formalighting

SunLike, second to sunlight

SunLike

2020 | 21

Human Centric Lighting

Natural Spectrum LED

The Brain

The brain has immense capabilities, and runs every part of you. It perceives color, and controls the biological clock that maintains your bodily functions.
The development of SunLike began by focusing on the spectrum of light, which fulfills an important role for these mechanisms.

The Eye

Your eyes are sensors. Three types of photoreceptor cells on the retina detect the intensity of light on different wavelengths, and transmit this information as signals to the brain.
The brain then perceives this color and, at the same time, issues various instructions.
From this perspective, the idea of what it means for humanity to have light is now attracting attention all around the world.
SunLike is a human-centric, LED spectrum technology that will open the way to humanity's future.

SunLike offers a balance of the full spectrum from Violet to Red for a moderate NATURAL SPECTRAL DISTRIBUTION.

SunLike mimics the Sun in the sky while maintaining the suns rich color with 97CRI and high R9.
The reduction suppression of harmful blue also reduces glare on the subject beyond giving the occupants the overall feeling of a Natural Lighting.

SunLike, second to sunlight

Light and the biological clock

From the time we are born, a biological clock is running not only in our brains, but in each of the countless cells throughout our bodies.
This clock naturally operates on a cycle of about 25 hours, but synchronizes with our 24-hour day as the morning light causes a daily correction.
This is one way that light is used not only to view objects, but also to maintain our biological functions, and is an important component to sensitivity.

| Rising sun | Midday | Setting sun |

When a spectrum enters the eye, our photoreceptor cells measure the respective intensity of blue, green, and red light. The retina converts and transmits this data to the brain, where it is perceived as colors and luminosity. In other words, the brain interprets the results of calculations, and is not capable of recognizing spectra directly. This allows the brain to recognize the same colors in different spectra, such as natural light, artificial light, or images on a display.
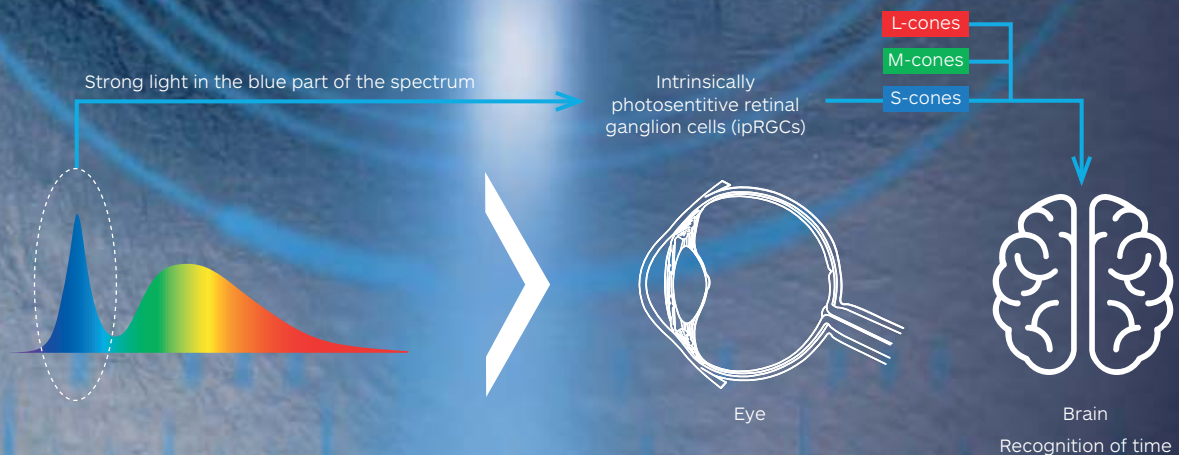
Circadian Rhythm

In 2002, scientists discovered the existence of ipRGCs (intrinsically photosensitive retinal ganglion cells), which transmit the intensity of blue light, a major part of morning light.

We now know that these photoreceptor cells control the biological clock. This in turn suggests that spectra might affect the biological clock through ipRGCs. Research is showing us the effects on organisms of intensities in the blue portion of the spectrum that differ from those in natural light, even with light that we perceive as being the same color.

This research focuses on disruptions to the biological clock and the resulting degradations in sleep quality, as well as risks involving other illnesses.

Photoreceptor cells transmit light changes throughout the day to the brain and will impact the human perception

Strong light in the blue part of the spectrum

Intrinsically photosentitive retinal ganglion cells (ipRGCs)

L-cones
M-cones
S-cones

Eye

Brain
Recognition of time

SunLike

Recreating the Sunlight Spectrum

Faithful reproduction of natural colors, contrasts and three-dimensionality

Artists select colors and brush strokes to create depth and perspective when viewed under natural light, and viewing paintings under the same lighting with which the artist created them is one way to properly appreciate them. SunLike faithfully illuminates paintings as they would appear under sunlight in terms of color and contrast. We must also not forget texture, or three-dimensionality, when illuminating works of art, fashion, or interior design.
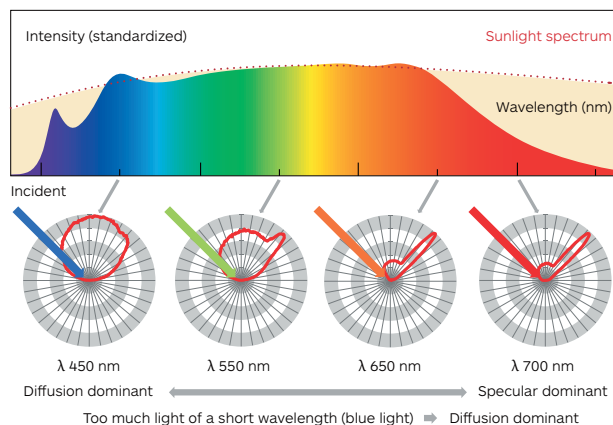
SunLike delivers a natural spectrum without excessive blue light, which is easily scattered, and therefore produces specular reflection from the surface of objects, imparting a greater sense of three-dimensionality and texture.

'Women walking on the beach' by Joaquín Sorolla. 1909.

SunLike   **Spectral dependence of scattering**

Intensity (standardized)   Sunlight spectrum

Wavelength (nm)

Incident

λ 450 nm   λ 550 nm   λ 650 nm   λ 700 nm

Diffusion dominant ⟵⟶ Specular dominant

Too much light of a short wavelength (blue light) ⇨ Diffusion dominant

Superb color rendering and expression of texture

Sometimes the color of clothing looks different outside than it did in the store. This happens because the spectrum of light in the store differs from that of natural light. Color rendering indicates the effect that a light source has on how the colors of objects are perceived, with 100 representing colors under natural light.
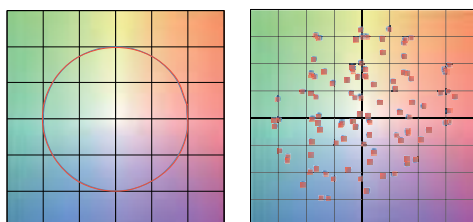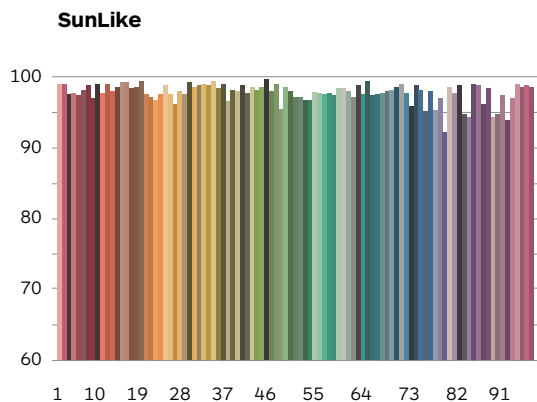SunLike exhibits superior color rendering properties, with a value close to 100 when using not only the traditional CRI (Color Rendering Index) standard, but also the new TM-30 standard.

The technology expresses natural colors at events such as exhibitions of art and fashion shows.
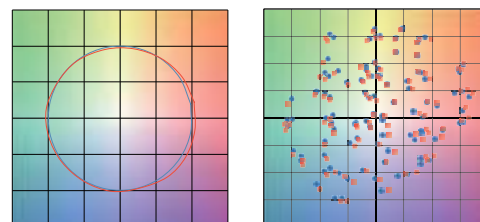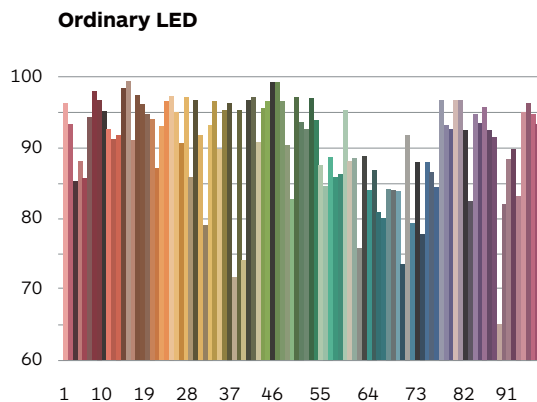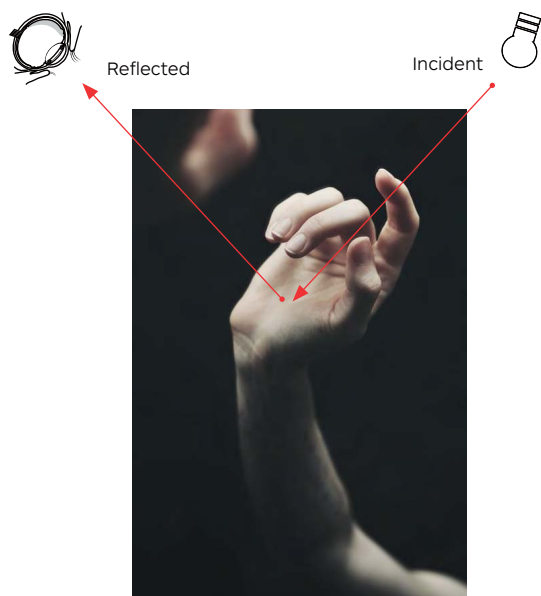
TM-30

TM-30 is a method that evaluates light by using two properties: Rf, the fidelity of color reproduction; and Rg, the color gamut (vividness). Furthermore, a chromaticity diagram can be used to illustrate the relative shift of colors from 100, the standard value used for natural light.
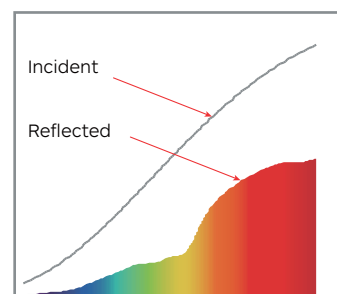
SunLike

Ordinary LED

SunLike has color rendering properties closer to 100, and is capable of reproducing colors in a manner comparable to that of the sun.

