Harmony Series
Sirius 120

DATASHEET

GDS **Pioneering Light**
a Coemar Company

Introduction

The Harmony Series Sirius 120 is a high output, multi-emitter fixture which reproduces a wide spectrum of saturated colours plus high quality dynamic white light in a range of colour temperatures.

Sirius fixtures use an ingenious method to allow multiple units to be powered and controlled via a single two-core legacy cable. This makes them the perfect solution for venues that need to upgrade their house lights without disrupting their cable infrastructure.

To suit each installation, the Sirius 120 is available in yoke, recessed and pendant form factors:

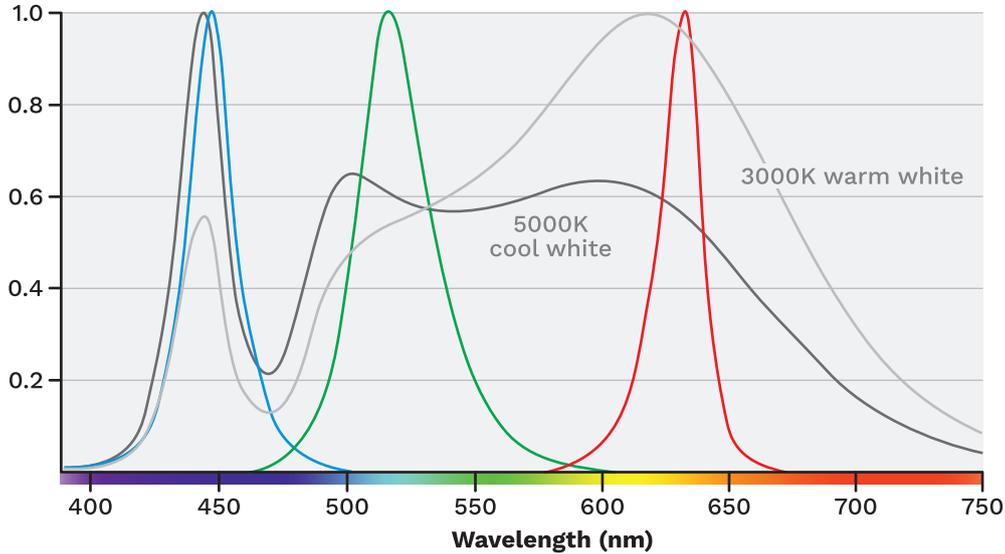| **Yoke** | **Recessed** | **Pendant** |

Key features

- RGB saturated colours plus high quality 3000K and 5000K white emitters with 90CRI.
- 40 or 60 degree beam angle options paired with a high efficiency reflector.
- Silent passive cooling via copper vapour heat dissipation.
- Dynamic Power Regulation (DPR) and Thermal Throttling systems actively manage output and temperature.
- Multiple Sirius 120 fixtures, up to a theoretical maximum load of up to 500W*, can operate across a single legacy two-core cable.
- Each Sirius 120 fixture is directly driven by an IPM^2 Smart BOB.

Actual limits will vary depending on factors such as cable length, cable type, and installation conditions.

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Wide gamut colour mixing

- High CRI dynamic white mixes from warm 3000K to cool 5000K.
- Saturated colour mixes using the RGB emitters.
- Subtle pastels by combining the RGB and high power white emitters.

Relative spectral distribution

Dynamic Power Regulation

The Sirius 120 delivers silent operation through fully passive cooling, supported by its advanced copper vapour heatsink. *Dynamic Power Regulation* (DPR) continually monitors control inputs to maintain accurate colour mixing while keeping LED power within safe operating limits.

Alongside DPR, our real time *Thermal Throttling* system tracks LED and driver temperatures, making subtle, imperceptible adjustments whenever needed to protect the LED emitters and ensure safe operation, even if cooling performance is compromised.

