



Following the worldwide success COBRA, which achieved sales in the thousands across the globe, Ayrton proudly introduces MAMBA—a groundbreaking and versatile lighting innovation. This fixture, equipped with a laser source twice as powerful as its predecessor, delivers an array of stunning psychedelic effects that redefine the boundaries of visual artistry.

**M**AMBA boasts unmatched graphic capabilities, with 18 motors dedicated exclusively to creating mesmerizing effects. Its design includes a vast selection of 92 fixed and rotating gobos spread across two wheels, optimized for sculpting light in “beam” mode. Offering an unprecedented range of graphic options, MAMBA represents a first in the realm of laser luminaires. Every detail of its design reflects Ayrton’s dedication to innovation and precision, achieving a flawless fusion of cutting-edge technology and bold, sophisticated aesthetics.

## ★ KEY FEATURES

### ➤ Visually Stunning Design

Ayrton introduces MAMBA, a masterpiece of engineering and design. With its XXL 250 mm lens seamlessly integrated into a sleek and refined body, MAMBA establishes a new standard in the laser series, offering a distinctive visual signature that captivates the eye.

### ➤ Advanced Prism System

MAMBA’s two-part brand-new prism system offers exceptional creative versatility.

- **Primary Prism Stage:** Two palettes, each with four independently rotating prisms, can be combined for versatile effects.
- **Multiplier Prism Stage:** Four additional blendable prisms at the front of the fixture further enhance the creative possibilities, allowing for complex volumetric lighting effects by multiplying the looks from the primary prism section.

### ➤ Conscious Engineering

New lightweight aluminium components have been used to significantly reduce the overall weight, achieving the best weight-to-power ratio in its class without relying on costly or unstable special alloys.

### ➤ Unmatched Power

Designed for live entertainment, MAMBA delivers a striking metallic white light with an extraordinary luminous intensity of 2,600,000 lux at 10 meters and a colour temperature of 9000 Kelvin, ensuring unmatched clarity and vibrancy.

### ➤ Innovative Colour Technology

Equipped with the state-of-the-art high-definition gradient CMY mixing system first launched with Rivale Profile, MAMBA ensures smooth and precise colour transitions. Its instant-access 2D-ColorWheel™ adds further flexibility, featuring 15 complementary colour filters, two multicolour filters, two CTP correctors, a progressive CTO, and three multicolour sections—RGB, CMY, and RGB+CMY—arranged over two concentric circles for dynamic and vibrant colour effects.

### ➤ Compact and Lightweight

MAMBA redefines the capabilities of laser luminaires by delivering exceptional brightness and advanced graphic features in a remarkably compact design. Weighing only 41 kilograms, it combines powerful performance with a lightweight and portable form, making it a groundbreaking choice in its class.

## TECHNICAL SPECIFICATIONS

SOURCE	
Engine	LASER Phosphore
LASER Watts	500 W (total fixture use, see Electrical section)
LASER Engine Life (L70)	Up to 12,000 hours
LASER Refresh Rate	1.2 kHz, 2.4 kHz, 16 kHz, 25 kHz
Dimming	Electronic
Dimming Curves	Square & Linear
Dimming Control Options	Auto on/off dimmer smoothing when Snap effects
Strobe Speed	1-25 Hz Per Second
Strobe Modes	Strobe Effects / Pulse Effects / Random Effects

ELECTRICAL	
Max Power Consumption	800 W
Standby Consumption	162 W @ 20 °C
Voltage Range	100-240 V 50-60 Hz
Current (Max)	3.28 A @ 230 V / 7.02 A @ 110 V
Inrush (Half Cycle)	110 V: 11.8 A 230 V: 8.4 A
Total Fixtures per Circuit	N/A
Connector	True1 In
Power Supply Unit	Active PFC
Contains Battery	N/A

TYPICAL POWER AND CURRENT	
120V , 60Hz	5.794 A, 691 W, PF 0.995
208V, 60Hz	3.328 A, 677 W, PF 0.978
230V, 50Hz	3.002 A, 671 W, PF 0.971
240V, 50Hz	2.882 A, 669 W, PF 0.966

*Suitable disclaimer nominal, etc*

OPTICAL PERFORMANCE	
Lens Size	250 mm (9.84 in)
Zoom Range	0.7° to 15° (11° sharp)
Zoom Ratio	21:1
Gate Size	4 mm (0.16 in)

MOVEMENT		
Pan Range	Infinite	
Pan Speed (End to End or range)	180°	86.1 rpm
	360°	135.4 rpm
	EtoE	173.3 rpm
Tilt Range	Infinite	
Tilt Speed (End to End or range)	180°	66.9 rpm
	360°	112.8 rpm
	EtoE	143.1 rpm
Resolution	8- or 16-bit	
Calibration Time	56.72 sec	
Position Correction System	Yes / Automatic repositioning	
Follow Spot Modes	Manual & Tracking system	

COLOUR SYSTEM	
Colour System(s)	CMY, colour wheel with variable CTO
Control	CMY 16-bit & 8-bit
CTO	Variable
Variable CTP	½ and ¼ minus green
Colour Wheel	<ul style="list-style-type: none"> <li>• 15 complementary colours</li> <li>• 2 minus green filters</li> <li>• Variable CTO</li> <li>• 2 multicolour filters</li> <li>• 3 multicolour effect sections</li> </ul>
Colour Wheel Effects	Continuous Rotation

GOBOS	
Indexing Wheel	1
Indexing Gobos	12 (Quartz glass see load below) + open position
Gobo Diameter	6.9 mm (0.24 in)
Image Diameter	4.0 mm (0.16 in)
Static Wheel	1
Static Gobos	80
Animation Wheel	Yes
Animation Details	Bi-Directional with continuous rotation

