

TruGroove surface micro (lens) drives performance beyond the edge. Innovative optics deliver exceptional uniformity and wide row spacing from a 1.75" aperture continuous line of light. Unique Quad Optic louver cells offer a wide range of options from graze to stack to asymmetric wall wash exceeding the demands of the most challenging spaces.

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

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Line ID: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

Ordering guide<sup>12</sup>

example: TM11L940QRPC230NNN08DS1NC5W, SF

Family	Version	Distribution	Source	CRI/CCT <sup>1, 5, 8, 16</sup>			
TM	1	1	L	950 CRI 90, 5000K 940 CRI 90, 4000K 935 CRI 90, 3500K	930 CRI 90, 3000K 927 CRI 90, 2700K 9T2 CRI 90, 2700-6500K 2ch Tunable White (confirm controls)		
TM	TruGroove micro	1 Surface	1 Direct	L LED			
Optics (Direct)				Lumens (Direct) <sup>1,16</sup>	Optics (Indirect)	Lumens (Indirect)	Run Length <sup>7</sup>
Lens <sup>16</sup>		Louver Cell (specify quad optics, color, length, position) <sup>8,15</sup>		Lens			
N No lens (specify direct louver optic) Q Performance symmetric batwing flush MesoOptics W Performance asymmetric/wall wash flush MesoOptics B Definition symmetric flush black L Definition symmetric flush silk D Definition symmetric drop silk <b>Note:</b> To specify a lens/louver combination please select both lens and louver options.	Quad Optic N No louver (specify direct lens optic) G Performance 17° graze beam w/MesoOptics R Performance 27° narrow beam w/MesoOptics M Performance 48° medium beam w/MesoOptics S Performance 63° stack beam w/MesoOptics Q Performance 61° symmetric batwing w/MesoOptics W Performance 20° asymmetric wall wash w/MesoOptics	Color N None B Black W White P Platinum G Gold C Copper	Length N None C 6in (3 cells) 1 1ft (6 cells) F Full length	Position N None 1 One end 2 Both ends F Full length	NN None 40 4000 lm/4ft 35 3500 lm/4ft 30 3000 lm/4ft 25 2500 lm/4ft 20 2000 lm/4ft 15 1500 lm/4ft 10 1000 lm/4ft 07 700 lm/4ft	N None NN None	O2 2ft C2 2.5ft O3 3ft C3 3.5ft O4 4ft O5 5ft O6 6ft O8 8ft XX Continuous run in 6" increments (please specify) <b>Surface Patterns:</b> A4 2ft x 2ft Flat Corner (90°)
Voltage <sup>3</sup>		Driver <sup>3, 5</sup>		Circuit <sup>2, 10, 11</sup>		Wiring Option <sup>2, 3, 6, 10, 13</sup>	System/Controls <sup>4, 9, 14</sup>
D UNV 120-277V 3 347V	E Advance Xitanium 0-10V (1% Dim)	1 Single Circuit V Single Circuit + 1 Thru Wire (BP Trigger)		N None B Battery pack E Auxiliary wiring G GTD (please specify voltage)	NN None		
D UNV 120-277V	D Advance Xitanium DALI (5% Dim) H Lutron EcoSystem LDE1 (<1% Dim, Fade-to-Black)						
D UNV 120-277V	S Advance Xitanium SR (1% Dim)	1 Single Circuit V Single Circuit + 1 Thru Wire (BP Trigger)		N None B Battery pack R UL924 sensor bypass relay	NN None CS Interact Pro scalable wireless sensor with integral daylight & occupancy sensing, advanced grouping with dwell time SB Interact Pro wireless sensor with occupancy, daylight, and environmental sensing capabilities		
D UNV 120-277V	F Advance FlexTune SR (1% Dim) 2 0-10V 2ch (1% Dim) 6 DALI DT6 2ch (1% Dim) 8 DALI DT8 2ch (1% Dim)	1 Single Circuit V Single Circuit + 1 Thru Wire (BP Trigger)		N None	NN None CS Interact Pro scalable wireless sensor with integral daylight & occupancy sensing, advanced grouping with dwell time SB Interact Pro wireless sensor with occupancy, daylight, and environmental sensing capabilities		
Finish		Mount Type					
W Standard white T Titanium silver B Black	G Graphite gray C Custome (please specify color)	SF Surface mounted					

See footnotes on page 2.

