
30°/ 15°	1800	\15° \\30°					
LEGEND: 0-deg: 90-deg:		<u></u>					

Test Number	P134650
Housing	LD4A18D010TE
Trim	ERW4A18835 4LW111LI
Lumens	2437
Efficacy	74.3 Lm/W

Sin	Single Unit Footcandles				Multiple Unit Footcandles											
		tance F Along				2.5' FROM WALL (Spacing Between Fixtures)								<b>VI WAL</b> veen Fi		)
DD		1'	2'	3'		2'			3'			2'			3'	
1'	7	4	2	1	18	19	18	16	12	16	9	9	9	7	6	7
2'	23	19	11	4	48	54	48	38	41	38	33	37	33	27	30	27
3'	22	19	13	7	46	50	46	38	40	38	35	38	35	29	33	29
4'	21	18	13	7	39	43	39	32	38	32	33	36	33	28	31	28
5'	16	15	12	8	29	30	29	24	29	24	28	30	28	24	27	24
6'	11	11	10	7	20	20	20	18	20	18	21	21	21	18	21	18
7'	8	8	7	6	14	14	14	13	14	13	15	15	15	14	15	14
8'	6	6	5	5	10	10	10	10	10	10	11	11	11	10	11	10
9'	4	4	4	4	7	8	7	7	8	7	8	8	8	8	8	8
10'	3	3	3	3	6	6	6	6	6	6	6	6	6	6	6	6

# Photometry – 4-Inch Adjustable

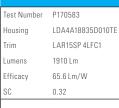




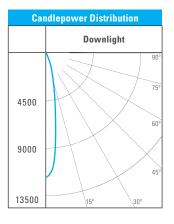
Cone of Light								
Horizontal I—CB—I D								
МН	MH FC L W CB							
5.5'	50	5.9	3	3.2				
7'	31	7.6	3.8	4				
8'	23	8.7	4.2	4.6				
9'	19	9.8	4.8	5.2				
10'	15	10.9	5.4	5.8				
12'	10	13.1	6.4	6.9				

Vertical 30° CB CB  D FC L W CB 1' 6925 0.3 0.2 1.7 2' 1731 0.7 0.6 3.5 3' 770 1.2 1 5.2 4' 433 1.5 1.2 6.9 5' 277 1.9 1.6 8.7 6' 192 2.4 2 10.4	Cone of Light								
1'     6925     0.3     0.2     1.7       2'     1731     0.7     0.6     3.5       3'     770     1.2     1     5.2       4'     433     1.5     1.2     6.9       5'     277     1.9     1.6     8.7									
2' 1731 0.7 0.6 3.5 3' 770 1.2 1 5.2 4' 433 1.5 1.2 6.9 5' 277 1.9 1.6 8.7	D	FC	L	W	СВ				
3' 770 1.2 1 5.2 4' 433 1.5 1.2 6.9 5' 277 1.9 1.6 8.7	1'	6925	0.3	0.2	1.7				
4' 433 1.5 1.2 6.9 5' 277 1.9 1.6 8.7	2'	1731	0.7	0.6	3.5				
5' 277 1.9 1.6 8.7	3'	770	1.2	1	5.2				
	4'	433	1.5	1.2	6.9				
6 192 24 2 104	5'	277	1.9	1.6	8.7				
0   102   2.4   2   10.4	6'	192	2.4	2	10.4				

Cande	la Table	Zonal	Lumen S	ummary
Degrees Vertical	Candela	Zone	Lumens	%Fixture
0	94	0-30	714	44.3
5	420	0-30	/14	44.3
15	2152	0-40	1329	82.5
25	7782			
35	8815	0-60	1604	99.6
45	2530			
55	115	0-90	1611	100
65	6			
75	0	90-180	0	0
85	0			
90	0	0-180	1611	100





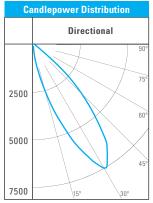


Co	Cone of Light							
0°/								
MH	FC	L	W					
5.5'	400	1.6	1.6					
7'	247	2.2	2.2					
8'	189	2.4	2.4					
9'	149	2.8	2.8					
10'	121	3.0	3.0					
12'	84	3.6	3.6					

Candela Table					
Degrees Vertical	Candela				
0	12099				
5	10191				
15	2956				
25	357				
35	18				
45	2				
55	0				
65	0				
75	0				
85	0				
90	0				

Zonal Lumen Summary							
Zone	Lumens	%Fixture					
0-30	1894	99.1					
0-40	1908	99.9					
0-60	1910	100					
0-90	1910	100					
90-180	0	0					
0-180	1910	100					





Colle of Light								
Horizontal FCB-								
МН	FC	L	W	CB				
5.5'	42	6.4	4.2	3.2				
7'	26	8.1	5.2	4.0				
8'	20	9.3	6.0	4.6				
9'	16	10.5	6.8	5.2				
10'	13	11.6	7.6	5.8				
12'	9	14	9.2	6.9				

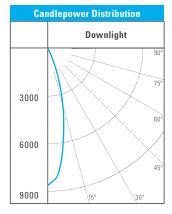
	Cone or Light			
Vertical D CB				
D	FC	L	W	СВ
1'	5063	0.4	0.4	1.7
2'	1266	1	0.8	3.5
3'	563	1.5	1.4	5.2
4'	316	2.1	2	6.9
5'	203	2.7	2.4	8.7
6'	141	3.2	3	10.4

Cande	la Table
Degrees Vertical	Candela
0	116
5	502
15	2876
25	6342
35	6772
45	3335
55	216
65	9
75	0
85	0
90	0

Zonal	Lumen S	ummary
Zone	Lumens	%Fixture
0-30	769	44
0-40	1389	79.4
0-60	1742	99.6
0-90	1750	100
90-180	0	0
0-180	1750	100

Test Number	P170615	
Housing	LDA4A18835D010TE	
Trim	LAR25NF 4LFC1	
Lumens	2070 Lm	
Efficacy	71.1 Lm/W	
sc	0.46	





000			
MH	FC	L	W
5.5'	287	2.4	2.4
7'	177	3.0	3.0
8'	136	3.6	3.6
9'	107	4.0	4.0
10'	87	4.4	4.4
12'	60	5.4	5.4

**Cone of Light** 

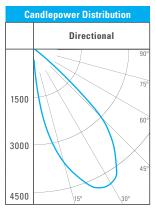
Candela Table		
Degrees Vertical	Candela	
0	8687	
5	7947	
15	3834	
25	465	
35	28	
45	3	
55	0	
65	0	
75	0	
85	0	
90	0	