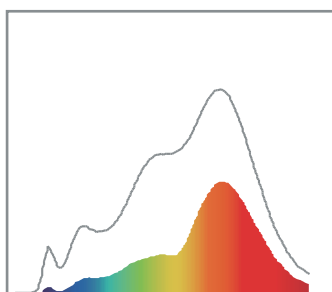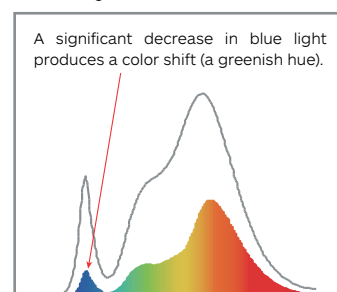# Spectrum difference between incidence & reflection

Reflected

Incident

Incandescent light

Incident

Reflected

SunLIke

Ordinary LED (B+YR)

A significant decrease in blue light produces a color shift (a greenish hue).

Excellent visibility, with little glare

Formalighting SunLike product range allows for superb color rendering and expression of texture. Art galleries, showrooms, shops, hotels, and restaurants are just some examples of places that are capable of maximizing this potential.

The light from SunLike produces natural scenes with depth in various spaces.
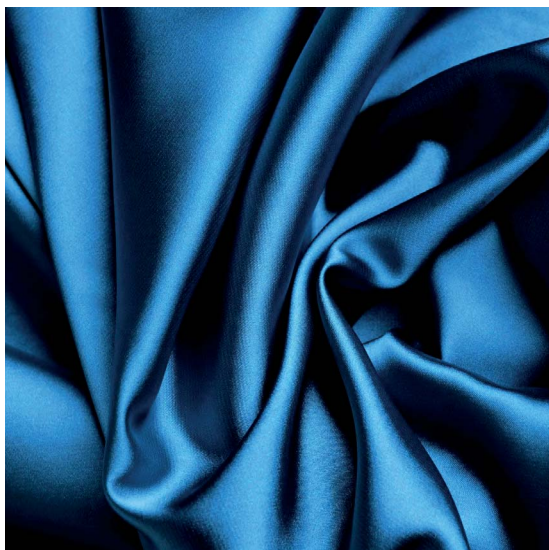
An ordinary LED light source transmits a strong beam of light from a blue LED, which scatters greatly due to its short wavelength and high energy. This scattering occurs not only on an illuminated object but within the eye itself, where it is easier to perceive shimmering and glare. Because SunLike does not contain a high-intensity blue light component, the technology provides light that offers excellent visibility with little glare.

With light that is exceedingly close to that of the sun, SunLike can illuminate human vitality. The technology allows for the accurate expression of the natural colors and textures inherent to the skin.

Because of SunLike's natural and smooth, continuous spectrum, the technology is capable of accurately revealing the deep luster of objects made of gold, and the accompanying feeling of luxury.

SunLike lighting clearly brings out colors ranging from faint to vivid. The beauty of the meticulous weaving of clothing items is depicted in every detail.

SunLike produces a balance of cool and warm light that replicates the natural solar spectrum. They're excellent for seedlings as well as houseplants, culinary herbs and other plants.

Recessed
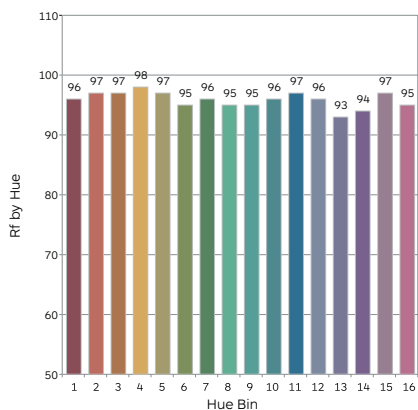
Track

Surface

Pendant
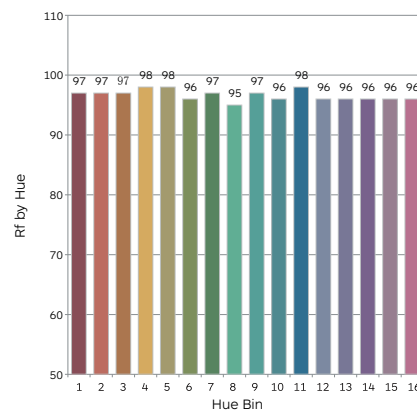
48V Low VoltageTrack

TM-30

SunLike has color rendering properties closer to 100, and is capable of reproducing colors in a manner comparable to that of the sun.

Here are the diagrams of formalighting's SunLike fixtures for 3000K and 4000K. We also have available the options 2700K and 3500K. Please contact us for more CCT information.

3000K | 4000K

Zero

Semi Recessed 40 | 66

Body

Semi-recessed luminaire with round mounting trim in cast aluminium with springs for trim installation on a ceiling thickness of max. 12mm.

Light head and arm in cast aluminium.

The light head is tiltable up to 90° and rotatable horizontally 355°.
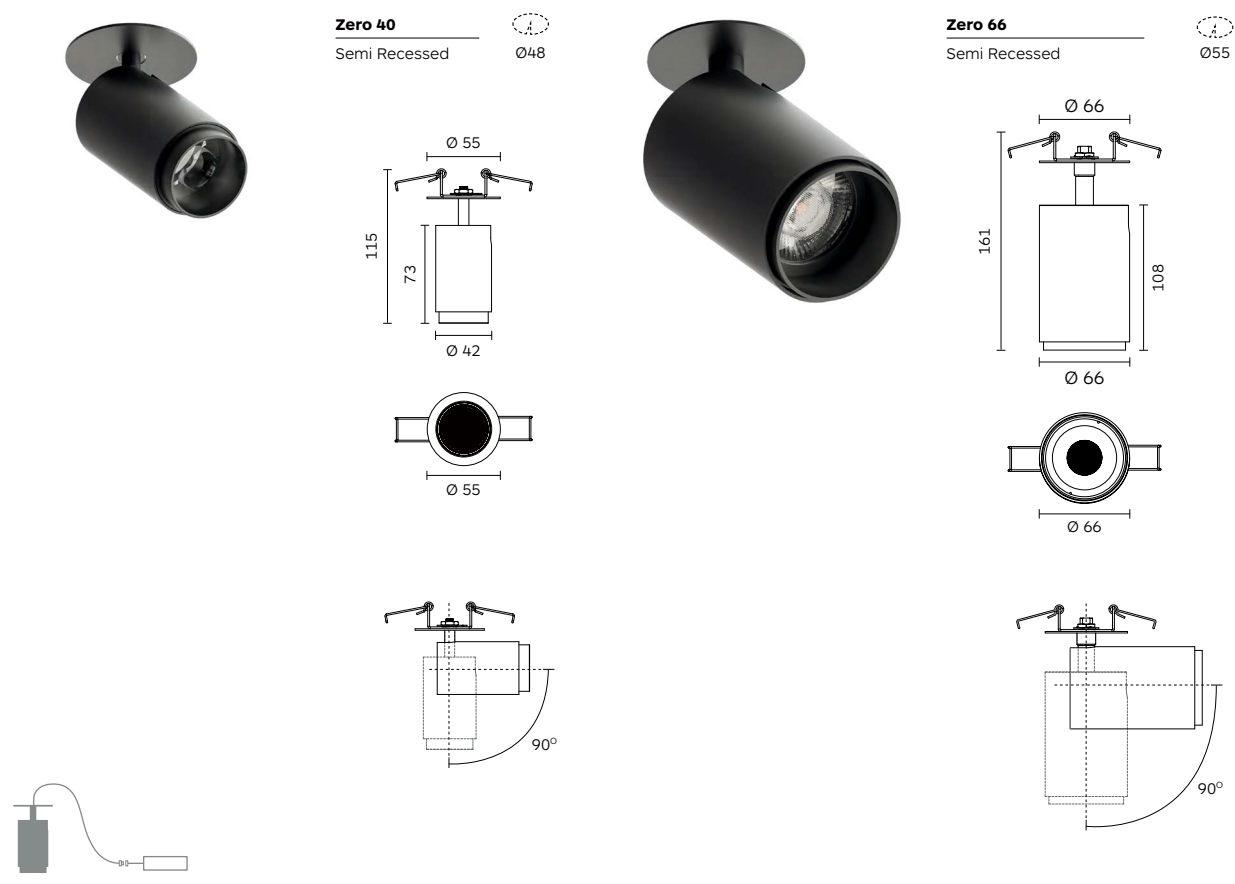
Accessories

Coloured filters, honeycomb louvre. Check page 28 for details.

Driver

Supplied with No-dimable remote driver. Diming Options: 0-10V Dim, DALI.

Applications

Its unique pull-down mechanism, enables it to function as either a downlight or a exposed lamp able to emulate a surface or track fixture. Application areas: retail, hotels, museums, window displays.