# TruGroove surface micro (lens)

## 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. Tunable White options are available with 2ch 0-10V, DALI-2 (DT6 or DT8) drivers. Please enquire about options such as 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. Flat corners are 90°. No asymmetric lens optics in corners. Please enquire about options for custom angles and intersections. for 2ft D/I configurations please consult factory. (Extended lead times may apply for these options).
8. Tunable White not available with Louver Cell Optics.
9. Integral sensors only recommended at ends of runs for best aesthetics. Mid run sensors can be provided in remote mounts. Integral sensors not available with Drop Lens options. Please enquire about options for remote sensors. Sensors must be combined with a Sensor Ready driver options. Default sensor color is white, fixtures with black finish have black sensors. (Consult factory for other combinations). Other third party sensors also available, please enquire about options for Lutron Athena, 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/Pink or Brown) or one additional battery pack trigger wire (Orange) through a selected module, please consult factory for other Thru Wire options.
12. 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. Consult Ledalite for other options. Must be installed in conjunction with a UL1008 device.
14. Must order IRT9015 Interact commissioning remote with each system order.
15. Combination modules with Louver Cells and a Flush Lens may be specified by using the "Louver Cell Length" and "Louver Cell Position" options.
16. Black Lens limits direct lumens to 700 or 1000lm/4ft and indirect lumens to a max of 3000lm/4ft. Tunable White only in MesoOptic, Flush Silk or Drop Silk lenses, consult photometry data for lumens options of chosen configuration.

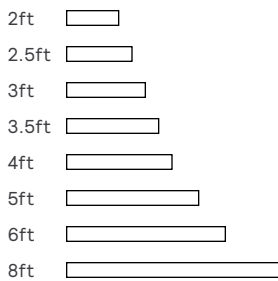
**Note:** Due to continuing product improvements, Ledalite reserves the right to change the specifications without notice

# TruGroove surface micro (lens)

## Options and dimensions

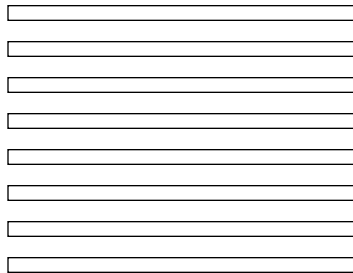
### Standalone

Keep it simple with standalone modules, available in 8 standard lengths (consult Ledalite for custom lengths).



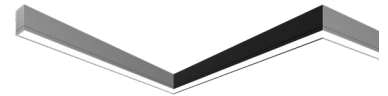
### Continuous Run

Create an uninterrupted ribbon of light with continuous runs, specifiable to 6 in.



### Patterns

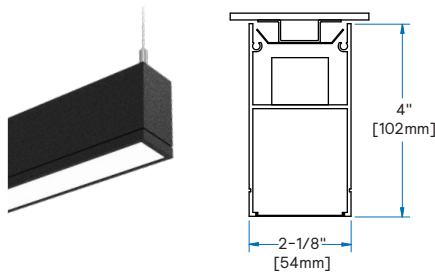
Seamlessly create any pattern imaginable (flat corners are 90°, contact Ledalite for custom angles and intersections).



## Flush lens

TruGroove surface micro with 1.75" wide Flush MesoOptics or Silk lens.

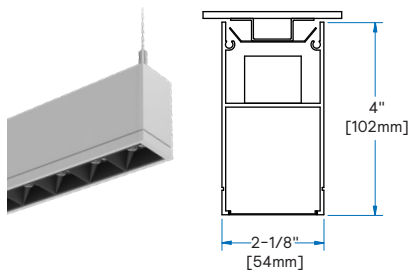
### Direct



## Louver

TruGroove surface micro with Ledalite's unique quad optic louver cells with MesoOptics in 6 distributions.

### Direct

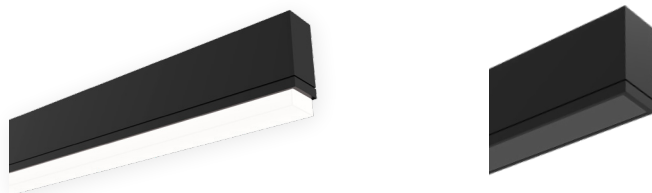


Louvers can be ordered at the full fixture length or in 6 in. or 1 ft sections at one or both ends of a fixture in combination with a lens.



## Drop lens and black lens

TruGroove surface micro with drop lens and black lens options.

