

# LineLED Vibrant Color Series LLVC240-IP20



\* MFG Model Number: LL72-XX



## Features

Line LED LL series is a small profile, high performance LED strip. It offers excellent color quality with 95+ CRI and 95+ R9 values across the entire range of outputs, while sustaining efficacy above 90 lumens per watt. The simple range consists of just two configurations, 240 LEDs per meter, with multiple outputs from each, providing a range from 900 to over 2000 lumens per meter. Industry-best color consistency is ensured with single-binned LEDs.

### Mounting

LED strip is equipped with 3M™ adhesive tape.

### Applications

Indoor only - millwork, cove, architectural reveals, undercabinet, display case, handrail, accent lighting.

### Approvals

CE, UKCA, UL, Class 2

### Operating voltage

24 VDC

### Average Life (L70)

50,000 hours

### Warranty

7 years



RoHS

CE

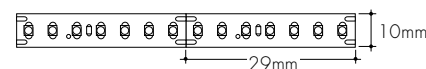
UKCA



## Technical information

TYPE	LLVC240-IP20		
OUTPUT OPTIONS	SO	HO	VHO
Lumens Output (3000K)	892 lm/m	1450 lm/m	1762 lm/m
Average Power Consumption	9 W/m	15.7 W/m	19.7 W/m
Efficacy	97 lm/W	92 lm/W	90 lm/W
Cutting Increment (mm)	29.4 mm		
Pitch Length	4.3 mm		
Max Run Length (in series)	12.0 m	9.4 m	6.7 m
Dimensions	10 mm W x 2.3 mm H		
Ambient Operating Temperature Range	-20° C - 40° C		

\*VHO output must be paired with an aluminum channel



CCT	Multiplier (reference - 3000K)	TM-30			
		CRI	R <sub>f</sub>	R <sub>g</sub>	R <sub>9</sub>
2200K	0.70	96	95	101	89
2400K	0.72	98	97	101	91
2700K	0.74	97	96	101	91
3000K	1.00	97	95	104	97
3500K	1.02	97	94	105	97
4100K	1.07	97	90	99	97

## Ordering code

MODEL	OUTPUT	CCT	REEL SIZE
LLVC240-IP20 - LineLED Vibrant Color, Dry Location	SO - Standard HO - High VHO - Very High	22K - 2200K 24K - 2400K 27K - 2700K 30K - 3000K 35K - 3500K 41K - 4100K	R10m - Reel, 10 meter



# LineLED Vibrant Color Series LLVC240-IP20

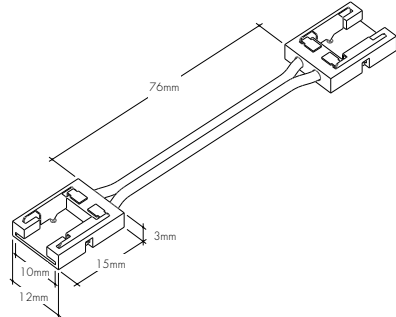
## Minii Connectors

Minii connectors are easy, field-installable accessories that make joining LL strip simple! Their minimal width allows them to fit into extrusions, while their transparent frame eliminates dark spots.

