RawBeam 350 marks the next step in Ayrton's laser-source development, following over 15 years of work with laser phosphor technology. It has been designed as a practical replacement to the gradual disappearance of traditional discharge-lamp sources in beam fixtures. Rather than simply recreating the past, RawBeam 350 uses a modern source designed to deliver the familiar energy and precision expected from this type of light.

The fixture brings together our experience in optics, thermal management, colour systems and compact mechanical design. Its feature set has been developed for real-world use, with the tools needed for beam work, projection, aerial effects and touring applications. RawBeam 350 is therefore not just a replacement for an older technology, but a carefully developed platform for the next generation of beam lights.

★ KEY FEATURES

Small

RawBeam 350 is a powerful Phosphor laser-source beam fixture in an extremely compact format. It is as small as Diablo, which has long been considered a reference point for compact moving lights.

Light

At 25.4 kg, RawBeam 350 is lighter and easier to handle than comparable products. This makes rigging, transport and daily use simpler, especially when deployed in large quantities.

Quiet

RawBeam 350 has been designed with highly efficient thermal management. It can cool the engine effectively without needing to run the fans at high speed, making it noticeably quieter in real show conditions.

Narrow

RawBeam 350 reaches an extremely tight 1.1° beam in Beam Mode. This gives sharp, concentrated aerial effects with strong intensity and definition.

Wide

RawBeam 350 opens up to 45° in Spot Mode. This gives more flexibility for wider shots, gobos, prisms and projected effects.

Bright

With its 350 W laser phosphor source, RawBeam 350 delivers very high intensity from a compact fixture. It gives the beam the punch and energy expected from a discharge-style source, with the efficiency and control of laser phosphor technology.

v1.0 16/06/2026

TECHNICAL SPECIFICATIONS

SOURCE

Engine	LASER Phosphore
LASER Watts	350 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
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	660 W
Standby Consumption	94.5 W @ 20°C
Voltage Range	100-240 V 50-60 Hz
Current (Max)	6 A @ 230 V / 2.9 A @ 110 V
Inrush (Half Cycle)	‹ 20 A @ 230 V
Maximum Current available at the output	16 A
Connector	REAN Power X - RRAC3M In/Thru
Power Supply Unit	Active PFC
Contains Battery	N/A

TYPICAL POWER AND CURRENT

120V , 60Hz	565W, 4.753A, PF 0.989
208V, 60Hz	550W , 2.714A , PF 0.973
230V, 50Hz	549W , 2.475A , PF 0.964
240V, 50Hz	548W , 2.382A , PF 0.958

Suitable disclaimer nominal, etc

OPTICAL PERFORMANCE

Lens Size	160 mm (6.29 in)
Zoom Range	Beam Mode: 1.1° to 18° Spot Mode: 2.2° to 45°
Zoom Ratio	40:1
Gate Size	4 mm

MOVEMENT

Pan Range		Infinite
Pan Speed (End to End or range)	**180°**	322.3 rpm
	360°	322.3 rpm
	EtoE	322.3 rpm
Tilt Range		Infinite
Tilt Speed (End to End or range)	**180°**	281.3 rpm
	360°	281.3 rpm
	EtoE	281.3 rpm
Resolution		8- or 16-bit
Calibration Time		55.6 sec
Position Correction System		Yes / Automatic repositioning
Follow Spot Modes		Manual & Tracking system

COLOUR SYSTEM

Colour System(s)	CMY + CTO
Control	CMY + CTO 16-bit
CTO	3000 K to 6800 K
Variable CTP	N/A
Colour Wheel	15 complementary colours / 1 multicolour section / 1 CTB
Colour Wheel Effects	Continuous Rotation

GOBOS

Indexing Wheel	1
Indexing Gobos	10 (quartz, see load below) + open position
Gobo Diameter	16 mm (0.63 in)
Image Diameter	10 mm (0.40 in)
Static Wheel	1
Static Gobos	25 metal gobo + 4 beam reducers + open
Animation Wheel	Yes (on the Static gobo wheel)
Animation Details	Bi-directional with continuous rotation

TECHNICAL SPECIFICATIONS

PERFORMANCE

LASER engine output (Sphere)		22,000 lm
Fixture Output (Sphere)		18,000 lm (Fan Mode Auto)
		18,200 lm (Fan Mode Stage)
		13,200 lm (Fan Mode Silence)
		11,300 lm (Fan Mode Super Silence)
Fixture Output (Goniometer)		18,100 lm (Fan Mode Auto, after derating)
Field Lumens (Goniometer)	**Narrow**	13,700 lm
	Middle	16,000 lm
	Wide	18,000 lm
Lumen Per Watt (LPW) Max fixture output / 230 V Typical power		TBA
CCT		6,800 K
Δ uv		0.013
CRI		Ra: 66 (+/-2)
With TrueColour™ Filter		N/A
Tm30		64,4
TLCI		38
CQS		61,4