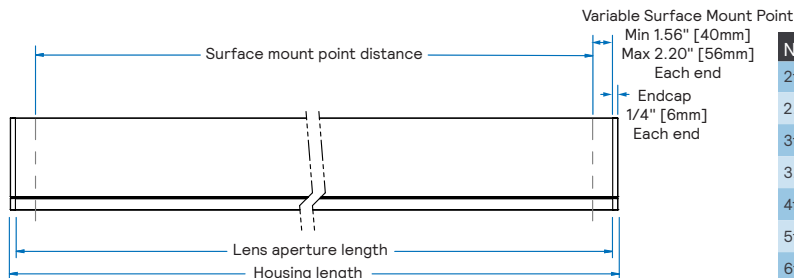


# TruGroove surface micro (lens)

## Options and dimensions

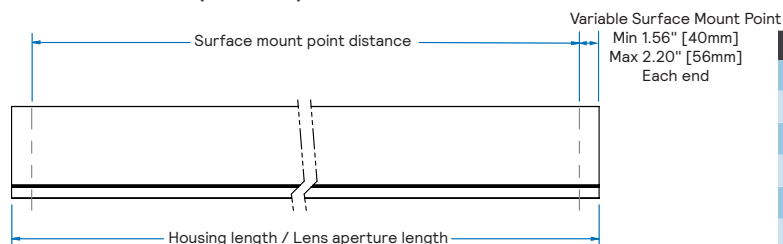
### Side Views

#### Standalone



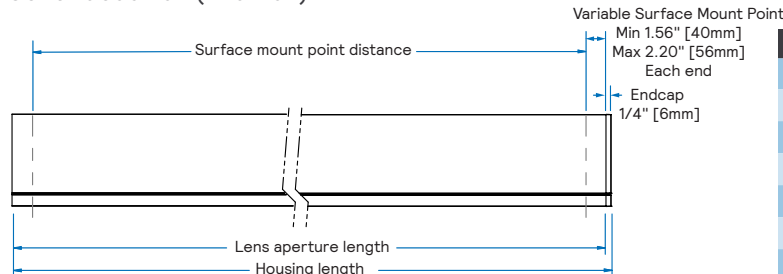
Nominal	Housing	Lens Aperture	Surface Mount Point Distance
2ft	24.5" [622mm]	24.0" [610mm]	19.60" [498mm] to 20.86" [530mm]
2.5ft	30.5" [775mm]	30.0" [762mm]	25.60" [650mm] to 26.860" [682mm]
3ft	36.5" [927mm]	36.0" [914mm]	31.60" [803] to 32.860" [835mm]
3.5ft	42.5" [1080mm]	42.0" [1067mm]	37.60" [955mm] to 38.86" [987mm]
4ft	48.5" [1232mm]	48.0" [1219mm]	43.60" [1107mm] to 44.86" [1139mm]
5ft	60.5" [1537mm]	60.0" [1524mm]	55.60" [1412mm] to 56.86" [1444mm]
6ft	72.5" [1842mm]	72.0" [1829mm]	67.60" [1717mm] to 68.86 [1749mm]
8ft	69.5" [2451mm]	96.0" [2438mm]	91.60 [2327mm] to 92.86 [2359mm]

#### Continuous Run (Mid-run)



Nominal	Housing	Lens Aperture	Surface Mount Point Distance
2ft	24.0" [610mm]	24.0" [610mm]	19.60" [498mm] to 20.86" [530mm]
2.5ft	30.0" [762mm]	30.0" [762mm]	25.60" [650mm] to 26.860" [682mm]
3ft	36.0" [914mm]	36.0" [914mm]	31.60" [803] to 32.860" [835mm]
3.5ft	42.0" [1067mm]	42.0" [1067mm]	37.60" [955mm] to 38.86" [987mm]
4ft	48.0" [1219mm]	48.0" [1219mm]	43.60" [1107mm] to 44.86" [1139mm]
5ft	60.0" [1524mm]	60.0" [1524mm]	55.60" [1412mm] to 56.86" [1444mm]
6ft	72.0" [1829mm]	72.0" [1829mm]	67.60" [1717mm] to 68.86 [1749mm]
8ft	96.0" [2438mm]	96.0" [2438mm]	91.60 [2327mm] to 92.86 [2359mm]

