

ARCO ILLUMINATION

sense

S E R I E S

Four connected luminaires.
One Bluetooth mesh.

Connected lighting for buildings —
every fixture a node, every node a sensor.

BT 5.1 Mesh

SIG Secure

4 Connected

150+ lm/W

Self-Healing

SCADA-Ready

arco-illumination.com

4

CONNECTED LUMINAIRES

Adaptive · Encrypted · App-Controlled

4

Connected Luminaires

128

bit AES Mesh

32k+

Mesh Nodes

Protected by an 80+ patent portfolio · © 2026 Arco Illumination Pte. Ltd.

A R C O I L L U M I N A T I O N

Three Decades. Five Categories. One Standard.

This brochure covers the Sense range — connected, mesh-native lighting. The Arco Illumination portfolio extends across five categories:

Architectural

Six luminaire families.
Facade to cove to flood.

Sense

YOU ARE HERE

Four connected
luminaires.
BLE mesh · adaptive.

En-Vision

Marine searchlights.
AIS-linked · gyro-
stabilized.

Health

Human-centred lighting.

Arena

Sport floodlighting.

30-year ODM heritage · 80+ patent portfolio across US, EU, Asia · Singapore HQ · ASEAN market

AS-HB

Sense Connected High Bay · Industrial

High-efficacy LED high bay with a recessed optical structure for reduced glare. Native to the Sense mesh — plug-and-play occupancy and daylight sensors. 60–200 W, 70°/90°/120° beam optics.



SPECIFICATIONS

Built to dominate the bay.

120°

Native Beam

Native 120° lobe.
Optional 70° (M) and 90° (W) optics.

IP66

Wet Location Rated

Dry / Damp / Wet (IP66).
ASTM B117 > 1,500 hrs corrosion.

30,000 lm

Peak Output · AS-HB-200W

60 / 100 / 150 / 200 W tiers.
150 lm/W typical efficacy.

0-10V

Sense Mesh Control

100 – 1% dimming.
Sense BLE mesh standard.

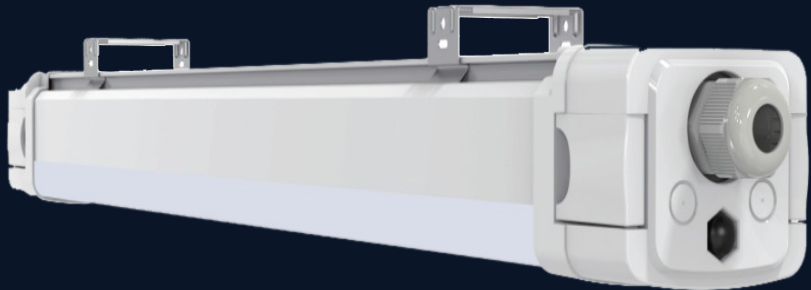
AVAILABLE WITH

Sense™

AS-BL

Sense Connected Baton · Tri-Proof

IP66 wet-location rated tri-proof baton for warehouses, basements, tunnels, and industrial environments. Three lengths (2/4/5 ft), 20-50 W, native 120° beam.



S P E C I F I C A T I O N S

Sealed. Connected. Anywhere.

IP66

Tri-Proof Rated

Sealed end-caps.
Polycarbonate clear lens.

6,500 lm

Peak Output · AS-BL-50W

20 / 30 / 50 W tiers across
2 ft, 4 ft, and 5 ft batons.

120°

Native Beam

Single optical lobe.
130 lm/W typical efficacy.

0-10V

Sense Mesh Control

100 - 1% dimming.
Sense BLE mesh optional.

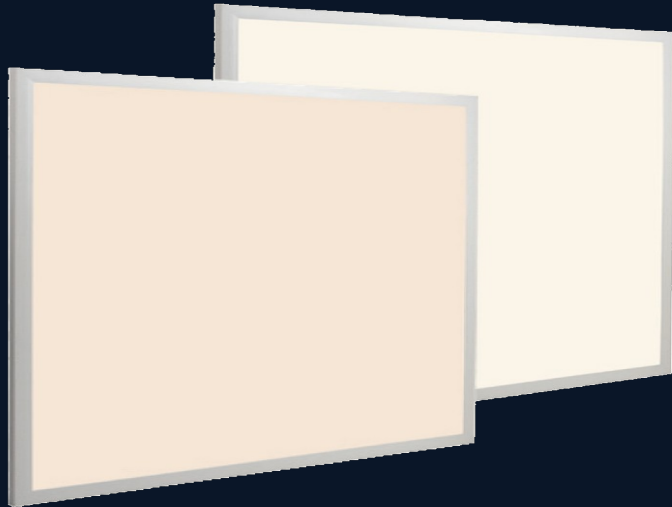
A V A I L A B L E W I T H

Sense™

AS-PL

Sense Connected Panel Light · Interior

Recessed LED panel for offices, schools, healthcare, retail.
40 W single platform with static or Dynamic White CCT,
UGR-friendly diffusion, 595 × 595 mm grid form factor.



