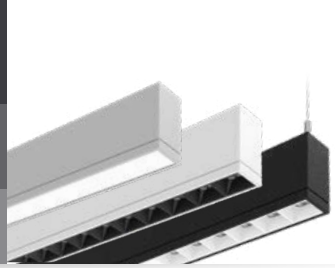
LEDALITE

Linear

TruGroove

Surface micro (louver)



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

Project:

Location:

Cat.No:

Type:

Line ID: Qty:

Notes:

Ordering guide[12]

example: TM11L940QRPC230NNN08DS1NCSW, SF

Family — TM

TM TruGroove micro

Version — 1

1 Surface

Distribution — 1

1 Direct

Source — L

L LED

CRI/CCT [1, 5, 8, 16]

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)

Optics (Direct)

Lens[16]

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

Note: To specify a lens/louver combination please select both lens and louver options.

Louver Cell (specify quad optics, color, length, position)[8,15]

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

Lumens (Direct)[1,16]

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

Optics (Indirect) — Lens

N None

Lumens (Indirect)

NN None

Run Length[7]

02 2ft
C2 2.5ft
03 3ft
C3 3.5ft
04 4ft
05 5ft
06 6ft
08 8ft
XX Continuous run in 6" increments (please specify)

Surface Patterns:
A4 2ft x 2ft Flat Corner (90°)

Voltage [3]

D UNV 120–277V
3 347V

Driver [3, 5]

E Advance Xitanium 0–10V (1% Dim)
D Advance Xitanium DALI (5% Dim)
H Lutron EcoSystem LDE1 (<1% Dim, Fade-to-Black)
S Advance Xitanium SR (1% Dim)
F Advance FlexTune SR (1% Dim)
2 0–10V 2ch (1% Dim)
6 DALI DT6 2ch (1% Dim)
8 DALI DT8 2ch (1% Dim)

Circuit [2, 10, 11]

1 Single Circuit
V Single Circuit + 1 Thru Wire (BP Trigger)

Wiring Option[2,3,6,10,13]

N None
B Battery pack
E Auxiliary wiring
G GTD (please specify voltage)
R UL924 sensor bypass relay

System/Controls[4, 9, 14]

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

W Standard white
T Titanium silver
B Black
G Graphite gray
C Custome (please specify color)

Mount Type — SF

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

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 louver

Options and dimensions

Standalone

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

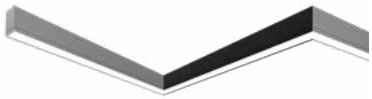
2ft
2.5ft
3ft
3.5ft
4ft
5ft
6ft
8ft

Continuous Run

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

Patterns

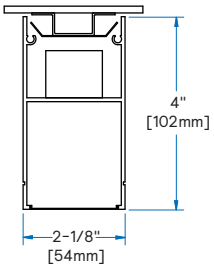
Seamlessly create any pattern imaginable (flat corners are 90°, contact Ledalite for custom angles and intersections).



Flush lens

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

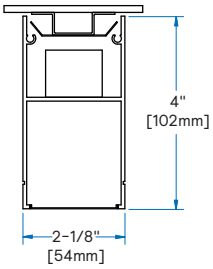
Direct



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

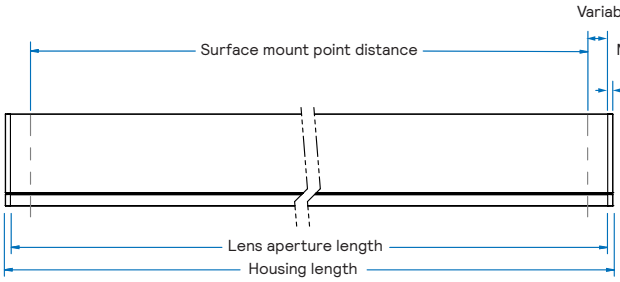
TruGroove surface micro with drop lens and black lens options.

