

DATE

PROJECT

TYPE

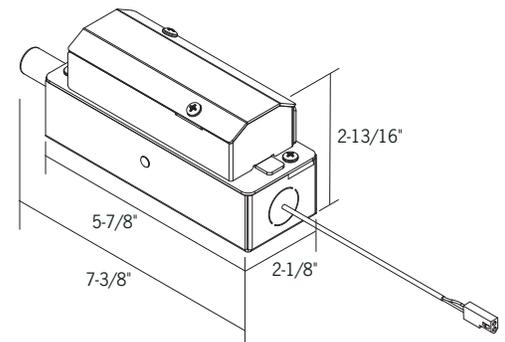
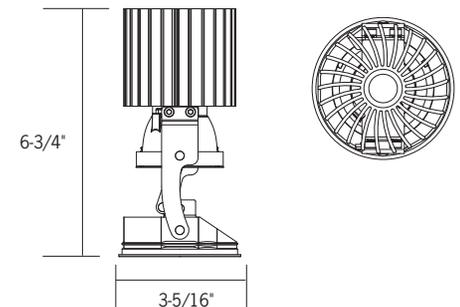
RN2ARM | 2" LED Trimless Adjustable Recessed Downlight: Remodel

WATTAGE	8W	10W	14W	21W
LUMEN OUTPUT ¹	800Lm	1000Lm	1300Lm	1700Lm
BEAM SPREAD	14° Spot/26° Medium/33° Flood			
COLOR TEMPERATURE	2700K, 3000K, 3500K, 4000K, 3000K Crisp White (90+ CRI)			
CRI	83 (80min) / 90+			
SYSTEM RATING	50,000 Hours @ 70% Lumen Maintenance			
DRIVER INPUT WATTAGE	8W	10W	14W	21W
DRIVER INPUT CURRENT (A) 120/277	.07/.03	.08/.04	.12/.05	.18/.08
DRIVER INPUT VOLTAGE Standard Driver	120V AC, 50/60Hz 277V AC, 50/60Hz			
Lutron EcoSystem® Driver	120V AC, 50/60Hz 277V AC, 50/60Hz			
DRIVER Power Factor THD	> 0.90 < 20%			
LISTING	cCSAus Certified using U.S. (UL) and Canadian (CSA) Standards. Suitable for damp locations. Assembled in the USA			
WARRANTY	Five (5) Year Replacement After Date of Purchase			

1. Lumen values are approximate, see page 5 for photometric test results



Ceiling Thickness: 1/2" - 1-1/2"



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Ordering Information

Driver Kit + Module + Mud Frame + Trim = Complete System

Example Order Driver Kit: Mud Frame:
 Module: Trim:

Driver Kit

Driver Kit	LED Series	Electrical/Dimming
RN2ARM - Remodel Driver Kit	05 - 8W/800lm	12D - 120V Triac, ELV and 0-10V Dimming
	1 - 10W/1000lm	27D - 277V 0-10V Dimming ONLY
	2 - 14W/1300lm	12D4 - 120V Lutron Hi-lume 1% EcoSystem LED Driver with Soft-on, Fade-to-Black
	3 - 21W/1700lm	27D4 - 277V Lutron Hi-lume 1% EcoSystem LED Driver with Soft-on, Fade-to-Black

LED Module

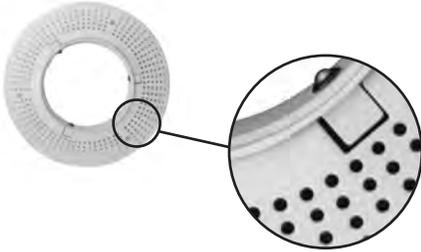
LED Module	Color Temp/CRI	Beam Distribution	Replacement Optics and Accessories
UMODN - 2" Universal Module	83 (80min) CRI	S - 14° Spot	2INOPTIC-S - Spot Beam Replacement Optic
	27K - 2700K	M - 26° Medium	2INOPTIC-M - Medium Beam Replacement Optic
	30K - 3000K	F - 33° Flood	2INOPTIC-F - Flood Beam Replacement Optic
	35K - 3500K		FA-47 - Black Accessory Holder Clip; Accepts Two (2) Media
	40K - 4000K		R2ASNRI-B - Dual Ring Black Snoot 60MM OD X 1" Long, FA-47 Required
	90 CRI		FA-16 60MM - Honeycomb Louver, FA-47 Required
	27KC - 2700K		LF16-** 60MM - 2-3/8" Diameter Lenses, FA-47 Required
	30K - 3000K		
	35KC - 3500K		
	40KC - 4000K		
90+ Crisp White			
30KW - 3000K			

