6DR LED
6" Downlight – Round

Williams

NEW CONSTRUCTION AND REMODEL

L10 - L40: 6-5/8"
L50 - L80: 7-3/8"

ø6"
1/2" min
2-1/4" max
16-1/2"

CATALOG #: _____

TYPE: _____

PROJECT: _____

BUY AMERICAN ACT COMPLIANT · ENERGY STAR · **CCEA** Approved · **IP65** Rated · **JA8** Compliant · **TITLE 24** · **WET/CC** · bios ILLUMINATED

ORDERING EXAMPLE: 6DR - TL - L20/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1

— HOUSING — | — TRIM — | MOUNT.

HOUSING

SERIES	LUMENS [1]	CRI	CCT	OPTIONS	CONTROL	DRIVER	VOLTAGE
6DR - TL TrimLock	**L10** 1,000lm [2]	**8** 80	**27** 2700K	*See page 4 for EMERGENCY BATTERY OPTIONS.*	*See page 7 for ADDITIONAL CONTROL/DRIVER OPTIONS.*	*See page 7 for ADDITIONAL CONTROL/DRIVER OPTIONS.*	**UNV** 120-277V
	L15 1,500lm	**9** 90 [3]	**30** 3000K				**347** 347V [10]
	L20 2,000lm		**35** 3500K	**SCA_ _** Sloped ceiling adapter [4]	**–** None	**DIM** Dimming driver, 0-10V	
	L30 3,000lm		**40** 4000K	**ATH** Airtight construction	**AVI-LVFA** Avi-on wireless fixture control [7]	**DIM1** 1% Dimming driver, 0-10V	
	L40 4,000lm		**50** 5000K	**F** Fuse	**AWNR** Lutron Athena wireless node integral fixture control, RF only [8]	**DA** Driver with 12V auxiliary power, without external dimming wires [9]	
	L50 5,000lm			**CP** Chicago plenum (CCEA) [5]			
	L60 6,000lm			**SDT** Stepdown transformer [6]			
	L70 7,000lm						
	L80 8,000lm						

TRIM [11]

TRIM TYPE	DISTRIBUTION [12]	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
O Open reflector	**W** Wide	**OF** 1/2" standard flange	**Open trim types**	**MWT** Textured white trim flange [20]
L Flush lens	65° Open	**SF** 1/4" mud-in flange [18]	**CS** Clear semi-specular anodize	**IP** IP65 rated trim [21]
R Regressed lens	55° Flush		**SG** Satin-glow anodize	**AD** Diffuse acrylic lens [22]
A Angled lens [13]	55° Regressed		**GD** Gold anodize	**PD** Diffuse 1/8" polycarbonate lens [23]
S Non-conductive flush lens for shower applications [14]	**M** Medium [15]		**CG** Champagne gold anodize	**TD** Diffuse polycarbonate lens media at top of open reflector [24]
	35° Open		**PW** Pewter anodize	**WET/CC** Wet location, covered ceiling listed [25]
	35° Flush		**SPC** Clear specular anodize	**AM** Anti-microbial [26]
	35° Regressed		**RG** Rose gold anodize	
	N Narrow [16]		**WH** White texture powder coat	
	10° Open		**BL** Black texture powder coat	
	25° Flush			
	25° Regressed		**Lens trim types**	
	WW Wall wash [17]		**CS** Clear semi-specular powder coat	
			WH White texture powder coat	
			BL Black texture powder coat	
			MB Black texture splay with white flange [19]	

MOUNTING

MOUNTING TYPE [27]

N Open pan for new construction
I IC-rated enclosure for new construction [29]
R Remodel kit [30]

MOUNTING HARDWARE [28]

F1 Integral 2-position fixed pan bracket, universal bar hanger included [31]
BA1 Adjustable butterfly pan bracket, bar hanger not included [32]
CA1 Adjustable caterpillar pan bracket, universal bar hanger included [33]