**Note: verify internal extrusion dimensions to confirm compatibility**

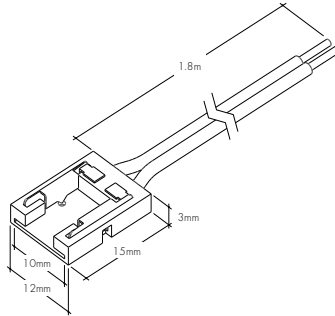
### LL-PJC-10

Jumper minii connector with 76mm wire for LLVC240-IP20 LED strip



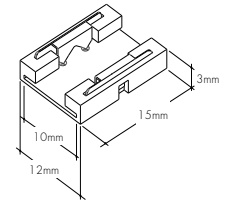
### LL-PFC-10-1.8M

Power feed minii connector with 1.8m wire for LLVC240-IP20 LED strip

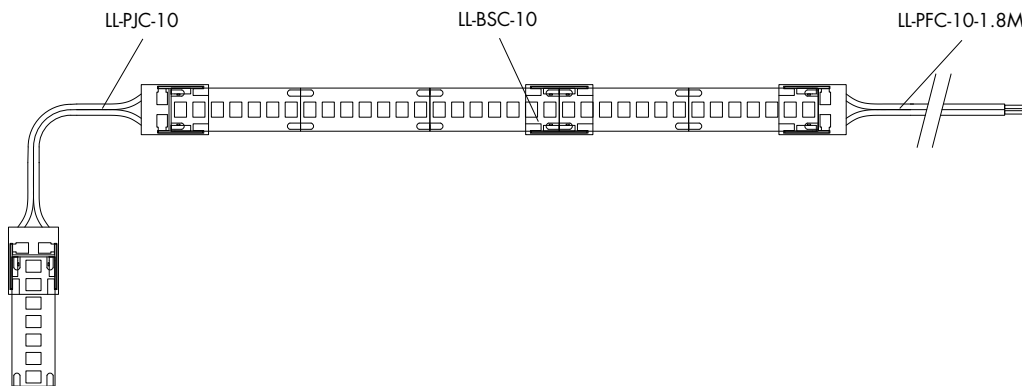


### LL-BSC-10

Butt splice minii connector for LLVC240-IP20 LED strip



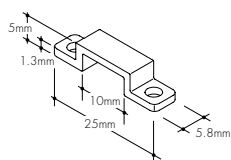
## Sample Layout



## Accessories

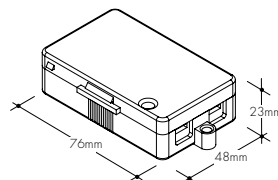
### CL1

Mounting clip



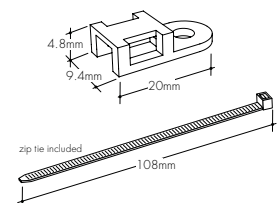
### LVSP-IP20-4T-BK

Low Voltage, 4 Terminal Splice Box, Black



### LL-ZIP

Cable/Wire Strain Relief Clip



Recommended every 300mm when LineLED strip is facing down



# LineLED Vibrant Color Series LLVC240-IP20

## Lens Options / Light Transmission



Clear



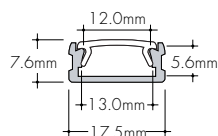
Half (50%)  
Frosted



Frosted



KS Channel (KSC-XX)



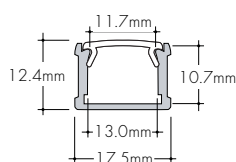
### Ordering code

MODEL	LENGTH	LENS	MOUNTING <sup>1</sup>	FINISH
KSC-KS Channel	2M-2 meter	C-Clear HF-Half Frosted F-Frosted	FC-Fixed Clip FC45-Fixed Clip 45°	SA-Silver Anodized

1 - Extrusion comes with 4 selected clips and 2 end caps.



KM Channel (KMC-XX)



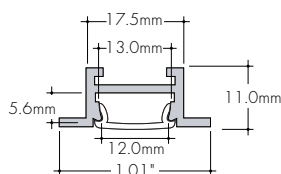
### Ordering code

MODEL	LENGTH	LENS	MOUNTING <sup>1</sup>	FINISH
KMC-KM Channel	2M-2 meter	C-Clear HF-Half Frosted F-Frosted	FC-Fixed Clip FC45-Fixed Clip 45°	SA-Silver Anodized

1 - Extrusion comes with 4 selected clips and 2 end caps.



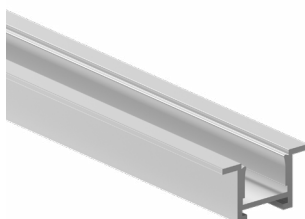
KRS Channel (KRSC-XX)



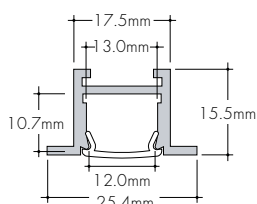
### Ordering code

MODEL	LENGTH	LENS	MOUNTING <sup>1</sup>	FINISH
KRSC-KRS Channel	2M-2 meter	C-Clear HF-Half Frosted F-Frosted	HS-Hard Surface Mounting Bracket GS-Gypsum Surface Mounting Bracket	SA-Silver Anodized

1 - Extrusion comes with 4 selected clips and 2 end caps.



KRM Channel (KRMC-XX)



### Ordering code

MODEL	LENGTH	LENS	MOUNTING <sup>1</sup>	FINISH
KRMC-KRM Channel	2M-2 meter	C-Clear HF-Half Frosted F-Frosted	HS-Hard Surface Mounting Bracket GS-Gypsum Surface Mounting Bracket	SA-Silver Anodized

1 - Extrusion comes with 4 selected clips and 2 end caps.

## Installation

All mounting channels are field cuttable using miter saw with circular blade suitable for cutting aluminum.

## Ordering

Extrusion are sold separately.

