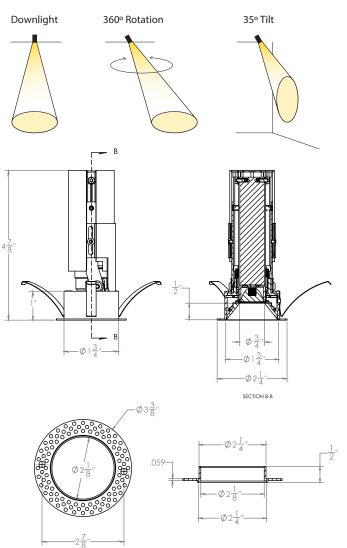


# 1" Round LED Trim-less Adjustable and Fixed Downlight





NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
800	766	10W
1000	1008	14W

Based on 3000K, 90+ CRI. Actual wattage may vary +/- 5%

### **VERTICAL ADJUSTMENT**

Slide upper module up and down to achieve exact desired beam angle from narrow to wide distribution. Alternatively, an Allen wrench is provided with the fixture, which decreases the height of the upper module for a wider distribution. Twisting the captive screws counterclockwise increases the height of the upper module for a narrower distribution.

#### **TOOL-LESS HOT AIMING**

Achieve full 35-degree tilt and 360-degree rotation and can be securely locked into place on reaching desired position.

#### SHIFI DING

Once tilt, rotation, and beam angle are adjusted and locked in place, shielding of the LEDs can be adjusted to prevent light loss and enhance directional aiming.

#### TDIME

Round, square and wall wash trims available.

LUMENS	800, 1000				
ССТ	27K, 30K, 35K, 40K, 50K				
CRI	90				
COLOR QUALITY	2 Step MacAdam Ellipse				
OPTIC	MD (Medium) *Consult factory for narrow or wide distribution				
FINISH	Chrome, White				
DIMMING	DIM10 (0-10V dimming), DIMTR ( Triac & Electronic low voltage dimming. Available in 120V only)				
SHAPE	Round (Flanged, Trim-less) Square (Flanged, Trim-less)				
PHOTOMETRIC TESTS	In Accordance with IES LM79 and LM80				









# TRIM OPTIONS (Select only one)

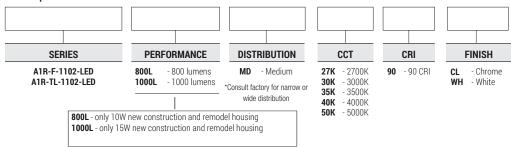




A1R-F-1102-LED -1" Round Flanged LED Adjustable and Fixed Downlight

A1R-TL-1102-LED 1" Round Trimless LED Adjustable and Fixed Downlight

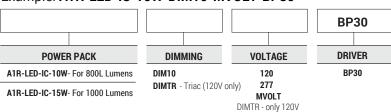
### Example: A1R-F-1102-LED-800L-MD-30K-90-CL-WH



## **HOUSING OPTIONS (Select only one)**

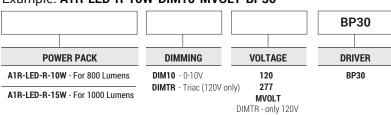


# Example: A1R-LED-IC-10W-DIM10-MVOLT-BP30





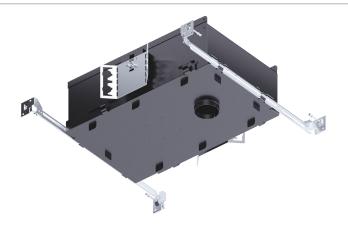
# Example: A1R-LED-R-10W-DIM10-MVOLT-BP30

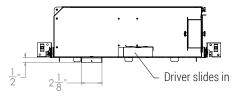


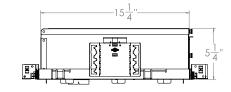
NON-IC REMODEL/ NEW CONSTRUCTION

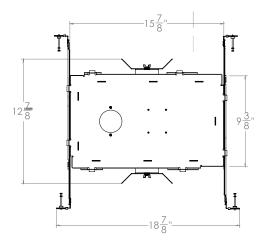












NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
800	766	10W
1000	1008	14W

Based on 3000K, 90+ CRI. Actual wattage may vary +/- 5%

### **IC HOUSING**

Thermally protected, specification grade adjustable recessed housing. For new contruction insulated ceilings where housing will be in direct contact with insulation. Die-formed all aluminum construction matte black painted for maximum heat dissipation, rust protection and glare free illumination.

#### **ELECTRICAL/TRANSFORMER**

Junction box and driver can be accessed from below the ceiling and above the ceiling. Junction box is listed for through branch circuit wiring,12 AWG 90° C supply conductors, and has four 1/2" KOs, one 3/4" KO and four Romex knockouts with true pry-out slots and strain clamps.

