

# Particle

Product Guide

## Unios Toolbox

This digital tool provides you with a platform for configuring, bookmarking and collaborating on luminaires for any project.

[unios.com/toolbox](https://unios.com/toolbox)

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## Catalogues

Stay up to date with the latest Unios luminaire releases with our range of product catalogues.

[unios.com/catalogues](https://unios.com/catalogues)

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## Education

With contributions from leading experts, Universal Light is dedicated to increasing the awareness of the impact of light and the lighting industry.

[unios.com/universallight](https://unios.com/universallight)

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## White Papers

Learn about the specifics of new technologies and trending topics in methodically researched white papers.

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# Lighting simplified.

Building digital tools.  
Sharing new knowledge.

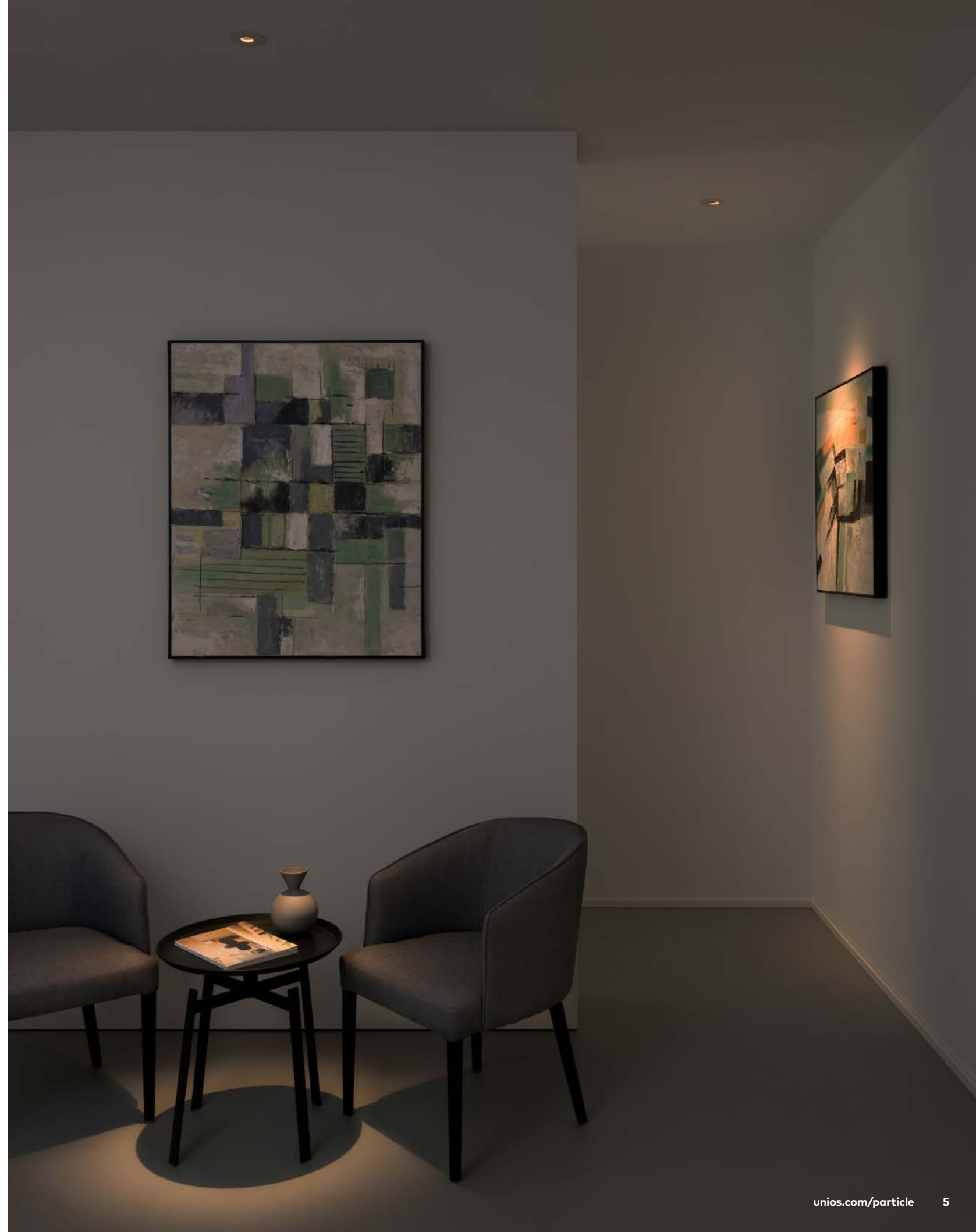
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## Reimagining the quintessential recessed downlight

