

ND22 Modular, Optics-Adjustable Downlights



LED Module



LED Module + Reflector Installed



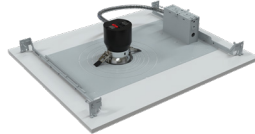
Round Trim



Square Trim



Wall Wash Trim



New Construction



12, 20, 30 & 50W; 1200-4500 lumens; 3, 4, 6, 8 & 10";
Round, square, wall wash; universal dimming



PROJECT:

DATE:

TYPE:

PREPARED BY:



KEY FEATURES

- Modular commercial downlight with interchangeable twist-lock trims
- 3 selectable brightness levels & 5 selectable CCTs (2700/3000/3500/4000/5000K)
- Available in 12W (1,000lm), 20W (1,850lm), 30W (2,800lm), and 50W (4,700lm) LED modules
- Adjustable 25° to 45° (12, 20, 30W) beam angle or 30° to 50° (50W) by rotating the lens assembly
- Twist-lock trims are available in:
 - 12W - 3", 4", & 6" sizes
 - 20/30W - 4", 6" & 8" sizes
 - 50W - 6", 8", & 10" sizes
- Trim finishes available in White, Black, Haze, and Haze reflector and White Flange
- Round trims available in open flanged & wall wash. Square trims available in open flanged.
- 120-277V Driver, compatible on TRIAC/ELV & 0-10V dimmers

PERFORMANCE

LED Light Engine	Wattage	Lumens	Efficacy (lm/W)	Beam Angle	Input Voltage	Dimming
ND22-12	7W	641	94	25° to 45°	120-277V	TRIAC/ELV/ 0-10V
	9W	797	93			
	12W	1016	93			
ND22-20	12W	1253	106			
	16W	1576	101			
	20W	1909	98			
ND22-30	18W	1930	109			
	24W	2477	104			
	30W	2901	101			
ND22-50	30W	3192	110	30° to 50°		
	40W	4006	104			
	50W	4708	102			

Reflector Finish Multiplier

Finish	Multiplier	Finish	Multiplier	Finish	Multiplier	Finish	Multiplier
W = White Reflector + Flange	1	HZ = Haze Reflector + Flange	1.027	HW = Haze Reflector + White Flange	1.02	B = Black Reflector + Flange	0.9

TECHNICAL SPECIFICATIONS

CONSTRUCTION

Product Type

Modular LED Commercial Downlight

Trim Sizes

12W - 3", 4", 6"
20W/30W - 4", 6", 8"
50W - 6", 8", 10"

Trim Style

Smooth reflector constructed from anodized aluminum with powder coated paint finish

Trim Finishes

White Flange + White Reflector, Haze Flange + Haze Reflector, White Flange + Haze Reflector, Black Flange + Black Reflector

Light Engine

Die-cast aluminum heat sink with integrated driver. 27" flexible MC whip cable for installation onto junction box.

Lens

Rotatable TIR Optic to adjust beam angle with a translucent frosted finish for superior light diffusion.

ELECTRICAL

Dimmable

Yes, dimmable down to 10% on compatible TRIAC/ELV on 120V and 0-10V on 120-277V dimming systems.

Driver

120-277V Universal Voltage Class 2 Driver

Operating Frequency

50/60 Hz

Operating Temperature

-4°F to 140°F

THD

≤25%

Power Factor

≥0.9/120V
≥0.7/277V

Flicker

≤30%

Controls

Compatible with Lightcloud Blue, (LCBAUX[-X]/[W/B] sold separately. Learn more about [Lightcloud Blue](#).

INSTALLATION

Set up

Step 1: Choose the Light Engine
Step 2: Choose the Trim Style
Step 3: (Optional) Choose a new construction housing
Step 4: (Optional) Choose an EM Battery or Lightcloud Blue Controller

Mounting

Can be used in Retrofit, Remodel, or New Construction Installations. Can accommodate up to 2" ceiling thickness.

COMPLIANCE

Listings

UL Listed, UL Classified

Environment

Suitable for use indoors and outdoors in dry, damp, or wet environments.

Air Tight

Housing Certified Air Tight as per ASTM E283.

Energy Star Approved

This product is ENERGY STAR Version 1.0 Certified.