Zonal Lumen Summary			
Zone	Lumens	%Fixture	
0-30	2044	98.8	
0-40	2067	99.9	
0-60	2070	100	
0-90	2070	100	
90-180	0	0	
0-180	2070	100	

35

## **Photometry – 4-Inch Adjustable**





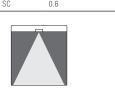
Cone of Light							
Horizontal HOBH							
МН	FC	L	W	CB			
5.5'	45	5.3	4.6	3.2			
7'	28	6.9	5.8	4			
8'	21	7.8	6.8	4.6			
9'	17	8.8	7.6	5.2			
10'	14	9.8	8.4	5.8			

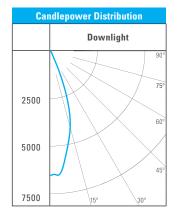
10 11.8 10.2 6.9

	Cone of Light						
Vertical D-I CB							
D	FC	L	W	СВ			
1'	3506	0.5	0.6	1.7			
2'	876	1.2	1.2	3.5			
3'	390	1.9	1.8	5.2			
4'	219	2.5	2.6	6.9			
5'	140	3.2	3.2	8.7			
6'	97	3.9	3.8	10.4			

Cande	la Table	Zonal	Lumen S	ummary	
Degrees Vertical	Candela	Zone	Lumens	%Fixture	
0	342	0-30	948	51.4	
5	1432	0-30	340	31.4	
15	3794	0-40	1514	82.1	
25	4914				
35	4619	0-60	1837	99.7	
45	2960				
55	129	0-90	1843	100	
65	4				
75	0	90-180	0	0	
85	0				
90	0	0-180	1843	100	







Co	Cone of Light							
0°/	0°							
D	FC	L	W					
5.5'	219	3.2	3.2					
7'	135	4.0	4.0					
8'	104	4.6	4.6					
9'	82	5.2	5.2					
10'	66	5.8	5.8					
12'	46	7	7					

Cande	la Table
Degrees Vertical	Candela
0	6625
5	6511
15	4203
25	623
35	34
45	2
55	0
65	0
75	0
85	0
90	0

Zonal Lumen Summary						
Zone	Lumens	%Fixture				
0-30	2121	98.5				
0-40	2150	99.9				
0-60	2153	100				
0-90	2153	100				
90-180	0	0				
0-180	2153	100				





Uč	ndlepower Distribution
	Directional
	90°
750	60°
1500	45°
2250	15° \30°

Horizontal I—CB—I							
МН	FC	L	W	CB			
5.5'	19.4	6.5	6	3.2			
7'	12	8.2	7.6	4			
8'	9.2	9.4	8.8	4.6			
9'	7.2	10.6	9.8	5.2			
10'	5.9	11.8	11	5.8			
12'	4.1	14.2	13.2	6.9			

Cone of Light

Vertical JON CB							
D	FC	L	W	CB			
1'	1775	0.6	0.6	1.7			
2'	444	1.3	1.4	3.5			
3'	197	2.0	2.2	5.2			
4'	111	2.7	3.0	6.9			
5'	71	3.5	3.8	8.7			
6'	49	4.1	4.6	10.4			

Cone of Light

Cande	la Table	
Degrees Vertical	Candela	
0	427	
5	726	
15	1654	
25	2420	
35	2384	
45	1609	
55	551	
65	108	
75	8	
85	3	
90	0	

Zonal	Lumen S	ummary
Zone	Lumens	%Fixture
0-30	596	37.2
0-40	1043	65.2
0-60	1556	97.3
0-90	1600	100
90-180	0	0
0-180	1600	100

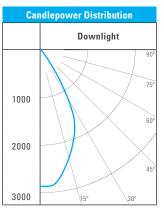
Single Unit Footcandles									
	<b>2' FROM WALL</b> (Distance From Fixture Along Wall)								
DD		1'	2'	3'	4'	5'	6'		
1'	27	11	1	0	0	0	0		
2'	142	70	15	3	1	0	0		
3'	104	67	23	7	2	0	0		
4'	55	41	20	8	3	1	0		
5'	29	23	14	7	3	1	1		
6'	16	13	9	6	3	2	1		
7'	9	8	6	4	3	1	1		
8'	6	5	4	3	2	1	1		
9'	4	3	3	2	2	1	1		
10'	2	2	2	2	1	1	1		

			Multiple Unit	Footcandles		
	(Spa	<b>2' FROM WALL</b> acing Between Fixtu	res)	(Sp	<b>3' FROM WALL</b> acing Between Fixtu	res)
		2' apart			3' apart	
ΙT	28	22	8	2	2	2
Ш	157	140	157	32	26	32
Ш	127	134	127	70	62	70
Ш	75	82	75	65	66	65
Ш	42	46	42	48	51	48
Ш	25	27	25	33	36	33
Ш	15	16	15	23	25	23
П	10	10	10	16	17	16
Ш	6	7	6	11	12	11
Ш	4	5	4	8	8	8

# **Photometry – 4-Inch Square**

Test Number	P135106
Housing	LDSQ4A18D010TE
Trim	ESQ4A18835 4LSQ1LI
Lumens	2349
Efficacy	71.6 Lm/W
sc	0.9



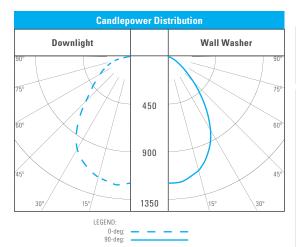


Cone of Light							
0° D							
D	FC	L	W				
5.5'	94	4.6	4.6				
7'	58	6	6				
8'	45	6.8	6.8				
9'	35	7.6	7.6				
10'	29	8.6	8.6				
12'	20	10.2	10.2				

Cande	la Table
Degrees Vertical	Candela
0	2849
5	2849
15	2352
25	1725
35	550
45	100
55	22
65	8
75	3
85	0
90	0

Zonal	Lumen Si	ummary
Zone	Lumens	%Fixture
0-30	1712	72.9
0-40	2195	93.4
0-60	2339	99.6
0-90	2349	100.0
90-180	0	0.0
0-180	2349	100.0

Lumir	nance
Average Candela Degrees	Average 0° Luminance
45	10771
55	2989
65	1358
75	739
85	0



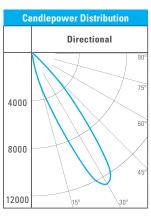
Test Number	P166331
Housing	LDSQ4A28D010TE
Trim	ESQ4A28835 4LSQLWW1LI
Lumens	1935
Efficacy	44.4 Lm/W

