

Champ Pro PVML LED Luminaires

3,000 to 13,000 lumens

UL/cUL Listed
IEC/CE
Wet Locations
Type 4X; IP66

2L

2L

The Champ Pro PVML LED family:

Champ® Pro PVML LED luminaires are engineered to provide maintenance-free illumination in the most demanding harsh and heavy industrial environments.

The Champ PVML features a compact, high efficacy design with custom optics to ensure maximum efficiency and mounting flexibility, including the ability to retrofit the Crouse-Hinds installed base to service both LED upgrades and new projects.

Model	Nominal lumens ^A	Watts	Efficacy	Equivalent HID luminaire
PVML-3	3,250	28	123 lm/W	70W
PVML-5	5,537	45	127 lm/W	100W
PVML-7	7,442	61	127 lm/W	175W
PVML-9	9,234	76	126 lm/W	250W
PVML-11	11,114	92	122 lm/W	320W
PVML-13	13,100	95	125 lm/W	400W

Applications:

- Non-hazardous locations with mounting heights up to 30 feet
- Heavy industrial, mine site processing areas, platforms, loading docks, tunnels, indoor/outdoor spotlighting, outdoor wall and stanchion mounted general area lighting, and areas requiring frequent on-and-off of lights
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Type 4X, marine, wet locations and hose down environments

Features:

- Instant illumination and restrike
- Dimmable driver, 0-10V
- Better visibility with crisp, white light
- Cold temperature operation/no warm-up required
- Option for redundant drivers to avoid complete loss of illumination
- Easy installation – compact modular fixture attaches onto existing Champ mounting module
- Energy-efficient – up to 77% energy savings over HID fixtures
- Contains no mercury or other hazardous substances
- Shock- and vibration-resistant solid state luminaires have no filaments or glass components that could break – greatly reduces the risk of premature failure
- Operating ambient: -40°C to +65°C
- Full cut-off with no wasted light above the fixture
- 5 year fixture warranty

Certifications and compliances:

- DesignLights Consortium® Qualified (pending)^B
- NEC/CEC:**
- Wet locations, Type 4X, IP66
- UL standards:**
- UL1598 – Luminaires; UL1598A – Marine
- CSA standard:**
- cUL Listed to CSA standard CSA C22.2 No. 250
- IEC standard:**
- CE

Standard materials:

- Lamp housing and adapter – die cast aluminum with Corro-free epoxy powder coat
- Lens – heat- and impact-resistant glass
- Gaskets – silicone
- External hardware – stainless steel
- Factory sealed, no external seals required

Photometrics:

- Refer to www.eaton.com (under the Resources tab of each product family) for specific photometric IES files



LED system:

- High intensity discrete LEDs
- Cool white (5000K, 70 CRI) (standard); warm white (3000K, 80 CRI) or neutral white (4000K, 70 CRI) (optional)
- Custom Type I, III and V optics available

Colored LED options:

- Available in green and amber^C
- Reduction in light pollution for night space observation and sky glow due to isolating blue wavelength in red and amber colors
- Wildlife-friendly
- Improves visibility for telescopes in observatories during night sky space exploration

Net luminaire weights:

Model	Lbs.	Kg.
PVML-3 to PVML-7	19.00	8.62
PVML-9 to PVML-13	19.20	8.70
Add mounting modules:		
Pendant	1.25	0.57
Cone pendant	4.00	1.81
Flexible pendant	1.50	0.68
Ceiling	2.75	1.25
Wall	4.50	2.04
Angled stanchion	3.50	1.59
Straight stanchion	4.50	2.04

^ANominal lumens based on Type V optics, 5000K CCT with clear glass lens. Wattage measured at 120 VAC.

^BRefer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

^CCustom optics not available with colored LEDs. One model per color; see ordering information.