This impeccable downlight series is the perfect combination of form, function and technology. The Particle Family delivers the ultimate in glare control, versatility and optics. The extensive R&D scrutinised every component to bring this definitive downlight range to life. Rather than a reflector, the Particle Family

uses lens technology to minimise glare and light spillage to create a sharper, more precise beam. The Particle Family has three collections and various sizes to meet the most stringent project criteria. From commercial-grade applications to high-end residential, there is a Particle to suit every application.

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Particle Downlight

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NEW Particle Focus Downlight

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NEW Particle Accent Downlight

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### Low Glare

The lens is deeply recessed into the fixture sheathed in a black inner trim to minimise glare. The quality engineered design optimises the components to create the most comfortable environment for the occupants.



### IP44 Rating

The IP44 rating ensures the Particle is suitable for indoor and outdoor under cover applications in any commercial or residential projects. You can expect protection against general dirt and dust in addition to being splash-proof.

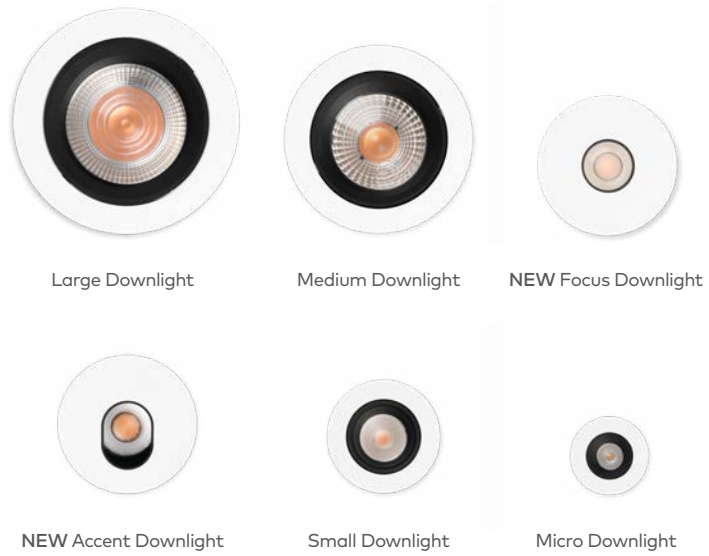


### 92+ CRI

In applications where colour accuracy and efficacy are required, the Particle Downlight Family at CRI 92 with R9 >50 is the perfect choice delivering vividness with uncompromising efficiency and output.



## The Particle Family



### An immaculate lighting solution for every occasion

With a range of size, optic and design options, the Particle Downlight Family delivers varied lighting outputs from one base form. The Particle Downlight sizes range from a micro starlight to a broader commercial-grade downlight. The Particle Focus and Accent brings lighting curation to the next level with a sharp beam highlighting objects and artefacts

without light spillage. This innovative range of downlights is designed as a genuine all-rounder, just as comfortable in a residential living space as it is in open expanses of a shopping complex. With ultra-low glare, whatever the project criteria or design intent, the Particle Downlight Family delivers.



#### Particle Downlight

A low glare downlight with a unique ridged inner trim, 20° tilt and four model sizes for versatility.



#### NEW Particle Focus Downlight

A low glare, inconspicuous downlight to highlight objects, furniture and architectural elements.



#### NEW Particle Accent Downlight

An adjustable (up to 30° tilt) downlight with a key-slot design for accenting objects and artwork.



Achieve optimal comfort with remarkable glare control



**Downlight Reflector**  
Increased light spillage across surfaces.



**Lens Technology**  
Precise focus on the intended object, with minimal spill.

With the conventional approach of reflectors, the light cut-off is often soft with limited control over the beam angle, since a fair amount of light doesn't touch the reflector surface. However, with the application of lens technology, the Particle Downlight Family enables complete control over light distribution while minimising glare and undesirable light spills. Whether a narrow or wider beam angle, the Particle's deep-recessed lens system allows it to produce a precise, sharp beam focusing on your intended

object while adding an intense contrast effect to the space. The inner gimbal surrounding the fascia is black to further minimise glare and control light spillage. The downlight's design and componentry are carefully considered to perfectly harness the lens technology. The Particle Downlight is architecturally inconspicuous, as are traditional reflector-based downlights, but by using lens technology, there is a significant improvement in visual comfort and optics.

