



The Lightolier Commercial retrofit Downlight DualSelect is an easy to install downlight with adjustable lumen and CCT output switch. This convenient downlight is ideal for retail store, residential and office application.

Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Notes: _____

Fixture

example: CR4RLMCCT

Family	Size/Lumens	CCT	Voltage	Finish
		CCT		
CR Commercial Retrofit Downlight DualSelect	4RLM 4" Round 500-1000lm, 90CRI, 0-10V Dimming 6RLM 6" Round 700-1500lm, 90CRI, 0-10V Dimming 8RLM 8" Round 1000-2000lm, 90CRI, 0-10V Dimming 10RLM 10" Round 2000-3000lm, 90CRI, 0-10V Dimming	CCT 3000K - 3500K - 4000K	- 120/347V	- White

Features

- Flange:** Aluminum white painted with baffle.
- Power supply:** Integral class 1 driver. (see Electrical section for specifications)
- Lifetime:** L70 at 50,000 hours and backed with a 5-year warranty (see www.lightolier.com for details).
- LED board:** Light emitted source.
- Power connection:** Trim is supplied with quick connect metal conduit with connector inside.
- Dimming:** 0-10V Dimming
- Lumen Selectable:** Ability to switch to three different lumen package. Select the desired lumen output using the switch before installation. Lumen output can be changed after installation by un-installing the luminaire from the ceiling.
Note: The default setting from Factory is set to the highest lumen value.
- CCT Selectable:** Select the desired CCT using the switch before installation. CCT can be changed after installation by un-installing the luminaire from the ceiling.

Electrical

Electronic power supply: RoHS compliant. Class 1 power unit for use in a dry and damp locations.

Labels

cULus listed.
ENERGY STAR®.

Electrical Specs	Nominal Lumens	Input Volts	Input Freq.	Input Current	Input Power	THD Factor	Power Factor	Minimum Operating Temp.	Maximum Operating Temp.	IC/ Non-IC	Efficacy @90CRI 3000K
CR4RLMCCT	500lm/700lm/1000lm	120-347V	50/60HZ	102-21mA	5.5/8/12W	<25%@120V	>0.9@120V	-20°C	40°C	IC	80lm/W
CR6RLMCCT	700lm/1000lm/1500lm	120-347V	50/60HZ	147-26mA	7/10/17W	<25%@120V	>0.9@120V	-20°C	40°C	IC	85lm/W
CR8RLMCCT	1000lm/1500lm/2000lm	120-347V	50/60HZ	174-36mA	10/15/21W	<25%@120V	>0.9@120V	-20°C	40°C	IC	90lm/W
CR10RLMCCT	2000lm/2500lm/3000lm	120-347V	50/60HZ	264-65mA	20/25/32W	<25%@120V	>0.9@120V	-20°C	40°C	NON-IC	90lm/W

Compatibility

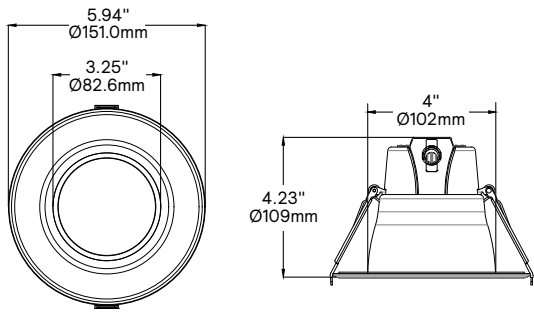
Series	Frame Aperture Range	
	Minimum	Maximum
4" Comm Retrofit	Ø4.0" (Ø102mm)	Ø5.1" (Ø130mm)
6" Comm Retrofit	Ø6.3" (Ø159mm)	Ø7.5" (Ø190mm)
8" Comm Retrofit	Ø7.9" (Ø200mm)	Ø9.4" (Ø240mm)
9.5" Comm Retrofit	Ø9.0" (Ø229mm)	Ø10.6" (Ø270mm)

LED Commercial Retrofit Downlight DualSelect

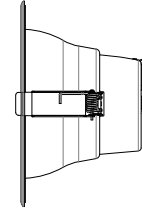
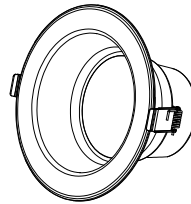
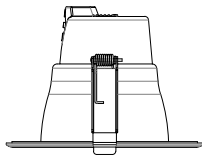
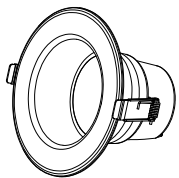
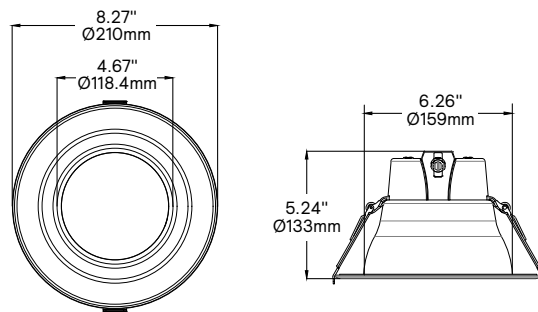
4", 6", 8" & 10" round aperture