IMAGING

Framing	N/A
Framing Rotation	N/A
Iris	None (4 Beam reducers on the fixed gobo wheel)
Frost	2 Frost : light 1° & heavy 5°
Prism	2 combinable sets of 3 rotating and indexable prisms

CONNECTORS

Power	REAN Power X - RRAC3M In/Thru
DMX	IP65 In/Thru 5 Pin XLR
Network	IP65 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	Extended – 43
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	Leader/Follower, presets 250
RDM Functions	Yes
Wireless DMX	CRMX TiMo RDM receiver
E-Sim Ready	No
USB Port	No

THERMAL

Max Surface Temperature, steady state, at Ta 40°	85 °C (185 °F)
Max Ambient Temperature (Ta Max)	45 °C (113 °F)
Min Ambient Temperature (Ta Min)	-20 °C (-4°F)
Total Heat Dissipation (Calculated +/- 10%)	1870 BTU/H @ 240V
	1930 BTU/H @ 120V
Minimum to illuminated surface	20 m (65.6 ft)
Minimum to combustible surface	0.1 m (0.32 ft)
Thermal Protection system	Yes
Cooling modes	See Acoustics
Cooling System	Advanced Liquid Cooling IP68 Self adjusting Variable speed fans

TECHNICAL SPECIFICATIONS

ACOUSTICS STATIC

Fan Mode	dBA[1]	NC[2]
Auto	TBA	TBA
Stage	TBA	TBA
Silence/Studio	TBA	TBA
Super Silence	TBA	TBA

DYNAMIC

Mode	dBA[1]	NC[2]
Auto	TBA	TBA
Stage	TBA	TBA
Silence/Studio	TBA	TBA
Super Silence	TBA	TBA

1. Measured @ 1m Static, 31dBA ambient
2. Noise Criterion
https://www.engineeringtoolbox.com/nc-noise-criterion-d_517.html

ENVIRONMENTAL

IP Rating	IP 65
Salt Spray Testing	Pending
Estimated embodied carbon including: ▪ **A1 - Raw materials of fixture and packaging** ▪ **A3 - Product manufacturing**	TBA
Recycling options	Packaging widely recyclable. Cardboard is made of recycled pulp[3].
SIP Optional	Yes
Our Environmental Commitment	

3. Up to 92%

WARRANTY

Fixture	2 years
LASER Engine	2 years

From date of invoice

INSTALLATION

Orientation	Any
Mounting attachments	▪ Fastening bracket system: two Omega ¼ turn brackets designed for use with standard clamps ▪ Mounting points: four ¼ turn locking fittings allowing installation of Omega brackets on luminaire ▪ Safety cable attachment point
Installation version	Yes, Fixed Tails

CONSTRUCTION

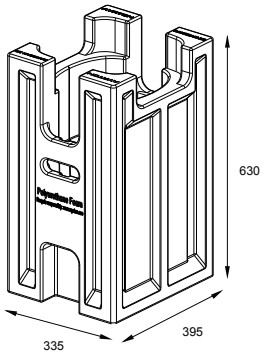
Colour	Carbon Black Standard Custom colours on request
Materials	▪ Moving-head skeleton made of aluminium and steel metal plates ▪ Base in die-cast aluminium ▪ Heatsinks in aluminium and copper ▪ Moulded covers in self-extinguishing fire retardant ABS PC (V0 class) ▪ Two-side handles for transportation ▪ Four heavy-duty feet for better stability

INCLUDED ITEMS

Manual	1
OMEGA brackets with quarter-turn locks	2
Cables	▪ IP65: 1 cable PowerCON True1 TOP to bare end, 1.5m ▪ IP66: DMX IN / OUT tails to bare end for IP66 DMX connection • Ethernet IN / OUT tails to bare end for IP66 ArtNet™ connection • Power tail to bare end for IP66 power connection
Other accessories	N/A

TECHNICAL SPECIFICATIONS

PHYSICAL

Fixture / IP65 / IP66	
Length	339 mm (13.35 in)
Height	592 mm (23.31 in)
Depth	297 mm (11.70 in)
Weight	25.4 kg (55.11 lb)
Shipping Dimensions	
Length	405 mm (15.95 in)
Height	705 mm (27.75 in)
Depth	340 mm (13.38 in)
Weight	36.4 kg (80.25 lb)
In SIP Dimensions	
Length	395 mm (15,55 in)
Height	630 mm (24.80 in)
Depth	335 mm (13.20 in)
Weight (excl fixture)	11 kg (24.25 lb)
SIP Drawing	

SUPPORTING DOCUMENTS

Manual	
GDTF Profile	
GMA Profile (TBC)	
IES FILE (TBC)	
DMX Tables	
Photometric Files	
Software	
Warranty	

