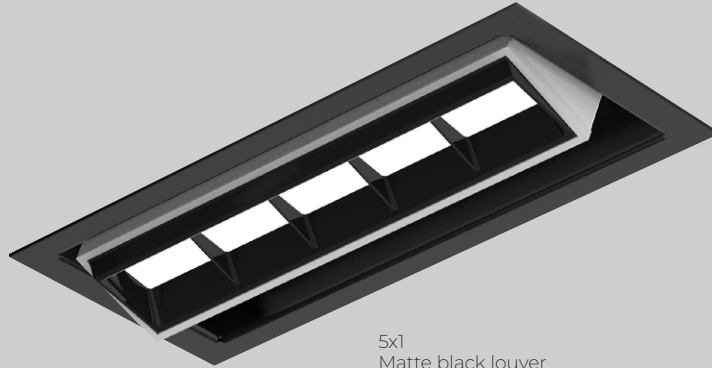# CLUSTER
RECESSED ADJUSTABLE WALL WASH

Lumenwerx

5x1
Matte black louver
Flanged trim

Cluster is the precise, and scalable family of downlights, wall washers, and adjustables, available for recessed, pendant, and surface mounting.

Based on a fundamental 1.2" square cell, Cluster delivers lighting that is optically sophisticated and aesthetically refined.

Cluster recessed adjustable wall wash downlights are available in 3, 5, and 10 cell configurations and aims 30° from vertical. The diffusion film optics deliver an effective, asymmetrical wash of light on target surfaces.
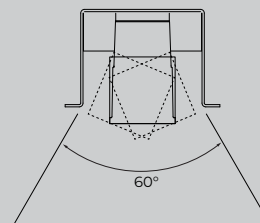
Optic

WRO - Wall wash

Sizes

3x1   5x1   10x1

Adjustability

60°

5 YEAR WARRANTY

Cluster Family (Refer to other spec sheets)

Recessed, Wood Slat			Recessed Adjustable			Pendant			Surface			Combo	Acoustix
Downlight	Parabolic	Wall Wash	Downlight	Parabolic	Wall Wash	Downlight	Parabolic	Wall Wash	Downlight	Parabolic	Wall Wash	Recessed Pendant Surface	Blank Downlight Parabolic

CLUSTER-RECESSED-ADJUSTABLE-WW-SPEC-REV6   December 18, 2024

CLUSTER
RECESSED ADJUSTABLE WALL WASH

Lumenwerx

Project: _____

_____

Type: _____

Order Guide
1. HOUSING

LUMINAIRE ID	TRIM STYLE	LIGHT SOURCE	INSTALLATION TYPE	MOUNTING OPTION [1]	DRIVER	VOLTAGE	LUMEN PACKAGE [3]		DIMMING
		SW							
CLU03RADJWW - Cluster 3x1 Recessed Adjustable Wall Wash **CLU05RADJWW** - Cluster 5x1 Recessed Adjustable Wall Wash **CLU10RADJWW** - Cluster 10x1 Recessed Adjustable Wall Wash	**TRM** - Flanged trim **TLMP** - Trimless drywall mudplate	**SW** - Static white	**OF** - Open Frame Type Non-IC **IC** - Type-IC **RM** - Remodel Type Non-IC **CP** - Chicago Plenum Type-IC (CCEA)	**ASB** [2] - Adjustable standard bar hangers **FMB** [2] - Flush mount bars **ACB** [2] - Adjustable commercial bar hangers **AHC** [2] - Adjustable hat channel bars **NA** - None [1] See page 3 for more details. [2] Not available with RM installation type.	**INTEGRAL**	**120V** - 120V **277V** - 277V **UNV** - 120V-277V	3x1 5x1 10x1	**400LM** - 400 lm **800LM** - 800 lm **1200LM** - 1200 lm [3] Lumen packages shown at 3500K, with WRO. For other, see lumen output multipliers on page 5.	**D1** - 1% 0-10V **ELV** [4] - ELV 120V **TRI** [4] - TRIAC 120V [4] Available with 120V only.
					REMOTE	DO NOT SPECIFY FOR REMOTE. SEE "REMOTE DRIVER BOX" SECTION BELOW.			

