axent

RXD

Edition 3


axent

art and

science beautifully

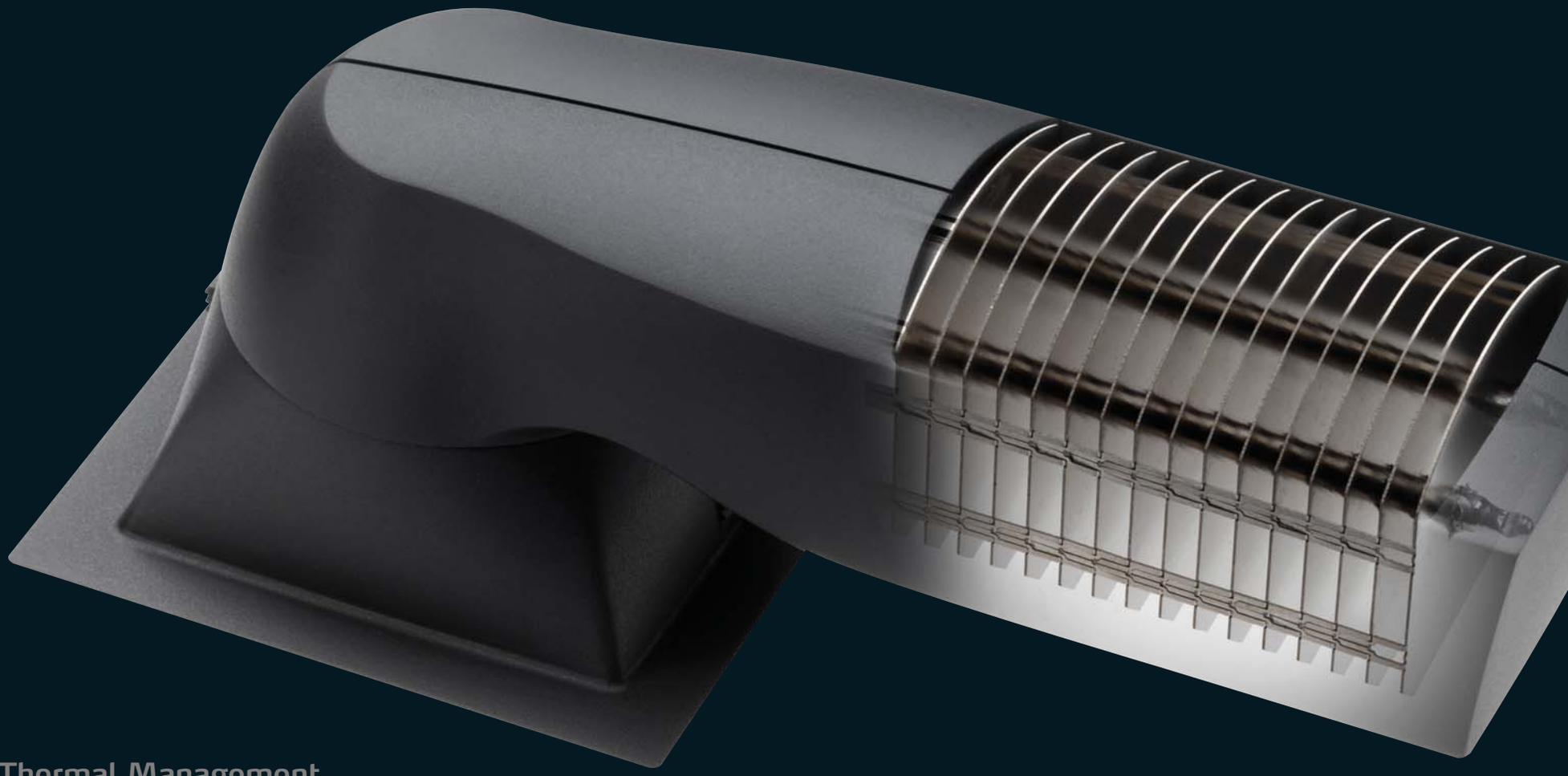
combined...

Advanced LED technology

LED light sources have offered major advantages for some time - extremely long life, maintenance free reliability & significant energy saving. But these benefits have been typically restricted to decorative and ambient applications. The RXD's innovative design now breaks through this barrier.