Dimensions

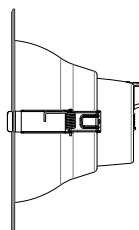
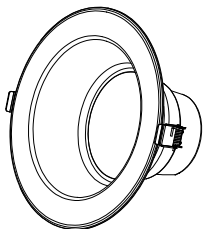
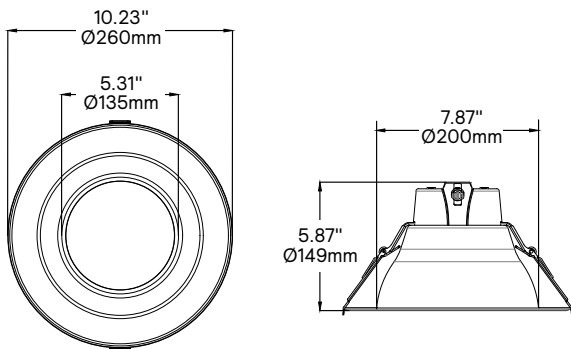
Retrofit downlight 4"



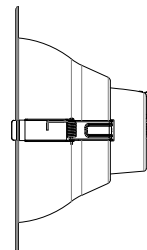
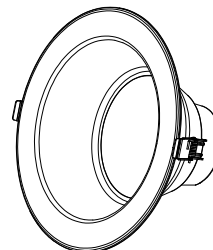
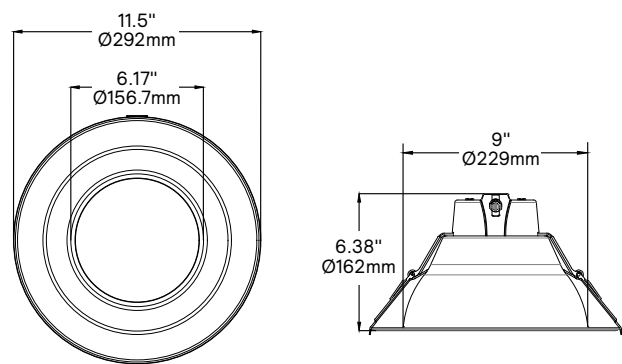
Retrofit downlight 6"



Retrofit downlight 8"



Retrofit downlight 10"



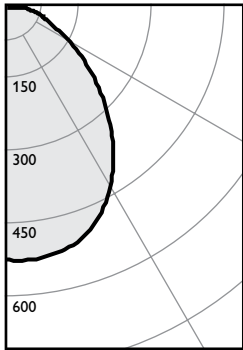
LED Commercial Retrofit Downlight DualSelect

4", 6", 8" & 10" round aperture

Photometry

4-inch LED, 1000lm, 90CRI, 3000K

Candela Curve



Angle	Mean CP	Lumens
0	523	48
5	510	
10	501	
15	487	137
20	461	
25	425	195
30	382	
35	333	208
40	282	
45	238	178
50	181	
55	135	121
60	96	
65	66	67
70	50	
75	34	36
80	21	
85	8	9
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	21	5.7'
6'	14	6.8'
7'	10	8.0'
8'	8	9.1'
9'	6	10.3'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	40.0	0.53
6'	26.0	0.35
7'	19.0	0.25
8'	16.0	0.21
9'	13.0	0.17

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
	70	50	30	10	50	10	50	10	50	10	0	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	87
	2	102	95	89	84	93	83	90	81	87	80	76
	3	94	85	78	72	84	72	81	71	78	69	66
	4	87	77	69	63	75	63	73	62	71	61	58
	5	81	70	62	56	68	55	66	55	65	54	52
	6	75	63	55	50	62	49	61	49	59	49	46
	7	70	58	50	44	57	44	56	44	54	44	42
	8	66	53	46	40	53	40	51	40	50	40	38
	9	62	49	42	37	49	37	48	36	47	36	34
	10	58	46	38	34	45	34	44	33	43	33	31

Zonal lumens & percentages

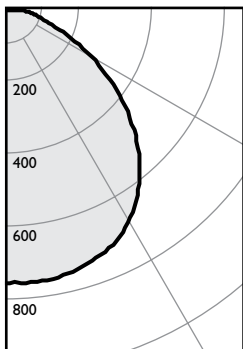
Zone	Lumens	%Luminaire
0-30	381	38.1%
0-40	589	58.9%
0-60	887	88.7%
0-90	1000	100.0%

CR4RLMCCT

Output lumens:	1000 lm	Efficacy:	83.0 lm/w
Spacing Criterion:	1.14	CCT ³ :	3000K
Input Watts ² :	12.0 W	CRI:	90min

