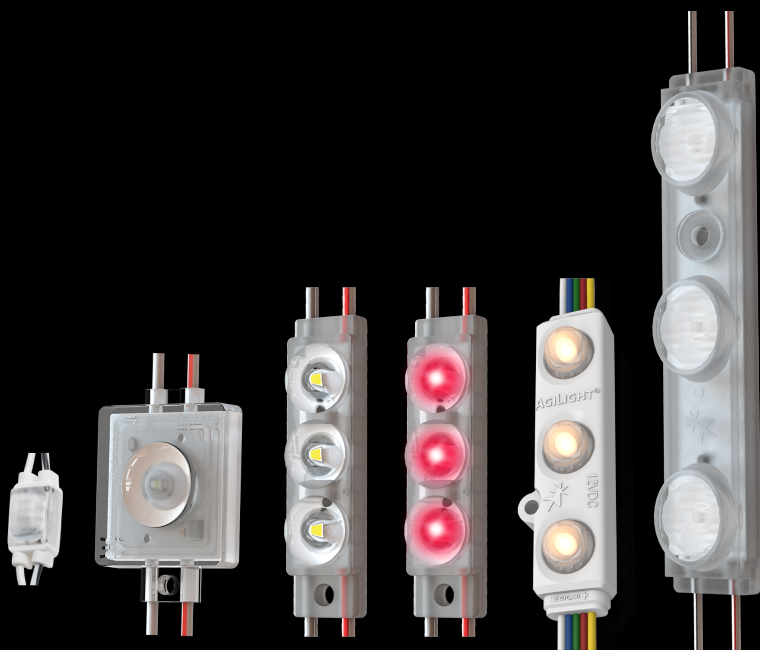


ULTRA SERIES

12V SIGNAGE LIGHTING SOLUTIONS



malux
Innovative Lichttechnik



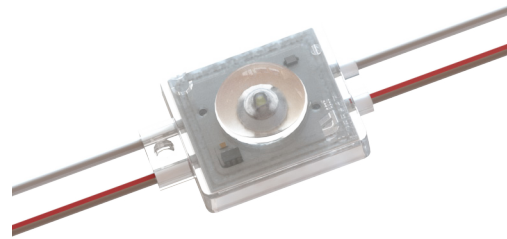
AGILIGHT
Innovative Signage Lighting



ULTRA 430 modules are an innovative option for backlit and halo applications. Suitable for super-low profiles starting at 1.2 in. (30 mm), ULTRA 400 Series modules are the perfect IP68 rated solution for shallow- to medium-depth box signs and channel letters.

Applications:

- Wide stroke channel letters
- Shallow to medium box signs
- Small to medium cloud signs
- Applications starting at 1.2 in. (30 mm) depth



IP68

LM-79

LM-80



RoHS



12V DC



9 YEAR
WARRANTY



ONEWhite[®]
COLOR CONSISTENCY



VERSALENZ[®]
ADVANCED OPTICS



CAPZUL[®]
WATERPROOF



CONSTANT
CURRENT



UV
RESISTANT



50,000 HRS
L70 LIFETIME

ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U430-75K-B100-A**	7500K	100	3	10	33	99	330
LS-U430-65K-B100-A	6500K	100	3	10	34	102	340
LS-U430-57K-B100-A**	5700K	100	3	10	32	96	320
LS-U430-50K-B100-A**	5000K	100	3	10	32	96	320
LS-U430-40K-B100-A**	4000K	100	3	10	32	96	320
LS-U430-30K-B100-A**	3000K	100	3	10	30	90	300
LS-U430-27K-B100-A**	2700K	100	3	10	30	90	300
LS-U430-65K-B150-A***	6500K	150	2	6.7	33	68	228

** Limited stock

*** Consult for lead time and MOQ

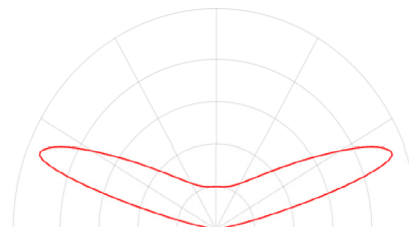
* ± 10%

PRODUCT RATINGS

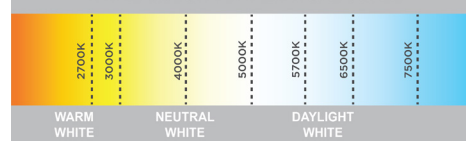
Luminous Efficacy	113 lm/W @ 6500K
Wattage per Module	0.30 W Nominal 0.32 W Maximum
Input Voltage	12 V DC
Input Current	0.025 A/ module
Power Supply Loading	184 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° - +140° F (-40° - +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

400 Series Batwing Beam Pattern



WHITE COLOR TEMPERATURE SCALE



LAYOUT GUIDE*

Channel Depth (in.)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
1.2	3	2.5	2.5	2.5
1.6	5	4	4	4
2	6	5	5	5

Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
30	75	65	65	65
40	125	100	100	100
50	150	125	125	125

*Density guide designed to maintain a minimum of 600 lux for a single row or 800 lux for multiple rows at sign face (7328 white).

SHIPPING INFORMATION

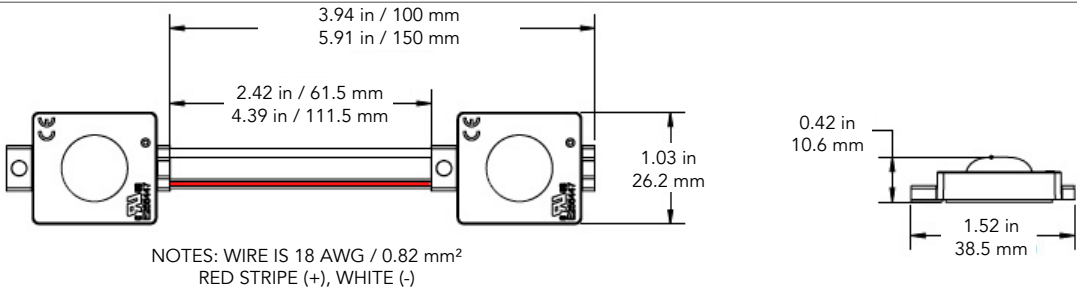
Module Type		Packaging Quantity						
		Per Bag		Per Box		Per Carton		
LS-U430-xxK-Bxxx-A	Specs							
	Spacings	100mm	150mm	100mm	150mm	100mm	150mm	
	Modules	100		500		2000		
	Feet	33	49	164	246	656	984	
		Meters	10	15	50	75	200	300

Carton Weight	Box Dimensions			Carton Dimensions			
	W	D	H	W	D	H	
46.3 lbs	22	10.6	4.5	22.8	20.1	11.6	inch
21 kg	560	270	115	580	510	295	mm

MODULE DIMENSIONS

Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-U430-xxK-Bxxx-A	1.52/38.5	1.03/26.2	0.42/10.6

DIMENSION DRAWING

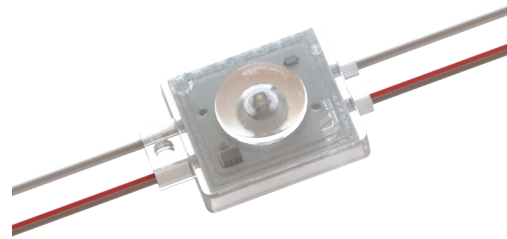




ULTRA 400 Series - This new comprehensive option for super low-profile 1.2 in. (30mm) to 4 in. (100mm) depths, is available in three lumen outputs.

Applications:

- Wide stroke channel letters
- Shallow to medium box signs
- Small to medium cloud signs
- Applications starting at 2 in. (50 mm) depth



IP68

LM-79

LM-80



RoHS



12V DC



9 YEAR
WARRANTY



ONeWhite[®]
COLOR CONSISTENCY



VERSALENZ[®]
ADVANCED OPTICS



CAPZUL[®]
WATERPROOF



CONSTANT
CURRENT



UV
RESISTANT



50,000 HRS
L70 LIFETIME

ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U450-75K-B150-A	7500K	150	2	6.7	48	96	322
LS-U450-65K-B150-A	6500K	150	2	6.7	50	100	335
LS-U450-57K-B150-A***	5700K	150	2	6.7	47	94	315
LS-U450-50K-B150-A**	5000K	150	2	6.7	47	94	315
LS-U450-40K-B150-A**	4000K	150	2	6.7	47	94	315
LS-U450-30K-B150-A**	3000K	150	2	6.7	44	88	295
LS-U450-27K-B150-A***	2700K	150	2	6.7	44	88	295