COMPLIANCE

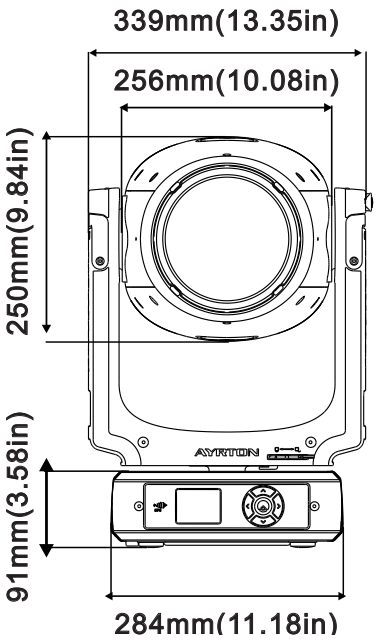
EU (EMC & LVD)	▪ EMC Directive 2014/30/EU ▪ LVD Directive 2014/35/EU
US (Safety & EMC)	▪ UL 1573 ▪ FCC Part 15, Subpart B: 2021
Substance Regulations	▪ RoHS ▪ REACH ▪ CP65
Declarations	Scan the QR code above

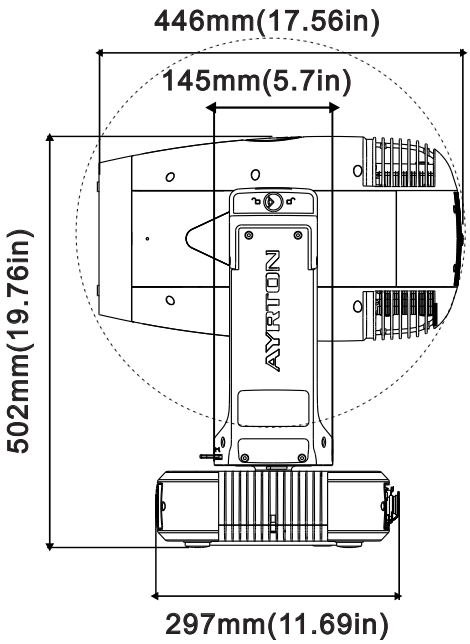
ORDERING DETAILS

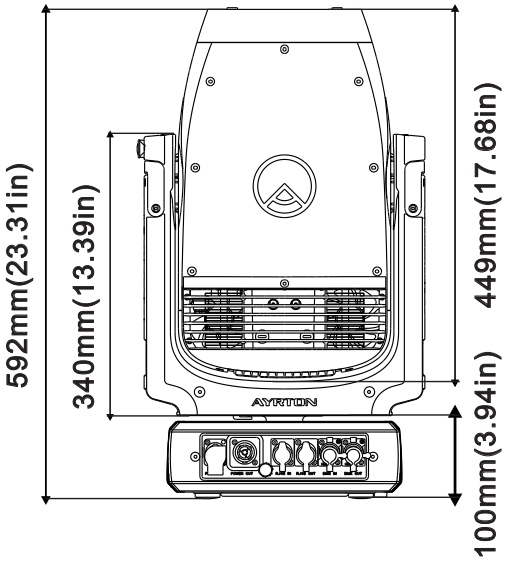
RawBeam 350	014350

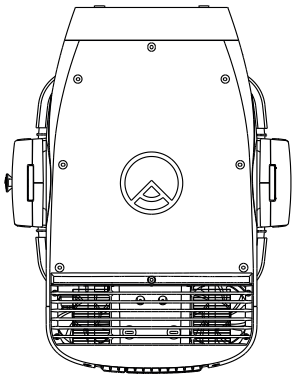
ACCESORIES

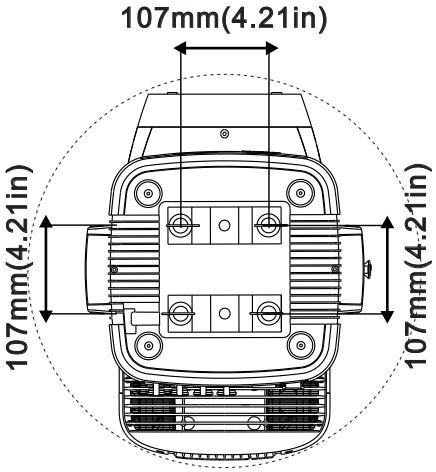
IP Test Kit	048250
Lynx Control	045130

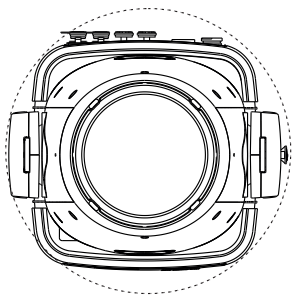

339mm(13.35in)
256mm(10.08in)
250mm(9.84in)
91mm(3.58in)
284mm(11.18in)
AYRTON


446mm(17.56in)
145mm(5.7in)
502mm(19.76in)
297mm(11.69in)
AYRTON

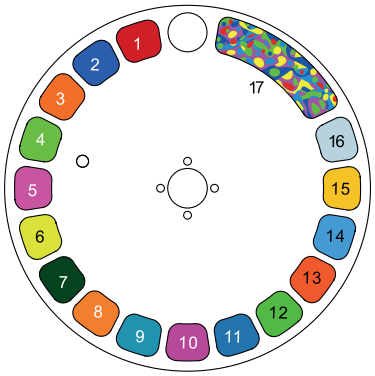

592mm(23.31in)
340mm(13.39in)
449mm(17.68in)
100mm(3.94in)
AYRTON

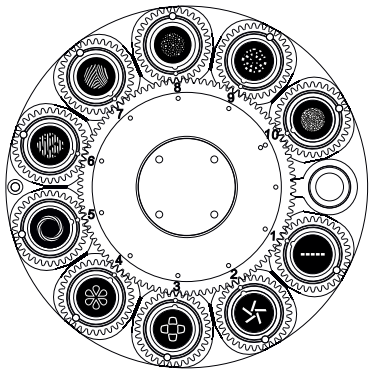



107mm(4.21in)
107mm(4.21in)
107mm(4.21in)



TECHNICAL SPECIFICATIONS





COLOUR WHEEL

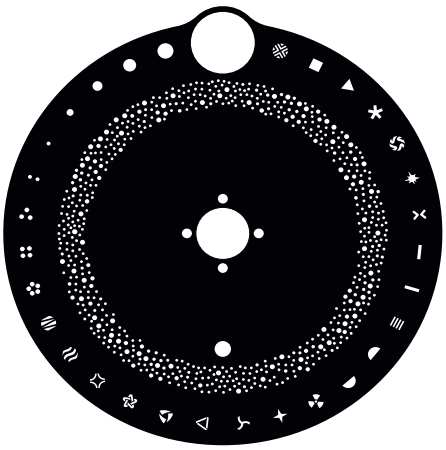
1	Red
2	Blue
3	Orange
4	Green
5	Pink
6	Yellow
7	Velvet Green