**Available in**

Pencil 12-15° beam

Narrow 24-30° beam

Medium 36-38° beam



## Shadow-free accent illumination with superior beam control

Creating the perfect atmosphere requires a combination of ambience, task and accent lighting to deliver superior results. Engineered to provide focused light, the Particle Accent is unobtrusive to the architectural surrounding yet provides comfortable accent lighting. The lens technology provides complete control over

beam spread, allowing you to direct light precisely where you need it. Providing asymmetrical illumination with beam angles of 12°, 24° or 36° with up to 30° tilt, this downlight is particularly advantageous when lighting artwork as it drives the visual focus towards the object of beauty.



The Particle Accent has 30° of tilt for complete highlighting flexibility.



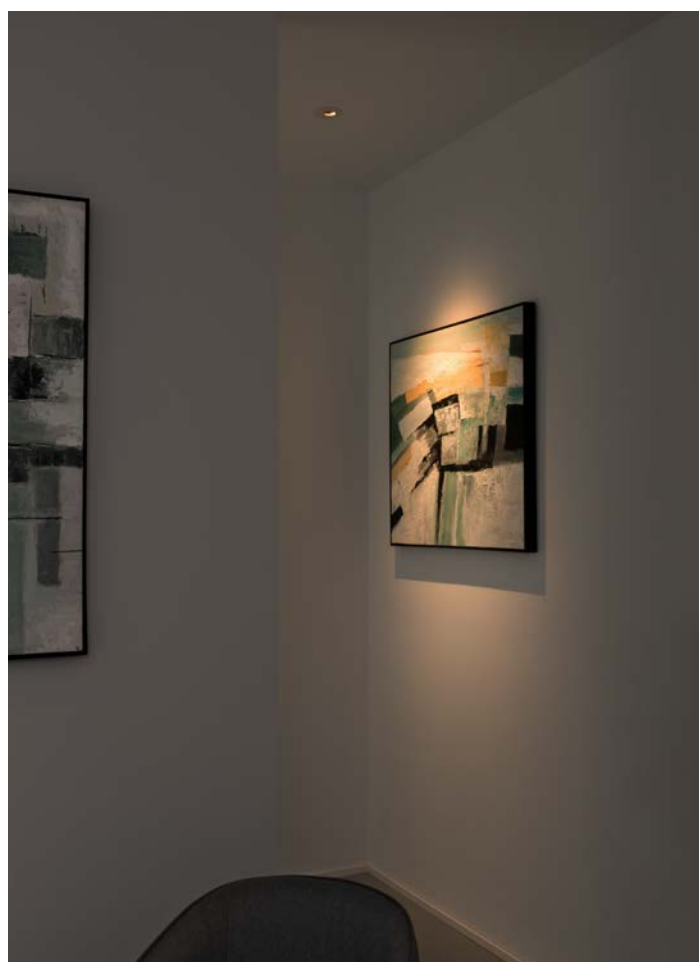




**1F**  
Technical Showroom  
Concept Showroom  
Niche Boardroom  
Terrace

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**GF**  
Office  
Lab 37  
Linear Fabrication  
Production  
Unios Arena  
Neighbourhood Cafeteria  
Warehouse



→  
A key-slot design for the perfect angle of light to highlight objects and artwork

