

Harmony



Application

A modular concept for a luminaire designed for urban and road lighting. The forms and optical systems are modular to suit a variety of environments.

Description

Luminaire body

The body is composed of a wide rim body and fitted canopy. The rim is made of die cast aluminium, the canopies of spun aluminium (canopies D2, D12, D8, D10) or pearl methacrylate (canopy DP). Canopies D8 and D10 can have accessories: a lower crown (CI) and an upper crown (CS).

Bowls

The bowls are in thermo-formed methacrylate (VP, VM, VB, VT, VL), or in heat treated flat glass mounted on a moulded aluminium ring (VV). They are 4mm thick, providing rigidity and a good sealing between bowl and gasket.

As an option: polycarbonate bowl.

Optical system

The optical system uses 3 different reflectors: 2 road reflectors, IVA2 and 3eR, and an urban reflector 3eU. It comprises of a hydro-formed, brilliant anodised aluminium reflector and bowl. The reflector is mounted on a cast aluminium plate. Moving the optic along the plate will alter the focus of the lamp in the case of the IVA2 reflector. An adjustable lamp holder housing enables the 2 other reflectors to be set horizontally and vertically.

Maintenance

Tool-free access to the lamp.

Opening and closing

This is performed by rotating the bowl on the 4 sloping wedges located inside the rim. A foam gasket ensures a watertight seal between the bowl and rim. Four brass screws (tool-free) hold the bowl in place on the rim. These screws ensure long term water tightness. In the open position the bowl is retained by a small, stainless steel chain.

Access to lamp and control gear

Direct access to lamp is via opening the bowl. The electrical supply gear is accessible after unscrewing and lowering the optic support plate. Electrical connection is via a quick connector using plug and socket.

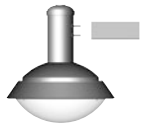
Mounting and installation



FDL: side mounting for
dia. 60 mm tube, depth 100 mm.
Stainless steel screws.



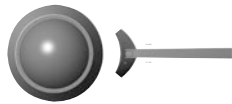
FDS: top mounting,
dia. 34 gas thread (1 inch).



FCL: chimney side mounting.
Stainless steel screws.



FCV: vertical chimney mounting,
dia. 34 gas thread (1 inch).



FTR: mounting for Constance,
Oxford and Trinidad ranges.
Stainless steel screws.



FSN: mounting for Sydney range.
Stainless steel screws.



FSG: mounting for Sygma range.
Stainless steel screws.



FLF: Lyre mounting.
Stainless steel screws.

Electrical and mechanical characteristics

IP rating (luminaire) : IP 65

Class I

Class II on request

Harmony	Bowl*	Shock	Weight**	Scx
FDL-D12	VP	IK 07	10 Kg	0,06 m ²
FDL-D2	VB	IK 07	10 Kg	0,07 m ²
FDS-D12	VM	IK 08	11,5 Kg	0,07 m ²
FDS-D2	W	IK 09	15,5 Kg	0,06 m ²

FCV / FCL-D2	VM	IK 08	13,5 Kg	0,11 m ²
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Harmony classique	Bowl*	Shock	Weight**	Scx
FDS-D8	VT	IK 06	10 Kg	0,10 m ²
FDS-D10	VL	IK 06	10 Kg	0,10 m ²

Crown accessories	CS	1,6 Kg	0,03 m ²
Crown accessories	CI	1,1 Kg	0,03 m ²

*Optional: bowls in methacrylate shock resistant IK 10 - 20 J.

** Weight with 150W control gear (VP, VB), 250 W (VM, W, VT, VL).

Finish

Body: polyester powder coating finish. Choice of RAL colours.

For sand finish see Futura colour chart (Akzo Nobel).

Methacrylate bowls: clear (C) or pearl (P).

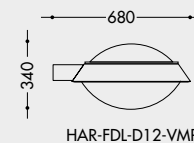
As an option: polycarbonate bowl.