#### **DIMMING & DRIVER INFORMATION**

DIM10 - 0-10V dimming on either MVOLT 120V or 277V. Dimmable down to 5% of initial lumens, standard.

DIMTR - Triac & Electronic low voltage dimming. Available in 120V only.

#### ACCESSIBLE DRIVER

Driver is connected to wire, which is attached to body of luminaire. Driver is housed within the housing, and can be accessed from below the ceiling by a simple pull-down mechanism

#### MOUNTING

Pre-installed bar hangers allow housing to be positioned and locked at any point within a 24" joist span. They can be positioned on either the long or short axis of the housing and can be shortened for 12" joists. A double-headed real nail attaches housing securely into the joist. Bar hanger nails are installed on a 20° downward angle for better contact, and the 90° pivoting mounting plate makes installation fast and accurate. Bar hangers can fit onto T-Bar spline with additional slots and holes for special mounting methods if necessary. 18-gauge steel butterfly brackets can be adjusted vertically. Butterfly brackets may be installed with 3/4" or 1-1/2" lathing channel, 1/2" EMT, or optional C-Channel mounting bars are available.

### **LABELS**

c-UL-us listed for damp location c-UL-us listed for feed through wiring c-UL-us listed for direct contact with insulation

#### **WARRANTY**

5-year limited warranty for parts and components (labor not included).

LUMENS	800 - <b>A1R-LED-IC-10W</b> 1000 - <b>A1R-LED-IC-15W</b>
DIMMING	DIM10 (0-10V dimming),DIMTR (Triac-120V only)
VOLTAGE	120V, 277V, MVOLT

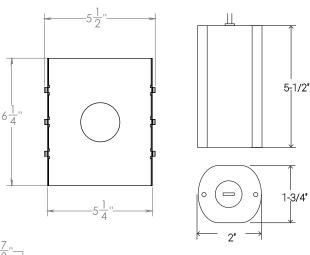












NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
800	766	10W
1000	1008	14W
1200	1206	18W

Based on 3000K, 90+ CRI. Actual wattage may vary +/- 5%

### **IC HOUSING**

Thermally protected, specification grade adjustable recessed housing. For new contruction insulated ceilings where housing will be in direct contact with insulation. Die-formed all aluminum construction matte black painted for maximum heat dissipation, rust protection and glare free illumination.

#### **ELECTRICAL/TRANSFORMER**

Junction box and driver can be accessed from below the ceiling and above the ceiling. Junction box is listed for through branch circuit wiring,12 AWG 90° C supply conductors, and has four 1/2" KOs, one 3/4" KO and four Romex knockouts with true pry-out slots and strain clamps.

#### **DIMMING & DRIVER INFORMATION**

DIM10 - 0-10V dimming on either MVOLT 120V or 277V. Dimmable down to 5% of initial lumens, standard.

DIMTR - Triac & Electronic low voltage dimming. Available in 120V only.

#### ACCESSIBLE DRIVER

Driver is connected to wire, which is attached to body of luminaire. Driver is housed within the housing, and can be accessed from below the ceiling by a simple pull-down mechanism

#### **MOUNTING**

Pre-installed bar hangers allow housing to be positioned and locked at any point within a 24" joist span. They can be positioned on either the long or short axis of the housing and can be shortened for 12" joists. A double-headed real nail attaches housing securely into the joist. Bar hanger nails are installed on a 20° downward angle for better contact, and the 90° pivoting mounting plate makes installation fast and accurate. Bar hangers can fit onto T-Bar spline with additional slots and holes for special mounting methods if necessary. 18-gauge steel butterfly brackets can be adjusted vertically. Butterfly brackets may be installed with 3/4" or 1-1/2" lathing channel, 1/2" EMT, or optional C-Channel mounting bars are available.

### **LABELS**

c-UL-us listed for damp location c-UL-us listed for feed through wiring c-UL-us listed for direct contact with insulation

#### **WARRANTY**

5-year limited warranty for parts and components (labor not included).

