

**TruGroove surface**, suspended, & wall is driving performance beyond the edge. Innovative optics deliver exceptional uniformity and wide row spacing from a 3" aperture continuous line of light. An extended family and refined design are perfect for lighting any professional space.

**TruGroove surface includes AccuRender technology for the highest color quality at the highest efficacy**



Project: \_\_\_\_\_

Location: \_\_\_\_\_

Cat.No: \_\_\_\_\_

Type: \_\_\_\_\_

Line ID: \_\_\_\_\_ Qty: \_\_\_\_\_

Notes: \_\_\_\_\_

## Ordering guide

example: 2911L93535QN08DS1RCSB, SF

Family	Version	Distribution	Source	CRI/CCT <sup>1</sup>	
<b>29</b>	<b>1</b>	<b>1</b>	<b>L</b>		
29 TruGroove	1 Surface	1 Direct	L LED	950 CRI 90, 5000K 940 CRI 90, 4000K 935 CRI 90, 3500K	930 CRI 90, 3000K 927 CRI 90, 2700K 8T2 CRI 80, 2700-6500K 2ch Tunable White (confirm controls) <sup>5</sup>
Lumens <sup>1</sup>		Optics (Direct/Indirect)		Run Length	
40 4000 lm/4ft 30 3000 lm/4ft 22 2200 lm/4ft 15 1500 lm/4ft		QN Performance Symmetric Flush MesoOptics Lens (Dn) LN Definition Symmetric Flush Slik Lens (Dn) WN Performance Asymmetric Wall Wash Flush MesoOptics Lens (Dn)		02 2ft 04 4ft 06 6ft 08 8ft XX Continuous run in 2ft increments (please specify length) <sup>7</sup> Surface Patterns <sup>8</sup>	
Voltage	Driver	Circuit <sup>2,10</sup>		Wiring Option <sup>2,10</sup>	System / Controls <sup>9</sup>
D UNV 120-277V 3 347V <sup>3</sup>	E Advance Xitanium 0-10V (1% Dim)	1 Single Circuit C Single Circuit + 1 Thru Wire (BP Trigger) <sup>11</sup> F Single Circuit + 4 Thru Wires (Mains & Dimming) <sup>11</sup>		N None B Battery Pack <sup>3</sup> E Aux. Wiring <sup>6</sup> G GTD <sup>3</sup> (please specify voltage)	NN None
D UNV 120-277V	D Advance Xitanium DALI (5% Dim) <sup>3</sup> H Lutron EcoSystem LDE1 (<1% Dim, Fade-to-Black) <sup>3</sup>				
D UNV 120-277V	S Advance Xitanium SR (1% Dim) <sup>3</sup>	1 Single Circuit C Single Circuit + 1 Thru Wire (BP Trigger) <sup>11</sup>		N None B Battery Pack <sup>3</sup> R UL924 Sensor Bypass Relay <sup>13</sup>	NN None CS Interact Pro scalable wireless sensor with integral daylight & occupancy sensing, advanced grouping with dwell time <sup>4,14</sup> SB Interact Pro Enterprise advanced wireless sensor bundle, Integral SC1500 with IoT capabilities for enterprise scale projects <sup>4,12,14</sup>
Finish		Mount Type			
		<b>SF</b>			
W Standard White T Titanium Silver B Black G Graphite Grey C Custom (please specify color)		SF Surface Mounted			

See footnotes on page 2.