Incorporating the very latest in LED technology - multichip LED's - the RXD now provides a new alternative to traditional fluorescent sources in commercial applications.

Unlike conventional high output LED's, multichip technology incorporates multiple LED's in one package providing increased light output in a smaller space and a wider spread of light. Available in 2900K warmwhite or 5000K coolwhite, each with a colour rendering index of over 80 CRI, the RXD breaks new boundaries to deliver high quality light and performance with the major advantage of low energy consumption and a maintenance free life.



Thermal Management

Obtaining optimum performance and long life from LED's requires accurate thermal management, i.e. the heat generated by the LED must be drawn away from it's junction. In simple terms, the cooler the LED, the better the performance and life.

To generate the best from its LED, the RXD uses advanced heat pipe cooling technology compared to traditional heat sink methods.

Heat pipes work on the principle that as a liquid evaporates, energy - in the form of heat - must be taken from the environment. Therefore, an evaporating liquid will cool the surrounding area.

This is how the RXD's purpose designed pure water filled heat pipes draw and conduct the heat from the LED to the cooling fins. This advanced cooling method accurately maintains the thermal requirements of the LED without the need for large, heavy heat sinks.


Cool White
Warm White

Energy Saving

We're all looking to reduce energy consumption in an effort to combat both climate change and increasing energy costs. As lighting is one of the largest users of electricity in a typical building, efficiency improvements in our light sources will have a significant impact. The RXD now provides the solution.

Example

25 luminaires running for 50,000 hours

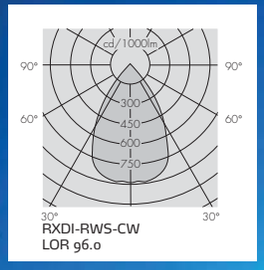
	RXD1 25W LED	2x26W CFL	RXD2 15W LED	1x32W CFL
Total Circuit Watts	25W	57W	15W	35W
Total Kwh	31,250	71,250	18,750	43,750
Energy Saving	56%		57%	

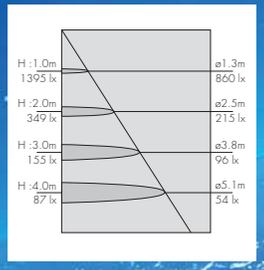
Long Life

In terms of service life LED's are truly advanced. Over 70% of their initial light output is maintained after 50,000 hours compared to typically 10,000 hours practical life offered by fluorescent sources. This translates into significant cost reductions in through life maintenance.

Based on 10 hours use per day, the RXD will last maintenance free for 13.7 years. A 2x26W compact fluorescent will last only 2.7 years before lamp failure, therefore requiring 5 lamp changes in total to match the life performance of the RXD.

Photometric Data





Visit www.artandsciencecombined.com to download photometric files.

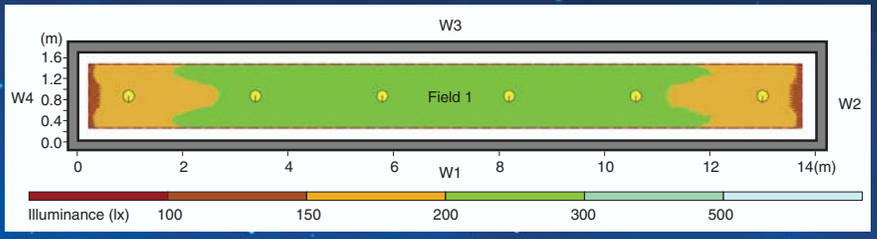
Performance

	RXD1, 25W, fixed output		RXD2, 15W, fixed output & 1-10v dimming	
	Warm White	Cool White	Warm White	Cool White
LED Chip lumens	1490 lm	1597 lm	989 lm	1066 lm
LOR	96.0%	96.0%	96.0%	96.0%
Total Circuit Watts	25.0W	25.0W	15.0W	15.0W
Lumens per Circuit Watt	57.2 lm/cw	61.0 lm/cw	63.3 lm/cw	68.2 lm/cw