## TECHNICAL SPECIFICATIONS

PERFORMANCE		
LASER engine out (Sphere)	25,000 lm	
Fixture Output (Goniometer)	17,003 lm (Fan Mode Auto)	
	17,042 lm (Fan Mode Stage)	
	13,070 lm (Fan Mode Silence)	
	11,385 lm (Fan Mode Super Silence)	
Fixture Output (Sphere)	20,400 lm (Fan Mode Auto after derating)	
Field Lumens (Sphere)	Narrow	N/A
	Middle	20,400 lm
	Wide	18,900 lm
Lumen Per Watt (LPW) Max fixture output / 230 V Typical power	25.5	
CCT	9000 K	
$\Delta uv$	0.0018	
CRI	Ra: 67 ( $\pm 2$ )	
With TrueColour Enhancer™ Filter	CRI 72 & CRI 80	
Tm30	Rf: 62 Rg: 83	
TLCI	32	
CQS	59.6	

IMAGING	
Framing	N/A
Framing Rotation	N/A
Iris	None (Beam Reducer on fixed gobo wheel)
Frost	2 Frost filters: Light 1° & Heavy 5°
Prism	<ul style="list-style-type: none"> <li>• Primary prisms: 2 set of 4 combinable rotating and indexable prisms</li> <li>• Multiplier prisms: 2 set of 4 combinable rotating and indexable prisms</li> </ul>

CONNECTORS	
Power	IP 65 powerCON TRUE1 TOP In
DMX	In/Thru 5 Pin XLR
Network	In/Thru RJ45
Wireless	DMX Only

CONTROL	
DMX Control	DMX (USITT DMX-512-A) RDM (ANSI/ESTA E1.20)
Transceiver/Receiver	RS-485 with Opto Isolation
DMX Modes	1 User Mode
Channel Count	Mode Extended – 47
DMX Chart	Scan the QR code on page 5
Network Protocols	ArtNet & sACN
Local Control	Colour LCD Panel 5 Menu Buttons NFC
Stand Alone Mode	Main/Follow, presets 250
RDM Functions	Yes
Wireless DMX	CRMX TiMo RDM receiver
E-Sim Ready	Optional
USB Port	No

THERMAL	
Max Surface Temperature, steady state, at Ta 40°	75 °C (167 °F)
Max Ambient Temperature (Ta Max)	45 °C (113 °F)
Min Ambient Temperature (Ta Min)	-20 °C (-4 °F)
Total Heat Dissipation (Calculated +/- 10%)	254.5 BTU/h
Minimum distance to illuminated surface	35 m (114.83 ft)
Minimum distance to combustible surface	0.1 m (0.33 ft)
Thermal Protection system	Yes
Cooling modes	See Acoustics
Cooling System	Advanced Liquid Cooling

## TECHNICAL SPECIFICATIONS

## ACOUSTICS STATIC

Fan Mode	dBA <sup>1</sup>	NC <sup>2</sup>
Auto	35.2 dBA	22
Stage	44.2 dBA	34
Silence/Studio	31.1 dBA	16
Super Silence	30 dBA	15

## DYNAMIC

Mode	dBA <sup>1</sup>	NC <sup>2</sup>
Auto	44.6 dBA	39
Stage	46.3 dBA	41
Silence/Studio	44.1 dBA	39
Super Silence	44.1 dBA	39

1. Measured @ 1m Static, 10 dBA ambient

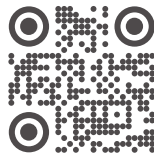
2. Noise Criterion

[https://www.engineeringtoolbox.com/nc-noise-criterion-d\\_517.html](https://www.engineeringtoolbox.com/nc-noise-criterion-d_517.html)

## ENVIRONMENTAL

IP Rating	IP65 / IP66
Salt Spray Testing	Pending
Estimated embodied carbon including: <ul style="list-style-type: none"> <li>A1 - Raw materials of fixture and packaging</li> <li>A3 - Product manufacturing</li> </ul>	378.5 kg CO <sub>2</sub> e
Recycling options	Packaging fully recycled and widely recyclable
SIP Optional	Yes

Our Environmental Commitment



## WARRANTY

Fixture	2 years
LASER Engine	5 years

From date of invoice

## INSTALLATION

Orientation	Any
Mounting attachments	<ul style="list-style-type: none"> <li>Fastening bracket system: two Omega ¼ turn brackets designed for use with standard clamps.</li> <li>Mounting points: four ¼ turn locking fittings allowing installation of Omega brackets on luminaire.</li> <li>Safety cable attachment point.</li> </ul>
Installation version	Yes, Fixed tails

## CONSTRUCTION

Colour	Carbon Black Standard Custom colours on request
Housing	ABS PC (VO class)
Materials	<ul style="list-style-type: none"> <li>Moving-head skeleton made of aluminium and steel metal plates.</li> <li>Base in die-cast aluminium.</li> <li>Heatsinks in aluminium and copper.</li> <li>Moulded covers in self-extinguishing fire-retardant ABS PC (VO class).</li> <li>Four-side handles for transportation.</li> <li>Four heavy-duty feet for better stability.</li> </ul>

## INCLUDED ITEMS

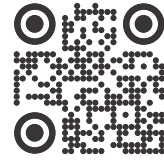
Manual	1
OMEGA brackets with quarter-turn locks	2
Cables	<ul style="list-style-type: none"> <li>IP65: 1.5 m powerCON True1 TOP Tails Bared End</li> <li>IP66: Tails Bared End</li> </ul>
Other accessories	N/A