2. LIGHT

LUMINAIRE ID	TRIM STYLE	LIGHT SOURCE	OPTIC	CRI	COLOR TEMP.	TRIM FINISH [5]	LIGHT ELEMENT FINISH	LOUVER FINISH
		SW	**WRO**	**90CRI**				
CLU03RADJWWL - Cluster 3x1 Recessed Adjustable Wall Wash **CLU05RADJWWL** - Cluster 5x1 Recessed Adjustable Wall Wash **CLU10RADJWWL** - Cluster 10x1 Recessed Adjustable Wall Wash	**TRM** - Flanged trim **TLMP** - Trimless drywall mudplate	**SW** - Static white	**WRO** - Wall wash	**90CRI** - 90 CRI	**27K** - 2700K **30K** - 3000K **35K** - 3500K **40K** - 4000K **50K** - 5000K	**FTMW** - Textured matte white **FTMB** - Textured matte black **CF#** - Custom finish, specify RAL# [5] Applicable for trim and trimless. Body finish matches trim finish.	**FTMW** - Textured matte white **FTMB** - Textured matte black **CF#** - Custom finish, specify RAL#	**MF01** - Matte white **MF04** - Matte black

3. REMOTE DRIVER BOX

Ordered separately. Specify each required remote driver box on a separate line.

REMOTE DRIVER [6]	LUMINAIRE QTY. [7]	LUMINAIRE ID	VOLTAGE	LUMEN PACKAGE [8]				DIMMING [9]
					Low	Medium	High	
RDB# - Remote driver box [6] Specify each required remote driver box on a separate line.	**#X** - Number of luminaires [7] Specify number (#) of luminaires per remote driver. See page 5 for minimum and maximum per driver.	**CLU03RADJWW** - Cluster 3x1 Recessed Adjustable Wall Wash **CLU05RADJWW** - Cluster 5x1 Recessed Adjustable Wall Wash **CLU10RADJWW** - Cluster 10x1 Recessed Adjustable Wall Wash	**120V** - 120V **277V** - 277V **UNV** - 120V-277V	3x1 5x1 10x1	**100LM** - 100 lm **200LM** - 200 lm **300LM** - 300 lm	**250LM** - 250 lm **500LM** - 500 lm **750LM** - 750 lm	**400LM** - 400 lm **800LM** - 800 lm **1200LM** - 1200 lm	**RD1** - 1% 0-10V **RELV** [10,11] - ELV 120V **RTRI** [10,11] - TRIAC 120V **RDA** [12] - DALI **RLDE1** [12] - Lutron Hi-lume 1% Eco **RELD1** - eldoLED 1% ECOdrive 0-10V **RELD0** - eldoLED 0.1% SOLOdrive 0-10V

[8] Watts and lumen per watts will vary based on the number of light units per remote driver as well as on the type of driver selected.

[9] For configurations involving different Cluster sizes on a remote driver, please consult factory.
[10] Available with 120V only.
[11] Only available with high lumen packages.
[12] On-site commissioning is required.

EXAMPLE

MOUNTING	CLU05RADJWW-TRM-SW-OF-FMB-INTEGRAL-120V-800LM-D1	REMOTE DRIVER	N/A
LIGHT	CLU05RADJWWL-TRM-SW-WRO-90CRI-30K-FTMW-FTMW-MF01		

MOUNTING	CLU05RADJWW-TRM-SW-OF-FMB-REMOTE	REMOTE DRIVER	RDB1-4X-CLU05RADJWW-120V-500LM-RD1
LIGHT	CLU05RADJWWL-TRM-SW-WRO-90CRI-30K-FTMW-FTMW-MF01		RDB2-2X-CLU05RADJWW-120V-500LM-RD1

3737 Cote Vertu St-Laurent, Quebec, Canada H4R 2C9
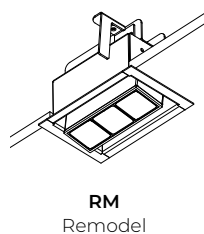T (514) 225-4304 F (514) 931 -4862
www.lumenwerx.com

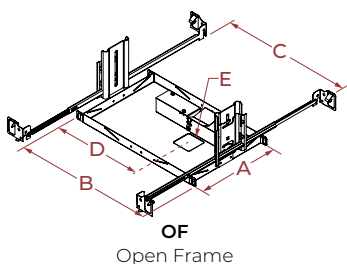**ETL** LISTED c us Intertek

CLUSTER
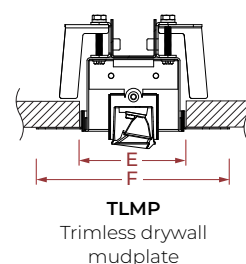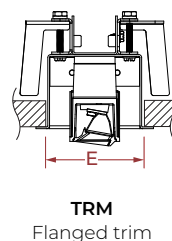## RECESSED ADJUSTABLE WALL WASH

Lumenwerx

Housing

Cluster can be installed in a wide range of ceiling conditions and with various ceiling trim options. Spring clips clamp the lighting unit to the mounting frame (or directly to the ceiling for remodel). Maximum ceiling thickness is 1.25".