** Limited stock

*** Consult for lead time and MOQ

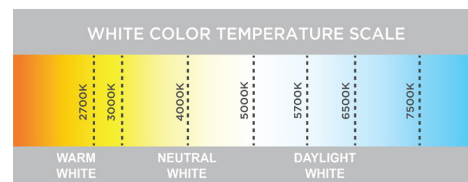
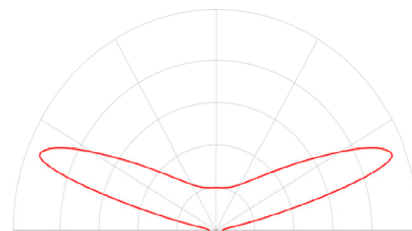
* ± 10%

PRODUCT RATINGS

Luminous Efficacy	104 lm/W @ 6500K
Wattage per Module	0.48 W Nominal 0.50 W Maximum
Input Voltage	12 V DC
Input Current	0.04 A/ module
Power Supply Loading	115 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° — +140° F (-40° — +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

400 Series Batwing Beam Pattern



MODULE DIMENSIONS

Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-U450-xxk-B150-A	1.52/38.5	1.03/26.2	0.42/10.6

POWER SUPPLY LOADING

LS-U450-xxk-B150-A					
	Power Supply	Max. # of Modules Per Continuous String	Total # of Modules Per Power Supply ¹	Total # of Feet	Total # of Meters
UL CLASS 2	12 W	23	23	11.3	3.5
	15 W	29	29	14.3	4.4
	35 W	67	67	33.0	10.1
	60 W	93	115	56.6	17.3
	180 W ²	93	345	169.8	51.8
UL CLASS 1	100 W	93	188	92.5	28.2
	150 W	93	281	138.3	42.2
	180 W	93	338	166.3	50.7
	220 W	93	413	203.2	62.0

Note 1. The number of modules in each of the parallel strings should not exceed the specified maximum.

2. 3 - 60 Watt Channels

LAYOUT GUIDE*

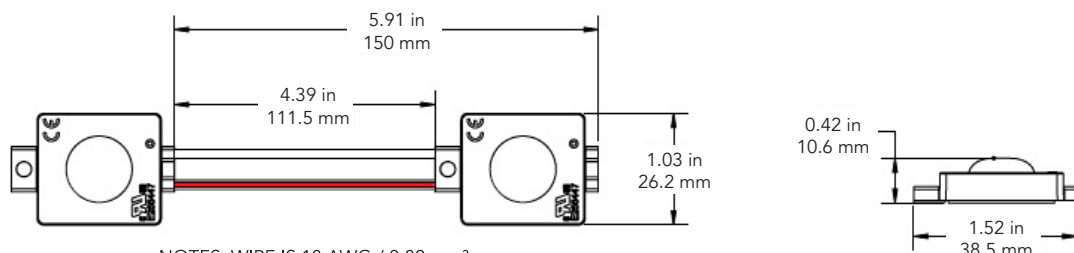
Channel Depth (in.)	Single Row		Multiple Rows		Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing		Max. Stroke	Module Spacing	Row Spacing	Module Spacing
2	6	5	5	5	50	150	125	125	125
3	9.5	6	8.5	6	75	240	150	215	150

*Density guide designed to maintain a minimum of 600 lux for a single row or 800 lux for multiple rows at sign face (7328 white).

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions			
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H	
LS-U450-xxK-B150-A	Modules	100	500	2000	46.3 lbs	22	10.6	4.5	22.8	20.1	11.6	inch
	Feet	49	246	984	21 kg	560	270	115	580	510	295	mm
	Meters	15	75	300								

DIMENSION DRAWING



NOTES: WIRE IS 18 AWG / 0.82 mm²
RED STRIPE (+), WHITE (-)



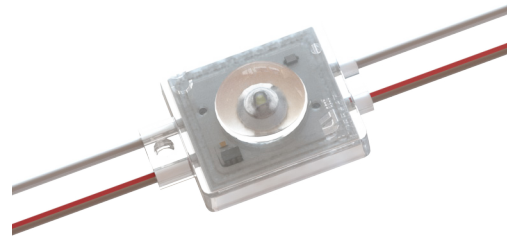
1. UL ONLY - These products are only suitable for connection to a UL rated Class 2 power source rated 12 Volt or less.
2. UL ONLY - These products are intended for use only when connected to a power source that complies with UL rated Class 2 voltage and energy limited circuit.
3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



ULTRA 400 Series - This new comprehensive option for super low-profile 1.2 in. (30mm) to 4 in. (100mm) depths, is available in three lumen outputs.

Applications:

- Wide stroke channel letters
- Shallow to medium box signs
- Small to medium cloud signs
- Applications starting at 3 in. (75 mm) depth



IP68

LM-79

LM-80



RoHS



12V DC



9 YEAR
WARRANTY



ONeWhite[®]
COLOR CONSISTENCY



VERSALENZ[®]
ADVANCED OPTICS



CAPZUL[®]
WATERPROOF



CONSTANT
CURRENT



UV
RESISTANT



50,000 HRS
L70 LIFETIME

ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U470-75K-B150-A***	7500K	150	2	6.7	67	134	449
LS-U470-65K-B150-A	6500K	150	2	6.7	70	140	469
LS-U470-57K-B150-A**	5700K	150	2	6.7	67	134	449
LS-U470-50K-B150-A**	5000K	150	2	6.7	67	134	449
LS-U470-40K-B150-A**	4000K	150	2	6.7	67	134	449
LS-U470-30K-B150-A**	3000K	150	2	6.7	63	126	422
LS-U470-27K-B150-A***	2700K	150	2	6.7	63	126	422

** Limited stock

*** Consult for lead time and MOQ

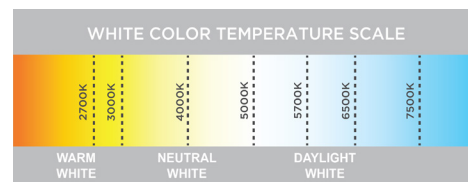
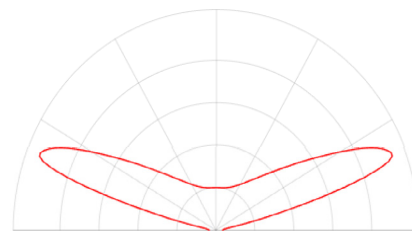
* ± 10%

PRODUCT RATINGS

Luminous Efficacy	106 lm/W @ 6500K
Wattage per Module	0.66 W Nominal 0.69 W Maximum
Input Voltage	12 V DC
Input Current	0.055 A/ module
Power Supply Loading	84 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° — +140° F (-40° — +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

400 Series Batwing Beam Pattern



MODULE DIMENSIONS

Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-U470-xxK-B150-A	1.52/38.5	1.03/26.2	0.42/10.6



POWER SUPPLY LOADING

LS-U470-xxK-B150-A					
	Power Supply	Max. # of Modules Per Continuous String	Total # of Modules Per Power Supply ¹	Total # of Feet	Total # of Meters
UL CLASS 2	12 W	17	17	8.4	2.6
	15 W	21	21	10.3	3.2
	35 W	49	49	24.1	7.4
	60 W	77	84	41.3	12.6
	180 W ²	77	252	124.0	37.8
UL CLASS 1	100 W	77	136	66.9	20.4
	150 W	77	205	100.9	30.8
	180 W	77	245	120.6	36.8
	220 W	77	300	147.6	45.0

Note 1. The number of modules in each of the parallel strings should not exceed the specified maximum.

2. 3 - 60 Watt Channels

LAYOUT GUIDE*

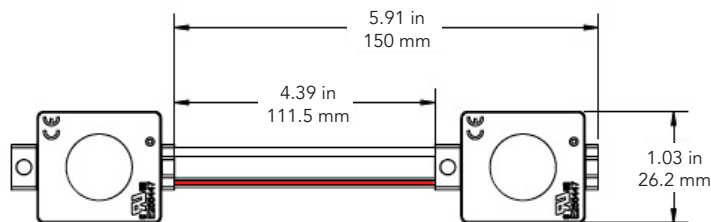
Channel Depth (in.)	Single Row		Multiple Rows		Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing		Max. Stroke	Module Spacing	Row Spacing	Module Spacing
3	9.5	6	8.5	6	75	240	150	215	150
4	14	6	12	6	100	355	150	305	150

*Density guide designed to maintain a minimum of 600 lux for a single row or 800 lux for multiple rows at sign face (7328 white).

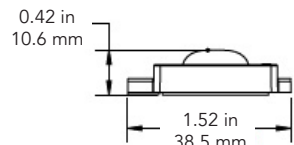
SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions			
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H	
LS-U470-xxk-B150-A	Modules	100	500	2000	46.3 lbs	22	10.6	4.5	22.8	20.1	11.6	inch
	Feet	49	246	984	21 kg	560	270	115	580	510	295	mm
	Meters	15	75	300								

DIMENSION DRAWING



NOTES: WIRE IS 18 AWG / 0.82 mm²
RED STRIPE (+), WHITE (-)



1. UL ONLY - These products are only suitable for connection to a UL rated Class 2 power source rated 12 Volt or less.
2. UL ONLY - These products are intended for use only when connected to a power source that complies with UL rated Class 2 voltage and energy limited circuit.
3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



With its slim, compact shape, the ULTRA 650 module is designed for brighter and deeper signs. ULTRA 650 features an innovative optic that expands its coverage across the sign, with light output up to 100 lumens per module. With spacing at 8 in. (200 mm), ULTRA 650 modules are rated IP68 and come with a 9-year warranty.