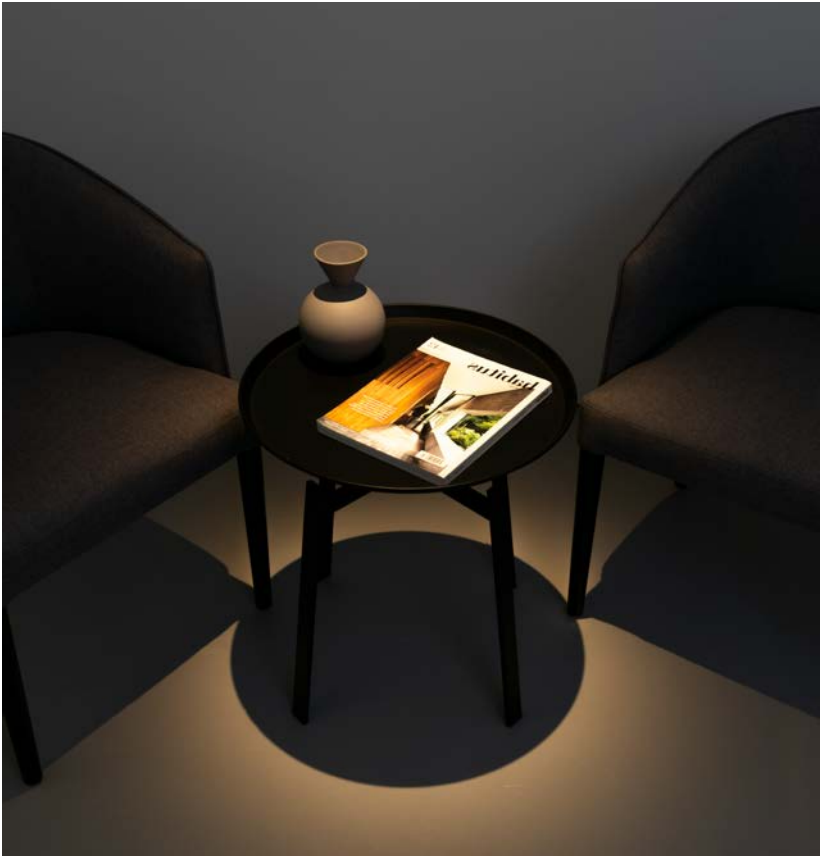


## Pinspot precision for the perfect highlight or pathway

Due to its low glare characteristics, the Particle Focus makes the ideal navigation lighting solution. The pinspot design focuses light onto the floor and minimises unwanted light spills, creating an enigmatic and solace feel to the pathway. Following a minimalist aesthetic, the luminaire was designed with

a small aperture to remain subtle as it blends in seamlessly with the ceiling space, preserving the design intent. The pinspot design of the Particle Focus creates atmosphere by concentrating light on areas and items of interest without filling the space with light.





The Particle Focus has a small aperture for complete comfort.



## Particle Downlight

Adjustable, unique and versatile – the Particle Downlight is the most accommodating of lighting solutions. With four sizes, the Particle Downlight delivers aesthetic uniformity no matter the application.

### 20° of adjustability

With a 20° adjustable gimbal, the Particle Downlight allows you to direct the light exactly where you need it, making it ideal for use in both commercial and residential settings.

### Unique inner-trim design

A series of grooves inside the inner trim creates a refined contrast within the Particle Downlight fitting. This unique, black inner trim is both a feature and a practical design element to assist in glare control.







The Particle Downlight has four different sizes for different applications.



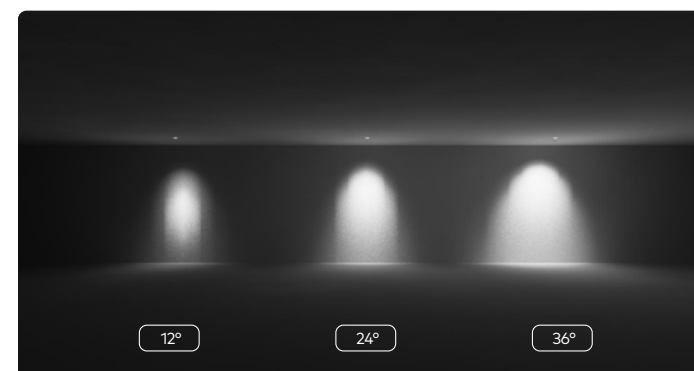
## Particle Accent

Downlight



	LED Power	Lumens (at 3000K)	Beam	Weight
1 Particle Accent	10W (250mA)	643lm	12°   24°   36°	425g

Key Information		Design		Performance		Driver	
Mounting	Ceiling Recessed	Product Family	Particle	Lumen efficacy	Up to 67lm/W	Phase Cut	Remote
Finish	<input type="checkbox"/> Textured Black <input type="checkbox"/> Textured White/Black	Adjustability	30° Tilt	CRI (Ra/R9)	92+ (R9: >50)	DALI	Remote
LED CCT	<input type="checkbox"/> 2700K <input type="checkbox"/> 3000K <input type="checkbox"/> 4000K	Material	Powder Coated Aluminium	UGR	<10	Bluetooth	Remote
Warranty	5 Year	IP Rating	IP44 (Room Side)	Lifetime (Ta 25°C)	>55,000h L90B10		
		Class Rating	Class II	Ambient Temperature Range	10°- 30°C		
		Insulation Rating	IC-4	SDCM	≤3		
				COI Compliance model requirements	4000K		