8	Amber
9	Light Blue
10	Follies Pink
11	Slate Blue
12	Dark Green
13	Dark Amber
14	Medium Blue
15	Oklahoma Yellow
16	CTV
17	Colour animation

GOBO WHEEL 1

Rotating Gobo

1	364	Rectangle Line 5
2	344	Star Bar 5
3	186	Game Pad Stroke
4	264	Daisy Stroke
5	112	Nested Rings
6	278	Bread Stix
7	096	Zebra
8	075	Starfield
9	070	Circle of Squares
10	101	Deep Forest

This side facing front lens



GOBO WHEEL 2

Static Gobo

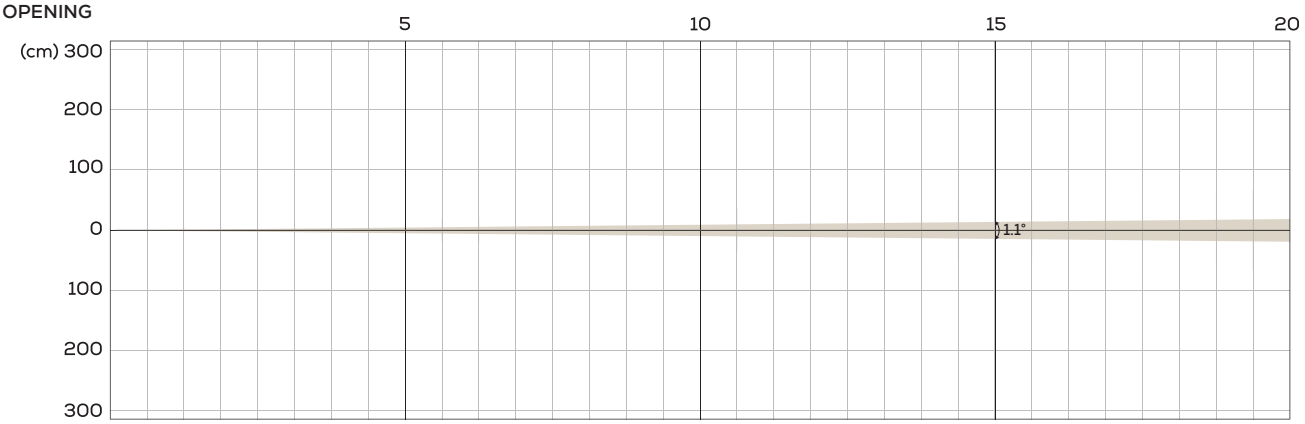
1	302	80% Iris Beam	9	319	Dot Ring 5	17	149	Nuclear	25	439	Circular Saw 4
2	304	60% Iris Beam	10	257	Zig Zag Light	18	299	Half Beam Right	26	394	Starfield Light
3	306	40% Iris Beam	11	099	Waves Light	19	298	Half Beam Left	27	340	Triangle Beam
4	307	30% Iris Beam	12	419	Iron Ball Light	20	353	Four Lines H	28	330	Square Beam
5	308	20% Iris Beam	13	373	Nested Star	21	350	Bold Line	29	435	Nested Cross
6	312	Dot Line 2	14	261	Arrow Ring 3	22	351	Vertical Line			
7	326	Dot Triangle 3	15	117	Helix 3	23	437	Split Cross			
8	328	Dot Square 4	16	374	Compass 4	24	270	Ink Stain 2			