****Color/Pattern Legend**

-A (Amber), -B (Blue), -CL (Clear), -DPE (Dichroic Peach), -G (Green), -LB (Light Blue), -R (Red), -RO (Rose), -Y (Yellow), -73 (Spread Lens), -LS (Linear Spread Lens), -SL (Soft Light), -SOL (Solite), -UV (Optivex UV Filter)

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Mud Frame



MF2A

2" Mud Frame

Required - Order Separately

OD: 6-1/4"

Die-cast ring with steel mesh frame, painted white.

Trims

Note: RN2A series and RN2RM series trims are not compatible with each other



CN2302-CLR
Anodized Clear Specular
Full Cone Reflector



CN2302-PL
Anodized Platinum
Full Cone Reflector



CN2304-CLR
Anodized Clear Specular
Angle Cut Reflector



CN2304-PL
Anodized Platinum
Angle Cut Reflector



CN2302-BLK
Matte Black Painted
Full Cone Reflector



CN2302-WHT
Matte White Painted
Full Cone Reflector



CN2304-BLK
Matte Black Painted
Angle Cut Reflector



CN2304-WHT
Matte White Painted
Angle Cut Reflector

CN2302 Series

Specification Grade Trimless Full Cone Reflector

OD: 3-11/32"; ID: 2-5/8"

Wet location certified when used with an LF16 60MM lens. Accepts one (1) FA-16 60MM 2-3/8" Dia. Black Honeycomb Louver or (1) LF16 60MM 2-3/8" Dia. Tempered Glass Lens.

CN2304 Series

Specification Grade Trimless Angle Cut Reflector

OD: 3-11/32"; ID: 2-5/8"

Specification Grade Angle Cut Reflector Trim\

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Features

- Requires minimum 3" clearance around driver kit from insulation material; thermal protection provided in case of improper insulation use
- 16-Gauge galvanized steel driver kit
- Driver kit housing utilizes a spring latch tether to provide secondary support of the Universal LED Module
- A metal perforated mud frame is required (MF2A ordered separately). When fastened to the ceiling, mud frame utilizes three spring and ball detent points to securely support module.
- Quick-connect design enables easy installation and removal of Universal LED Module; LED drivers are fully accessible from below the ceiling
- Output over voltage, over-current and short circuit protection
- Pre-wired junction box with (1) 1/2" concentric knockout; a duplex electrical connector is provided to simplify daisy-chain wiring
- Many trim options available to complement any design style. See ordering information for details. Note: RN2A series and RN2RM series trims are not compatible with each other.
- Matte black painted mechanism is constructed of 16-gauge sheet metal, an aluminum die-cast heat-sink, an acrylic TIR optic, and a thermoplastic optic holder.

Performance Summary

- High output multi-chip LED array arranged into a single LED package, enabling precise optical control
- Excellent fixture to fixture color consistency within a 2-step MacAdam Ellipse tolerance
- 3000K Crisp White LED option delivers 90+ color rendering with additional violet wavelengths that enhance white visibility
- Precision TIR Optics produce 14°, 26°, and 33° beam distributions; optics are interchangeable and can be field replaced
- Module features adjustability to 45° when installed in a 1/2" to 1" thick ceiling, to 30° in 1-1/2" ceiling. Using the optional FA-47 accessory holder clip with two lenses/louvers, module adjusts to 45° in 3/4" thick ceiling, with snoot to 45° in 5/8" thick ceiling.
- Mechanism adjustment features white graduation marks every 15° for consistent aiming, as well as a set screw to lock tilt adjustment in place.
- Driver with Class 2 output, RoHS Compliant
- All RN2A adjustable downlights are available for non-dimming and dimming applications. For a list of compatible dimmers, refer to the Dimming Specifications sheet.
- cCSAus Certified using U.S. (UL) and Canadian (CSA) Standards
- Suitable for damp locations
- Assembled in the USA