Applications:

- Channel letters
- Box signs
- Cove lighting
- Applications starting at 3 in. (75 mm)



RoHS

IP68



LM-79

LM-80



12V DC



9 YEAR
WARRANTY



MADE IN
EUROPE



ONEWhite[®]
COLOR CONSISTENCY



VERALENZ[®]
ADVANCED OPTICS



CAPZUL[®]
WATERPROOF



CONSTANT
CURRENT



UV
RESISTANT



50,000 HRS
L70 LIFETIME

ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U650-71K-B200-A	7100K	200	1.5	5	100	150	500
LS-U650-65K-B200-A	6500K	200	1.5	5	100	150	500
LS-U650-57K-B200-A**	5700K	200	1.5	5	100	150	500
LS-U650-50K-B200-A	5000K	200	1.5	5	100	150	500
LS-U650-45K-B200-A**	4500K	200	1.5	5	92	138	460
LS-U650-40K-B200-A**	4000K	200	1.5	5	92	138	460
LS-U650-30K-B200-A**	3000K	200	1.5	5	85	128	425
LS-U650-27K-B200-A**	2700K	200	1.5	5	85	128	425

** Limited stock

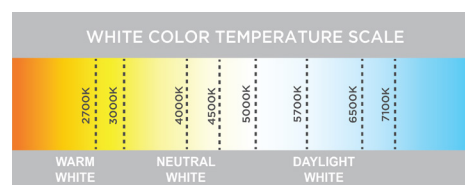
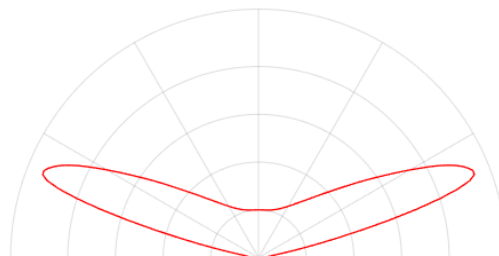
* ± 10%

PRODUCT RATINGS

Luminous Efficacy	128 lm/W @ 6500K
Wattage per Module	0.78 W Nominal 0.82 W Maximum
Input Voltage	12 V DC
Input Current	0.065 A/ module
Power Supply Loading	70 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° — +140° F (-40° — +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

600 Series Batwing Beam Pattern





SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions			
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H	
LS-U650-xxx-B200-A	Modules	100	500	2000	46.1 lb 20.9 kg	22.1	10.6	4.5	31.0	23.1	9.9	inch
	Feet	66	328	1312		560	270	115	788	588	252	mm
	Meters	20	100	400								

LAYOUT GUIDE*

Channel Depth (in.)	Single Row		Multiple Rows		Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing		Max. Stroke	Module Spacing	Row Spacing	Module Spacing
3	10	6.5	6.5	6.5	75	250	165	165	165
4	13	7.87	9	7.87	100	330	200	225	200
5	17	7.87	13	7.87	125	430	200	330	200
6	17	7.87	16	7.87	150	430	200	405	200
7	15	7.87	15	7.87	175	380	200	380	200

*Density guide designed to maintain a minimum of 600 lux for a single row or 800 lux for multiple rows at sign face (7328 white).

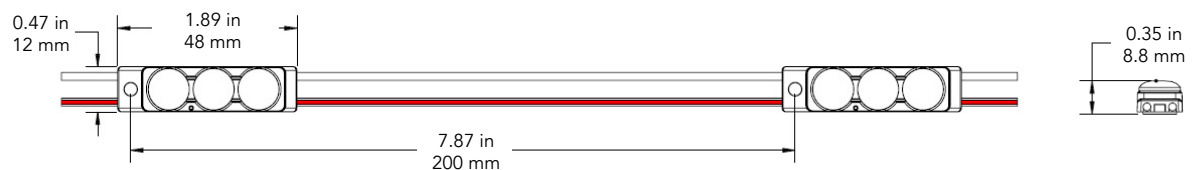
POWER SUPPLY LOADING

LS-U650-xxx-B200-A				
	Power Supply	Max. # of Modules Per Continuous String	Total # of Modules Per Power Supply	Total # of Meters
UL CLASS 2	12 W	14	14	9.2
	15 W	17	17	11.2
	35 W	40	41	26.9
	60 W	67	70	45.9
	180 W	67	210	137.7
UL CLASS 1	100 W	67	115	75.5
	150 W	67	173	113.5
	180 W	67	207	135.8
	220 W	67	253	166

Note 1. The number of modules in each of the parallel strings should not exceed the specified maximum.

2. *3 - 60 Watt Channels

DIMENSIONS



1. UL ONLY - These products are only suitable for connection to a UL rated Class 2 power source rated 12 Volt or less.
2. UL ONLY - These products are intended for use only when connected to a power source that complies with UL rated Class 2 voltage and energy limited circuit.
3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



With its slim, compact shape, the ULTRA 670 module is designed for brighter and deeper signs. ULTRA 670 features an innovative optic that expands its coverage across the sign, with light output up to 150 lumens per module. With spacing available at 8 in. (200 mm) and 10 in. (250 mm), ULTRA 670 modules are rated IP68 and come with a 9-year warranty.

Applications:

- Channel letters
- Box signs
- Cove lighting
- Applications starting at 4 in. (100 mm)



IP68

LM-79

LM-80



RoHS



12V DC



9 YEAR
WARRANTY



MADE IN
EUROPE



ONEWhite[®]
COLOR CONSISTENCY



VERALENZ[®]
ADVANCED OPTICS



CAPZUL[®]
WATERPROOF



CONSTANT
CURRENT



UV
RESISTANT



50,000 HRS
L70 LIFETIME

ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U670-71K-B250-A**	7100K	250	1.2	4	150	180	600
LS-U670-65K-B250-A	6500K	250	1.2	4	150	180	600
LS-U670-57K-B250-A**	5700K	250	1.2	4	150	180	600
LS-U670-50K-B250-A	5000K	250	1.2	4	150	180	600
LS-U670-45K-B250-A**	4500K	250	1.2	4	138	166	552
LS-U670-40K-B250-A**	4000K	250	1.2	4	138	166	552
LS-U670-30K-B250-A**	3000K	250	1.2	4	127	155	508
LS-U670-27K-B250-A**	2700K	250	1.2	4	127	155	508
LS-U670-71K-B200-A	7100K	200	1.5	5	150	225	750
LS-U670-65K-B200-A	6500K	200	1.5	5	150	225	750
LS-U670-57K-B200-A**	5700K	200	1.5	5	150	225	750
LS-U670-50K-B200-A	5000K	200	1.5	5	150	225	750
LS-U670-45K-B200-A**	4500K	200	1.5	5	138	207	690
LS-U670-40K-B200-A**	4000K	200	1.5	5	138	207	690
LS-U670-30K-B200-A**	3000K	200	1.5	5	127	191	635
LS-U670-27K-B200-A**	2700K	200	1.5	5	127	191	635

** Limited stock

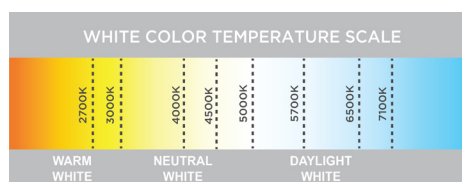
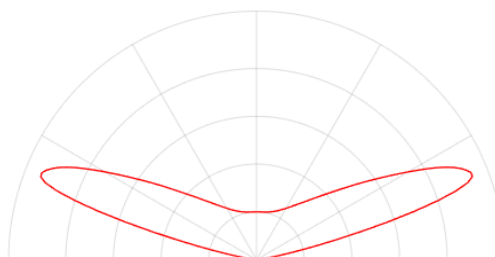
* ± 10%

PRODUCT RATINGS

Luminous Efficacy	121 lm/W @ 6500K
Wattage per Module	1.24 W Nominal 1.30 W Maximum
Input Voltage	12 V DC
Input Current	0.103 A/ module
Power Supply Loading	44 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° — +140° F (-40° — +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

600 Series Batwing Beam Pattern



Data sheet subject to change without notice.