INSTALLATION TYPES

OF
Open Frame

IC or **CP**
Type-IC / Chicago Plenum

RM
Remodel

CUT-OUT DIMENSIONS

TRM
Flanged trim

TLMP
Trimless drywall mudplate
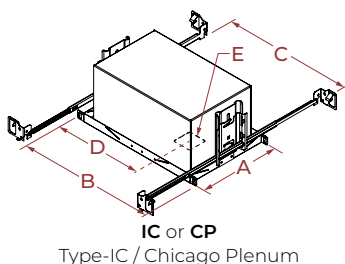
Drawings shown with adjustable standard bar hangers.

	A HOUSING WIDTH	B HOUSING LENGTH	C SPACING BETWEEN BARS	D DISTANCE FROM CUT-OUT
3x1	11"	12 11/16"	12 1/8"	6 3/8"
5x1	11"	13 11/16"	13 1/8"	6 7/8"
10x1	13"	15 1/2"	14 3/8"	7 7/16"

	E CUT-OUT DIMENSIONS	F MUDPLATE DIMENSIONS
3x1	4 3/8" x 3"	6 7/8" x 5 3/8"
5x1	6 3/4" x 3"	9 1/4" x 5 3/8"
10x1	12 3/4" x 3"	15 1/4" x 5 3/8"

PLENUM CLEARANCE
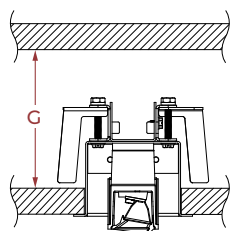
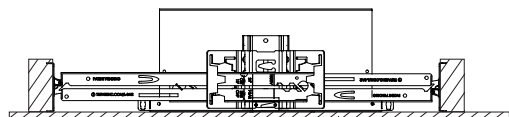|	G PLENUM CLEARANCE HEIGHT			
	OF	IC / CP	RM	
	REMOTE & INTEGRAL	INTEGRAL	INTEGRAL	REMOTE
3x1 5x1 10x1	4 13/16"	5 3/8"	4"	3 1/4"
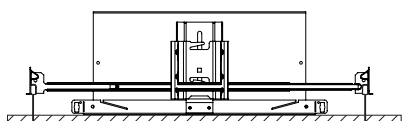
MOUNTING OPTIONS

ASB - Adjustable standard bar hangers.
Grid ceiling or drywall with variable height (commercial applications)

FMB - Flush mount bars.
Drywall/metal/wood frame mounting (residential applications)

ACB - Adjustable commercial bar hangers.
Grid ceiling, drywall, metal, wood, frame mounting (also openings for multiple hanging options such as hat channel, IC channel and metal tubing, supplied by others)
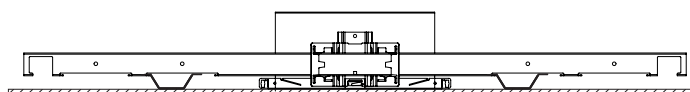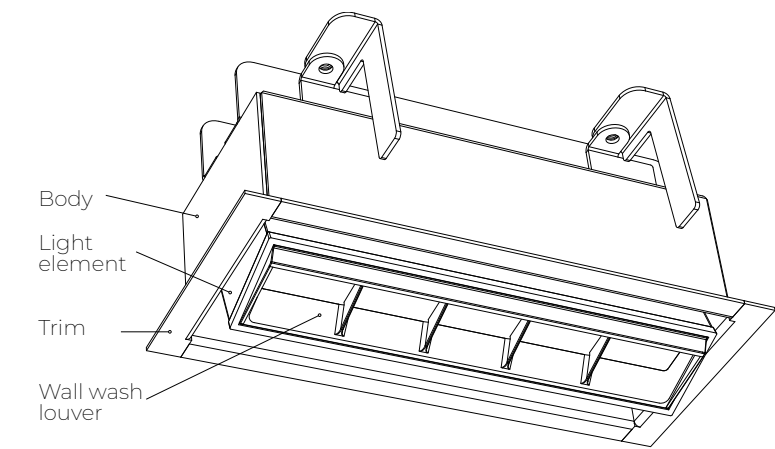