Warranty

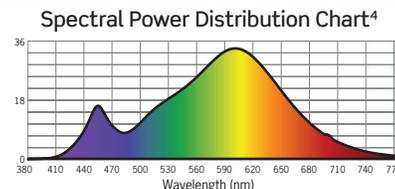
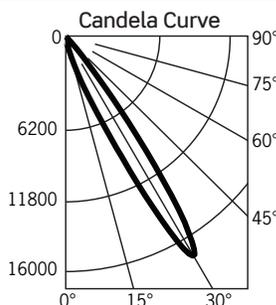
- Complete fixture is covered by ConTech's full five (5) year replacement guarantee after date of purchase.

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Photometrics

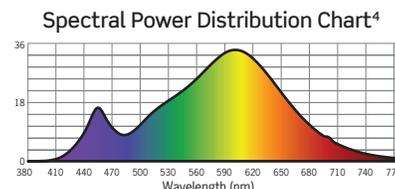
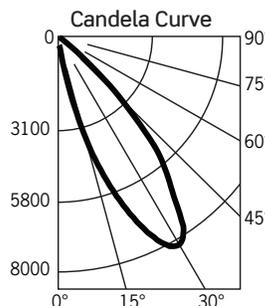
R2ARM3MVD/UMOD30KS/C2304-CLR

Fixture Aimed at 30° from Nadir
 Fixture Delivered Lumens: 1198
 Total Watts@120V: 20.6
 Lumens Per Watt: 58.1
 Center Beam Candle Power: 448
 Beam Distribution: 14°
 Spacing Criterion: 0.36
 Color Rendering Index (CRI)¹: 81
 Color Temperature (CCT)²: 3061K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G17061305
 LM-79 Test No. 84022



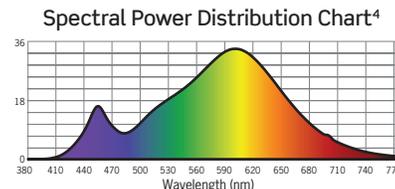
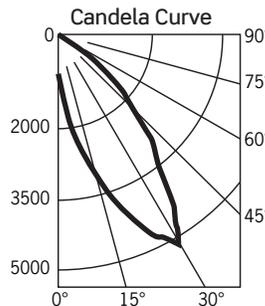
R2ARM3MVD/UMOD30KM/C2304-CLR

Fixture Aimed at 30° from Nadir
 Fixture Delivered Lumens: 1740
 Total Watts@120V: 20.6
 Lumens Per Watt: 84.5
 Center Beam Candle Power: 331
 Beam Distribution: 26°
 Spacing Criterion: 0.60
 Color Rendering Index (CRI)¹: 81
 Color Temperature (CCT)²: 3042K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G17061406
 LM-79 Test No. 84023



R2ARM3MVD/UMOD30KF/C2304-CLR

Fixture Aimed at 30° from Nadir
 Fixture Delivered Lumens: 1760
 Total Watts@120V: 20.6
 Lumens Per Watt: 85.4
 Center Beam Candle Power: 454
 Beam Distribution: 33°
 Spacing Criterion: 0.13
 Color Rendering Index (CRI)¹: 81
 Color Temperature (CCT)²: 3038K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G17061312
 LM-79 Test No. 84024



1. Accuracy of rendering colors 2. Color appearance of light source 3. Dependent on surrounding temperatures 4. Colors present within the light source