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions		
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H
LS-U670-xxx-B250-A/ LS-U670-xxx-B200-A	Modules	100	500	2000	46.1 lb 20.9 kg	22.1	10.6	4.5	31.0	23.1	9.9
	Feet	82 / 65.6	410 / 328.1	1640 / 1312.3		560	270	115	788	588	252
	Meters	25 / 20	125 / 100	500 / 100							

LAYOUT GUIDE*

Channel Depth (in.)	Single Row		Multiple Rows		Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing		Max. Stroke	Module Spacing	Row Spacing	Module Spacing
4	13	9	9	9	100	330	225	225	225
5	17	9.8	13	9.8	125	430	250	330	250
6	20	9.8	16	9.8	150	505	250	405	250
7	19	9.8	18	9.8	175	480	250	455	250
8	17	9.8	17	9.8	200	430	250	430	250

*Density guide designed to maintain a minimum of 600 lux for a single row or 800 lux for multiple rows at sign face (7328 white).

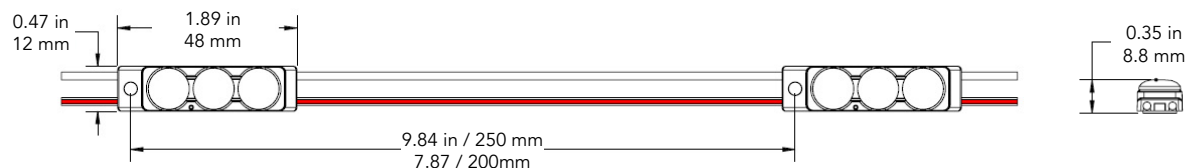
POWER SUPPLY LOADING

LS-U670-xxx-Bxxx-A				
	Power Supply	Max. # of Modules Per Continuous String	Total # of Modules Per Power Supply	Total # of Feet
UL CLASS 2	12 W	8	8	6.6
	15 W	11	11	9
	35 W	25	26	21.3
	60 W	43	44	36.1
	180 W	43	132	108.3
UL CLASS 1	100 W	47	72	59.1
	150 W	47	109	89.4
	180 W	47	131	107.4
	220 W	47	160	131.2

Note 1. The number of modules in each of the parallel strings should not exceed the specified maximum.

2. *3 - 60 Watt Channels

DIMENSIONS



1. UL ONLY - These products are only suitable for connection to a UL rated Class 2 power source rated 12 Volt or less.
2. UL ONLY - These products are intended for use only when connected to a power source that complies with UL rated Class 2 voltage and energy limited circuit.
3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



ULTRA 650 COLOR

Vividly illuminate your sign with our new ULTRA 650 COLOR modules. With a sleek design and higher lumen output, ULTRA 650 COLOR modules are brighter and cover a broader depth range suitable for channel letters, light boxes and other applications.

Applications:

- Channel letters
- Box signs
- Cove lighting



RoHS



IP68

LM-79



12V DC



9 YEAR
WARRANTY

ORDERING GUIDE

Part Number	Wavelength	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U650-RED-B150-A	625 nm	150	2	6.7	25	50	167.5
LS-U650-BLU-B150-A**	467 nm	150	2	6.7	14.5	29	97.15
LS-U650-GRN-B150-A**	525 nm	150	2	6.7	55	110	368.5
LS-U650-RRD-B150-A**	633 nm	150	2	6.7	20	40	134
LS-U650-ORG-B150-A**	606 nm	150	2	6.7	30	60	201
LS-U650-YLW-B150-A**	589 nm	150	2	6.7	12.5	25	83.8
LS-U650-RED-B200-A	625 nm	200	1.5	5	25	37.5	125
LS-U650-BLU-B200-A	467 nm	200	1.5	5	14.5	21.75	72.5
LS-U650-GRN-B200-A**	525 nm	200	1.5	5	55	82.5	275
LS-U650-RRD-B200-A	633 nm	200	1.5	5	20	30	100
LS-U650-ORG-B200-A**	606 nm	200	1.5	5	30	45	150
LS-U650-YLW-B200-A**	589 nm	200	1.5	5	12.5	18.8	62.5

** Limited stock

* ± 10%



VERSALENZ[®]
ADVANCED OPTICS



CAPZUL[®]
WATERPROOF



CONSTANT
CURRENT



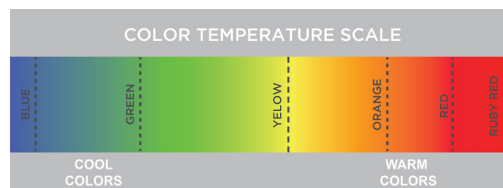
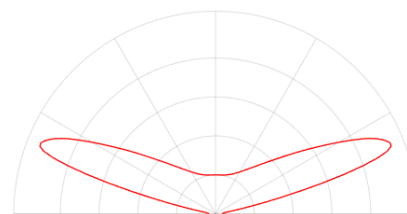
UV
RESISTANT

PRODUCT RATINGS

Luminous Efficacy RED	32.1 lm/W
Luminous Efficacy BLUE	18.6 lm/W
Luminous Efficacy GREEN	70.5 lm/W
Luminous Efficacy RUBY RED	25.6 lm/W
Luminous Efficacy ORANGE	38.5 lm/W
Luminous Efficacy YELLOW	16 lm/W
Wattage per Module	0.78 W Nominal
Input Voltage	12 V DC
Input Current	0.065 A/ module
Power Supply Loading	70 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° — +140° F (-40° — +60° C)
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

Batwing Beam Pattern



MODULE DIMENSIONS

Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-U650-xxx-Bxxx-A	1.89/48	0.47/12.0	0.35/8.8

POWER SUPPLY LOADING

Power Supply	Max. # of Modules Per Continuous String	Total # of Modules Per Power Supply	Modules Per Foot 150mm	Modules Per Meter 150mm	Modules Per Foot 200mm	Modules Per Meter 200mm
UL CLASS 2	12 W	14	14	6.9	2.1	9.2
	15 W	17	17	8.5	2.6	11.2
	35 W	40	41	20.3	6.2	26.9
	60 W	67	70	34.4	10.5	45.9
	180 W*	67	210	103.3	31.5	137.8
UL CLASS 1	100 W	67	115	56.8	17.3	75.5
	150 W	67	173	85.3	26	113.5
	180 W	67	207	102	31.1	135.8
	220 W	67	253	124.7	38	166

Note: The number of modules in each of the parallel strings should not exceed the specified maximum.

* Three 60 Watt Channels

LAYOUT GUIDE

LS-U650-xxx-B150-A					
Single Row Channel Depth (in. mm)	Red*	Blue**	Green**	RR/OR	YLW
	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)
3 75	7.5 190	6 150	8 200	***	6 150
4 100	8 200	8 200	10 250	***	10 250
5 125	9 230	10 250	12 300	8 200	12 300
6 50	11 280	12 300	12 300	9 225	12 300
7 180	10 250	12 300	11 275	10 250	12 300

LS-U650-xxx-B150-A					
Multiple Row Channel Depth (in. / mm)	Red*	Blue**	Green**	RR/OR	YLW
	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)
3 / 75	6 / 150	5 / 125	6 / 150	***	6 150
4 / 100	7 / 175	8 / 200	8 / 200	***	9 225
5 / 125	8 / 200	10 / 250	10 / 250	8 / 200	11 275
6 / 150	12 / 300	12 / 300	12 / 300	9 / 225	12 300
7 / 180	11 / 275	14 / 350	12 / 300	10 / 250	12 300

* 2793 Plex ** 7328 Plex ***Contact sales associate

Note: Other face materials may vary the module and row spacing to achieve the same face light, uniformity and brightness.



LS-U650-xxx-B200-A					
Single Row Channel Depth (in. mm)	Red*	Blue**	Green**	RR/OR	YLW
	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)
3 75	6 150	6.5 165	8 200	6 150	6 150
4 100	8 200	12 300	12 300	10 250	10 250
5 25	12 300	14 350	14 350	12 300	12 300
6 150	11 275	16 400	16 400	14 350	12 300
7 180	10 250	18 450	18 450	18 450	10 250

LS-U650-xxx-B200-A					
Multiple Row Channel Depth (in. / mm)	Red*	Blue**	Green**	RR/OR	YLW
	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)	Max. Stroke (in mm)
3 / 75	8 / 200	5 / 125	6 / 150	6 / 150	6 150
4 / 100	10 / 250	8 / 200	10 / 250	10 / 250	9 225
5 / 125	12 / 300	10 / 250	12 / 300	12 / 300	11 275
6 / 150	14 / 350	12 / 300	15 / 375	14 / 350	12 300
7 / 180	16 / 400	14 / 350	16 / 400	16 / 400	12 300

* 2793 Plex ** 7328 Plex ***Contact sales associate

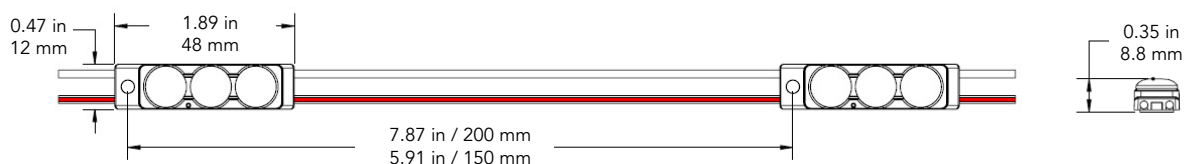
Note: Other face materials may vary the module and row spacing to achieve the same face light, uniformity and brightness.

