

# INDO

fresh thinking  
trusted technology



## LED RETROFIT

## GEAR TRAY RANGE



The management system governing the manufacture of these products is ISO 9001:2015 certified

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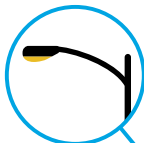
 [www.indolighting.com](http://www.indolighting.com)

# INDO GEAR TRAY RANGE

Heritage



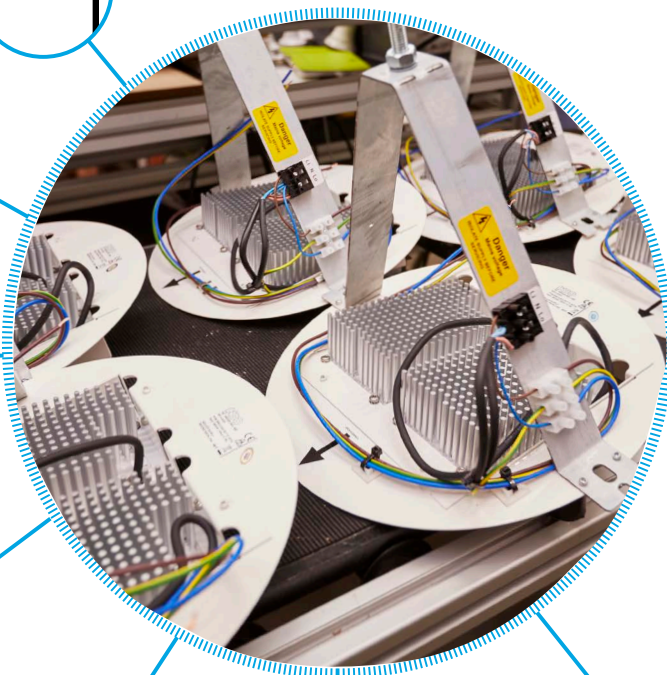
Functional



## Features

- Direct Drive® technology
- Pre-programmable dimming
- Bespoke design for each lantern
- Lightweight, compact solution
- Standalone IP66 module
- No 3rd party components
- Integrated longlife photocell
- Excellent thermal management
- Lamp efficacy up to 145 lm/W
- CMS compatible
- 0.58 failures per million hours
- Wide range of fittings and optics

Contemporary



Re-use existing seals & housing

## Benefits

- Up to 77% energy reduction
- Rapid payback
- Quick and easy installation
- Minimal column loading
- Low whole life cost and risk
- No driver or photocell maintenance
- IP66 module eliminates need for new seals
- Quality build for superior lifetime



Capital saving AND low maintenance



Single component system



Wide range of lanterns designed

INDO has developed bespoke gear tray solutions for over 60 different fittings... and counting

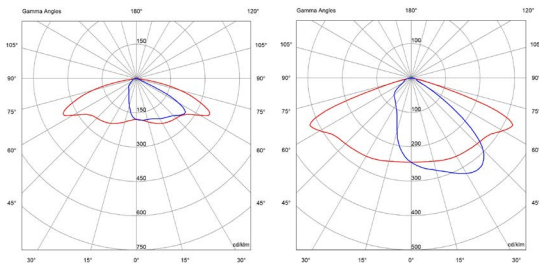
View the full list at [www.indolighting.com/geartrays](http://www.indolighting.com/geartrays)

Gear Tray	Product Code	Gear Tray	Product Code	Gear Tray	Product Code	Gear Tray	Product Code	Gear Tray	Product Code
CU Phosco P109	P109	Karl Johan Large	KAJL	Sugg Tunbridge	TUNB	Urbis Hestia 1	HES1	Windsor Henley	WSRT
CU Phosco P111	P111	Karl Johan Small	KAJS	Thorn Area Flood	OPTI	Urbis Hestia 2	HES2	Knightsbridge	KBRI
CU Phosco P567	P567	Philips ARC 80	AR80	Thorn Beta	BETA	Urbis Paseo 500	PAS5	Windsor Newport	WSRT
CU Phosco P514	P514	Philips ARC 90	AR90	Thorn Orus	THOR	Urbis Paseo 600	PAS6	Windsor Salisbury	WSRT
Geo Disc Mini	MGEO	Philips SGS 252	SGS2	Urbis Albany (L)	ALBL	Urbis Sapphire	SAP1	Windsor Strand A	STRA
Geo Disc 600	GEO6	Philips SGS 452	SGS2	Urbis Albany (S)	ALBS	Urbis Sepale (L)	LSEP	Windsor Strand B	STRB
Geo Disc 750	GEO7	Philips Residium	RESI	Urbis Polo 600	POL6	Urbis Saturn 500	SAT5	Windsor Stratum	STRT
Grey Wornum (L)	LGWO	ScandiDelux	SCAN	Urbis Polo 800	POL8	Urbis Saturn 700	SAT7	Windsor Warwick	WSRT
Grey Wornum (S)	SGWO	Se'lux Discera 400	MGEO	Urbis Cabrio 500	PAS5	Urbis ZX1/U1/12	UZX1	Windsor York	WSRT
Holophane Estilo	ESTI	Se'lux Discera 600	GEO6	Urbis Cabrio 600	PAS6	Windsor Braemar	WSRT	Windsor Street	WIST
Holophane Rondo	ROND	Se'lux Discera 750	GEO7	Urbis Evolo2	EVO2	Windsor Ely B	STRB	WRTL Libra	LIBR

