

# PRO FLOW®

The energy saving and cost effective PRO Flow LED luminaires are designed to meet the newest regulations in street and area lighting. The pure Scandinavian design and a range of power options of the luminaire make it suitable for all kinds of environments from streets to parking lots and parks.











compact PRO Flow suits all kinds of environments. The clean Scandinavian design stays fresh through the whole lifespan of the luminaire.

PRO Flow is cost effective: Assembled in a die casting aluminium body, the PRO Flow will endure for years to come. The luminaire requires very little maintenance and its components are easy to replace.

**PRO Flow creates safety:** The familiar Easy LED road and area lighting optics are known for their efficiency and the extra bright lens cover is hardened. This makes the PRO Flow suitable for all kinds of

- familiar characteristics, like DALI control.
- A versatile smart luminaire, ready for with wireless control or customisable driver. The revised Kaamos dimmer has even more options than before.
- Upgradeable and easy to maintain. PRO Flow's construction is future proof and it has an automatic maintenance switch for safety.
- Durable. The surface texture of the casing and the self-cleaning cooling system guarantee an
- Easy to install and adjust. The automatic power switch and body that stays open provide safer maintenance. The integrated mounting angle allows light adjustment after installation.
- Designed and manufactured in Finland.
- Energy efficient. The PRO Flow has a lifespan of over 30 years and needs only a little maintenance.

Body: Aluminium

Lens cover: Extra bright hardened glass

Coating: Blasted textured aluminium grey body. Available in powder-coated and in all RAL colours. Painted cooling

fins on the efficient L-models.

Optics: Easy LED road and area optics

SP-optics: 94, 80, 64, 48, 40, 32, 24 or 12 LEDs

UP-optics: 60, 44, 30 or 14 LEDs

IP-class IP66 IK-class IK09

Temperature range Designed for operating temperatures of -40°C ...+55°C (95 % RH) depending on model.

Control Built-in DALI. Compatible with third party control systems. CLO lumen maintenance compensation and

several intelligent control systems available. Luminaires are available with Zhaga or NEMA compliant

connectors.

Input voltage: 230 VAC (operation range: 170...264 VAC)

Input frequency: 50...60 Hz

Power factor (PF): S-models > 22 W: >0,95, input power < 22 W: >0,9

M & L models >0,95, Z models >0,9

Inrush current control: S-, M- ja L -models: 10 kV L-GND, N-GND (EN 61000-4-5), 6 kV L-N (EN 61547)

Z-models: 10 kV L-GND, N-GND (EN 61000-4-5), 6 kV L-N (EN 61000-4-5) Z S12-models: 8 kV L-GND, N-GND (EN 61000-4-5), 6 kV L-N (EN 61000-4-5)

Automatic thermal protection: Built-in 2-stage protection with advanced hysteresis

Luminaire protection class: I, II available

Installation: Vertical and horizontal arm 60 - 34mm as standard

Adjustable in 5-degree steps.

Weight S-models: 5,7 kg (Z: 6,1 kg)

M-models: 6,5 kg L-models: 13,7 kg

Delivery: Fully assembled

Guarantee: 5 years

Accessories: Pre-assembled installation cable, retrofitted light visors, optional internal surge protection device for