Together, these systems enable maximum output, intelligent thermal protection, and silent, maintenance free performance, even in elevated ambient conditions.
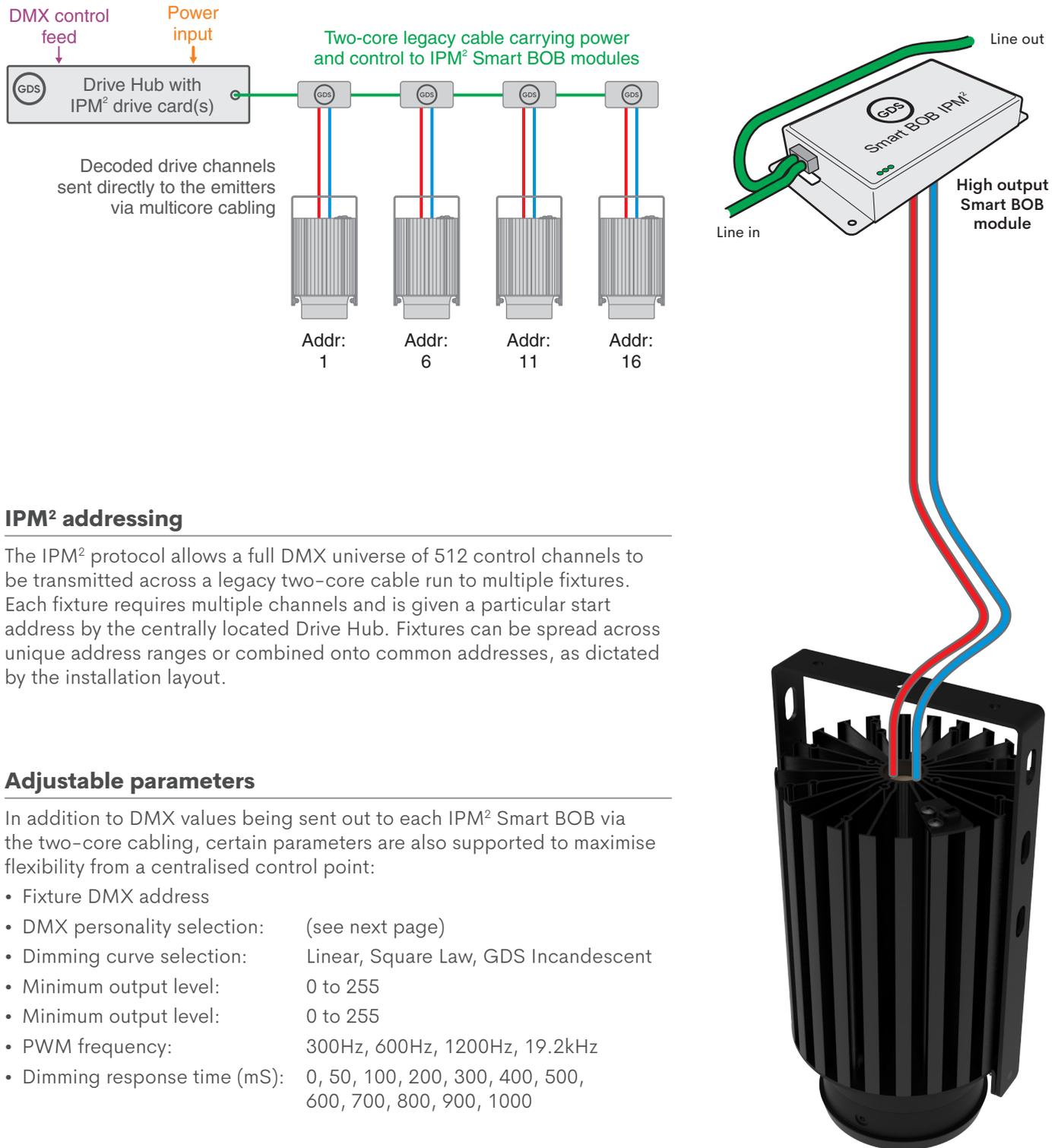
Light output

Colour	40° beam	60° beam	Power consumption
Red	1706 lm	1717 lm	43W
Green	2800 lm	2835 lm	44W
Blue	482 lm	479 lm	41W
Cool white (5000K)	5346 lm	5536 lm	92W
Warm white (3000K)	4686 lm	4871 lm	92W
All emitters at full	7065 lm	7214 lm	136W

Multiple fixtures, multiple channels - only two wires

Sirius 120 fixtures are powerful multi-channel fittings specifically designed to operate using only a two-core legacy cable. It all starts at a central location:

