

VIMALUX

A brighter vision



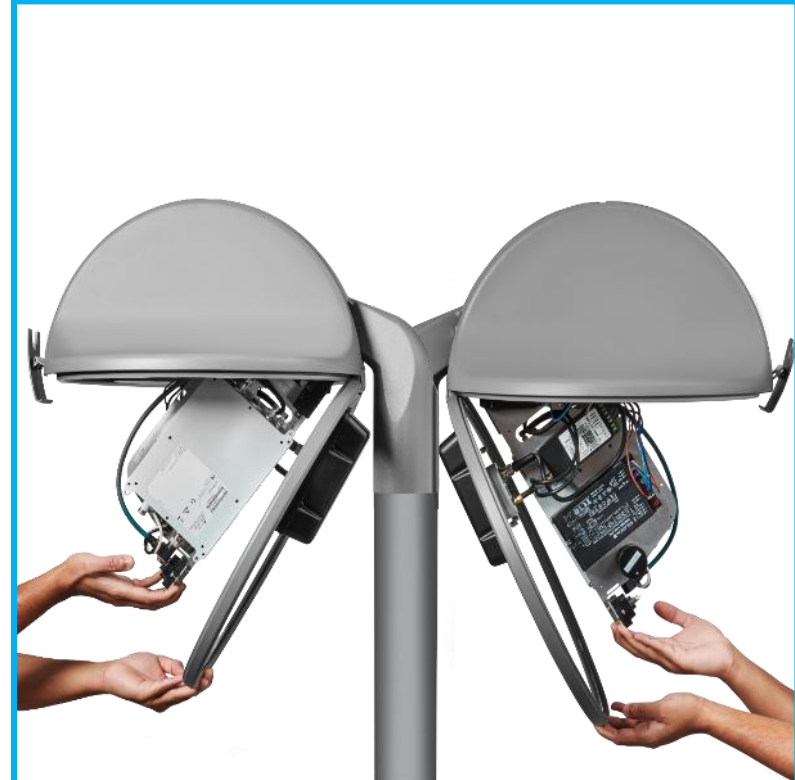
SMART INFRASTRUCTURE- PRODUCT INTRODUCTION



TRAFFIC MONITORING SERVICES



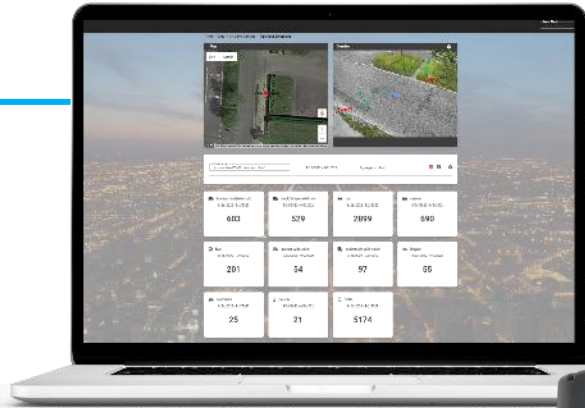
LED STREET LIGHTING



SMART CITY INFRASTRUCTURE

VIMALUX

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TRAFFIC MONITORING SERVICES

DRIVING SAFER ROADS AND
SAVE ENERGY
WITH LIVE TRAFFIC DATA



TRAFFIC MONITORING SERVICES

LIVE TRAFFIC INFORMATION DELIVERED TO YOUR DOORSTEP...



MULTI MODE DETECTION

VEHICLES
TRUCKS
BUSSES
BICYCLES
PEDESTRIANS
(9 OBJECT CLASSES)



TRAFFIC TRACKING AND COUNTING

TRAFFIC VOLUMES BY
MODE/DIRECTION
ORIGINATION-
DESTINATION,
DWELL TIME
ADT/AADT



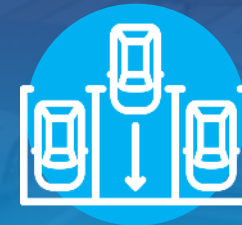
INCIDENT DETECTIONS

WRONG TURN, WRONG
DIRECTION VEHICLE
BREAKDOWN
NEAR MISS
CONGESTION



TRAFFIC SPEED MEASUREMENTS

SPEED BY OBJECT CLASS
AVERAGE SPEEDS
85TH PERCENTILES
SPEED BUCKETS
SPEEDING INSTANCES



PARKING OCCUPANCY MONITORING

ENTRY/EXIT
CURB SIDE SINGLE/MULTI
SPACE
BARRIER LESS PAYMENT



AUTOMATIC NUMBER PLATE RECOGNITION (ANPR)