improved overvoltage and lightning protection, alternative fittings

#### ADJUSTMENT RANGE (ALL MODELS)



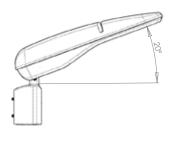


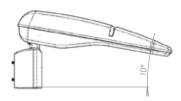










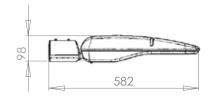


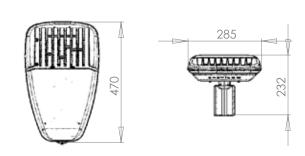
## **PRO Flow S**



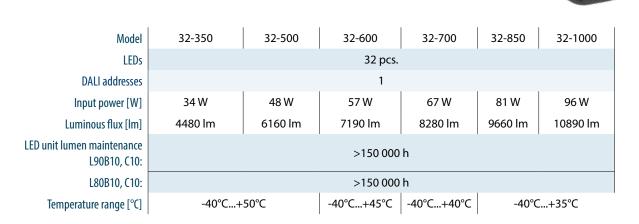
Model	12-350	12-420	12-500	12-600	12-700	12-850	12-1000
LEDs				12 pcs.			
DALI addresses				1			
Input power [W]	14 W	16 W	19 W	23 W	26 W	32 W	38 W
Luminous flux [lm]	1830 lm	2150 lm	2520 lm	2960 lm	3380 lm	3980 lm	4550 lm
II							
Model	14-350	14-420	14-500	14-600	14-700	14-850	14-1000
LEDs				14 pcs.			
DALI addresses				1			
Input power [W]	16 W	19 W	22 W	26 W	31 W	37 W	44 W
Luminous flux [lm]	2130 lm	2510 lm	2930 lm	3450 lm	3940 lm	4630 lm	5280 lm
LED unit lumen maintenance L90B10, C10:			>200	000			170 000
L80B10, C10:			,	>200 000	_		
Temperature range [°C]		-40+50 °C		-40+	-45 °C	-40+	40 °C
		1 1			1	1	
Model	24-350	24-420	24-500	24-600	24-700	24-850	24-1000
LEDs				24 pcs.			
LEUS				2 i pes.			
DALI addresses				1		ı	
	26 W	31 W	37 W	•	52 W	63 W	74 W
DALI addresses	26 W 3650 lm	31 W 4300 lm	37 W 5020 lm	1	52 W 6690 lm	63 W 7820 lm	74 W 8880 lm
DALI addresses Input power [W] Luminous flux [Im]	3650 lm	4300 lm	5020 lm	1 44 W 5870 lm	6690 lm	7820 lm	8880 lm
DALI addresses Input power [W] Luminous flux [Im] Model				1 44 W 5870 lm			
DALI addresses Input power [W] Luminous flux [Im]	3650 lm	4300 lm	5020 lm	1 44 W 5870 lm	6690 lm	7820 lm	8880 lm
DALI addresses Input power [W] Luminous flux [Im] Model	3650 lm	4300 lm	5020 lm	1 44 W 5870 lm	6690 lm	7820 lm	8880 lm
DALI addresses Input power [W] Luminous flux [Im]  Model LEDs	3650 lm	4300 lm	5020 lm	1 44 W 5870 lm 30-600 30 pcs.	6690 lm	7820 lm	8880 lm
DALI addresses Input power [W] Luminous flux [Im]  Model LEDs DALI addresses	3650 lm 30-350	4300 lm 30-420	5020 lm 30-500	1 44 W 5870 lm 30-600 30 pcs.	6690 lm 30-700	7820 lm 30-850	8880 lm 30-1000
DALI addresses Input power [W] Luminous flux [Im]  Model LEDs  DALI addresses Input power [W] Luminous flux [Im]  LED unit lumen maintenance L90B10, C10:	3650 lm 30-350	4300 lm 30-420	5020 lm 30-500 45 W	1 44 W 5870 lm 30-600 30 pcs. 1 54 W	6690 lm 30-700 63 W	7820 lm 30-850 76 W	8880 lm 30-1000
DALI addresses Input power [W] Luminous flux [Im]  Model LEDs DALI addresses Input power [W] Luminous flux [Im]	3650 lm 30-350	30-420 38 W 5250 lm >200 000	30-500 45 W 6120 lm	1 44 W 5870 lm 30-600 30 pcs. 1 54 W 7160 lm	6690 lm 30-700 63 W 8140 lm	7820 lm 30-850 76 W 9540 lm	8880 lm 30-1000 90 W 10730 lm

		Standard	
CCT (nominal)	3000 K	4000 K	5000 K
CRI (typical)			
Luminaire luminous efficacy typical*	136 lm/W	147 lm/W	146 lm/W





