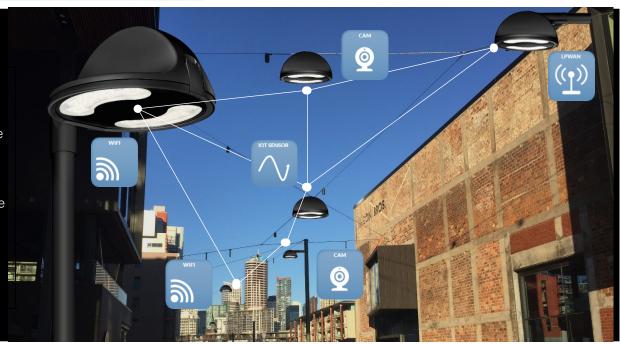




### FROM STREET LIGHT TO SMART CITY NODE

With GYRO™ Streetlights used as "Smart Nodes", your lighting infrastructure is transformed from a single purpose asset to a smart edge network or real estate space of infinite possibilities and value.



The GYRO design facilitates a seamless and feasible "as you grow" migration from simple streetlights to advanced Smart City Nodes.

Luminaire integration of LPWAN based smart lighting control and as well as high value infrastructure such as WiFi, Cameras, Sensors, 5G and much more is finally possible and feasible.

Contact us today to learn more about our pre integrated Smart City Kits (SCK) for GYRO<sup>TM</sup> with market leading smart element manufacturers – or ask us to ingrate your smart city element...















PARK

### IN COMPLETE CONTROL - ANYWHERE YOU ARE

GYRO™ PLUS comes fully equipped with an NFC programmable DALI2 LED driver with advanced local and standalone dimming and control features like Astro dimming, Constant Lumen Output and much more.

Combined with optional pre-installed NEMA or ZHAGA socket, any wireless Lighting Control Unit can be added for centralized Control Management Systems.

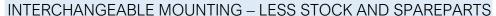
For remote and central Control Management System, check out FELICITY CONNECT™, our Lighting Control and IoT Smart City Solution.

SUSPENDED

### ANY ROAD AND ANY POLE- ONE SIZE FITS ALL

PENDANT

GYRO™ is designed specifically to offer a diverse range of interchangeable fittings and installation options to suit any existing pole infrastructure, making it the ideal LED replacement choice. Design your streets with GYRO™ to increase safety and atmosphere for all road types from traffic roads and highways to residential streets and urban spaces



SIDE

With GYRO's unique mounting and tilt system, a side mounted road light can quickly and easily be transformed into a park light and vice versa and etc. This flexibility enables a completely new approach to city wide deployments and maintenance planning while also achieving a using a single and consistent luminaire design experience.

TOP





### FLEXIBLE PHOTOMETRICAL DESIGN

The innovative and highly flexible lighting system of GYRO™ cover all Traffic Category Roads both in terms of power as well as optics. In addition, the LED modules are easily replaceable and thus a GYRO can easily be converted from one category to another.



GYRO-PLUS-20

20 pcs. High Power LEDs 14W-43W Optional Power Setting 10 different optical lenses

Residential, Park, Paths, Driveways

1158 AU/NZ P1, P2, P3, P4 Roads

> EU/DK ME4, ME5



GYRO-PLUS-40

40 pcs. High Power LEDs 50W-72W Optional Power Setting 10 different optical lenses

> Urban Space, Intersection Round About, Parking Area

> > 1158 AU/NZ V4,V3,V2 Roads

> > > EU/DK ME2, ME3



GYRO-PLUS-60

60 pcs. High Power LEDs 73-115W Optional Power Setting 10 optical lenses different

Urban Space, Intersection Round About, Parking Area

1158 AU/NZ V1, V2 Roads

EU/DK ME1, ME2



 $\mathsf{GYRO}^\mathsf{TM}$  is distinct and bold, yet classic in its expression. The design is a result of both Scandinavian and Italian traditions for minimalism and organic lines.