TruGroove surface micro louver

Options and dimensions

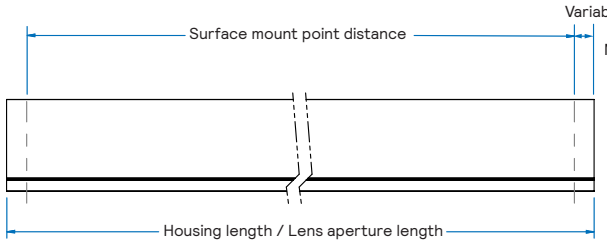
Side Views

Standalone



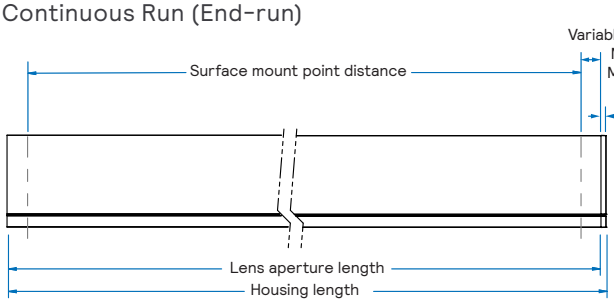
Nominal	Housing	Lens Aperture	Surface Mount Point Distance
2ft	24.5" [622mm]	24.0" [610mm]	19.60" [498mm] to 20.86" [530mm]
2.5ft	30.5" [775mm]	30.0" [762mm]	25.60" [650mm] to 26.860" [682mm]
3ft	36.5" [927mm]	36.0" [914mm]	31.60" [803] to 32.860" [835mm]
3.5ft	42.5" [1080mm]	42.0" [1067mm]	37.60" [955mm] 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]

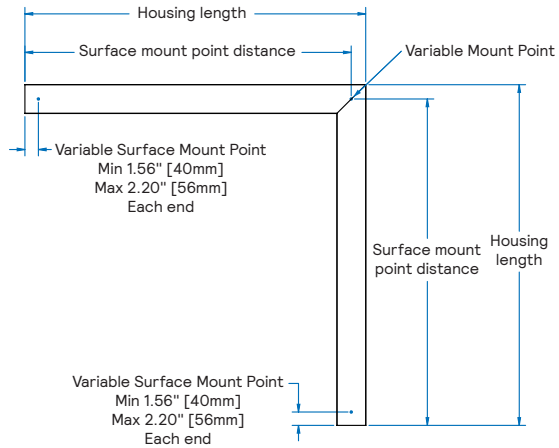
Continuous Run (End-run)



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 louver

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 $R_a \geq 90$, $R_9 \geq 50$, $G_a \geq 97$, $C_g \geq 90$
IES TM-30-18 : $R_f \geq 90$, $R_{f,h1} \geq 89$, $R_g \geq 99$, $R_{cs,h1} \geq -5\%$

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®.

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

TruGroove is Declare label certified. More information on the TruGroove label can be found on https://declare.living-future.org/ and through the Declare ID **SGY-0007**.

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

QuickShip

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

TruGroove surface micro louver

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

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

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 louver

Functionalities overview

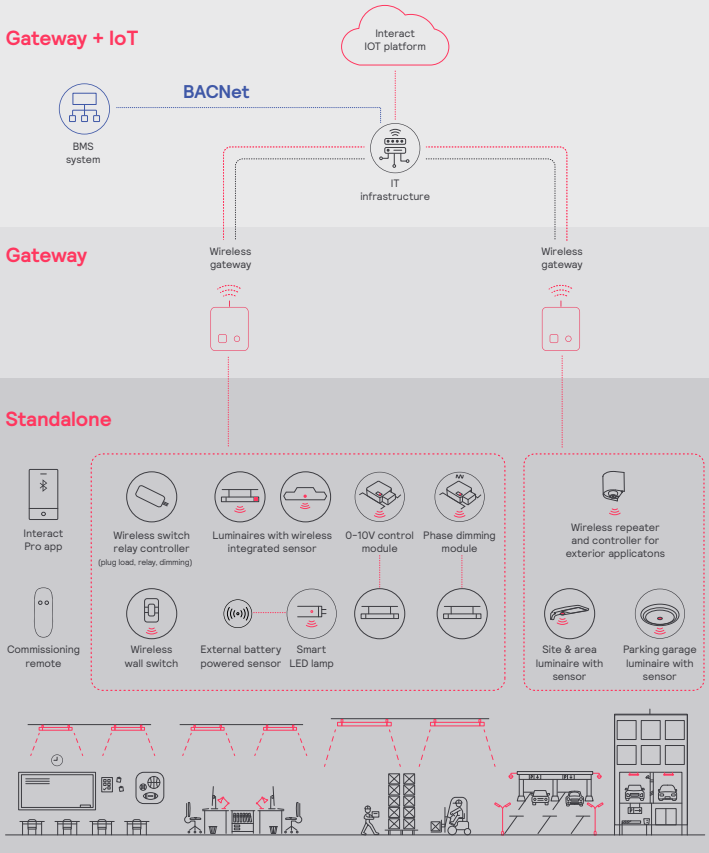
	The three tiers of Interact		
	Standalone	Gateway	Gateway + IoT
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0–10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
New Correlated 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