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions		
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H
LS-U650-xxx-B200-A	Modules	100	500	2000	46.1 lb 20.9 kg	22.1	10.6	4.5	31.0	23.1	9.9
	Feet	65.6	328.1	1312.3		560	270	115	788	588	252
	Meters	20	100	400							

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions		
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H
LS-U650-xxx-B150-A	Modules	100	500	2000	46.1 lb 20.9 kg	22.1	10.6	4.5	31.0	23.1	9.9
	Feet	49.2	246.1	984.3		560	270	115	788	588	252
	Meters	15	75	300							

DIMENSION DRAWING



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2. UL ONLY - These products are intended for use only when connected to a power source that complies with UL rated Class 2 voltage and energy limited circuit.
3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



ULTRA 650 RGBA

ULTRA 650 RGBA modules are premium color changing signage modules engineered for constant current so there is no lumen drop across the full length of any string. The ULTRA 650 RGBA module features four chips in each LED - red, green, blue and amber for added warmth. Use DMX controls to tune ULTRA 650 RGBA modules to any color.

Applications:

- Channel letters
- Box signs
- Cove lighting
- Applications starting at depths of 3 in. (75 mm)



RoHS

IP66



12V DC



5 YEAR
WARRANTY



VERSALENZ®
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WATERPROOF

ORDERING GUIDE

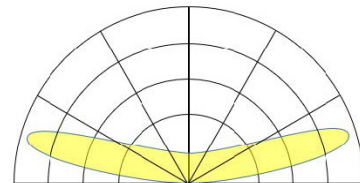
Part Number	White Color Temperatures & Colors	LEDs per Module	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)		
				Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U650-RGBA-B200-A	All	3	200	1.5	5	50.3	76.7	251.5
	Red (617 - 633 nm)	3	200	1.5	5	10.8	16.5	54
	Green (517 - 533 nm)	3	200	1.5	5	25.5	38.9	127.5
	Blue (457 - 473 nm)	3	200	1.5	5	5.2	7.9	26
	Amber (602 - 618 nm)	3	200	1.5	5	8.8	13.4	44

RECOMMENDED CONTROL OPTIONS

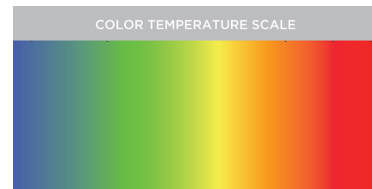
Options	Image	Description	Part Number
1 For basic setting		4 Zone Color Changing Glass Touch Wall Controller	AWCRGBWWBK
		5 Channel DMX Interface	DMXINFLCD5
		4 Channel RF Interface	RFINTERFACE4CH
2 For wireless connection		4 Zone RGBW RF Remote	RFREMOTERGBW4Z
		RF to WiFi Converter	RFWIFICONVERT
		4 Channel Waterproof DMX LCD Interface	DMXINFWLCD4
3 For advanced setting		5 Zone DMX Wall Controller	DMXCTRL
		10 Zone DMX Wall Controller	DMXCTRLD

LUMINOUS DISTRIBUTION

Batwing Beam Pattern



COLOR TEMPERATURE SCALE



CONSTANT
CURRENT



UV
RESISTANT

PRODUCT RATINGS

Luminous Efficacy	41.9 lm/W (All) 36 lm/W (Red) 85 lm/W (Green) 17.3 lm/W (Blue) 29.3 lm/W (Amber)	Input Current	100 mA (All) 25 mA (Red) 25 mA (Green) 25 mA (Blue) 25 mA (Amber)
Wattage per Module	1.20 W/module (All) 0.30 W/module (Red) 0.30 W/module (Green) 0.30 W/module (Blue) 0.30 W/module (Amber)	Power Supply Loading	46 modules per 60 W
Input Voltage	12 V DC	Ingress Protection	IP66
		Operating Temperature	-13° - +131°F (-25° - +55°C)
		L70 Lifetime @ 60° C	50,000 hours
		Warranty	5 Year Limited Warranty

MODULE DIMENSIONS

Part Number	Length (in. / mm)	Width (in. / mm)	Height (in. / mm)
LS-U650-RGBA-B200-A	2.62 / 66	0.61 / 15	0.38 / 10

POWER SUPPLY LOADING

Module Type	Per 60W Power Supply			
	Max. # of Modules Per String	Total # of Modules	Total # of Feet	Total # of Meters
LS-U650-RGBA-B200-A	44	46	30.7	9.3

LAYOUT GUIDE

Channel Depth (in.)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
3	6	5	4	4
4	9	6	6	7
5	12	8	10	8
6	14	8	12	8

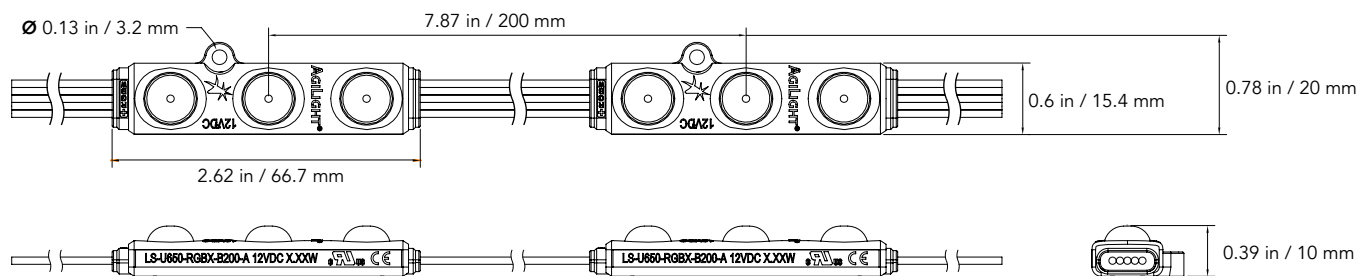
Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
75	150	125	100	100
100	225	150	150	175
125	300	200	250	200
150	350	200	300	200

*Module spacing is defined by 7328 white sign face material

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Carton Dimensions			Box Weight	Box Dimensions		
		Per Bag	Per Box	Per Carton		L	W	H		L	W	H
LS-U650-RGBA-B200-A	Modules	100	600	1000	18.5 kg (40.7 lbs)	20.5	14.6	10.2	9 kg (19.8 lbs)	13.78	9.84	9.06 in.
	Feet	65.6	328.1	656.2								
	Meters	20	100	200		520	370	260		350	250	230 mm

DIMENSION DRAWING



1. UL ONLY - These products are only suitable for connection to a UL rated Class 2 power source rated 12 Volt or less.
2. UL ONLY - These products are intended for use only when connected to a power source that complies with UL rated Class 2 voltage and energy limited circuit.
3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



ULTRA 650 RGBW

ULTRA 650 RGBW modules are premium color changing signage modules engineered for constant current so there is no lumen drop across the full length of any string. The ULTRA 650 RGBW module features four chips in each LED – red, green, blue and white for added brightness. Use DMX controls to tune ULTRA 650 RGBW modules to any color.

Applications:

- Channel letters
- Box signs
- Cove lighting
- Applications starting at depths of 3 in. (75 mm)



12V DC



5 YEAR
WARRANTY



VERSALENZ®
ADVANCED OPTICS



CAPZUL®
WATERPROOF

ORDERING GUIDE

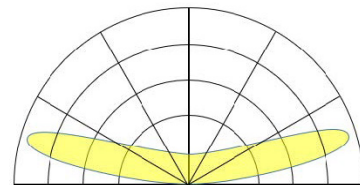
Part Number	White Color Temperatures & Colors	LEDs per Module	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)		
				Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U650-RGBW-B200-A	All	3	200	1.5	5	62.6	95.4	313
	Red (612 - 628 nm)	3	200	1.5	5	7.6	11.6	38
	Green (512 - 528 nm)	3	200	1.5	5	18.5	28.2	92.5
	Blue (457 - 473 nm)	3	200	1.5	5	6	9.1	30
	White (6500K)	3	200	1.5	5	30.5	46.5	152.5