## TECHNICAL SPECIFICATIONS

PHYSICAL	
<b>Fixture</b>	
Length	404 mm (15.9 in)
Height	749 mm (29.5 in)
Depth	366 mm (14.4 in)
Weight	41 kg (90.4 lb)
<b>IP65</b>	
Length	404 mm (15.9 in)
Height	749 mm (29.5 in)
Depth	366 mm (14.4 in)
Weight	41 kg (90.4 lb)
<b>Shipping Dimensions</b>	
Length	695 mm (27.4 in)
Height	749 mm (29.3 in)
Depth	515 mm (20.3 in)
Weight	56.5 kg (121.4 lb)
<b>In SIP Dimensions</b>	
Length	680 mm (26.8 in)
Height	500 mm (19.7 in)
Depth	640 mm (25.2 in)
Weight (excl fixture)	10 kg (22 lb)

## SUPPORTING DOCUMENTS

<a href="#">Manual</a>
<a href="#">GDTF Profile</a>
<a href="#">GMA Profile</a>
<a href="#">IES File</a>
<a href="#">DMX Chart</a>
<a href="#">Photometric Files</a>
<a href="#">Software</a>
<a href="#">Warranty</a>



## COMPLIANCE

<b>EU (EMC &amp; LVD)</b>	<ul style="list-style-type: none"> <li>• EMC Directive 2014/30/EU</li> <li>• LVD Directive 2014/35/EU</li> </ul>
<b>US (Safety &amp; EMC)</b>	<ul style="list-style-type: none"> <li>• UL 1573</li> <li>• FCC Part 15, Subpart B: 2018</li> </ul>
<b>ROHS Compliant</b>	Yes
<b>Declarations</b>	Scan the QR code above

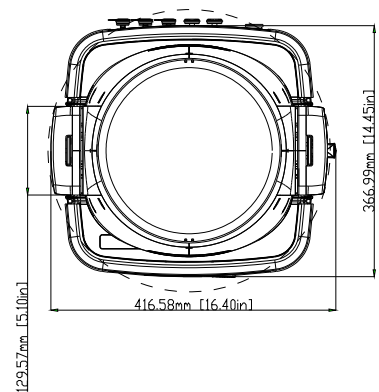
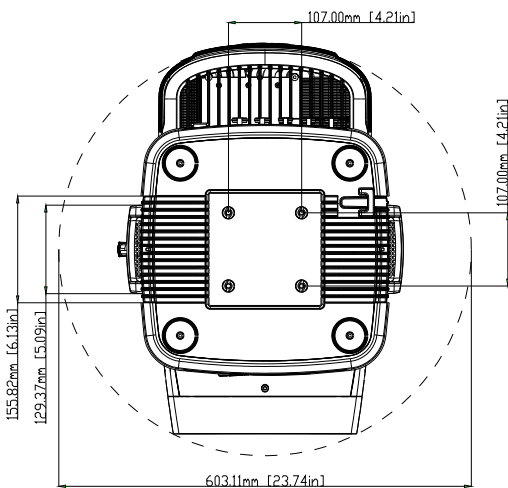
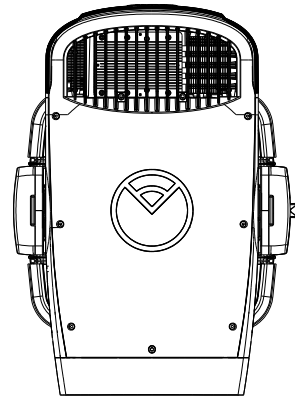
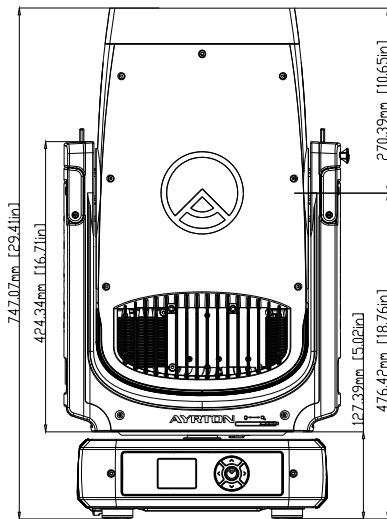
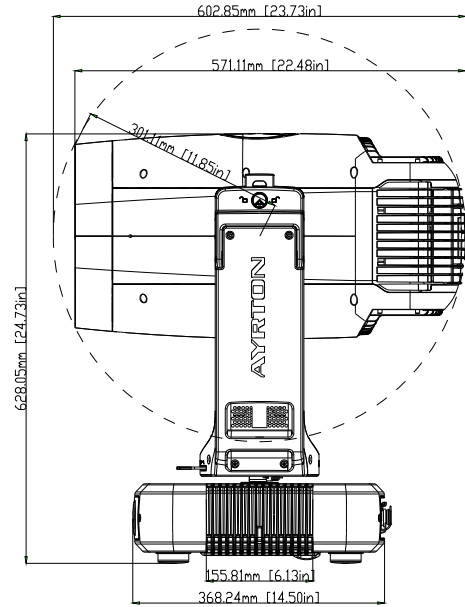
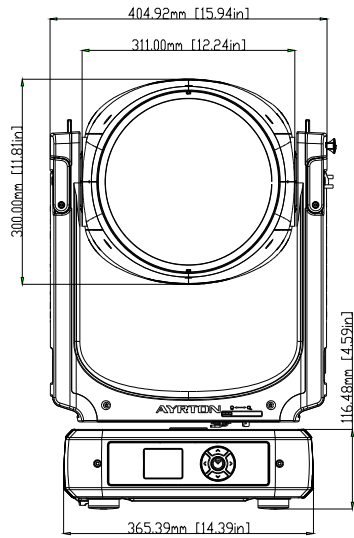
## ORDERING DETAILS