Zero 40
Semi Recessed
Ø48

Ø 55
115
73
Ø 42
Ø 55

Zero 66
Semi Recessed
Ø55

Ø 66
161
108
Ø 66
Ø 66

90°

90°

Code ordering example: **R O 9 2 B K 1 1** - **9 7 3 0 1 6 D 0 1 0**

	Product Code	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Zero Semi Recessed 40	**RO92** ○	**BK11**	SunLike LED	**97**	**30**	3000K	7.5W	728 lm	**16 / 26 / 36**	**D0**	No Dim	**10** ■ Black	
					40	4000K		758 lm		**DA**	Dali Dim	**11** □ White	
										DC	CASAMBI		
										D1	0-10V Dim		
Zero Semi Recessed 66	**RP62** ○	**BK12**					11W	1129 lm	**16 / 25 / 36**				
								1170 lm					

Notes:

* For complete code ordering information, please see page 33.

** For other CCT options, please contact us.

For the most updated product information, please go to our website.

Colosseo

Recessed 75 | 90 | 120

350° | 30° | ▢ | IP20 | CE

Body

Round mounting trim in cast aluminum with spring for trim installation or brackets for trimless installation on a ceiling thickness 6-15 mm.

Luminaire body inclusive of snoot in cast aluminum.

Easy relamping via removable front ring by snap-in catch action.

Available in 3 sizes. Tiltable in two directions up to 30°.
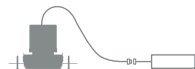
Accessories

Coloured filters, honeycomb louvre. Check page 28 for details.

Driver

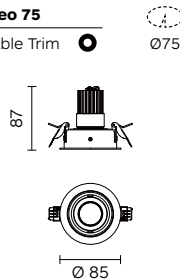Supplied with No-dimable remote driver. Diming Options: 0-10V Dim, DALI, Phase, CASAMBI.

Applications

A fully adjustable light head designed to accommodate any recessed lighting application and allow lamp aiming while power is on. Application areas: retail, shopping centers, corridors, window display.
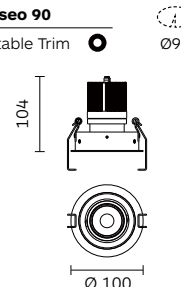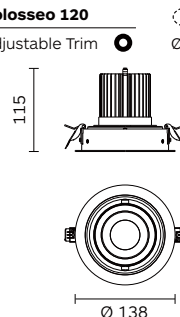
Colosseo 75
Adjustable Trim ⚫   Ø75
87
Ø 85

Colosseo 90
Adjustable Trim ⚫   Ø92
104
Ø 100

Colosseo 120
Adjustable Trim ⚫   Ø128
115
Ø 138

Colosseo 75
Adjustable Trimless ◯   Ø75
87
Ø 73

Colosseo 90
Adjustable Trimless ◯   Ø90
104
Ø 88

Colosseo 120
Adjustable Trimless ◯   Ø122
115
Ø 120

Up to ± 30°   ± 25°   Up to ± 30°

Code ordering example: **R P 1 9 - M K 1 1   9 7   3 0   1 8   D 0   1 1**

	Product Code	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish
Colosseo 75 Adjustable	**RP19** ⚫ **RP20** ◯	**MK11**	SunLike LED	**97**	**30** **40**	3000K 4000K	9.5W	888 lm 924 lm	**18 / 28 / 34**	**D0** **DA** **DP**	No Dim Dali Dim Phase Dim	**11** ▢ White
Colosseo 90 Adjustable	**RO32** ⚫ **RO44** ◯	**MK12**					17W	1129 lm 1170 lm	**18 / 24 / 36**	**DC** **D1**	CASAMBI 0-10V Dim	
Colosseo 120 Adjustable	**RO33** ⚫ **RO23** ◯	**MK13**					21W	2336 lm 2394 lm	**18 / 26 / 36**			

Notes:

* For complete code ordering information, please see page 33.
** For other CCT options, please contact us.
For the most updated product information, please go to our website.

Zero In & Out

Recessed Round 40 | 66

IP20 CE

Body

Recessed luminaire with round mounting trim in cast aluminium with springs for trim installation on a ceiling thickness of 1-25mm.

Luminaire body and retractable light head in cast aluminium. Available in 2 different sizes.

The fully retractable light head is tiltable up to 90° and rotatable horizontally 355°.

Accessories

Coloured filters, linear spread, honeycomb louvre, anti-glare tube and anti-glare hood.
Check page 28 for details.

Driver

Supplied with no-dimable remote driver.
Dimming Options: 0-10V, DALI, CASAMBI.

Applications

Its unique pull-down mechanism, enables it to function as either a downlight or a exposed lamp able to emulate a surface or track fixture. Application areas: retail, hotels, museums, window displays.

Zero In & Out 40
Adjustable Trim ⬤ Ø78
Ø 86
122
Ø 86
73
87
Ø 42
122
Ø 42
65

Zero In & Out 66
Adjustable Trim ⬤ Ø118
Ø 130
178
Ø 130
108
130
Ø 66
178
Ø 66
100

90°

Code ordering example: **R O 4 2 B K 1 1 - 9 7 3 0 1 6 D 0 1 0**

	Product Code	Light Source Code*	>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Zero In & Out 40 Adjustable	**RO42** ⬤	**BK11** SunLike LED	**97**	**30**	3000K	7.5W	728 lm	**16 / 26 / 36**	**D0**	No Dim	**10** ■ Black	
				40	4000K		758 lm		**DA**	Dali Dim	**11** □ White	
									DC	CASAMBI		
Zero In & Out 66 Adjustable	**RO43** ⬤	**BK12**				11W	1129 lm	**16 / 25 / 36**	**D1**	0-10V Dim		
							1170 lm					

Notes:

*   For complete code ordering information, please see page 33.

** For other CCT options, please contact us.

For the most updated product information, please go to our website.

350° | 35° | ▢ | IP20 | CE

Iride

Designed by Walter Amort (Registered)

Body

Round mounting trim in cast alluminum with springs for trim installation on a ceiling thickness of 1-25mm.

Luminaire body in cast aluminium and thermoplastic materials.

Easy relamping via removable front ring with twist-lock action for retrofit version. The fully retractable lighthead is tiltable with up to 35° and rotable horizontally 350°.

Accessories

Coloured filters, linear spread, honeycomb louvre. Check page 28 for details.

Driver

Supplied with No-dimable remote driver. Diming Options: 0-10V Dim, DALI, Phase, CASAMBI.

Applications

His unique pull-down mechanism enables it to function as either a downlight, a regressed accent light with great cut-off, or a exposed lamp head able to emulate a surface or track fixture. Application areas: retail, museums, showrooms, window displays.

Iride 62

Adjustable Trim ⚫ Ø116

135
61
Ø 62

135

Ø 130

35°

Code ordering example: **R O 5 8 M K 1 2** - **9 7 3 0 1 8 D 0 1 0**

	Product Code	Light Source Code*	>CRI	CCT**	LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Iride 62 Adjustable	**RO58** ⚫	**MK12** SunLike LED	**97**	**30** 3000K	11W	1129 lm	**18 / 24 / 36**	**D0**	No Dim	**10** ■ Black
				40 4000K		1170 lm		**DA**	Dali Dim	**11** ▢ White
								DP	Phase Dim	
								DC	CASAMBI	
								D1	0-10V Dim	
								00	No Driver	

Notes:

* For complete code ordering information, please see page 33.

** For other CCT options, please contact us.

For the most updated product information, please go to our website.

Punto

Recessed Round & Square 100

350° | 25° | IP20 | CE

Body

Round and square shape mounting trim in cast aluminum with springs for trim installation on a ceiling thickness of max. 25mm or brackets for trimless installation on a ceiling thickness 12.5-15mm.

Luminaire body in cast aluminium. Easy relamping tool-free via removable lamp front ring by twist and lock action.

Adjustable version tiltable vertically 0-25° tilt and rotable horizontally 350°.

Accessories

Coloured filters, linear spread, honeycomb louvre, anti-glare tube.
Check page 28 for details.

Driver

Supplied with No-dimable remote driver.
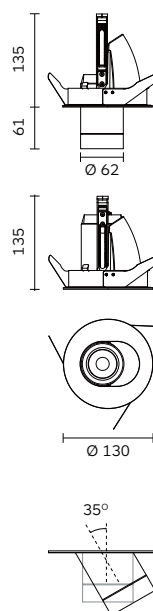Diming Options: 0-10V Dim, DALI, Phase, CASAMBI.

Applications

A visual simplicity seamless shape designed for excellent visual comfort versions include full directional light adjustability for maximum versatility keeping homogeneous appearance. Application areas: retail, hotels, restaurants, hospitals, gyms.

Punto 100
Adjustable Round Trim ⬤ | Ø95

117 | Ø 106

Punto 100
Adjustable Square Trim ◼ | □95

117 | □ 106

Punto 100
Adjustable Round Trimless ○ | Ø100

117 | Ø 99 | ± 25°

Punto 100
Adjustable Square Trimless □ | □100

117 | □ 99 | ± 25°

Code ordering example: **R P 2 6 M K 1 2** ⁻ **9 7 3 0 1 8 D 0 1 0**

	Product Code	Light Source Code*	>CRI	CCT**	LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Punto 100 Adjustable Round	**RP26** ⬤	**MK12** SunLike LED	**97**	**30** 3000K	11W	1129 lm	**18 / 24 / 36 / 58**	**D0**	No Dim	**10** ◼ Black	
	RF56 ○			**40** 4000K		1170 lm		**DA**	Dali Dim	**11** □ White	
Punto 100 Adjustable Square	**RP27** ◼							**DP**	Phase Dim		
	RF58 □							**DC**	CASAMBI		
								D1	0-10V Dim		
								00	No Driver		

Notes:

*   For complete code ordering information, please see page 33.

**   For other CCT options, please contact us.

For the most updated product information, please go to our website.

Lumi

Recessed 62 | 50

IP40 | CE

Body

Round shape mounting trim in cast aluminum with twist and lock action for trim installation and additiobal bracket for trimless installation on a ceiling thickness max. 20mm. Lamp body and lock cone in cast aluminium.

Fixing ring can be installed independently. IP40 luminaire.

Accessories

Honeycomb louvre.
Check page 28 for detail.