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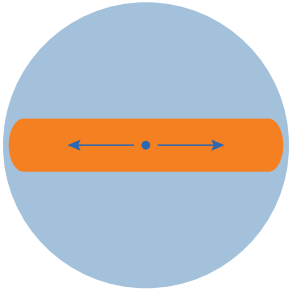
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Custom optics:

Three optical options to maximize light distribution and intensity:

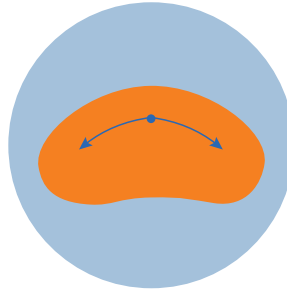


TYPE I

Long and rectangular for hallways, walkways, loading docks, catwalks.

Ideal for:

- Mining conveyor belts
- Aisleways and hallways
- Catwalks and walkways
- Ramps and loading docks
- Tunnels with overhead mounts

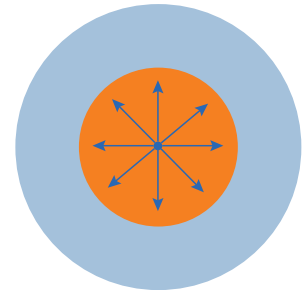


TYPE III

Wall mount light distribution, minimizing spillover on the wall.

Ideal for:

- Narrow crosswalks or passages with wall mounted fixtures
- Tunnels with wall mount
- Wall or stanchion mount requiring 180° forward throw beam patterns



TYPE V

Regular circular distribution pattern for high/low bay indoor and outdoor ceiling or pendant mount lighting.

Ideal for:

- Pendant, ceiling or stanchion mount overhead building mounts
- Processing mills, industrial plants, large buildings, warehouses, etc.

Electrical ratings:

UNV1 driver	Input power (watts)	Input amps at 100-277 VAC	UNV34 driver	Input power (watts)	Input amps at 347-480 VAC
PVML-3	27	0.27 - 0.10	PVML-3	28	0.08 - 0.06
PVML-5	45	0.45 - 0.16	PVML-5	44	0.13 - 0.09
PVML-7	61	0.61 - 0.21	PVML-7	57	0.16 - 0.12
PVML-7-S892	60	0.60 - 0.23	PVML-7-S892	61	0.18 - 0.13
PVML-9	76	0.76 - 0.26	PVML-9	68	0.20 - 0.14
PVML-9-S892	80	0.80 - 0.29	PVML-9-S892	73	0.22 - 0.15
PVML-11	92	0.92 - 0.32	PVML-11	83	0.24 - 0.17
PVML-11-S892	97	0.97 - 0.35	PVML-11-S892	86	0.25 - 0.18
PVML-13	95	1.06 - 0.42	PVML-13	91	0.29 - 0.17
PVML-13-S892	99	1.10 - 0.36	PVML-13-S892	96	0.31 - 0.19

All models

Power factor ≥ 0.90

THD $\leq 15\%$

UNV1

Voltage range, 100-277V at VAC Ⓢ
50/60 Hz

Voltage range, 127-250V VDC

UNV34

Voltage range, 347-480V at VAC Ⓢ
50/60 Hz

EMC / CE compliance:

If the dimming interface of the LED driver is connected to an external dimmer which is not provided with the luminaire, a ferrite core must be used on the input and dimming lines. Approved ferrite cores are: Fair-Rite P/N 0431167281.

Ⓢ IEC voltage: 100-240 VAC at 50/60 Hz. For PVML-3: PF>0.9 from 100-255 VAC.

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Ordering information:

Part number example

PVML-3-N-2A-R1-G-UNV1-S831-UPLT

PVML -3 -N -2A -R1 -G -UNV1 -S831 -UPLT

Light source / intensity

3	3,250 nominal lumens
5	5,537 nominal lumens
7	7,442 nominal lumens
9	9,234 nominal lumens
11	11,114 nominal lumens
13 ^E	13,100 nominal lumens
A	Amber – 5,200 lumens
G	Green – 4,300 lumens

Color temperature

BLANK	Cool white (5000K), 70 CRI
N ^F	Neutral white (4000K), 70 CRI
W	Warm white (3000K), 80 CRI

