



ENERGETIC
LIGHTING

Project:	Catalog #:	Type:
Prepared by:	Notes:	Date:

E3DL (5"/6")

w/ ezCCT Field Selectable CCT

LED RETROFIT DOWNLIGHTING
5"/6" Round
5-yr Warranty



OVERVIEW

Energetic Lighting's E3DL (5"/6") retrofit downlights are designed to easily upgrade your existing 5/6-inch recessed fixture affordably and can be as simple as replacing an incandescent lamp. ENERGY STAR® certified and can be used to comply with Title-24 and JA8 high efficacy light source requirements. The E3DL series provides the perfect blend of performance and reliability at an affordable value to the customer.

The E3DL (5"/6") delivers a minimum of 1200 lumens of quality illumination while providing as much as 85% savings in energy consumption. Fixtures feature a white aluminum baffle with a recessed diffusing lens to conceal the LED array that provides a pixel free visual appearance.

The integrated ezCCT field selectable CCTs (2700K, 3000K, 4000K, 5000K, 6500K) is standard in the E3DL series. This greatly helps to reduce SKU complexity while providing design flexibility for applications that may require multiple color temperatures on the same project.

KEY FEATURES

- ezCCT field selectable CCT (2700K, 3000K (std), 4000K, 5000K & 6500K)
- 92+ CRI with a R9 greater than 60
- 5"/6" round, 1200 lumens minimum, 15W, 120V, 50/60Hz
- Torsion spring mount to existing 5" or 6" housing
- E26 screw base adapter included (incandescent retrofit)
- Applicable for residential and commercial installations
- Suitable for use in IC & Non-IC applications
- Wet location listed (showers, protected ceilings, etc.)
- Dimmable to 10% with many 120V TRIAC & ELV dimmers
- ENERGY STAR® rated
- Certified to California JA8 database per JA8-2016-E
- Can be used to comply with Title 24 Part 6 requirements
- 78% lumen maintenance @ 60,000 hours - L78/60,000 (per IES TM21)

SPECIFICATIONS & FEATURES

Construction

Die-cast aluminum trim frame design. High impact diffuse polymer lens provides direct view shielding of LED array. Aluminum housing and heat sink provides thermal management and cooling for use in both IC and non-IC applications.

LED Array

Utilizes a high efficiency LED array when coupled with the diffusing lens to provide an extremely uniform source of pixel free illumination. 90 CRI minimum with an R9 greater than 60.

Optics

Uniform illumination is achieved by the coupling of the LED array with a high impact polymer diffusing lens. The optical system creates a wide distribution for optimized fixture spacing. Provides a soft and uniform visual appearance with no LED pixelation for superior visual comfort.

Electrical

Integral 120V 50/60Hz constant current driver provides noise free operation. Continuous flicker-free dimming from 100% to 10% with select TRIAC dimmers. Dimming to as low as 10% is recommended by using dimmers with low end trim adjustment. Always consult dimmer manufacturer for compatibility and proper conditions of use. Some dimmers may require a neutral in the wall box. 78% LED lumen maintenance at 60,000 hours (L78/60,000) per IES TM21. Projected L70 @ 91,000 hours. Drivers are rated for FCC part 15 Class B use in residential and commercial applications.

Mounting & Installation

Requires no housing or secondary junction box for install. Can be easily installed into existing 5" or 6" recessed housings using integral torsion springs. Product includes E26 screw base adapter for installation into incandescent housings. Installer must ensure fitment compatibility in any application. This includes compliance to all applicable national and local building and electrical codes.

Compliance & Certification

All luminaires are built to UL1598 standards with appropriate ETL/cETL labels. Suitable for wet location use. Adheres to LM79, LM80 and TM21 industry standards for performance and lifetime calculations. ENERGY STAR® listed product. Refer to ENERGY STAR® database for current listings. Product can be used to comply with California Title 24 Part 6 High Efficacy requirements. Product certified to California Appliance Efficiency Database under JA8-2016-E. Airtight certified per ASTM-E283. Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements.

Warranty

The E3DL series of luminaires ships with Energetic's 5-year standard warranty. (Terms & Conditions apply).