This side facing front lens

AUTO MODE: PHOTOMETRIC DETAIL

MIN ZOOM

BEAM OPENING

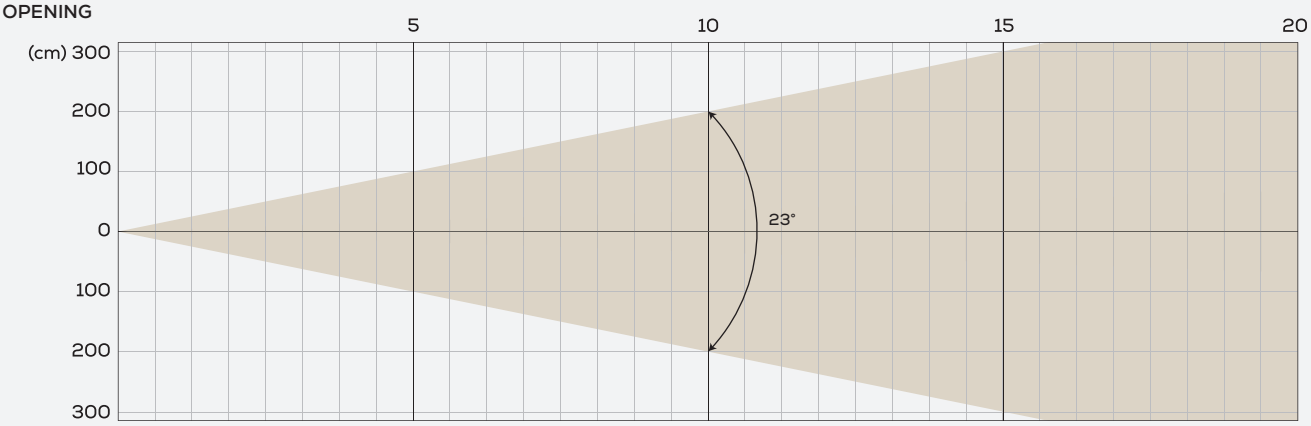


INTENSITY

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	5,360,000	0.1	1,340,000	0.19	595,536	0.29	335,000	0.38	148,889	0.58	53,600	0.96	13,400	1.92

MIDDLE ZOOM

BEAM OPENING

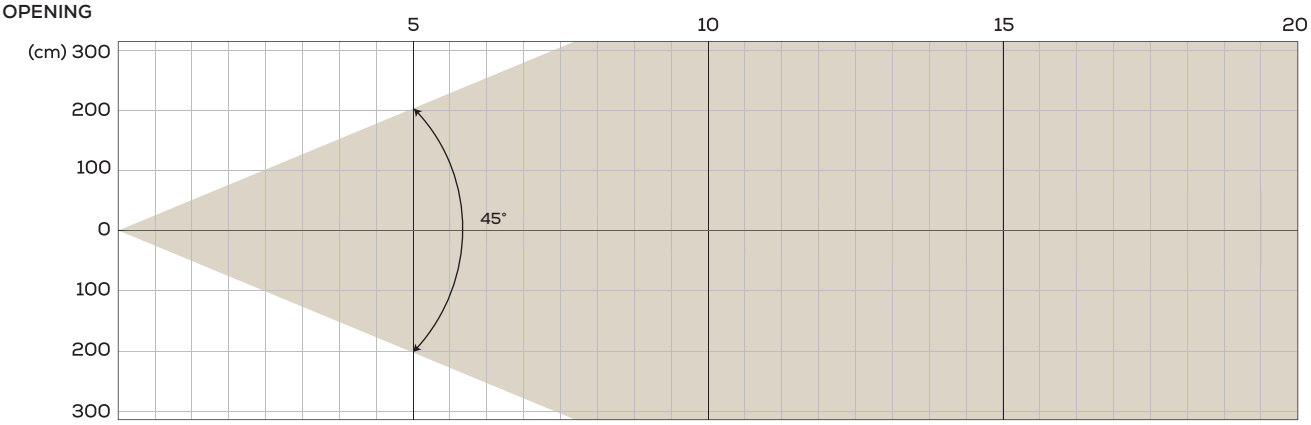


INTENSITY

Distance (m)	5		10		15		20	
unit	Lux	Diameter	Lux	Diameter	Lux	Diameter	Lux	Diameter
White	107,600	2.03	26,900	4.07	11,956	6.1	6,725	8.14