Nomenclature of luminaires

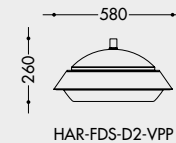
Luminaire – Mounting – Canopy – Optic – Bowl and bowl finish –
Accessories – Wattage and lamp type – Electrical class

Example: HAR – FDS – D10 – 3eR – VTP – CS – 150 W HPS – CI I

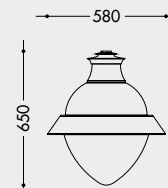
Dimensions



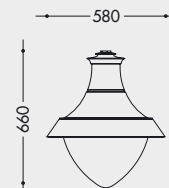
HAR-FDL-D12-VMP



HAR-FDS-D2-VPP



HAR-FDS-D8-VTP



HAR-FDS-D10-VTP

Sources

HARMONY

Lamp type	VB/VP		VM/VT/VL		VV	
	Wattage	Lamp holder	Wattage	Lamp holder	Wattage	Lamp holder
High Pressure Sodium clear tubular	70 W	E27	70 W	E27	70 W	E27
	100 W	E40	100 W	E40	100 W	E40
	150 W	E40	150 W	E40	150 W	E40
			250 W	E40	250 W	E40
High Pressure Sodium diffuse elliptical	70 W	E27	70 W	E27	70 W	E27
	100 W	E40	100 W	E40	100 W	E40
	150 W	E40	150 W	E40	150 W	E40
			250 W	E40	250 W	E40
Metal Halide clear tubular with ceramic burner	70 W	E27	70 W	E27	70 W	E27
	100 W	E40	100 W	E40	100 W	E40
	150 W	E40	150 W	E40	150 W	E40
			250 W	E40	250 W	E40
Metal Halide clear tubular			250 W	E40	250 W	E40
Metal Halide clear or diffuse elliptical	70 W	E27	70 W	E27	70 W	E27
	100 W	E27	100 W	E27	100 W	E27
	150 W	E27	150 W	E27	150 W	E27
			250 W	E40	250 W	E40
Mercury Vapour diffuse elliptical	80 W	E27	80 W	E27	80 W	E27
	125 W	E27	125 W	E27	125 W	E27
			250 W	E40	250 W	E40

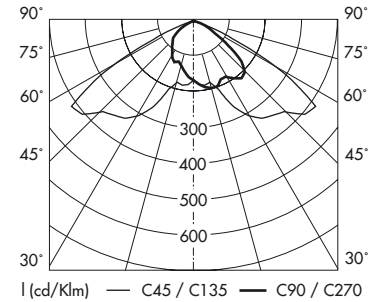
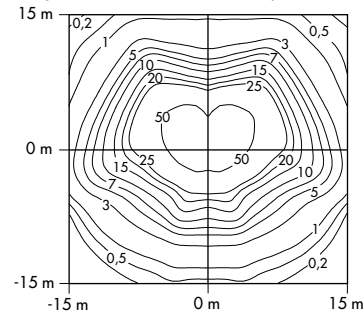
Photometrics

The Harmony luminaire can be fitted with a 3eR or IVA2 road optic which, for a $w/h = 1$ ratio enables a $s/h = 4$ spacing or a 3eU urban optic which, for a $w/h = 1,5$ ratio enables a spacing of $s/h = 3,5$. With the 3eU optic, the height of the columns can be reduced, providing a more pleasant installation within a given architectural environment.

Polar curves and illuminance contours measured in Lux for a luminaire at 0° elevation.

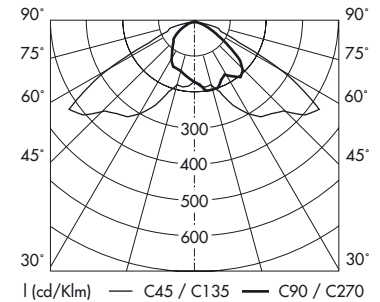
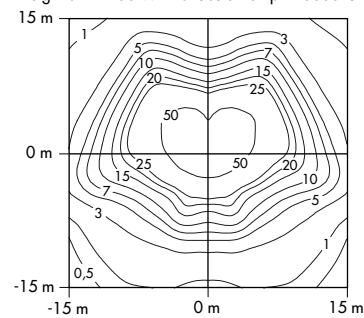
HAR - 3eU - VV/VPC