California Title 24 JA8 Compliant

Can be used to conform with the requirements of California Title 24 Part 6.

California Energy Commission (CEC)

Lawful for Sales in California.

IESNA LM-79 & LM80 Testing

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

RoHS

Mercury and UV free. RoHS-compliant components.

FCC

Complies with Part 15 of the FCC Rules.

LED CHARACTERISTICS

Beam Angle

Adjustable 25° to 45° (12,20,30W) beam angle or 30° to 50° (50W) by rotating the lens assembly

Color Temperature

27/30/35/40/50K *4000K Factory Default Setting

Color Accuracy (CRI)

>90

Color Consistency

<7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability

LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Color Uniformity

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017

OTHER

Warranty

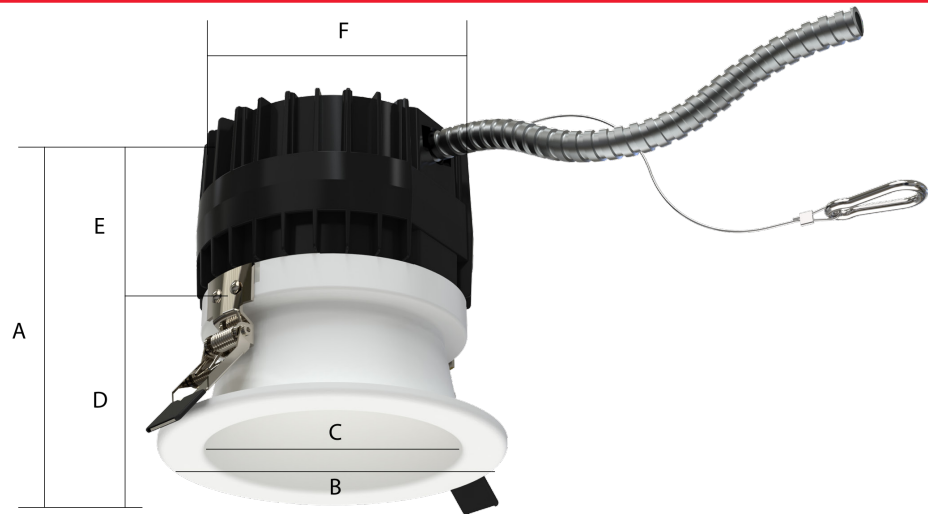
The RAB 5-year, no compromise warranty covers light output, driver performance and paint finish.

RAB's warranty is subject to all terms and conditions found at [rablighting.com/warranty](#).

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DIMENSIONS



LED Module	Reflector Size	Fixture Height	Outer Diameter	Inner Diameter	Reflector Depth	Module Height	Module Diameter	Hole Cutout
12W		A	B	C	D	E	F	G
	3" round/wash	5 1/16"	4 1/4"	3 1/16"	1 1/2"	3 9/16"	3 5/16"	3 7/16"
	4" round/wash	5 3/8"	7 3/4"	4 1/16"	1 3/4"	3 9/16"	3 5/16"	4 15/16"
	6" round/wash	5 11/16"	7 1/16"	5 1/4"	2 1/8"	3 9/16"	3 5/16"	6 5/16"
	3" square	5 1/6"	4 3/4"	2 13/16"	1 1/2"	3 9/16"	3 5/16"	3 7/16"
	4" square	5 5/6"	7 3/4"	4"	1 3/4"	3 9/16"	3 5/16"	4 15/16"
	6" square	5 11/16"	7 1/16"	5 3/16"	2 1/8"	3 9/16"	3 5/16"	6 5/16"
20W/30W	4" round	5 3/8"	5 1/2"	4 1/16"	2"	3 7/16"	4 9/16"	4 15/16"
	6" round/wash	6"	7 1/16"	5 1/14"	2 9/16"	3 7/16"	4 9/16"	6 5/16"
	8" round/wash	6 1/2"	9 1/16"	7 1/16"	3 1/6"	3 7/16"	4 9/16"	7 1/2"
	10" round/wash	7 1/16"	11"	10 3/4"	3 5/8"	3 7/16"	4 9/16"	9 7/16"
	4" square	5 3/8"	7 3/4"	4"	2 3/16"	3 7/16"	4 9/16"	4 15/16"
	6" square	6"	7 1/16"	5 3/16"	2 9/16"	3 7/16"	4 9/16"	6 5/6"
	8" square	6 1/2"	9 1/16"	7 3/16"	3 1/16"	3 7/16"	4 9/16"	7 1/2"