Photometric Multiplication Factors

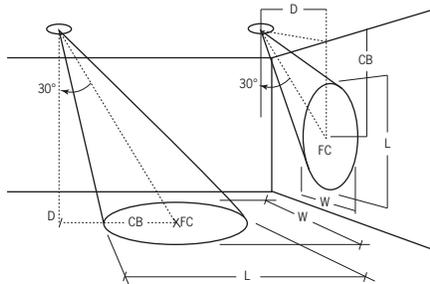
Lumen output values fluctuate based on CCT. To estimate lumen output of the various CCT options, multiply 3000K results by the following:

CCT	STANDARD CRI	HIGH CRI	CRISP WHITE	SERIES 05 (8W)	SERIES 1 (10W)	SERIES 2 (14W)	PL & WHT REFLECT.	BLK REFLECT.
2700K	0.94	0.70	0.79	0.45	0.58	0.76	1.0	0.94
3000K	N/A	0.75	0.79	0.45	0.58	0.76	1.0	0.94
3500K	1.0	0.81	0.79	0.45	0.58	0.76	1.0	0.94
4000K	1.0	0.87	0.79	0.45	0.58	0.76	1.0	0.94

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Photometrics

APPLICATION DATA NOTES BASED UPON R2ARM3MVD/UMOD30K(S,M,F)/C2304-CLR:



- D - Offset distance between the luminaire to the illuminated plane in feet
- CB - Projected distance between the luminaire and the center point where the beam is aimed in feet
- FC - Horizontal or vertical illuminance at the center point where the beam is aimed in footcandles
- L - Beam length corresponding to the perimeter where the luminous intensity is 50% of center beam candlepower (CBCP) in feet
- W - beam width corresponding to the perimeter where the luminous intensity is 50% of center beam candlepower (CBCP) in feet

Luminaires Aimed At 30° From Nadir

		ILLUMINANCE ON HORIZONTAL PLANE					ILLUMINANCE ON VERTICAL PLANE				
		D	CB	FC	L	W	D	CB	FC	L	W
SPOT	5	2.9	427	1.3	1.3	3	5.2	256	2	1.3	
	7.5	4.3	190	2	2	4	6.9	144	2.6	1.8	
	10	5.8	107	2.7	2.7	5	8.7	92	3.3	2.2	
	12.5	7.2	68	3.4	3.4	6	10.4	64	3.9	2.7	
MEDIUM	5	2.9	223	2.5	2.7	3	5.2	157	3.3	2.3	
	7.5	4.3	99	3.8	4	4	6.9	89	4.4	3.1	
	10	5.8	56	5	5.3	5	8.7	57	5.5	3.9	
	12.5	7.2	36	6.3	6.6	6	10.4	39	6.6	4.7	
FLOOD	5	2.9	139	3.2	3.3	3	5.2	97	3.8	2.8	
	7.5	4.3	62	4.8	4.9	4	6.9	55	5.1	3.8	
	10	5.8	35	6.4	6.5	5	8.7	35	6.4	4.7	
	12.5	7.2	22	8.1	8.1	6	10.4	24	7.6	5.7	

DIMMING SPECIFICATIONS | R2A, RN2A, R2AWD, RN2AWD, R2ASQ, RN2ASQ, R2ASQWD and RN2ASQWD Series

- Incandescent 120VAC dimmers adjust the light with “forward phase control,” where the dimmer “chops” the forward part of the AC wave to deliver less or more power to the light source. No neutral wire connection required.
- Electronic low voltage 120VAC dimmers adjust the light with “reverse phase control,” where the dimmer “chops” the back part of the AC wave to deliver less or more power to the light source. Neutral wire connection required.
- 0-10V DC low voltage dimmers operate using two low voltage dimming wires that are separate from the 120V or 277V AC power. The dimmer sends a variable output voltage to the fixture based upon the dimming level. 10V corresponds to undimmed operation, 5V to 50% and so on. Switching on/off is controlled with the line voltage power (120V or 277V AC) input to the dimmer and then dimming operation is controlled with the 0-10V DC low voltage wiring connection between the dimmer and the LED driver. The control signal runs on two low voltage control wires (color coded violet and gray).
- Lutron HiLume and EcoSystem drivers provide continuous dimming from 1%-100%. For a complete list of compatible dimmers and controls, please visit www.lutron.com
- Use DALI approved controls for dimming eldoLED MVD7 (1%-100%) and MVD9 (0.1%-100%) options.