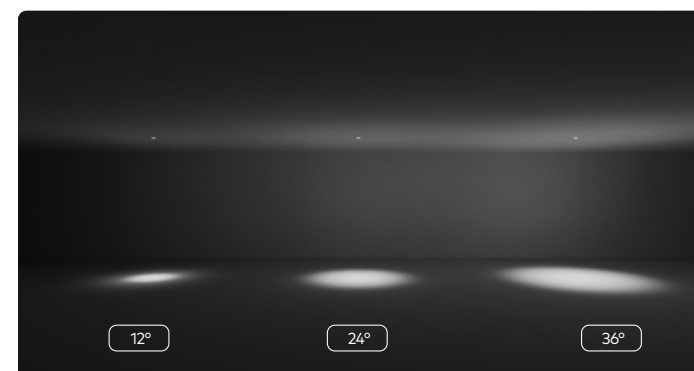
## Particle Focus

Downlight



	LED Power	Lumens (at 3000K)	Beam	Weight
1 Particle Focus	10W (250mA)	626lm	12°   24°   36°	425g

Key Information		Design		Performance		Driver	
Mounting	Ceiling Recessed	Product Family	Particle	Lumen efficacy	Up to 63lm/W	Phase Cut	Remote
Finish	<input type="checkbox"/> Textured Black <input type="checkbox"/> Textured White/Black	Material	Powder Coated Aluminium	CRI (Ra/R9)	92+ (R9: >50)	DALI	Remote
LED CCT	<input type="checkbox"/> 2700K <input type="checkbox"/> 3000K <input type="checkbox"/> 4000K	IP Rating	IP44 (Room Side)	UGR	<10	Bluetooth	Remote
Warranty	5 Year	Class Rating	Class II	Lifetime (Ta 25°C)	>55,000h L90B10		
		Insulation Rating	IC-4	Ambient Temperature Range	10°- 30°C		
				SDCM	≤2		
				COI Compliance model requirements	4000K		