MAX ZOOM

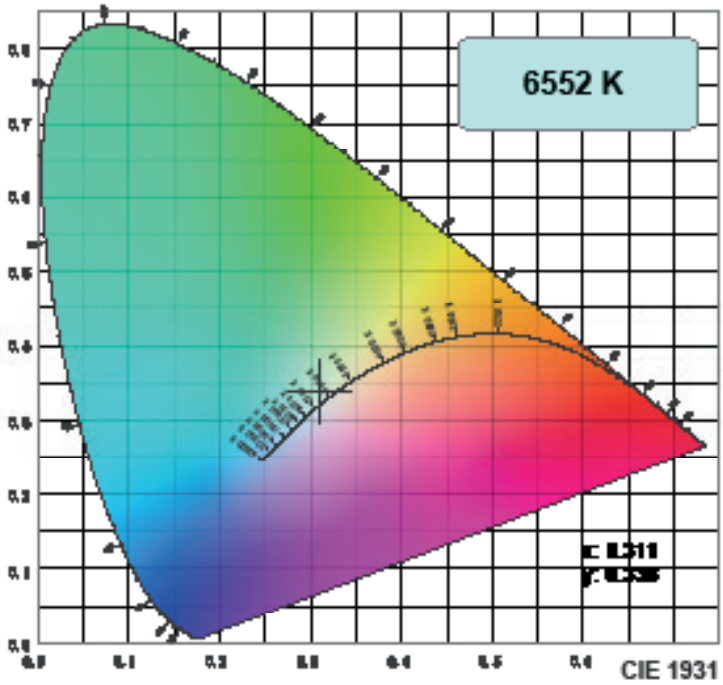
BEAM OPENING

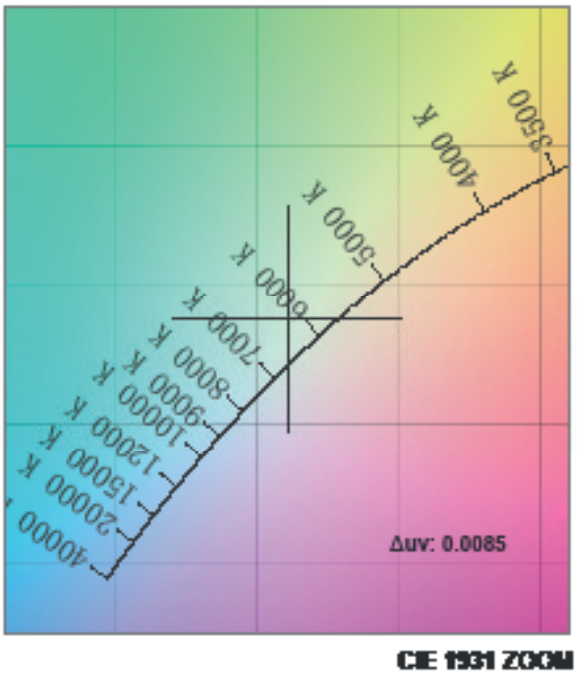


INTENSITY

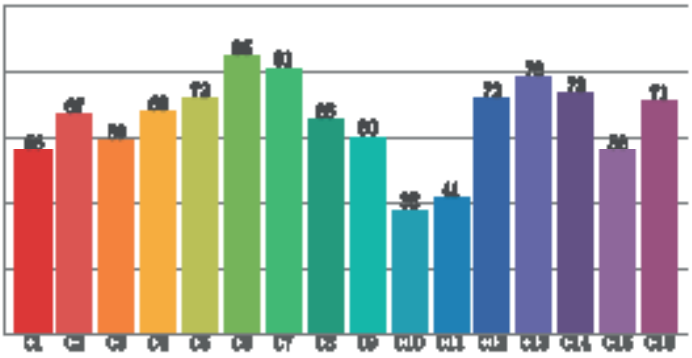
Distance (m)	5		10		15		20	
unit	Lux	Diameter	Lux	Diameter	Lux	Diameter	Lux	Diameter
White	25,964	4.14	6,491	8.28	2,885	12.43	1,623	16.57

COLOUR PARAMETERS

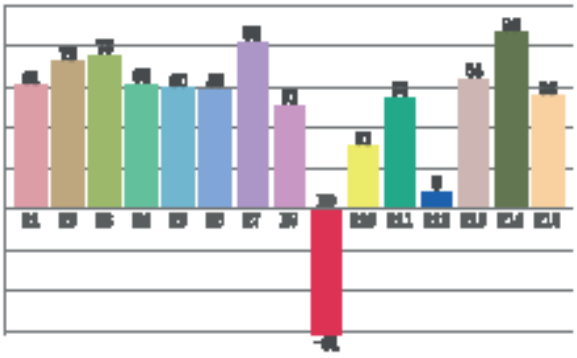




TM-30: 64.4



CRI: 65.2 (R1-R8)

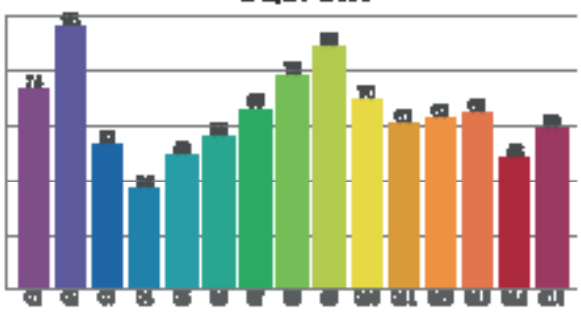


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
60.0	72.4	75.5	61.8	59.6	58.6	82.1	51.3	-81.1	31.1	54.0	8.3	63.9	86.5	55.7

