

VIMALUX

A brighter vision

RAZO



MODERN SUPER SLEEK PROFILE

RAZO™ design and appearance is first and foremost sleek and contemporary. Paired with its many mechanical features and unique efficiency, RAZO is the defining design for current and future urban- and cityscapes.



OPTIMIZED FOR EASY MAINTENANCE

RAZO™ offers tool-free and immediate access to all internal active parts of the luminaire. The unique gear access system makes upgrades and site repair a feasible option. The hinge system makes it possible to replace both service electronics, as well as LEDs without unmounting the light.

Top part carries both the LED module and the Electronic gear tray. It can be opened without tool and be extracted for operation of maintenance or it can be replaced with a new one directly without re-wiring by keeping the bottom part installed.



Electrical connection CLASS II : Neutral /Phase are connected to safety switch; for Class I earth wire to be connected on earth stud in housing. DALI 2 incoming wiring is connected to a separate termination block.

Gear with TCI/OSRAM DALI 2 programmable driver, SPD and EMI as per request.

Level gauge for precise and easy horizontal installation

SILICON GASKET

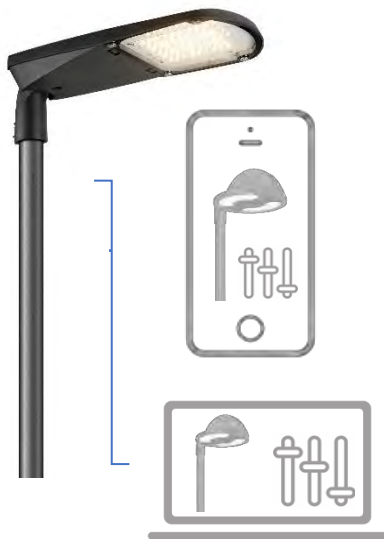
Housing is made of very corrosion resistant die-cast aluminum. Polyester powder coated painting after chemical washing treatment.

Mounting with two stainless steel bolts (extra long bolts for small column can be ordered with luminaire).

Spigot made of die-cast aluminium, standard in same color as body. Universal post top / side entry spigot for \varnothing 60mm/76mm/50mm.

Flat toughened glass to prevent upward light. Fixed to the frame with metal clips for easy replaceability. Very high light transmission to optimise the Light Output Ratio.





IN COMPLETE CONTROL - ANYWHERE YOU ARE

RAZO™ 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 [NB AXIS™](#), our Lighting Control and IoT Smart City Solution.

ADAPTIVE LIGHTING DESIGN WITH MODULAR LENSES

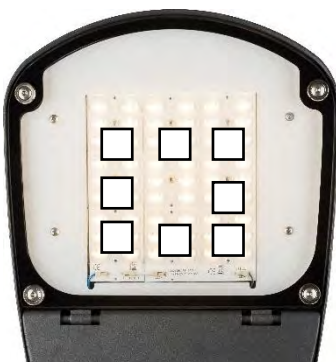
The innovative and highly flexible lighting system of RAZO™ cover all P Category Roads and V Category Roads both in terms of power as well as optics. In addition, the LED modules are easily replaceable and thus a P CAT RAZO can easily be converted to a V CAT luminaire and Vice Versa.



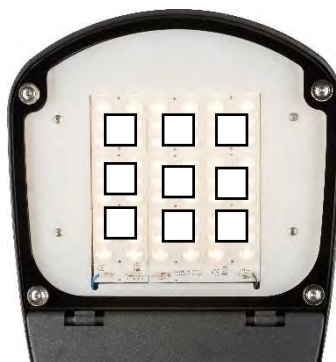
RAZO-S-12
12 pcs. High Power LEDs
12W-20W Optional Power Setting



RAZO-S-20
20 pcs. High Power LEDs
17W-40W Optional Power Setting



RAZO-M-42
42 pcs. High Power LEDs
40-70W Optional Power Setting



RAZO-M-60
60 pcs. High Power LEDs
80-110W Optional Power Setting



RAZO-M-72
72 pcs. High Power LEDs
120-165W Optional Power Setting



LUMEN AND EFFICIENCY @4000K



MODEL	LED QTY	LED CURRENT SETTING mA	SYSTEM POWER SETTING W	LUMEN*			Efficiency (4000K) LM/Watt
				4000K	3000K	2700K	
RAZO-S-12	12	300	13	1300	1232	1109	110
		400	16	1900	1801	1621	118
		500	21	2600	2534	2281	123
RAZO-S-20	20	250	17	2125	2015	1813	125
		350	23	3190	3084	2776	145
		600	38	5200	4930	4437	137
		650	40	5400	5119	4658	134
RAZO-M-42	42	400	50	7366	6983	6355	147
		450	63	8888	8426	7667	140
		550	70	9760	9312	8420	135
RAZO-M-60	60	450	82	12206	11571	10530	141
		500	94	13690	12978	11810	142
		600	109	15511	14400	13104	143
		650	115	15982	14949	13784	143
RAZO-M-72	72	550	120	16200	15358	13975	135
		650	140	18478	17531	15953	129



*Lumen result will vary up to +/- 3% between lens types used.
Lumen results for 3000K LEDs can vary up to - 3% while Lumen for 5000K LEDS is the same.