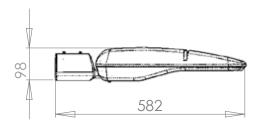
#### **PRO Flow M**

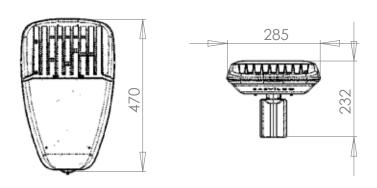


Model	40-350	40-500	40-600	40-700	40-850	40-1000	40-1050
LEDs			40 pcs.				
DALI addresses			1				
Input power [W]	42 W	59 W	71 W	83 W	101 W	120 W	126 W
Luminous flux [lm]	5570 lm	7660 lm	8940 lm	10140 lm	11890 lm	13430 lm	13880 lm
LED unit lumen maintenance L90B10, C10:			>	150 000 h			
L80B10, C10:			>	150 000 h			
Temperature range [°C]	-40°C+50°C	-40°C+45°C	-40°C+40°C	-40°C+	-35°C	-40°C+30°C	-40°C+25°C

		Standard	
CCT (nominal)	3000 K	4000 K	5000 K
CRI (typical)		72	
Luminaire luminous efficacy typical*	129lm/W	140 lm/W	139 lm/W

<sup>\*</sup> For latest values, ask for light distribution files.