<b>Mamba</b>	014570
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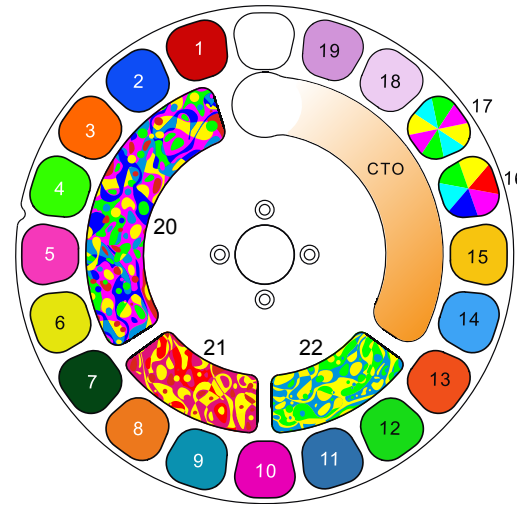
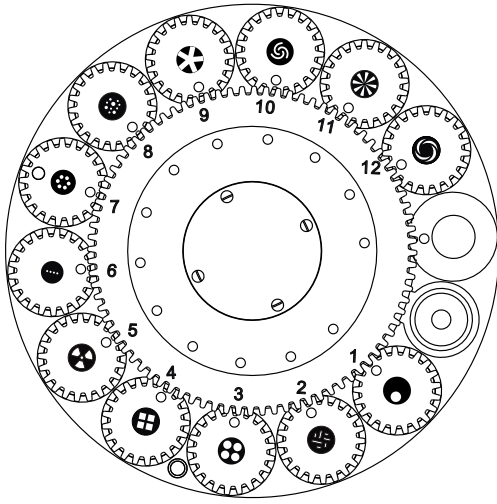
## ACCESORIES

<b>IP Test Kit</b>	048250
<b>Lynx Control</b>	045130
<b>Omega Bracket</b>	GP50501990353

TECHNICAL SPECIFICATIONS



TECHNICAL SPECIFICATIONS



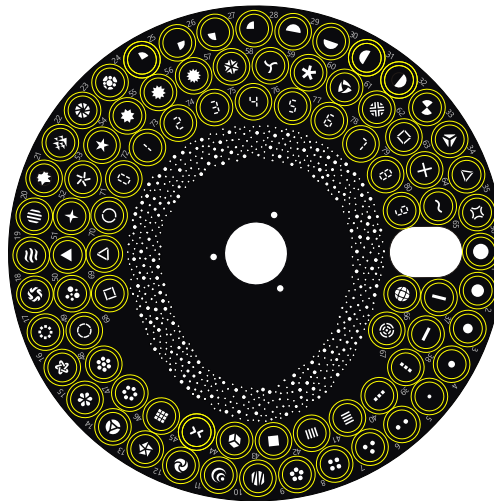
**GOBO WHEEL 1**

Rotating Gobo			
1	310	Eccentric Dot	GPG0500248
2	358	Lines Mix	GPG0500249
3	328	Dot Square 4	GPG0500250
4	332	Square Beam 4	GPG0500251
5	149	Nuclear	GPG0500252
6	314	Dot Line 4	GPG0500253
7	320	Dot Ring 6	GPG0500254
8	324	Dot Mix	GPG0500255
9	342	Five Strokes	GPG0500256
10	114	Nested Half Rings	GPG0500257
11	343	Eight Spokes	GPG0500258
12	111	Nested Rings Light	GPG0500259

**COLOUR WHEEL**

1	Red	12	Dark Green
2	Blue	13	Dark Amber
3	Orange	14	Medium Blue
4	Green	15	Oklahoma Yellow
5	Pink	16	Multicolour #1
6	Yellow	17	Multicolour #2
7	Velvet Green	18	Minus Green ¼
8	Amber	19	Minus Green ½
9	Light Blue	20	Multicolour Animation
10	Follies Pink	21	Red/Yellow Animation
11	Slate Blue	22	Green/Yellow Animation

TECHNICAL SPECIFICATIONS



**GOBO WHEEL 2**

**Static Gobo**

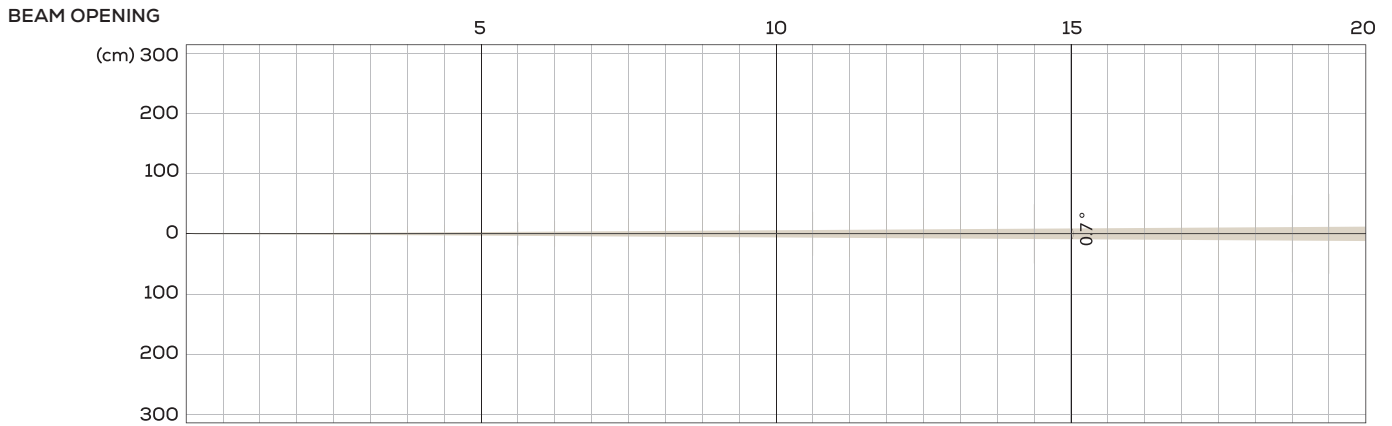
1	302	80% Iris Beam	21	260	Arrows	41	353	Four Lines V	61	435	Nested Cross
2	304	60% Iris Beam	22	265	Iris 8	42	330	Square Beam	62	421	Split Square 1
3	306	40% Iris Beam	23	326	Dot Mix 8	43	363	Rubik Cube	63	431	X Cross
4	308	20% Iris Beam	24	290	Quarter Beam NE	44	437	Split Cross	64	348	Tilde
5	312	Dot Line 2	25	291	Quarter Beam SE	45	334	Square Beam 9	65	188	Mirror Ball 9
6	326	Dot Triangle 3	26	292	Quarter Beam SW	46	320	Dot Ring 6	66	417	Split Target
7	328	Dot Square 4	27	293	Quarter Beam NW	47	321	Dot Ring 7	67	422	Split Square 2
8	319	Dot Ring 5	28	296	Half Beam Up	48	413	Split Circle 6	68	427	Split Triangle 2
9	257	Zig Zag Light	29	295	Half Beam Down	49	324	Dot Mix	69	411	Split Circle 2
10	135	Vortex Light	30	298	Half Beam Left	50	340	Triangle Beam	70	450	Number 0
11	110	Spiral	31	299	Half Beam Right	51	374	Compass 4	71	451	Number 1
12	118	Helix 5	32	418	Crash Test Icon	52	346	Star Line 5	72	452	Number 2
13	424	Triangle Beam	33	341	Split Triangle 4	53	345	Star 5	73	453	Number 3
14	263	Daisy	34	426	Split Triangle 1	54	378	Star 8	74	454	Number 4
15	373	Nested Star	35	419	Iron Ball Light	55	380	Star 10	75	455	Number 5
16	368	Square Ring 8	36	351	Vertical Line	56	382	Star 12	76	456	Number 6
17	439	Circular Saw 4	37	350	Bold Line	57	262	Arrow Ring 6	77	457	Number 7
18	099	Waves Light	38	371	Square Line 3 V	58	117	Helix 3	78	458	Number 8
19	274	Prison Bars 4	39	370	Square Line 3 H	59	342	Five Spokes	79	459	Number 9
20	269	Ink Stain	40	353	Four Lines H	60	261	Arrow Ring 3			

*This side facing front lens*



**AUTO MODE | NATIVE CRI GREATER THAN 67**

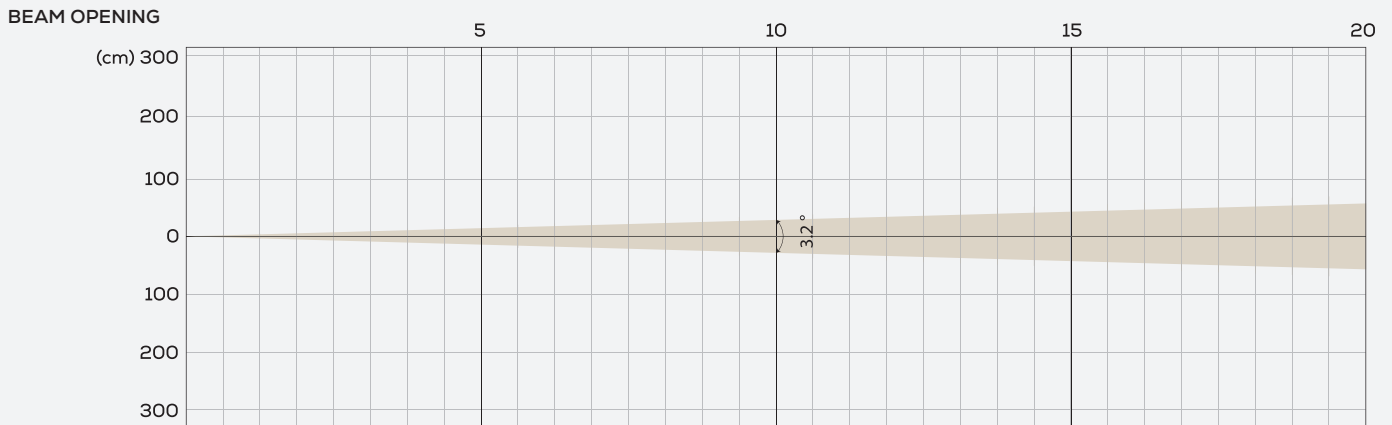
MIN ZOOM



INTENSITY

Distance (m)	5		10		15		20		30		50		100	
unit	Lux	Diameter	Lux	Diameter	Lux	Diameter	Lux	Diameter	Lux	Diameter	Lux	Diameter	Lux	Diameter
White	10400000	0.06	2600000	0.12	1155556	0.18	650000	0.24	288889	0.37	104000	0.61	26000	1.22

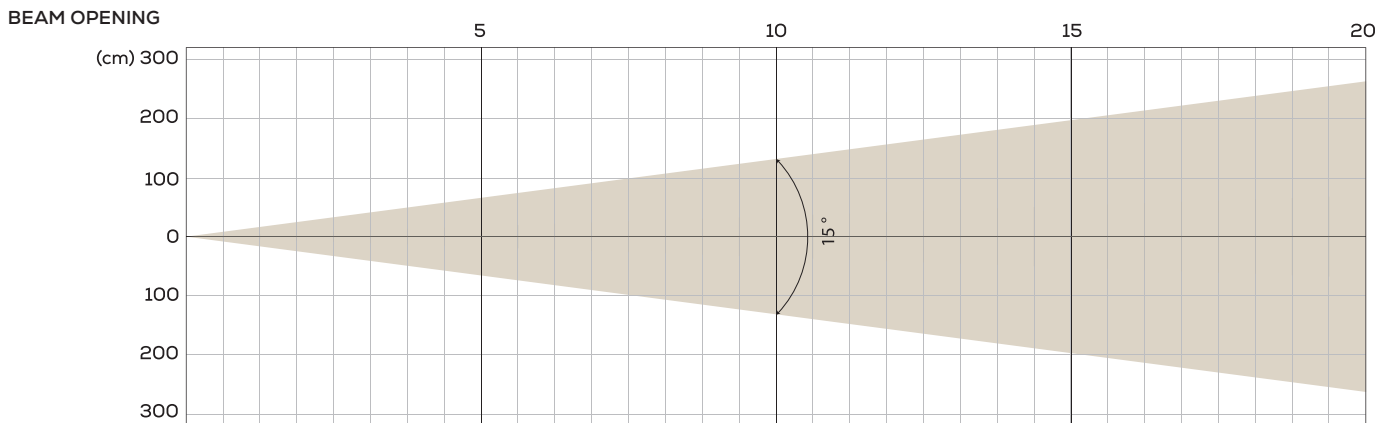
MIDDLE ZOOM



INTENSITY

Distance (m)	5		10		15		20	
unit	Lux	Diameter	Lux	Diameter	Lux	Diameter	Lux	Diameter
White	616627	0.28	154157	0.56	68514	0.84	38539	1.12

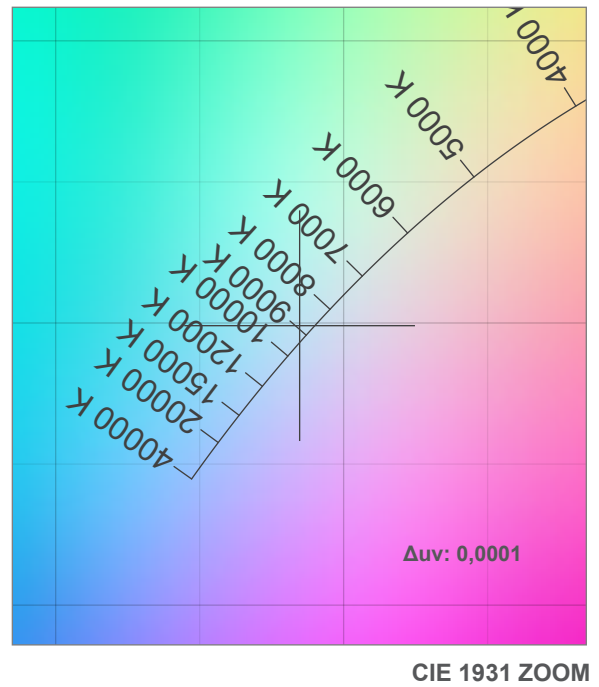
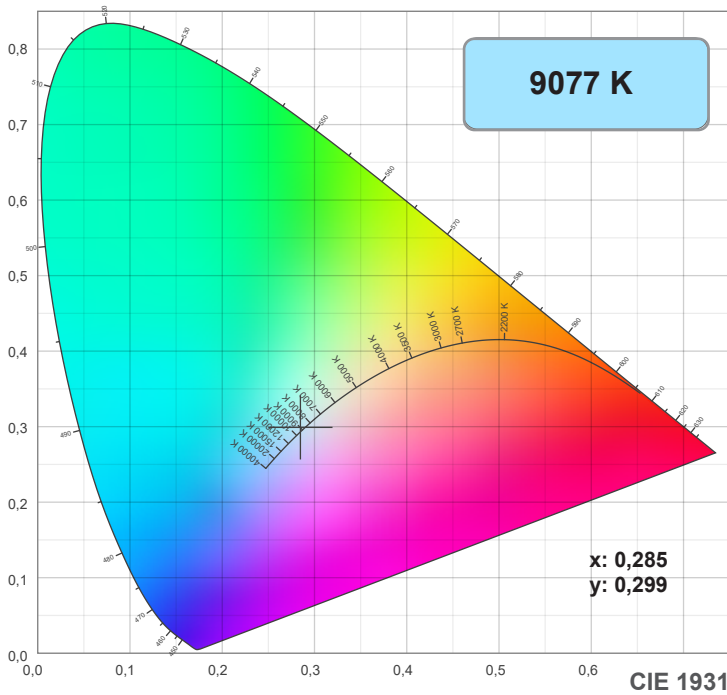
MAX ZOOM



INTENSITY

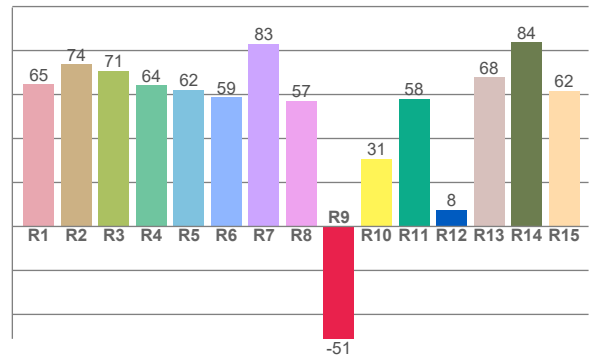
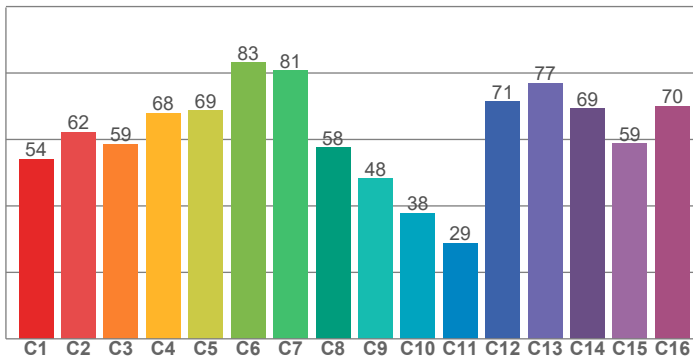
Distance (m)	5		10		15		20	
unit	Lux	Diameter	Lux	Diameter	Lux	Diameter	Lux	Diameter
White	73857	1.32	18464	2.63	8206	3.95	4616	5.27