TruGroove surface micro louver

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 [1]	CRI R_a	94	93	93	93	93
	R_g	55	57	59	64	68
	G_a	99	99	99	99	99
	C_g	93	93	93	93	94
IES TM-30-18 [2]	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 [3]		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 louvers.

Photometry for TruGroove suspended micro with Lens can be found by scanning the QR code or following the link: https://www.signify.com/api/assets/v1/file/Signify/content/b3b5c0da54fc4db38edaada3013a1b5a/TruGroove_Surface_Micro_Lens_SpecSheet_CST.pdf

TruGroove surface micro louver

Photometry

Direct (TM11) Performance 61° Symmetric Batwing w/ MesoOptics louver

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) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File
Direct	Indirect																										
4000	NA	34.8	3,775	108.5	19.3	PDF	IES	3,862	111.0	19.4	PDF	IES	4,008	115.2	19.5	PDF	IES	4,052	116.4	19.6	PDF	IES	4,095	117.7	19.6	PDF	IES
3500	NA	30.1	3,288	109.2	18.8	PDF	IES	3,359	111.6	18.9	PDF	IES	3,490	115.9	19.1	PDF	IES	3,528	117.2	19.1	PDF	IES	3,564	118.4	19.1	PDF	IES
3000	NA	26.0	2,833	109.0	18.3	PDF	IES	2,891	111.2	18.4	PDF	IES	3,006	115.6	18.5	PDF	IES	3,039	116.9	18.6	PDF	IES	3,068	118.0	18.6	PDF	IES
2500	NA	21.1	2,348	111.3	17.7	PDF	IES	2,395	113.5	17.7	PDF	IES	2,493	118.2	17.9	PDF	IES	2,518	119.3	17.9	PDF	IES	2,543	120.5	18.0	PDF	IES
2000	NA	17.2	1,877	109.1	16.9	PDF	IES	1,915	111.3	17.0	PDF	IES	1,994	115.9	17.1	PDF	IES	2,012	117.0	17.1	PDF	IES	2,032	118.1	17.2	PDF	IES
1500	NA	13.4	1,421	106.0	15.9	PDF	IES	1,451	108.3	16.0	PDF	IES	1,512	112.8	16.1	PDF	IES	1,523	113.7	16.2	PDF	IES	1,539	114.9	16.2	PDF	IES
1000	NA	9.7	939	96.8	14.5	PDF	IES	958	98.8	14.6	PDF	IES	1,000	103.1	14.7	PDF	IES	1,006	103.7	14.7	PDF	IES	1,017	104.8	14.8	PDF	IES

