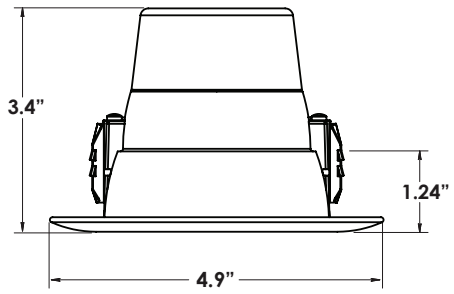
RL431

4" LED Retrofit Die-Cast Aluminum Lensed Baffle

4"



NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
650	861	10W

Based on 4000K, 90+ CRI. Actual wattage may vary +/- 5%

INSTALLATION

Elite LED Retrofits come standard with quick connectors ready for installation in Elite Lighting's LD series recessed housing that are Energy Star and Title 24 rated (LD4IC-AT, LD5IC, LD6IC-AT).

FEATURES

The RL431 is the newest, most efficient, and advanced LED retrofit modules from ELITE Lighting. It's unique design delivers color quality above a 90 CRI rating. The color matching has never been so close, with a binning as low as 3 MacAdams ellipses. The RL431 LED retrofit meet all new mandatory California Title 24 requirements. The Elite RL431` LED Module has been engineered for new constructions to meet Title-24's 'No Edison Socket" mandate. The Elite LED Module system works in our dedicated (LD4IC-AT, LD4-AT, LD4R-AT) housings and our existing 4" incandescent housings (or standard B4IC-AT, B4-AT and B4R-AT) but is also suitable for use in most 4"recessed downlight housings in the market.

LUMENS	650
CCT	27K, 30K, 35K, 40K, 50K
CRI	90+
COLOR QUALITY	3 Step MacAdam Ellipses
TRIM	Aluminum die-cast body and trim
BAFFLE COLORS	W (White standard) (See next page for more color options)
FLANGE COLORS	W(White standard) (See next page for more color options)
DIMMING	DIMTR (Triac)
LIFETIME	50,000 Hours

OPTICS AND REFLECTOR

The Elite-Engineered LED Module system is much more than just a simple LED retrofit. The Elite LED system is a highly engineered work of design and optical science which produces over 650 lumens. Our meticulously crafted optics gather the light scattered by the LED chip and shape it into a functional beam with uniform light distribution. The baffle also offers the benefits of a smooth integrated light with glare reduction at a 55 degree cut-off, which minimizes brightness.

Due to the changes of constant improvement in LED technology, all details are subject to change without notice. Consult factory for up to date information.
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DURABILITY
Die-cast aluminum housing and heat management system are engineered for extremely long life and service period. Without proper heat management, any LED luminaire will fail. Our die-cast system pulls the heat from the LED chip, allowing the continued cool operation for years. Life tests have shown the Elite LED Module light output will be maintained at 70% of initial at 50,000 hours of operation. Our superior design allows for installation in construction that requires the Elite Air-Shut™ system. Our LED driver is rated for 50 to 60 Htz at 120V input, produces less than 10% THD, has a power factor between 0.90 and 1.00 and is thermal protected for additional safety.

REPEATABLE
Repeatability means quality. From our chip selection process, to our driver, to the thermal management, the Elite LED Module is engineered for quality. All Elite LED luminaries are rated at 90+ CRI and 27K, 30K, 35K, 40K and 50K, as rated and tested to LM-79 and LM-80 standards by a certified laboratory, and meets the California Title-24 compliance standards. Elite's highly selective LED chips produce zero ultraviolet and virtually no infrared light.

INTERCHANGEABLE
The Elite LED Module system works in our dedicated (LD4IC-AT, LD4-AT, LD4R-AT) housings and our existing 4" incandescent housings (or standard B4IC-AT, B4-AT and B4R-AT - 120V Only) but is also suitable for use in most 4" recessed downlight housing.

ADAPTABLE
All Elite LED Module luminaries are shipped standard with our custom engineered Edison adapter. This adapter assembly allows the luminaries to install directly into existing Elite 4" downlight housings and most other 4" downlight housings.

DIMMING & DRIVER INFORMATION
The Elite LED Module system is fully dimmable down to 10% of initial light output with a Triac dimmer when ordered with the following options (DIMTR-120). Dimmer control must have same AC input rating as the dimmable power supply driver it connects to. Other electronic low voltage dimmers may be compatible, but have not been tested by Elite LED Lighting.

WARRANTY
Five-year carefree warranty for parts and components. (Labor not included.)

LISTINGS
c-UL-us - Listed for Feed Through Wiring.