SPECIFICATIONS

Slim. Tunable. Mesh-native.

11 mm

Ultra-Slim Panel

595 × 595 mm grid panel.
Recessed, surface, or pendant
mount.

4,000 lm

Output · 40W Platform

Single wattage, two CCT modes.
100 lm/W typical efficacy.

3000-6000K

Dynamic White

Static CCT: 2700/3000/4000/5700K.
Tunable mode covers 3000-6000K.

0-10V

Sense Mesh Control

100 – 1% dimming.
Sense BLE mesh optional.

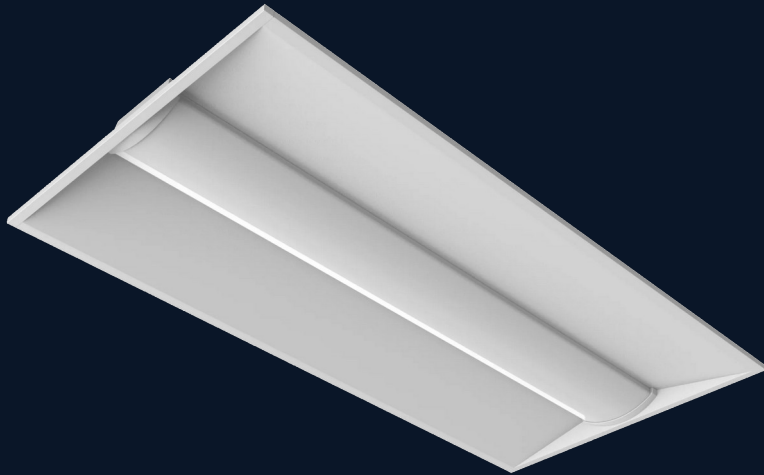
A V A I L A B L E W I T H

Sense™

AS-TL

Sense Connected Troffer · Interior

Recessed LED troffer for office, school, and hospital ceilings. Two grid sizes (2x2 / 2x4) with Dynamic White tuning across both. Low-glare diffuser for human comfort.



S P E C I F I C A T I O N S

Built for the open ceiling.

2x2 / 2x4

Grid Sizes

603 x 603 mm · 26 W (2x2).
1213 x 603 mm · 43 W (2x4).

3000-5000K

Dynamic White

Two-channel CW + WW engine.
Warm-to-neutral tuning range.

120°

Native Beam

Low-glare diffuser optic.
128 lm/W typical efficacy.

0-10V

Sense Mesh Control

5 app scenes shipped.
Comfort · Eco · Dynamic.

A V A I L A B L E W I T H

Sense™

Control

Sense Control Platform · 5 Bluetooth Accessories

A gateway, two fixture-control modules, an asset beacon, and a low-power room display — all on the same Sense mesh. Extends the platform beyond the luminaire.



SPECIFICATIONS

Five devices. One mesh.

AS-GW-01

Mesh ↔ Network Gateway

Bridges Sense to TCP/IP.
REST / MQTT / SCADA backhaul.

AS-SSM-35

Fixture Control Module

100-277VAC, <2W.
0-10V dim + relay + PIR sensor.

AS-AO-01

Analog Dimmer

iBeacon tag, 60 m detection range.
Every fixture a tracking anchor.