Sin	igle U	nit Fo	otcano	lles				I	Multip	le Uni	Footc	andle	S			
	3' FROM WALL (Distance From Fixture Along Wall) (Sp:							<b>M WAI</b> veen Fi		)			<b>3' FROI</b> ng Betv			
DD		1'	2'	3'		2'			3'			2'			3'	
1'	18	14	6	2	37	42	37	32	27	32	24	27	24	20	19	20
2'	24	21	13	6	50	57	50	41	44	41	37	41	37	30	34	30
3'	23	21	15	8	49	55	49	40	46	40	38	42	38	32	36	32
4'	20	18	14	9	38	42	38	32	37	32	34	37	34	29	33	29
5'	15	14	11	8	26	28	26	23	26	23	26	28	26	23	26	23
6'	11	10	9	7	18	19	18	16	18	16	19	20	19	17	19	17
7'	7	7	6	5	13	13	13	12	13	12	14	15	14	13	14	13
8'	5	5	5	4	9	10	9	9	9	9	10	11	10	10	10	10
9'	4	4	4	3	7	7	7	6	7	6	8	8	8	7	8	7
10'	3	3	3	3	5	5	5	5	5	5	6	6	6	6	6	6

37

## **Photometry – 4-Inch Square Adjustable**

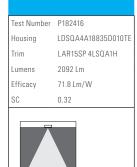


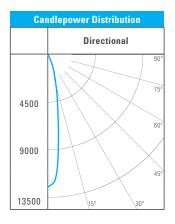


Cone of Light								
Horizontal HOBH								
МН	FC	L	W	СВ				
5.5'	67	5.8	3	3.2				
7'	42	7.3	3.8	4				
8'	32	8.3	4.4	4.6				
9'	25	9.5	5	5.2				
10'	20	10.4	5.6	5.8				
12'	14	12.5	6.8	6.9				

Cone of Light									
Vertical 30° CB									
D	FC	L	W	CB					
1'	8498	0.3	0.2	1.7					
2'	2125	0.8	0.6	3.5					
3'	944	1.1	1	5.2					
4'	531	1.6	1.4	6.9					
5'	340	1.9	1.8	8.7					
6'	236	2.4	2.2	10.4					

Cande	la Table	Zonal	Lumen S	ummary
Degrees Vertical	Candela	Zone	Lumens	%Fixture
0	167	0-30	920	47.5
5	277	0-30	320	47.5
15	3171	0-40	1676	86.5
25	10759			
35	105 81	0-60	1925	99.4
45	1899			
55	25	0-90	1937	100
65	3			
75	2	90-180	0	0
85	0			
90	0	0-180	1937	100



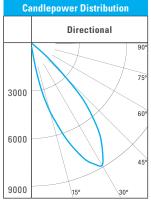


Cone of Light								
0.								
MH	FC	L	W					
5.5'	421	1.6	1.6					
7'	260	2.2	2.2					
8'	199	2.4	2.4					
9'	157	2.8	2.8					
10'	127	3	3.2					
12'	89	3.6	3.8					

Cande	la Table
Degrees Vertical	Candela
0	12742
5	10640
15	3104
25	450
35	22
45	5
55	2
65	1
75	0
85	0
90	0

Zonal Lumen Summary				
Zone	Lumens	%Fixture		
0-30	2064	98.6		
0-40	2085	99.7		
0-60	2091	99.9		
0-90	2092	100		
90-180	0	0		
0-180	2092	100		



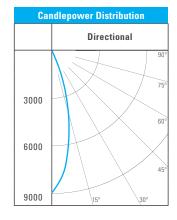


Horizontal FCB-					
МН	FC	L	W	CB	
5.5'	56.3	5.4	4.2	3.2	
7'	34.8	6.7	5.4	4	
8'	26.6	7.7	6.2	4.6	
9'	21	8.5	7	5.2	
10'	17	9.4	7.8	5.8	
12'	11.8	11.2	9.4	6.9	

	COIR	OI L	ıyııı	
Verti		0°		CB
D	FC	L	W	CB
1'	5848.6	0.5	0.4	1.7
2'	1462.1	1	1	3.5
3'	649.8	1.6	1.6	5.2
4'	365.5	2.2	2.2	6.9
5'	233.9	2.7	2.6	8.7
6'	162.5	3.3	3.2	10.4

Degrees Vertical         Candela         Zone         Lumens         %Fixture           0         224         0-30         1012         47.2           5         494         0-40         1765         82.3           25         8118         7722         0-60         2133         99.4           45         3169         0-90         2145         100           65         2         90-180         0         0	Cande	la Table	Zonal	Lumen Si	ummary
5     494       15     4419       25     8118       35     7722       45     3169       55     67       65     2       75     2       90-180     0       0-30     1012       47.2     47.2       1765     82.3       82.3     99.4       45     3169       55     67       0-90     2145       100       0     0		Candela	Zone	Lumens	%Fixture
5     494       15     4419       25     8118       35     7722       45     3169       55     67       65     2       75     2       90-180     0       0-40     1765       82.3       99.4       1765     82.3       99.4       100       0     0       0	0	224	0-30	1012	47.2
25 8118 35 7722 0-60 2133 99.4 45 3169 55 67 0-90 2145 100 65 2 75 2 90-180 0 0	5	494	0 00	1012	77.2
35 7722 0-60 2133 99.4 45 3169 55 67 0-90 2145 100 65 2 90-180 0 0	15	4419	0-40	1765	82.3
45 3169 55 67 0-90 2145 100 65 2 90-180 0 0	25	8118			
55         67         0-90         2145         100           65         2         90-180         0         0	35	7722	0-60	2133	99.4
65 2 75 2 90-180 0 0	45	3169			
75 2 90-180 0 0	55	67	0-90	2145	100
75 2	65	2			
0.	75	2	90-180	0	0
	85	0	0.400	0445	400
90 0 0 0-180 2145 100	90	0	0-180	2145	100

Test Number	P182448				
Housing	LDSQA4A18835D010TE				
Trim	LAR25NF 4LSQA1H				
Lumens	2321 Lm				
Efficacy	79.7 Lm/W				
SC	0.47				



000				
MH	FC	L	W	
5.5'	295.9	2.4	2.4	
7'	182.7	3.2	3.2	
8'	139.9	3.6	3.6	
9'	110.5	4.2	4.2	
10'	89.5	4.6	4.6	
12'	62.2	5.6	5.6	