# INDO GEAR TRAY RANGE

## Photometry

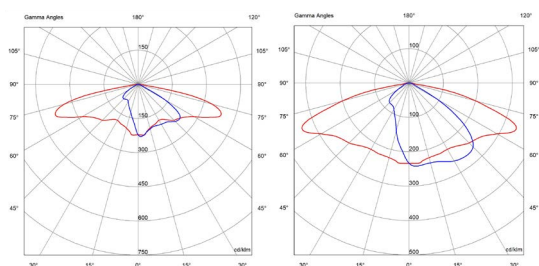
### Example optics for traffic routes



NAVIGATOR M00

NAVIGATOR M10

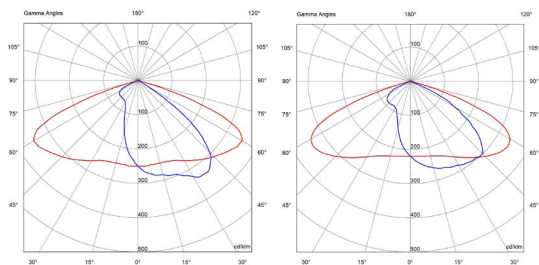
### Example optics for residential



NAVIGATOR P00

NAVIGATOR P05

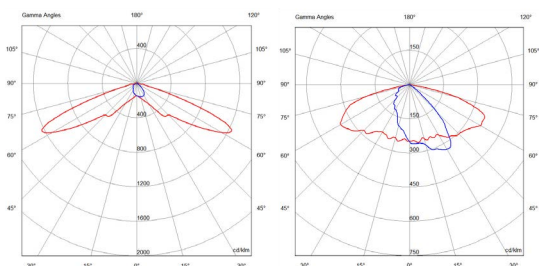
### Example optics for public realm



CHROMA DR1

CHROMA DR5

### Example optics for footpaths and residential



OPUS SWA

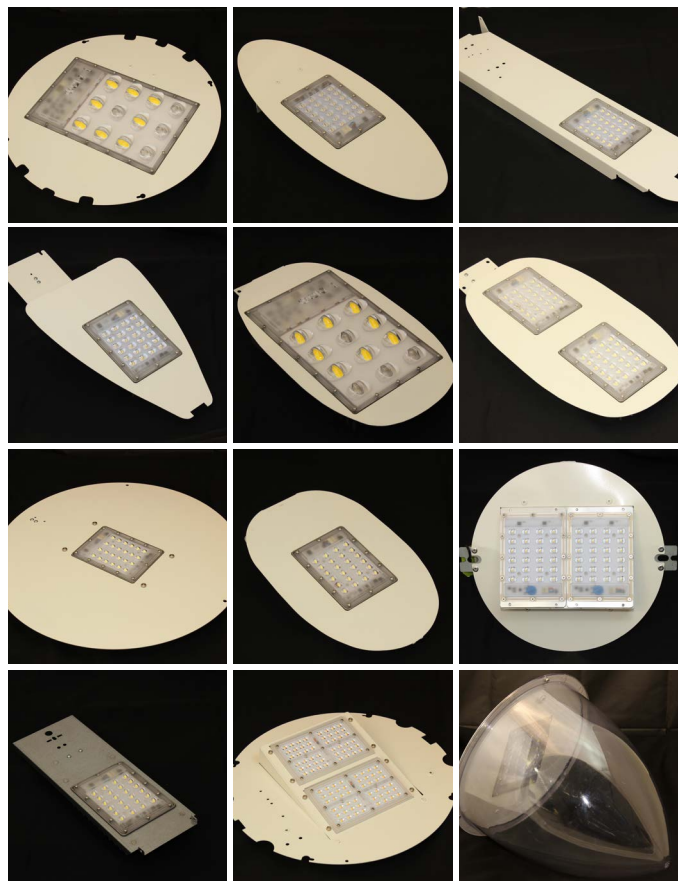
OPUS 1C

## Product Overview

INDO sits at the forefront of the market with its impressive range of LED Direct Drive® retrofit gear trays. Available in a wide range of lumen outputs and colour temperatures, these units are cost-effective and simple to fit, boasting technologically advanced features to deliver exceptional energy saving and reliability, as well as significantly lower maintenance and whole-life costs.