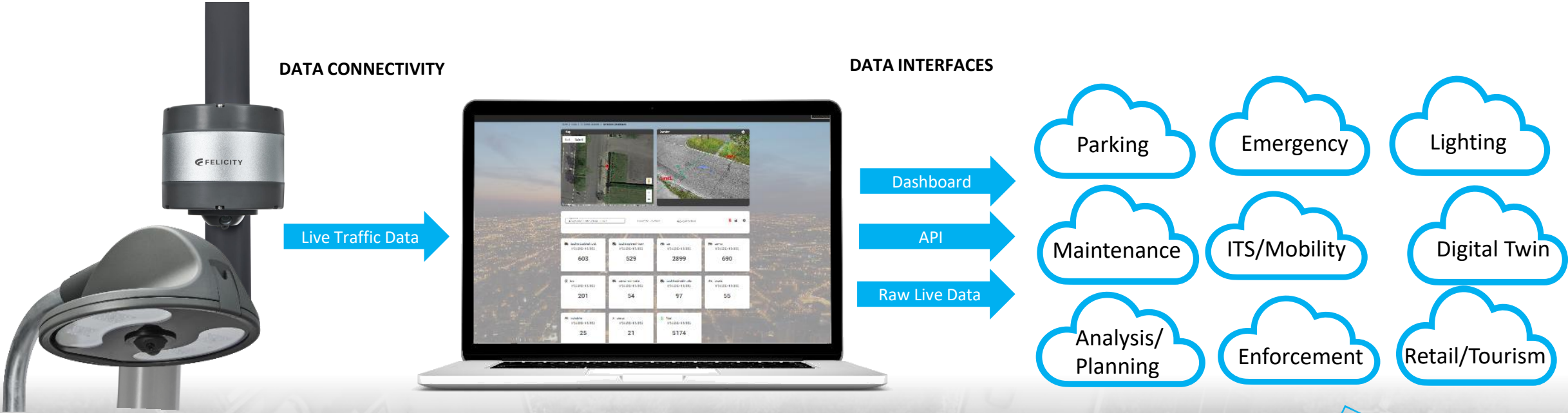
EU PLATES
COUNTRY DETECTION (EU)

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TRAFFIC MONITORING SERVICES

END-TO-END INTEGRATED SERVICE PLATFORM



**EASILY DEPLOYED AND DISCREET
COMPUTER VISION SENSORS**

**CLOUD BASED DATA/DEVICE
MANAGEMENT**

DATA USERS/RECIPIENTS

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TRAFFIC MONITORING SERVICE SERVICE DELIVERY

PLANNING



1

We design the installation and configuration plan for your locations and traffic information requirements

INSTALLATION/CONFIGURATION



2

We enable your local installer to deploy sensor(s)
Sensor/Data configuration is implemented by FSI

ENJOY



3

You receive and engage with the live traffic data via Felicity Connect

TRAFFIC MONITORING SERVICES FELICITY CONNECT



FELICITY CONNECT

- ✓ Multitenant Traffic Data Cloud Application
- ✓ Widget Based Dashboard
- ✓ Multi Layer User/Role Assignments
- ✓ Device Connectivity, Location and Operation Status
- ✓ Traffic Data Mapping
- ✓ Output: Data Dashboard – Widget Design
- ✓ Output: Live Unaggregated Data Stream (JSON)
- ✓ Output: Restful API
- ✓ Output: CSV Files
- ✓ Output: Custom Reports

TRAFFIC MONITORING SERVICE

HIVE+ TRAFFIC SENSOR



HIVE+ TRAFFIC SENSOR

- ✓ NVIDIA EDGE PROCESSOR
- ✓ 8MP CAMERA/SENSOR
- ✓ AI/ML TRAFFIC DETECTION APPLICATION
- ✓ 4G SIM CONNECTIVITY PACKAGE
- ✓ 2.4 GHZ WIFI OR ETHERNET BACKHAUL
- ✓ AC/DC/POE POWER OPTIONS
- ✓ EDGE BACKUP STORAGE: 24K EVENTS
- ✓ EASY INSTALLATION ON ANY POLE/MAST
- ✓ REMOTE CONFIGURATION AND CALIBRATION
- ✓ 24 HRS AUTO REBOOT
- ✓ POLE MOUNT

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TRAFFIC MONITORING SERVICE

GYRO+ TRAFFIC SENSOR



GYRO+ TRAFFIC SENSOR

- ✓ LED STREETLIGHT (17-120W)
- ✓ NVIDIA EDGE PROCESSOR
- ✓ 8MP CAMERA/SENSOR
- ✓ AI/ML TRAFFIC DETECTION APPLICATION
- ✓ 4G SIM CONNECTIVITY PACKAGE
- ✓ 2.4 GHZ WIFI OR ETHERNET BACKHAUL
- ✓ AC/DC/POE POWER OPTIONS
- ✓ EDGE BACKUP STORAGE: 24K COUNTING EVENTS
- ✓ EASY INSTALLATION ON ANY POLE/MAST
- ✓ REMOTE CONFIGURATION AND CALIBRATION
- ✓ 24 HRS AUTO REBOOT