Load Information

Power Factor	0.98
THD	13.9%
Frequency	50/60 Hz
Sound Rating	Class A, < 16.1 DbA
Low Temp Start	-25° C
Max Temp	40° C
Unit Weight	0.5 lbs

Shipping Information

Size	Weight ¹	Pallet ² (40" x 48" x 90")
5"/6"	1.0 lbs	288 units per

1. Case pack weighs 7.0 lbs (6 units/case pack).
2. There are 48 case packs per pallet.

Lumen Maintenance

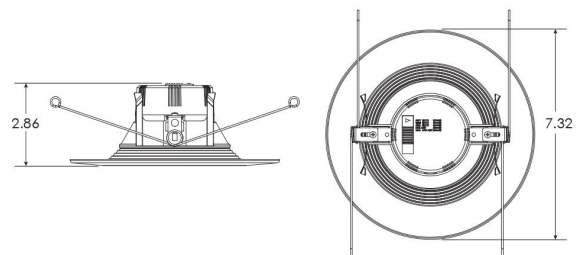
Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours)	Theoretical L70 (Hours)
25° C	> 78%	91,000

ezCCT Field Selectable CCT

The ezCCT field selectable color temperature driver helps to provide added design flexibility and simplified SKU reduction and complexity. Access to the ezCCT integrated toggle switch is on the back of the driver housing. Easily switch CCTs between 2700K, 3000K, 4000K, 5000K and 6500K. (set to 3000K standard from the factory)



Dimensions



All specifications, cat logic and certifications are PRELIMINARY only and are subject to change without notice at launch. All values are nominal or typical values, measured under laboratory conditions @ 25° C. Actual performance may vary slightly as a result of end-user environment/application.



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E3DL (5"/6") w/ EZCCT
LED RETROFIT DOWNLIGHTING

ezCCT Field Selectable CCT | 5"/6" Round | 5-yr Warranty

STOCK ORDERING INFORMATION (EZCCT field selectable 2700K|3000K|4000K|5000K|6500K CCT)

Catalog Logic	Order #	Size	Lumens	Wattage	LPW	EZCCT	CRI	Voltage	Dimming	Energy Star	Pallet Qty
E3DL15P56-92765 ¹	50051	5"/6"	1200	15.0	80	2700K	92.3	120	TRIAC	Yes	TBD
			1299			3000K (standard)					
			1226			4000K					
			1295			5000K					
			1256			6500K					

Notes:

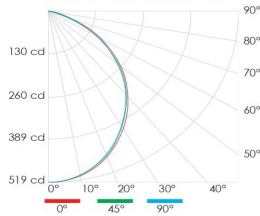
1. Installing contractor responsible for ensuring desired CCT is selected during installation.

2700K, 15.0W PHOTOMETRIC DATA

Luminaire Data

Cat Logic: E3DL15P56-92765
 Test Report: E3DL15P56-92765-27K.IES
 CCT: 2700K (field selectable)
 Lamp Type: LED
 Lumens: 1200
 Input Watts: 15.0
 Efficacy: 80
 Spacing: 0° = 1.20 90° = 1.18
 Beam Angle: 99.1°
 Field Angle: 145.1°
 Max Candela: 519.0

Indoor Candela Plot



Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	388	32.3
0-40	620	51.7
0-60	1039	86.6
0-90	1200	100.0

Candlepower

Angle	0°	90°
0	519	519
5	517	514
10	507	504
15	491	486
20	470	463
25	443	436
30	412	404
35	378	369
40	342	332
45	303	293
50	263	252
55	220	208
60	175	162
65	127	114
70	77	66
75	32	26
80	11	9
85	3.6	3
90	0	0

Photometric values based on tests performed in compliance with LM-79.