Driver

Supplied with No-dimable remote driver.
Diming Options: 0-10V Dim, DALI, Phase, CASAMBI.

Applications

A concealed light source for minimum glare design of small aperture recessed luminaries that easily blend into the architecture to meet the need of designers. Application areas: retail, showrooms, residential, restaurants, hotels.

Lumi 50
Fixed Trim ● Ø48
96 / Ø 54

Lumi 65
Fixed Trim ● Ø63
111 / Ø 68

Lumi 50
Fixed Trimless ○ Ø48
96 / Ø 44 / Ø 70

Lumi 65
Fixed Trimless ○ Ø63
111 / Ø 59 / Ø 100

Code ordering example: **R P 2 9 B K 1 1** - **9 7 3 0 1 6 D 0 1 0**

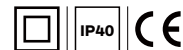|	Product Code	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Lumi 50 Fixed	**RP29** ●	**BK11**	SunLike LED	**97**	**30**	3000K	7.5W	728 lm	**16 / 26 / 36**	**D0**	No Dim	**10** ■ Black	
	RP30 ○				**40**	4000K		770 lm		**DA**	Dali Dim	**11** □ White	
Lumi 65 Fixed	**RP22** ●	**BK12**					11W	1129 lm	**18 / 24 / 36**	**DP**	Phase Dim		
	RP23 ○							1170 lm		**DC**	CASAMBI		
										D1	0-10V Dim		

Notes:

*   For complete code ordering information, please see page 33.
**   For other CCT options, please contact us.
For the most updated product information, please go to our website.

Micron

Recessed

IP54 | IP20 | 850° | CE

Body

Round shape mounting trim in cast aluminum with springs for trim installation on a ceiling thickness max. 20mm.

Lamp body in cast aluminium and fixing ring in steel. Fixing ring can be installed independently.

Easy relamping via removable light head by snap-in catch action. Available in IP20/IP54 versions. Tiltable vertically 0-35° tilt and rotable horizontally 350°.

Accessories

No accessories available.

Driver

Supplied with No-dimable remote driver.
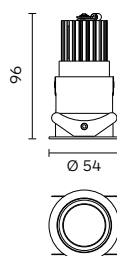Diming Options: 0-10V Dim, DALI, Phase, CASAMBI.

Applications

A concealed light source for minimum glare design of small aperture recessed luminaries that easily blend into the architecture to meet the need of designers. Application areas: retail, showrooms, residential, restaurants, hotels.
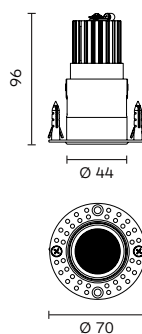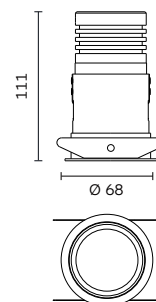

IP20

Micron
Adjustable Trim ● Ø68
107
Ø 80

IP54

Micron
Adjustable Trim ● Ø68
111
Ø 80

Micron
Adjustable Trimless ○ Ø80
107
Ø 70
30°

Micron
Adjustable Trimless ○ Ø80
111
Ø 70
25°

Code ordering example: **R L 5 9 M K 1 2** - **9 7 3 0 1 8 D 0 1 0**

	Product Code	Ingress Protection	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Micron Adjustable	RL59 ●	IP20	MK12	SunLike LED	97	30	3000K	11W	1129 lm	18 / 24 / 36	D0	No Dim	10 ■	Black
	RO56 ○					40	4000K		1170 lm		DA	Dali Dim	11 □	White
	RL60 ●	IP54									DP	Phase Dim		
	RO57 ○										DC	CASAMBI		
											D1	0-10V Dim		
											00	No Driver		

Notes:

*   For complete code ordering information, please see page 33.

**   For other CCT options, please contact us.

For the most updated product information, please go to our website.

SunLike LED Technology - Recessed   www.formalighting.com   **formalighting**

Occhio Pin

Adjustable Recessed 65 | 87

30° | ☐ | IP44 | IP20 | 850° | CE

Body

Round shape mounting trim in cast aluminum with brackets for trim installation on a ceiling thickness max. 20mm.

Light body in cast aluminium. Available in two different designs, Pin and Slot. IP44 version for water protection ideal for bathroom.

Designed with deep regressed lamp position for glare-free comfort. Adjustable version tiltable verticaly 0-35°.

Accessories

Occhio 65: Honeycomb louvre.
Occhio 87: Coloured filters, linear spread, honeycomb louvre, protective recessed ring, protective ring.
Check page 28 for details.

Driver

Supplied with No-dimable remote driver.
Diming Options: 0-10V Dim, DALI, Phase, CASAMBI.

Applications

Outstanding lighting fixture. Occhio Pin provides a consistent ceiling appearance whilst the Occhio Slot provides the maximum adjustment in this type of small fixture. Application areas: bathrooms, residential, museums , retail, hotels.

IP20

IP44

Occhio Pin 65
Pin Adjustable Trim ⬤ Ø57

105
Ø 65

Occhio Pin 87
Pin Adjustable Trim ⬤ Ø75

112
Ø 87

Occhio Pin 87
Pin Adjustable Trim ⬤ Ø75

112
Ø 87

± 35°
100

Code ordering example: **R N 5 8 M K 1 1** - **9 7 3 0 1 6 D 0 1 0**

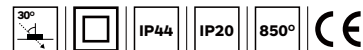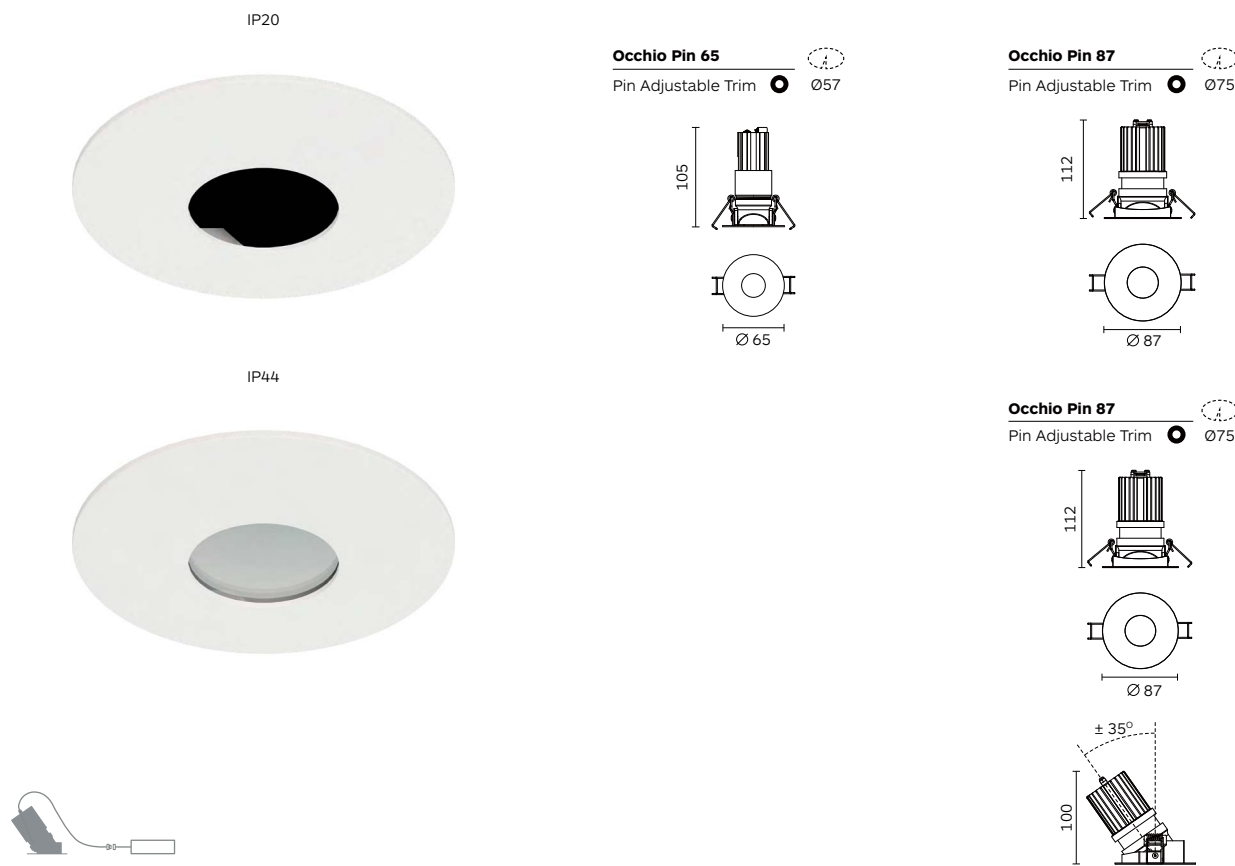|	Product Code	Ingress Protection	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Occhio 65 Pin Adjustable	**RN58** ⬤	IP20	**MK11**	SunLike LED	**97**	**30**	3000K	7.5W	728lm	**16 / 30**	**D0**	No Dim	**10** ■ Black	
						40	4000K		758 lm		**DA**	Dali Dim	**11** □ White	
											DP	Phase Dim	**75** ■ Grey	
Occhio 87 Pin Adjustable	**RL01** ⬤	IP20	**MK12**					11W	1129 lm	**18 / 24 / 36**	**DC**	CASAMBI		
	RL42 ⬤	IP44							1170 lm		**D1**	0-10V Dim		

Notes:

*   For complete code ordering information, please see page 33.
** For other CCT options, please contact us.
For the most updated product information, please go to our website.

Occhio Slot

Adjustble Recessed 65 | 87

30° | IP44 | IP20 | 850° | CE

Body

Round shape mounting trim in cast aluminum with brackets for trim installation on a ceiling thickness max. 20mm.

Light body in cast aluminium. Available in two different designs, Pin and Slot. IP44 version for water protection ideal for bathroom.

Designed with deep regressed lamp position for glare-free comfort. Adjustable version tiltable verticaly 0-35°.