Mounting style

BLANK	No mounting module	2C	¾" ceiling
J	1½" stanchion, 25° angled	3C	1" ceiling
P	1½" stanchion, straight	20C	20mm ceiling
2A	¾" pendant	25C	25mm ceiling
3A	1" pendant	2HA	¾" flexible pendant
20A	20mm pendant	2TW	¾" wall
25A	25mm pendant	3TW	1" wall
2B	¾" cone pendant	20TW	20mm wall
3B	1" cone pendant	25TW	25mm wall

Guard

BLANK	No guard
G	Wire guard

Voltage^H

UNV1	100-277 VAC, 50/60 Hz; 127-250 VDC
UNV34	347-480 VAC, 50/60 Hz

Optics

BLANK	Type V optic standard
R1	Type I optic (<i>all mounts minus ceiling</i>)
R1A ^G	Type I optic (<i>ceiling with conduit 45° counterclockwise from top hat hinge</i>)
R1B ^G	Type I optic (<i>ceiling with conduit 135° clockwise from top hat hinge</i>)
R3	Type III optic (<i>all mounts minus ceiling</i>)
R3AP ^G	Type III optic (<i>select when using Appleton® top hat adapter with Champ fixture</i>)
R3A1 ^G	Type III optic (<i>ceiling with conduit 45° counterclockwise from top hat hinge</i>)
R3A2 ^G	Type III optic (<i>ceiling with conduit 135° clockwise from top hat hinge</i>)
R3B1 ^G	Type III optic (<i>ceiling with conduit 45° clockwise from top hat hinge</i>)
R3B2 ^G	Type III optic (<i>ceiling with conduit 135° counterclockwise from top hat hinge</i>)

Lens material

BLANK	Clear glass
S891	Diffused glass
S896 ^K	Teflon coated lens
S903	Polycarbonate
UPLT ^L	Uplight refractor lens

Accessories and options^I

S812 ^G	Trunnion mount kit with pin
S831	Safety cable
S890	Quick Clip
S892 ^J	Redundant driver
TB6 ^K	Six-pole terminal block

^EFor 13L models, add suffix -M2 at the end of the part number. Example: PVML-13-2A-R1-UNV1-S831-M2.

^FConsult factory for lead time. 5700K and 6500K are available upon request; consult factory. Not available for amber or green LED.

^GAvailable with ceiling mount modules only.

^HIEC voltage: 100-240 VAC at 50/60 Hz.

^IOrdered with fixture or available separately.

^JAvailable for PMVL-7, -9, -11 and -13 only.

^KFor NEC/CEC only.

^LFor use with Type V optic only.

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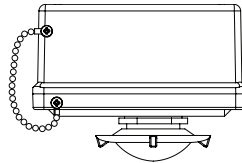
Accessories (ordered separately):

Replacement driver kits

VMVL-3-5-7L-UNV1-DRIVER-KIT	UNV1 replacement driver kit for PVML-3, -5 and -7
VMVL-9-11L-UNV1-DRIVER-KIT	UNV1 replacement driver kit for PVML-9 and -11
VMVL-96W-13L-UNV1-M2-DRIVER-REPL-KIT	UNV1 replacement driver kit for PVML-13
VMVL-3L-5L-UNV34-DRIVER-KIT	UNV34 replacement driver kit for PVML-3 and -5
VMVL-7L-UNV34-DRIVER-KIT	UNV34 replacement driver kit for PVML-7
VMVL-9L-UNV34-DRIVER-KIT	UNV34 replacement driver kit for PVML-9
VMVL-11L-UNV34-DRIVER-KIT	UNV34 replacement driver kit for PVML-11
VMVL-13-M2-DRIVER-KIT	UNV34 replacement driver kit for PVML-13
VMVL-7L-S892-UNV1-DRIVER-KIT	UNV1 replacement redundant driver kit for PVML-7
VMVL-9L-11L-S892-UNV1-DRIVER-KIT	UNV1 replacement redundant driver kit for PVML-9 and -11
VMVL-13-UNV1-S892-M2-DRIVER-KIT	UNV1 replacement redundant driver kit for PVML-13
VMVL-7L-S892-UNV34-DRIVER-KIT	UNV34 replacement redundant driver kit for PVML-7
VMVL-9L-S892-UNV34-DRIVER-KIT	UNV34 replacement redundant driver kit for PVML-9
VMVL-11L-S892-UNV34-DRIVER-KIT	UNV34 replacement redundant driver kit for PVML-11
VMVL-13-UNV34-S892-M2-DRIVER-KIT	UNV34 replacement redundant driver kit for PVML-13
VMVL-AL-GL-UNV1-DRIVER-KIT	UNV1 replacement driver kit for amber or green models