RECOMMENDED CONTROL OPTIONS

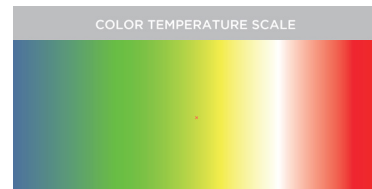
Options	Image	Description	Part Number
1 For basic setting		4 Zone Color Changing Glass Touch Wall Controller	AWCRGBWWBK
		5 Channel DMX Interface	DMXINFLCD5
		4 Channel RF Interface	RFINTERFACE4CH
2 For wireless connection		4 Zone RGBW RF Remote	RFREMOTERGBW4Z
		RF to WiFi Converter	RFWIFICONVERT
		4 Channel Waterproof DMX LCD Interface	DMXINFWLCD4
3 For advanced setting		5 Zone DMX Wall Controller	DMXCTRL
		10 Zone DMX Wall Controller	DMXCTRLD

LUMINOUS DISTRIBUTION

Batwing Beam Pattern



COLOR TEMPERATURE SCALE



CONSTANT
CURRENT



UV
RESISTANT

PRODUCT RATINGS

Luminous Efficacy	52.2 lm/W (All) 25.3 lm/W (Red) 61.7 lm/W (Green) 20 lm/W (Blue) 101.7 lm/W (White)	Input Current	100 mA (All) 25 mA (Red) 25 mA (Green) 25 mA (Blue) 25 mA (White)
Wattage per Module	1.20 W/module (All) 0.30 W/module (Red) 0.30 W/module (Green) 0.30 W/module (Blue) 0.30 W/module (White)	Power Supply Loading	46 modules per 60 W
Input Voltage	12 V DC	Ingress Protection	IP66
		Operating Temperature	-13° - +131°F (-25° - +55°C)
		L70 Lifetime @ 60° C	50,000 hours
		Warranty	5 Year Limited Warranty

MODULE DIMENSIONS

Part Number	Length (in. / mm)	Width (in. / mm)	Height (in. / mm)
LS-U650-RGBW-B200-A	2.62 / 66	0.61 / 15	0.38 / 10

POWER SUPPLY LOADING

Module Type	Per 60W Power Supply			
	Max. # of Modules Per String	Total # of Modules	Total # of Feet	Total # of Meters
LS-U650-RGBW-B200-A	44	46	30.7	9.3

LAYOUT GUIDE

Channel Depth (in.)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
3	6	5	4	4
4	9	6	6	7
5	12	8	10	8
6	14	8	12	8

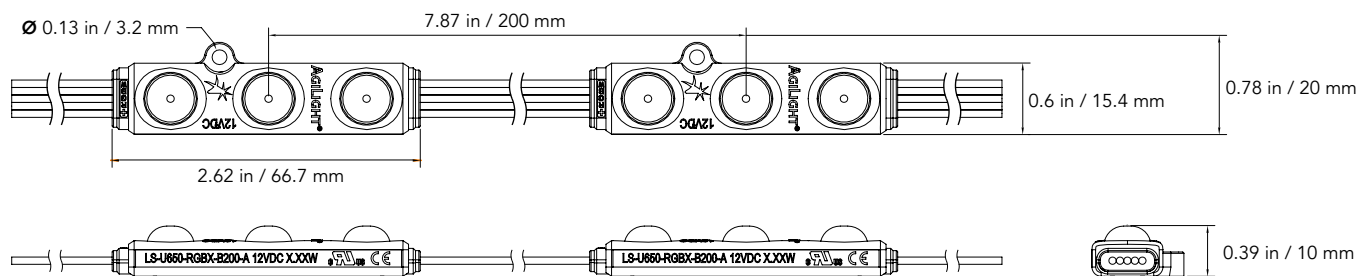
Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
75	150	125	100	100
100	225	150	150	175
125	300	200	250	200
150	350	200	300	200

*Module spacing is defined by 7328 white sign face material

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Carton Dimensions			Box Weight	Box Dimensions		
		Per Bag	Per Box	Per Carton		L	W	H		L	W	H
LS-U650-RGBW-B200-A	Modules	100	600	1000	18.5 kg (40.7 lbs)	20.5	14.6	10.2	9 kg (19.8 lbs)	13.78	9.84	9.06
	Feet	65.6	328.1	656.2		520	370	260		350	250	230
	Meters	20	100	200								

DIMENSION DRAWING



1. UL ONLY - These products are only suitable for connection to a UL rated Class 2 power source rated 12 Volt or less.
2. UL ONLY - These products are intended for use only when connected to a power source that complies with UL rated Class 2 voltage and energy limited circuit.
3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



This ULTRA EDGE HO module features an edge lighting beam pattern that enables large light coverage per module and significantly reduces the number of modules per sign. These technologies allow for the lowest energy consumption and the lowest LED system cost in the market, reducing installation cost to sign makers and end-users.



12V DC



5 YEAR LIMITED WARRANTY



IP68

LM-79

LM-80



RoHS



CONSTANT CURRENT



50,000 HRS
L70 LIFETIME

Applications:

- Box signs (2-6 inches) in small to medium sizes, double face and single face
- Exterior linear fixtures for wall washing and billboard uplight

ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-U770-65K-E150-A	6500K	150	2	6.7	250	500	1675
LS-U770-57K-E150-A**	5700K	150	2	6.7	250	500	1675
LS-U770-50K-E150-A	5000K	150	2	6.7	250	500	1675
LS-U770-40K-E150-A**	4000K	150	2	6.7	250	500	1675
LS-U770-30K-E150-A**	3000K	150	2	6.7	250	500	1675
LS-U770-27K-E150-A**	2700K	150	2	6.7	240	480	1608

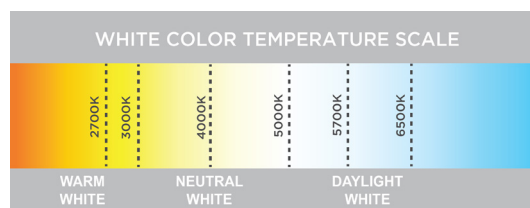
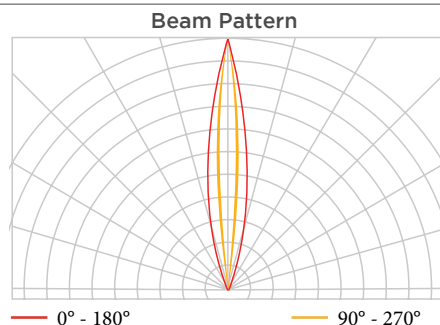
** Limited stock

* ± 10%

PRODUCT RATINGS

Luminous Efficacy	91 lm/W @ 6500K
Wattage per Module	2.76 W Nominal 2.90 W Maximum
Input Voltage	12 V DC
Input Current	0.230 A/ module
Power Supply Loading	20 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° - +140° F (-40° - +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	5 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION



MODULE DIMENSIONS

Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-U770-xxK-E150-A	4.13/105	0.69/17.6	0.57/14.5

POWER SUPPLY LOADING

LS-U770-XXK-E150-A					
	Power Supply	Max. # of Modules Per Continuous String	Total # of Modules Per Power Supply ¹	Total # of Feet	Total # of Meters
UL CLASS 2	12 W	4	4	2.0	0.6
	15 W	5	5	2.5	0.8
	35 W	12	12	5.9	1.8
	60 W	19	20	9.8	3.0
	180 W ²	19	60	29.5	9.0
UL CLASS 1	100 W	19	33	16.2	5.0
	150 W	19	49	24.1	7.4
	180 W	19	59	29.0	8.9
	220 W	19	72	35.4	10.8

Note 1. The number of modules in each of the parallel strings should not exceed the specified maximum.
 2. 3 – 60 Watt Channels

LAYOUT GUIDE (ENGLISH)

Sign Type	Mounting Configuration	Depth (in)	Reachout Length (ft)	Module Spacing (ft)	Lit Area/Module (ft ²)	Optical Requirements on Housing Materials
Single-Face (using 7328 white acrylic, 0.18")	On 1 edge	2	2.5	0.38	0.95	Reflective white surface inside
		3	3.0	0.38	1.14	
		4	3.5	0.38	1.33	
		5	4.0	0.38	1.52	
		6	4.0	0.38	1.52	
	On 2 opposite edges	2	2 x 1.75	0.38	0.67	Reflective white surface inside
		3	2 x 2.5	0.38	0.95	
		4	2 x 2.5	0.38	0.95	
		5	2 x 2.5	0.38	0.95	
		6	2 x 2.5	0.38	0.95	
Double-Face (using 7328 white acrylic, 0.18")	On 1 edge	2	2.0	0.38	0.76	Reflective white surface inside
		3	2.5	0.38	0.95	
		4	2.5	0.38	0.95	
		5	2.5	0.38	0.95	
		6	2.5	0.38	0.95	
	On 2 opposite edges	2	2 x 1.5	0.38	0.57	Reflective white surface inside
		3	2 x 1.75	0.38	0.67	
		4	2 x 2.0	0.38	0.76	
		5	2 x 2.0	0.38	0.76	
		6	2 x 2.0	0.38	0.76	

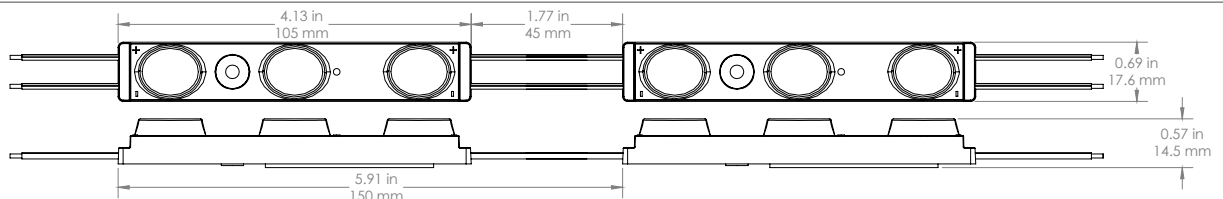
LAYOUT GUIDE (METRIC)

Sign Type	Mounting Configuration	Depth (mm)	Reachout Length (mm)	Module Spacing (mm)	Lit Area/Module (mm ²)	Optical Requirements on Housing Materials
Single-Face (using 7328 white acrylic, 4.5 mm)	On 1 edge	50	760	115	87400	Reflective white surface inside
		75	915	115	105225	
		100	1065	115	122475	
		125	1220	115	140300	
		150	1220	115	140300	
	On 2 opposite edges	50	2 x 535	115	61525	Reflective white surface inside
		75	2 x 760	115	87400	
		100	2 x 760	115	87400	
		125	2 x 760	115	87400	
Double-Face (using 7328 white acrylic, 4.5 mm)	On 1 edge	50	610	115	70150	Reflective white surface inside
		75	760	115	87400	
		100	760	115	87400	
		125	760	115	87400	
		150	760	115	87400	
	On 2 opposite edges	50	2 x 455	115	52325	Reflective white surface inside
		75	2 x 535	115	61525	
		100	2 x 610	115	70150	
		125	2 x 610	115	70150	
		150	2 x 610	115	70150	

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions			
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H	
LS-U770-xxK-E150-A	Modules	30	30	150	11.0 lb 5.0 kg	15.5	11.5	2.0	16.1	12.0	11.2	inch
	Feet	15	15	75		395	295	50	410	305	285	mm
	Meters	4.6	4.6	23								

DIMENSION DRAWING



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3. UL ONLY - When these units are connected to a UL rated Class 2 circuit, they are not to draw a total wattage of greater than the secondary or output rating of the UL rated Class 2 power supply.
4. These products may be secured in place in the end product by any means available.
5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



AGILIGHT
Innovative Signage Lighting



ULTRA MINI WHITE

LS-UMIN-XXX-L4-50B

LED MODULES

ULTRA MINI White modules are a popular choice for illuminating sleek, modern miniature channel letters. ULTRA MINI White modules feature a Static White CCT range of 2700K to 8000K and output of 20-24 lm/module, enabling a wide variety of applications for nuanced indoor and outdoor signage and accent lighting.

Applications:

- Outdoor miniature channel letters
- Outdoor acrylic block letters
- Ultra thin small channel letters
- Accent lighting



IP68

LM-79

LM-80



RoHS



12V DC



5 YEAR LIMITED WARRANTY



ONeWhite®
COLOR CONSISTENCY



VERSALENZ®
ADVANCED OPTICS



CAPZUL®
WATERPROOF



CONSTANT
CURRENT



UV
RESISTANT



50,000 HRS
L70 LIFETIME

ORDERING GUIDE

Part Number	Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-UMIN-80K-L4-50B**	8000K	50	6.10	20	24	146	450
LS-UMIN-65K-L4-50B	6500K	50	6.10	20	22	134	440
LS-UMIN-57K-L4-50B**	5700K	50	6.10	20	22	134	440
LS-UMIN-50K-L4-50B	5000K	50	6.10	20	22	134	440
LS-UMIN-40K-L4-50B**	4000K	50	6.10	20	22	134	440
LS-UMIN-30K-L4-50B**	3000K	50	6.10	20	22	134	440
LS-UMIN-27K-L4-50B	2700K	50	6.10	20	20	122	400

** Limited stock

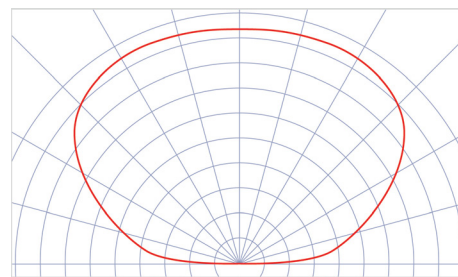
* ± 10%

PRODUCT RATINGS

Luminous Efficacy	108 lm/W
Wattage per Module	0.20 W Nominal 0.22 W Maximum
Input Voltage	12 V DC
Input Current	0.017 A/ module
Power Supply Loading	276 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° — +140° F (-40° — +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	5 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

L4 Beam Pattern



WHITE COLOR TEMPERATURE SCALE



MODULE DIMENSIONS

Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-UMIN-xxx-L4-50B	0.70/17.0	0.31/8.0	0.39/9.8

POWER SUPPLY LOADING

Module Type		LS-UMIN-xxx-L4-50B		
Power Supply (wired in Parallel Strings)	Total. # of Modules	Max # of Modules Per String	Total # of Feet	Total # of Meters
UL CLASS 2	12 W	55	9	2.7
	15 W	69	15.7	4.8
	35 W	161	26.4	8.0
	60W	172	45.3	13.8
	180W***	172	135.8	41.4
UL CLASS 1	100W	172	73.8	22.5
	150W	172	110.7	33.7
	180W	172	132.9	40.5
	220W	172	162.4	49.5

The number of modules in each of the parallel strings should not exceed the specified maximum.
*** 3 - 60 watt channels

LAYOUT GUIDE*

LED MODULE TO POWER SUPPLY WIRE SIZE

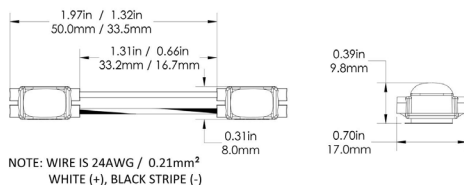
Channel Depth (in mm)	Single Row		Single Row		Multiple Rows		Wire Size		Maximum Distance*	
	Min. Stroke	Module Spacing	Max. Stroke	Module Spacing	Row Spacing	Module Spacing	Gauge AWG	Metric (mm²)	Feet	Meters
1.0 25	0.31 8	1.18 30	0.79 20	1.18 30	0.79 20	1.18 30	20	0.52	11	3.4
1.6 40	0.31 8	2.00 50	1.60 40	2.00 50	1.60 40	2.00 50	18	0.82	18	5.5
2.0 50	0.31 8	2.00 50	3.25 82	2.00 50	2.50 63	2.00 50	16	1.31	29	8.8
							14	2.08	45	12.7
							12	3.31	71	21.6

* Module spacing is defined to achieve minimum 600 lux at sign face (7328 white)

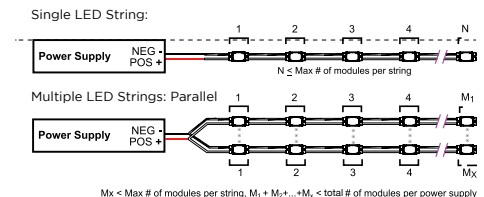
SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions		
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H
LS-UMIN-xxx-L4-50A	Modules	150	1200	6000	25 lb 11.4 kg	18.1	8.3	3.3	18.9	18.9	9.3
	Feet	24.6 (16.5)	196.9 (132)	984 (659)		460	210	85	480	480	235
	Meters	7.5 (5)	60 (40)	300 (200)							mm

DIMENSION DRAWING



WIRING DIAGRAM



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5. These products are suitable for use in dry, damp, and wet locations. Not suitable for submersed applications.



ULTRA MINI Color modules are a popular choice for illuminating sleek, modern miniature channel letters. ULTRA MINI Color modules are available in True Red, Blue and Green, enabling a wide variety of applications for nuanced indoor and outdoor signage and accent lighting.