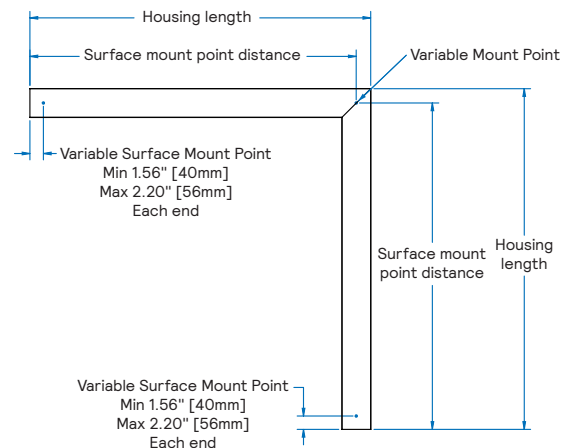
#### Continuous Run (End-run)



Nominal	Housing	Lens Aperture	Surface Mount Point Distance
2ft	24.25" [616mm]	24.0" [610mm]	19.60" [498mm] to 20.86" [530mm]
2.5ft	30.25" [768mm]	30.0" [762mm]	25.60" [650mm] to 26.860" [682mm]
3ft	36.25" [921mm]	36.0" [914mm]	31.60" [803] to 32.860" [835mm]
3.5ft	42.25" [1073mm]	42.0" [1067mm]	37.60" [955mm] to 38.86" [987mm]
4ft	48.25" [1226mm]	48.0" [1219mm]	43.60" [1107mm] to 44.86" [1139mm]
5ft	60.25" [1530mm]	60.0" [1524mm]	55.60" [1412mm] to 56.86" [1444mm]
6ft	72.25" [1842mm]	72.0" [1829mm]	67.60" [1717mm] to 68.86 [1749mm]
8ft	96.25" [2445mm]	96.0" [2438mm]	91.60 [2327mm] to 92.86 [2359mm]

### Top View

#### Flat Corner 90°



Nominal	Housing	Surface Mount Point Distance
2ft x 2ft	25.1" [636mm]	23.80" ±0.2" [604 ±5mm]

Flat corners are 2ft x 2ft and can be used to create surface patterns. Flat corners are 90°, contact Ledalite for custom angles and intersections.

# TruGroove surface micro (lens)

## 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 batwing 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.

Additionally, Ledalite's unique Quad Optic Louver Cell provides 6 tailored optical distributions with reduced glare.

### 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 3.8/ft (surface mount), 10lb (2ft x 2ft surface mounted corner).

### 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 :  $R_f \geq 90$ ,  $R_{f,ht} \geq 89$ ,  $R_g \geq 99$ ,  $R_{cs,ht} \geq -5\%$

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.

Select TruGroove micro 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 micro (lens)

## 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.

Interact Pro scalable sensor option codes across Genlyte product lines

	Evokit	Day-Brite	Ledalite	Lightolier
ZeeBee + Bluetooth + Sensing	SWZCS	SWZCS	CS	SBA accessory (external)
ZeeBee + Bluetooth	RADIO	RADIO	RA	RA
ZeeBee + Bluetooth + Sensing + Environmental data	IAOSB	IAOSB	SB	SB
ZeeBee + Highbay + Sensing	-	SWZCSH	-	-

# TruGroove surface micro (lens)

## Functionalities overview

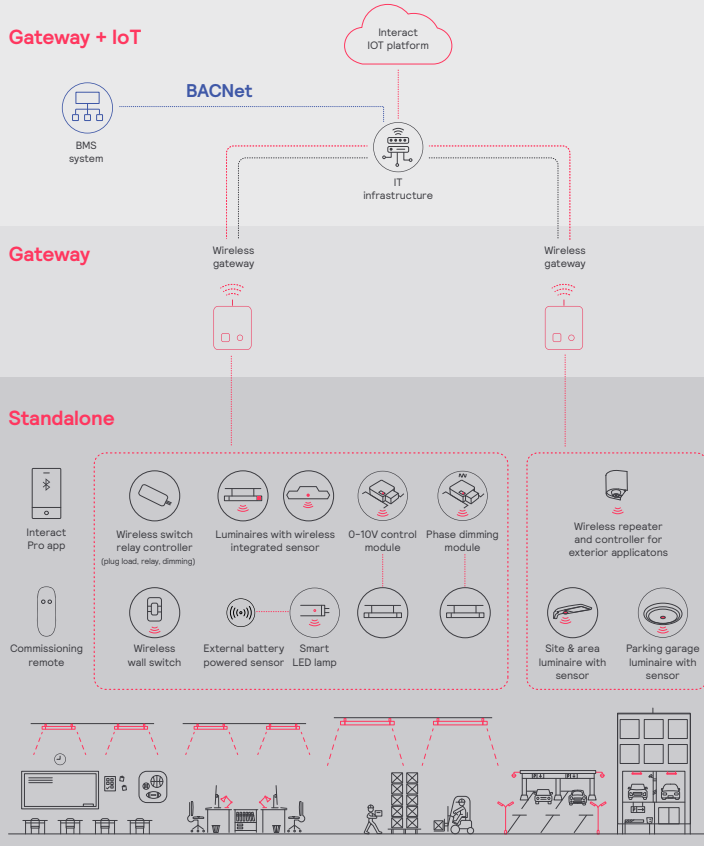
	The three tiers of Interact		
	Standalone	Gateway	Gateway + IoT
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0-10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
<b>New</b> Correlated color temperature (CCT) tuning by switch	✓	✓	✓
<b>New</b> 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