Direct (TM11) Performance 63° Stack Beam w/ MesoOptics louver

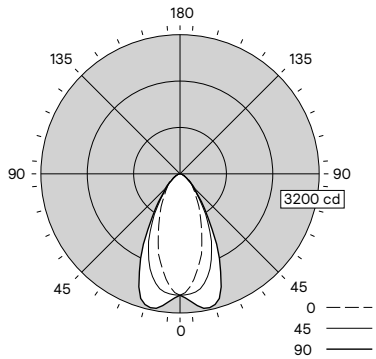
Nominal CRI &CCT			CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Nominal Lumen Package (lm/4ft)		Watts	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File
Direct	Indirect																										
4000	NA	32.4	3,770	116.4	18.1	PDF	IES	3,853	118.9	18.2	PDF	IES	4,001	123.5	18.3	PDF	IES	4,046	124.9	18.4	PDF	IES	4,087	126.1	18.4	PDF	IES
3500	NA	28.2	3,289	116.6	17.6	PDF	IES	3,358	119.1	17.7	PDF	IES	3,490	123.8	17.8	PDF	IES	3,529	125.1	17.9	PDF	IES	3,563	126.3	17.9	PDF	IES
3000	NA	24.4	2,821	115.6	17.2	PDF	IES	2,879	118.0	17.2	PDF	IES	2,995	122.7	17.3	PDF	IES	3,026	124.0	17.3	PDF	IES	3,056	125.2	17.4	PDF	IES
2500	NA	19.9	2,346	117.9	16.5	PDF	IES	2,394	120.3	16.5	PDF	IES	2,491	125.2	16.7	PDF	IES	2,516	126.4	16.8	PDF	IES	2,541	127.7	16.7	PDF	IES
2000	NA	16.3	1,887	115.8	15.7	PDF	IES	1,926	118.2	15.9	PDF	IES	2,006	123.1	15.9	PDF	IES	2,023	124.1	15.9	PDF	IES	2,044	125.4	16.0	PDF	IES
1500	NA	12.6	1,400	111.1	14.7	PDF	IES	1,429	113.4	14.7	PDF	IES	1,489	118.2	14.9	PDF	IES	1,500	119.0	14.9	PDF	IES	1,516	120.3	14.9	PDF	IES
1000	NA	9.2	932	101.3	13.3	PDF	IES	950	103.3	13.3	PDF	IES	992	107.8	13.5	PDF	IES	997	108.4	13.5	PDF	IES	1,009	109.7	13.6	PDF	IES

Direct (TM11) Performance 20° Asymmetric Wall Wash w/ MesoOptics louver

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) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File
Direct	Indirect																										
4000	NA	30.9	3,731	120.7	18.1	PDF	IES	3,812	123.4	18.2	PDF	IES	3,960	128.2	18.3	PDF	IES	4,004	129.6	18.3	PDF	IES	4,044	130.9	18.4	PDF	IES
3500	NA	27.0	3,251	120.4	17.6	PDF	IES	3,319	122.9	17.7	PDF	IES	3,451	127.8	17.8	PDF	IES	3,488	129.2	17.8	PDF	IES	3,522	130.4	17.9	PDF	IES
3000	NA	23.3	2,787	119.6	17.1	PDF	IES	2,843	122.0	17.1	PDF	IES	2,958	127.0	17.3	PDF	IES	2,989	128.3	17.3	PDF	IES	3,018	129.5	17.3	PDF	IES
2500	NA	19.1	2,339	122.5	16.5	PDF	IES	2,387	125.0	16.5	PDF	IES	2,485	130.1	16.7	PDF	IES	2,509	131.4	16.7	PDF	IES	2,533	132.6	16.7	PDF	IES
2000	NA	15.6	1,862	119.4	15.7	PDF	IES	1,901	121.9	15.7	PDF	IES	1,979	126.9	15.9	PDF	IES	1,996	127.9	15.9	PDF	IES	2,017	129.3	15.9	PDF	IES
1500	NA	12.2	1,404	115.1	14.7	PDF	IES	1,433	117.5	14.8	PDF	IES	1,494	122.5	14.9	PDF	IES	1,505	123.4	14.9	PDF	IES	1,521	124.7	15.0	PDF	IES
1000	NA	8.8	918	104.3	13.2	PDF	IES	936	106.4	13.3	PDF	IES	978	111.1	13.4	PDF	IES	983	111.7	13.4	PDF	IES	994	113.0	13.5	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. 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.
3. Photometry in tables above is based on white louvers. Photometry data for other color louvers is available for download on our website.
4. Photometry is for full louver configuration. For lens/louver combination, please scale separate IES files for lens and louver sections.