**DLC Note:** Not all product variations listed on this page are DLC qualified. To ensure that a specific model is qualified, visit [www.designlights.org/search](http://www.designlights.org/search)

## Ordering guide footnotes

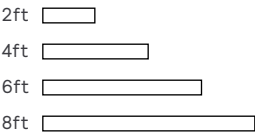
1. Nominal values within a range. Not all lumen packages are available with all configurations. Consult photometry data for CRI, color temp, lumens & distribution of chosen configuration.
  2. Not all wiring types are available with all configurations. Consult Ledalite for a complete list of available options.
  3. 347V not available with Battery Pack, GTD, DALI, Lutron EcoSystem or Sensor Ready drivers or Interact Pro options. Battery packs available in modules > 4ft (lumen package limits may apply, check with Ledalite)
  4. Interact Pro options require separate controls hardware by Signify.
  5. Please enquire about options for Tunable White with DALI (DT6 or DT8), 0-10V, or DMX control (extended lead times may apply).
  6. Auxiliary Wiring not available with Interact Pro luminaires. Aux sections are wired to one fixture end only.
  7. Available in continuous run lengths in increments of 2ft. Please enquire about options for smaller increments.
  8. Please enquire about options for corners, custom angles and intersections (extended lead times may apply).
  9. Sensors are only available in white, but can be combined with any luminaire finish. Signify sensor options shown in the order guide. Third party sensors also available, please enquire about options for Lutron Athena, Vive, or others.
  10. Luminaires are pre-wired to both ends with quick wire connectors at one end for standard circuit & battery pack trigger wire (if applicable). Each circuit has its own neutral conductor. All circuits are clearly labelled at each end.
  11. Thru Wire options can provide either one additional set of (4) power and dimming wires (Black/White/Purple/Grey or Pink) or one additional battery pack trigger wire (Orange) through a selected module, please consult factory for other Thru Wire options.
  12. This option is available on request. Other options not shown here may also be possible via a custom request. Extended lead times and minimum order quantities may apply, please consult factory.
  13. UL924 listed sensor bypass relay is factory installed between driver & sensor. Must be ordered in same module as integral sensing option. Must be installed in conjunction with a UL1008 device.
  14. Must order IRT9015 Interact commissioning remote with each system order.
- Note:** Due to continuing product improvements, Ledalite reserves the right to change the specifications without notice.

# TruGroove surface

## Options and dimensions

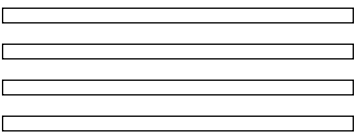
### Standalone

Keep it simple with standalone modules, available in 4 standard lengths (consult Ledalite for custom lengths).



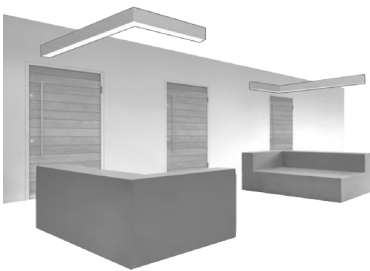
### Continuous Run

Continuous Run in 2ft increments (enquire about smaller increments)



### Patterns

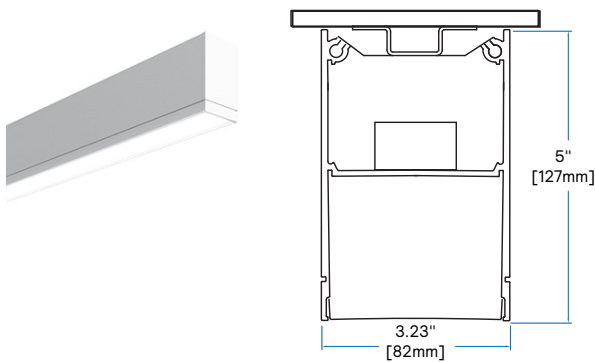
Seamlessly create any pattern imaginable (contact Ledalite for corners and intersections).



## Flush lens

TruGroove surface with 3" wide Flush MesoOptics or Silk lens.