Occupancy sensor

ORDC/UNV1	3/4" NPT entry, 100-277 VAC
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Occupancy sensor accessories

CABLE KIT ORD 1	TECK armored cable (5 ft.) with TECK glands (3/4")
CABLE KIT ORD 2	P Type non-armored cable (5 ft.) with ADE 1F glands (3/4")
CABLE KIT ORD 3	Metal-clad armored cable (5 ft.) with TMC glands (3/4")
CABLE KIT ORD 4	SO cable (5 ft.) with ADE 1F glands (3/4")
ORDC WKIT	Wall mount kit
ORDC PKIT	Pendant mount kit
ORDC SKIT	Stanchion mount kit
REMOTE CONTROL 1	Remote control for programming sensor



ORDC/UNV1



REMOTE CONTROL 1

Mounting and hardware

VMVL S812 K1	Trunnion mount kit with pin ^M
VMVL S812 K1 DBR	PVC coated trunnion mount kit with pin ^M
VMVL S831 K1	Safety cable
VMVL S890 K1	Quick Clip

Mounting adapters

CHMM1	For Appleton MercMaster III mounts
CHMM2	For MercMaster II mounts
CHMM3	For Thomas & Betts HazLux mounts
CHMM4	For GE H2 Filtr-Gard mounts

Refractor kit

PVML-UPLT-KIT	Uplight refractor lens
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Photocells

D2S20	Photocell, 120V
D2S208 277	Photocell, 208-277V

Lens guard

P3001	Wire guard
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^M Available with ceiling mount modules only.

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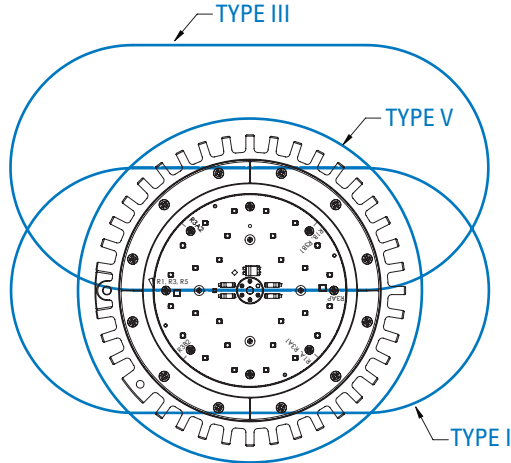
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Optics options:

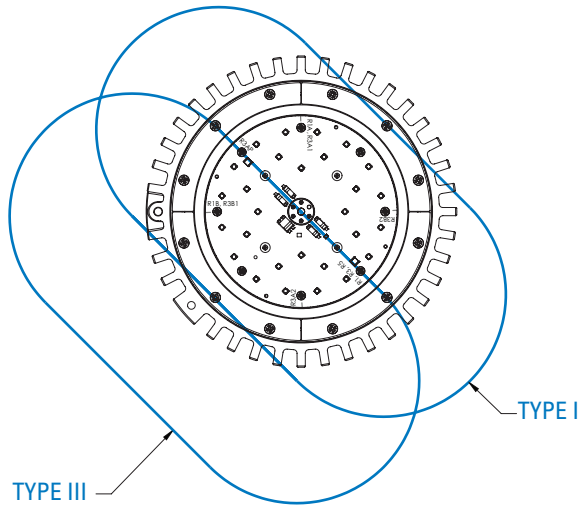
R1, R3 and BLANK

Type I, III and V optics with all mounts minus ceiling



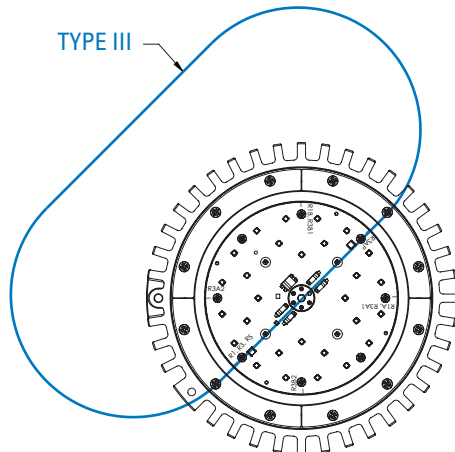
R1B and R3B1

Type I and Type III ceiling mount only



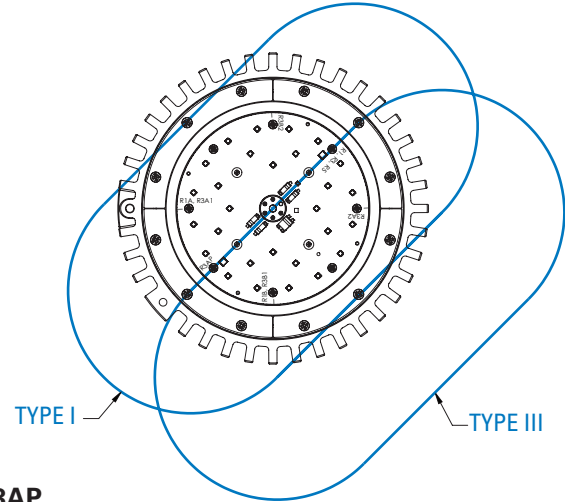
R3A2

Type III ceiling mount only



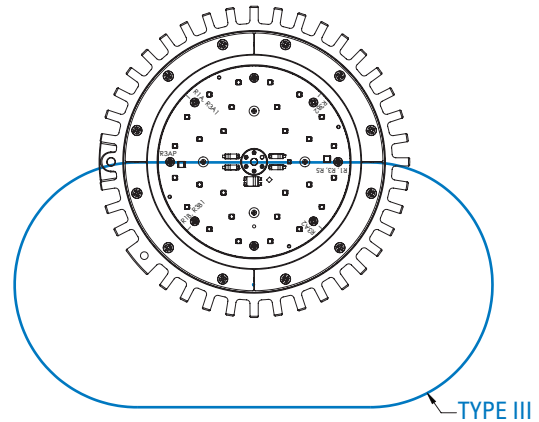
R1A and R3A1

Type I and Type III ceiling mount only



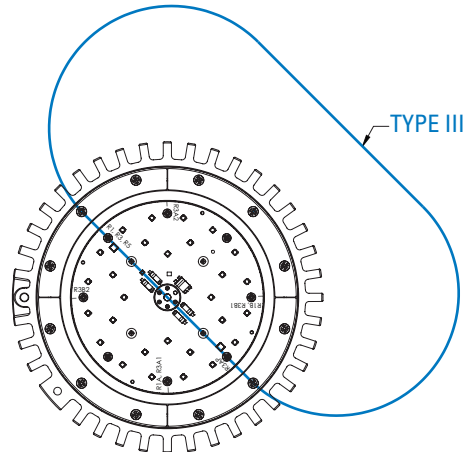
R3AP

Type III wall mount



R3B2

Type III ceiling mount only



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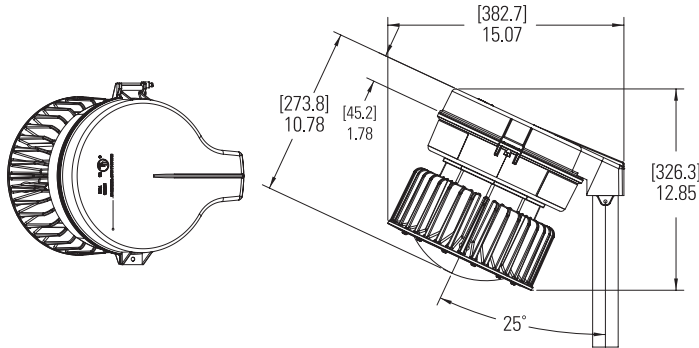