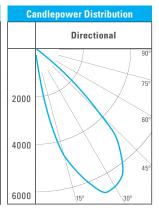
Cande	la Table
Degrees Vertical	Candela
0	8951
5	7882
15	4182
25	600
35	40
45	7
55	3
65	1
75	0
85	0
90	0

Zona	I Lumen Sur	nmary
Zone	Lumens	%Fixture
0-30	2269	97.7
0-40	2311	99.6
0-60	2320	99.9
0-90	2321	100
90-180	0	0
0-180	2321	100

# **Photometry – 4-Inch Square Adjustable**

Test Number	P182736
Housing	LDSQA4A18835D010TE
Trim	LAR35FL 4LSQA1H 30° Tilt
Lumens	2185 Lm
Efficacy	75 Lm/W





Cone of Light						
Horiz	ontal 3	Do HCB	H			
МН	FC	L	W	CB		
5.5'	55	5.1	4.8	3.2		
7'	34	6.5	6	4		
8'	26	7.4	7	4.6		
9'	20	8.4	7.8	5.2		
10'	17	9.4	8.6	5.8		

12 11.3 10.4

12'

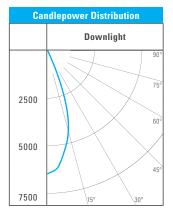
Cone of Light					
Vertical D T CB					
D	FC	L	W	СВ	
1'	4702	0.5	0.6	1.7	
2'	1176	1.2	1.2	3.5	
3'	522	1.9	2	5.2	
4'	294	2.4	2.6	6.9	
5'	188	3.1	3.4	8.7	
6'	131	3.8	4	10.4	

Cande	la Table	Zonal	Lui
Degrees Vertical	Candela	Zone	Li
0	255	0-30	
5	668	0-30	
15	4674	0-40	
25	6592		
35	6316	0-60	
45	3570		
55	69	0-90	
65	2		
75	2	90-180	
85	0		
90	0	0-180	

	Zonal	Lumen S	ummary
	Zone	Lumens	%Fixture
	0-30	1022	46.8
	0-40	1743	79.8
	0-60	2173	99.4
	0-90	2185	100
	90-180	0	0
	0-180	2185	100

Test Number	P182480
Housing	LDSQA4A18835D010TE
Trim	LAR35FL 4LSQA1H
Lumens	2352 Lm
Efficacy	80.8 Lm/W
sc	0.62



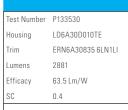


Cone of Light				
000				
MH	FC	L	W	
5.5'	218	3.4	3.4	
7'	135	4.2	4.2	
8'	103	4.8	5	
9'	82	5.6	5.6	
10'	66	6.2	6.2	
401	4.0	٦.	٦.	

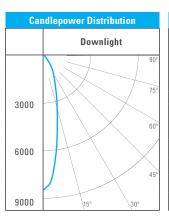
Cande	la Table
Degrees Vertical	Candela
0	6601
5	6319
15	4438
25	759
35	44
45	7
55	2
65	1
75	0
85	0
90	0

Zonal Lumen Summary				
Zone	Lumens	%Fixture		
0-30	2296	97.6		
0-40	2342	99.6		
0-60	2351	99.9		
0-90	2352	100		
90-180	0	0		
0-180	2352	100		

# Photometry – 6-Inch Round







Cone of Light				
D	FC	L	W	
5.5'	278	2.2	2.2	
7'	171	2.8	2.8	
8'	131	3.2	3.2	
9'	104	3.6	3.6	
10'	84	4	4	
12'	58	4.8	4.8	

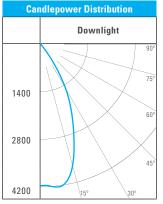
Cande	la Table
Degrees Vertical	Candela
0	8397
5	7261
15	3356
25	1636
35	742
45	89
55	6
65	2
75	0
85	0
90	0

ı	Zonal	Lumen S	ummary
	Zone	Lumens	%Fixture
	0-30	2328	80.8
	0-40	2784	96.6
	0-60	2878	99.9
	0-90	2881	100.0
	90-180	0	0.0
	0-180	2881	100.0

Luminance			
Average Candela Degrees	Average 0° Luminance		
45	8212		
55	694		
65	309		
75	0		
85	0		

Test Number	P135370
Housing	LD6A30D010TE
Trim	ERM6A30835 6LM1LI
Lumens	3014
Efficacy	66.4 Lm/W
SC	0.8





Cone of Light				
0°   D				
D	FC	L	W	
5.5'	137	4.4	4.4	
7'	85	5.6	5.6	
8'	65	6.4	6.4	
9'	51	7.2	7.2	
10'	42	8	8	
12'	29	9.6	9.6	

h	t		Cande	la Table
-	Т		Degrees Vertical	Candela
D W 4 4.4			0	4156
			5	4201
			15	3726
	W		25	2226
4	4.4		35	774
6	5.6		45	63
4	6.4		55	8
2	72		65	2
_	7.2		75	2
	8		85	0
ô	9.6		90	0

Zonal	Lumen S	ummary		
Zone	Lumens	%Fixture		
0-30	2436	80.8		
0-40	2935	97.4 99.9 100.0		
0-60	3010			
0-90	3014			
90-180	0	0.0		
0-180	3014	100.0		

Lumi	nance					
Average Candela Degrees	Average 0° Luminance					
45	5813					
55	921 309					
65						
75	504					
85	0					

Test Number	P136090
Housing	LD6A30D010TE
Trim	ERW6A30835 6LW1LI
Lumens	3045
Efficacy	67.1 Lm/W
SC	1.1



Car	idlepower Distribution
	Downlight
	90°
750	75°
	60°
1500	45°
2250	
2230	\15° \30°

0°	}									
D	W									
5.5'	67	6.6	6.6							
7'	42	8.4	8.4							
8'	32	9.6	9.6							
9'	25	10.8	10.8							
10'	20	12	12							
12'	14	14.4	14.4							

		Cande	la Table		
Τ		Degrees Vertical	Candela		
þ		0	1961		
		5	2004		
_		15	2241		
W		25	2006		
6.6		35	1300		
8.4		45	523		
9.6		55	76		
		65	4		
		75	2		
12		85	0		
4.4		90	0		
	•				

Zonal	Lumen S	ummary			
Zone	Lumens	%Fixture			
0-30	1735	57.0			
0-40	2539	99.7 100.0			
0-60	3037				
0-90	3045				
90-180	0	0.0			
0-180	3045	100.0			