AS-BCN-05

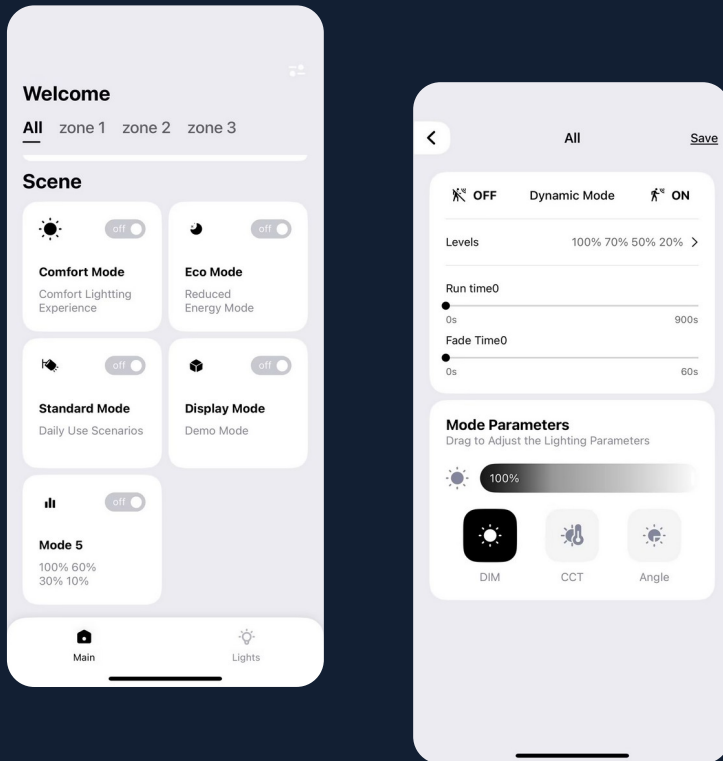
Beacon · Asset Tracking

iBeacon tag, 260 m detection range.
Every fixture a tracking anchor.

AVAILABLE WITH

Sense™

One app. Whole building.



Commission a Sense network from your phone.

01

Auto Commission

Discovers fixtures automatically and assigns them to zones.

02

Built-In Scenes

Comfort, Eco, Standard, and Dynamic modes ship out of the box.

03

Per-Scene Control

Adjust DIM, CCT, and beam-angle distribution per scene.

04

Advanced Strategies

Occupancy and daylight harvesting without writing config.

MESH ARCHITECTURE

One mesh. Six load-bearing pieces.

Every Sense fixture ships with the same Bluetooth mesh radio, the same DSP, and the same security model. The platform stays consistent across the range.

Sense BLE

Mesh radio · IEEE 802.15.1

Proprietary Bluetooth mesh. Every fixture a node — self-healing, scalable, no single point of failure.

Human-Factor

Adaptive control · patent pending

Microwave occupancy + DSP drive a peer-to-peer brightness gradient — light follows people, no central scheduler.

SIG Security

128-bit AES · three-level key lock

SIG-standard mesh security. Closed-loop architecture. Privacy by default, not by configuration.

SCADA-Ready

Industry 4.0 piece, not a retrofit

Optional AS-GW-01 gateway bridges Sense to SCADA / BMS infrastructure. REST and MQTT backhaul.

Self-Healing

Multi-hop dynamic routing

Mesh re-routes around failed nodes automatically. No commissioning regress on hardware changes.

Open Backhaul

REST · MQTT · SCADA

Gateway exposes the mesh to any northbound system. No proprietary backend required.

A P P L I C A T I O N S

Built for the buildings we actually use.

Warehouse · Industrial

AS-HB · AS-BL

Real-time asset visibility across the bay. Beacons on forklifts and inventory trigger proximity alerts. Heat maps surface bottlenecks and dwell zones.

Office · Commercial

AS-PL · AS-TL

AMEPD displays at every meeting room. Daylight-harvest scenes via mesh. Gateway exposes status to BMS.

Education · Schools

AS-PL · AS-TL

Dynamic White tuning for circadian classrooms. Per-room scene control without per-fixture commissioning.

Healthcare

AS-PL · AS-TL · AS-E11

AMEPD displays as low-power room signage. Sense modules deliver circadian shifts without rewiring fixtures.

Retail · Hospitality

AS-TK1 · AS-BCN-05

Beacons drive proximity analytics and dwell maps. Asset-utilization reports surface what's moving. Modules adapt to store-hours scenes via mesh.

Tunnels · Carparks

AS-BL · AS-HB

IP66 tri-proof batons survive damp. Mesh self-heals around outages. Gateway pipes events to control rooms.

Every fixture a tracking anchor — no separate infrastructure required.

Cross-platform installations · custom mesh strategies · OEM/ODM partnerships available.

A B O U T

Light that talks back.

O U R L I N E A G E

● 30+ Years

General Luminaire, our ODM parent, has supplied private-label lighting since 1994.

● 2020

Arco Illumination Pte. Ltd. founded by Alex Wang and Brian A. Cook. Patent research on Bluetooth mesh control begins.

● 2021

Filing 2108009US — Human-Factor Lamp System. The adaptive-control patent that anchors the Sense range.

● 2026

Sense launches with eight connected luminaires and a five-device control accessory family.

THE STANDARD

**Where light is precision.
Where precision is
awareness.**

S I N G A P O R E H Q

No. 8 Penjuru Lane, 609189

A S E A N M A R K E T

Connected · mesh-native · open backhaul

F I V E C A T E G O R I E S

Architectural · Sense · En-Vision
Health · Arena

C O N T A C T

Ready to specify?

Sense / connected-lighting enquiries, custom mesh strategies, OEM/ODM partnerships, or distributor relationships:

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Online

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Protected by an 80+ patent portfolio granted and pending across US, EU, Asia.