# **PRO Flow L**

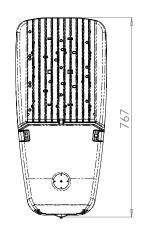
Model   48-350   48-500   48-600   48-700   48-850   48-1050							
DALI addresses   1	Model	44-350	44-500	44-600	44-700	44-850	44-1050
Input power [W]	LEDs				44		
Luminous flux  m    6870  m   9480  m   11110  m   12640  m   14950  m   17670  m   17670  m   130 000 h	DALI addresses				1		
LED unit lumen maintenance 190810, C10:	Input power [W]	47 W	66 W	79 W	92 W	113 W	141 W
Node   48-350   48-500   48-600   48-700   48-850   48-1050	Luminous flux [lm]	6870 lm	9480 lm	11110 lm	12640 lm	14950 lm	17670 lm
Temperature range   °C	LED unit lumen maintenance L90B10, C10:			>150 000 h	n		130 000 h
Model   48-350   48-500   48-600   48-700   48-850   48-1050	L80B10, C10:			>1	150 000 h		
LEDs	Temperature range [°C]		-40°	C+50°C		-40°C+45°C	-40°C+40°C
DALI addresses	Model	48-350	48-500	48-600	48-700	48-850	48-1050
Input power [W]	LEDs				48		
LED unit lumen maintenance L90810, C10:	DALI addresses				1		
LED unit lumen maintenance L90B10, C10: L80B10, C10: S150 000 h S150 000	Input power [W]	51 W	72 W	86 W	101 W	123 W	153 W
L80B10, C10:	Luminous flux [lm]	7270 lm	10110 lm	11820 lm	13530 lm	15860 lm	18700 lm
Temperature range   °C	· · · · · · · · · · · · · · · · · · ·			>1	150 000 h		
Model LEDs         60-350         60-500         60-600         60-700         60-850         60-1050           DALI addresses           Input power [W]         63 W         89 W         107 W         125 W         152 W         191 W           Luminous flux [Im]         9180 Im         12730 Im         15000 Im         17090 Im         19960 Im         23420 Im           LED unit lumen maintenance L90810, C10:         >150 000 h         100 000 h         100 000 h         100 000 h         100 000 h         40°C+45°C         -40°C+45°C         -40°C+40°C         -40°C+40°C+40°C         -40°C+40°C+40°C         -40°C+40°C+40°C <td>·</td> <td></td> <td></td> <td></td> <td>150 000 h</td> <td></td> <td></td>	·				150 000 h		
LEDs       60         DALI addresses       1         Input power [W]       63 W       89 W       107 W       125 W       152 W       191 W         Leminous flux [Im]       9180 Im       12730 Im       15000 Im       17090 Im       19960 Im       23420 Im         LED unit lumen maintenance L90B10, C10:       >150 000 h       100 000 h       100 000 h         LEDs model       64-350       64-500       64-600       64-700       64-850       64-1050         LEDs         DALI addresses       1       2         Input power [W]       67 W       95 W       114 W       133 W       162 W       201 W         Luminous flux [Im]       9700 Im       13420 Im       15770 Im       17960 Im       21030 Im       24430 Im         LED unit lumen maintenance L90B10, C10:       >150 000 h       >130 000 h	Temperature range [°C]		-40°	C+50°C		-40°C+45°C	-40°C+40°C
DALI addresses	Model	60-350	60-500	60-600	60-700	60-850	60-1050
Input power [W]	LEDs				60		
Luminous flux [lm]       9180 lm       12730 lm       15000 lm       17090 lm       19960 lm       23420 lm         LED unit lumen maintenance L90B10, C10: L80B10, C10: Temperature range [°C]       >150 000 h       100 000 h       100 000 h         Model LEDs       -40°C+50°C       -40°C+45°C       -40°C+40°C         Model LEDs       64-500       64-600       64-700       64-850       64-1050         LEDs       64       500 mm       114 mm       133 mm       162 mm       201 mm         Leminous flux [lm]       9700 lm       13420 lm       15770 lm       17960 lm       21030 lm       24430 lm         LED unit lumen maintenance L90B10, C10: L80B10, C10: L80B10, C10:       >150 000 h       >150 000 h       130 000 h	DALI addresses				1		
LED unit lumen maintenance L90B10, C10:	Input power [W]	63 W	89 W	107 W	125 W	152 W	191 W
L80B10, C10:	Luminous flux [lm]	9180 lm	12730 lm	15000 lm	17090 lm	19960 lm	23420 lm
Temperature range [°C]         -40°C+50°C         -40°C+45°C         -40°C+40°C           Model         64-350         64-500         64-600         64-700         64-850         64-1050           LEDs         64           DALI addresses         1         2           Input power [W]         67 W         95 W         114 W         133 W         162 W         201 W           Luminous flux [Im]         9700 Im         13420 Im         15770 Im         17960 Im         21030 Im         24430 Im           LED unit lumen maintenance L90B10, C10:         >150 000 h         130 000 h	· •			>150 000 h	า		100 000 h
Model         64-350         64-500         64-600         64-700         64-850         64-1050           LEDs           DALI addresses           Input power [W]         67 W         95 W         114 W         133 W         162 W         201 W           Luminous flux [lm]         9700 lm         13420 lm         15770 lm         17960 lm         21030 lm         24430 lm           LED unit lumen maintenance L90B10, C10:         >150 000 h         130 000 h	L80B10, C10:			>1	150 000 h		
LEDs       64         DALI addresses       1       2         Input power [W]       67 W       95 W       114 W       133 W       162 W       201 W         Luminous flux [Im]       9700 Im       13420 Im       15770 Im       17960 Im       21030 Im       24430 Im         LED unit lumen maintenance L90B10, C10:       >150 000 h       130 000 h         L80B10, C10:       >150 000 h       >150 000 h	Temperature range [°C]		-40°C+50°C	<u> </u>	-40°C+45°C	-40°C	.+40°C
DALI addresses         1         2           Input power [W]         67 W         95 W         114 W         133 W         162 W         201 W           Luminous flux [Im]         9700 lm         13420 lm         15770 lm         17960 lm         21030 lm         24430 lm           LED unit lumen maintenance L90B10, C10:         >150 000 h         130 000 h           L80B10, C10:         >150 000 h	Model	64-350	64-500	64-600	64-700	64-850	64-1050
Input power [W]   67 W   95 W   114 W   133 W   162 W   201 W	LEDs		•		64	'	'
Luminous flux [lm]       9700 lm       13420 lm       15770 lm       17960 lm       21030 lm       24430 lm         LED unit lumen maintenance L90B10, C10:       >150 000 h       130 000 h         L80B10, C10:       >150 000 h	DALI addresses			1			2
LED unit lumen maintenance L90B10, C10:       >150 000 h       130 000 h         L80B10, C10:       >150 000 h	Input power [W]	67 W	95 W	114 W	133 W	162 W	201 W
L80B10, C10: >150 000 h	Luminous flux [lm]	9700 lm	13420 lm	15770 lm	17960 lm	21030 lm	24430 lm
	LED unit lumen maintenance L90B10, C10:			>150 000 h	า		130 000 h
Temperature range [°C] -40°C+50°C -40°C+45°C -40°C+40°C -40°C+35°C	L80B10, C10:			>1	150 000 h		
	Temperature range [°C]	-40°C⊣	+50°C	-40°C	+45°C	-40°C+40°C	-40°C+35°C

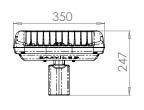
# **PRO Flow L**

Model	80-350	80-500	80-600	80-700	80-850	80-1050	
LEDs			80				
DALI addresses		1 2					
Input power [W]	83 W	118 W	141 W	166 W	204 W	252 W	
Luminous flux [lm]	12270 lm	16850 lm	19670lm	22330 lm	26100 lm	30770 lm	
LED unit lumen maintenance L90B10, C10:			>150 000 h			120 000 h	
L80B10, C10:			>150 00	0 h			
Temperature range [°C]	-40°C+50°C	-40°C	.+45°C	-40°C+40°C	-40°C	+35°C	
	<u> </u>						
Model	96-350	96-500	96-600	96-700	96-850	96-920	96 -1000
LEDs				96			
DALI addresses		1		2			
Input power [W]	99 W	141 W	168 W	200 W	242 W	263 W	284 W
Luminous flux [lm]	14680 lm	20120 lm	23330 lm	26730 lm	31250 lm	33190 lm	34940 lm
			>150 000 h	·		120 000 h	100 000h
LED unit lumen maintenance L90B10, C10:			7 150 000 11				
L80B10, C10:			7 130 000 11	>150 000 h			

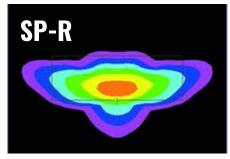
		Vakio	
CCT (nominal)	3000 K	4000 K	5000 K
CRI (typical)		72	
Luminaire luminous efficacy typical*	142 lm/W	154 lm/W	153 lm/W
* For lat	est values, as	sk for light dist	ribution files.



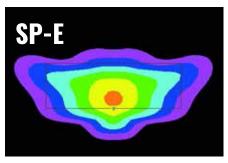




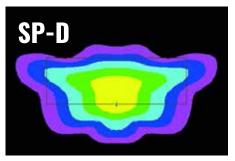
## **PRO Flow S optics tool**



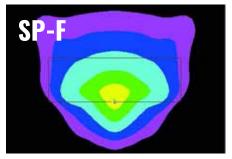
Optics for very narrow roads with normal pole spacing. Highly energy efficient.



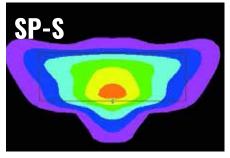
For wide roads and long pole spacing. Offers also some back area light.



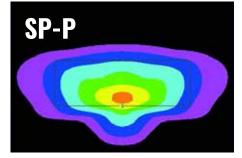
As SP-E but offers a lot of back area light.



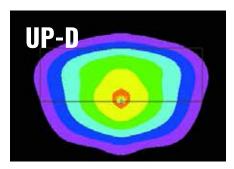
Area light for example for parking lots, efficient light from relatively low poles to a wide area.



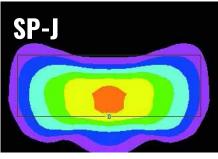
Optics for relatively wide roads and for relatively long pole spacing, no back area light.



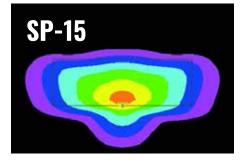
General optics for suburban roads, very long pole spacing, even light in wet conditions if far from road, also suitable for relatively wide roads, cycleways and exercise paths.