LIFETIME AND WARRANTY

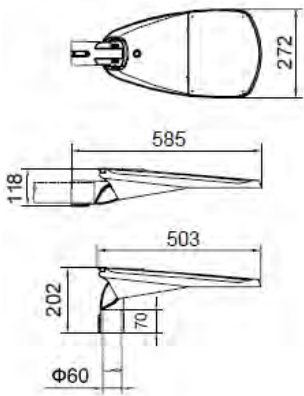
CALCULATION	L90@25° B10	L80@50° B10	STANADARD WARRANTY
LLMF	>118.000 hours	>90.000 hours	10 Years
TM-21	>118.000 hours	>90.000 hours	



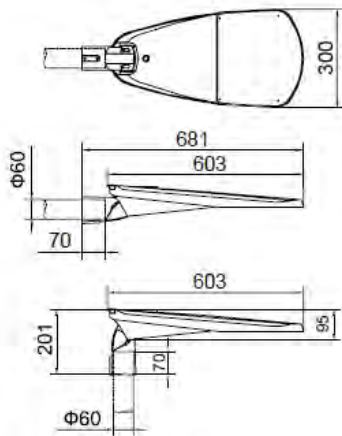
DIMENSIONS AND WEIGHT

MODEL	LENGTH mm	HEIGHT mm	WIDTH mm	WEIGHT Kg
RAZO-S-12	603	131	300	5.7
RAZO-S-20	603	131	300	5.7
RAZO-M-42	791	131	381	7.9
RAZO-M-60	791	131	381	7.9

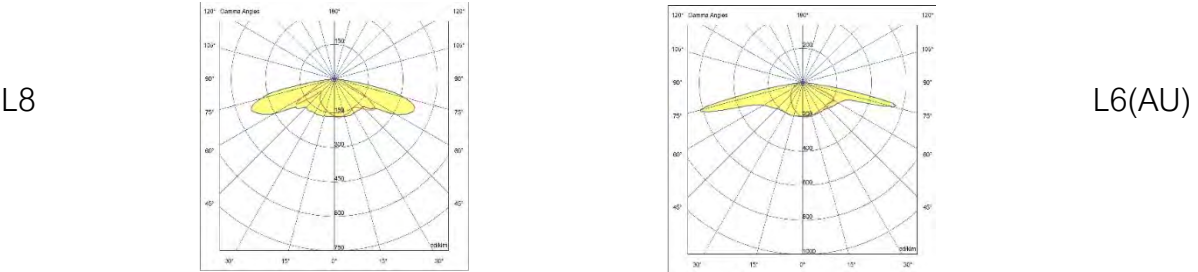
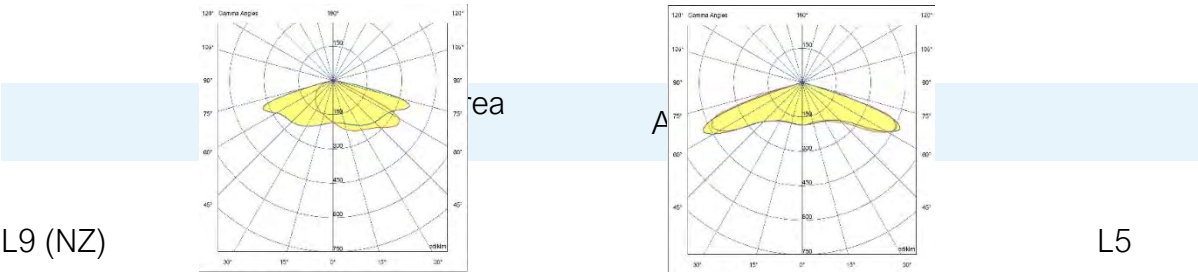
RAZO-S



