

FREDA MULTIPLE is a recessed adjustable luminaire delivering flexible, efficient and precise LED lighting. The FREDA can be used to create stunning environments. With adjustment tilt angles of up to 50° the FREDA is a flexible lighting tool allowing for the illumination of high vertical surfaces and objects. A choice of interchangeable optics can be changed or cleaned within seconds.

### Applications:

- Retail
- Restaurant
- Architectural
- Commercial
- Exhibition

### Accessories:

- Interchangeable reflectors



Accent lighting allows objects to be selectively highlighted using narrow beams of light

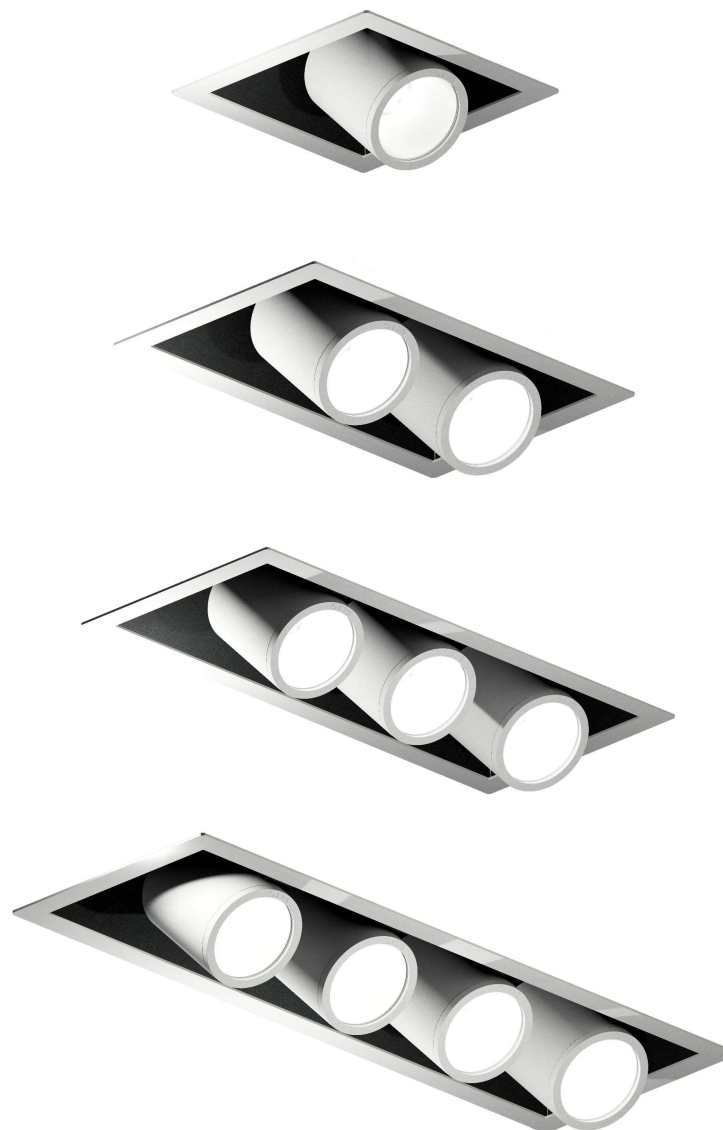
### Technical features:

- 95% Reflector efficiency
- Light Output Ratio 86%
- Power Factor min 0.90
- Up to 142 lumens per watt
- Die-cast Aluminium. PPC coated
- L80B10
- Up to 97 CRI available
- 3 SDCM as standard 2 SDCM available

### Lumen Maintenance Projection:

TM-21: 10k = 97.67%  
L90: 55k = 90.98%

Both TM21 and L90 reports are available on request.



### Part number examples

Part Number	Description
FRD1B3V0000N830W	FREDA-1-WAY:B3V:NO-DRIVER:NAR-BEAM:3K80CRI:WHITE
FRD2B3V0000W930B	FREDA-2-WAY:B3V:NO-DRIVER:WIDE-BEAM:3K90CRI:BLACK