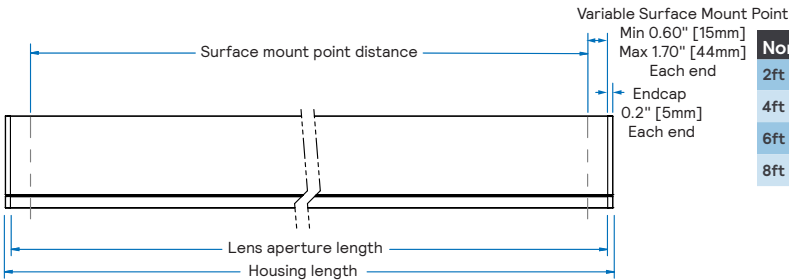
### Direct



# TruGroove surface

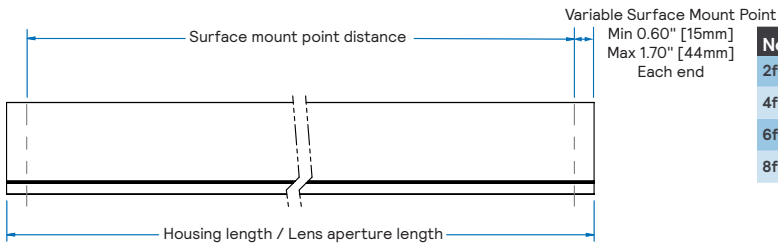
## Side Views

### Standalone



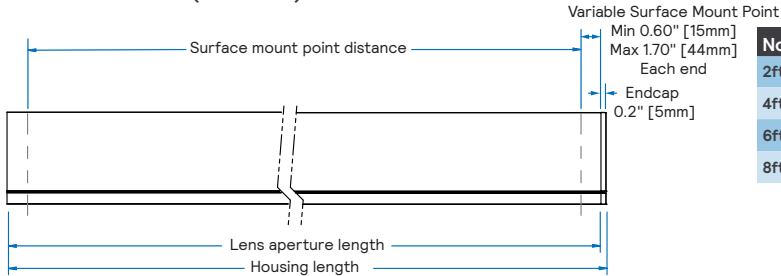
Nominal	Housing	Lens Aperture	Surface Mount Point Distance
2ft	24.4" [620mm]	24.0" [610mm]	21.0" [533mm] to 23.2" [589mm]
4ft	48.4" [1230mm]	48.0" [1219mm]	45.0" [1143mm] to 47.2" [1199mm]
6ft	72.4" [1840mm]	72.0" [1829mm]	69.0" [1753mm] to 71.2" [1808mm]
8ft	96.4" [2449mm]	96.0" [2438mm]	93.0" [2362mm] to 95.2" [2418mm]

### Continuous Run (Mid-run)



Nominal	Housing	Lens Aperture	Surface Mount Point Distance
2ft	24.0" [610mm]	24.0" [610mm]	21.0" [533mm] to 23.2" [589mm]
4ft	48.0" [1219mm]	48.0" [1219mm]	45.0" [1143mm] to 47.2" [1199mm]
6ft	72.0" [1829mm]	72.0" [1829mm]	69.0" [1753mm] to 71.2" [1808mm]
8ft	96.0" [2438mm]	96.0" [2438mm]	93.0" [2362mm] to 95.2" [2418mm]

### Continuous Run (End-run)



Nominal	Housing	Lens Aperture	Surface Mount Point Distance
2ft	24.2" [610mm]	24.0" [610mm]	21.0" [533mm] to 23.2" [589mm]
4ft	48.2" [1219mm]	48.0" [1219mm]	45.0" [1143mm] to 47.2" [1199mm]
6ft	72.2" [1829mm]	72.0" [1829mm]	69.0" [1753mm] to 71.2" [1808mm]
8ft	96.2" [2438mm]	96.0" [2438mm]	93.0" [2362mm] to 95.2" [2418mm]

# TruGroove surface

## Specifications

### Optical System

**Direct hemisphere:** Light emitted from a linear array of downward-facing LEDs is laterally redirected using optical microstructures embedded in a layer of MesoOptics DX film to generate an optimal asymmetric distribution and a uniform continuum of light. The available Flush Silk Lens is a value-oriented option that provides a lambertian distribution while maintaining a uniform continuum of light.