Performance 61° Symmetric Batwing
MesoOptics louver
Spacing Criteria: 0.65/1.00



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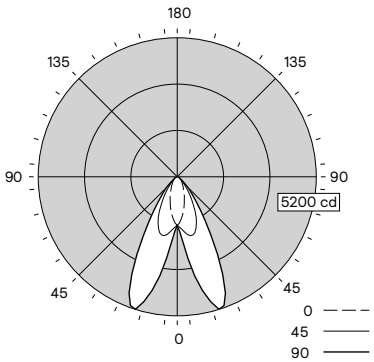
Performance 63° Symmetric Stack Beam
MesoOptics louver
Spacing Criteria: 0.54/1.37



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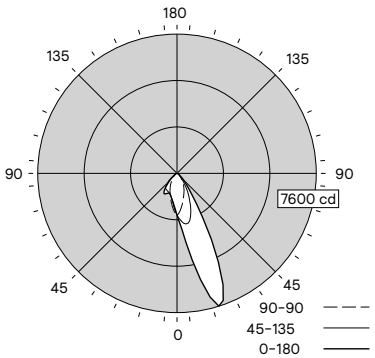
Performance 20° Asymmetric Wall Wash
MesoOptics louver
Spacing Criteria: 1.29/0.59



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

TruGroove surface micro louver

Photometry

Direct (TM01) Performance 48° Medium Beam w/ MesoOptics louver

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) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File
Direct	Indirect																										
4000	NA	30.9	3,828	123.9	15.7	PDF	IES	3,911	126.6	15.7	PDF	IES	4,063	131.5	15.9	PDF	IES	4,108	132.9	15.9	PDF	IES	4,150	134.3	16.0	PDF	IES
3500	NA	27.0	3,336	123.6	15.2	PDF	IES	3,405	126.1	15.3	PDF	IES	3,541	131.1	15.4	PDF	IES	3,579	132.6	15.4	PDF	IES	3,614	133.9	15.5	PDF	IES
3000	NA	23.3	2,860	122.7	14.7	PDF	IES	2,918	125.2	14.7	PDF	IES	3,036	130.3	14.9	PDF	IES	3,067	131.6	14.9	PDF	IES	3,097	132.9	14.9	PDF	IES
2500	NA	19.1	2,400	125.7	14.1	PDF	IES	2,449	128.2	14.1	PDF	IES	2,549	133.5	14.3	PDF	IES	2,574	134.8	14.3	PDF	IES	2,599	136.1	14.3	PDF	IES
2000	NA	15.6	1,911	122.5	13.3	PDF	IES	1,950	125.0	13.3	PDF	IES	2,031	130.2	13.5	PDF	IES	2,048	131.3	13.5	PDF	IES	2,069	132.6	13.5	PDF	IES
1500	NA	12.2	1,441	118.1	12.3	PDF	IES	1,471	120.6	12.4	PDF	IES	1,533	125.7	12.5	PDF	IES	1,544	126.6	12.5	PDF	IES	1,560	127.9	12.6	PDF	IES
1000	NA	8.8	942	107.0	10.8	PDF	IES	960	109.1	10.9	PDF	IES	1,003	114.0	11.0	PDF	IES	1,008	114.5	11.0	PDF	IES	1,020	115.9	11.1	PDF	IES

Direct (TM11) Performance 27° Narrow Beam w/ MesoOptic louver

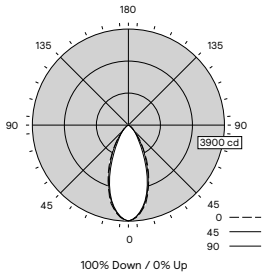
Nominal CRI &CCT			CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Nominal Lumen Package (lm/4ft)		Watts	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File
Direct	Indirect																										
4000	NA	30.9	3,763	121.8	10.9	PDF	IES	3,844	124.4	11.0	PDF	IES	3,993	129.2	11.2	PDF	IES	4,038	130.7	11.2	PDF	IES	4,079	132.0	11.2	PDF	IES
3500	NA	27.0	3,279	121.4	10.5	PDF	IES	3,347	124.0	10.5	PDF	IES	3,480	128.9	10.7	PDF	IES	3,518	130.3	10.7	PDF	IES	3,552	131.6	10.7	PDF	IES
3000	NA	23.3	2,811	120.6	9.9	PDF	IES	2,868	123.1	10.0	PDF	IES	2,984	128.1	10.1	PDF	IES	3,015	129.4	10.2	PDF	IES	3,044	130.6	10.2	PDF	IES
2500	NA	19.1	2,359	123.5	9.3	PDF	IES	2,407	126.0	9.4	PDF	IES	2,506	131.2	9.5	PDF	IES	2,530	132.5	9.6	PDF	IES	2,555	133.8	9.6	PDF	IES
2000	NA	15.6	1,878	120.4	8.5	PDF	IES	1,917	122.9	8.6	PDF	IES	1,996	127.9	8.7	PDF	IES	2,013	129.0	8.8	PDF	IES	2,034	130.4	8.8	PDF	IES
1500	NA	12.2	1,416	116.1	7.6	PDF	IES	1,446	118.5	7.6	PDF	IES	1,507	123.5	7.8	PDF	IES	1,517	124.3	7.8	PDF	IES	1,534	125.7	7.8	PDF	IES
1000	NA	8.8	926	105.2	6.1	PDF	IES	944	107.3	6.1	PDF	IES	986	112.0	6.3	PDF	IES	991	112.6	6.3	PDF	IES	1,002	113.9	6.4	PDF	IES