# TruGroove surface micro (lens)

## Colorimetry

TruGroove micro (TMxx) 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
	$C_9$	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.
3. Melanopic Daylight Efficacy Ratio (MDER) is the measure for "spectral melanopic efficiency" as defined in CIE S 026-2018.

## Photometry

The following pages contain photometry for TruGroove suspended micro with lens.

Photometry for TruGroove suspended micro with louver can be found by scanning the QR code or following the link: [https://www.signify.com/api/assets/v1/file/Signify/content/c0c6b81235424e1f971bae6e01177174/TruGroove\\_Surface\\_Micro\\_Louver\\_SpecSheet.pdf](https://www.signify.com/api/assets/v1/file/Signify/content/c0c6b81235424e1f971bae6e01177174/TruGroove_Surface_Micro_Louver_SpecSheet.pdf)





# TruGroove surface micro (lens)

## Photometry

### Direct (TM11) Performance Symmetric Batwing Flush MesoOptic lens

Nominal CRI & CCT		Watts	CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Direct	Indirect		Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File
4000	N/A	43.1	3,759	87.2	25.5	PDF	IES	3,856	89.5	25.6	PDF	IES	3,995	92.7	25.7	PDF	IES	4,038	93.7	25.7	PDF	IES	4,085	94.8	25.8	PDF	IES
3500	N/A	37.3	3,294	88.3	25.0	PDF	IES	3,372	90.4	25.1	PDF	IES	3,498	93.8	25.3	PDF	IES	3,537	94.8	25.3	PDF	IES	3,575	95.8	25.3	PDF	IES
3000	N/A	31.6	2,832	89.6	24.5	PDF	IES	2,894	91.6	24.6	PDF	IES	3,006	95.1	24.7	PDF	IES	3,039	96.2	24.8	PDF	IES	3,070	97.2	24.8	PDF	IES
2500	N/A	26.4	2,358	89.3	23.9	PDF	IES	2,407	91.2	24.0	PDF	IES	2,503	94.8	24.1	PDF	IES	2,530	95.8	24.1	PDF	IES	2,555	96.8	24.2	PDF	IES
2000	N/A	20.7	1,892	91.4	23.1	PDF	IES	1,930	93.2	23.2	PDF	IES	2,008	97.0	23.3	PDF	IES	2,029	98.0	23.4	PDF	IES	2,048	98.9	23.4	PDF	IES
1500	N/A	15.9	1,416	89.1	22.1	PDF	IES	1,445	90.9	22.2	PDF	IES	1,505	94.7	22.3	PDF	IES	1,518	95.5	22.4	PDF	IES	1,533	96.4	22.4	PDF	IES
1000	N/A	11.2	933	83.3	20.7	PDF	IES	952	85.0	20.7	PDF	IES	993	88.7	20.9	PDF	IES	999	89.2	20.9	PDF	IES	1,010	90.2	20.9	PDF	IES