## Led Dotting per Extrusion

using the frosted lens option

Extrusion	LLVC140-IP20	LLVC240-IP20
KSC	CD	ND
KMC	ND	ND
KRSC	CD	ND
KRMC	ND	ND



CD - Clear Dotting  
SD - Slight Dotting  
ND - No Dotting



## Lens Options / Light Transmission



Clear



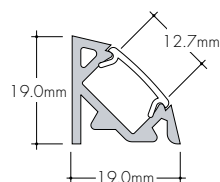
Half (50%)  
Frosted



Frosted



K45V Channel (K45V-XX)



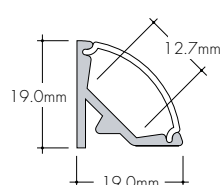
### Ordering code

MODEL	LENGTH	LENS	MOUNTING <sup>1</sup>	FINISH
K45VC - K45V Channel	2M - 2 meter	C - Clear HF - Half Frosted F - Frosted	CB - Concealed Bracket	SA - Silver Anodized

1 - Extrusion comes with 4 selected clips and 2 end caps.



K45R Channel (K45R-XX)



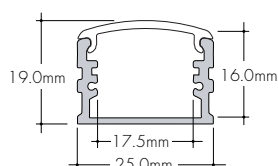
### Ordering code

MODEL	LENGTH	LENS	MOUNTING <sup>1</sup>	FINISH
K45RC - K45R Channel	2M - 2 meter	C - Clear HF - Half Frosted F - Frosted	CB - Concealed Bracket	SA - Silver Anodized

1 - Extrusion comes with 4 selected clips and 2 end caps.



Basics X-Large Channel (BXC-XX)



### Ordering code

MODEL	LENGTH	LENS	MOUNTING <sup>1</sup>	FINISH
BXC - Basics X-Large Channel	2M - 2 meter	F - Frosted	FC - Fixed Clip	SA - Silver Anodized

1 - Extrusion comes with 4 selected clips and 2 end caps.

## Installation

All mounting channels are field cuttable using miter saw with circular blade suitable for cutting aluminum.

## Ordering

Extrusion are sold separately.

## Led Dotting per Extrusion

using the frosted lens option

Extrusion	LLVC140-IP20	LLVC240-IP20
K45VC	SD	ND
K45RC	ND	ND
BXC	ND	ND



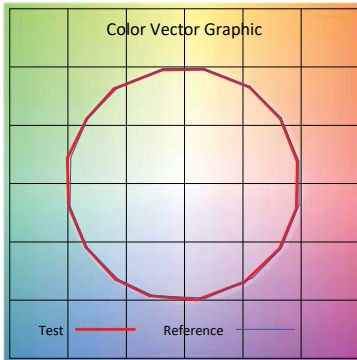
CD - Clear Dotting  
SD - Slight Dotting  
ND - No Dotting



# LineLED Vibrant Color Series LLVC240-IP20

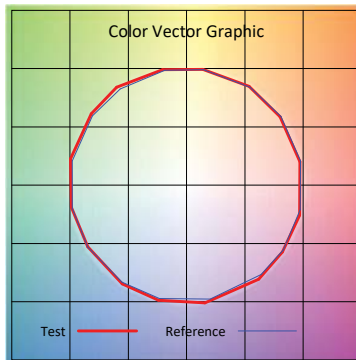
## TM-30-15: Data

2200K



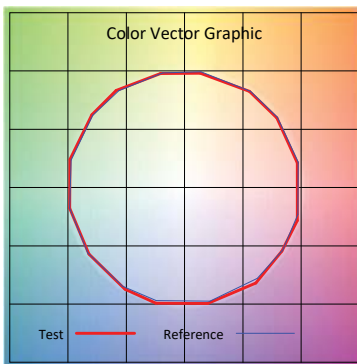
Hue Bin	Graphic Shifts (%)		
	Rf	Chroma	Hue
1	96.8	-1.4%	-0.2%
2	97.4	-0.7%	-0.3%
3	96.2	-0.5%	-0.4%
4	97.5	-0.8%	-1.0%
5	97.3	-0.8%	1.1%
6	95.4	1.0%	2.8%
7	98.1	0.5%	0.6%
8	95.7	2.8%	1.3%
9	97.0	1.1%	-0.8%
10	96.4	0.6%	-1.6%
11	96.0	1.3%	-2.2%
12	94.7	0.8%	-3.0%
13	92.0	0.2%	-7.8%
14	87.2	-1.1%	-7.9%
15	96.6	-0.9%	-1.7%
16	94.1	-1.6%	-3.2%