ND22 Modular, Optics-Adjustable Downlights



DIMENSIONS (Cont'd)

LED Module	Reflector Size	Fixture Height	Outer Diameter	Inner Diameter	Reflector Depth	Module Height	Module Diameter	Hole Cutout
50W	6" round/wash	5 15/16"	7 1/16"	5 1/4"	2 9/16"	3 6/16"	5 11/16"	6 5/16"
	8" round/wash	6 7/16"	9 1/16"	7 1/16"	3 1/6"	3 6/16"	5 11/16"	7 1/2"
	10" round/wash	7"	11"	10 3/4"	3 10/16"	3 6/16"	5 11/16"	9 7/16"
	6" square	6"	7 1/6"	5 3/16"	2 9/16"	3 6/16"	5 11/16"	6 5/16"
	8" square	6 7/16"	9 1/16"	7 3/16"	3 1/6"	3 6/16"	5 11/16"	7 1/2"

TRIM REFLECTORS



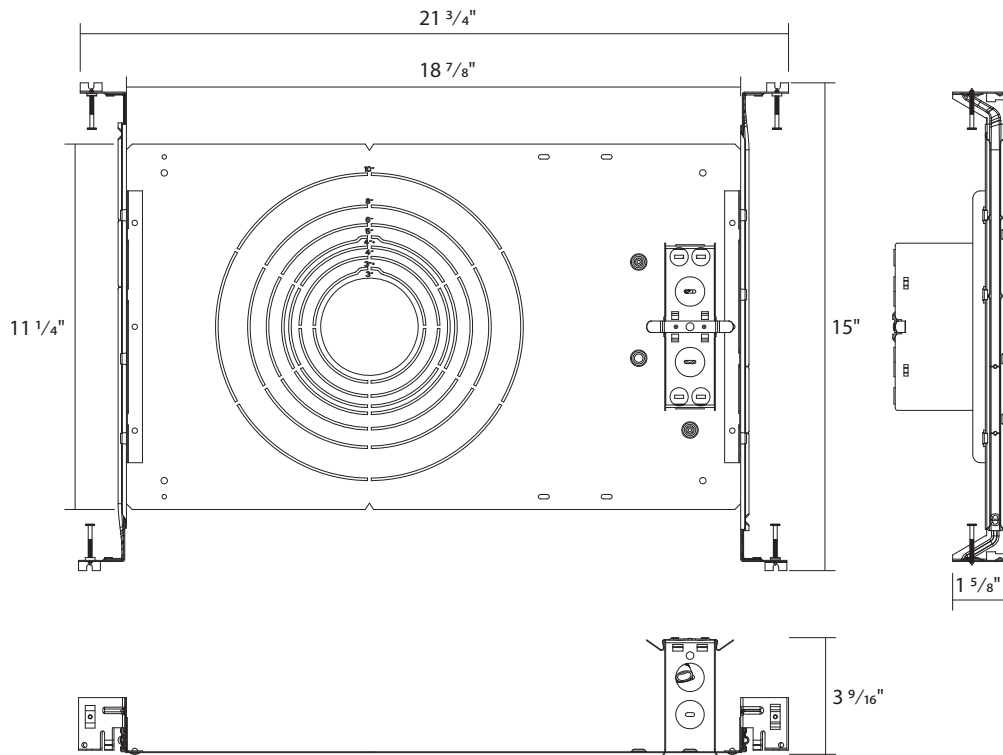
Size	Round Trims	Square Trims	Round Wall Wash Trims	Available Finishes
3"	ND22T-3RX	ND22T-3SX	ND22T-3RX	W = White Flange + Reflector B = Black Flange + Reflector HW = White Flange + Haze Reflector HZ = Haze Flange+ Reflector
4"	ND22T-4RX	ND22T-4SX	ND22T-4RX	
6"	ND22T-6RX	ND22T-6SX	ND22T-6RX	
4"	ND22T-4HRX	ND22T-4HSX	ND22T-4HRX	
6"	ND22T-6HRX	ND22T-6HSX	ND22T-6HRX	
8"	ND22T-8RX	ND22T-8SX	ND22T-8RX	
10"	ND22T-10RX	ND22T-10SX	ND22T-10RX	