AHC - Adjustable hat channel bars.
With adjustable height

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CLUSTER
RECESSED ADJUSTABLE WALL WASH

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Light

Body

Light element

Trim

Wall wash louver

OPTIC

WRO - Wall wash

LOUVER FINISHES
Louver is injection molded with integral texture and color.

MF01 - Matte white
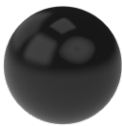
MF04 - Matte black

Dimensions
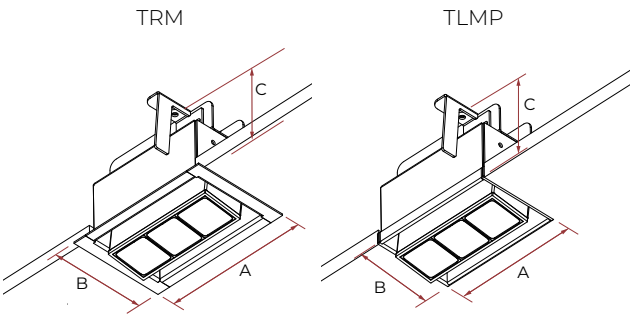
TRM

TLMP

	TRM			TLMP		
	A	**B**	**C**	**A**	**B**	**C**
3x1	4 7/8"			4 1/8"		
5x1	7 1/4"	3 1/4"	3 1/4"	6 9/16"	2 11/16"	3 1/4"
10x1	13 1/4"			12 9/16"		

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CLUSTER
RECESSED ADJUSTABLE WALL WASH

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Driver

REMOTE DRIVER

The remote driver can power several lighting units, depending on their total power. The minimum and maximum number of lighting units and driver type are shown in the table below and must be observed. The remote driver and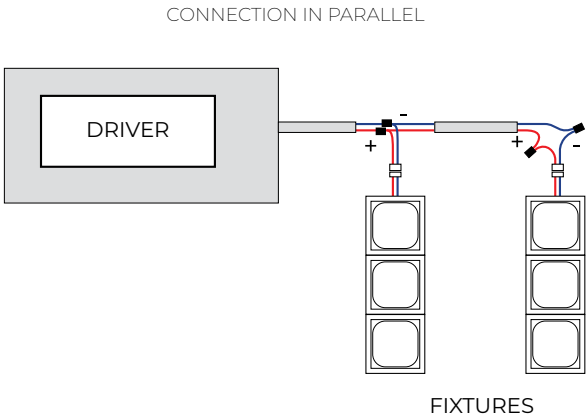 lighting units are wired together through connection boxes, which are furnished pre-wired to the driver enclosure. All wiring is Class 2 with quick-splice connectors. The remote driver requires access from above the ceiling (or an access panel).

CONNECTION IN PARALLEL

DRIVER

FIXTURES

Number of lighting units per driver (minimum and maximum).

DRIVER	3x1	5x1	10x1
RD1	1-12	1-7	1-5
RELV	1-6	1-4	1-2
RTRI	1-6	1-4	1-2
RDA	1-11	1-7	1-4
RLDE1	1-11	1-7	1-4
RELD1	1-11	1-7	1-4
RELD0	1-11	1-7	1-4

For any quantities of lighting units per driver that fall outside the minimum and maximum listed above, please consult factory.

Photometrics

Values calculated based on 3500K.
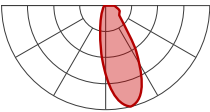
WRO - Wall wash

	LM	W	LM/W
3x1	400	6.35	63
5x1	800	12.7	63
10x1	1200	18.2	66

MULTIPLIER TABLE

Please follow the multiplier table to ensure correct lumen value. CCT will change the lumen value.