TRAFFIC MONITORING SERVICE

SERVICE PLANS AND FEATURES



DATA ACCURACY >90%



AVAILABILITY > 0.9



DATA RETENTION < 6M



DELAY < 1S



NO CAPEX



GDPR COMPLIANT

Contact Us For Plans and Prices

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LED STREET LIGHTING

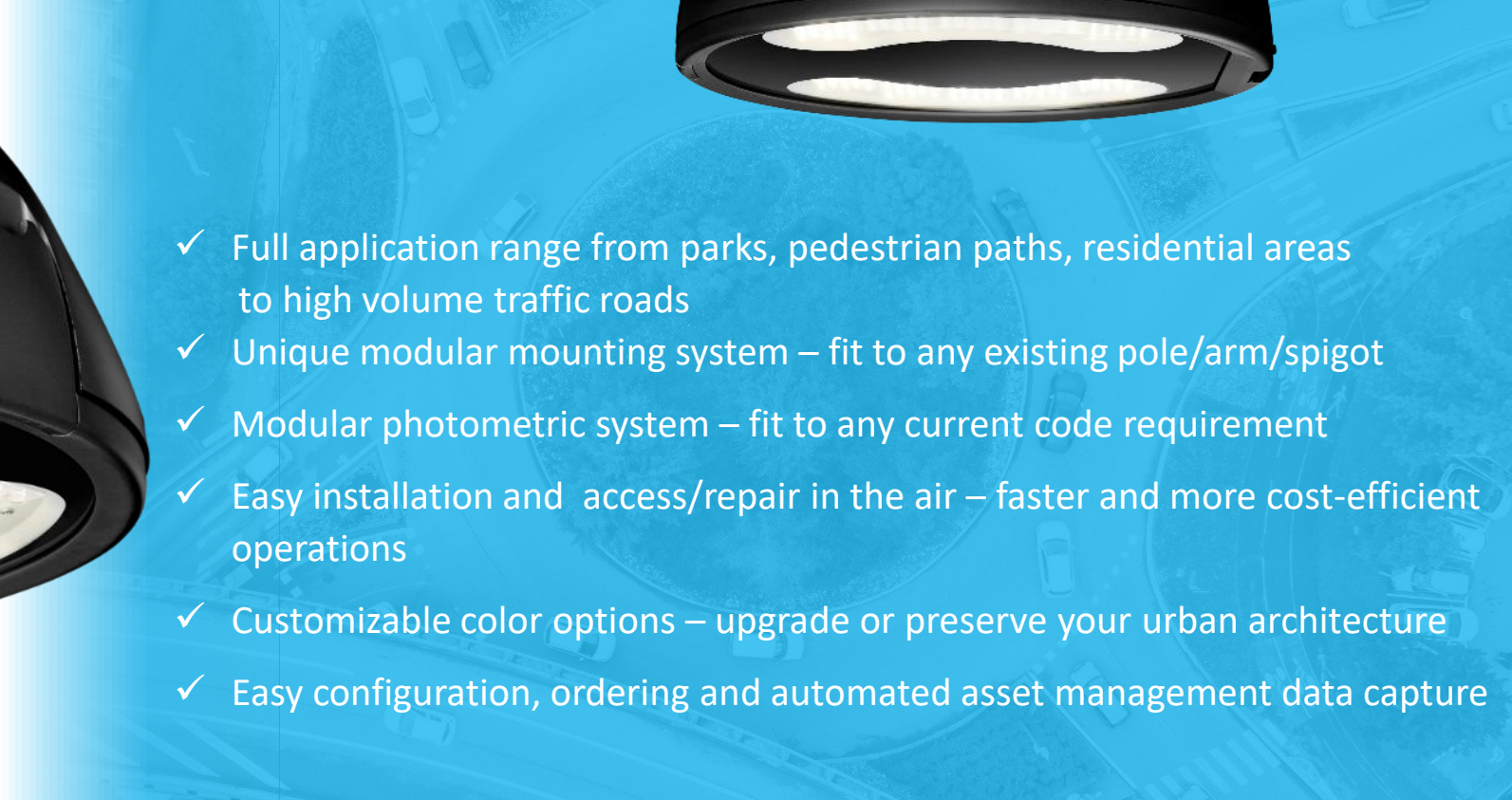
LED STREET LIGHTING IS
THE MOST SIGNIFICANT COST SAVING INVESTMENT
A SMART CITY CAN MAKE
WE ENSURE YOU GET IT RIGHT...