LUMENS	800 - <b>A1R-LED-R-10W</b> 1000 - <b>A1R-LED-R-15W</b>
DIMMING	DIM10 (0-10V dimming),DIMTR ( Triac-120V only)
VOLTAGE	120V, 277V, MVOLT









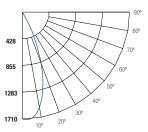
A-A1R-LED-BP30



A1R-TL-1102-LED-800L-DIM10-120-MD-30K-90-CL

TEST NO.: EL05082054 CRI: **90** EFFICACY: 73 CCT: **3000K** SPACING CRITERIA: 0.64 INPUT WATTS: 10.5 LUMENS: 766

### **Candle Power Distribution (Candelas)**



Zonal Lumens Summary											
Zone	Lumens	%Lamp	%Fixt								
0-20	500.25	65.3	65.3								
0-30	729.95	95.3	95.3								
0-40	760	99.2	99.2								
0-60	764.87	99.8	99.8								
0-80	765.34	99.9	99.9								
0-90	765.36	99.9	99.9								

Angle in Degrees	Average 0°	Average 45°	Average 90°			
45	1535	1409	1520			
55	698	767	901			
65	373	381	113			
75	26	26	26			
85	79	59	79			

Lumens Pe	r Zone	Cande	ela Tabulati	ion
Zone 0-10 10-20 20-30 30-40 40-50	Lumens 154.5 345.74 229.71 30.05 3.28	0 5 15 25 35	0 1699.85 1672.29 1301.83 505.4 25.43	1011
50-60 60-70 70-80 80-90	1.59 0.41 0.05 0.02	45 55 65 75 85 90	3.17 1.17 0.46 0.02 0.02 0.02	

### **Coefficients of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance 0.20

ne of L	_ight	
88	1.3	1.3
56	2.5	2.5
8.0	3.7	3.8
7.9	5.0	5.0
4.7	6.2	6.2
7.0	7.5	7.5
) Initial tcandle	(FT.) Beam	(FT.) Beam

		1	115
_	_	2	110
		3	106
_	×	2 3 4 5 6 7 8 9	102
	<u> </u>	5	98 95 92
	=	6	95
	₹	7	92
	၁	8	88
	. ≥	9	85 82
m	ROOM CAVITY RATIO	10	82
	_ ~		

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

	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 1 2 3 4 5 6 7 8 9	119 115 110 106 102 98 95 92 88 85 82	119 112 106 101 96 92 88 84 81 78	119 110 103 97 92 87 83 79 76 73 70	119 108 100 94 88 84 80 76 73 70 67	116 112 108 104 101 97 94 90 87 84 82	116 110 105 100 95 91 87 84 80 77	116 108 102 96 91 87 83 79 76 73 70	116 107 99 93 88 83 79 76 73 70	111 106 101 97 93 89 86 82 79 76 74	111 105 99 94 90 86 82 78 75 72 70	111 103 97 91 87 83 79 76 72 70	106 102 98 95 91 88 84 81 78 76	106 101 97 92 88 84 81 78 75 72 69	106 100 95 90 86 82 78 75 72 69 67	102 99 96 93 89 86 83 80 78 75	102 98 94 90 87 83 80 77 74 72 69	102 97 93 89 85 81 78 75 72 69 66	100 96 91 87 84 80 77 74 71 68

RC - Ceiling Cavity Reflectance

RC - Ceiling Cavity Reflectance

**7onal Lumens Summary** 

#### A1R-TL-1102-LED-1000L-DIM10-120-MD-30K-90-CL

INPUT WATTS: 14.4 LUMENS: 1008

EFFICACY: 70 CCT: **3000K** 

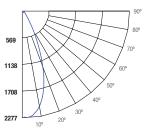
TEST NO.: EL05082054 SPACING CRITERIA: 0.64

TEST NO.: EL05082054

SPACING CRITERIA: 0.64

### **Candle Power Distribution (Candelas)**

10



Zonai Lun	iiciis ouiiiiii	ary	
Zone	Lumens	%Lamp	%Fixt
0-20 0-30	660.22 960.91	65.5	65.5
0-30	999.95	95.3 99.2	95.4 99.2
0-60	1006.06	99.8	99.8
0-80 0-90	1006.62	99.9	99.9
0-90	1006.64	99.9	99.9

CRI: **90** 

Luminance (Average candela/M <sup>2</sup> )								
Angle in Degrees	Average 0°	Average 45°	Average 90°					
45	2048	1876	2004					
55	841	922	1140					
65	445	369	24					
75	13	13	26					
85	39	39	79					

Lumens Pe	r Zone	Cande	la Tabulati	ion
Zone	Lumens		<u>0</u>	
0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90	204.56 455.66 300.69 39.04 4.15 1.97 0.5 0.06 0.02	0 5 15 25 35 45 55 65 75 85	2261.13 2228.41 1665.24 597.17 30.5 4.23 1.41 0.55 0.01 0.01	
		90	0.01	

#### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

	Cone of L	_ight	
2	782	1.3	1.3
3	208	2.5	2.4
5	90.4	3.8	3.7
7	50.4	5.0	5.0
8	32.8	6.2	6.1
10	22.6	7.5	7.5
(FT.)Distance to Plane	(FC.) Initial Footcandle at Nadir	(FT.) Beam Vert. Spread	(FT.) Beam Horiz. Spread

BEAM DIA.	MEASURED	ΑT	50%	0F	NADIR	F.C.	