Direct (TM11) Performance 17° Graze Beam w/ MesoOptic louver

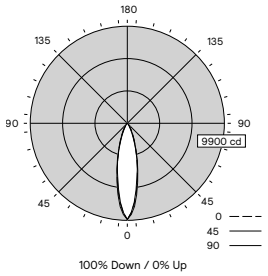
Nominal CRI &CCT			CRI 90, 2700K					CRI 90, 3000K					CRI 90, 3500K					CRI 90, 4000K					CRI 90, 5000K				
Nominal Lumen Package (lm/4ft)		Watts	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File	Flux (lm/4ft) [1]	Efficacy (LPW) [1]	UGR [2]	Photometry Report	IES File
Direct	Indirect																										
4000	NA	30.9	3,773	122.1	12.7	PDF	IES	3,855	124.8	12.7	PDF	IES	4,004	129.6	12.9	PDF	IES	4,049	131.0	12.9	PDF	IES	4,090	132.4	12.9	PDF	IES
3500	NA	27.0	3,288	121.8	12.2	PDF	IES	3,356	124.3	12.3	PDF	IES	3,490	129.3	12.4	PDF	IES	3,527	130.6	12.4	PDF	IES	3,562	131.9	12.5	PDF	IES
3000	NA	23.3	2,818	120.9	11.6	PDF	IES	2,876	123.4	11.7	PDF	IES	2,992	128.4	11.9	PDF	IES	3,023	129.7	11.9	PDF	IES	3,052	131.0	11.9	PDF	IES
2500	NA	19.1	2,366	123.9	11.0	PDF	IES	2,414	126.4	11.1	PDF	IES	2,513	131.6	11.3	PDF	IES	2,537	132.8	11.3	PDF	IES	2,562	134.1	11.3	PDF	IES
2000	NA	15.6	1,883	120.7	10.2	PDF	IES	1,922	123.2	10.3	PDF	IES	2,002	128.3	10.5	PDF	IES	2,019	129.4	10.5	PDF	IES	2,040	130.8	10.5	PDF	IES
1500	NA	12.2	1,420	116.4	9.3	PDF	IES	1,450	118.9	9.3	PDF	IES	1,511	123.9	9.5	PDF	IES	1,522	124.8	9.5	PDF	IES	1,538	126.1	9.5	PDF	IES
1000	NA	8.8	928	105.5	7.8	PDF	IES	946	107.5	7.9	PDF	IES	989	112.4	8.0	PDF	IES	994	113.0	8.0	PDF	IES	1,005	114.2	8.1	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. 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.
3. Photometry in tables above is based on white louvers. Photometry data for other color louvers is available for download on our website.
4. Photometry is for full louver configuration. For lens/louver combination, please scale separate IES files for lens and louver sections.

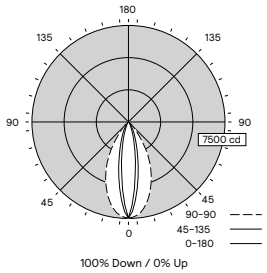
Performance Symmetric 48° Medium Beam
MesoOptics louver
Spacing Criteria: 0.75/0.70



Performance 27° Narrow Beam
MesoOptics louver
Spacing Criteria: 0.41/0.40



Performance 17° Graze Beam
MesoOptics louver
Spacing Criteria: 0.28/0.82



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

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