NOTES

1. Lumen output based on O trim type, W distribution and CS finish, 80 CRI/3500K CCT. Actual lumens may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2. Not available with EM/10W emergency batteries.
3. Extended lead times may apply. Consult factory for availability.
4. 11-1/2" aperture, specify degrees of slope in 5° increments, 05°-30°. Not available with I Mounting Type, S Trim Type, ATH, IP, or WET/CC Options. Painted white. Other colors available, consult factory. See page 3 for SLOPED CEILING ADAPTOR DETAILS.
5. I Mounting Type required.
6. May be required for 347V, see product builder at hew.com/product-builder.
7. DA Driver only. See page 7 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
8. DA Driver only.
9. Avi-on and Lutron Athena Controls only.
10. Not available with EM batteries, DA or DMX Drivers.
11. Trim ships separately.
12. Beam angle based on CS or WH reflector finish. See page 2 for FIXTURE PERFORMANCE DATA.
13. Available with WW Distribution only.
14. W Distribution, OF Flange Type and WH Reflector Finish only. Standard with AD diffuse acrylic lens. IP and WET/CC options standard.
15. Not available with lumen stops L50 and higher when specified with flush or regressed trim types.
16. Not available with lumen stops L50 and higher when specified with flush or regressed trim types.
17. O and A Trim Types only.
18. For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for FLANGE TYPE DETAILS. Not available with ATH or IP options.
19. R Trim Type only. Not available with MWT.
20. Not available with WH Reflector Finish, L or S Trim Types.
21. L and R trim types only.
22. Not available with O trim type. W and WW distributions only.
23. Not available with O trim type. W and WW distributions only.
24. O Trim Type only. WET/CC standard unless ordered with EM/RTS. L50 lumen package max.
25. L50 lumen package max with O Trim Type. Not available with PD trim option.
26. WH and BL Reflector Finishes only. Not available with S Trim Type.
27. Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
28. Additional mounting hardware options available. See page 6 for MOUNTING HARDWARE DETAILS.
29. L30 lumen package max. Not available with EM batteries or Lutron Athena Controls.
30. Also used in new construction sheetrock ceilings. Pan-less installation.
31. N and I Mounting Types only. I Mounting requires external brackets.
32. N Mounting Type only.
33. N Mounting Type only.

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REV.11/14/23.LA
Downlights
Page 1 of 7

6DR LED
6" Downlight – Round

FEATURES

TrimLock®

- Innovative TrimLock reflector retention system ensures trim remains flush with ceiling plane
- Wide range of lumen options for general illumination
- Beam angles ranging from 10º narrow to 65º wide for tailored performance
- Industry-leading efficacies as high as 116 lm/W
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Fully room-side accessible
- Die-cast trim includes flush, regressed or angled lens
- Sloped adapter accommodates vaulted ceilings
- Optional non-conductive lens for shower applications
- IP65-rated die-cast trim includes easy-to-clean flush lens
- Open reflector with nine finishes complements any interior style
- Available on QuickShip
- Wireless in-fixture control solutions available

SPECIFICATIONS

- HOUSING – Die-cast aluminum trim housing with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Swing-out mounting arms field adjust for ceiling thickness from 1/2″ – 2-1/4″.
- TRIMLOCK – Innovative TrimLock reflector retention system ensures the trim remains flush with the ceiling plane.
- OPEN REFLECTOR – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- LENSED TRIM – Die-cast aluminum frame with micro-prismatic, acrylic lens.
- ELECTRICAL – High-performance Class 2 C.O.B. LED array. Modular quick-connect plug for easy field-connection of LED light assembly to driver. Reported L70>55,000 hours. Reported L90>55,000 hours. Estimated L70 = 200,000 hours.
- MOUNTING – Recessed. 20 ga. galvanized steel mounting pan for new construction or IC-rated enclosure. Remodel kit option includes receiver bracket hardware. Minimum 24″ O.C. marked spacing required for L60 - L80 lumen packages.

