



Lightolier **Mini Downlight** provides an easy to install three-inch solution for accent lighting. The small detachable junction box eliminates the need for a traditional frame or bulky remodeler kit making installation quick and easy.

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Fixture

example: MD3R069301FW

Family	Size	Lumens	CRI	CCT	Voltage	Beam Spread	Finish
MD	3R	06	9		1	F	W
MD Mini Downlight	3R 3-inch Round	06 550 lm	9 90CRI	30 3000K 40 4000K	1 120V	F Flood	W White (matte)

Accessories

example: MDRN

Family	Model
MD	
MD Mini Downlight	RN Round new construction plate 06C 6' extension cable 20C 20' extension cable

Specifications

Features

- Flange:** Die cast aluminum. Painted.
- Junction box:** Extruded aluminum steel. Clip attached on the side of the junction box to connect with fixture or new construction plate to meet NEC (National Electric Code). Also has key holes on the sides for mounting on joist.
- Connector:** Locking power connection is used to connect junction box and fixture. Standard length of the connector is 12" from fixture to junction box. Extension cables are available as accessory.
- Lifetime:** L_{70} at 50,000 hours and backed by a 5-year warranty (see signify.com/warranties for details).

- New construction plate:** Steel. Holes/slots on the side of the plate for mounting to joist.
- Ceiling cutout:** Ceiling cutout template supplied with the product. 2 3/4" (70mm) diameter.

Electrical

Electronic power supply: RoHS compliant. Class 2 power unit. Remote power supply can only accommodate one LED module and cannot be shared with other LED module.

Fixture can be daisy chained and cannot be through wired.

Dimming: Intended for TRIAC dimming. For more details, please see LED-DIM-DL spec sheet.

Listings

cETLus listed.
 Ceiling-mounted: suitable for damp location.
 ENERGY STAR®.
 Title 24 (JA8-2016).
 IC rated.
 AirSeal for minimal air leakage.

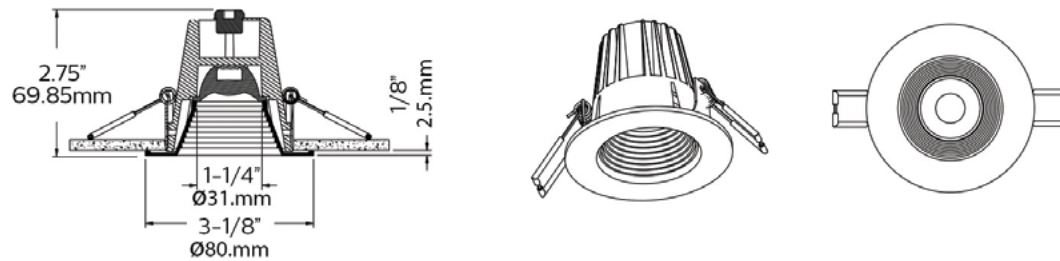
Electrical Specifications	Dimming	Input Volts	Input Frequency	Input Current	Input Power	THD Factor	Power Factor	Min. Operating Temp.	Max. Operating Temp.
Mini Downlight	TRIAC	120V	60 Hz	0.08A	8W MAX	<25%	>=0.9	0°C	40°C