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GYRO

ONE LUMINIARE - A WORLD OF POSSIBILITIES



- ✓ Full application range from parks, pedestrian paths, residential areas to high volume traffic roads
- ✓ Unique modular mounting system – fit to any existing pole/arm/spigot
- ✓ Modular photometric system – fit to any current code requirement
- ✓ Easy installation and access/repair in the air – faster and more cost-efficient operations
- ✓ Customizable color options – upgrade or preserve your urban architecture
- ✓ Easy configuration, ordering and automated asset management data capture



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GYRO

A STATEMENT OF EFFICIENT DESIGN AND
ENGINEERING IN EVERY DETAIL



GYRO

MODULAR MOUNTING

1 LUMINAIRE, 5 MOUNTING OPTIONS

PARK



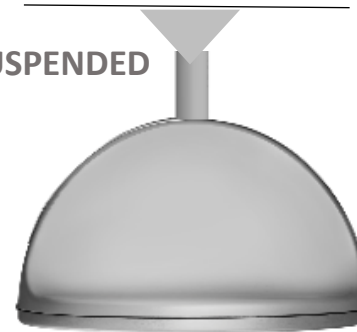
SIDE



TOP



SUSPENDED



PENDANT



GYRO

A COMPLETE RANGE OF POWER, CCT, OPTICS, CRI OPTIONS



	GYRO-20	GYRO-40	GYRO-60	GYRO-80
LED QTY.	20 pcs. High Power	40 pcs. High Power	60 pcs. High Power	80 pcs. High Power
WATTAGE RANGE	12W-40W	40W-75W	75W-115W	120W-150W
LUMEN RANGE	1500-4700	4500-10000	10000-15000	16000-20000
LUMEN/WATT	120-140	120-140	120-140	120-140
CCT	3000K, 4000K	3000K, 4000K	3000K, 4000K	3000K, 4000K

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GYRO

EASY ACCESS, BETTER MAINTENANCE



- ✓ PREWIRED - EASY/QUICK INSTALLATION
- ✓ TOOL-LESS MAINTENANCE ACCESS
- ✓ REMOVE/REPLACE ALL ELECTRONICS GEAR, IN THE AIR, IN SECONDS.
- ✓ SAFETY FIRST – POWER DISCONNECT ON LUMINAIRE OPENING.
- ✓ PLENTY OF SPACE FOR EMBEDDED LIGHTING CONTROL AND FUTURE SMART CITY ELEMENTS

GYRO

DEFINE YOUR CITYSCAPE WITH COLOURS

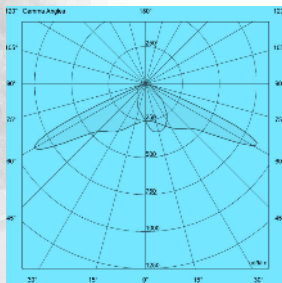


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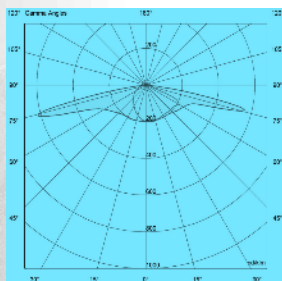
LENS

SHIELD



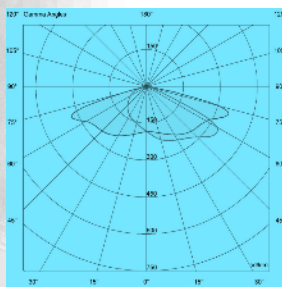
L1 : Bicycle Paths and Pathways

Installation 3-7m .
Low glare. Narrow path
Type I



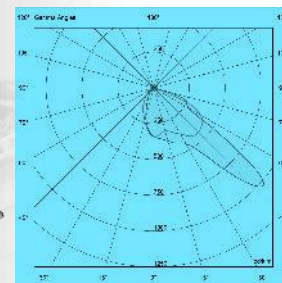
L6: P-CAT Traffic Roads

Installation 5-8m
Designed for max pole distance,
Type III
P-CAT Australian standards



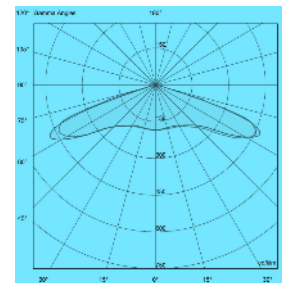
L9: P-CAT Traffic Roads

Installation 5-8m
Designed for long pole distance - Wide
P-CAT New Zealand Glare requirement
TYPE IV



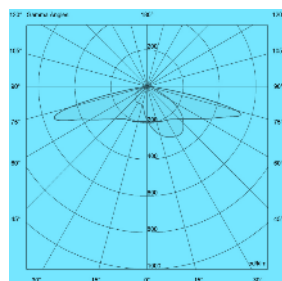
LPL and LPR Pedestrian Crossing

Installation 3-7m .
Double asymmetric beam Optics
approved for Pedestrian Crossing
application



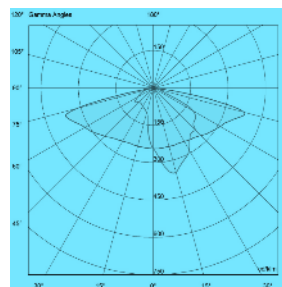
L5: Parks, Spaces, Parking

Installation 3-10m
Roto-symmetric
Type V



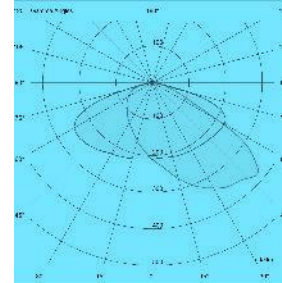
L12: V-CAT Traffic Roads

Installation 6-15m
Designed for max pole distance,
Type II
V-CAT Australian standards