Lumir	nance				
Average Candela Degrees	Average 0° Luminance				
45	48263				
55	8667				
65	648				
75	529				
85	0				

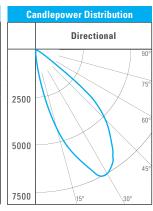
Candlep	ower Dis	tribution
Downlight		Wall Washer
90° 75° 60°	750 1500	90° 75° 60°
30°/ 15°/	2250	15° 30°
LEGEND: O-deg: 90-deg:		

Test Number	P136330
Housing	LD6A30D010TE
Trim	ERW6A30835 6LW111LI
Lumens	3023
Efficacy	66.6 Lm/W

Sin	igle U	nit Fo	otcano	lles	Multiple Unit Footcandles											
		<b>B' FRON</b> tance F Along			2.5' FROM WALL (Spacing Between Fixtures)						3' FROM WALL (Spacing Between Fixtures)					
DD		1'	2'	3'		2'			3'			2'			3'	
1'	13	10	6	2	32	37	32	27	26	27	18	20	18	15	16	15
2'	24	21	13	7	50	57	50	41	45	41	38	42	38	31	35	31
3'	22	20	14	8	48	53	48	40	42	40	36	39	36	30	34	30
4'	22	19	13	8	43	48	43	36	41	36	35	39	35	30	33	30
5'	18	17	13	8	34	37	34	29	33	29	31	34	31	27	30	27
6'	14	13	11	8	24	26	24	22	24	22	24	26	24	22	24	22
7'	10	10	9	7	18	18	18	16	18	16	19	19	19	17	19	17
8'	7	7	7	6	13	13	13	12	13	12	14	14	14	13	14	13
9'	6	5	5	5	10	10	10	9	10	9	11	11	11	10	11	10
10'	4	4	4	4	7	8	7	7	7	7	8	8	8	8	8	8

## Photometry – 6-Inch Adjustable



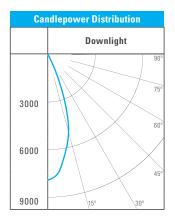


	Cone of Light							
Horizontal HCBH								
МН	FC	L	W	CB				
5.5'	52	5.7	4.8	3.2				
7'	32	7.3	6	4				
8'	25	8.4	7	4.6				
9'	20	9.4	7.8	5.2				
10'	16	10.5	8.6	5.8				
12'	11	12.5	10.4	6.9				

Cone of Light						
Vertical D T CB						
D	FC	L	W	СВ		
1'	5255	0.6	0.6	1.7		
2'	1314	1.2	1.2	3.5		
3'	584	2	1.8	5.2		
4'	328	2.6	2.6	6.9		
5'	210	3.3	3.2	8.7		
6'	146	4	3.8	10.4		

Cande	la Table	Zonal	Lumen S	ummary
Degrees Vertical	Candela	Zone	Lumens	%Fixture
0	182	0-30	997	40.1
5	685	0-30	337	40.1
15	4263	0-40	1802	72.4
25	6978			
35	7044	0-60	2476	99.5
45	5112			
55	751	0-90	2489	100
65	18			
75	0	90-180	0	0
85	0			
90	0	0-180	2489	100



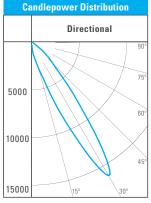


Cone of Light							
000							
MH	FC	L	W				
5.5'	261	3.2	3.2				
7'	161	4.2	4.2				
8'	124	4.8	4.8				
9'	98	5.4	5.4				
10'	79	6	6				
12'	55	7.2	7.2				

Cande	la Table
Degrees Vertical	Candela
0	7905
5	7515
15	5097
25	1179
35	58
45	5
55	1
65	0
75	0
85	0
90	0

Zonal Lumen Summary					
Zone	Lumens	%Fixture			
0-30	2634	97.9			
0-40	2684	99.8			
0-60	2690	100			
0-90	2690	100			
90-180	0	0			
0-180	2690	100			



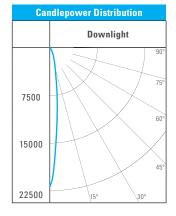


conc or Eight						
Horizontal HCBH						
MH	FC	L	W	CB		
5.5'	74	5.5	2.8	3.2		
7'	46	7	3.6	4		
8'	35	8	4	4.6		
9'	28	9	4.6	5.2		
10'	22	9.8	5.2	5.8		
12'	16	11.7	6.2	6.9		

Cone of Light						
Vert	ical 30°		 } }	В		
D	FC	L	W	СВ		
1'	10548	0.3	0.2	1.7		
2'	2637	0.6	0.4	3.5		
3'	1172	0.9	0.8	5.2		
4'	659	1.3	1	6.9		
5'	422	1.6	1.4	8.7		
6'	293	1.9	1.6	10.4		

Cande	la Table	Zonal	Lumen S	ummary
Degrees Vertical	Candela	Zone	Lumens	%Fixture
0	327	0-30	1049	47.2
5	1114	0-30	1043	77.2
15	3141	0-40	1846	83.1
25	11302			
35	10960	0-60	2214	99.7
45	2853			
55	43	0-90	2222	100
65	5			
75	1	90-180	0	0
85	0			
90	0	0-180	2222	100

Test Number	P175401
Housing	LDA6A30835D010TE
Trim	LARL15SP 6LFC1
Lumens	2362 Lm
Efficacy	53.1 Lm/W
SC	0.26

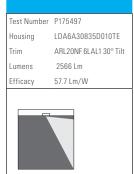


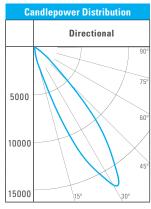
Co	Cone of Light						
0°	0°						
MH	FC	L	W				
5.5'	261	3.2	3.2				
7'	161	4.2	4.2				
8'	124	4.8	4.8				
9'	98	5.4	5.4				
10'	79	6	6				
12'	55	7.2	7.2				

Cande	la Table
Degrees Vertical	Candela
0	7905
5	7515
15	5097
25	1179
35	58
45	5
55	1
65	0
75	0
85	0
90	0

Zonal Lumen Summary					
Zone	Lumens	%Fixture			
0-30	2634	97.9			
0-40	2684	99.8			
0-60	2690	100			
0-90	2690	100			
90-180	0	0			
0-180	2690	100			

# **Photometry – 6-Inch Adjustable**





Cone of Light				
Horizontal HCBH				
МН	FC	L	W	СВ
5.5'	84	5.5	3.4	3.2
7'	52	7	4.4	4
8'	40	7.9	5	4.6
9'	31	8.9	5.6	5.2