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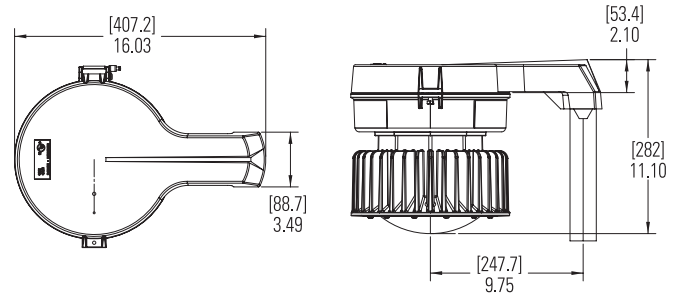
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Dimensions:

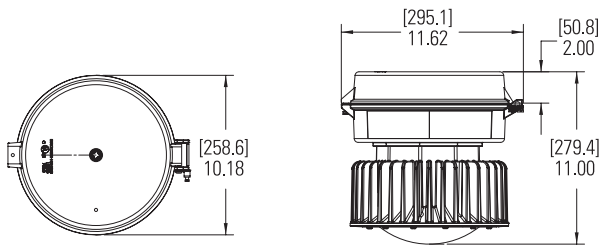
Stanchion - 25° angled



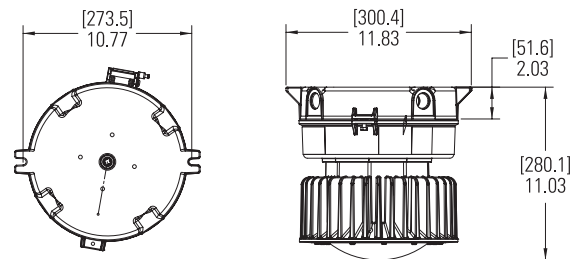
Stanchion - straight



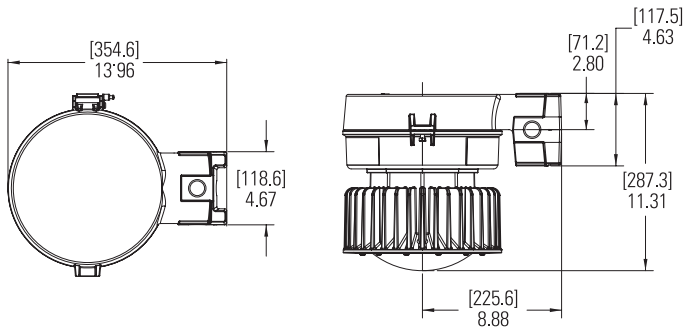
Pendant



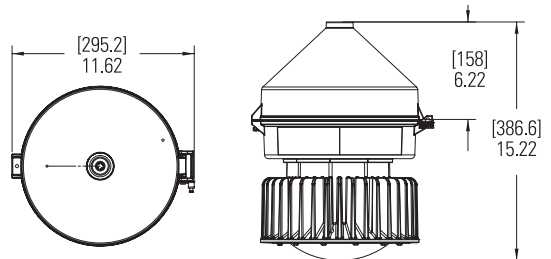
Ceiling



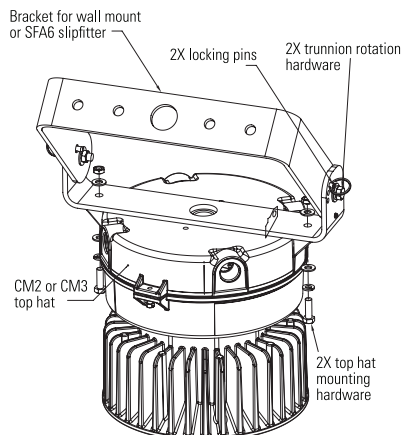
Wall



Cone pendant



Trunnion



Mounting module series:

Pendant	Cone	Ceiling	Wall	Stanchion
APM2 APM3 HPM2	BPM2 BPM3	CM2 CM3	TWM2 TWM3	JM5 PM5
PVML*				