L7: V-CAT Traffic Roads

Installation 5-8m
Designed for max pole distance,
V-CAT Australian/New Zealand standards
TYPE III



T4: Cul de Sac

Installation 3-10m . Special
optics with front beam optimal
for cul de sac

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INTEGRATED SMART CITY INFRASTRUCTURE
UNLOCK THE TRUE POTENTIAL OF YOUR
STREET LIGHTING INFRASTRUCTURE AND
BRIGHTEN UP YOUR CITY'S FUTURE

SMART CITY INFRASTRUCTURE

GYRO STREETLIGHT WITH INTEGRATED WIFI ACCESS POINT

IoT Gateways



Visual AI Traffic Sensor



WiFi Access Point



CCTV Cameras



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SMART CITY INFRASTRUCTURE STREETLIGHT WITH INTEGRATED WIFI ACCESS POINT



GYRO+ TRAFFIC SENSOR

- ✓ LED STREETLIGHT (17-120W)
- ✓ SMART LIGHTING CONTROLLER
- ✓ RUCKUS E510 AP
- ✓ 2,4/5 MHZ 801.AC
- ✓ MESH OR ETHERNET BACKHAUL
- ✓ UP TO 400 SIMULTANEOUS USERS
- ✓ SOCIAL LOGIN/SPLASHPAGE
- ✓ CONTENT FILTERING
- ✓ FULLY MANAGED AND OPERATED 24/7



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SMART CITY INFRASTRUCTURE STREETLIGHT WITH INTEGRATED IP 360 CAMERA



GYRO+ 360 CAMERA

- ✓ LED STREETLIGHT (17-120W)
- ✓ SMART LIGHTING CONTROLLER
- ✓ INTEGRATED MOBOTIX S16 IP CAMERA SYSTEM
- ✓ BACKHAUL OPTIONS: CELLULAR, ETHERNET, WIFI
- ✓ FULLY MANAGED AND OPERATED 24/7



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SMART CITY INFRASTRUCTURE STREETLIGHT WITH INTEGRATED VISUAL TRAFFIC SENSOR

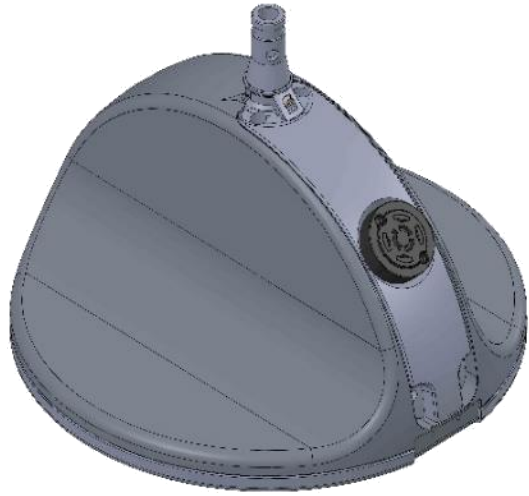


GYRO+ TRAFFIC SENSOR

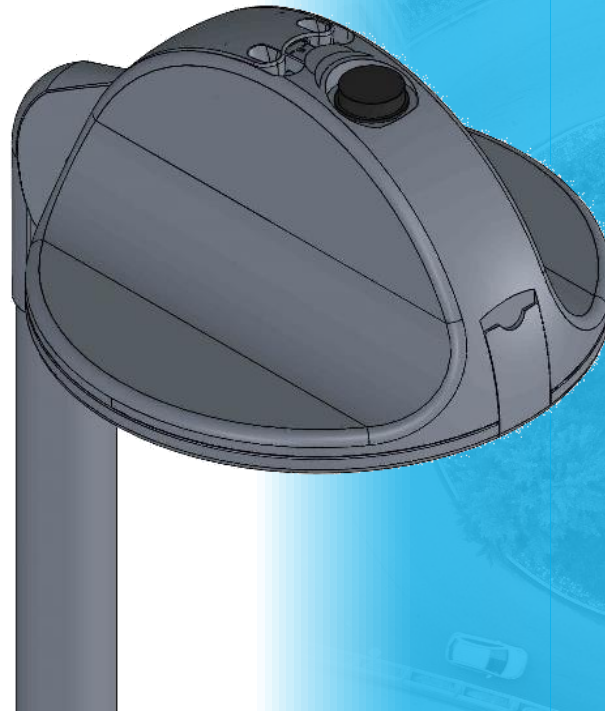
- ✓ LED STREETLIGHT (17-120W)
- ✓ NVIDIA NANO EDGE PROCESSOR
- ✓ 8MP CAMERA/SENSOR
- ✓ AI/ML TRAFFIC DETECTION APPLICATION
- ✓ 4G SIM CONNECTIVITY PACKAGE
- ✓ 2.4 GHZ WIFI OR ETHERNET BACKHAUL
- ✓ AC/DC/POE POWER OPTIONS
- ✓ EDGE BACKUP STORAGE: 24K EVENTS
- ✓ CLOUD DATA AND VISUALIZATION PLATFORM