9.8 6.2

18 11.7 7.6

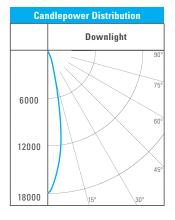
10' 25

	Cone	of Li	ght	
Verti	cal 30°			- В
D	FC	L	W	СВ
1'	11382	0.3	0.2	1.7
2'	2845	0.8	0.6	3.5
3'	1265	1.2	1	5.2
4'	711	1.7	1.4	6.9
5'	455	2.2	1.8	8.7
6'	316	2.6	2.2	10.4

Cande	la Table	Zonal	Lumen S	ummary
Degrees Vertical	Candela	Zone	Lumens	%Fixture
0	58	0-30	1092	42.6
5	561	0-30	1032	42.0
15	3193	0-40	2122	82.7
25	13468			
35	14168	0-60	2557	99.6
45	4072			
55	133	0-90	2566	100
65	5			
75	0	90-180	0	0
85	0			
90	0	0-180	2566	100







Cone of Light				
0°/		 } .	D L	
MH	FC	L	W	
5.5'	590	1.8	1.8	
7'	364	2.4	2.4	
8'	279	2.8	2.8	
9'	220	3	3	
10'	179	3.4	3.4	
12'	124	4.2	4.2	

5.8

Cande	la Table
Degrees Vertical	Candela
0	17845
5	14698
15	3736
25	627
35	8
45	1
55	0
65	0
75	0
85	0
90	0

Zonal Lumen Summary					
Zone	Lumens	%Fixture			
0-30	2686	99.7			
0-40	2694	100			
0-60	2695	100			
0-90	2695	100			
90-180	0	0			
0-180	2695	100			

Test Number	P175561
Housing	LDA6A30835D010TE
Trim	LAR35FL 6LLWW1
Lumens	2015 Lm
Efficacy	45.3Lm/W



G a	indlepower Distribution
	Directional
	90°
950	75°
1000	60°
1900	45°
2850	15° 30°

	Colle of Light			
Horizo		FC	BH	
МН	FC	L	W	СВ
5.5'	23	6.8	6	3.2
7'	14	8.7	7.6	4
8'	11	9.9	8.8	4.6
9'	9	11.2	10	5.2
10'	7	12.3	11	5.8
12'	5	14.7	13.2	6.9

Vertio	cal 30	M		CB
D	FC	L	W	СВ
1'	2380	0.6	0.6	1.7
2'	595	1.3	1.4	3.5
3'	265	1.9	2.2	5.2
4'	149	2.6	3	6.9
5'	95	3.4	3.8	8.7
6'	66	4	4.6	10.4

Cande	la Table
Degrees Vertical	Candela
0	427
5	726
15	1654
25	2420
35	2384
45	1609
55	551
65	108
75	8
85	3
90	0

Table	Zonal	Lumen S	ummary		
andela	Zone	Lumens	%Fixture		
427	0-30	694	34.5		
726	0 00	004	04.0		
1654	0-40	1263	62.7		
2420					
2384	0-60	1959	97.2		
1609					
551	0-90	2015	100		
108					
8	90-180	0	0		
3	0-180	2015	100		
0	0-180	2015	100		

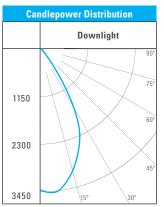
				Single Unit	Footcandles				
		2' FROM WALL (Distance From Fixture Along Wall)							
ſ	DD		1'	2'	3'	4'	5'	6'	
T	1'	33	13	1	0	0	0	0	
1	2'	200	103	21	3	1	0	0	
	3'	137	90	31	8	2	1	0	
1	4'	70	53	25	10	4	1	0	
1	5'	35	29	17	8	4	2	1	
1	6'	19	16	11	6	4	2	1	
Ì	7'	11	10	7	5	3	2	1	
	8'	6	6	5	3	2	2	1	
1	9'	4	4	3	2	2	1	1	
- 1	101	1 1	2	0	0	1	1	4	

Multiple Unit Footcandles						
(	<b>3' FROM WALL</b> Spacing Between Fixtures	)				
	3' apart					
3	2	3				
45	36	45				
98	92	98				
87	90	87				
62	68	62				
42	47	42				
28	31	28				
19	21	19				
13	14	13				
9	10	9				

# **Photometry – 6-Inch Squares**

Test Number	P136810
Housing	LDSQ6A30D010TE
Trim	ESQ6A30835 6LSQ1LI
Lumens	3067
Efficacy	67.6 Lm/W
SC	0.9



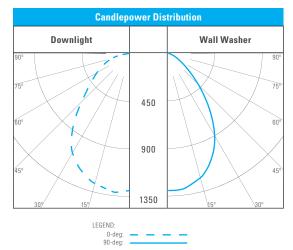


Co	Cone of Light						
0°		}					
D	FC	L	W				
5.5'	113	5	5				
7'	70	6.4	6.4				
8'	54	7.2	7.2				
9'	42	8.2	8.2				
10'	34	9.2	9				
12'	24	11	11				

Cande	la Table
Degrees Vertical	Candela
0	3395
5	3463
15	3025
25	2249
35	778
45	130
55	24
65	7
75	1
85	0
90	0

Zonal	Lumen S	ummary
Zone	Lumens	%Fixture
0-30	2199	71.7
0-40	2862	93.3
0-60	3056	99.6
0-90	3067	100.0
90-180	0	0.0
0-180	3067	100.0

١	Lumir	iance
	Average Candela Degrees	Average 0° Luminance
	45	9391
	55	2162
	65	861
	75	277
	85	0

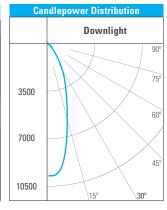


Test Number	P166391
Housing	LDSQ6A30D010TE
Trim	ESQ6A30835 6LSQLWW1LI
Lumens	2109
Efficacy	48.4 Lm/W

Single Unit Footcandles									Vlultip	le Uni	t Footo	andle	S					
	(Distance From Fixture 1)					(Distance From Fixture (Spacing Between Fixtures)						)				<b>VI WAL</b> veen Fi	_	)
DD		1'	2'	3'		2'			3'			2'			3'			
1'	20	15	7	3	41	45	41	35	29	35	27	30	27	22	21	22		
2'	26	23	14	6	55	63	55	44	48	44	40	45	40	33	37	33		
3'	25	23	16	9	53	60	53	44	50	44	42	46	42	34	40	34		
4'	22	20	15	10	42	45	42	35	40	35	37	40	37	31	36	31		
5'	16	15	12	9	29	31	29	25	28	25	29	31	29	25	28	25		
6'	11	11	9	7	20	21	20	18	20	18	21	22	21	19	21	19		
7'	8	8	7	6	14	15	14	13	14	13	15	16	15	14	15	14		
8'	6	6	5	4	10	11	10	9	10	9	11	12	11	10	11	10		
9'	4	4	4	4	7	8	7	7	7	7	8	9	8	8	8	8		
10'	3	3	3	3	II 6	6	6	5	6	5 l	6	7	6	6	6	6		

## **Photometry – 8-Inch Rounds**





Cone of Light						
0°						
D	FC	L	W			
12.5'	64	6	6			
15'	45	8	8			
20'	25	10	10			
24'	17	13	13			
28'	13	15	15			

Cande	la 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 St	ummary
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

**Zonal Lumen Summary** 

Lumens

4641

4962

0

0-40

0-90

90-180

0-180

%Fixture

93

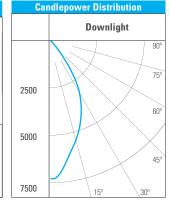
100

0

100

Lumir	nance
Average Candela Degrees	Average 0° Luminance
45	5157
55	524
65	812
75	0
85	4430





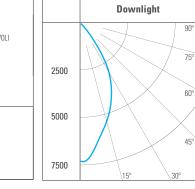
Candlepower Distribution

Cone of Light			
0°		}	
D	FC	L	W
12.5'	42	10	10
15'	29	12	12
20'	16	16	16
24'	11	19	19
28'	8	22	22

ight			Cande	la Table
Т			Degrees Vertical	Candela
	Þ		0	6445
			5	6573
) <sub> </sub>			15	5323
L	W		25	3488
10	10		35	1582
12 1	12		45	316
12	12 12		55	26
16	16		65	0
19	19		75	1
			85	0
22	22		90	0

Lumir	iance
Average Candela Degrees	Average 0° Luminance
45	13773
55	1421
65	0
75	166
85	0

Test Number	P110167
Housing	LD8A50D010TE
Trim	ER8A50835 8LW0LI
Lumens	5083
Efficacy	81.9 Lm/W
ССТ	3500K
SC	1.0



Co	ne of	Light	t i
0°		}	
D	FC	L	W
12.5'	22	15	15
15'	15	18	18
20'	8	24	24
24'	6	29	29
28'	4	34	34

Cande	la 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

ı	Zonal	Lumen Si	ummary
	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

Lumii	nance
Average Candela Degrees	Average 0° Luminance
45	42170
55	10921
65	1320
75	166
85	0

Candlepower Distribution			
Downlight		Wall Washer	
90°		90°	
79 60°	1200	73	
	2400		
45° 30° 15°	3600	45°	
LEGEND: 0-deg: — — — 90-deg:			

Test Number	P112727
Housing	LD8A50D010TE
Trim	ER8A50835 8LM0LI
Lumens	5035
CCT	3500K

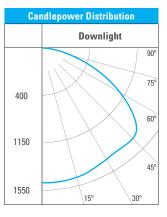
Lumen	EM Multipier
900	.44
1300	.65
1800	1.0
2800	1.2

Si	ngle U	nit Foo	otcand	les	Multiple Unit					Footc	andle	es				
	3' From Wall (Distance From Fixture Along Wall)					<b>2.5' From Wall</b> (Spacing Between Fixtures)						(Spaci	<b>3' Fror</b> ing Betv		xtures)	
DD		1'	2'	3'		2'			3'			2'			3'	
1'	1	1	0	0	2	2	2	1	1	1	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**







Cone of Light						
0°		}	├── <u></u>			
D	FC	L	W			
8'	24	11	11			
9'	19	13	13			
10'	15	14	14			
13'	9	19	19			
16'	6	23	23			

Cande	la 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

Zonal	Lumen S	ımmary
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

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

Downlight performance										
Lumens	Size	Wattage	Narrow	Narrow LPW	Medium	Medium LPW	Wide	Wide LPW	Square	Square LPW
900	4"	14	994	71	1069	76	1141	82	1049	75
1300	4"	23	1472	64	1558	68	1664	72	1506	65
1800	4"	33	2368	72	2507	76	2572	78	2349	71
2800	4"	45	2662	59	2937	65	3072	68	2771	61
1000	6"	14	1180	84	1228	88	1264	90	1257	90
1500	6"	23	1530	67	1592	69	1638	71	1629	71
2000	6"	33	2409	73	2510	76	2562	78	2539	77
3000	6"	45	2881	63	3014	66	3045	67	3067	68
1000	8"	16	1129	71	1217	76	1247	78	N/A	N/A
1500	8"	25	1674	67	1804	72	1848	74	N/A	N/A
2000	8"	25	1898	76	2046	82	2096	84	N/A	N/A
3000	8"	44	3488	79	3761	85	3852	88	N/A	N/A
4000	8"	58	3729	64	4216	73	4373	75	N/A	N/A
5000	8"	62	4603	74	4962	80	5083	82	N/A	N/A
6000	8"	77	5514	72	5945	77	6090	79	N/A	N/A
6500	8"	84	6190	74	6674	79	6837	81	N/A	N/A
8000	8"	96	7256	76	7822	81	8013	83	N/A	N/A
9000	8"	108	8037	74	8664	80	8876	82	N/A	N/A
10000	8"	126	9063	72	9771	78	10009	79	N/A	N/A
12000	8"	141	10464	74	11281	80	11557	82	N/A	N/A
15000	8"	161	14181	88	15289	95	15662	97	N/A	N/A

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



# **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

<sup>\*</sup> Delivered lumens based on mean lumens and typical fixture efficiency in the smallest aperture luminaire. For reference only.