2400K



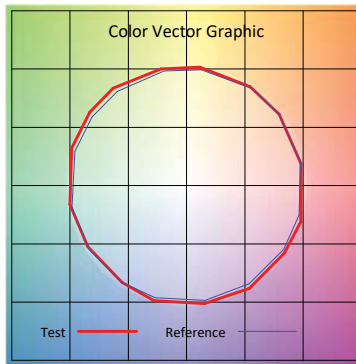
Hue Bin	Graphic Shifts (%)		
	Rf	Chroma	Hue
1	97.3	-0.7%	-0.6%
2	98.0	-0.7%	0.1%
3	96.7	0.1%	1.2%
4	97.4	0.0%	0.5%
5	97.0	1.0%	1.9%
6	95.0	2.9%	1.6%
7	96.4	1.7%	-0.9%
8	96.2	1.9%	-1.3%
9	97.2	0.4%	-1.1%
10	97.9	-0.3%	-0.3%
11	96.9	1.2%	1.2%
12	94.8	1.7%	-0.4%
13	93.6	2.2%	-4.9%
14	92.7	2.2%	-3.9%
15	96.7	0.4%	-2.0%
16	92.9	0.3%	-4.7%

2700K



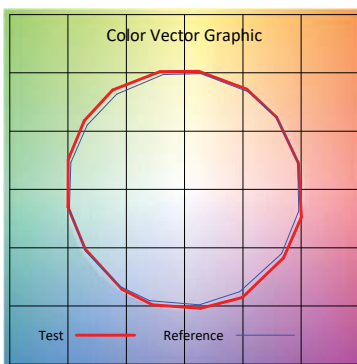
Hue Bin	Graphic Shifts (%)		
	Rf	Chroma	Hue
1	97.1	-1.0%	-0.6%
2	98.2	-0.7%	-0.2%
3	97.0	-0.5%	0.8%
4	97.1	-1.2%	0.2%
5	96.9	-0.1%	1.9%
6	96.2	1.7%	1.8%
7	97.3	0.8%	-0.1%
8	97.9	1.0%	-0.3%
9	98.2	-0.1%	-0.1%
10	96.8	-0.2%	1.5%
11	94.8	0.9%	3.0%
12	94.4	2.4%	0.2%
13	95.7	1.6%	-2.4%
14	94.2	2.7%	-3.1%
15	96.5	-0.0%	-1.4%
16	92.3	0.7%	-5.3%

3000K



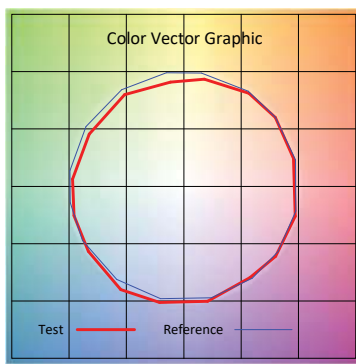
Hue Bin	Graphic Shifts (%)		
	Rf	Chroma	Hue
1	95.9	0.2%	-1.7%
2	97.4	0.2%	-0.2%
3	96.3	0.7%	1.2%
4	95.1	1.9%	1.6%
5	94.9	2.3%	2.1%
6	92.6	4.3%	1.2%
7	92.1	3.9%	-2.2%
8	93.1	3.3%	-2.3%
9	94.8	1.2%	-2.8%
10	94.6	-0.5%	-2.7%
11	96.2	-0.1%	1.0%
12	93.7	2.7%	-0.3%
13	95.7	2.5%	-1.3%
14	94.2	3.6%	-2.1%
15	94.2	2.2%	-2.5%
16	92.0	2.5%	-5.3%

3500K



Hue Bin	Graphic Shifts (%)		
	Rf	Chroma	Hue
1	96.4	0.5%	-1.5%
2	97.7	0.3%	0.2%
3	94.7	1.0%	2.2%
4	94.4	1.7%	2.2%
5	93.4	3.0%	2.3%
6	91.4	5.0%	1.0%
7	92.7	4.1%	-1.6%
8	94.1	2.8%	-2.1%
9	95.0	0.9%	-2.1%
10	95.9	-0.8%	-1.6%
11	93.5	1.1%	3.4%
12	91.7	3.1%	3.0%
13	95.3	3.1%	0.5%
14	93.0	5.3%	-0.8%
15	93.5	3.4%	-2.1%
16	90.9	3.2%	-4.6%

4100K



Hue Bin	Graphic Shifts (%)		
	Rf	Chroma	Hue
1	91.5	-1.3%	1.6%
2	95.3	-0.1%	-0.4%
3	95.4	-1.0%	-1.3%
4	89.1	-4.8%	-3.5%
5	86.6	-8.7%	-2.1%
6	91.9	-5.0%	0.5%
7	87.8	-6.2%	4.0%
8	86.7	-3.5%	6.7%
9	82.7	-1.2%	11.7%
10	81.6	1.0%	10.5%
11	84.5	5.4%	8.0%
12	92.6	3.3%	-0.3%
13	90.9	2.3%	3.9%
14	92.6	-1.5%	-1.5%
15	86.6	0.5%	-4.4%
16	86.7	0.5%	-4.7%