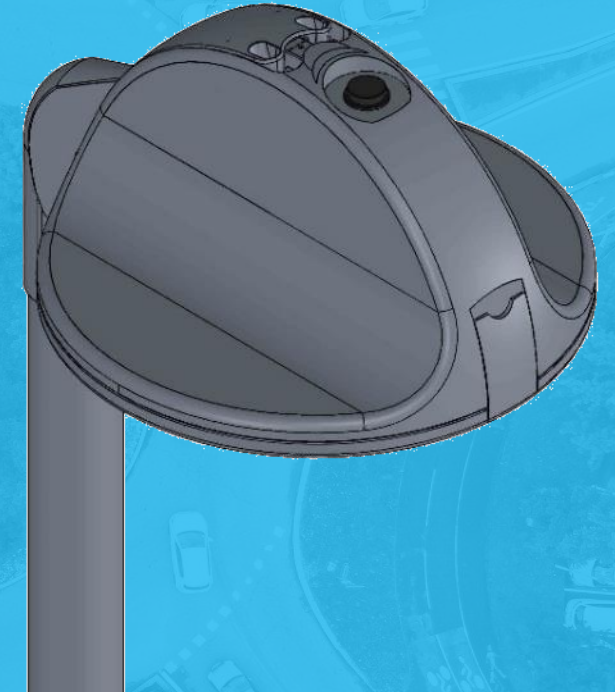
SMART CITY INFRASTRUCTURE EXTERNAL SMART CITY INTEGRATION



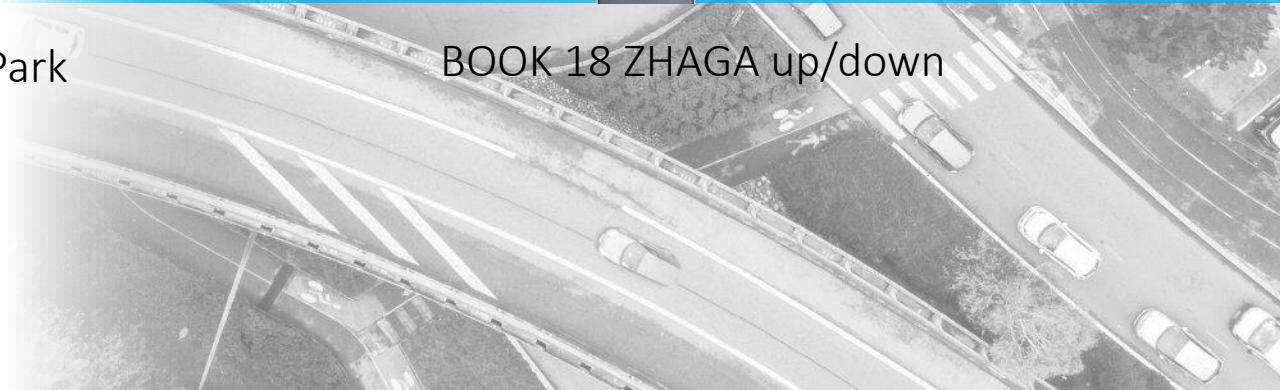
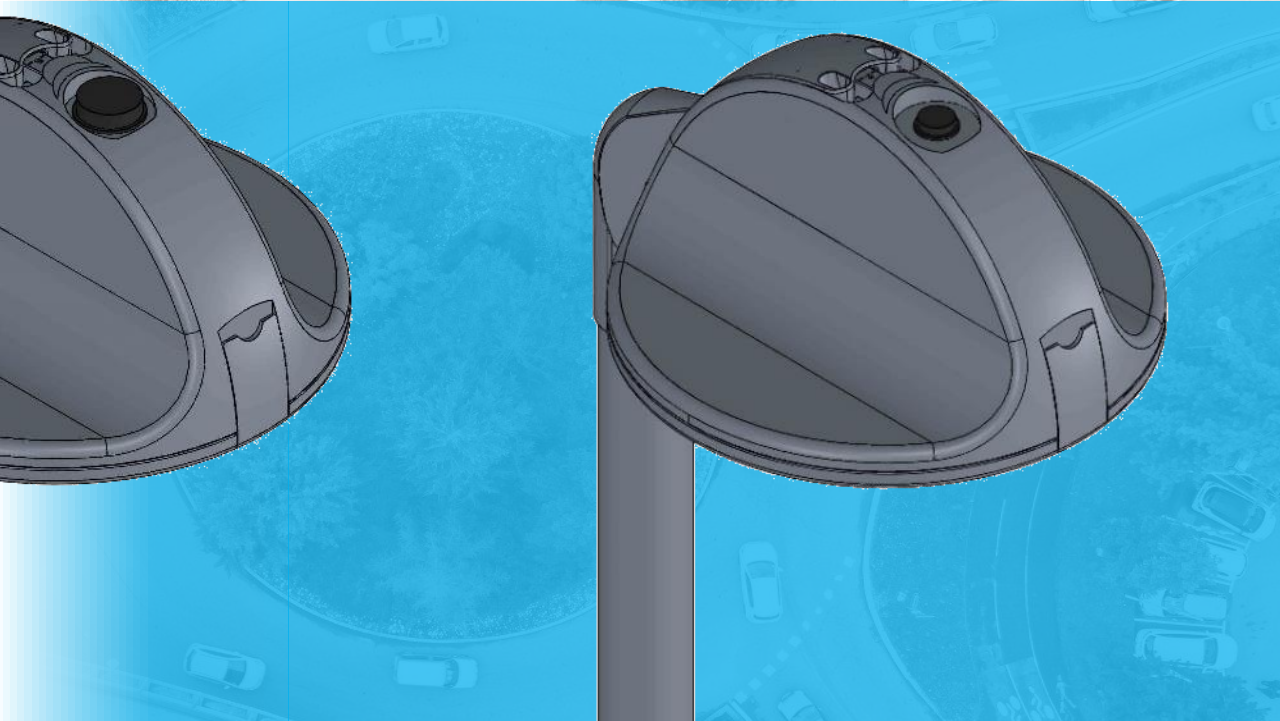
NEMA for Pendant