Lumen	EM Mu	ıltipier
	7W	14W
1000	0.47	0.93
1500	0.30	0.61
2000	0.30	0.61
3000	0.17	0.33
4000	0.12	0.24
5000	0.11	0.23
6000	0.09	0.18

Lumen	EM Multipier				
	7W	14W			
6500		0.17			
8000		0.15			
9000		0.13			
10000		0.11			
120000		0.09			
150000		0.08			



# Reflector Color and Finishes

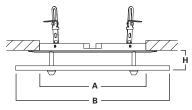
Finish			Description		
White			TRM4P=4" White	TRM6P=6" White	TRM7P=7" White
Chrome (C)			TRM6C=6" Chrome		
Black (MB)			TRM4MB=4" Black	TRM6MB=6" Black	TRM7MB=7" Black
Satin Nickel (SN)			TRM6SN=6" Satin Nickel		
Finish		Multipliers*	Description		
Specular Clear (LI)		1.0	Specular clear Alzak finish delive	rs full light output.	
Semi-Specular Clear (H)		.87	Semi-specular clear Alzak finish p	provides visual identity.	
Gold (G)	8	.90	Champagne Gold specular Alzak f	inish provides visual warmth.	
Warm Haze (WMH)		.86	Semi-specular Alzak finish provid	es visual identity with a hint of Gold for	r warmth.
Wheat (WH)	(F)	.86	Deep Gold specular Alzak finish a	dds significant visual warmth.	
Wheat Haze (WHH)		.80	Clear, deep Gold semi-specular A significant visual warmth.	lzak finish adds	
Graphite (GP)		.60	Gun-metal Gray specular Alzak fir less dust.	nish shows	
Graphite Haze (GPH)		.57	Graphite with a semi-specular Alz	rak finish.	
Black (B)		.48	Specular Alzak finish provides ma	iximum 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	Α	В	Н
6"Trim	6-1/8"	8-3/4"	2-1/4"
	[156 mm]	[222 mm]	[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

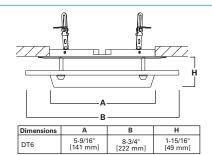
Size	Finish
DT6R=6" Single Ring Deco Trim	C=Anodized Clear

#### Notes: $\Delta$ Order trim with polymer trim ring

### **Glass Funnels**







- 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

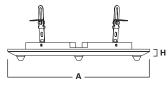
#### Sample Number: DT7LF0

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

Notes:  $\Delta$  Order trim with polymer trim ring

#### Lensed





Dimensions	Α	Н
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	LO=Frosted Glass
Notes A Onderstate with a characteristic	

Notes:  $\Delta$  Order trim with polymer trim ring

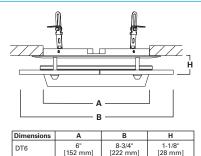
## **Translucent Ring with Funnel**











- 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 Frosted Funnel

Notes:  $\Delta$  Order trim with polymer trim ring

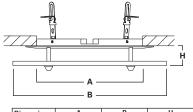
## 6-Inch and 7-Inch Decorative Trims

### **Translucent Single Ring**









Dimensions	Α	В	Н
DT6	6-1/8"	8-3/4"	2-1/4"
	[156 mm]	[222 mm]	[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

Sample Number: DT6R0

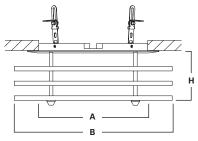
Size	Color
, , , , , , , , , , , , , , , , , , ,	0=Matte 1=Cobalt Blue 2=Aqua Blue 8=Ruby Red

Notes: A Order trim with polymer trim ring

### **Translucent Triple Ring**







Dimensions	Α	В	Н
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

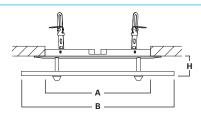
Sample Number: DT63R0

Size	Color
	0=Matte 2=Aqua Blue Acrylic

Notes:  $\Delta$  Order trim with polymer trim ring

### **Frosted Disc**





Dimensions	Α	В	Н
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:  $\Delta$  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.

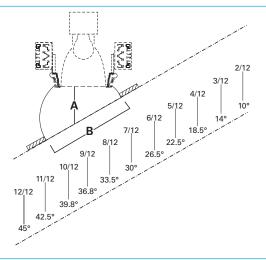
	Catalog No.
White	TRM4P=4" White TRM6P=6" White TRM4P=4" Rimless Trim Ring
Black (MB)	TRM4MB=4" Black TRM6MB=6" Black

### **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**



## **C-Channel Bar Hangers**



## **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.

## **Plaster Lathing Ring**

Catalog No.		Description
<b>4SQPR</b> =Plaster Lathing Ring	THE REPORT OF THE PARTY OF THE	Plaster lathing ring for 4-inch square housings.



## **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.

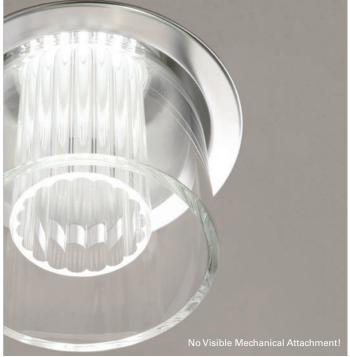




























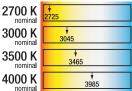
## **Farallon LED Recessed Glass Luminaires**

### **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

<sup>\*</sup>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.





2700K 3000K 3500K 4100K 5000K 6500K

## **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 340-6-DL=Recessed 6" Dowlinght	LED827/1/14=80CRI, 2700K, 300/1000 Lumens LED827/1/28=80CRI, 2700K, 1300/1500 Lumens LED827/1/25H0=80CRI, 2700K, 1300/1500 Lumens LED830/1/14=80CRI, 2700K, 900/1000 Lumens LED830/1/14=80CRI, 2700K, 1300/1500 Lumens LED830/1/25H0=80CRI, 2700K, 1300/1500 Lumens LED835/1/48=80CRI, 2700K, 3000K, 1800/2000 Lumens LED835/1/14=80CRI, 2700K, 900/1000 Lumens LED835/1/18=80CRI, 80CRI, 3000K, 1800/2000 Lumens LED840/1/14=80CRI, 2700K, 300/1500 Lumens LED840/1/18=80CRI, 2700K, 300/1500 Lumens LED840/1/18=80CRI, 2700K, 300/1500 Lumens LED840/1/25H0=80CRI, 80CRI, 3000K, 1800/2000 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 Crossette 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-Frosted Inside, Clear Outside CIG-CICO=Glass-in-a-Glass, Polished-Clear Inside, Clear Outside	DMR7=0-10V dimming with Optional TE Trailing Edge wiring DML=Lutron dimming

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#### **Lighting Product Lines**

Ametrix
AtLite
Corelite
Ephesus
Fail-Safe
HALO
HALO Commercial

Invue io IRiS Lumark Lumière

McGraw-Edison Metalux MWS

Neo-Ray Portfolio RSA Shaper Streetworks Sure-Lites

#### **Controls Product Lines**

Greengate

#### **Connected Lighting Systems**

Fifth Light (Canada Only) HALO Home

WaveLinx

### IoT Platform

Trellix

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