- LISTINGS –
  - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for dry and damp locations. LED light assembly conforms to UL 2108 for remote installation.
  - Suitable for wet location under covered ceiling when specified with WET/CC or TD options.
  - ENERGY STAR® certified in select configurations, see www.energystar.gov
  - IC-rated for direct contact with insulation when specified with I Mounting Type.
  - City of Chicago Environmental Air approved when specified with CP option.
  - Complies with ASTM-E283 when specified with ATH option.
  - RoHS compliant.
  - Title 24 (JA8) compliant in select configurations, see www.cacertappliances.energy.ca.gov.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

FIXTURE PERFORMANCE DATA

OPEN REFLECTOR TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	1014	8.7	117
	M	982	8.7	113
	N	1003	8.7	115
L15	W	1497	13.8	109
	M	1495	13.8	108
	N	1528	13.8	111
L20	W	1988	19.0	105
	M	1983	19.1	104
	N	2026	19.1	106
L30	W	3062	26.9	114
	M	3003	26.9	112
	N	3000	26.9	112
L40	W	4094	36.5	112
	M	4016	36.4	110
	N	4011	36.4	110
L50	W	5014	43.9	114
	M	4935	43.9	112
	N	5047	43.9	115
L60	W	6043	54.0	112
	M	5948	54.0	110
	N	6083	54.0	113
L70	W	7008	67.8	103
	M	6898	67.8	102
	N	7055	67.8	104
L80	W	8018	79.8	101
	M	7891	79.8	99
	N	8071	79.8	101

FLUSH LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	774	8.7	89
	M	910	8.7	105
	N	909	8.7	105
L15	W	1178	13.8	85
	M	1385	13.8	100
	N	1384	13.8	100
L20	W	1562	19.5	80
	M	1837	19.1	96
	N	1836	19.5	94
L30	W	2335	26.9	87
	M	2782	26.9	103
	N	2718	26.9	101
L40	W	3122	36.5	86
	M	3720	36.4	102
	N	3635	36.4	100
L50	W	3824	43.9	87
	M	–	–	–
	N	–	–	–
L60	W	4609	54.0	85
	M	–	–	–
	N	–	–	–
L70	W	5345	67.8	79
	M	–	–	–
	N	–	–	–
L80	W	6115	79.8	77
	M	–	–	–
	N	–	–	–

REGRESSED LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	716	8.7	82
	M	883	8.7	102
	N	897	8.7	103
L15	W	1090	13.8	79
	M	1344	13.8	97
	N	1366	13.8	99
L20	W	1445	19.5	74
	M	1782	19.1	93
	N	1812	19.5	93
L30	W	2160	26.9	80
	M	2699	26.9	100
	N	2683	26.9	100
L40	W	2889	36.5	79
	M	3609	36.4	99
	N	3587	36.4	99
L50	W	3537	43.9	81
	M	–	–	–
	N	–	–	–
L60	W	4264	54.0	79
	M	–	–	–
	N	–	–	–
L70	W	4945	67.8	73
	M	–	–	–
	N	–	–	–
L80	W	5657	79.8	71
	M	–	–	–
	N	–	–	–

MULTIPLIER TABLES

COLOR TEMPERATURE

	CCT	CONVERSION FACTOR
80 CRI	2700K	0.92
	3000K	0.98
	3500K	1.00
	4000K	1.01
	5000K	1.02
90 CRI	2700K	0.76
	3000K	0.79
	3500K	0.82
	4000K	0.84
	5000K	0.88

REFLECTOR FINISH

	CATALOG NUMBER	CONVERSION FACTOR
O TRIM	CS	1.00
	SG [1]	0.92
	GD	0.93
	CG	0.96
	PW	0.86
	SPC	1.02
	RG	0.88
	WH [1]	0.89
	BL [1]	0.47
R TRIM	WH	1.00
	CS	0.98
	BL	0.79

TRIM

	CATALOG NUMBER	CONVERSION FACTOR
	S	0.85
	AD	0.85
	PD	0.85
	TD	0.75
	WET/CC [2]	0.85

[1] Distribution will also be affected, consult factory.
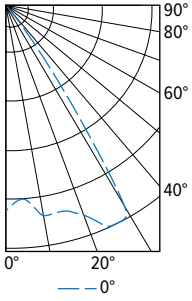[2] Use multiplier when specified with O Trim Type.
- Photometrics tested in accordance with IESNA LM-79. Results based on O trim type, W distribution, CS finish, 80 CRI/3500K CCT, wattage for 120V input, and 25ºC ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

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Downlights
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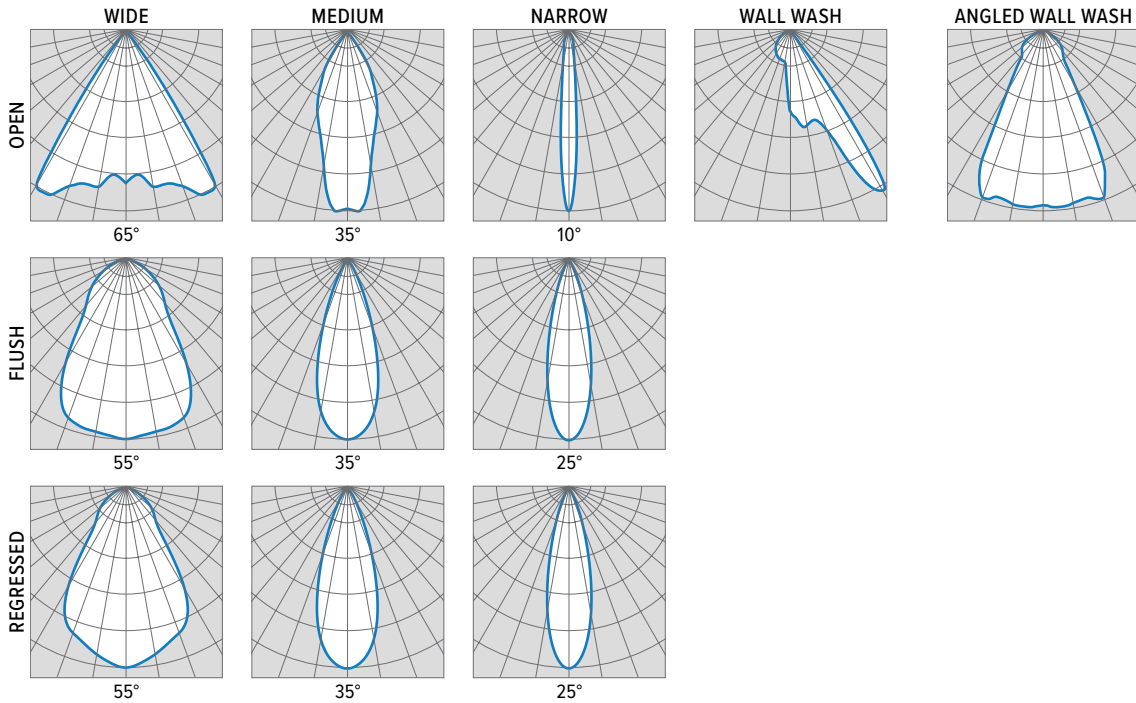
6DR LED
6" Downlight – Round

PHOTOMETRY

6DR-TL-L20/835-DIM-UNV-OW-OF-CS Report #: 20687; 12/12/18 | Total Luminaire Output: 1988 lumens; 19.0 Watts | Efficacy: 104.6 lm/W | 80 CRI; 3500K CCT
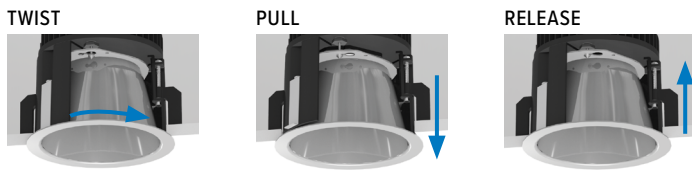
VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
0	1672	
5	1579	151
15	1735	492
25	1982	917
35	604	380
45	46	36
55	13	12
65	2	2
75	0	0
85	0	0
90	0	

CANDLEPOWER DISTRIBUTION

LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 40	1939	98
0 - 60	1987	100
0 - 90	1988	100
0 - 180	1988	100

WIDE	**MEDIUM**	**NARROW**	**WALL WASH**	**ANGLED WALL WASH**
OPEN 65°	35°	10°		
FLUSH 55°	35°	25°		
REGRESSED 55°	35°	25°		

TRIMLOCK DETAILS

TWIST

PULL

RELEASE

SLOPED CEILING ADAPTOR DETAILS
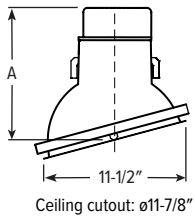
LUMENS	A (HEIGHT)						PLENUM HEIGHT
	5°	10°	15°	20°	25°	30°	
L10 - L40	10-11/16"	10-7/8"	10-15/16"	10-7/8"	10-13/16"	10-5/8"	11-1/4"
L50 - L80	11-7/16"	11-9/16"	11-5/8"	11-5/8"	11-1/2"	11-1/4"	12"

15° Shown

A

11-1/2"

Ceiling cutout: ø11-7/8"

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TRIM TYPE DETAILS

OPEN	OPEN (WALL WASH)	FLUSH	SHOWER	ANGLED	REGRESSED
ø6"	ø6"	ø5-5/8" — 1/8"	ø5-5/8" — 1/8"	ø5-5/8" — 1/8"	ø5-13/16" — 1/8" / 1-1/2"

FLANGE TYPE DETAILS

1/2" STANDARD
ø7"
Ceiling Cutout: ø6-1/2"

1/4" MUD-IN
ø6-3/8"
Ceiling cutout: ø7"

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)
1/8" — ø6-9/16" — 1/2"
ø9-1/2"
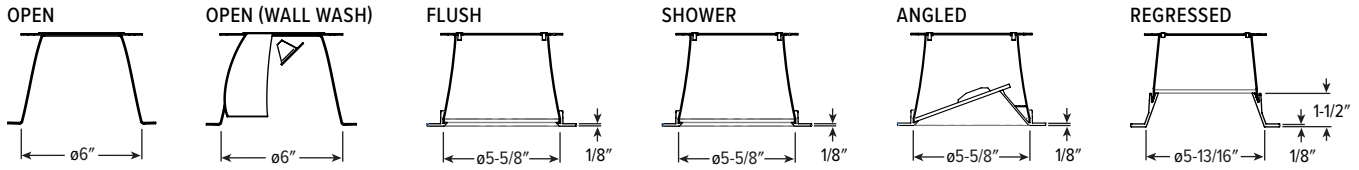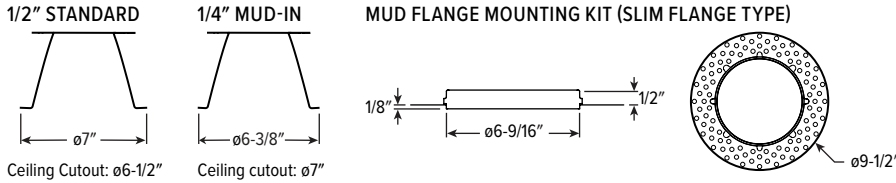
EMERGENCY BATTERY OPTIONS

Additional limitations apply, see page 1. Specify CEC in the option code when California Energy Commission regulations are required.

CATALOG NUMBER	DESCRIPTION
EM/7W	7-watt emergency battery [1]
EM/7W/RTS	7-watt emergency battery with regressed test switch [2]
EM/7W/IPRTS	7-watt emergency battery with IP65 rated regressed test switch
EM/10W	10-watt emergency battery [1]
EM/10W/RTS	10-watt emergency battery with regressed test switch [2]
EM/10W/IPRTS	10-watt emergency battery with IP65 rated regressed test switch

1 Not available with S Trim Type or IP Option.
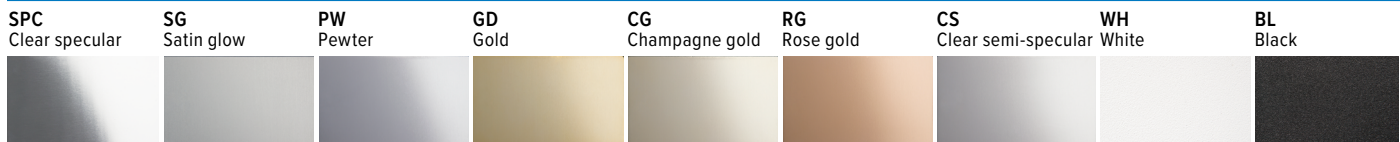2 Not available with S Trim Type, IP or WET/CC Options.

REGRESSED TEST SWITCH DETAILS
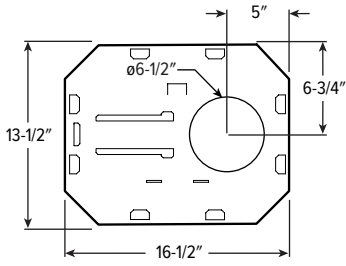
Shown Installed

Test button from EM Driver
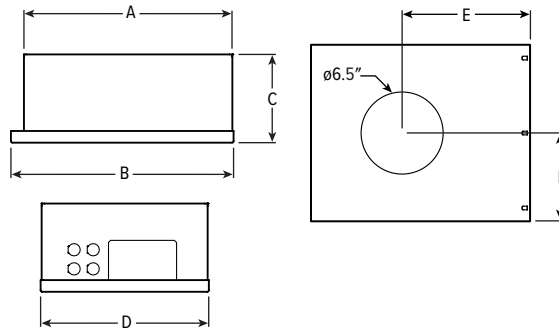RTS trim nut
RTS trim washer
RTS TRIM CUTOUT (Outside pan boundary)
O-ring (IPRTS option only)
IP Rated cap (IPRTS option only)
RTS trim
Downlight cutout
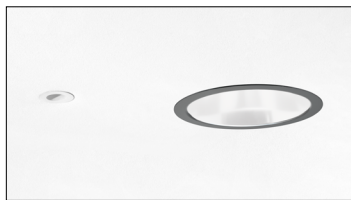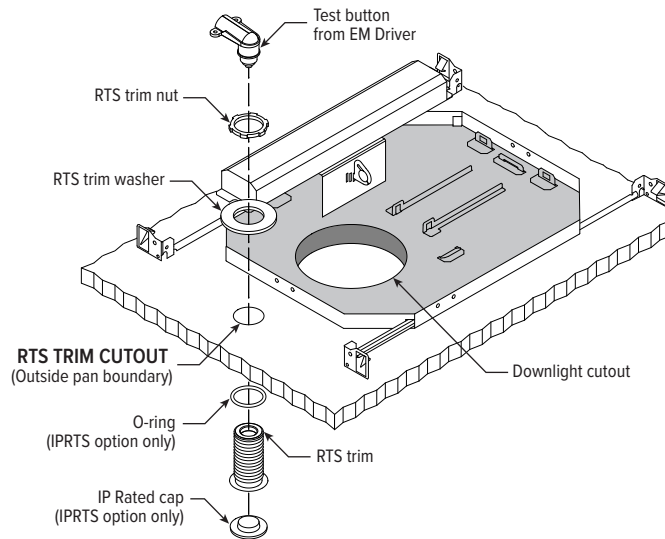
REFLECTOR FINISH DETAILS

SPC	SG	PW	GD	CG	RG	CS	WH	BL
Clear specular	Satin glow	Pewter	Gold	Champagne gold	Rose gold	Clear semi-specular	White	Black

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MOUNTING TYPE DETAILS

NEW CONSTRUCTION

5"
ø6-1/2"
6-3/4"
13-1/2"
16-1/2"

IC-RATED

A
B
C
D

ø6.5"
E
F

	LENGTH					
LUMENS	A	B	C	D	E	F
L10 - L20	15-3/16"	16"	6-3/8"	12-1/8"	9-1/2"	6-1/16"
L30	16-5/8"	17-1/2"	7-7/8"	14"	10-1/4"	7"

REMODEL

Cross Section

L10 - L40: 6-5/8"
L50 - L60: 7-3/8"
ø6"

Receiver Bracket
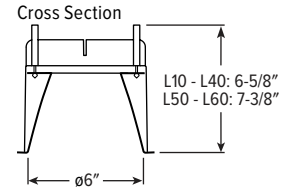
2-3/4"
3-1/4"
6-5/8"
1-1/8" min space
Ceiling cutout
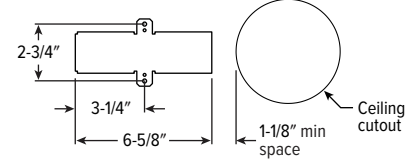
Driver and Junction Box

5-1/4"
4-1/8"
6-15/16"
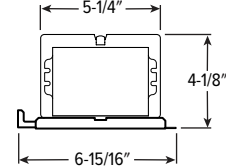
APERTURE ADAPTOR ORDERING INFO

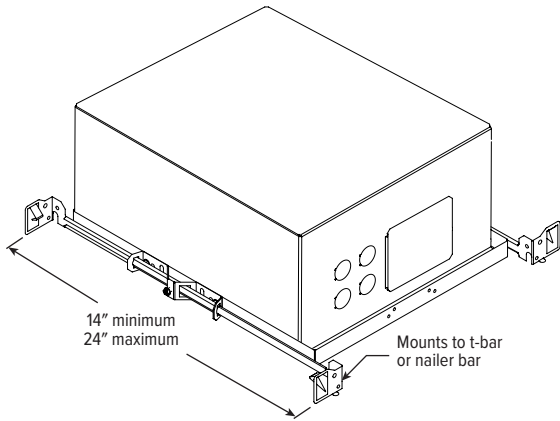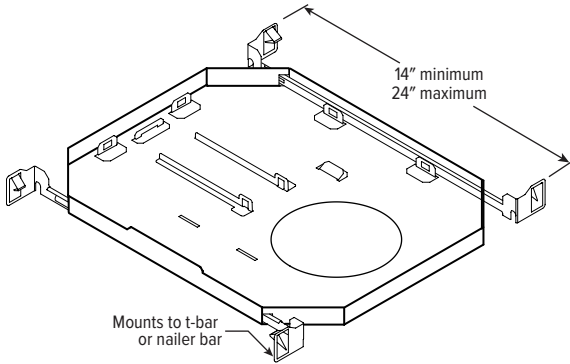| ORDERING EXAMPLE: 4DR - GR - 0575 - WHT			
SERIES	CATALOG NUMBER	CEILING CUTOUT	FINISH
4AR 6AR 4DR 6DR 4DS 6DS 4PR 6PR 4PS 6PS 8DR	GR	Specify ceiling cutout in 1/8" increments. Example: 5.75" = **0575** See Kit Components for application limits.	**CS** Clear semi-specular powder coat **WH** White texture powder coat **BL** Black texture powder coat

For use with remodel downlights. Additional finishes available, consult factory.
For limitations and instructions, see hew.com/aperture-adaptor.pdf

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6DR

MOUNTING HARDWARE DETAILS

F1 Integral 2-position fixed pan bracket, universal bar hanger included

14" minimum
24" maximum

Mounts to t-bar
or nailer bar

14" minimum
24" maximum

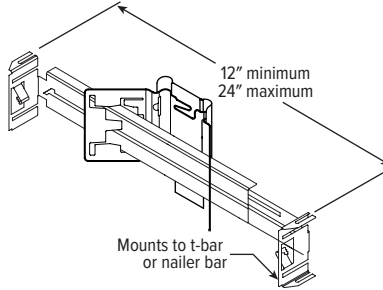Mounts to t-bar
or nailer bar

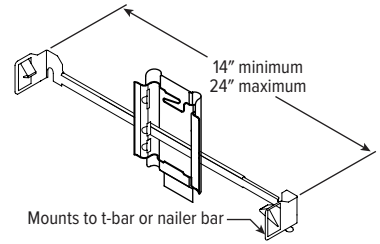F1 with I Mounting Type

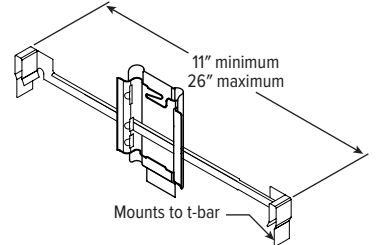**BA1** Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)
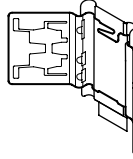
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)

12" minimum
24" maximum

Mounts to t-bar
or nailer bar

CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)

14" minimum
24" maximum

Mounts to t-bar or nailer bar

CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)

11" minimum
26" maximum

Mounts to t-bar

SEE NEXT PAGE FOR CONTROL DETAILS.

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6DR LED
6" Downlight – Round

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small offices to large warehouses
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.
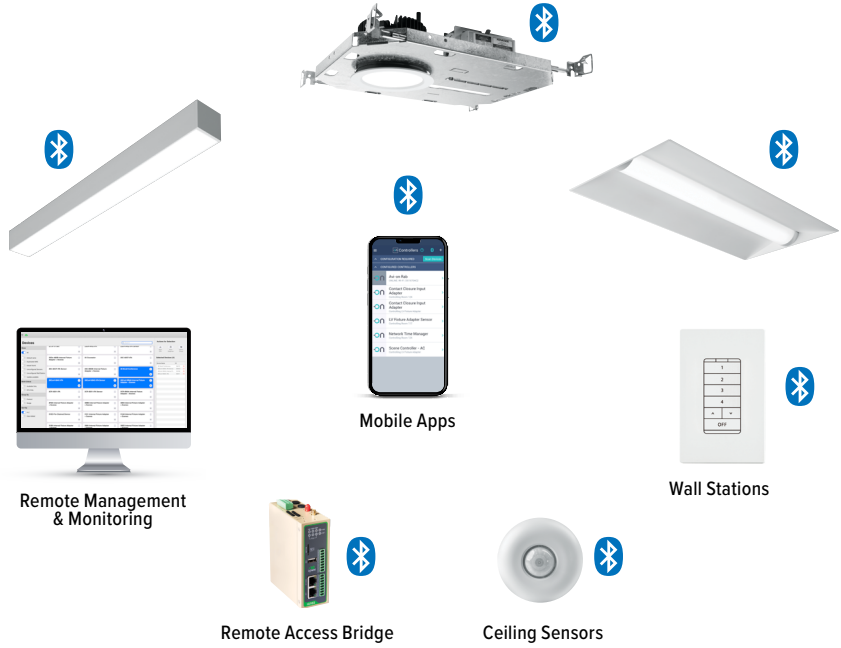

| Commissioning Mobile App | Zone Scanner Web App | Commissioning Pro App |

SYSTEM COMPONENTS

Mobile Apps

Remote Management & Monitoring

Remote Access Bridge

Ceiling Sensors

Wall Stations

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ACCESSORIES

WALL STATIONS	
AVI-2401AC	Scene controller - numbered 1-4, 120-277VAC
AVI-2402BAT	Scene controller - numbered 1-4, battery powered
AVI-2401AC-2	Dimmer with presets - percentages, 120-277VAC
AVI-2402BAT-2	Dimmer with presets - percentages, battery powered
AVI-2401AC-3	On/off/dimming, 120-277VAC
AVI-2402BAT-3	On/off/dimming, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-NTM	Network time manager with battery backup

CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

ADDITIONAL CONTROL/DRIVER OPTIONS

Lumen restrictions apply: L40 max for DMX driver, L40 max for Lutron drivers, L15 min to L60 max for DIM LINE driver. R mounting type requires top access with DMX controls. R Mounting Type requires 12" minimum plenum depth when specified with VRF/DBI controls. 347V may require stepdown transformer, see product builder at hew.com/product-builder. I Mounting Type not available with Lutron controls.

CATALOG NUMBER	DESCRIPTION
AVI-LVFA/DA	Avi-on wireless fixture control for use with driver with 12V auxiliary power
AWNR/DA	Lutron Athena wireless node integral fixture control, RF only, for use with driver with 12V auxiliary power
VRF/DBI/LDE1	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, with Lutron Hi-lume 1% EcoSystem dimming LED driver
FCJS/DIM	Lutron Vive PowPak wireless fixture control with dimming driver
FCJS/DIM1	Lutron Vive PowPak wireless fixture control with 1% dimming driver
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible at 120V only)
DALI	DALI dimming driver
DMX	0.1% dimming driver for DMX controls
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver

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