Accessories

Occhio 65: Honeycomb louvre.
Occhio 87: Coloured filters, linear spread, honeycomb louvre, protective recessed ring, protective ring.
Check page 28 for details.

Driver

Supplied with No-dimable remote driver.
Diming Options: 0-10V Dim, DALI, Phase, CASAMBI.

Applications

Outstanding lighting fixture. Occhio Pin provides a consistent ceiling appearance whilst the Occhio Slot provides the maximum adjustment in this type of small fixture. Application areas: bathrooms, residential, museums , retail, hotels.

IP20

IP44

Occhio Pin 65
Slot Adjustable Trim O Ø57

105

Ø 65

Occhio Pin 87
Slot Adjustable Trim O Ø75

112

Ø 87

Occhio Pin 87
Slot Adjustable Trim O Ø75

112

Ø 87

± 35°

100

Code ordering example: **R N 5 6   M K 1 1** - **9 7   3 0   1 6   D 0   1 0**

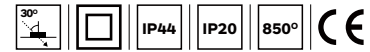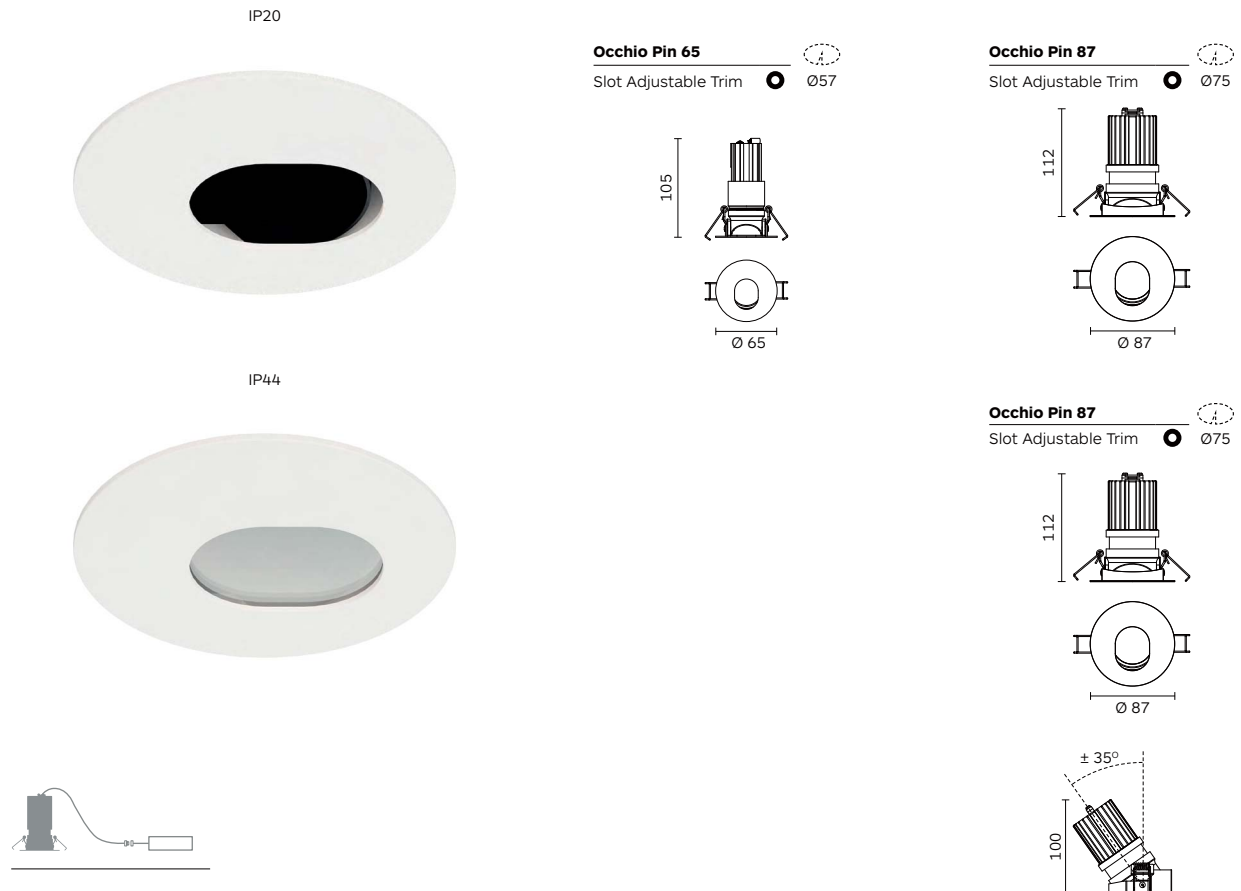|	Product Code	Ingress Protection	Light Source Code*	>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Occhio 65 Slot Adjustable	**RN56** O	IP20	**MK11**	SunLike LED	97	**30**	3000K	7.5W	728 lm	**16 / 30**	**D0**	No Dim	**10** ■ Black
						40	4000K		758 lm		**DA**	Dali Dim	**11** □ White
											DP	Phase Dim	**75** ■ Grey
Occhio 87 Slot Adjustable	**RL05** O	IP20	**MK12**					11W	1129 lm	**18 / 24 / 36**	**DC**	CASAMBI	
	RL46 O	IP44							1170 lm		**D1**	0-10V Dim	

Notes:

*   For complete code ordering information, please see page 33.
** For other CCT options, please contact us.
For the most updated product information, please go to our website.

Nippo

Recessed Round & Square

350° | 30° | □ | IP44 | IP20 | 850° | CE

Body

Round or square shape mounting trim in cast aluminium with springs for trim installation on a ceiling thickness max. 25mm.

Luminaire body in cast aluminium inclusive of dark light cone reflector in super pure aluminium.

Designed for optimum heat dissipation. Easy relamping via removable front reflector and by twist-lock action.

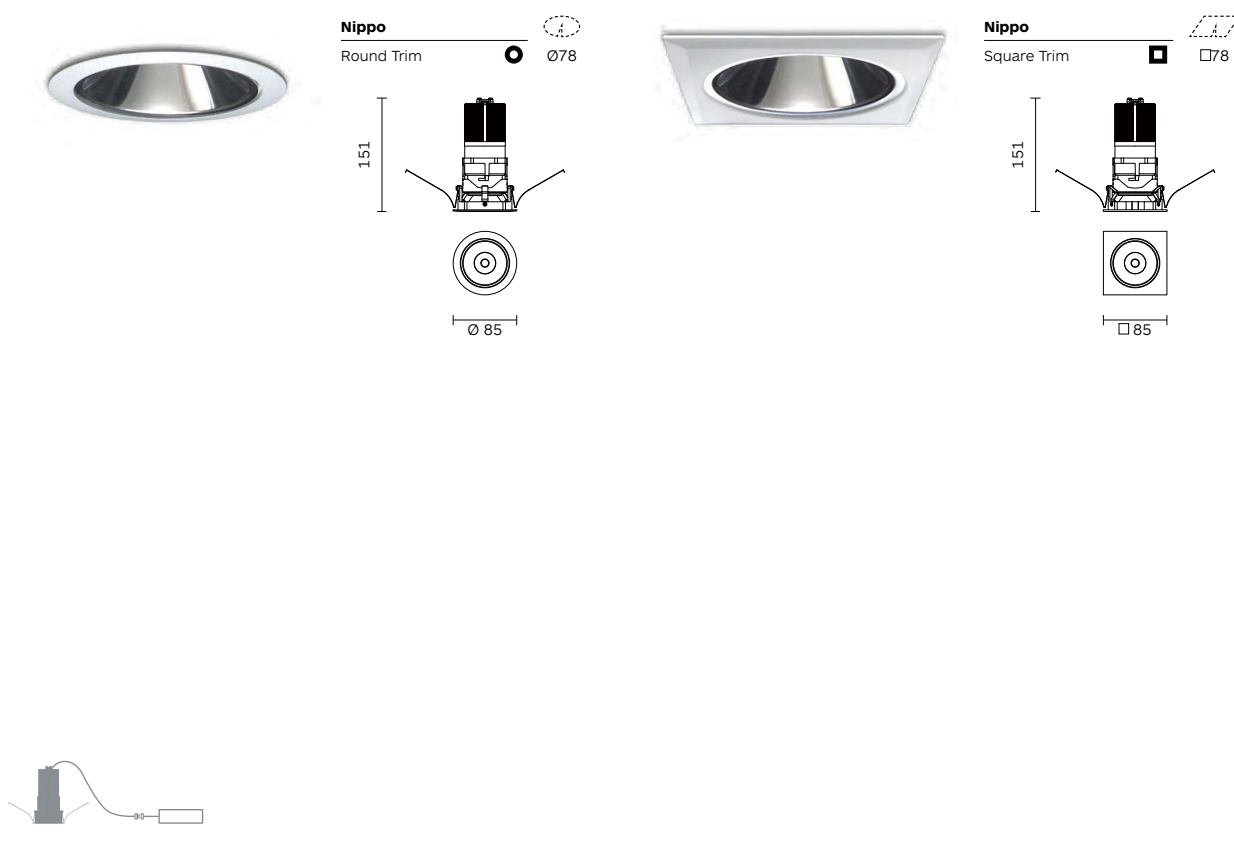Tiltable vertically 0-30° and rotable horizontally 350°.

Accessories

Coloured filters, linear spread, honeycomb louvre. Check page 28 for details.

Driver

Supplied with No-dimable remote driver.
Diming Options: 0-10V Dim, DALI, Phase, CASAMBI.

Applications

Adjustable fixture include a specular darklight cone reflector offering excellent glare-free visual comfort to minimize impact while piercing through ambient light levels. Application areas: hotels, residential, retail, galleries.