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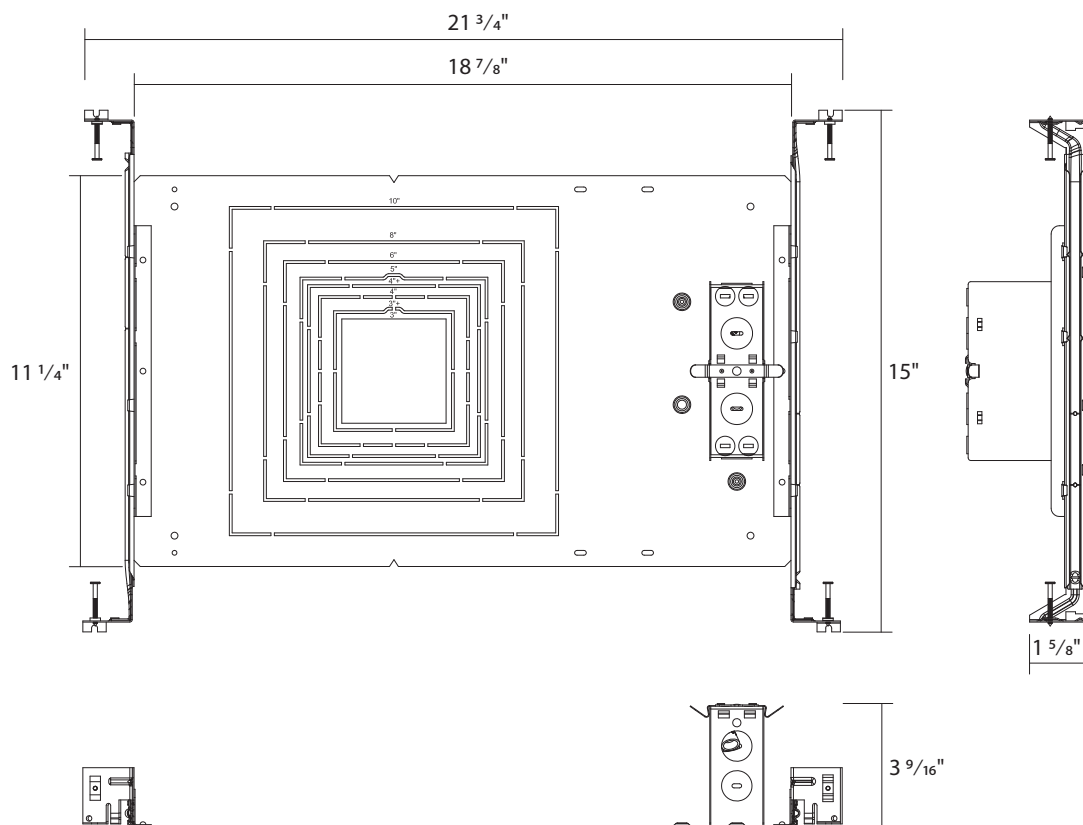


NEW CONSTRUCTION HOUSING DIMENSIONS

RFRAME







SFRAME



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ORDERING INFO

Preassembled Downlight Kits	Catalog Number	UPC	Description	Case Pack
	ND22-12-3RW	192552048927	3" MODULAR DL 12W 3WATT & 5CCT FA BEAM ANGLE ADJ WHITE ROUND	4
	ND22-20-4HRW	192552048934	4" MODULAR DL 20W 3WATT & 5CCT BEAM ANGLE ADJ WHITE ROUND	4
	ND22-30-6HRW	192552048941	6" MODULAR DL 30W 3WATT & 5CCT BEAM ANGLE ADJ WHITE ROUND	4
	ND22-50-8RW	192552048958	8" MODULAR DL 50W 3WATT & 5CCT BEAM ANGLE ADJ WHITE ROUND	2