### Housing

Post painted precision aluminum extrusion.

### Endcaps

Diecast flat aluminum endcaps with integral groove to match housing.

### Finish

High quality powder coated, available in standard Matte White, Black, Titanium Silver or Graphite Grey. TruGroove can also be specified in any custom color upon request for a one-time setup charge. Optional sensors (such as Interact Pro) available in white only.

### Mounting

**Surface:** Fixture is mounted flush to surface using hidden brackets that attach to existing structure, variable between 0.6"-1.7" from end or joint.

### Joints

Self-aligning joining system with hands-free pre-joining wire access.

### Weight

Maximum 3.9lbs/ft (surface).

### Electrical

Fixtures are factory pre-wired to section ends with quick-wire connectors and tested for all circuits and backup battery packs. LED boards and drivers are easily field replaceable with access from below the ceiling.

### Standard Drivers

Advance Xitanium 0-10V, 1% Dimming.  
Advance Xitanium DALI, 5% Dimming.  
Advance Xitanium Sensor Ready, 1% Dimming.  
Lutron EcoSystem LDE1, 1% Dimming with Soft-On and Fade-to-Black.  
Class 2 rated output. Consult Ledalite for other available drivers.

### Standard Battery Packs

Bodine Battery Pack, 90 min, 10W, Class 2 rated output.  
Lumen output = 10W x luminaire efficacy x 1.1. Typical output ~1200lm.

### Lumen Maintenance

LEDs have been tested by the manufacturer in accordance with IESNA LM-80-15. At an ambient temperature of 25°C, the LED lumen maintenance expectation according to IES TM-21-11 is:  
 $L_{80}(10k) > 60,000$  hours (Reported methodology).

### Source Color

LEDs rated for color rendering of:  
 $CRI R_a \geq 90, R_g \geq 50, G_a \geq 97, C_g \geq 90$   
IES TM-30-18 :  $R_f \geq 90, R_{f,hl} \geq 89, R_g \geq 99, R_{cs,hl} \geq -5\%$

SPD and TM-30-18 reports available upon request

Fixture to fixture color accuracy within:

2 SDCM for Static White luminaires  
3 SDCM for Tunable White luminaires

### Approvals

Certified to UL, IES & CSA Standards.

Certain versions without battery packs are DesignLights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers.  
[www.designlights.org/QPL](http://www.designlights.org/QPL)

Select TruGroove configurations contribute toward satisfying features L03, L04, L06, L07 and L08 under the WELL v2 Building Standard®.

### Environment

Rated for dry or damp locations in operating ambient temperatures of 0-25°C (32-77°F).

Many luminaire components, such as reflectors, refractors, lenses, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur-based chemicals, petroleum-based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility. Damage caused by sulfur, chlorine, petroleum-based solution or other contaminants are not covered under warranty. Not suitable for natatorium environments.

### Warranty

Five-year luminaire limited warranty including LED boards and driver:  
[www.signify.com/warranties](http://www.signify.com/warranties)

### QuickShip

10-day QuickShip available for most configurations upon request. More information available at: [www.signify.com/en-us/brands/ledalite/quickship](http://www.signify.com/en-us/brands/ledalite/quickship)

# TruGroove surface

## Wireless Controls Options

### Interact Pro scalable sensor for Foundation, Advanced & Enterprise tiers (CS an evolution of SpaceWise):

- CS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the Foundation mode (similar to SpaceWise) when configured without a gateway or in an Interact Pro Advanced or Enterprise mode if a compatible gateway is used.
- Interact Pro includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote onsite to identify and group devices together.
- Compatible with UID8451/10 wireless dimmer switch, SWS200 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1).
- For more information on Interact Pro visit:  
[www.interact-lighting.com/interactproscalablesystem](http://www.interact-lighting.com/interactproscalablesystem)

### Emergency Options (R):

- Power Sensing (Factory default) – Recommended
- UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output.
- Power Interruption Detection (Field option)
- Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output.