NEMA for Top, Side, Park

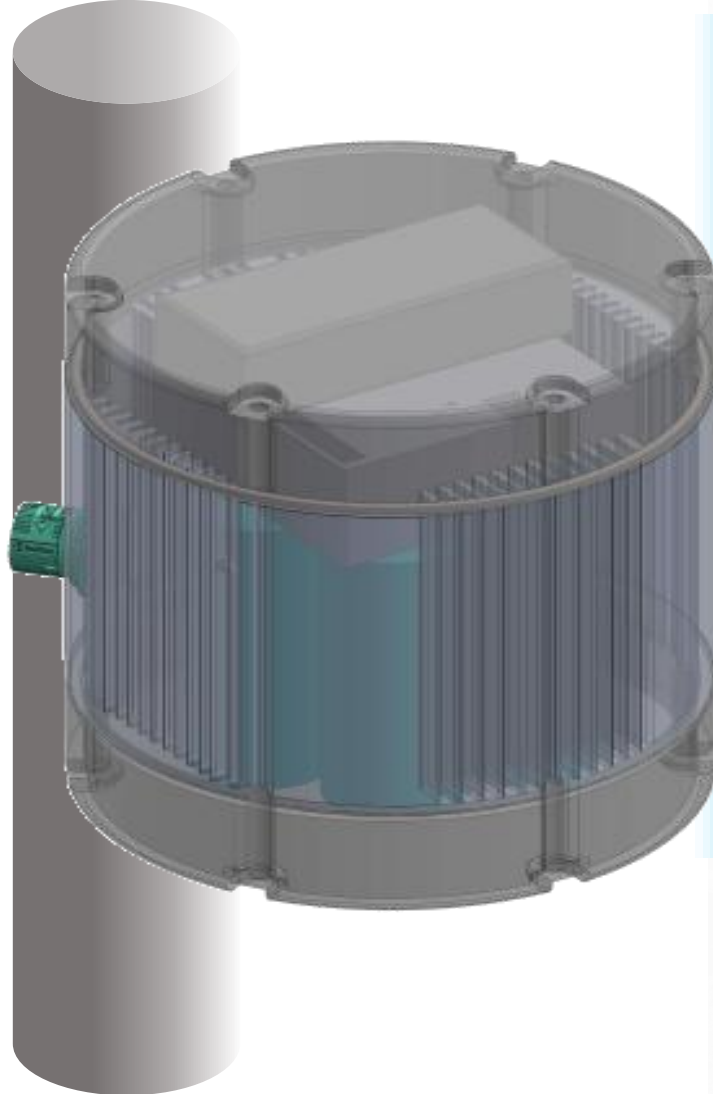


BOOK 18 ZHAGA up/down



SMART CITY INFRASTRUCTURE

IP66 AC CHARGER/BATTERY FOR SMART CITY DEVICES IN STREETLIGHTING POLES



HIVE+ BATTERY PACK

- ✓ LI-ION CELLS
- ✓ 22 AH CAPACITY
- ✓ INTEGRATED BMS
- ✓ INTEGRATED 60W AC/DC CHARGER
- ✓ CONSTANT 12V OUTPUT
- ✓ IP66

DC POWER SUPPORT FOR INTERMITTENT AC POWER/RIPPLE RELAY DEVICE DEPLOYMENTS

- DEVICE IS POWERED BY 12VDC FROM HIVE+ BATTERY PACK
- 100-240 VAC CHARGING FROM POLE TO BATTERY PACK DURING NIGHT
- BATTERY PACK RECHARGE FULLY EVERY NIGHT WHEN GRID POWER IS ON