### EASY ACCESS - REPAIR IN THE AIR

GYRO™ offer tool free and immediate access to all internal active parts of the luminaire. The unique gear access system makes upgrades and







MODEL	LED QTY	LED CURRENT SETTING	NOMINAL SYSTEM POWER		LUMEN*		LUMEN/WATT 4000k
		mA	W	4000k	3000k	2700k	LM/Watt
		200	14	2000	1750	1610	130
		250	17	2400	2125	1955	135
		300	20	2800	2500	2300	141
GYRO-P-20	20	400	26	3500	3300	3036	138
GYRO-P-20	20	500	32	4300	4000	3680	136
		600	38	5100	4700	4324	133
		650	42	5500	5200	4784	130
		350	45	6500	6045	5561	145
GYRO-P-40	40	400	50	7150	6500	5980	142
G1KO-P-40	40	500	61	8200	7600	6992	138
		600	72	9700	9000	8280	133
		400	7	10200	9490	8731	140
GYRO-P-60	60	500	89	12000	11540	10617	135
G1KU-P-00	00	600	107	14231	13903	12791	133
		650	115	14950	14375	13225	130

## LIFETIME AND WARRANTY

CALCULATION	L90@25° B10	L80@50° B10	STANADARD WARRANTY
LLMF	>90.000 hours	>60.000 hours	10 Years
TM-21	>54.000 hours	>54.000 hours	





# DIMENSIONS AND WEIGHT

MODEL	HEIGHT	WIDTH	WEIGHT
	Mm	mm	Kg
GYRO-P-20 GYRO-P-40	220	440	7,0 7,1
GYRO-P-60	220	440	7,6
GYRO-TOP MOUNTING (TM)	-	-	+1,4
GYRO-SIDE MOUNTING (SM)	-	-	+1,0
GYRO-PARK MOUNTING (PM)	-	-	+1,7
GYRO-PENDANT/WIRE SUSPENDED (PE/WS)	-	-	+0.8
GYRO + SCK-WIFI	-	-	+0,9
GYRO + SCK-CAM	-	-	+0,7