### Interact Pro scalable sensor bundles for Enterprise tier (SB):

- SB option, in addition to occupancy and daylight sensing, supports advanced IoT capabilities such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Compatible with UID8451/10 wireless dimmer switch, SWS200 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1).
- Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Requires compatible Gateway and internet connectivity for commissioning. For more information, visit:  
[www.interact-lighting.com/office](http://www.interact-lighting.com/office)

## Wired Controls Options

### Tunable White:

- Control options for Tunable White with DALI (DT6 or DT8), 0-10V, or DMX control are available via an Engineered-to-Order (ETO) request.
- Signify Tunable White solutions are designed to help maximize the influence of lighting on your daily life.
- Dynamic behaviors via scheduled lighting recipes mimicking daylight patterns or supporting biorhythms.
- Scene setting via lighting pre-sets based on various combinations of lighting color temperature and intensity.

# TruGroove surface

## Functionalities overview

### The three tiers of Interact

	Standalone	Gateway	Gateway + IoT
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0-10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
New Correlated color temperature (CCT) tuning by switch	✓	✓	✓
New Support for sensor-based Tunable White luminaires	✓	✓	✓
Energy reporting and monitoring		✓	✓
Scheduling		✓	✓
Demand response		✓	✓
BMS integration (BACnet)			✓
Floor plan visualization			✓
IoT sensors for wellness			✓
IoT Apps for productivity			✓

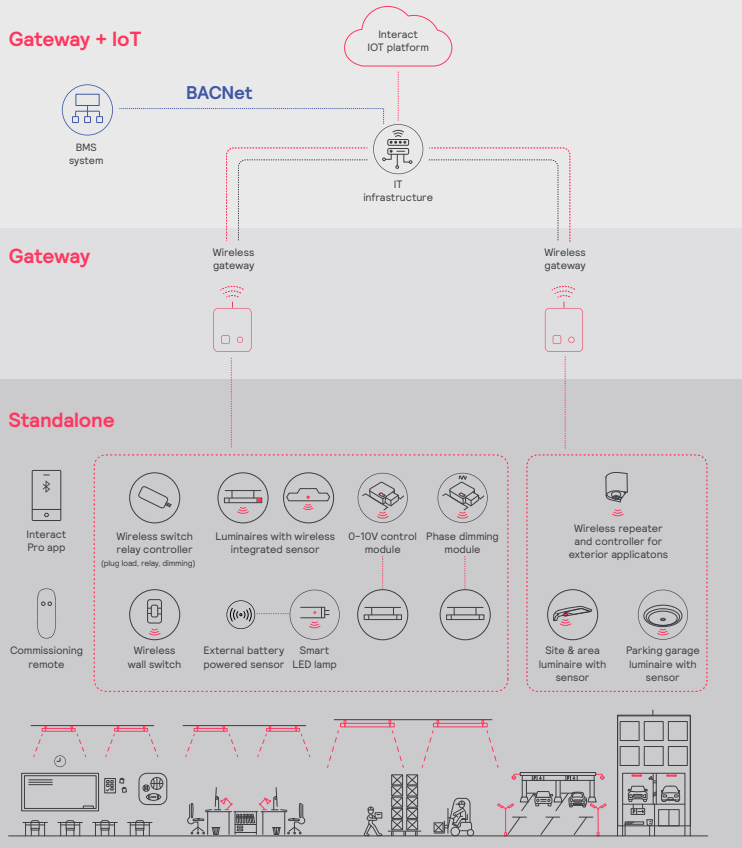
## Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
• luminaires with integrated sensors	150
• smart TLEDs	150
Total number of ZGP devices (sensors and switches)	50
• sensors	30
• switches	50
• zones and groups	64
Group level	
Recommended number of lights	40 (recommended 25)
Number of ZGP devices	5
Number of scenes	16