GYRO - INTEGRATED SMART CITY
Urban Area Design Example



GYRO - SMART LIGHTING CANOPY

- Wire mounted pendant version of GYRO forms a canopy both during night and day. This invokes both a festive and market-like ambience, as well as a sensation that will entice and extend dwell time for users.
- The GYROS are kept in two colors (light and dark tones) as an architectural symbol of night and day. This will also create further dynamic during daytime.
- The light distribution will be set with optics creating relatively narrow beams creating intermittent spaces between lighter and darker spots to create a more exciting dynamic at night.
- Wireless dimming settings via onboard lighting controller in each luminaire, can be used to create difference scenes, moods and functions during nighttime.
- High CRI LEDs in a CCT range of 2800-4000K that can be individually adjusted through the smart lighting system, will enable even more advanced illumination scenes and moods








Scene: The Line



Scene: The Snake



SMART CITY INTEGRATIONS IN GYRO LUMINAIRES

-  GYRO with 360 Camera
-  GYRO with Selfie Camera
-  GYRO with Traffic Camera
-  GYRO with Air Quality Sensor
-  GYRO with WiFi Access Point
-  GYRO with IoT Gateway (LoRaWAN)

All lights equipped with internal
Smart Lighting Control Units
Connected via IoT network

CHECK OUT THE
AIR
QUALITY
IN THIS LOCATION



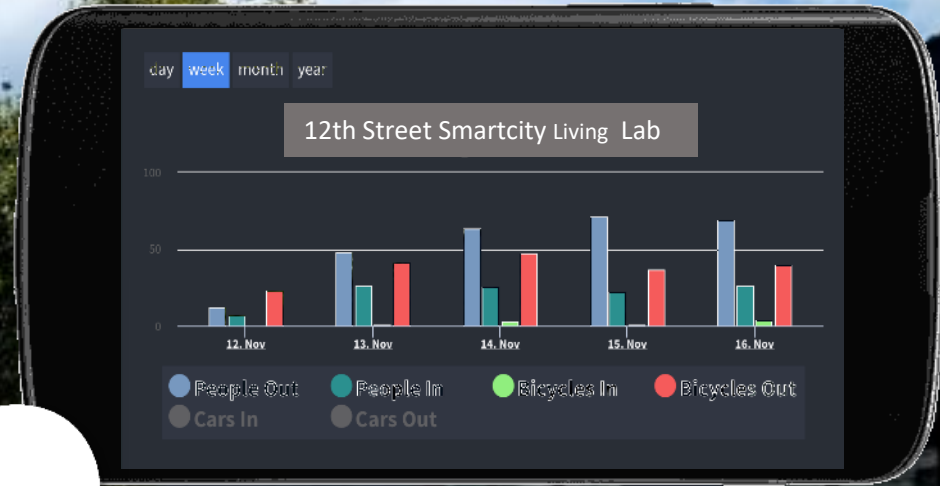
CHECK OUT THE
PEDESTRIAN
TRAFFIC STATS
IN THIS LOCATION



Get Connected!
WiFi
IN THIS LOCATION



LOOK UP!
SELFIE
FROM THE SKY
IN THIS LOCATION



Interaction and Engagement Ideas

CUSTOMER REFERENCES



Comune di Arre



Comune Cassola



Comune Fara di Vecentino



Comune Montebello



Comune Mussolente



Comune Mussolente



Comune Grezzana



Comune di
Negrar di Valpolicella



Comune Rivoli Veronese



Comune di Biseglie



Comune Salizzole



Comune Caerano



CUSTOMER AND PARTNER EXPERIENCES

Municipality of Bisceglie of the Global Smart City 2022:

“We have deployed HIVE+ Traffic at a number of locations for multimodal traffic monitoring. Council has found the service effective and reliable over time and in connection with our micro mobility infrastructure upgrade monitoring”.

Project Manager Smart City

Major New Zealand Council:

“Through thorough testing we have found HIVE+ Traffic very effective for multimodal traffic monitoring. The plug&play unit is very compact and mounts easily to our existing assets. This service add great value to Council’s cordon network and other traffic monitoring safety and planning requirements. As such, we are now deploying further units and building out our network”

Traffic Project Manager

Leader in the integration of Alfano Luce :

“Our team has found Felicity’s Ai Multimodal Traffic Monitoring Service very fast to deploy and efficient. It has satisfied our clients who are now expanding the network of sensors for a variety of traffic monitoring needs”

ITS Senior Project & Contract Manager, Infrastructure

Leading New Zealand Telecom and Smart City Provider:

“Felicity’s HIVE+ Traffic Multimodal Traffic Monitoring Service is attracting a lot of interest from our wide array of clients including Councils, Authorities and large Asset Owners. We are getting orders for a variety of traffic monitoring purposes and the client feedback is extremely positive”.

Business Development Manager IoT



ITALY



marco@vimalux.com

WORLD



admin@vimalux.com

WEB



www.vimalux.com