BUILD YOUR OWN DOWNLIGHT

Step 1: Choose Light Engine

	Catalog Number	UPC	Description	Case Pack
	ND22-12	192552048965	3" MODULAR DL 12W 3WATT & 5CCT FA BEAM ANGLE ADJ WHITE ROUND	6
	ND22-20	192552048972	4" MODULAR DL 20W 3WATT & 5CCT BEAM ANGLE ADJ WHITE ROUND	6
	ND22-30	192552048989	6" MODULAR DL 30W 3WATT & 5CCT BEAM ANGLE ADJ WHITE ROUND	6
	ND22-50	192552048996	8" MODULAR DL 50W 3WATT & 5CCT BEAM ANGLE ADJ WHITE ROUND	4

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Step 2: Choose Trim

ND22-12 Compatible Trims			
	3"	4"	6"
Round Open Trims			
Haze/White	ND22T-3RHW	ND22T-4RHW	ND22T-6RHW
White	ND22T-3RW	ND22T-4RW	ND22T-6RW
Haze	ND22T-3RHZ	ND22T-4RHZ	ND22T-6RHZ
Black	ND22T-3RB	ND22T-4RB	ND22T-6RB
Square Open Trims			
Haze/White	ND22T-3SHW	ND22T-4SHW	ND22T-6SHW
White	ND22T-3SW	ND22T-4SW	ND22T-6SW
Haze	ND22T-3SHZ	ND22T-4SHZ	ND22T-6SHZ
Black	ND22T-3SB	ND22T-4SB	ND22T-6SB
Round Wall Wash Trims			
Haze/White	ND22T-3RHW-WW	ND22T-4RHW-WW	ND22T-6RHW-WW
White	ND22T-3RW-WW	ND22T-4RW-WW	ND22T-6RW-WW
Haze	ND22T-3RHZ-WW	ND22T-4RHZ-WW	ND22T-6RHZ-WW
Black	ND22T-3RB-WW	ND22T-4RB-WW	ND22T-6RB-WW

ND22-20, ND22-30 Compatible Trims				
	4"	6"	8"	10"
Round Open Trims				
Haze/White	ND22T-4RHW	ND22T-6HSHW	ND22T-8SHW	—
White	ND22T-4RW	ND22T-6HSW	ND22T-8SW	—
Haze	ND22T-4RHZ	ND22T-6HSHZ	ND22T-8SHZ	—
Black	ND22T-4RB	ND22T-6SRB	ND22T-8SB	—
Square Open Trims				
Haze/White	ND22T-4HSHW	ND22T-6HSHW	ND22T-8HSHW	—
White	ND22T-4HSW	ND22T-6HSW	ND22T-8HSW	—
Haze	ND22T-4HSHZ	ND22T-6HSHZ	ND22T-8HSHZ	—
Black	ND22T-4HSB	ND22T-6HSB	ND22T-8HSB	—
Round Wall Wash Trims				
Haze/White	—	ND22T-6HRHW-WW	ND22T-8HSHW	—
White	—	ND22T-6HRW-WW	ND22T-8HSW	—
Haze	—	ND22T-6HRHZ-WW	ND22T-8HSHZ	—
Black	—	ND22T-6HRB-WW	ND22T-8HSB	—

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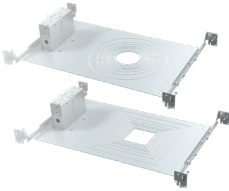




Emergency Photometric Data

ND22-50 Compatible Trims				
	4"	6"	8"	10"
Round Open Trims				
Haze/White	—	ND22T-6HRHW	ND22T-8RHW	ND22T-10RHW
White	—	ND22T-6HRW	ND22T-8RW	ND22T-10RW
Haze	—	ND22T-6HRHZ	ND22T-8RHZ	ND22T-10RHZ
Black	—	ND22T-6HRB	ND22T-8RB	ND22T-10RB
Square Open Trims				
Haze/White	—	ND22T-6HSHW	ND22T-8SHW	—
White	—	ND22T-6HSW	ND22T-8SW	—
Haze	—	ND22T-6HSHZ	ND22T-8SHZ	—
Black	—	ND22T-6HSB	ND22T-8SB	—
Round Wall Wash Trims				
Haze/White	—	ND22T-6HRHW-WW	ND22T-8RHW-WW	—
White	—	ND22T-6HRW-WW	ND22T-8RW-WW	—
Haze	—	ND22T-6HRHZ-WW	ND22T-8RHZ-WW	—
Black	—	ND22T-6HRB-WW	ND22T-8RB-WW	—