### Direct (TM11) Performance Asymmetric Wall Wash Flush MesoOptic lens

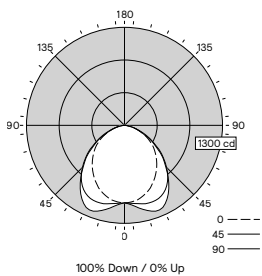
Nominal CRI & CCT		Watts	CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Direct	Indirect		Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File
4000	N/A	43.1	3,641	84.5	24.9	PDF	IES	3,735	86.7	25.0	PDF	IES	3,870	89.8	25.1	PDF	IES	3,911	90.7	25.1	PDF	IES	3,957	91.8	25.2	PDF	IES
3500	N/A	37.3	3,190	85.5	24.4	PDF	IES	3,266	87.6	24.5	PDF	IES	3,388	90.8	24.6	PDF	IES	3,426	91.8	24.7	PDF	IES	3,463	92.8	24.7	PDF	IES
3000	N/A	31.6	2,743	86.8	23.9	PDF	IES	2,803	88.7	24.0	PDF	IES	2,912	92.2	24.1	PDF	IES	2,944	93.2	24.2	PDF	IES	2,974	94.1	24.2	PDF	IES
2500	N/A	26.4	2,284	86.5	23.3	PDF	IES	2,332	88.3	23.3	PDF	IES	2,425	91.9	23.5	PDF	IES	2,451	92.8	23.5	PDF	IES	2,475	93.8	23.6	PDF	IES
2000	N/A	20.7	1,832	88.5	22.5	PDF	IES	1,869	90.3	22.6	PDF	IES	1,945	94.0	22.7	PDF	IES	1,965	94.9	22.7	PDF	IES	1,984	95.8	22.8	PDF	IES
1500	N/A	15.9	1,371	86.2	21.5	PDF	IES	1,399	88.0	21.6	PDF	IES	1,458	91.7	21.7	PDF	IES	1,470	92.5	21.7	PDF	IES	1,485	93.4	21.8	PDF	IES
1000	N/A	11.2	904	80.7	20.0	PDF	IES	922	82.3	20.1	PDF	IES	962	85.9	20.3	PDF	IES	968	86.4	20.3	PDF	IES	979	87.4	20.3	PDF	IES

### Direct (TM11) Definition Symmetric Flush Silk lens

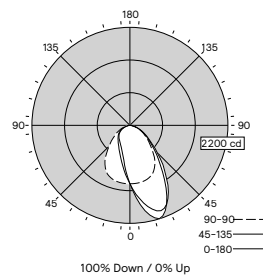
Nominal CRI & CCT		Watts	CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Direct	Indirect		Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File	Flux (lm/4ft) <sup>1</sup>	Efficacy (LPW) <sup>1</sup>	UGR <sup>5</sup>	Photometry Report	IES File
4000	N/A	43.1	3,955	91.8	27.2	PDF	IES	4,058	94.2	27.3	PDF	IES	4,204	97.5	27.4	PDF	IES	4,249	98.6	27.4	PDF	IES	4,299	99.7	27.5	PDF	IES
3500	N/A	37.3	3,466	92.9	26.7	PDF	IES	3,548	95.1	26.8	PDF	IES	3,681	98.7	26.9	PDF	IES	3,721	99.8	27.0	PDF	IES	3,762	100.9	27.0	PDF	IES
3000	N/A	31.6	2,980	94.3	26.2	PDF	IES	3,045	96.4	26.3	PDF	IES	3,163	100.1	26.4	PDF	IES	3,198	101.2	26.4	PDF	IES	3,231	102.2	26.5	PDF	IES
2500	N/A	26.4	2,482	94.0	25.6	PDF	IES	2,533	95.9	25.6	PDF	IES	2,634	99.8	25.8	PDF	IES	2,662	100.8	25.8	PDF	IES	2,688	101.8	25.8	PDF	IES
2000	N/A	20.7	1,990	96.1	24.8	PDF	IES	2,031	98.1	24.9	PDF	IES	2,113	102.1	25.0	PDF	IES	2,135	103.1	25.0	PDF	IES	2,155	104.1	25.1	PDF	IES
1500	N/A	15.9	1,490	93.7	23.8	PDF	IES	1,520	95.6	23.9	PDF	IES	1,583	99.6	24.0	PDF	IES	1,597	100.4	24.0	PDF	IES	1,613	101.4	24.1	PDF	IES
1000	N/A	11.2	982	87.7	23.3	PDF	IES	1,002	89.5	22.4	PDF	IES	1,045	93.3	22.5	PDF	IES	1,052	93.9	22.6	PDF	IES	1,063	94.9	22.6	PDF	IES

1. 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.
2. 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.

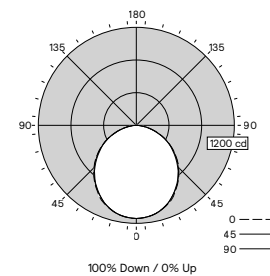
#### Performance Symmetric Batwing Flush MesoOptic lens Spacing Criteria: 1.17/1.48



#### Performance Asymmetric Wall Wash Flush MesoOptic lens Spacing Criteria: 1.44/1.23



#### Definition Symmetric Flush Silk lens Spacing Criteria: 1.23/1.22



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