Height 6 m - 150 W HPS tubular lamp - 15000 lumens



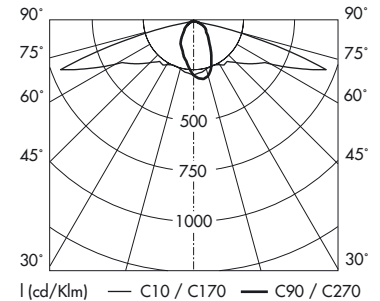
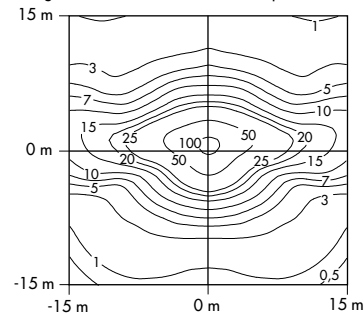
HAR - 3eU - VMC/VBC/VTC/VLC

Height 6 m - 150 W HPS tubular lamp - 15000 lumens



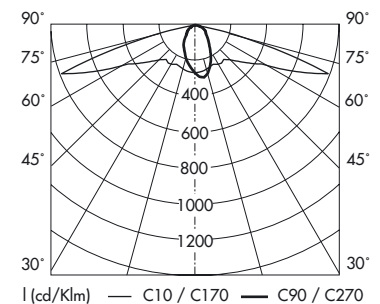
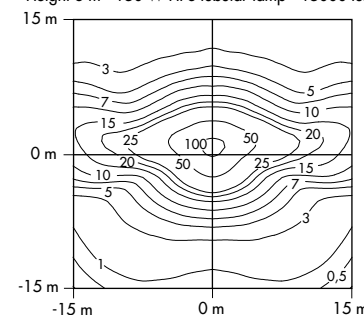
HAR - 3eR - VV/VPC

Height 6 m - 150 W HPS tubular lamp - 15000 lumens



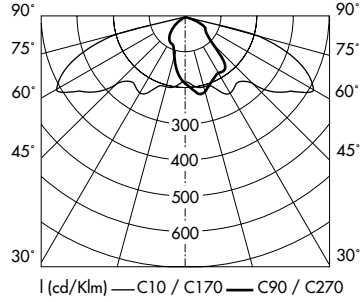
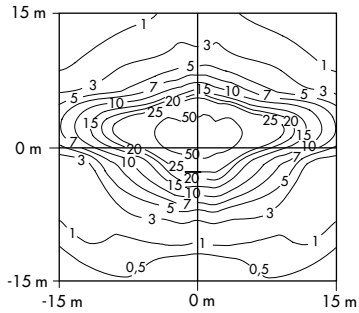
HAR - 3eR - VMC/VBC/VTC/VLC

Height 6 m - 150 W HPS tubular lamp - 15000 lumens



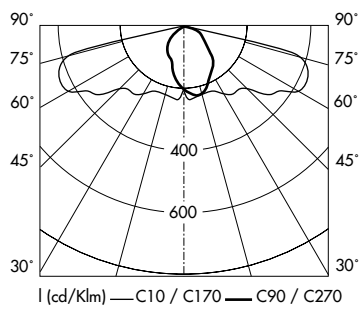
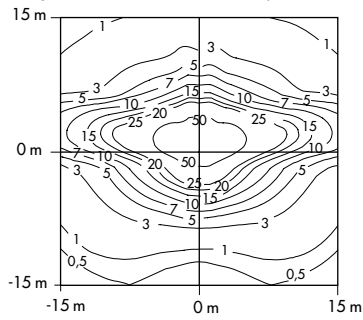
HAR - IVA 2 - VV/VPC

Height 6 m - 150 W HPS tubular lamp - 15000 lumens



HAR - IVA 2 - VMC/VBC/VTC/VLC

Height 6 m - 150 W HPS tubular lamp - 15000 lumens



Models



HAR-FDS-D10-VLP-CS



HAR-FDS-D10-VTP



HAR-FDS-D10-VTP-CS



HAR-FDS-D8-VLP-CS



HAR-FDS-D8-VTP



HAR-FDS-D8-VTP-CS



HAR-FCL-D2-VMP



HAR-FCV-D2-VMP



HAR-FDS-D2-VV



HAR-FDS-D2-VPP



HAR-FDS-D2-VBP



HAR-FDS-D2-VMP



HAR-FLF-D10-VTP-CS



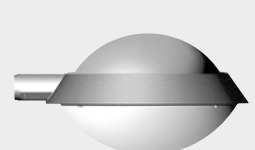
HAR-FDL-D12-VV



HAR-FDL-D12-VPP



HAR-FDL-D12-VBP



HAR-FDL-D12-VMP