### Part number nomenclature:

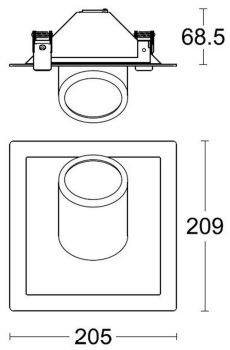
FR = FREDA Family  
D = Downlight  
1 = 1-WAY  
2 = 2-WAY  
3 = 3-WAY  
4 = 4-WAY  
B3V = LED Technology  
0000 = supplied without driver  
1500 = Lumen output\*\*  
2000 = Lumen output\*\*  
2500 = Lumen output\*\*  
3000 = Lumen output\*\*  
3500 = Lumen output\*\*  
N = Narrow beam 10-20 degree  
M = Medium beam 20-30 degree  
W = Wide beam 30-50 degree  
XW = Extra Wide beam 50+ degree  
8 = >80CRI  
9 = >90CRI  
27 = 2700K  
30 = 3000K  
35 = 3500K  
40 = 4000K  
W = RAL9010 Pure White\*  
G = RAL9006 Grey Silver\*  
B = RAL9005 Jet Black\*  
D1 = Dimmable Phase  
D2 = Dimmable 1-10V  
D3 = Dimmable DALI

\*Other finishes available to special order.

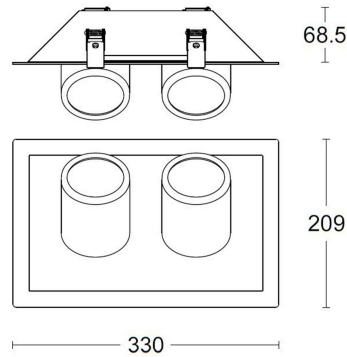
\*\*Based on 830

Refer to table on page 2 for exact lumen output. All lumens are exit lumens, other options available to special orders.

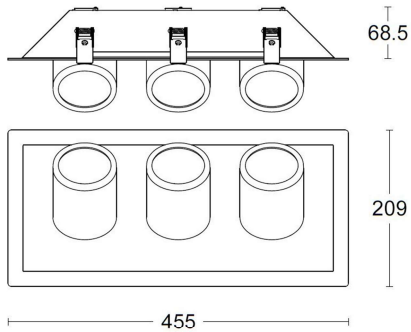
## Technical Information



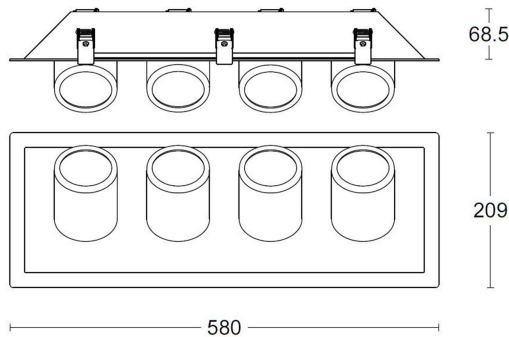
CUT OUT SIZE  
XXXmm x XXXmm  
Weight: XXkg MAX  
excluding drivers  
All dimensions in mm



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XXXmm x XXXmm  
Weight: XXkg MAX  
excluding drivers  
All dimensions in mm



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XXXmm x XXXmm  
Weight: XXkg MAX  
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All dimensions in mm



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XXXmm x XXXmm  
Weight: XXkg MAX  
excluding drivers  
All dimensions in mm

Refer to table below for exact lumen output (all lumens are exit lumens).  
Other finishes available to special order.

### Lumen output:

CRI CCT	Luminaire output Lumens and (Efficiency in Luminaire Lumen Per Watts) at typical drive current (mA) and forward voltage (V) DC									
	350mA 31V		500mA 31.7V		600mA 32.1V		700mA 32.5V		850mA 33.1V	
	LED watts	Total watts	LED watts	Total watts	LED watts	Total watts	LED watts	Total watts	LED watts	Total watts
	10.8	12.9	15.8	18.3	19.3	22.2	22.8	26.2	28.1	32.3
827	1598 (124)		2146 (117)		2548 (115)		2900 (111)		3238 (100)	
927	1318 (102)		1770 (97)		2102 (95)		2392 (91)		2671 (83)	
830	1698 (132)		2280 (125)		2707 (122)		3081 (118)		3440 (107)	
835	1738 (135)		2334 (128)		2771 (125)		3154 (120)		3522 (109)	
930	1378 (107)		1851 (101)		2197 (99)		2501 (95)		2793 (86)	
840	1748 (136)		2347 (128)		2787 (126)		3172 (121)		3542 (110)	
Lumen Class	1500		2000		2500		3000		3500	

### Polar curves of reflector options