6-inch LED, 1500lm, 90CRI, 3000K

Candela Curve



Angle	Mean CP	Lumens
0	736	70
5	733	
10	721	
15	701	197
20	674	
25	633	288
30	580	
35	515	
40	444	316
45	369	
50	293	
55	220	278
60	154	
65	98	191
70	64	
75	48	95
80	32	
85	16	16
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	21	5.7'
6'	14	6.8'
7'	10	8.0'
8'	8	9.1'
9'	6	10.3'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	40.0	0.53
6'	26.0	0.35
7'	19.0	0.25
8'	16.0	0.21
9'	13.0	0.17

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
	70	50	30	10	50	10	50	10	50	10	0	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	87
	2	102	95	89	84	93	83	90	81	87	80	76
	3	94	85	78	72	84	72	81	71	78	69	66
	4	87	77	69	63	75	63	73	62	71	61	58
	5	81	70	62	56	68	55	66	55	65	54	52
	6	75	63	55	50	62	49	61	49	59	49	46
	7	70	58	50	44	57	44	56	44	54	44	42
	8	66	53	46	40	53	40	51	40	50	40	38
	9	62	49	42	37	49	37	48	36	47	36	34
	10	58	46	38	34	45	34	44	33	43	33	31

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	381	38.1%
0-40	589	58.9%
0-60	887	88.7%
0-90	1000	100.0%

CR6RLMCCT

Output lumens:	1000 lms	Efficacy:	83.0 lm/w
Spacing Criterion:	1.14	CCT ³ :	3000K
Input Watts ² :	12.0 W	CRI:	90min

1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

LED Commercial Retrofit Downlight DualSelect

4", 6", 8" & 10" round aperture

Photometry - continued

8-inch LED, 2000lm, 90CRI, 3000K

Candela Curve	Angle	Mean CP	Lumens
	0	977	
	5	972	92
	10	957	
	15	930	261
	20	893	
	25	845	386
	30	777	
	35	692	429
	40	596	
	45	492	376
	50	386	
	55	295	254
	60	192	
	65	116	121
	70	57	
	75	60	60
	80	38	
	85	20	21
	90	0	

CR8RLMCCT

Output lumens:	2000 lm	Efficacy:	90.9 lm/w
Spacing Criterion:	1.2	CCT ³ :	3000K
Input Watts ² :	22.0 W	CRI:	90 min

Single unit data		
Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	39	6.0'
6'	27	7.2'
7'	20	8.4'
8'	15	9.6'
9'	12	10.8'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	67.0	0.98
6'	44.0	0.64
7'	32.0	0.46
8'	26.0	0.38
9'	20.0	0.30

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
	70	50	30	10	50	10	50	10	50	10	0	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	87
	2	102	95	89	84	93	83	90	81	87	80	76
	3	94	85	78	72	84	72	81	71	78	69	66
	4	87	77	69	63	75	63	73	62	71	61	58
	5	81	70	62	56	68	55	66	55	65	54	52
	6	75	63	55	50	62	49	61	49	59	49	46
	7	70	58	50	44	57	44	56	44	54	44	42
	8	66	53	46	40	53	40	51	40	50	40	38
	9	62	49	42	37	49	37	48	36	47	36	34
10	58	46	38	34	45	34	44	33	43	33	31	

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	740	37.0%
0-40	1169	58.5%
0-60	1799	90.0%
0-90	2000	100.0%

9.5-inch LED, 3000lm, 90CRI, 3000K

Candela Curve	Angle	Mean CP	Lumens
	0	1442	
	5	1436	136
	10	1409	
	15	1370	386
	20	1317	
	25	1250	573
	30	1156	
	35	1034	643
	40	894	
	45	742	572
	50	584	
	55	431	391
	60	290	
	65	173	182
	70	107	
	75	81	87
	80	55	
	85	29	30
	90	0	

CR10RLMCCT

Output lumens:	3000 lm	Efficacy:	93.8 lm/w
Spacing Criterion:	1.2	CCT ³ :	3000K
Input Watts ² :	32.0 W	CRI:	90 min

Single unit data		
Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	58	6.0'
6'	40	7.2'
7'	29	8.4'
8'	23	9.6'
9'	18	10.8'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	94.0	1.42
6'	62.0	0.93
7'	44.0	0.66
8'	37.0	0.55
9'	29.0	0.44

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
	70	50	30	10	50	10	50	10	50	10	0	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	88
	2	102	95	89	84	93	83	90	81	87	80	76
	3	94	85	78	72	84	72	81	71	78	69	66
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	8	66	53	46	40	53	40	51	40	50	40	38
	9	62	49	42	37	49	37	48	36	47	36	34
10	58	46	38	34	45	34	44	33	43	33	31	

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	1095	36.5%
0-40	1738	57.9%
0-60	2701	90.0%
0-90	3000	100.0%

1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.



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