Nippo
Round Trim ○ Ø78

151

Ø 85

Nippo
Square Trim □ □78

151

□ 85

Code ordering example: **R J 1 1 M K 1 2 - 9 7 3 0 1 6 D 0 1 1**

	Product Code	Ingress Protection	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Nippo Round	**RJ11** ○	IP20	**MK12**	SunLike LED	97	**30**	3000K	13W	1305 lm	**16 / 26**	**D0**	No Dim	**11** □	White
	RL54 ○	IP44				**40**	4000K		1350 lm		**DA**	Dali Dim	**75** ■	Grey
Nippo Square	**RL48** □	IP20									**DP**	Phase Dim		
	RL55 □	IP44									**DC**	CASAMBI		
											D1	0-10V Dim		

Notes:

*   For complete code ordering information, please see page 33.

**   For other CCT options, please contact us.

For the most updated product information, please go to our website.

Track Lighting

Zero Compasso

Track 40 I 66 I 100 I 130

360° | 90° | ⏚ | IP20 | CE

Body

Track mounted spotlight, inclusive of integrated driver, with lighthead in cast aluminium.

Available with 3 circuit universal track adapter or Dali track adapter.

Designed for passive cooling.

Available in four different sizes. Versatile aiming angle tiltable vertically 0°-90° and rotatable horizontally 350°.

Accessories

Coloured filters, linear spread, honeycomb louvre, anti-glare tube, wallwasher visor.
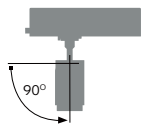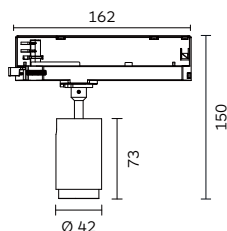Check page 29 for details.

Driver

inclusive of integrated no-dimable driver.
Dimming Options: DALI, CASAMBI, 0-10V (100,130), Phase (100, 130)."

Applications

A modern design consisting for the purpose to meet the highest requirements of the latest advanced lighting technology. Application areas: retail, museums, hospitality, residential, offices, lobbies.
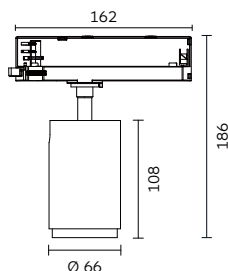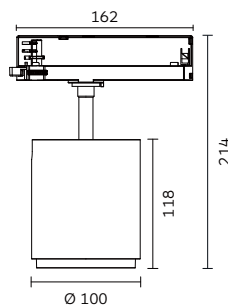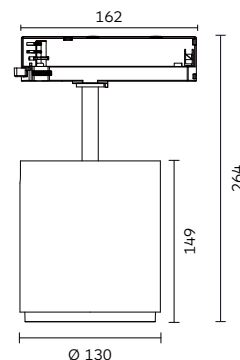

Zero Compasso 40
Track

Zero Compasso 66
Track

Zero Compasso 100
Track

Zero Compasso 130
Track

162 · 150 · 73 · Ø 42

162 · 186 · 108 · Ø 66

162 · 214 · 118 · Ø 100

162 · 264 · 149 · Ø 130

90°

Code ordering example: **6 5 7 1 M K 1 1** - **9 7 3 0 1 6 D 0 1 0**

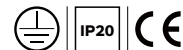|	Product Code	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Zero Compasso 40 Track	6571	MK11	SunLike LED	97	30	3000K	7.5W	728 lm 758 lm	16 / 26 / 36	D0	No Dim	10 ■ Black	
					40	4000K				DA	Dali Dim	11 ☐ White	
										DC	CASAMBI		
Zero Compasso 66 Track	6573	MK12					13W	1305 lm 1350 lm					
Zero Compasso 100 Track	6575	MK13					21W	2336 lm 2394 lm	18 / 27 / 38				
Zero Compasso 130 Track	6577	MK13					33W	3322 lm 3404 lm	14 / 24 / 33				

Notes:

* For complete code ordering information, please see page 33.

** For other CCT options, please contact us.

For the most updated product information, please go to our website.

Surface Lighting

Pixo

Surface 77

◯ | IP20 | C€

Body

Ceiling mounted luminaire with light body in extruded aluminium.

Light body available in three different lengths.

Exchangable front ring in wide range of colours.
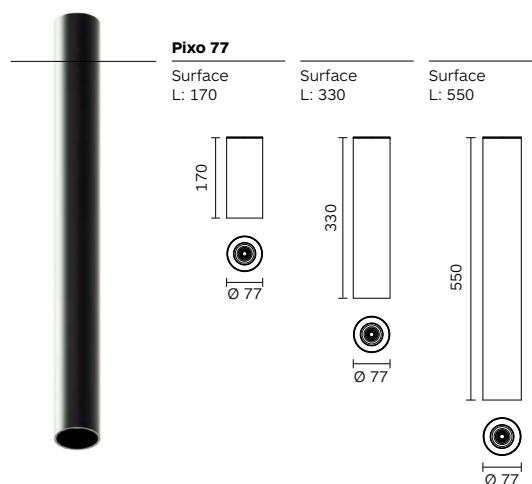
Accessories

Decorative front ring available in different colours, Acrylic decorative diffuser, Honeycomb louvre. Check page 29 for details.

Driver

Supplied with integrated no-dimable driver. Diming Options: 0-10V Dim, DALI, Phase, CA-SAMBI.

Applications

A modern designed surface ambient light. Its accessories make it the perfect match for sophisticated enviroments. Application areas: residential, hotels, restaurants, retail, corridors.

Pixo 77

Surface L: 170	Surface L: 330	Surface L: 550
170	330	550
Ø 77	Ø 77	Ø 77

Code ordering example: **1 3 8 7 B K 1 2 - 9 7 3 0 1 2 D 0 1 0**

	Product Code	Product Length	Light Source Code*	>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Pixo 77 Surface	**1388**	170	**BK12** SunLike LED	97	**30**	3000K	13W	1305 lm	**12 / 20 / 32**	**D0**	No Dim	**10**	■ Black
	1390	330			**40**	4000K		1350 lm				**11**	☐ White
	1392	550											

Notes:

*   For complete code ordering information, please see page 33.
**   For other CCT options, please contact us.
For the most updated product information, please go to our website.

Pendant Lighting

Pixo

Pendant 36 | 77

IP20 | CE

Body

Pendant mounted luminaire with light body in extruded aluminium.

Light body available in two diameter (25 and 77mm) and four different length, to fit any ceiling height .

Exchangable front ring in wide range of colours. Supplied with ceiling canopy and pre-installed 1.5m electrical cable.
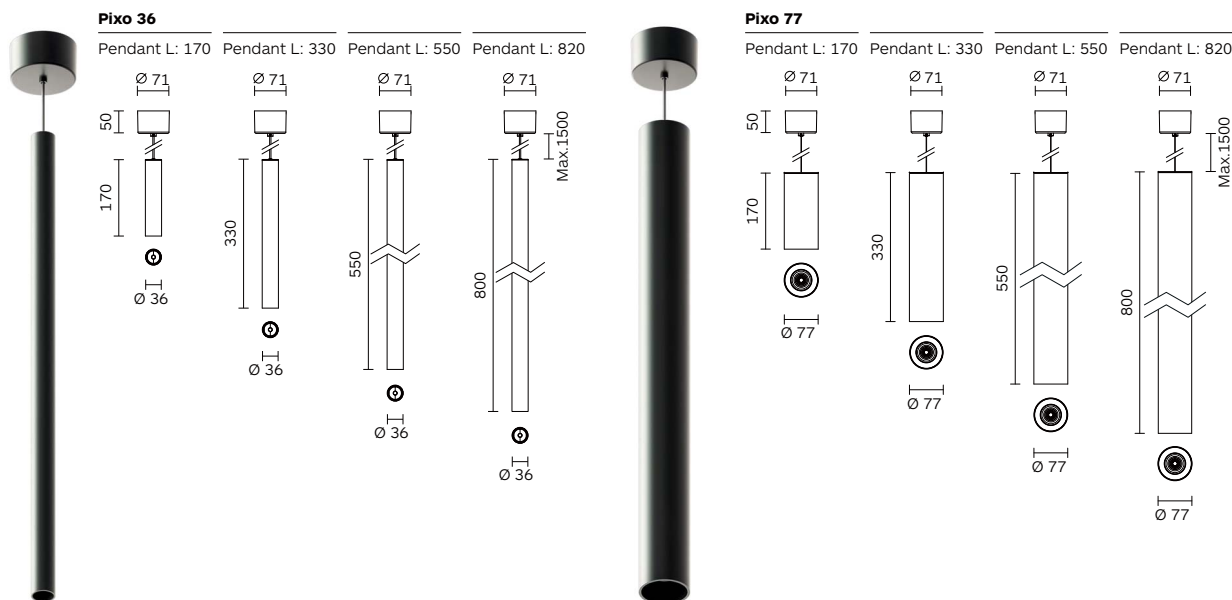
Accessories

Honeycomb (77). Decorative ring available in different colours.
Transparent acrylic decorative diffuser. Check page 30 for details.

Driver

Supplied with integrated no-dimable driver. Dimming Options (only for Pixo 77): 0-10V Dim, Phase, CASAMBI.

Applications

A modern designed pendant ambient light. Its accessories make it the perfect match for sophisticated enviroments. Application areas: residential, hotels, restaurants, retail, corridors.

Pixo 36

Pendant L: 170 — Ø 71, 50, 170, Ø 36
Pendant L: 330 — Ø 71, 330, Ø 36
Pendant L: 550 — Ø 71, 550, Ø 36
Pendant L: 820 — Ø 71, Max.1500, 800, Ø 36

Pixo 77

Pendant L: 170 — Ø 71, 50, 170, Ø 77
Pendant L: 330 — Ø 71, 330, Ø 77
Pendant L: 550 — Ø 71, 550, Ø 77
Pendant L: 820 — Ø 71, Max.1500, 800, Ø 77

Code ordering example: **7 2 3 5 B K 1 1** - **9 7 3 0 2 0 D 0 1 0**

	Product Code	Product Length	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Pixo 36 Pendant	**7235**	170	**BK11**	SunLike LED	97	**30**	3000K	7.5W	728 lm	**20 / 26 / 32**	**D0**	No Dim	**10**	Black
	7236	330				**40**	4000K		758 lm				**11**	White
	7238	550												
	7240	800												
Pixo 77 Pendant	**7234**	170	**BK12**					13W	1305 lm	**12 / 20 / 32**				
	7237	330							1350 lm					
	7239	550												
	7241	800												

Notes:

*   For complete code ordering information, please see page 33.
**   For other CCT options, please contact us.
For the most updated product information, please go to our website.