Coefficients of Utilization

Effective Floor Cavity Reflectance 20%

rc	80%				70%				50%				30%				10%				0%			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																								
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	106	102	102	102	102	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	94	94	96	94	92	92	92	91	89	89	89	87	87	87
2	101	94	88	83	99	92	86	82	89	84	80	80	85	81	78	82	79	76	76	74	74	74	74	74
3	93	83	76	70	91	82	75	69	79	73	68	68	76	71	67	74	69	66	66	64	64	64	64	64
4	85	74	66	60	83	73	65	60	71	64	59	59	68	63	58	66	61	57	57	55	55	55	55	55
5	79	67	58	52	77	66	58	52	64	57	51	51	62	56	51	60	55	50	50	48	48	48	48	48
6	73	60	52	46	71	59	51	46	58	51	45	45	56	50	45	54	49	44	44	43	43	43	43	43
7	68	55	47	41	66	54	46	41	53	46	40	40	51	45	40	50	44	40	40	38	38	38	38	38
8	63	50	42	37	62	50	42	36	48	41	36	36	47	41	36	46	40	36	36	34	34	34	34	34
9	59	46	38	33	58	46	38	33	45	38	33	33	43	37	33	42	37	32	32	31	31	31	31	31
10	56	43	35	30	54	42	35	30	41	35	30	30	40	34	30	39	34	30	30	28	28	28	28	28



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E3DL (5"/6") w/ EZCCT

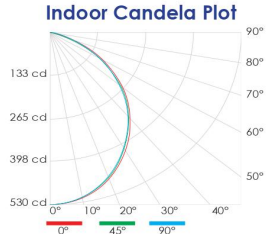
LED RETROFIT DOWNLIGHTING

ezCCT Field Selectable CCT | 5"/6" Round | 5-yr Warranty

3000K (standard), XX.XW PHOTOMETRIC DATA

Luminaire Data

Cat Logic: E3DL15P56-92765
 Test Report: E3DL15P56-92765-3K.IES
 CCT: 3000K (field selectable)
 Lamp Type: LED
 Lumens: 1226
 Input Watts: 15.0
 Efficacy: 82
 Spacing: 0° = 1.20 90° = 1.18
 Beam Angle: 99.1°
 Field Angle: 145.1°
 Max Candela: 530



Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	396	32.3
0-40	633	51.7
0-60	1061	86.6
0-90	1226	100.0

Candlepower

Angle	0°	90°
0	530	530
5	528	526
10	518	515
15	502	497
20	480	473
25	453	442
30	421	412
35	387	377
40	349	339
45	310	299
50	269	258
55	224	212
60	178	165
65	130	117
70	79	67
75	33	27
80	11	9
85	4	3
90	0	0

Photometric values based on tests performed in compliance with LM-79.

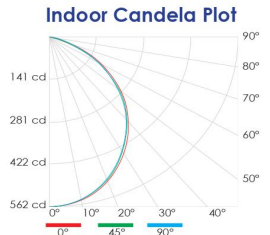
Coefficients of Utilization

rc	80%				70%				50%				30%				10%				0%							
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10		
RCR																												
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	106	102	102	102	102	100	100	100	100	100	100	100	100
1	110	106	103	99	108	104	101	98	100	97	94	94	96	94	92	92	92	91	89	87	87	87	87	87	87	87	87	87
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4	85	74	66	60	83	73	65	60	71	64	59	59	68	63	58	58	66	61	57	55	55	55	55	55	55	55	55	55
5	79	67	58	52	77	66	58	52	64	57	51	51	62	56	51	51	60	55	50	48	48	48	48	48	48	48	48	48
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9	59	46	38	33	58	46	38	33	45	38	33	33	43	37	33	33	42	37	32	31	31	31	31	31	31	31	31	31
10	56	43	35	30	54	42	35	30	41	35	30	30	40	34	30	30	39	34	30	28	28	28	28	28	28	28	28	28

4000K, 15.0W PHOTOMETRIC DATA

Luminaire Data

Cat Logic: E3DL15P56-92765
 Test Report: E3DL15P56-92765-4K.IES
 CCT: 4000K (field selectable)
 Lamp Type: LED
 Lumens: 1299
 Input Watts: 15.0
 Efficacy: 87
 Spacing: 0° = 1.20 90° = 1.18
 Beam Angle: 99.1°
 Field Angle: 145.1°
 Max Candela: 562



Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	420	32.3
0-40	672	51.7
0-60	1125	86.6
0-90	1299	100.0

Candlepower

Angle	0°	90°
0	562	562
5	559	557
10	549	546
15	532	527
20	509	502
25	480	472
30	447	437
35	410	399
40	370	359
45	328	317
50	285	273
55	238	225
60	189	175
65	137	124
70	83	71
75	35	29
80	12	10
85	4	3
90	0	0

Photometric values based on tests performed in compliance with LM-79.