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
55.8	67.0	59.1	67.9	71.9	84.7	81.0	65.4	60.2	37.6	41.1	71.0	78.0	73.1	55.6	70.8

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
73.8	96.2	53.0	36.5	49.1	56.0	85.2	78.2	66.0	69.6	61.0	82.7	85.0	48.3	59.1

CQS: 61.1



Color parameters

CCT	CRI	R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
6552 K	65.2	-81.1	64.4	94.3	61.1	0.311	0.338	0.198	0.315	0.0085

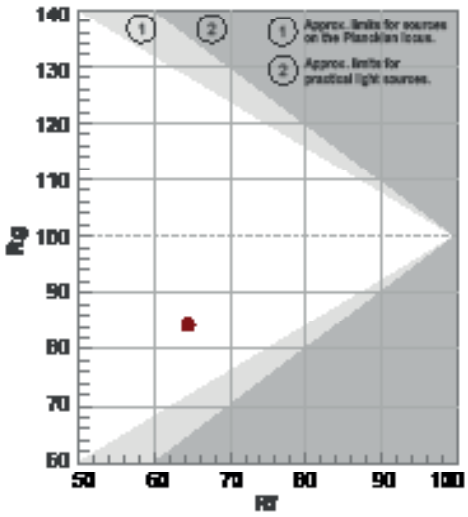
Rf 64.4

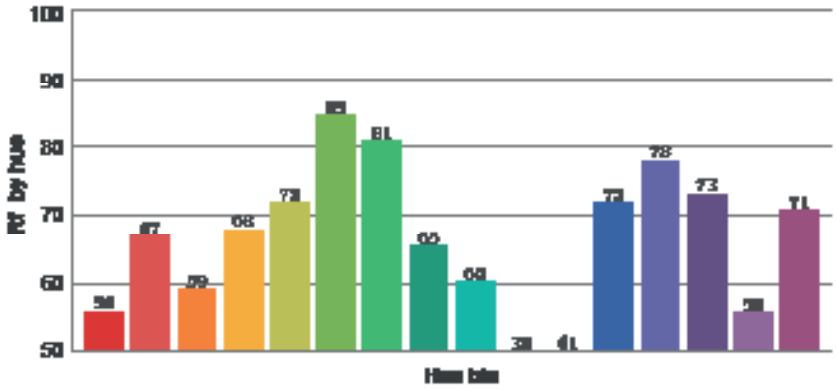
Fidelity index Rf