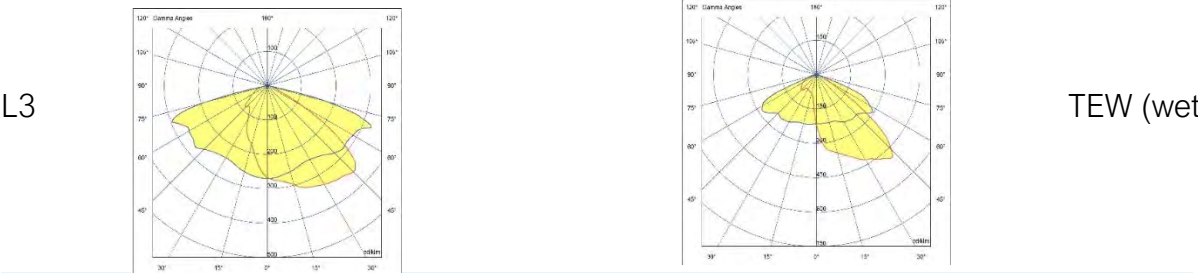
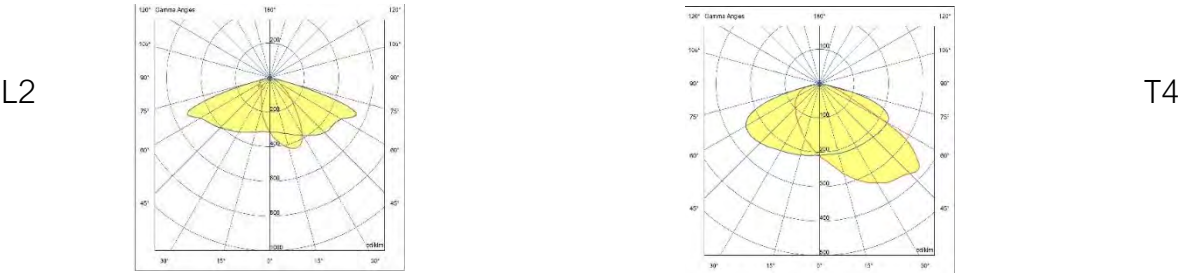
RAZO-M



OPTICAL LENSES

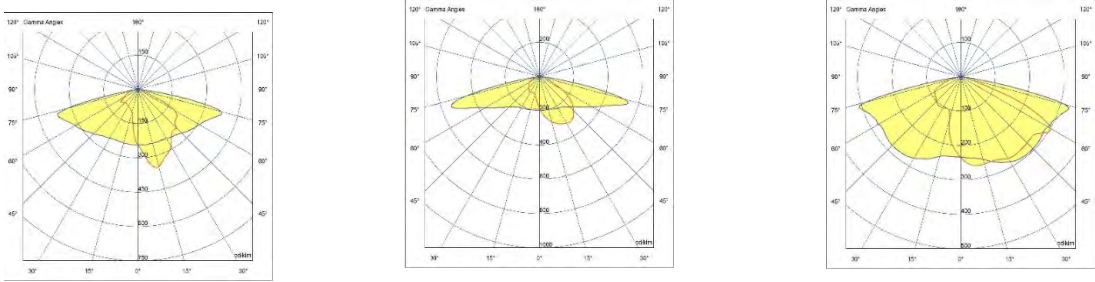


Road Lighting – Short poles distance, low glare , EU standard



Road Lighting – Long poles distance, V Cat

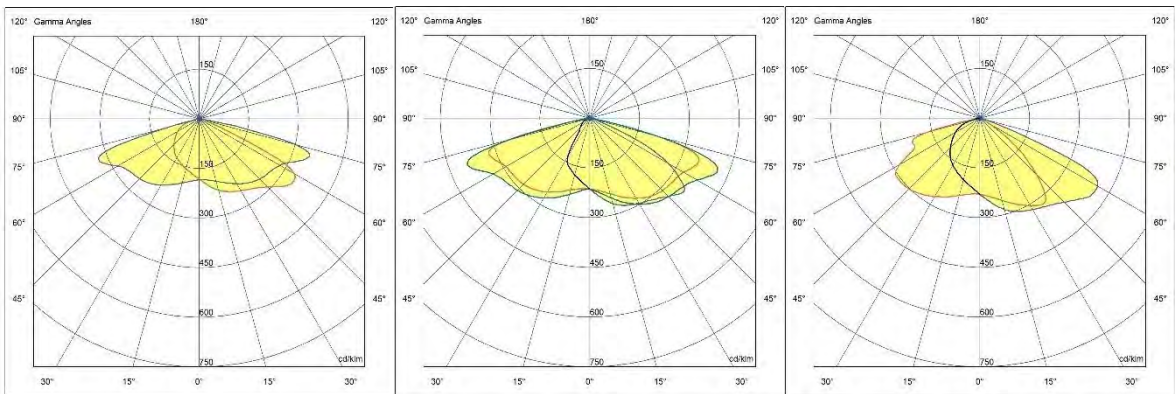
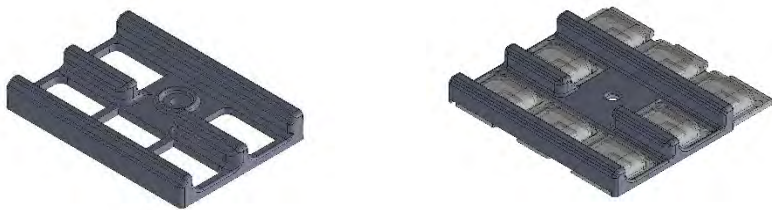
L7 L12 L13