MD Mini Downlight LED 3" round

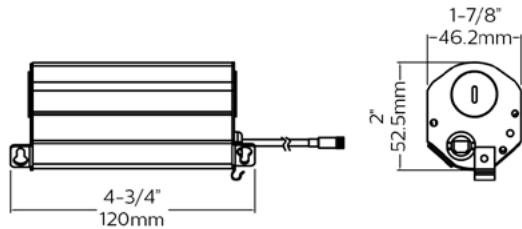
Downlighting

Dimensions

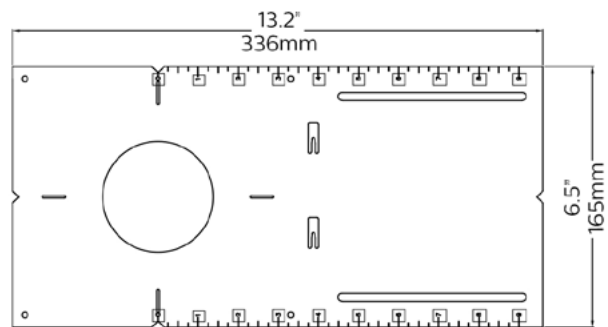
Fixture



Junction box

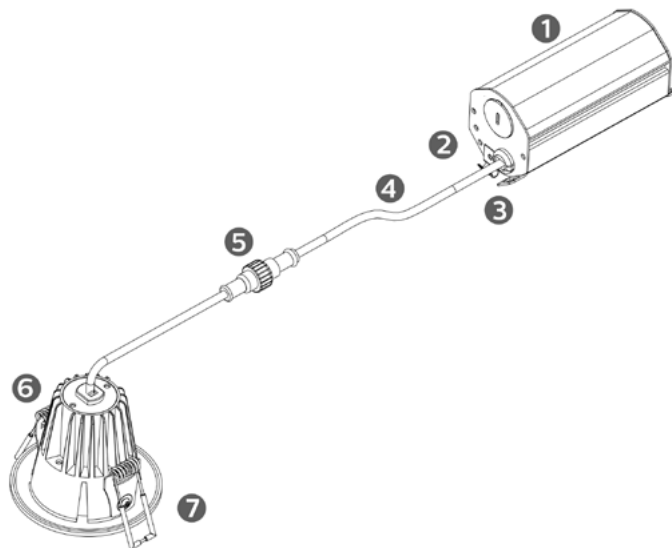


New Construction Plate



Components

1. Electrical box with knockouts
2. Mounting keyhole
3. NEC* mounting clip
4. 6" (0.15) cord each side. 12" over
5. Lockin power connector
6. Integrated LED Luminaire
7. Spring clip for easy mounting

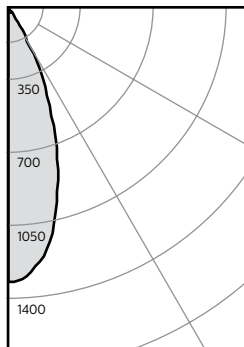


MD Mini Downlight LED 3" round

Downlighting

3000K, 7.9W, 71.8 lm/W

Candela Curve



Fixture: **MD3R069301FW**

Output lumens: 567 lm
Input watts: 7.9 W
CRI: 90 min
CCT¹: 3000K
Spacing Crit.: 0.6
Beam Angle: 38°

Zonal summary

Zone	Lumens	% Luminaire
0-30	509	89.7%
0-40	550	96.9%
0-60	562	99.0%
0-90	567	100.0%

Angle	Mean CP	Lumens
0	397	
5	395	
10	388	113
15	377	
20	361	232
25	342	
30	320	164
35	293	
40	261	41
45	227	
50	190	
55	150	5
60	108	
65	67	3
70	32	
75	11	2
80	5	
85	1	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	16	3.0'
6'	11	3.6'
7'	8	4.2'
8'	6	4.8'
9'	5	5.4'

* 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'	26.6	0.35
6'	17.4	0.23
7'	12.5	0.16
8'	10.4	0.14
9'	8.3	0.11

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

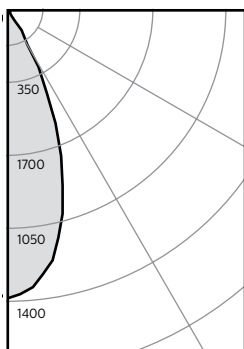
Efficacy: **71.8 lm/w**

Coefficients of utilization

Ceiling	80%				70%		50%		30%		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
1	114	112	110	108	110	106	106	103	102	100	95
2	110	105	102	99	104	98	101	96	98	94	90
3	105	100	96	92	98	91	96	90	94	89	86
4	101	95	90	87	94	86	92	85	90	84	82
5	97	90	85	82	89	81	88	81	86	80	78
6	94	86	81	77	85	77	84	77	83	76	74
7	90	82	77	74	82	74	80	73	79	73	71
8	87	79	74	70	78	70	77	70	76	70	68
9	84	76	71	67	75	67	74	67	73	67	65
10	81	73	68	65	72	64	71	64	71	64	63

4000K, 8.2W, 79.1 lm/W

Candela Curve



Fixture: **MD3R069401FW**

Output lumens: 648 lm
Input watts: 8.2 W
CRI: 90 min
CCT¹: 4000K
Spacing Crit.: 0.6
Beam Angle: 41°

Zonal summary

Zone	Lumens	% Luminaire
0-30	580	89.4%
0-40	618	95.3%
0-60	639	98.5%
0-90	648	100.0%

Angle	Mean CP	Lumens
0	1375	
5	1326	
10	1209	123
15	1004	
20	736	271
25	438	
30	186	185
35	58	
40	21	38
45	16	
50	11	12
55	8	8
60	6	
65	5	6
70	4	
75	3	3
80	2	
85	1	1
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	55	3.0'
6'	38	3.6'
7'	28	4.2'
8'	21	4.8'
9'	17	5.4'

* 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'	30.1	0.36
6'	19.8	0.24
7'	14.1	0.17
8'	11.8	0.14
9'	9.4	0.11

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: **79.1 lm/w**

Coefficients of utilization

Ceiling	80%				70%		50%		30%		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	117	117	112	112	107	107
1	115	112	110	108	110	106	106	103	102	100	95
2	110	105	102	99	104	98	101	96	98	94	90
3	105	100	95	92	98	91	96	90	93	88	86
4	101	95	90	86	93	86	91	85	89	84	81
5	97	90	85	81	89	81	87	80	86	79	78
6	93	86	81	77	85	77	84	76	82	76	74
7	90	82	77	73	81	73	80	73	79	72	71
8	86	78	73	70	78	70	77	69	76	69	68
9	83	75	70	67	75	67	74	67	73	66	65
10	80	72	67	64	72	64	71	64	70	64	62

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