## Interact system architecture for office, education, healthcare, retail, industrial and parking applications

### Gateway + IoT



# TruGroove surface

## Colorimetry

### TruGroove surface (29xx) AccuRender Static White

Nominal CRI & CCT		CRI 90, 2700K	CRI 90, 3000K	CRI 90, 3500K	CRI 90, 4000K	CRI 90, 5000K
CIE 013.3-1995 <sup>1</sup>	CRI $R_a$	94	93	93	93	93
	$R_9$	55	57	59	64	68
	$G_a$	99	99	99	99	99
	$C_g$	93	93	93	93	94
IES TM-30-18 <sup>2</sup>	$R_f$	92	91	91	91	90
	$R_f, h_1$	90	90	90	91	89
	$R_g$	100	100	99	100	100
	$R_{cs}, h_1$	-6%	-5%	-6%	-5%	-5%
MDER <sup>3</sup>		0.45	0.51	0.58	0.65	0.81

1. Color Rendering Index (CRI Ra) and Strong Red (R9) are calculated in accordance with CIE 013.3-1995. Color Gamut index (Ga) and red chroma Index (C9) are CIE based properties using the Global Lighting Association's calculation tool.

2. Fidelity Index (Rf), Red Fidelity Index (Rf,h1), Gamut Index (Rg), and Red Local Chroma Shift (Rcs,h1) are calculated in accordance with IES TM-30-18.-18.

3. Melanopic Daylight Efficacy Ratio (MDER) is the measure for "spectral melanopic efficiency" as defined in CIE S 026-2018.

# TruGroove surface

## Photometry

### Direct (2911) Performance Symmetric Flush MesoOptic Lens – QN

Click “PDF” or “IES” text to download

Nominal CRI & CCT		CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Nominal Lumen Package (lm/4ft)	Watts	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File
4000	42.0	3,747	89.2	23.9	PDF	IES	3,854	91.8	24.0	PDF	IES	4,003	95.3	24.1	PDF	IES	4,060	96.7	24.2	PDF	IES	4,151	98.8	24.2	PDF	IES
3000	32.9	2,998	91.1	23.1	PDF	IES	3,082	93.7	23.2	PDF	IES	3,192	97.0	23.3	PDF	IES	3,242	98.5	23.4	PDF	IES	3,316	100.8	23.5	PDF	IES
2200	22.2	2,023	91.1	21.8	PDF	IES	2,082	93.8	21.9	PDF	IES	2,148	96.8	22.0	PDF	IES	2,186	98.5	22.0	PDF	IES	2,234	100.6	22.1	PDF	IES
1500	14.7	1,361	92.6	20.4	PDF	IES	1,403	95.4	20.5	PDF	IES	1,444	98.2	20.6	PDF	IES	1,471	100.1	20.6	PDF	IES	1,500	102.0	20.7	PDF	IES

### Direct (2911) Performance Asymmetric Wall Wash Flush MesoOptics Lens – WN

Click “PDF” or “IES” text to download

Nominal CRI & CCT		CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Nominal Lumen Package (lm/4ft)	Watts	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File
4000	42.0	3,434	81.8	23.2	PDF	IES	3,532	84.1	23.3	PDF	IES	3,669	87.4	23.4	PDF	IES	3,721	88.6	23.5	PDF	IES	3,804	90.6	23.5	PDF	IES
3000	32.9	2,747	83.5	22.4	PDF	IES	2,825	85.9	22.5	PDF	IES	2,925	88.9	22.6	PDF	IES	2,971	90.3	22.7	PDF	IES	3,039	92.4	22.8	PDF	IES
2200	22.2	1,854	83.5	21.0	PDF	IES	1,908	85.9	21.1	PDF	IES	1,969	88.7	21.3	PDF	IES	2,003	90.2	21.3	PDF	IES	2,047	92.2	21.4	PDF	IES
1500	14.7	1,247	84.8	19.7	PDF	IES	1,286	87.5	19.8	PDF	IES	1,323	90.0	19.9	PDF	IES	1,348	91.7	19.9	PDF	IES	1,375	93.5	20.0	PDF	IES