Optics Shields

Available for Back light, Left and Right spill

Installation: on the optics

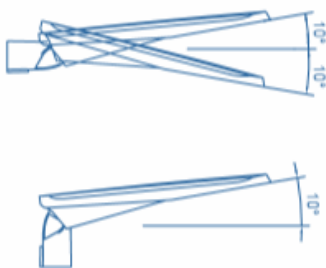


Original - Back - Right

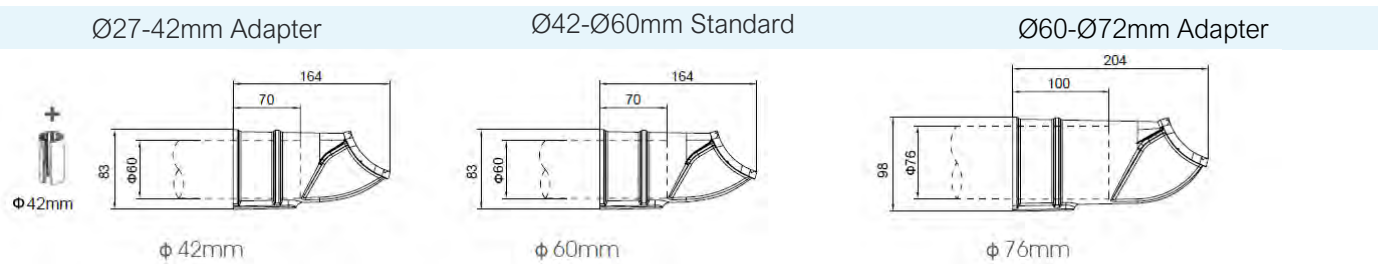
TILT SETTINGS

RAZO-S/M

-10° - +10°



SPIGOT SIZES and ADAPTERS



GENERAL SPECIFICATIONS FOR ALL RAZO VERSIONS

FREQUENCY (Hz)	50/60
POWER FACTOR (COS)	>90
VOLTAGE	AC 100-270 V
DRIVER CONTROL INTERFACE	DALI2
COLOR	DARK GREY (RAL 7026), LIGHT GRAY (RAL 9006)
BODY PARTS MATERIAL	Alu Alloy: LM6 (Die Cast)
ISOLATION CLASS	CLASS I / CLASS II
SURGE PROTECTION	Max Surge Current: 20kA 8/20us; Max Open Circuit Voltage 10 kV
INGRESS PROTECTION	IP66
WIND LOAD FACTOR	S 0.048 / M 0.058
IMPACT PROTECTION	IK09
OPERATING TEMPERATURE	-20°C / +50°C

CERTIFICATIONS/TEST REPORTS

AS/NZS	IEC (CB) LVD	CE LVD	CE EMC
AS/NZS 1158.6:2015 AS/NZS 60958.1:2013 AS/NZS 60958.2.3:2015 AT Approved M30 listed (PENDING)	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	Vibration Test	EU



>1000 hrs

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	Company	NB	Short for NB Smart Cities or your OEM Partner Code
2	Luminaire Type	SL FL AL	SL=Street Light FL= Flood Light AL= Architectural Light
3	Product Family	CRUX GYRO RAZO-S RAZO-M	Name of Product Family
4	Quality Model	P E	P= PLUS = Programmable Driver + High Power LEDs E=ESSENTIAL= Dimmable Driver + Medium Power LEDs
5	LED Qty	Look up in Data Sheet Lumen Table	Choose your LED Qty for desired wattage and lumen area
6	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
7	CRI + CCT	730 740 827	Colour Rendering Index (Ra) = 70 Choose Colour Temperature: 30= 3000K 40=4000K 27=2700K
8	Body Colour	DG LG C	DG=Dark Grey (RAL XXX) LG= Light Grey (RAL XXX) C = Custom Colour (Specify in Order Text)
9	Lens Type	L1, L2, L3, L4 L5, L7, L9	Choose Lens Type for desired lighting distribution according to your Lighting Design Requirements
10	Mounting Type	SM TM PM SU PE	SM=Side Mounted TM=Top Mounted PM=Park Mounted WS=Wire Suspended PE=Pendant Mounted
11	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



1	2	3	4	5	6	7	8	9	10	11
NB	SL	RAZO-M	PLUS	42	350	740	LG	L9	SM	N

NB-SL-RAZO-M-P-42-350-740-LG-L9-SM-N

**RAZO Street Light**

Top/Side 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.

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www.vimalux.com