Performance Comparison

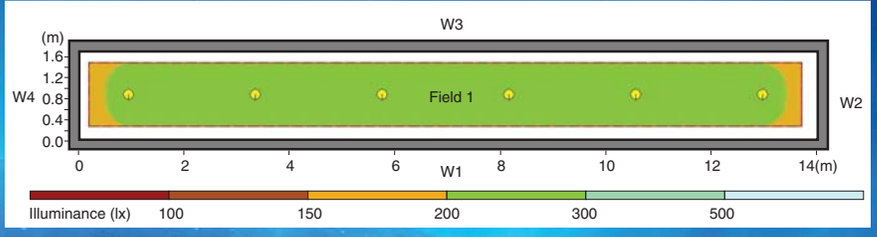
Corridor 1.7m x 14.0m x 2.8m, 70/50/20 reflectances

2 x 26W CFL Downlight, 0.8 Maintenance Factor



Eav 196lx
Emin 139lx
Emax 211lx
Uniformity 0.71

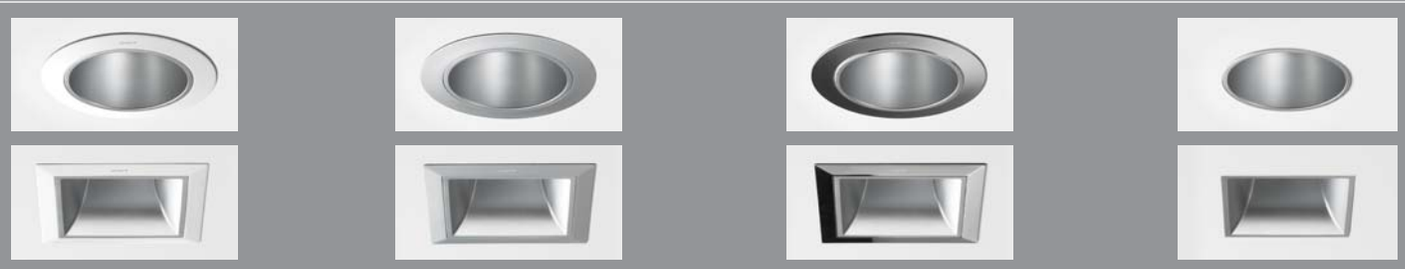
RXD LED Downlight, 0.9 Maintenance Factor



Eav 222lx
Emin 168lx
Emax 241lx
Uniformity 0.76

RXD

Wattage	Colour temperature	Bezel Finish								Weight (kg)	
		White		Silver		Chrome		Trimless		Mains	Emerg.
RXD1 25W	**Round**										
	Coolwhite	RXD1-RWS-CW	EBRXD1-RWS-CW	RXD1-RSS-CW	EBRXD1-RSS-CW	RXD1-RCS-CW	EBRXD1-RCS-CW	RXD1-RTS-CW	EBRXD1-RTS-CW	0.5	1.1
	Warmwhite	RXD1-RWS-WW	EBRXD1-RWS-WW	RXD1-RSS-WW	EBRXD1-RSS-WW	RXD1-RCS-WW	EBRXD1-RCS-WW	RXD1-RTS-WW	EBRXD1-RTS-WW	0.5	1.1
	Square										
	Coolwhite	RXD1-SWS-CW	EBRXD1-SWS-CW	RXD1-SSS-CW	EBRXD1-SSS-CW	RXD1-SCS-CW	EBRXD1-SCS-CW	RXD1-STS-CW	EBRXD1-STS-CW	0.5	1.1
	Warmwhite	RXD1-SWS-WW	EBRXD1-SWS-WW	RXD1-SSS-WW	EBRXD1-SSS-WW	RXD1-SCS-WW	EBRXD1-SCS-WW	RXD1-STS-WW	EBRXD1-STS-WW	0.5	1.1
***RXD2 15W**	**Round**										
	Coolwhite	RXD2-RWS-CW	EBRXD2-RWS-CW	RXD2-RSS-CW	EBRXD2-RSS-CW	RXD2-RCS-CW	EBRXD2-RCS-CW	RXD2-RTS-CW	EBRXD2-RTS-CW	0.5	1.1
	Warmwhite	RXD2-RWS-WW	EBRXD2-RWS-WW	RXD2-RSS-WW	EBRXD2-RSS-WW	RXD2-RCS-WW	EBRXD2-RCS-WW	RXD2-RTS-WW	EBRXD2-RTS-WW	0.5	1.1
	Square										
	Coolwhite	RXD2-SWS-CW	EBRXD2-SWS-CW	RXD2-SSS-CW	EBRXD2-SSS-CW	RXD2-SCS-CW	EBRXD2-SCS-CW	RXD2-STS-CW	EBRXD2-STS-CW	0.5	1.1
	Warmwhite	RXD2-SWS-WW	EBRXD2-SWS-WW	RXD2-SSS-WW	EBRXD2-SSS-WW	RXD2-SCS-WW	EBRXD2-SCS-WW	RXD2-STS-WW	EBRXD2-STS-WW	0.5	1.1