An **IPM² driver card**, located within a standard GDS Drive Hub Card Frame, Mini Pack or Micro Pack receives incoming DMX control signals. In response, the driver card feeds proprietary IPM² control signals plus 48VDC power onto the legacy two-core cable. Situated along the cable are multiple **IPM² Smart BOB**s. Each IPM² Smart BOB provides power and decodes the control signals for its attached Sirius fixture:

DMX control feed

Power input

Two-core legacy cable carrying power and control to IPM² Smart BOB modules

Drive Hub with IPM² drive card(s)

Decoded drive channels sent directly to the emitters via multicore cabling

Addr: 1   Addr: 6   Addr: 11   Addr: 16

Line out

Line in

High output Smart BOB module

IPM² addressing

The IPM² protocol allows a full DMX universe of 512 control channels to be transmitted across a legacy two-core cable run to multiple fixtures. Each fixture requires multiple channels and is given a particular start address by the centrally located Drive Hub. Fixtures can be spread across unique address ranges or combined onto common addresses, as dictated by the installation layout.

Adjustable parameters

In addition to DMX values being sent out to each IPM² Smart BOB via the two-core cabling, certain parameters are also supported to maximise flexibility from a centralised control point:
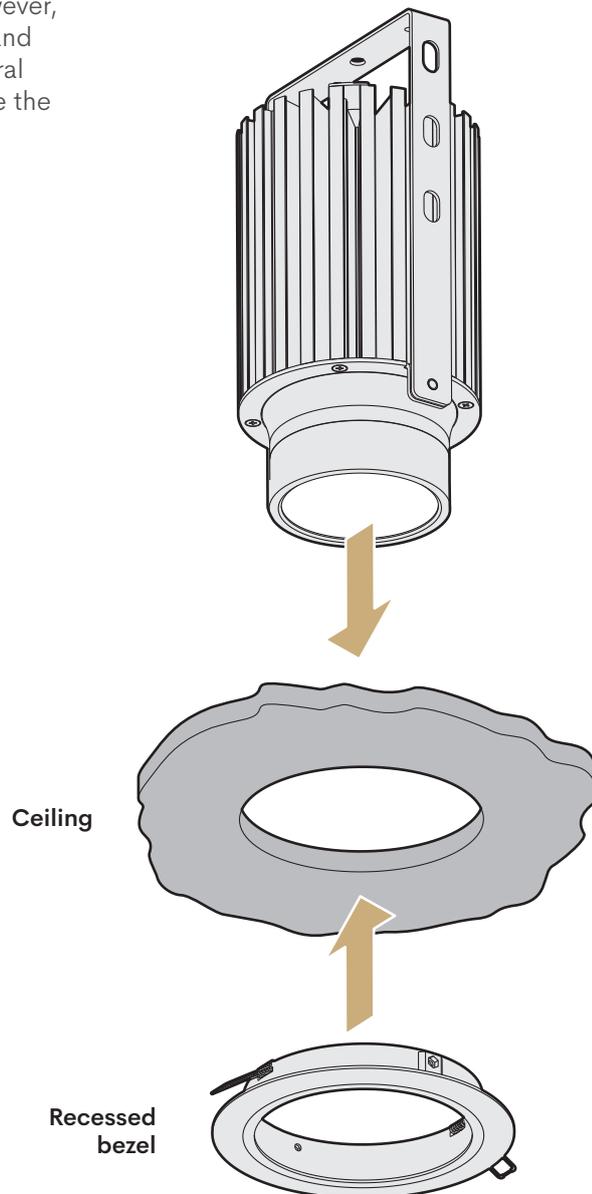
- Fixture DMX address
- DMX personality selection: (see next page)
- Dimming curve selection: Linear, Square Law, GDS Incandescent
- Minimum output level: 0 to 255
- Minimum output level: 0 to 255
- PWM frequency: 300Hz, 600Hz, 1200Hz, 19.2kHz
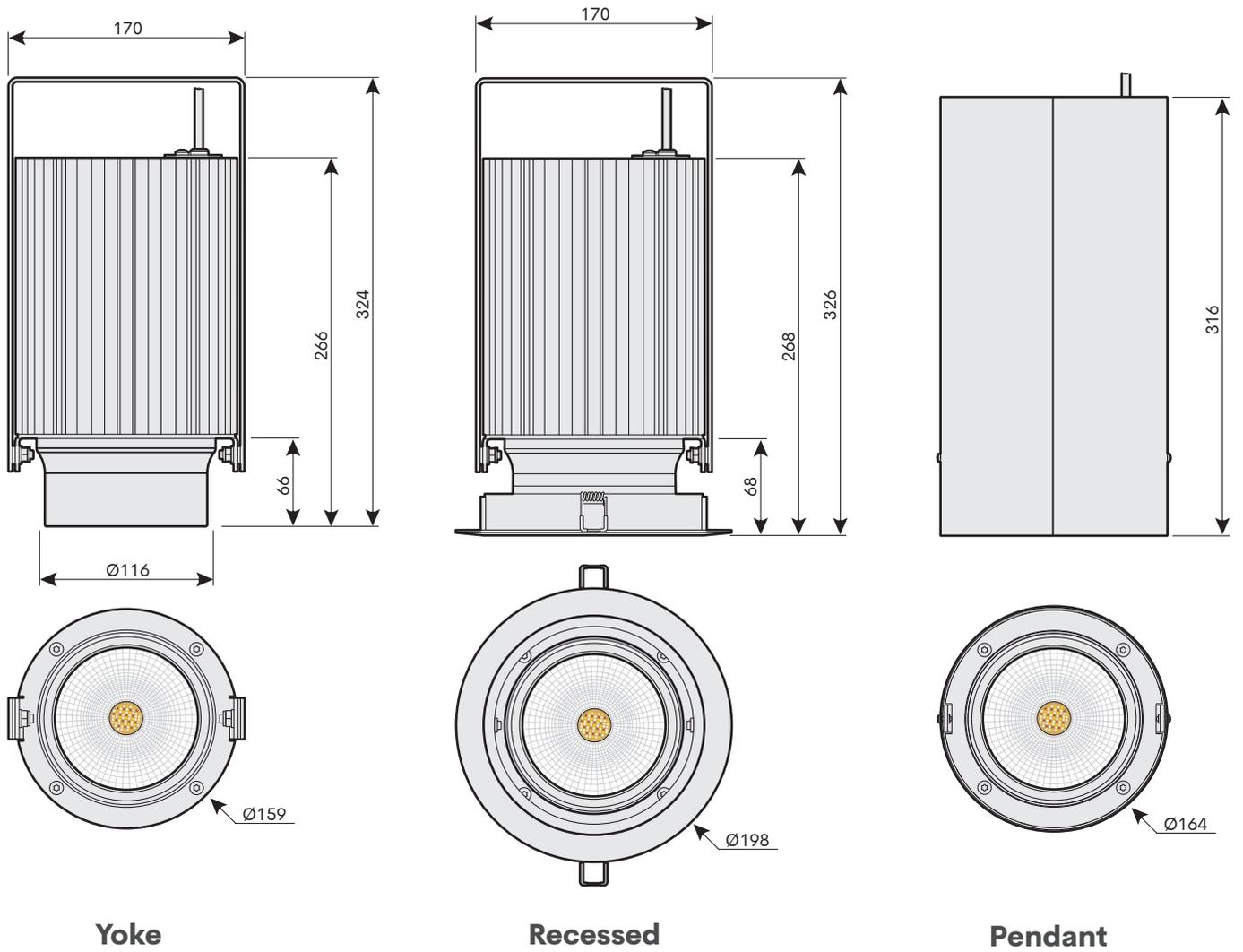- Dimming response time (mS):   0, 50, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

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IPM² DMX personalities

DMX address	5-Channel mode	6-Channel mode	6-Channel CCT mode
Start	Red	Master	Master
Start + 1	Green	Red	Red
Start + 2	Blue	Green	Green
Start + 3	Cool white (5000K)	Blue	Blue
Start + 4	Warm white (3000K)	Cool white (5000K)	White
Start + 5		Warm white (3000K)	CCT (0=3000K, 255=5000K)

Fitting recessed versions

Sirius fixtures are very lightweight for their output, however, they are still heavier than a simple recessed spotlight and require support from above the ceiling level. The integral yoke arm is used to carry the weight of the fixture while the recessed bezel seals the ceiling aperture.

Ceiling

Recessed bezel

Dimensions

Yoke

170
324
266
66
Ø116
Ø159

Recessed

170
326
268
68
Ø198

Pendant

316
Ø164