COLOUR DETAILS



TM-30: 62,2

CRI: 66,8 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
64,7	73,7	70,8	64,2	62,3	58,7	83,0	57,2	-51,1	30,8	58,1	7,6	67,9	83,9	61,8

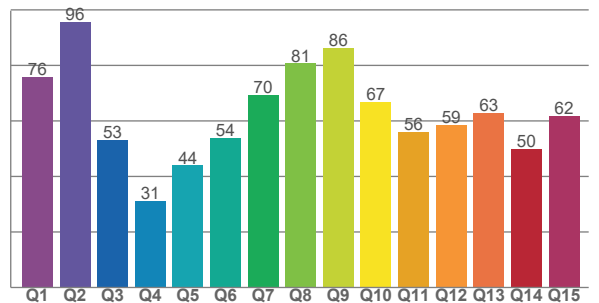
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
54,1	62,3	58,6	67,9	68,7	83,2	80,9	57,5	48,2	37,9	28,9	71,5	77,0	69,3	58,8	70,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75,8	95,7	53,0	31,2	44,0	54,0	69,5	80,7	86,2	66,8	56,1	58,6	62,9	50,0	61,8

CQS: 59,6



Color parameters

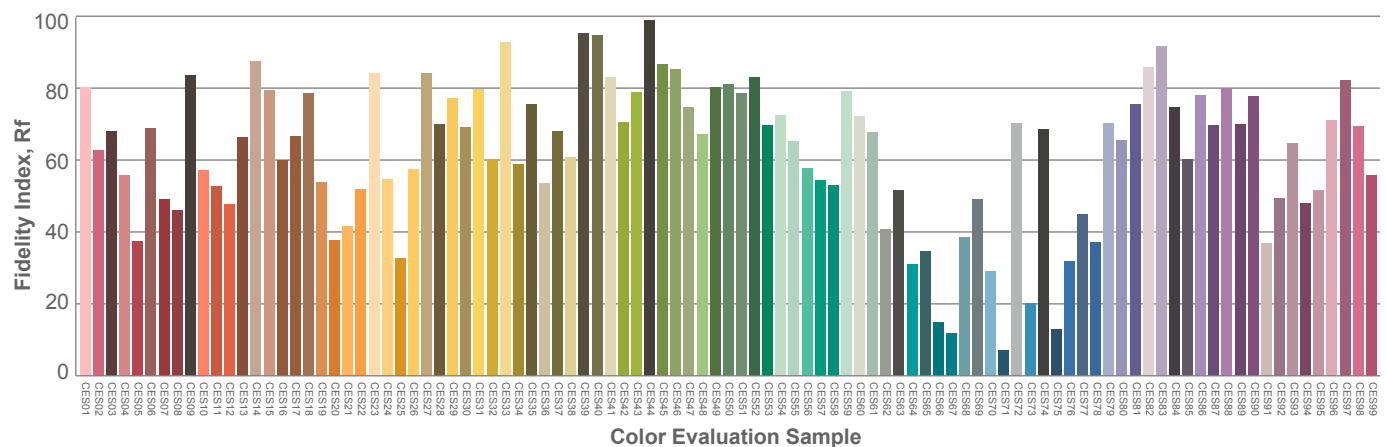
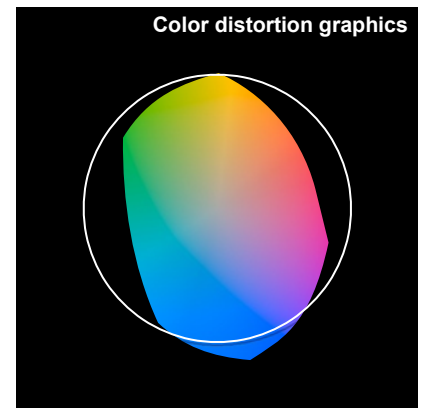
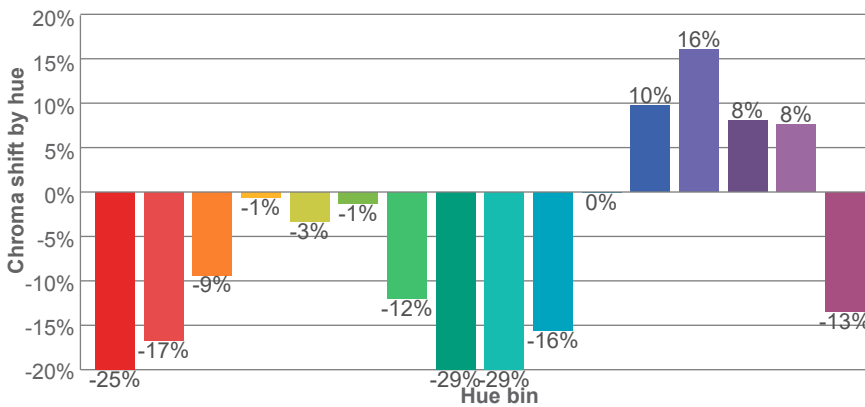
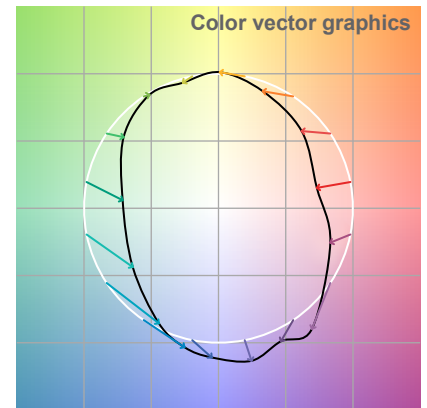
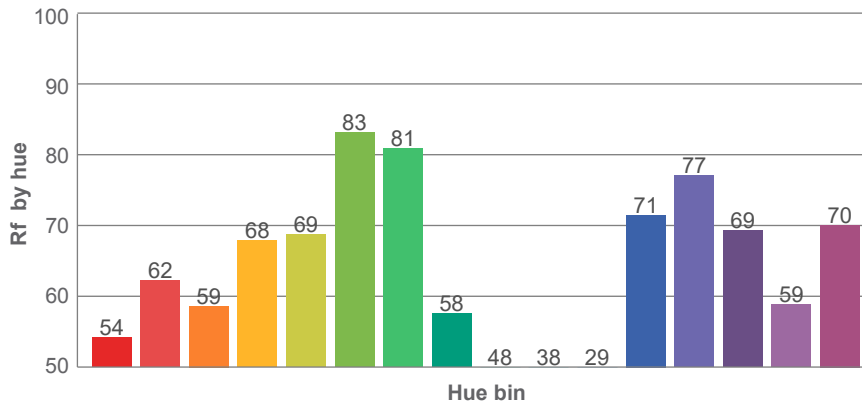
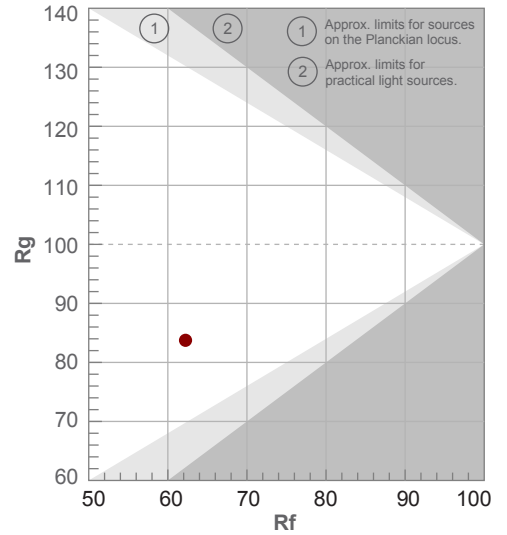
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color division from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
9077 K	66,8	-51,1	62,2	83,7	59,6	0,285	0,299	0,189	0,298	0,0001