CCT	LPW
2700K	0.94
3000K	0.97
3500K	1
4000K	1.02
5000K	1.06

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CLUSTER
RECESSED ADJUSTABLE WALL WASH

VERTICAL ILLUMINANCE
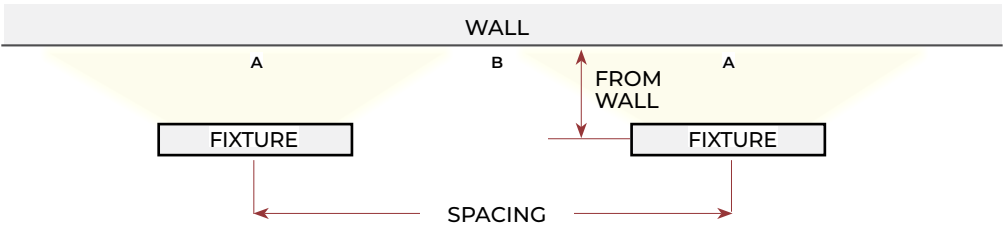
FC ON WALL

24" FROM WALL - 18" SPACING

Distance from Ceiling		3x1		5x1		10x1	
		A	B	A	B	A	B
	1'	20	19	40	38	59	57
	2'	24	24	48	48	72	71
	3'	24	24	48	48	71	71
	4'	19	19	37	37	55	55
	5'	14	14	28	28	40	40
	6'	10	10	21	21	30	30
	7'	9	9	17	17	24	24
	8'	7	7	15	14	20	20

24" FROM WALL - 36" SPACING

Distance from Ceiling		3x1		5x1		10x1	
		A	B	A	B	A	B
	1'	10	9	21	17	31	26
	2'	11	11	23	21	34	32
	3'	13	12	25	25	38	37
	4'	12	12	24	24	36	35
	5'	10	10	20	20	29	29
	6'	8	8	15	16	23	23
	7'	6	6	12	12	19	19
	8'	5	5	11	11	16	16

30" FROM WALL - 36" SPACING

Distance from Ceiling		3x1		5x1		10x1	
		A	B	A	B	A	B
	1'	8	7	16	15	24	22
	2'	9	8	17	17	26	25
	3'	10	10	19	19	29	28
	4'	10	10	20	20	31	31
	5'	10	10	19	19	29	29
	6'	8	8	17	17	25	25
	7'	7	7	14	14	21	21
	8'	6	6	12	12	18	18

Technical Specifications

OPTICS

Wall Wash Refractive Optic (WRO)
Cluster wall wash optic use multiple mid-flux emitters in a continuous array, supported by an angled board. An aluminum reflector collects and redirects emitter flux, while a refractive film adjusts both vertical and horizontal intensity and eliminates source image. The result is excellent uniformity up and down the wall, as well as between luminaires.

LIGHT SOURCE

Custom array of high-flux LEDs mounted onto aluminum-backed circuitry. Available in 2700K, 3000K, 3500K, 4000K and 5000K with a minimum 90 CRI with elevated R9 value. Color consistency is maintained to within 3 SDCM. All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

ELECTRICAL

Unless otherwise specified, dimming down to 1%. At maximum driver load: efficiency>84%, PF>0.9, THD<20%.
Integral: 0-10V, ELV, TRIAC
Remote: 0-10V, ELV, TRIAC, Lutron Hi-Lume 1% EcoSystem, DALI, eldoLED 0.1% SOLOdrive 0-10V, eldoLED 1% ECOdrive 0-10V

PoE

Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, DUO (tunable white), QUADRO (RGBW), emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis

WEIGHT

	OF		IC / CP		RM	
	lb	kg	lb	kg	lb	kg
3x1	4.11	1.83	7.49	3.37	1.59	0.69
5x1	4.75	2.14	8.38	3.78	2.18	0.97
10x1	6.9	3.13	11.32	5.14	3.57	1.62

CONSTRUCTION

Housing: Die-cast aluminum
Optics: Polycarbonate
Mounting frame: Galvanized sheet metal
Driver housing: Galvanized sheet metal
Mounting clips: Ø 1.0-1.4 mm spring clips
Adjustable structure: Cold rolled steel
Mounting bracket: Cold rolled steel
Fixture case: Cold rolled steel

CERTIFICATIONS

ETL: Rated for indoor dry/damp locations. Conforms to ANSI/UL Std. 1598 and certified to CAN/CSA Std C22.2 No. 250.0.
Chicago Plenum: City of Chicago approved (CCEA) when specified with CP installation type option.
IC rated: Suitable for direct contact with insulation when specified with IC or CP installation type options.

WARRANTY

Lumenwerx provides a five-year limited warranty on electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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