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   10   6   8   4   9   5   5   10   10   10   10   10   10	119 115 110 106 102 99 95 92 88 85 83	119 112 106 101 96 92 88 84 81 78	119 110 103 97 92 87 83 80 76 73 70	119 108 100 94 88 84 80 76 73 70 67	116 112 108 104 101 97 94 90 87 84 82	116 110 105 100 95 91 87 84 80 77	116 108 102 96 91 87 83 79 76 73 70	116 107 99 93 88 83 80 76 73 70 67	111 106 101 97 93 89 86 83 79 76 74	111 105 99 94 90 86 82 79 75 72 70	111 103 97 92 87 83 79 76 72 70 67	106 102 98 95 91 88 85 81 78 76 73	106 101 97 92 88 85 81 78 75 72 69	106 100 95 90 86 82 79 75 72 69	102 99 96 93 89 86 83 80 78 75 72	102 98 94 91 87 84 80 77 74 72 69	102 97 93 89 85 81 78 75 72 69	100 96 91 87 84 80 77 74 71 68

RC - Ceiling Cavity Reflectance

LUMENS: 1206

# A1R-TL-1102-LED-1200L-DIM10-120-MD-30K-90-CL

	90°
	90'
	80°
677	
	770°
1354	760°
	500

**Candle Power Distribution (Candelas)** 

INPUT WATTS: 18.6

	800
677	700
1354	60°
2031	50°

Cone of Light							
2	932	1.3	1.3				
3	3 247 2.5						
5	108	3.7	3.7				
7	60.0	5.0	5.0				
8	39.1	6.2	6.2				
10	26.9	7.5	7.5				
(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.

Zonai Lun	nens Summ	ary	
Zone	Lumens	%Lamp	%Fixt
0-20	792.12	65.7	65.7
0-30	1149.87	95.4	95.4
0-40	1196.3	99.2	99.2
0-60	1203.54	99.8	99.8
0-80	1204.18	99.9	99.9
0-90	1204.2	99.9	99.9

CRI: 90

al Lur	nens Summ	ary		Luminance (Average candela/M <sup>2</sup> )					
one	Lumens	%Lamp	%Fixt	Angle	Average	Average	Average		
20	792.12 1149.87	65.7 95.4	65.7 95.4	in Degrees	0°	45°	90°		
10	1196.3	99.2	99.2	45	2343	2099	2198		
0	1203.54	99.8	99.8	55	1044	1146	1319		
30	1204.18	99.9	99.9	65 75	324 26	603 26	316 26		
90	1204.2	99.9	99.9	85	79	79	79		

EFFICACY: 65

in Degrees	Average 0°	Average 45°	Average 90°
45	2343	2099	2198
55	1044	1146	1319
65	324	603	316
75	26	26	26
85	79	79	79

CCT: 3000K

Lumens Pe	r Zone	Cande	Candela Tabulation						
Zone	Lumens		<u>0</u>						
0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90	244.95 547.17 357.75 46.43 4.91 2.33 0.58 0.07 0.02	0 5 15 25 35 45 55 65 75 85	2693.29 2618.95 1906.93 609.84 20.66 4.84 1.75 0.4 0.02 0.02						

# **Coefficients of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance 0.20

	RC	80%					70%			50%	50%			30%			10%		
		700/	<b>F0</b> 0/		400/			000/	400/		000/	400/			100/			400/	0%
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
ROOM CAVITY RATIO	0 1 2 3 4 5 6 7 8 9	119 115 110 106 102 99 95 92 88 85 83	119 112 106 101 96 92 88 84 81 78 75	119 110 103 97 92 87 83 80 76 73 70	119 108 100 94 88 84 80 76 73 70	116 112 108 104 101 97 94 90 87 85 82	116 110 105 100 95 91 87 84 80 77 75	116 108 102 96 91 87 83 79 76 73 70	116 107 99 93 88 84 80 76 73 70 67	111 106 101 97 93 89 86 83 79 77	111 105 99 94 90 86 82 79 75 72 70	111 103 97 92 87 83 79 76 73 70 67	106 102 99 95 91 88 85 81 79 76	106 101 97 92 88 85 81 78 75 72 69	106 100 95 90 86 82 79 75 72 69 67	102 99 96 93 89 86 83 80 78 75	102 98 94 91 87 84 80 77 74 72 69	102 97 93 89 85 81 78 75 72 69	100 96 91 87 84 80 77 74 71 68 66

RC - Ceiling Cavity Reflectance

RC - Ceiling Cavity Reflectance