Low Voltage Track Lighting

Zero Low Voltage

Low Voltage Track 40 | 66 | 100

Body

Track mounted 48V low voltagespotlight with lighthead and arm in aluminium.

Integrated track adapter, compatible with different models of Stucchi low voltage track system.

Easy to insert and remove from the track. Designed for passive cooling.

Available in three different sizes (40, 66, 100). Versatile aiming angle tiltable vertically 0°-90° and rotatable horizontally 360°.

Accessories

Coulored filters, linear spred, honeycomb louvre, visor, anti-glare tube.
For more information about low voltage track accessories see page 30.

Driver

Integrated 48V DC input.
Diming Options: 0-10V, DALI, Casambi.
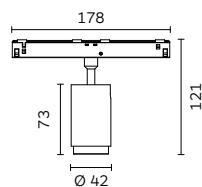
Power supply unit to be ordered separately.

Applications

A modern design consisting for the purpose to meet the highest requirements of the latest advanced lighting technology.
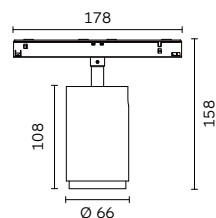Application areas: retail, museums, hospitality, residential, offices, lobbies.

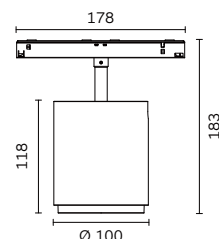90°

Zero 40 Low Voltage

Low Voltage Track

178
73
121
Ø 42

Zero 66 Low Voltage

Low Voltage Track

178
108
158
Ø 66

Zero 100 Low Voltage

Low Voltage Track

178
118
183
Ø 100

Code ordering example: **9 6 1 4 B K 1 1 - 9 7 3 0 1 6 D 0 1 0**

	Product Code	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Zero 40 Low Voltage	**9614**	**BK11**	SunLike LED	**97**	**30**	3000K	7.5W	728 lm	**16 / 26 / 36**	**D0**	No Dim	**10** ■ Black	
					40	4000K		758 lm		**DA**	Dali Dim	**11** □ White	
										DC	CASAMBI		
Zero 66 Low Voltage	**9615**	**BK12**					13W	1305 lm	**16 / 25 / 36**	**D1**	0-10V Dim		
								1350 lm					
Zero 100 Low Voltage	**9616**	**BK13**					21W	2336 lm	**18 / 27 / 38**				
								2394 lm					

Notes:

* For complete code ordering information, please see page 33.
** For other CCT options, please contact us.
For the most updated product information, please go to our website.

Zero Low Voltage

Long Arm 40 | 66 | 100 for Low Voltage Track

Body

Zero with long arm is track mounted 48V low voltage spotlight with lighthead and arm in aluminium.
Integrated track adapter, compatible with different models of Stucchi low voltage deep track system.

Easy to insert and remove from the track. Designed for passive cooling.

Available in three different sizes (40, 66, 100). Versatile aiming angle tiltable vertically 0°-90° and rotatable horizontally 360°.
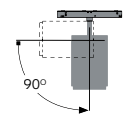
Accessories

Coulored filters, linear spred, honeycomb louvre, visor, anti-glare tube.
For more information about low voltage track accessories see page 30.

Driver

Integrated 48V DC input.
Dimming Options: 0-10V, DALI, Casambi.
Check page XX for more details about diming options. **Power supply** unit to be ordered separately, see page XX.
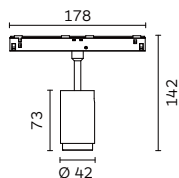
Applications

A modern design consisting for the purpose to meet the highest requirements of the latest advanced lighting technology. Application areas: retail, museums, hospitality, residential, offices, lobbies.
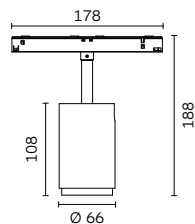
Zero 40 Low Voltage
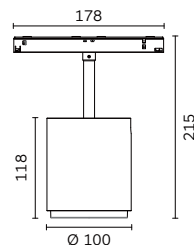
With Long Arm for Low Voltage Track

Zero 66 Low Voltage

With Long Arm for Low Voltage Track

Zero 100 Low Voltage

With Long Arm for Low Voltage Track

Code ordering example: **9 6 3 1 B K 1 1** - **9 7 3 0 1 6 D 0 1 0**

	Product Code	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish
Zero 40 Low Voltage with Long Arm	**9631**	**BK11**	SunLike LED	97	**30**	3000K	7.5W	728 lm	**16 / 26 / 36**	D0	No Dim	10 ■ Black
					40	4000K		758 lm		DA	Dali Dim	11 □ White
										DC	CASAMBI	
Zero 66 Low Voltage with Long Arm	**9632**	**BK12**					13W	1305 lm	**16 / 25 / 36**	D1	0-10V Dim	
								1350 lm				
Zero 100 Low Voltage with Long Arm	**9634**	**BK13**					21W	2336 lm	**18 / 27 / 38**			
								2394 lm				

Notes:

*   For complete code ordering information, please see page 33.
**   For other CCT options, please contact us.
For the most updated product information, please go to our website.

Zero Zoom

80 Low Voltage Track

Body

Track mounted 48V low voltagespotlight with lighthead and arm in cast aluminium.

Integrated track adapter, compatible with different models of Stucchi low voltage track system. Easy to insert and remove from the track. Beam Angle manually adjustable trough ring rotation, from 10° to 35°.

Designed for passive cooling.
Versatile aiming angle tiltable vertically 0°-90° and rotatable horizontally 360°.

Accessories

For more information about low voltage track accessories see page 30.

Driver

Integrated 48V DC input.
Dimming Options: 0-10V, DALI, Casambi. Check page 48 for more details about diming options. **Power supply** unit to be ordered separately, see page XX.
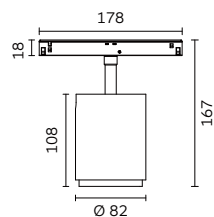
Applications

A modern design consisting for the purpose to meet the highest requirements of the latest advanced lighting technology. Application areas: retail, museums, hospitality, residential, offices, lobbies.
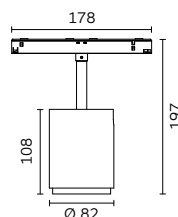
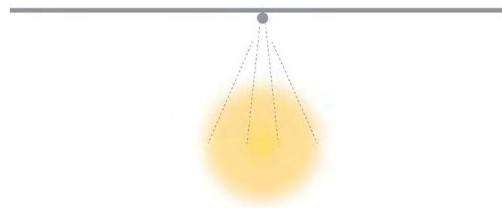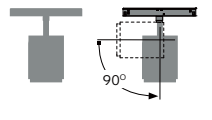**Zero Zoom 80 Low Voltage**

Low Voltage Track

178 | 18 | 108 | 167 | Ø 82

Zero Zoom 80 Low Voltage

With Long Arm for Low Voltage Track

178 | 108 | 197 | Ø 82

Zoom Spotlights

Zoom Spot 10° - 35°

90°

Code ordering example: **9 6 1 7 B K 1 1 - 9 7 3 0 B S D 0 1 0**

	Product Code	Light Source Code*		>CRI	CCT**		LED Power	Nominal Lumen	Beam Angle (BA°)	Driver Options		Finish	
Zero **Zoom** 80 Low Voltage	9617	BK11	SunLike LED	97	30	3000K	9.5W	888 lm	BS	D0	No Dim	10 ■ Black	
					40	4000K		924 lm		DA	Dali Dim	11 ☐ White	
Zero **Zoom** 80 Low Voltage with Long Arm	9633									DC	CASAMBI		
										D1	0-10V Dim		

Notes:

*   For complete code ordering information, please see page 33.   **BS** = Adjustable Beam Shaping lens with a 10°-35° range.
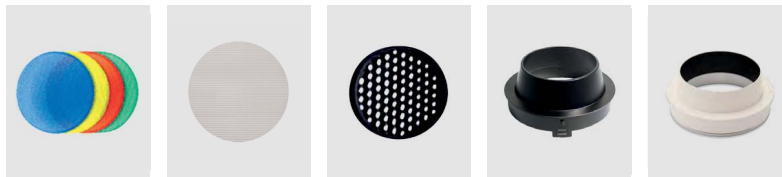** For other CCT options, please contact us.
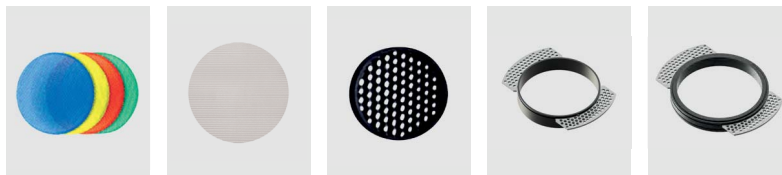For the most updated product information, please go to our website.