Coefficients of Utilization

rc	80%				70%				50%				30%				10%				0%							
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10		
RCR																												
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	106	102	102	102	102	100	100	100	100	100	100	100	100
1	110	106	103	99	108	104	101	98	100	97	94	94	96	94	92	92	92	91	89	87	87	87	87	87	87	87	87	87
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4	85	74	66	60	83	73	65	60	71	64	59	59	68	63	58	58	66	61	57	55	55	55	55	55	55	55	55	55
5	79	67	58	52	77	66	58	52	64	57	51	51	62	56	51	51	60	55	50	48	48	48	48	48	48	48	48	48
6	73	60	52	46	71	59	51	46	58	51	45	45	56	50	45	45	54	49	44	43	43	43	43	43	43	43	43	43
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8	63	50	42	37	62	50	42	36	48	41	36	36	47	41	36	36	46	40	36	34	34	34	34	34	34	34	34	34
9	59	46	38	33	58	46	38	33	45	38	33	33	43	37	33	33	42	37	32	31	31	31	31	31	31	31	31	31
10	56	43	35	30	54	42	35	30	41	35	30	30	40	34	30	30	39	34	30	28	28	28	28	28	28	28	28	28



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E3DL (5"/6") w/ EZCCT

LED RETROFIT DOWNLIGHTING

ezCCT Field Selectable CCT | 5"/6" Round | 5-yr Warranty

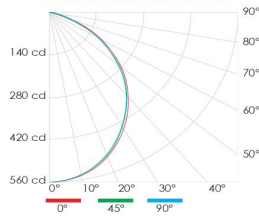
5000K, 15.0W PHOTOMETRIC DATA

Luminaire Data

Cat Logic: E3DL15P56-92765
 Test Report: E3DL15P56-92765-5K.IES
 CCT: 5000K (field selectable)
 Lamp Type: LED
 Lumens: 1295
 Input Watts: 15.0
 Efficacy: 86
 Spacing: 0° = 1.20 90° = 1.18
 Beam Angle: 99.1°
 Field Angle: 145.1°
 Max Candela: 560.0

Photometric values based on tests performed in compliance with LM-79.

Indoor Candela Plot



Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	418	32.3
0-40	669	51.7
0-60	1121	86.6
0-90	1295	100.0

Candlepower

Angle	0°	90°
0	560	560
5	557	556
10	547	544
15	530	525
20	507	500
25	478	470
30	445	436
35	408	398
40	369	358
45	327	316
50	284	272
55	237	224
60	188	175
65	137	123
70	83	71
75	34	29
80	12	10
85	4	3
90	0	0

Coefficients of Utilization

rc	Effective Floor Cavity Reflectance 20%																				
	80%				70%				50%				30%				10%				0%
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87			
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74			
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64			
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55			
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48			
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7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38			
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9	59	46	38	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31			
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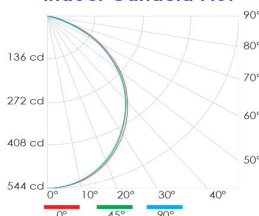
6500K, 15.0W PHOTOMETRIC DATA

Luminaire Data

Cat Logic: E3DL15P56-92765
 Test Report: E3DL15P56-92765-65K.IES
 CCT: 6500K (field selectable)
 Lamp Type: LED
 Lumens: 1256
 Input Watts: 15.0
 Efficacy: 84
 Spacing: 0° = 1.20 90° = 1.18
 Beam Angle: 99.1°
 Field Angle: 145.1°
 Max Candela: 543

Photometric values based on tests performed in compliance with LM-79.

Indoor Candela Plot



Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	406	32.3
0-40	649	51.7
0-60	1088	86.6
0-90	1256	100.0

Candlepower

Angle	0°	90°
0	543	543
5	541	539
10	531	528
15	515	509
20	492	485
25	464	456
30	432	423
35	396	386
40	358	347
45	318	307
50	276	264
55	230	218
60	183	170
65	133	119
70	81	69
75	34	28
80	11	9
85	4	3
90	0	0

Coefficients of Utilization

rc	Effective Floor Cavity Reflectance 20%																				
	80%				70%				50%				30%				10%				0%
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
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	94	96	94	92	92	91	89	87			
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74			
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64			
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6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	54	49	44	43			
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8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34			
9	59	46	38	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31			
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	39	34	30	28			

NOTES: