V6DR LED
6″ Vandal-Resistant Downlight – Round

Williams

L8 - L31: 6-5/8″
L38 - L56: 7-3/8″

ø5-5/8″

1/2″ min
1-7/8″ max

16-1/2″

CATALOG #: _____

TYPE: _____

PROJECT: _____

BUY AMERICAN ACT COMPLIANT · CCEA Approved · IP65 Rated · ISO 5 Class 100 · WET/CC

ORDERING EXAMPLE: V6DR - L16/835 - OPTIONS - CONTROL/DIM - UNV - LW - OF - WH - TRIM OPTIONS - N - F1

— HOUSING — · — TRIM — · MOUNT.

HOUSING

SERIES	LUMENS [1]	CRI	CCT	OPTIONS		CONTROL		DRIVER [2]		VOLTAGE	
V6DR	L8 800lm[3]	8 80	27 2700K	ATH	Airtight construction	*See page 5 for ADDITIONAL CONTROL/DRIVER OPTIONS.*		*See page 5 for ADDITIONAL CONTROL/DRIVER OPTIONS.*		UNV 120-277V	
	L12 1,200lm	9 90[4]	30 3000K	F	Fuse					347 347V[13]	
	L16 1,600lm		35 3500K	EM/7W	7-watt emergency battery[5]	—	None	DIM	Dimming driver, 0-10V		
	L23 2,300lm		40 4000K	EM/10W	10-watt emergency battery[6]	AVI-LVFA	Avi-on wireless fixture control[10]	DIM1	1% Dimming driver, 0-10V		
	L31 3,100lm		50 5000K	CP	Chicago plenum (CCEA)[7]			DA	Driver with 12V auxiliary power, without external dimming wires[12]		
	L38 3,800lm			SDT	Stepdown transformer[8]	AWNR	Lutron Athena wireless node integral fixture control, RF only[11]				
	L46 4,600lm			TC	Thick ceiling construction[9]						
	L53 5,300lm										
	L56 5,600lm										

TRIM

TRIM TYPE	DISTRIBUTION [14]		FLANGE TYPE	REFLECTOR FINISH		TRIM OPTIONS	
L Flush lens	W	Wide	OF 1/2″ standard flange	CS	Clear semi-specular powder coat	MWT	Textured white trim flange[18]
R Regressed lens		55° Flush		WH	White texture powder coat	IP	IP65 rated trim
		55° Regressed		BL	Black texture powder coat	PD	Diffuse 1/8″ polycarbonate lens[19]
	M	Medium[15]		MB	Black texture splay with white flange[17]	WET/CC	Wet location, covered ceiling listed
		35° Flush				AM	Anti-microbial[20]
		35° Regressed					
	N	Narrow[16]					
		25° Flush					
		25° Regressed					

MOUNTING

MOUNTING TYPE [21]

N Open pan for new construction
I IC-rated enclosure for new construction[23]

MOUNTING HARDWARE [22]

F1 Integral 2-position fixed pan bracket, universal bar hanger included[24]
BA1 Adjustable butterfly pan bracket, bar hanger not included[25]
CA1 Adjustable caterpillar pan bracket, universal bar hanger included[26]

ACCESSORIES

TPTX-10 TOOL T10 torx bit 1/4″ drive tamper-resistant tool.[27]

NOTES

1 Lumen output based on L trim type, W distribution, WH finish, 80 CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2 See page 5 for ADDITIONAL CONTROL/DRIVER OPTIONS.
3 Not available with EM/10W emergency batteries.
4 Extended lead times may apply. Consult factory for availability.
5 Specify CEC in the option code when California Energy Commission regulations are required.
6 Specify CEC in the option code when California Energy Commission regulations are required.
7 I Mounting Type required.
8 May be required for 347V, see product builder at hew.com/product-builder.
9 Required for ceiling thicknesses greater than 1-1/4″
10 DA Driver only. See page 5 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
11 DA Driver only.
12 Avi-on and Lutron Athena Controls only.
13 Not available with EM batteries, DA, or DMX Drivers.
14 Beam angle based on WH reflector finish.
15 Not available with lumen packages L38 and higher.

16 Not available with lumen packages L38 and higher.
17 R Trim Type only. Not available with MWT.
18 Not available with WH Reflector Finish or L Trim Type.
19 W distribution only.
20 WH and BL Reflector Finishes only.
21 Mounting hardware required, ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
22 Additional mounting hardware options available. See page 4 for MOUNTING HARDWARE DETAILS.
23 L23 lumen package max. Not available with EM batteries.
24 I Mounting requires external brackets.
25 N Mounting Type only.
26 N Mounting Type only.
27 Tamper-resistant tool must be ordered separately. Please specify quantity required per project.

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Downlights
Page 1 of 5

V6DR LED
6″ Vandal-Resistant Downlight – Round

FEATURES

- Ideal for schools, behavioral health facilities, correctional institutions, and other vandal-prone areas
- Anti-ligature design with tamper-resistant fasteners
- Accepted by the New York State Office of Mental Health for use in inpatient facilities
- IP65-rated die-cast trim includes easy-to-clean flush lens
- Beam angles ranging from 25° narrow to 55° wide for tailored performance
- Die-cast trim choices include flush or regressed lens
- Contemporary design provides glare-free illumination for a soft ceiling appearance
- Easily adjust mounting arms below ceiling to adapt to a range of ceiling thicknesses
- 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″ – 1-7/8″ max. TC option required for ceiling thicknesses greater than 1-1/4″.
- LENSED TRIM – Die-cast aluminum frame with 1/8″ micro-prismatic, polycarbonate lens with 1/8″ clear polycarbonate underlay. Trim is secured with four stainless steel, tamper-resistant screws.
- 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. Minimum 24″ O.C. marked spacing required for L38 and higher 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 option.
  - IC-rated for direct contact with insulation when specified with I Mounting Type.
  - ISO 5, Class 100 rated.
  - City of Chicago Environmental Air approved when specified with CP option.
  - Complies with ASTM-E283 when specified with ATH option.
  - RoHS compliant.
  - 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

FLUSH LENS TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L8	W	774	9.8	79
L8	M	910	9.8	93
L8	N	909	9.8	93
L12	W	1178	14.9	79
L12	M	1385	14.9	93
L12	N	1384	14.9	93
L16	W	1561	20.4	77
L16	M	1837	20.4	90
L16	N	1836	20.4	90
L23	W	2335	29.5	79
L23	M	2782	29.5	94
L23	N	2718	29.5	92
L31	W	3122	41.0	76
L31	M	3720	41.0	91
L31	N	3635	41.0	89
L38	W	3824	49.3	78
L38	M	–	–	–
L38	N	–	–	–
L46	W	4609	62.2	74
L46	M	–	–	–
L46	N	–	–	–
L53	W	5345	74.4	72
L53	M	–	–	–
L53	N	–	–	–
L56	W	5626	79.8	71
L56	M	–	–	–
L56	N	–	–	–

REGRESSED LENS TRIM TYPE

	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L8	W	716	9.8	73
L8	M	883	9.8	90
L8	N	897	9.8	92
L12	W	1090	14.9	73
L12	M	1344	14.9	90
L12	N	1366	14.9	92
L16	W	1445	20.4	71
L16	M	1782	20.4	87
L16	N	1812	20.4	89
L23	W	2160	29.5	73
L23	M	2699	29.5	92
L23	N	2683	29.5	91
L31	W	2889	41.0	71
L31	M	3609	41.0	88
L31	N	3587	41.0	88
L38	W	3537	49.3	72
L38	M	–	–	–
L38	N	–	–	–
L46	W	4264	62.2	69
L46	M	–	–	–
L46	N	–	–	–
L53	W	4945	74.4	67
L53	M	–	–	–
L53	N	–	–	–
L56	W	5205	79.8	65
L56	M	–	–	–
L56	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

TRIM	
CATALOG NUMBER	CONVERSION FACTOR
PD	0.85

| REFLECTOR FINISH		
	CATALOG NUMBER	CONVERSION FACTOR
R TRIM	WH	1.00
	BL	0.79
	CS	0.98

- Photometrics tested in accordance with IESNA LM-79. Results based on L trim type, W distribution, WH 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
Page 2 of 5

V6DR LED
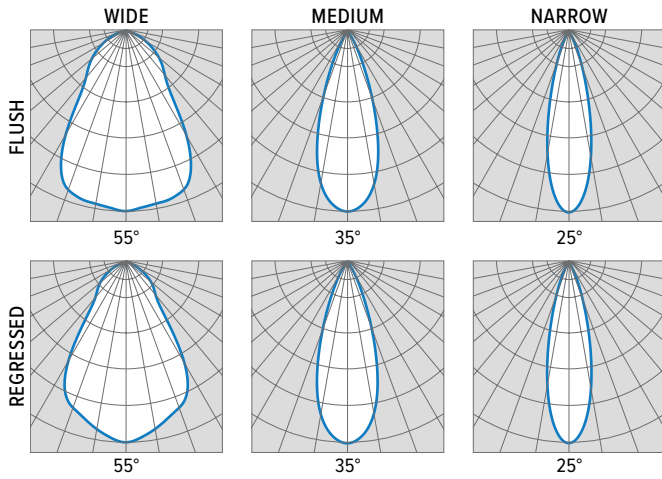## 6" Vandal-Resistant Downlight – Round

PHOTOMETRY

V6DR-L16/835-DIM-UNV-LW-OF-WH Total Luminaire Output: 1561 lumens; 20.4 Watts | Efficacy: 76.5 lm/W | 80 CRI; 3500K CCT
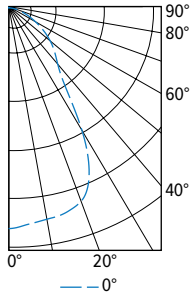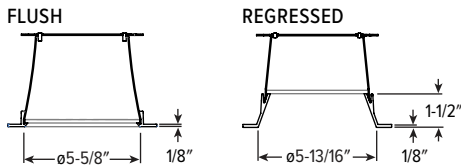
CANDLEPOWER DISTRIBUTION

VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
0	993	
5	978	69
15	954	155
25	823	185
35	420	123
45	281	105
55	190	77
65	106	45
75	47	20
85	10	2
90	1	

LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 40	1005	64
0 - 60	1392	89
0 - 90	1561	100
0 - 180	1561	100

FLUSH

WIDE 55°

MEDIUM 35°

NARROW 25°

REGRESSED

WIDE 55°

MEDIUM 35°

NARROW 25°

TRIM TYPE DETAILS

FLUSH
ø5-5/8" 1/8"

REGRESSED
ø5-13/16" 1-1/2" 1/8"

FLANGE TYPE DETAILS

ø7"

Ceiling Cutout: ø6-1/2"
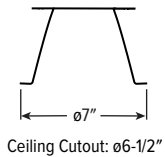
REFLECTOR FINISH DETAILS

CS
Clear semi-specular

WH
White

BL
Black

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Downlights
Page 3 of 5

V6DR LED
6″ Vandal-Resistant Downlight – Round

MOUNTING TYPE DETAILS

NEW CONSTRUCTION

ø6-1/2″

6-7/8″

9/16″

13-1/2″

6-3/4″

16-1/2″

5″

IC-RATED

A

C

B

D

E

ø6.5″

F
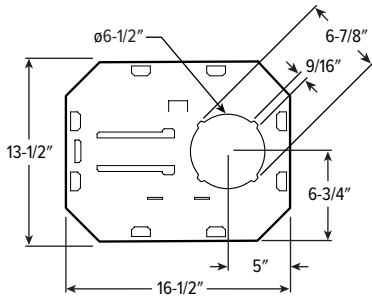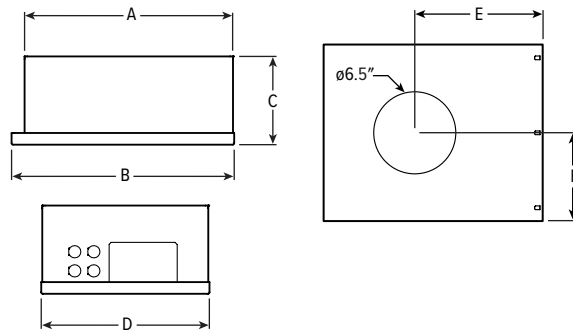
LUMENS	LENGTH					
	A	B	C	D	E	F
L8 - L16	15-3/16″	16″	6-3/8″	12-1/8″	9-1/2″	6-1/16″
L23	16-5/8″	17-1/2″	7-7/8″	14″	10-1/4″	7″

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
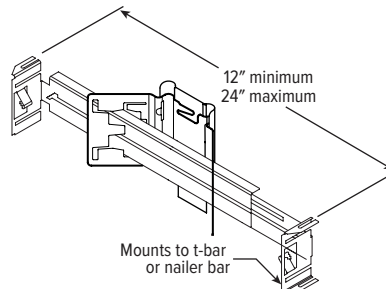
Mounts to t-bar
or nailer bar
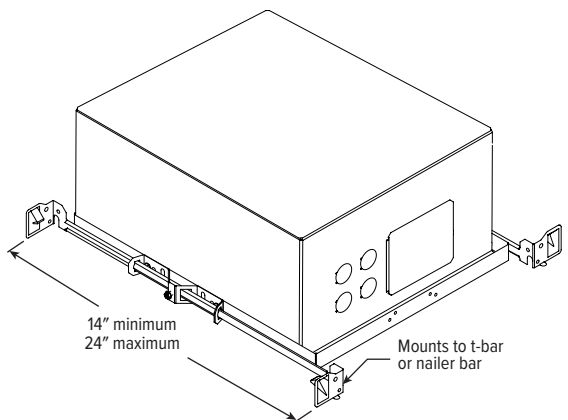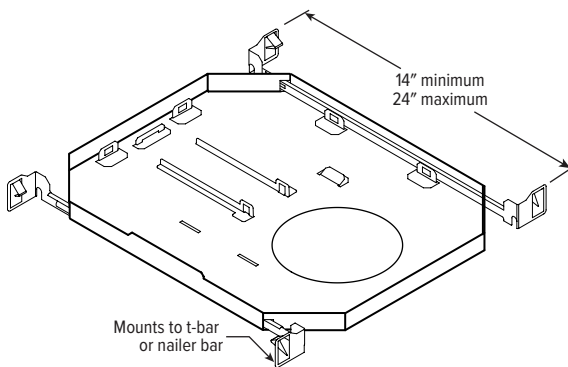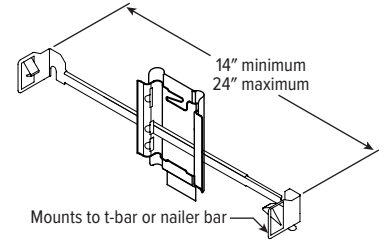
F1 with I Mounting Type

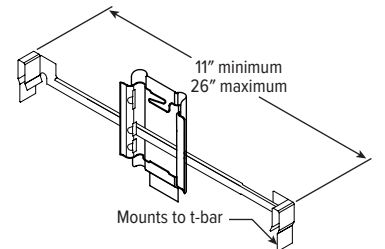**BA1** Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)
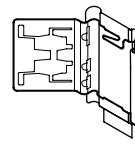
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)

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

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Downlights
Page 4 of 5

V6DR LED
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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.
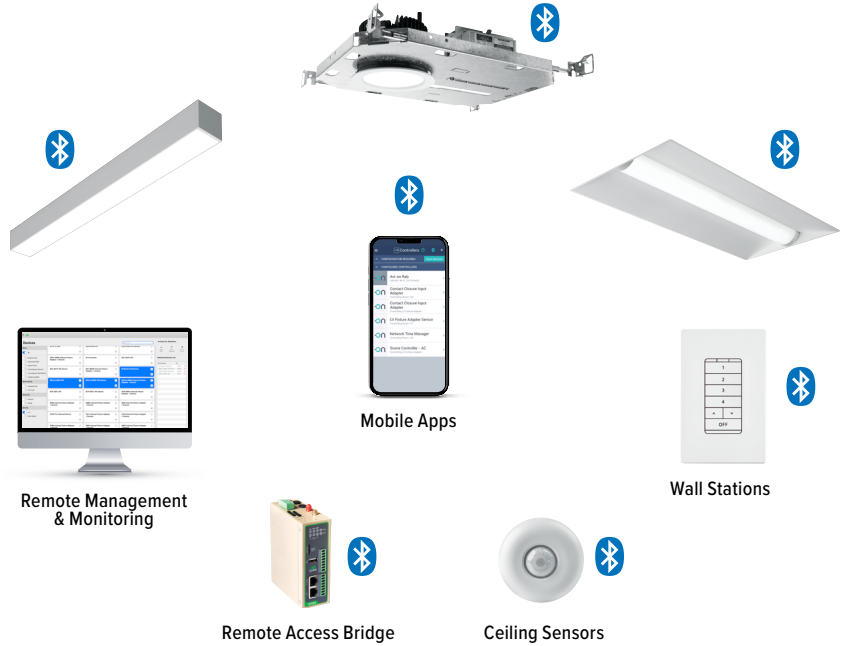
Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS

Mobile Apps

Remote Management & Monitoring

Wall Stations

Remote Access Bridge

Ceiling Sensors

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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

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

NETWORK

AVI-RAB-LTE	Remote access bridge – LTE connection
AVI-2001RAB-01-C	Remote access bridge – Wifi connection
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

ADDITIONAL CONTROL/DRIVER OPTIONS

Lumen restrictions apply: L31 max for DMX and Lutron drivers. L38 max for DALI driver. 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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Downlights
Page 5 of 5