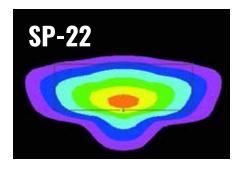
Road/area optics for short pole spacing. Offers a lot of back area light.



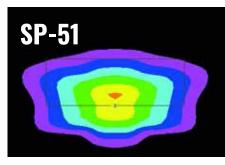
Road/area optics for short pole spacing. Offers no back area light.



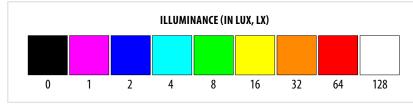
General optics for roads with very long pole spacing. Offers even light also in wet conditions. Relatively wide road profile (lits also opposite cycleways if the pole spacing is short)



Very long pole spacing, offers even light in wet conditions. Energy efficient. Suitable also for cycleways and exercise paths

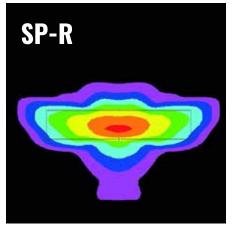


A lot of back area light optic for long pole spacing. Energy efficient if cycleways is located behind the poles

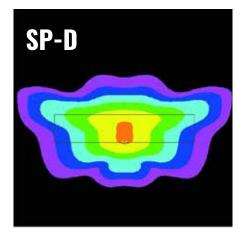


All light patterns depict lights installed at 6 m height and 5° degree angle. Light output 5000 lm. In light patterns the lights are placed at the edge of a 30x10 m square.

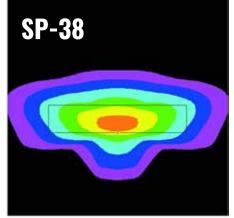
## **PRO Flow L optics tool**



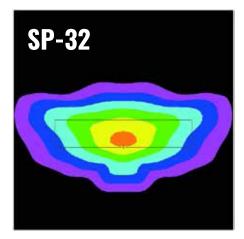
Optics for very narrow roads with normal pole spacing. Also an energy efficient option for ramps and such.



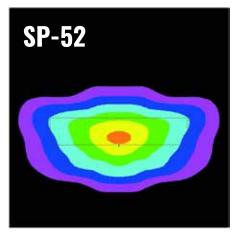
For wide roads and long pole spacing. Best installed close to road. Lights also cycleways behind the pole or on opposite side of the road.



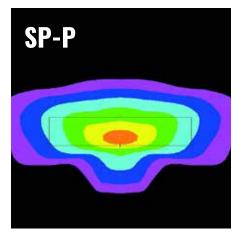
Highway optics to be installed on the middle area. Especially suitable for high poles and extra long, up to 100 meter, pole spacing.



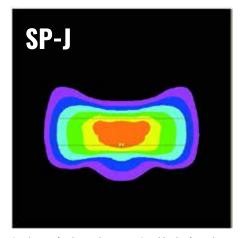
Good general optics for both wide and narrow roads and long pole spacing.



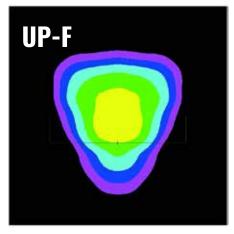
General optics for various roads and long pole spacing. Lights also cycleways long behind the pole or on the opposite side of the road.



Even general optics for lighting both sides of the road or ramps. Suitable for very long pole spacing. Best installed away from the road.



Road optics for short pole spacing. Suitable also for parking lot and area lighting.



Energy efficient and even area lighting optic. A good alternative for floodlights.



All light patterns depict lights installed at 10 m height and 5° degree angle. Light output 20 000 lm. In light patterns the lights are placed at the edge of a 50 m x 10 m square.







#### EASY LED IS THE BRIGHT CHOICE

Investing in high quality LED lighting today will pay off far into the future. Easy LED Oy is a Finnish company specialised in manufacturing of energy efficient LED lighting systems for different uses and environments, such as sports arenas, industrial premises, roads and areas as well as retail and office spaces.