Optical Accessories | Recessed

Product / Optical Accessories	Coloured Filters Colours 25, 42, 55, 85	Linear Spread Colour 41	Honeycomb Louvre Colour 10	Wallwasher Visor Colours 10, 17	Anti-Glare Tube Colours 10, 17	Anti-Glare Cone Colours 10, 17	Anti-Glare Hood Colours 10, 17
Zero 40 Semi Recessed	**2E36**	/	**2E35**	/	/	/	/
Zero 66 Semi Recessed	**2D63**	/	**2C65**	/	/	/	/
Colosseo 75	**2E37**	/	**2B76**	/	/	/	/
Colosseo 90	**2E38**	/	**2B95**	/	/	/	/
Colosseo 120	**2E39**	/	**2368**	/	/	/	/
Zero In & Out 40	**2E36#**	**2E44#**	**2E35**	/	**2E43**	/	/
Zero In & Out 66	**2D63#**	**2D62#**	**2C65**	**2D94**	**2D67**	/	/
Punto 100 Round & Square	**2614***	**2615**	**2504**	/	/	**2661**	**2675**
Lumi 50	/	/	**2B76**	/	/	/	/
Lumi 65	/	/	**2B95**	/	/	/	/

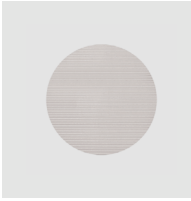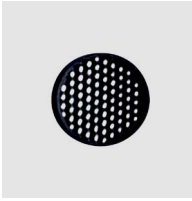| Product / Optical Accessories	Coloured Filters Colours 25, 42, 55, 85	Linear Spread Colour 41	Honeycomb Louvre Colour 10	Anti-Glare Hood Colours 10, 17	Anti-Glare Tube Colours 10, 17
Iride 62	**2614#**	**2615#**	**2504**	/	/
Nippo Round & Square	**2662#**	**2663**	**2634**	/	/

Product / Optical Accessories	Coloured Filters Colours 25, 42, 55, 85	Linear Spread Colour 41	Honeycomb Louvre Colour 10	Protective Ring Recessed Colours 10, 17	Protective Ring Colours 10, 17
Occhio 65 Round	/	/	**2B76**	/	/
Occhio 87 Round	**2614***	**2615**	**2504**	**2D07**	**2D06**

* With holder

Optical Accessories | Track

Product / Optical Accessories	Coloured Filters Colours 25, 42, 55, 85	Linear Spread Colour 41	Honeycomb Louvre Colour 10	Wallwasher Visor Colours 10, 17	Anti-glare Tube Colours 10, 17
Zero Compasso 40 Track	2E36	2E44	2E35	/	2E43
Zero Compasso 66 Track	2D63#	2D62#	2C65	2D94	2D67
Zero Compasso 100 Track	2E10#	2E12#	2C66	2E14	2E16
Zero Compasso 100 Track	/	/	2C70	/	/
Zero Compasso 130 Track	2E11#	2E13#	2C67	2E15	2E17
Zero Compasso 130 Track	/	/	2E45	/	/

With holder

Optical Accessories | Surface

Product / Optical Accessories	Acrylic diffuser	Honeycomb Louvre Colour 10	Colour Ring Colour 33	Colour Ring Colour 35	Colour Ring Colour 55
Pixo 36 Surface	2E05	/	2E07	2E07	2E07
Pixo 77 Surface	2E06	2E09	2E08	2E08	2E08

Optical Accessories | Pendant

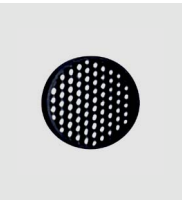| Product / Optical Accessories	Honeycomb Louvre Colour 10	Acrylic diffuser	Colour Ring Colour 33	Colour Ring Colour 35	Colour Ring Colour 55
Pixo 36 Pendant	/	2E05	2E07	2E07	2E07
Pixo 77 Pendant	2E09	2E06	2E08	2E08	2E08

Optical Accessories | Low Voltage Track

Product / Optical Accessories	Coloured Filters Colours 25, 42, 55, 85	Linear Spread Colour 41	Honeycomb Louvre Colour 10	Visor Colours 10, 17	Anti-glare Tube Colours 10, 17
Zero 40 Low Voltage & Zero 40 Low Voltage with Long Arm	2E36#	2E44#	2E35	/	2E43
Zero 66 Low Voltage & Zero 66 Low Voltage with Long Arm	2D63#	2D62#	2C65	2D94	2D67
Zero 100 Low Voltage & Zero 100 Low Voltage with Long Arm	2E10#	2E12#	2C66	2E14	2E16

With holder

Symbols & Icons Code System Global Presence

Symbols & Icons

Trim Round	●
Trim Square	◼
Trimless Round	○
Trimless Square	☐
Round ceiling cut	(⌀)
Square ceiling cut	▱

The CE mark signifies that a product conforms with the relevant ECC directives requirements. The CE marking is compulsory to indicate LVD and EMC conformity.

The CE mark is also a self certification that the manufacter claims that the product is safe. The value of such claim is directly related to thecase of FormaLighting: All products are designed, developed, manufactured under the scope of ISO 9001 quality systems.

All formaLighting products are tested in Europe and certified by an independent laboratory that is registered and audited by an approved European testing authority.

CE

Others third party product approvals

Our products include electrical and electronic components that carry other world wide Test House approvals such as those shown:

CCC

CLASS I
Luminaires of insulation Class I - with earth connector.

CLASS II
Luminaires of insulation Class II - With safety isolation, this means the tension conductions element are protected by additional isolation.
The isolation of an earth wire it is not necessary and the connection to it is not allowed.

CLASS III
Luminaires of isolation Class III - designed for operation of protected low voltage supply (>42V).

Passes the 850C glow wire test in accordance with ICE 695-2-1.	850°
Passes the 960C glow wire test in accordance with ICE 695-2-1.	960°
Degree of Ingress Protection*	IP__
Dim2Warm	
Tuneable White	
Recyclable	♻

IP_ _ Degree of Ingress Protection

1st Number	Protection Against Dust and Solid Objects	2nd Number	Protection Against Moisture and Liquids
0	No-Protection	0	No-Protection
1	Protection agains solid objects >50 mm	1	Protection against dripping water
2	Protection agains solid objects >12 mm	2	Protection against dripping water tilted > 15 deg
3	Protection agains solid objects >2.5 mm	3	Protection against spraying water > 30 deg
4	Protection agains solid objects >1 mm	4	Protection against spraying water
5	Dust - protected	5	Protection against water jet
6	Dust - tight	6	Protection against waves
		7	Protection against the effects of immersion
		8	Protection against submersion

Level of Shock Resistance

IK00	Not protected	IK00
IK01	Protected against 0.15 J shocks	IK01
IK02	Protected against 0.2 J shocks	IK02
IK03	Protected against 0.35 J shocks	IK03
IK04	Protected against 0.5 J shocks	IK04
IK05	Protected against 0.7 J shocks	IK05
IK06	Protected against 1 J shocks	IK06
IK07	Protected against 2 J shocks	IK70
IK08	Protected against 5 J shocks	IK08
IK09	Protected against 10 J shocks	IK09
IK10	Protected against 20 J shocks	IK10

Code system

Code ordering example: **R O 9 2 B K 1 1** - **9 7 3 0 1 6 D 0 1 0**

- Body colour
- Driver options
- Beam angle
- CCT-LED Colour temperature
- LED CRI
- Light source code
- Product code

LED CRI

80	CRI > 80
90	CRI > 90
95	CRI > 95
97	CRI > 97

Driver Options

00	No Driver
D0	No dimming
DL	Laser Dim
DA	Dali Dim
DP	Phase
DX	DMX
DC	CASAMBI
D1	0-10 Dim

Body Colour

10	Black
11	White
17	Black / White (B&W)
26	White / Gold (W&G)
27	Chrome Polished
28	Brass Polished
29	Grey (for Outdoor use)
33	Silver
34	Nickel
35	Gold
54	Sanded White (for outdoor use)
55	Red
74	Nickel Polished
75	Grey (RAL 9006)
79	Natural Aluminium
84	Stainless Steel
92	Black / Grey (B&G)

CCT-LED Colour temperature

27	Warm White 2700K
30	Warm White 3000K
40	Neutral White 4000K
50	Cool White 5000K
57	Cool White 5700K
TW	Tuneable White 1800K - 6000K

How to order

	Product code	Light source code		>CRI	CCT	LED power	Nominal lumen	Beam angle (BA°)	Driver Options	Finish
Zero Semi Recessed	**RO92**	**BK11**	SunLike LED	**97**	**30** 3000K	7.5W	728 lm	**16** / 26 / 36	**D0** No Dim	**10** ■ Black
									DA Dali Dim	**11** □ White
									DC CASAMBI	
									D1 0-10V Dim	

Product code	**6331**	①
Light source code	**BC22**	②
LED CRI	**90**	③
CCT-LED colour temperature	**30**	④
Beam angle	**10**	⑤
Dimming options	**D0**	⑥
Body colour	**10**	⑦

All dimensions in the catalogue in mm.

Global presence

Celebrating 50 years of vision, dedication and innovation, Formalighting's versatile and high-quality product offerings extends internationally via our headquarters in Hong Kong, London, Milan, Shanghai and the USA.
Our well chosen and selected partners as well as our affiliated international offices broaden our global presence further in markets such as Australia, Japan, South East Asia, India and the Middle East.

Through our commitment to growth and investment within formalighting's professional team, infrastructure and product ranges, we are able to provide increasing service to our global retail and hospitality clients as well as lighting designers and specifiers strengthening our position as a leading international supplier of innovative architectural lighting solutions and systems.

With 50 years' experience in designing and manufacturing architectural lighting, formalighting's comprehensive portfolio offers a competitive range of European designed and expertly engineered products that carry CB, CE, CCC and UL certifications.

Furthermore formalighting's latest award-winning motorized range of track, pendant, and recessed fixtures, featuring remote-controlled adjustable pan and tilt, dim, dim to warm, tuneable white and beam shaping lens, are available worldwide incorporating the latest, most advanced lighting technologies.

Headquarters

Europe / Milan

Tel	(+39) 02 9354 0300
Fax	(+39) 02 9343 5117
E- mail	formaitalia@formalighting.it

Asia / Hong Kong

Tel	(+ 852) 2516 6500
Fax	(+ 852) 2516 6525
E- mail	forma@forma.com.hk

USA / New York

| Tel | (+ 1) 470 419 4003 |
| E- mail | info.us@formalighting.com |

formalighting

HONG KONG

-

LONDON

-

MILAN

-

SHANGHAI

-

NEW YORK