TM30-DETAILS


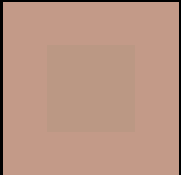


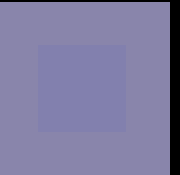
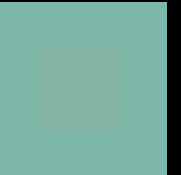

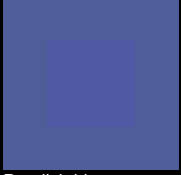
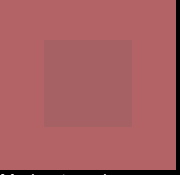


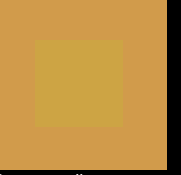
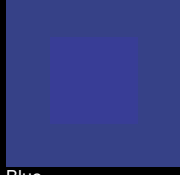

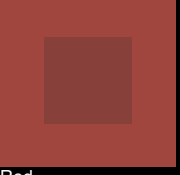




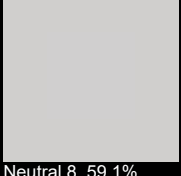
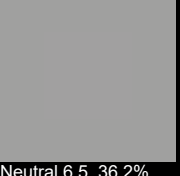
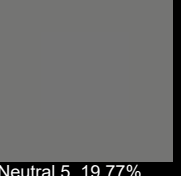
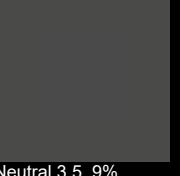
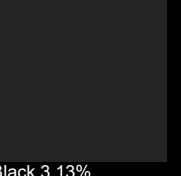
**Rf 62,2**  
Fidelity index Rf

**Rg 83,7**  
Gamut index Rg

Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	54	-25%	1%
2	62	-17%	13%
3	59	-9%	21%
4	68	-1%	19%
5	69	-3%	8%
6	83	-1%	-4%
7	81	-12%	-5%
8	58	-29%	8%
9	48	-29%	30%
10	38	-16%	46%
11	29	0%	36%
12	71	10%	17%
13	77	16%	2%
14	69	8%	-16%
15	59	8%	-36%
16	70	-13%	-9%



TLCI 33

					
Dark skin	Light skin	Blue sky	Foliage	Blue flower	Bluis green
					
Orange	Purplish blue	Moderate red	Purple	Yellow green	Orange yellow
					
Blue	Green	Red	Yellow	Magenta	Cyan
					
White 90.01%	Neutral 8, 59.1%	Neutral 6.5, 36.2%	Neutral 5, 19.77%	Neutral 3.5, 9%	Black 3.13%

**⚠️ DISCLAIMER**

Errors and omissions for all information given in this specification sheet are possible. All information is subject to change without prior notice.