This single component gear tray is a robust, standalone, IP66-rated product that doesn't need space for a driver or require new seals thus solving a range of engineer challenges. As with all our gear trays, these are customised lantern-specific solutions, designed to operate with maximum reliability for the long term. No wear-out components on board whatsoever i.e. no drivers or external photocells. This reduces ongoing maintenance costs (as well as energy throughout the scheme life and means customers need just one warranty for their complete LED street lighting solution.

Our modules are a) Opus; as used in AIR1 and great for footpaths and lower power applications b) Navigator; featuring cutting edge Chip Scale Package LED technology for improved efficacy, optical control and resilience in the mid-power range; and c) Chroma; featuring COBs for sensitive projects where high quality colour rendering and diffused light are priority



# Gear Tray Technical Specifications

## PRODUCT ORDERING OPTIONS

<b>Gear Tray Model</b>	See overleaf or website list
<b>Power</b>	10W to 143W
<b>Lumen Output (4000K)</b>	1,067lm to 20,000lm
<b>Correlated Colour Temperature (CCT)</b>	From 2200K to 5000K
<b>Control Options</b>	None, CLO, DALI
<b>Internal Photocell</b>	20/20, 35/18, 55/28 Not fitted or activated
<b>Pre-set Dimming</b>	Fixed pre-set 50% [00:00-05:00] pre-set 75% [00:00-05:00] pre-set, 2-step program
<b>Optics</b>	Opus 1C, SW, TSW, SWA, SWB, A1, A2, A3 Navigator M00-M10 Chroma DR1-DR5
<b>Luminaire Colour</b>	Not applicable

For more information on selecting the correct gear tray spec. to suit your luminaire, application and design criteria, please contact your local account manager direct or call the main office (option1 sales)

## KEY FEATURES

<b>Direct Drive®</b>	Yes
<b>Lighting Classes</b>	P1-P6 M2-M5, C3-C5
<b>Glare Control</b>	Classifications up to G4
<b>Replacement For</b>	Up to 250W SON
<b>Dimming Range (DALI)</b>	100% down to 10% output
<b>Constant Light Output</b>	Yes
<b>Reliability</b>	Less than 0.85 failures per million operating hrs
<b>Materials</b>	Aluminium, Galvanised Steel

## PHYSICAL PROPERTIES

<b>IK Rating</b>	IK08
<b>IP Rating (Optic + Gear)</b>	IP66
<b>Windage</b>	N/A
<b>Dimensions (LxWxD)</b>	Model specific
<b>Net Weight</b>	Up to 4kg (SKU dependent)
<b>Operating Temperature Range</b>	-40°C to +25°C (housing dependent)

## LEDs

<b>Risk Group</b>	RG1 (low risk)
<b>LED Module Options</b>	Opus, Navigator or Chroma
<b>Lamp Efficacy (4000K)</b>	Up to 174 lm/W
<b>Lumen Maintenance at 100,000 hours</b>	L93B50
<b>Product Rated Life L90B50</b>	125,000 hrs
<b>Colour Rendering Index (CRI)</b>	>70Ra
<b>Direct Drive® Current</b>	From 67.5mA to 450mA
<b>SP Ratio (4000K)</b>	Up to 1.7 (SKU dependent)

Exact LED specifications vary depending on selected light module and will be confirmed with product choices

## ELECTRICAL

<b>Input Voltage Range</b>	195-265 V @50/60Hz
<b>Operating Frequency</b>	100 Hz
<b>Power Factor</b>	> 0.95
<b>Soft Start</b>	Yes
<b>Extreme Soft Start</b>	Yes
<b>Automatic Disconnect</b>	N/A
<b>Fully CMS Addressable</b>	Yes, some options
<b>Photocell compatibility</b>	N/A
<b>Surge Protection</b>	2kV DM, 4kV CM / 20kV DM, 20kV CM (Module dependent)

A wide range of options are available to ensure customers can specify lanterns around their needs to gain cost-efficiencies.

## INSTALLATION

<b>Mounting Options</b>	N/A
<b>Mounting Heights</b>	Lantern specific
<b>Integrated Photocell</b>	Yes
<b>Shields available</b>	Lantern specific
<b>Future-proofing</b>	On-site upgradable modules

Exact LED specifications vary depending on selected light module and will be confirmed with product choices

## UMSUG CODES

Easy look up table available [www.indolighting.com/umsug](http://www.indolighting.com/umsug)