Step 3: Optional Accessories

OPTIONAL ACCESSORIES

	Accessory	Catalog Number	UPC	Description	Case Pack
	New Construction Housings	ND22-RFRAME	192552049726	ND22 MOUNTING PLATE WITH NAILER BAR-ROUND	2
		ND22-SFRAME	192552049733	ND22 MOUNTING PLATE WITH NAILER BAR-SQUARE	2
	EM Battery Backup	EMB-9	192552051187	EM DRIVER 100-347V 9W 0-10V DIM	15
		EMB-15	192552051194	EM DRIVER 100-347V 15W 0-10V DIM	15
		EMB-25	192552051200	EM DRIVER 100-347V 25W 0-10V DIM	15
	LCB Lightcloud Blue	LCBAUX/W	192552039611	LCB CONTROLLER 12V INDOOR AND OUTDOOR	120
		LCBAUX/B	192552030502	LCB CONTROLLER 12V INDOOR AND OUTDOOR	120

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Emergency Photometric Data

Lumen Output for 90 min		EM Driver		
Downlight SKU		EMB-9	EMB15	EMB25
ND22-12	Lumens	966	983	986
	Wattage (EM)	10W	10W	10W
ND22-20	Lumens	1286	1729	2169
	Wattage (EM)	10W	16W	20W
ND22-30	Lumens	1350	1801	2758
	Wattage (EM)	10W	15W	24W
ND22-50	Lumens	1471	1963	2901
	Wattage (EM)	10W	16W	24W

ORDERING MATRICES

MODULES

Product Family	Wattage [†]	Color Temp/CRI	Distribution	Driver
ND22	-			
	12	12/9/7W	Blank 2700/3000/3500/4000/5000K	Blank 120-277V, 0-10V Dimming TRIAC Dimming
	20	20/16/12W	25° to 45° Adjustable (12/20/30W)	
	30	30/24/18W	30° to 50° Adjustable (50W)	
	50	50/40/30W		

TRIMS

Product Family	Aperture/Size [†]	Shape	Reflector Finish	Trim Type
ND22T	-			
	3	3" R	Round	W White Reflector + Flange
	4	4" S	Square	HZ Haze Reflector + Flange
	4H	4"		HW Haze Reflector + White Flange
	6	6"		B Black Reflector + Flange**
	6H	6"		
	8	8"		
	10	10"		

* Square not available in 10".

** Black flange for black reflector only.

*** Wall Wash only in 6", 8", and 10".

[†] ND22-12 fits 3, 4, and 6"; ND22-20 and ND22-30 fit 4H, 6H, and 8" models; ND22-50 fits 6H, 8", and 10" models.

ND22 Dimmer Compatibility List



Dimmer Brand	Dimmer Series	Dimmer Cat NR	Dimmer Type
Lutron	Maestro C-L	MACL-153M	TRIAC
Lutron	Skylark C-L	SCL-153P	TRIAC
Lutron	Sureslide	Cat.NO.6674	TRIAC
Lutron	Diva C-L	DVCL-153P	TRIAC
Lutron	toggle	TGCL-153PH-WH	TRIAC
Lutron	Radiant	RHCL453PTC	TRIAC
Lutron	Harmony	DCL453PTCCCV6	TRIAC
Lutron	Harmony	HCL453PTCCCV6	TRIAC
Lutron	Skylark	CTCL-153PDH-WH	TRIAC
Lutron	Illumena Tech	R50-IPL06-10M	TRIAC
Lutron	Diva C-L	DVWCL-153PH-WH	TRIAC
Lutron	~	AYCL-153P-BR	TRIAC
RAB	~	XDIM	TRIAC
RAB	~	XDIM/LCB	TRIAC
Lutron	Illumatech for decora	IP710-LFZ	0-10V
Lutron	Diva	DVSTV-WH	0-10V
Lutron	Nova	NFTV	0-10V
Lutron	Nova	NTSTV-DV	0-10V
Legrand	Radiant®	RH4FBL3PW	0-10V
Eaton	LISTED 6B28	DF10P	0-10V
Eaton	LISTED 6B28	SF10P-W	0-10V
RAB	~	XDIM/D10/LCB	0-10V