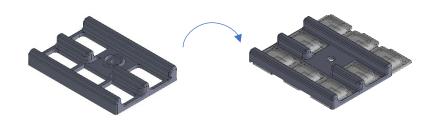


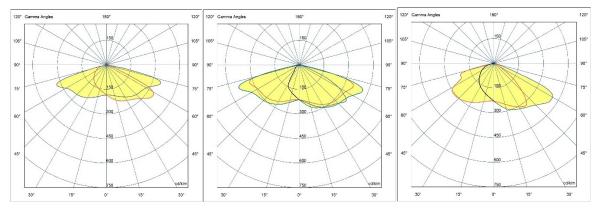
SIDE FRONT STREET FACING

Optics Shields

# Available for Back light, Left and Right spill

Installation: on the optics



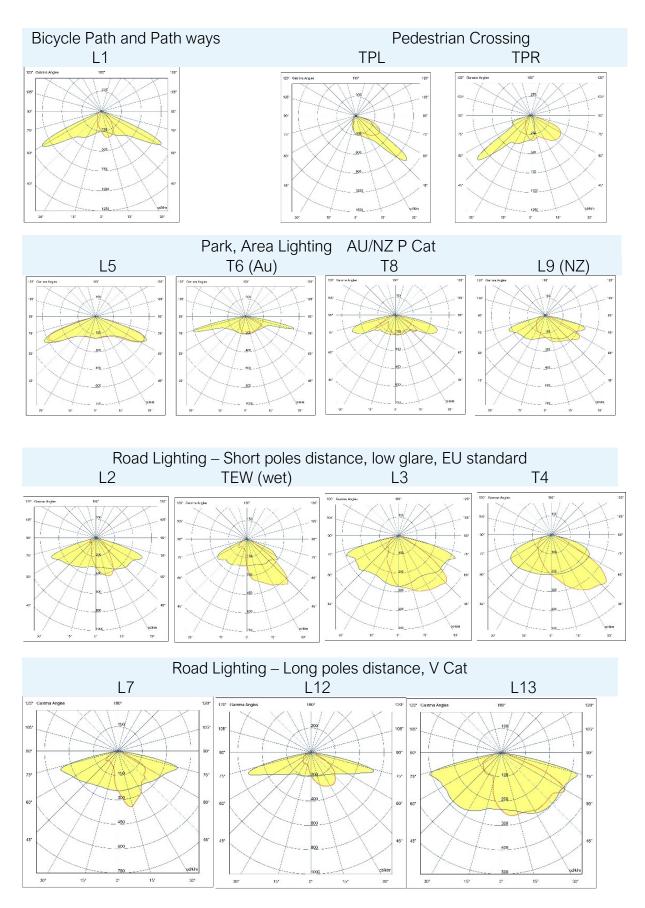


Original - Back - Right





# LIGHT DISTRIBUTION – PHOTOMETRIC LENSES





### DISCOMFORT GLARE INDEX

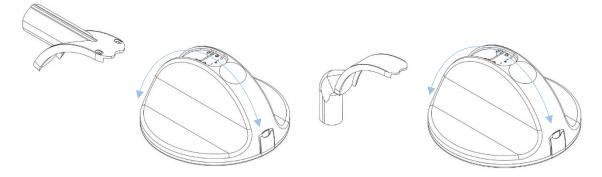
AZ/NZS 1158.3 - DGI values

MODEL	NOMINAL SYSTEM POWER	LUMEN @ 3000K	LUMEN @ 4000K	L	.1	2.000	)MFOR1 .5		EINDEX	BY LENS	S TYPE	L9(	NZ)
	W	LM	LM	3000K	4000K	3000K	4000K	3000K	4000K	3000K	4000K	3000K	4000K
	14	1700	2000	20820	24494	11227	13208	25116	29548	19327	22738	10725	12618
	17	2125	2400	26025	29393	14034	15850	31395	35458	24159	27286	13407	15142
	20	2500	2800	30618	34292	16510	18491	36935	41367	28423	31833	15773	17665
GYRO-P-20	26	3300	3500	40415	42865	21793	23114	48754	51709	37518	39792	20820	22082
	32	4000	4300	48988	52662	26416	28397	59096	63528	45476	48887	25236	27129
	38	4700	5100	57561	62460	31039	33680	69438	75347	53434	57982	29652	32176
	42	5200	5500	63684	67359	34341	36322	76825	81257	59119	62530	32807	34700

## MOUNTING ADAPTERS - TILT SETTINGS

SIDE MOUNTING (SM) Spigot Size: Ø42-60mm Min outreach 100mm 0-150

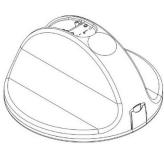
TOP MOUNTING (TM) Spigot Size: Ø42-60mm 0-50

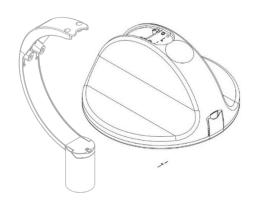


PENDANT/WIRE SUSPENDED MOUNTING (PE/WS)

PARK MOUNTING (PM) Spigot Size: Ø60-80mm

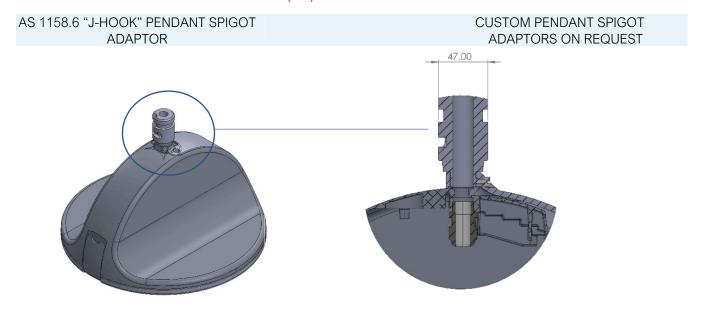








# SPIGOTS FOR PENDANT MOUNTING (PE)



# TOP MOUNT AND SIDE MOUNT SPIGOT ADAPTORS



CUSTOM adaptors available upon request



## **EXTERNAL CONTROL CONNECTORS**

ZHAGA BOOK 18 SOCKET (ZU/ZD/ZUD) (VDC) (OPTIONAL)

NEMA FOR PENDANT MOUNT (OPTIONAL)

NEMA FOR SIDE and TOP MOUNT (OPTIONAL)







## LUMINAIRE COLOUR OPTIONS

NAME	ORDER CODE	RAL CODE (Equivalent)
Black	BK	7016
White	WH	9002
Light Grey	LG	7005
Dark Grey	DG	7022



### GENERAL SPECIFICATIONS FOR ALL GYRO PLUS VERSIONS

FREQUENCY (Hz)	50/60
POWER FACTOR (COS)	>90
VOLTAGE	AC 200-240 V
DRIVER CONTROL INTERFACE	DALI2
COLOR	DARK GREY, LIGHT GRAY, CUSTOM COLOR ON REQUEST
BODY PARTS MATERIAL	Alu Alloy: YLD104 (Die Cast)
ISOLATION CLASS	CLASS I / CLASS II
SURGE PROTECTION	(SetFuse SD10C277LM) Max Surge Current: 15kA – with fault indicator (LED)
INGRESS PROTECTION	IP66
WIND LOAD FACTOR	<0.098m2
IMPACT PROTECTION	IK8
OPERATING TEMPERATURE	´-20°C /+50°C