EXAMPLE: **RL431-650L-DIMTR-120-30K-90-W-WH**

	TYPE	LUMEN	CCT	CRI	TRIM COLORS
	RL431	❑ 650L-DIMTR-120	❑ 27K ❑ 30K ❑ 35K ❑ 40K ❑ 50K (CRI 85+ only)	❑ 90+	❑ W-WH

EXAMPLE: **RL431-BT-BZ-BZ**

RING TRIM COLORS		
❑ RL431-BT-BZ-BZ	❑ RL431-RT-BZ-BZ	❑ RL431-RT-MB-WH
❑ RL431-BT-CP-CP	❑ RL431-RT-CL-WH	❑ RL431-RT-RG-WH
❑ RL431-BT-P-BK	❑ RL431-RT-CL-CH	❑ RL431-RT-SHZ-SHZ
❑ RL431-BT-P-WH	❑ RL431-RT-CP-CP	❑ RL431-RT-SHZ-WH
❑ RL431-BT-SN-SN	❑ RL431-RT-MB-BK	❑ RL431-RT-SN-SN
❑ RL431-RT-SN-WH	❑ RL431-RT-W-WH	

*Ring trims order separate

ACCESSORY: **GU24SA**

OPTIONS	
	❑ **GU24SA -** SOCKET FOR LED RETROFIT TO GU24

*Accessories order separate

EXAMPLE: **LD4IC-AT-DIMTR-120-M**

COMPATIBLE ELITE LIGHTING HOUSINGS			
❑ LD4IC-AT-DIMTR-120-M	❑ LD4-AT-DIMTR-120	❑ LD4RIC-AT-DIMTR-120	❑ LD4R-AT-DIMTR-120
❑ HLD4IC-AT-DIMTR-DIM10-MVOLT	❑ HLD4-AT		❑ HLD4R-AT
❑ B4IC-AT	❑ B4-AT		❑ B4R-AT

*Housing order separate

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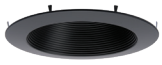
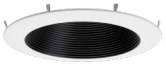
AVAILABLE COLOR INSERTS FOR RL431 - 4" RETROFIT

BAFFLES


RL431-BT-P-BK

RL431-BT-BZ-BZ

RL431-BT-SN-SN


RL431-BT-P-WH

RL431-BT-CP-CP

REFLECTORS

RL431-RT-SHZ-WH

RL431-RT-RG-WH

RL431-RT-CP-CP

RL431-RT-BZ-BZ

RL431-RT-CL-WH

RL431-RT-W-WH

RL431-RT-SHZ-SHZ

RL431-RT-MB-WH

RL431-RT-SN-SN

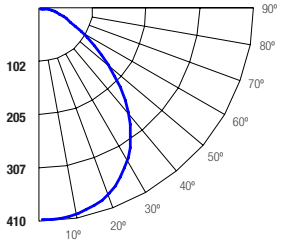
RL431-RT-MB-BK

RL431-RT-CL-CH

RL431-650L-DIMTR-120-40K-90-W-WH TEST NO.: **EL0119150**

INPUT WATTS: **10.4** LUMENS: **861** CRI: **90** EFFICACY: **83** CCT: **4000K** SPACING CRITERIA: **1.24**

Candle Power Distribution (Candelas)



Cone of Light			
2	102	4	4
4	25.6	7.9	7.9
6	11.4	11.9	12
8	6.4	15.8	16
10	4.1	19.8	20
12	2.85	23.7	24.1
(FT.)Distance to Plane	(FC.) Initial Footcandle at Nadir	(FT.) Beam Vert. Spread	(FT.) Beam Horiz. Spread

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	149.01	17.30	17.30
0-30	311.90	36.20	36.20
0-40	493.07	57.30	57.30
0-60	758.46	88.10	88.10
0-80	851.41	98.90	98.90
0-90	861.05	100.00	100.00

Luminance (Average candela/M^2)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	36284	38171	38478
55	28760	27708	27287
65	21061	19909	17952
75	14821	14098	13641
85	14931	13690	3996

Lumens Per Zone

Zone	Lumens
0-10	38.72
10-20	110.29
20-30	162.89
30-40	181.17
40-50	157.02
50-60	108.37
60-70	62.89
70-80	30.06
80-90	9.65

Candela Tabulation

	0
0	409.71
5	408.26
15	391.88
25	356.08
35	289.37
45	204.06
55	131.20
65	70.79
75	30.51
85	10.35
90	0.26

Coefficients of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

	RC	80%				70%				50%			30%			10%			0%
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
ROOM CAVITY RATIO	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
	1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
	2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
	3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
	4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57
	5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51
	6	75	63	54	49	73	62	54	48	60	53	48	58	52	48	57	51	47	45
	7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
	8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
	9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
	10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30

***RC** - Ceiling Cavity Reflectance* ***RW** - Wall Reflectance*

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