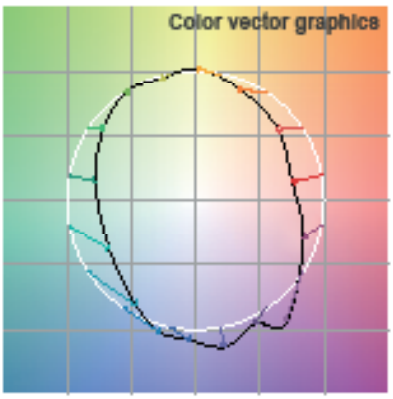
Rg 84.3

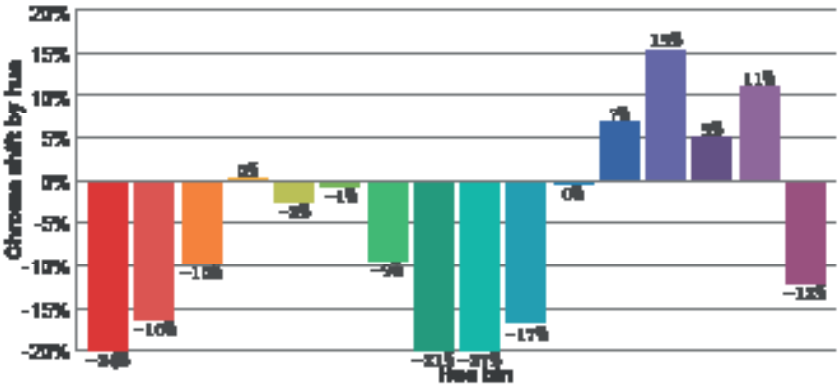
Gamut index Rg

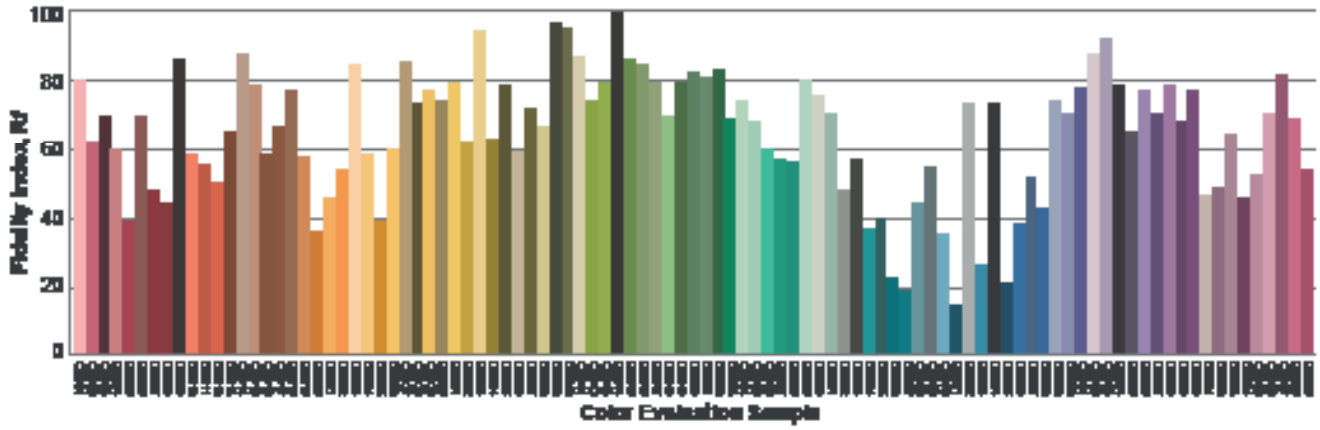
Hue Bin	Rf	Shifts (%) Chroma	Hue
1	56	-24%	-1%
2	67	-16%	10%
3	59	-10%	21%
4	68	0%	19%
5	72	-2%	8%
6	85	-1%	-4%
7	81	-9%	-8%
8	65	-21%	0%
9	60	-27%	24%
10	38	-17%	41%
11	41	0%	34%
12	72	7%	17%
13	78	15%	0%
14	73	5%	-15%
15	56	11%	-38%
16	71	-12%	-12%



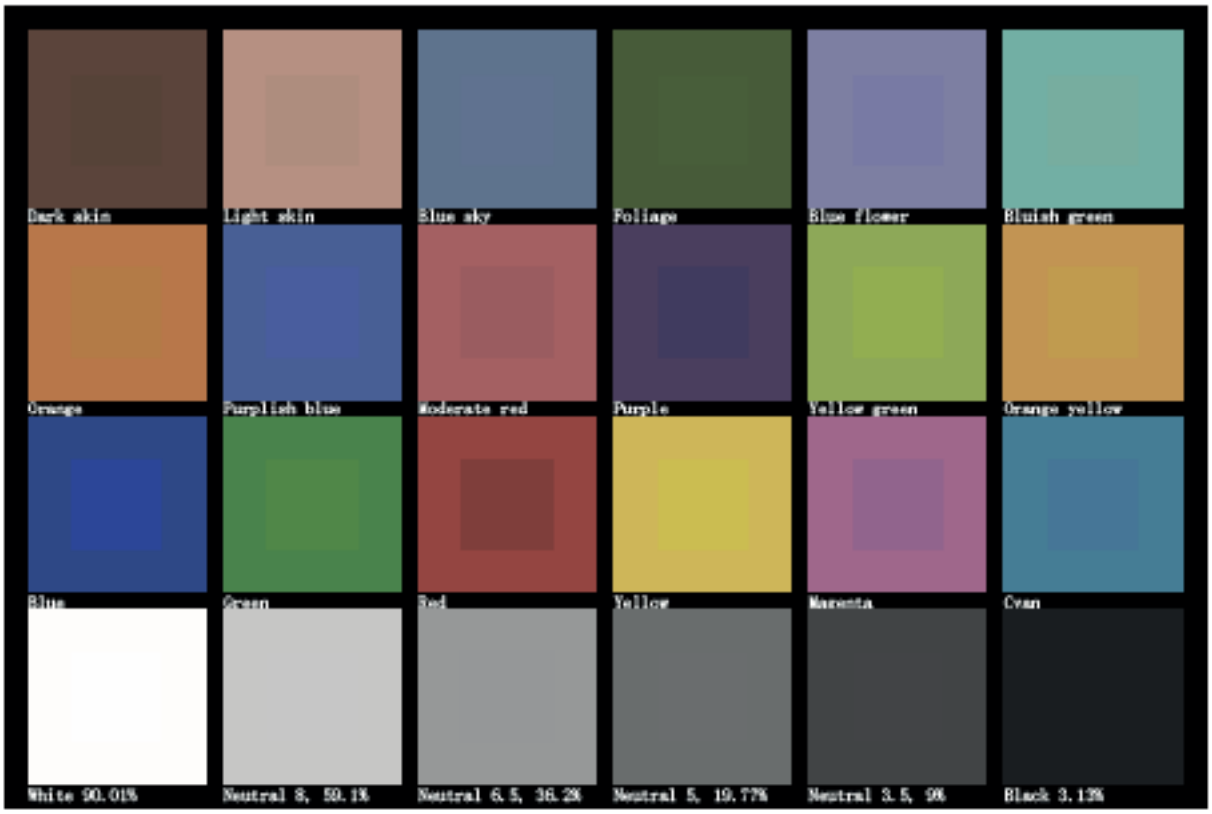








TLCI-38



⚠ DISCLAIMER

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