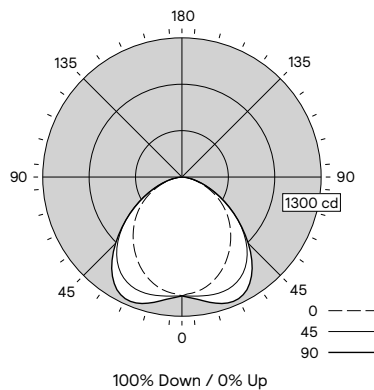
### Direct (2911) Definition Symmetric Flush Silk Lens – LN

Click “PDF” or “IES” text to download

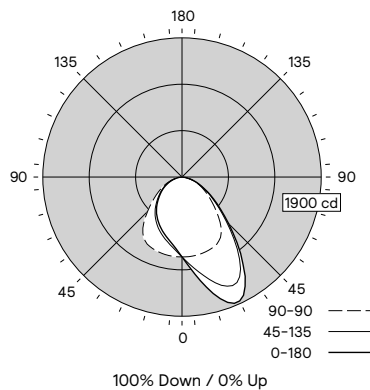
Nominal CRI & CCT		CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Nominal Lumen Package (lm/4ft)	Watts	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>2</sup>	Photometry Report	IES File
4000	42.0	3,919	93.3	25.3	PDF	IES	4,031	96.0	25.4	PDF	IES	4,187	99.7	25.6	PDF	IES	4,247	101.1	25.6	PDF	IES	4,342	103.4	25.7	PDF	IES
3000	32.9	3,136	95.3	24.6	PDF	IES	3,224	98.0	24.7	PDF	IES	3,339	101.5	24.8	PDF	IES	3,391	103.1	24.8	PDF	IES	3,469	105.4	24.9	PDF	IES
2200	22.2	2,116	95.3	23.2	PDF	IES	2,178	98.1	23.3	PDF	IES	2,247	101.2	23.4	PDF	IES	2,286	103.0	23.5	PDF	IES	2,336	105.2	23.5	PDF	IES
1500	14.7	1,423	96.8	21.8	PDF	IES	1,468	99.9	21.9	PDF	IES	1,510	102.7	22.0	PDF	IES	1,539	104.7	22.1	PDF	IES	1,569	106.7	22.2	PDF	IES

- 4ft Luminaire photometry has been conducted in accordance with IES LM-79-08. IES files can be downloaded by clicking the links in the table above, or online at [ledalite.com](http://ledalite.com). Luminaires with finishes other than standard white may result in a drop in flux and efficacy.
- Unified Glare Ratio (UGR) is calculated in accordance with CIE 117-1995. Reference conditions of 4Hx8Hx1H and reflectances of 70/50/20% have been applied using the procedure described in CIE 190-2010.

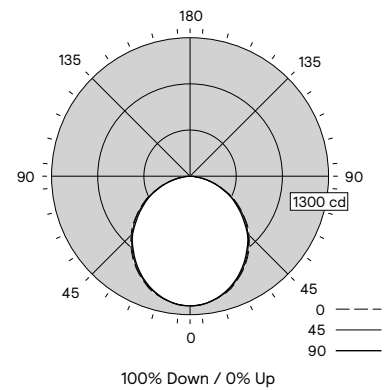
### Performance Symmetric Batwing Flush MesoOptic Lens – QN Spacing Criteria: 1.16/1.51



### Performance Asymmetric Flush MesoOptic Lens – WN Spacing Criteria: 1.66/1.34



### Definition Symmetric Flush Silk Lens – LN Spacing Criteria: 1.23/1.21



Candela plots shown are for 3000lm/4ft, CRI 90, 3500K configurations.