* 1-10v dimming versions available to order on RXD2

Materials and Finish

Body - injection moulded fire retardant polycarbonate, black finish

Ceiling clips - spring steel self finish

Bezel - injection moulded fire retardant ABS

Bezel finish - RAL9016 White, RAL9006 Silver, Chrome plated

Reflector - injection moulded fire retardant ABS, satin finish

IP20

Installation

Shallow profile allows installation in ceiling voids as low as 110mm

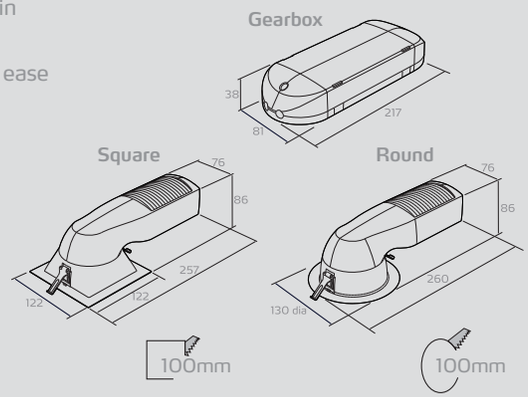
Prewired remote gearbox provides ease of positioning in restricted voids

Gearbox and luminaire fit through ceiling cut out

Luminaire is securely retained by 2 tooless ratchet spring clips

Reflector simply clips in to place

Dimensions (mm)



RXD

Description	Bezel Finish			Weight (kg)
	White	Silver	Chrome	
Round Halo	RXD-RHW	RXD-RHS	RXD-RHC	0.3
Round Opal Lens IP44	RXD-ROW44	RXD-ROS44	RXD-ROC44	0.2
Round Opal Lens IP54	RXD-ROW54	RXD-ROS54	RXD-ROC54	0.2
Round Clear Lens IP44	RXD-RCW44	RXD-RCS44	RXD-RCC44	0.2
Round Clear Lens IP54	RXD-RCW54	RXD-RCS54	RXD-RCC54	0.2
Round Wall Wash Optic	RXD-RWW	RXD-RWS	RXD-RWC	0.2


Round halo


Round opal lens IP44/54


Round clear lens IP44/54


Round wallwash optic

Description	Bezel Finish			Weight (kg)
	White	Silver	Chrome	
Square Halo	RXD-SHW	RXD-SHS	RXD-SHC	0.3
Square Opal Lens IP44	RXD-SOW44	RXD-SOS44	RXD-SOC44	0.2
Square Opal Lens IP54	RXD-SOW54	RXD-SOS54	RXD-SOC54	0.2
Square Clear Lens IP44	RXD-SCW44	RXD-SCS44	RXD-SCC44	0.2
Square Clear Lens IP54	RXD-SCW54	RXD-SCS54	RXD-SCC54	0.2
Square Wall Wash Optic	RXD-SWW	RXD-SWS	RXD-SWC	0.2


Square halo


Square opal lens IP44/54


Square clear lens IP44/54


Square wallwash optic

Materials and Finish

Bezel assembly - injection moulded fire retardant ABS

Bezel finish - RAL9016 White, RAL9006 Silver, Chrome plated

Panels - injection moulded fire retardant polycarbonate

Halo - injection moulded acrylic with chrome plated steel fixings

IP20 **IP44** **IP54**

Installation

Fixing collar threads over downlight and locates on rear of downlight bezel

Downlight is then installed as normal

Fixing collar then provides facility to fix attachments to the downlight face

Round accessories fix with 1/4 turn

Square accessories fix with with slide action left to right

No tools required, all accessories are pre-assembled for quick installation

Dimensions (mm)