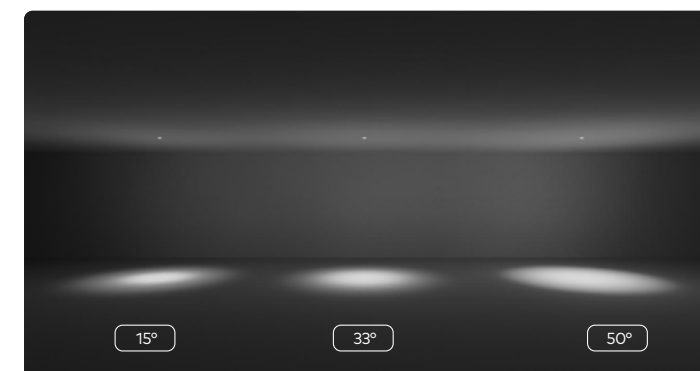
## Particle

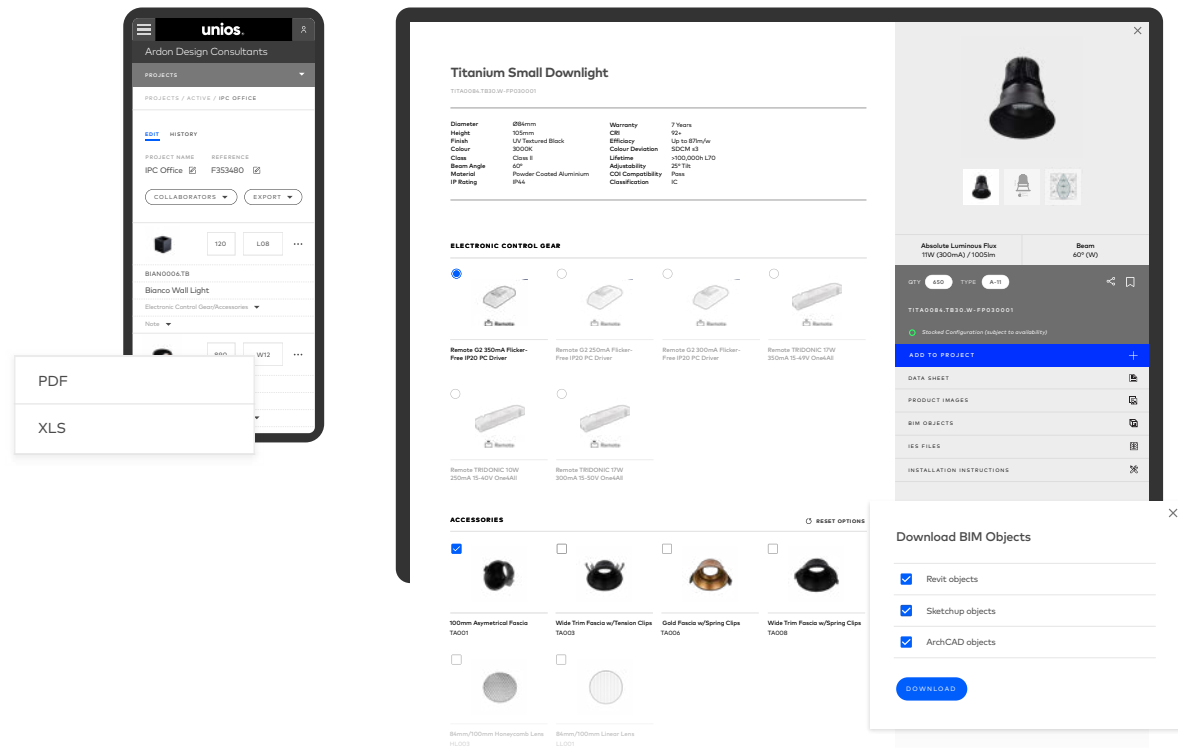
## Downlight



		LED Power	Lumens (at 3000K)	Beam	Weight	Lifetime (Ta 25°C)	SDCM	Driver Options
1	Micro (52mm)	2W (700mA)	150lm	15°   24°   36°	107g	>50,000h L90B10	≤3	Non-Dim, DALI, Bluetooth
2	Small (75mm)	9W (300mA)	619lm	15°   24°   36°	296g	>55,000h L90B10	≤3	Phase Cut, DALI, Bluetooth
3	Medium (125mm)	18W (500mA)	1906lm	15°   24°   36°	946g	>55,000h L90B10	≤2	Phase Cut, DALI, Bluetooth
4	Large (150mm)	30W (800mA)	2480lm	15°   24°   36°	1.5kg	>55,000h L90B10	≤2	Phase Cut, DALI, Bluetooth

Key Information		Design		Performance		Driver	
Mounting	Ceiling Recessed	Product Family	Particle	Lumen efficacy	Up to 93lm/W	Non-Dim	Remote
Finish	<input type="checkbox"/> Textured Black	Adjustability	20° Tilt	CRI (Ra/R9)	92+ (R9: >50)	Phase Cut	Remote
	<input type="checkbox"/> Textured White/Black	Material	Powder Coated Aluminium	UGR	<10	DALI	Remote
LED CCT	<input type="checkbox"/> 2700K <input type="checkbox"/> 3000K <input type="checkbox"/> 4000K	IP Rating	IP44 (Room Side)	Ambient Temperature Range	10°- 30°C	Bluetooth	Remote
Warranty	5 Year	Class Rating	Class II	COI Compliance model requirements	4000K		
		Insulation Rating	IC-4				





## From design to documentation in seconds

### Best-in-class product configuration tools

With different design and performance criteria for every project, discovering and configuring the right luminaire needs to be a seamless process. With the Unios Toolbox, you can filter through thousands of variations in seconds.

### Export customised PDF and Excel lighting schedules

Project lighting can quickly get complex and time-consuming. We've developed a suite of tools to allow you to build a luminaire schedule, export it in PDF or Excel formats and integrate it back into your own project workflow.

### More data accessibility than ever before

BIM objects, IES files, customised data sheets and product images are all easily accessible for your project requirements. All product variations are presented with a holistic view of each data point and piece of documentation you may require.

### Special Thanks

This publication wouldn't be possible without the ongoing support of our project partners, distributors and photographers who have assisted in providing content.

### More Information

For additional technical information and to access our full library, visit [unios.com](http://unios.com). Our library contains a comprehensive database of BIM objects, IES files and product imagery.

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