Manufacturer	Product	Model	Light Output	Light Output	Light Output
			R2ANC*, R2ARM*, RN2ANC*, RN2ARM*, R2ANCWD*, R2ARMWD*, RN2ANCWD*, RN2ARMWD*, R2ASQNC*, R2ASQRM*, RN2ASQNC*, RN2ASQRM*, R2ASQNCWD*, R2ASQRMWD*, RN2ASQNCWD*, RN2ASQRMWD* Dimming Options: 12D, 27D, MVD	R2ANC, RN2ANC, R2ASQNC, R2ANCWD, RN2ANCWD, R2ASQNCWD, RN2ASQNC, RN2ASQNCWD eldoLED ECOdrive 0-10V Dimming Option: MVD6	R2ANC, RN2ANC, R2ASQNC, R2ASQNCWD, RN2ANCWD, R2ASQNCWD, RN2ASQNC, RN2ASQNCWD eldoLED SOLOdrive 0-10V Dimming Option: MVD8
Leviton	IllumaTech	IPI06-1LZ	1%-100%	NA	NA
Leviton	SureSlide	6631-2	1%-100%	NA	NA
Leviton	Vizia	VPE06	9%-100%	NA	NA
Leviton	Trimatron	6683-W	4%-100%	NA	NA
Leviton	Decora	6161	15%-100%	NA	NA
Leviton	SureSlide	6633-P	0%-100%	NA	NA
Leviton	IllumaTech	IPE04	6%-100%	NA	NA
Leviton	IllumaTech	IP710-DLX	NA	1%-100%	0.1%-100%
Cooper	Devine	DLC03P	1%-100%	NA	NA
Cooper	Skye	SLC03P	0%-100%	NA	NA
Cooper	Decorator	DAL06P	0%-100%	NA	NA
Pass & Seymour	Titan	CD4FB-W	NA	1%-100%	0.1%-100%
Synergy		ISD BC	NA	1%-100%	0.1%-100%
Watt Stopper	Miro Decorator	DCLV1	NA	1%-100%	0.1%-100%
Lutron	Ariadni	TGCL-153P	4%-100%	NA	NA
Lutron	Ariadni	TG-600P	11%-100%	NA	NA
Lutron	Diva	DVCL-153P	0%-100%	NA	NA
Lutron	Diva	DV600P	0%-100%	NA	NA
Lutron	Diva	DVELV303P	6%-100%	NA	NA
Lutron	Diva	DVTV	NA	1%-100%	0.1%-100%
Lutron	Faedra	FAELV500	12%-100%	NA	NA
Lutron	Lumea	LG600P	5%-100%	NA	NA
Lutron	Maestro	MAELV600	11%-100%	NA	NA
Lutron	Nova	NFTV	NA	1%-100%	0.1%-100%
Lutron	Nova T	NTFTV	NA	1%-100%	0.1%-100%
Lutron	Skylark	S-603PG	4%-96%	NA	NA
Lutron	Skylark	S600P	1%-100%	NA	NA
Lutron	Skylark	SELV300P	7%-100%	NA	NA
Lutron	Skylark	CT103P	9%-100%	NA	NA

*277V Triac dimming is not available

Notes

1. Testing was performed with a single fixture connected to dimmer.
2. Testing has been performed on these dimmers, but this does not imply any warranty of compatibility.
3. Dimming performance can be influenced by different loads, as well as variations in dimmer switches within the same model.
4. Dimmer maximum load rating with LED may differ from published traditional source dimmer ratings. Consult manufacturer for maximum dimmer information.
5. Consult factory for additional dimming information.