### CERTIFICATIONS/ACCREDITATIONS TEST REPORTS

AS/NZS	IEC (CB)	CE	CE
	LVD	LVD	EMC

AS/NZS 1158.6:2015 AS/NZS 60958.1:2013 AS/NZS 60958.2.3:2015

AT Approved M30 listed (NZTA) NEM Load Table (AEMO) PowerCor/CitiPower Approved IEC 60958-1:2014 IEC EN60958-2-3:2002 IEC 60958-2-3:2002/AMD1:2011 IEC 62471:2006 IEC 62493:2015 IEC LM-80-08

EN 60958-1:2015 EN 60958-2-3:2003/A1:2011 EN 62471:2008 EN 62493:2015 EN 55015:2013/A1:2015 EN 61547:2009 EN 61000-3-2:2014 EN 61000-3-3:2013

Lighting Tests	Salt Spray Test >1000 hrs	Vibration Test	EU RoHS
IESNA LM-79-2008	ISO 9227	IEC60068-2-6:2007	EN 62321:2009

























### ORDER CODE - LUMINAIRE CONFIGURATION

ORDER CODE POSITION	CODE TYPE	OPTIONS	WHAT IS THIS?
1	Product Family	CRUX GYRO RAZO-S RAZO-M	Name of Product Family
2	Quality Model	P E	P= PLUS = Programmable Driver + High Power LEDs E=ESSENTIAL= Dimmable Driver + Medium Power LEDs
3	LED Qty	Look up in Data Sheet Lumen Table	Choose your LED Qty for desired wattage and lumen area
4	LED Current Setting	Look up in Data Sheet Lumen Table	Choose your LED Current Setting and corresponding System Power for exact wattage and lumen required. The driver will then be pre-programmed to this specific setting during production or installation
5	CRI + CCT	730 740 727 830	Colour Rendering Index (Ra) = 70 or 80 = 7 or 8 Choose Colour Temperature: 30= 3000K 40=4000K 27=2700K
6	Body Colour	DG LG C	DG=Dark Grey (RAL XXX) LG= Light Grey (RAL XXX) C = Custom Colour (Specify in Order Text)
7	Lens Type	L1, L2, L3, L4 L5, L7, L9	Choose Lens Type for desired lighting distribution according to your Lighting Design Requirements
8	Mounting Type	SM TM PM SU PE	SM=Side Mounted TM=Top Mounted PM=Park Mounted WS=Wire Suspended PE=Pendant Mounted
9	External Control Connector	N ZU ZD ZUD	N =NEMA ZU =ZHAGA – facing UP ZD = ZHAGA – facing DOWN ZUD = ZHAGA – 2 pcs. facing UP and DOWN
SCK	Smart City Kit	See Smart City options and codes in respective Datasheets for GYRO and CRUX	CRUX: Chose Smart City Module (SCM) with Camera, WIFI, Sensors etc. GYRO: Choose Smart City Kit (SCK) with Camera, WiFi, Sensors etc.

#### ORDER CODE CONSTRUCTION

Ī	1	2	3	4	5	6	7	8	9	SCK
Ī	GYRO	Р	20	350	740	LG	L9	TM	N	SCK-WIFI-MESH





### GYRO-P-20-350-740-LG-L9-TM-N-(SCK-WIFI-MESH)

#### GYRO PLUS Street Light with Integrated WiFi Access Point

Top Mounted Street Light with Programmable Driver for 20 LEDs in 4000K Colour Temperature set at 350 mA. Equipped with L9 optical lenses. Light Grey Die-Cast Alu Body. Fitted with NEMA 7-PIN for external control device.

Integrated WiFi Access Point (Ruckus E510, with internal PoE Inserter) – for MESH connectivity to CORE Access Point



### IMPORTANT!

Due to continuous technological innovation, changes in external conditions, and availability of parts and services, the products and specifications displayed in this data sheet are subject to change. Please ask your Felicity Smart Infrastructure representative for full up-to date technical details