Applications:

- Outdoor miniature channel letters
- Outdoor acrylic block letters
- Ultra thin small channel letters
- Accent lighting



12V DC



5 YEAR LIMITED
WARRANTY



CAPZUL[®]
WATERPROOF



CONSTANT
CURRENT



UV
RESISTANT



50,000 HRS
L70 LIFETIME

ORDERING GUIDE

Part Number	Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-UMIN-TRD-L4-50A	True Red (625 nm)	50	6.10	20	4.4	27	88
LS-UMIN-BLU-L4-50A	Blue (467 nm)	50	6.10	20	2.6	16	52
LS-UMIN-GRN-L4-50A	Green (526 nm)	50	6.10	20	11.6	71	232

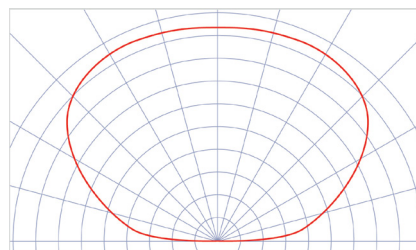
* ± 10%

PRODUCT RATINGS

Luminous Efficacy	36.9 (TRD) 21.7 (BLU) 96.9 (GRN)
Wattage per Module	0.12 W Nominal 0.13 W Maximum
Input Voltage	12 V DC
Input Current	0.010 A/ module
Power Supply Loading	460 modules per 60 W
Ingress Protection	IP68
Operating Temperature	-40° — +140° F (-40° — +60° C)
L70 Lifetime @ 60° C	50,000 Hours
Warranty	5 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

L4 Beam Pattern



COLOR TEMPERATURE SCALE



MODULE DIMENSIONS

Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-UMIN-xxx-L4-50A	0.70/17.0	0.31/8.0	0.39/9.8

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity			Carton Weight	Box Dimensions			Carton Dimensions			
		Per Bag	Per Box	Per Carton		W	D	H	W	D	H	
LS-UMIN-xxx-L4-50A	Modules	150	1200	6000	23.3 lb (21.2 lb)	18.1	8.3	3.3	18.9	18.9	9.3	inch
	Feet	24.6 (16.5)	197 (132)	984 (659)	10.6 kg (9.6 kg)	460	210	85	480	480	235	mm
	Meters	7.5 (5.0)	60 (40)	300 (200)								

LAYOUT GUIDE

Module Color (Face)	True Red (2793) / Green (7328)		Blue (2051)		True Red (2793) / Green (7328)		Blue (2051)	
	Single Row		Single Row		Multiple Rows		Multiple Rows	
Channel Depth (in.)	Min. Max. Stroke	Module Spacing	Min. Max. Stroke	Module Spacing	Row Spacing	Module Spacing	Row Spacing	Module Spacing
1.0	0.31 0.79	1.18	0.31 0.79	0.98	0.79	1.18	0.79	1.18
1.6	0.31 1.60	1.97	0.31 1.60	1.97	1.60	1.97	1.60	1.77
2.0	0.31 3.25	1.97	0.31 3.25	1.97	2.50	1.97	2.50	1.97
(mm)								
25	8 20	30	8 20	25	20	30	20	30
40	8 40	50	8 40	50	40	50	40	45
50	8 82	50	8 82	50	63	50	63	50

Module spacing is defined to achieve minimum 600 lux at sign face (7328 white)

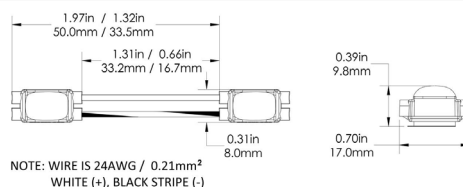
POWER SUPPLY LOADING

Module Type		LS-UMIN-xxx-L4-50A			
UL CLASS 2	Power Supply (wired in Parallel Strings)	Total # of Modules	Max. # of Modules Per String	Total # of Feet	Total # of Meters
	12 W	92	92	15.1	4.6
	15 W	115	115	18.9	5.8
	35 W	268	200	44.0	13.4
	60W	460	200	75.5	23.0
	180W**	1350	200	226.5	69
UL CLASS 1	100W	750	200	123.0	37.5
	150W	1125	200	184.5	56.3
	180W	1350	200	221.5	67.5
	220W	1650	200	270.7	82.5
The number of modules in each of the parallel strings should not exceed the specified maximum. ** 3 - 60 watt channels					

LED Module to power supply wire size			
Wire size		Max Distance	
Guage AWG	Metric (mm²)	Feet	Meters
26	0.13	3	0.9
24	0.21	4	1.2
22	0.33	7	2.1
20	0.52	11	3.4
18	0.82	18	5.5
16	1.31	29	8.8
14	2.08	45	13.7
12	3.31	71	21.6
10	5.26	120	36.6
Distance from 60W power supply to 100% load			

The number of modules in each of the parallel strings should not exceed the specified maximum.
** 3 - 60 watt channels

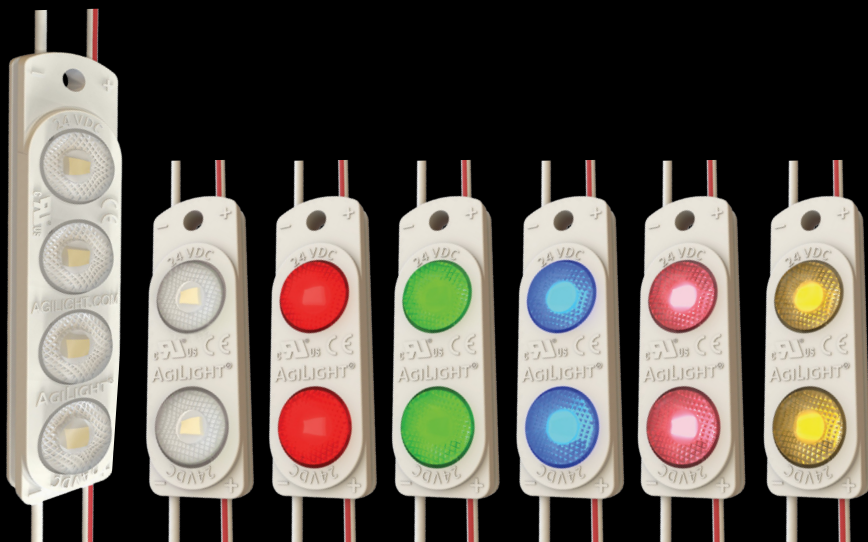
DIMENSION DRAWING



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PRO Premium SERIES

24V SIGNAGE LIGHTING SOLUTIONS



malux
Innovative Lichttechnik



AGILIGHT®
Innovative Signage Lighting

PRO PREMIUM 2

LS-PRO2-24-SO-XXX-150-A

Spaced at 6 in. (150 mm), our PRO Premium 2 modules generate up to 35 lumens per module in five available CCTs ranging from 3000K to 7100K. Constant current ensures no lumen loss. All our PRO Premium modules feature VersaLenz advanced optics which create the PRO Series beam pattern and enable large areas of light coverage.

- High-brightness channel letters
- Cabinet signs
- High-brightness box signs
- Accent and Contour lighting



24V DC



ONEWhite®
COLOR CONSISTENCY



CAPZUL®
WATERPROOF



VERSALENZ®
ADVANCED OPTICS



CONSTANT
CURRENT



UV
RESISTANT



9 Yr
WARRANTY



UL
LISTED

RoHS



IP68

LM-79

LM-80



ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-PRO2-24-SO-71K-150-A	7100K	150	2.0	6.7	35	71	233
LS-PRO2-24-SO-65K-150-A	6500K	150	2.0	6.7	35	71	233
LS-PRO2-24-SO-50K-150-A	5000K	150	2.0	6.7	35	71	233
LS-PRO2-24-SO-40K-150-A	4000K	150	2.0	6.7	33	67	220
LS-PRO2-24-SO-30K-150-A	3000K	150	2.0	6.7	33	67	220

*± 10%

MODULE DIMENSIONS

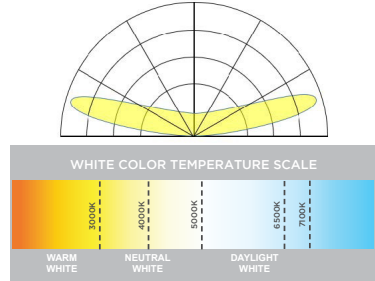
Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-PRO2-24-SO-XXX-150-A	2.26 / 57.3	0.72 / 18.28	0.44 / 11.25

PRODUCT RATINGS

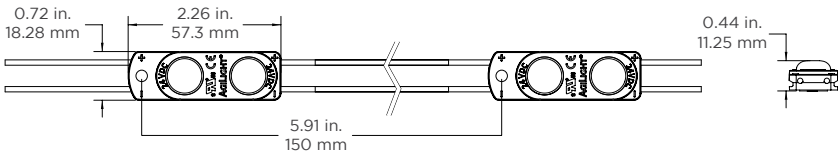
Luminous Efficacy	175 lm/W @ 6500K
Wattage per Module	0.20 W/module
Input Voltage	24 V DC
Input Current	0.008 A/module
Ingress Protection	IP68
Operating Temperature	-40° - +140° F (-40° - +60° C)
L70 Lifetime @ 60° C	70,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

Pro Series Beam Pattern



DIMENSION DRAWING



POWER SUPPLY LOADING

Power Supply (wired in parallel strings)	Max. # of Modules Per String	Total # of Modules	Total # of Feet	Total # of Meters
60W	273	288	141.7	43.2
100W	307	479	2357	71.9

Notes: 1. Loading calculated at 25°C
 2. For maximum loading to be reached, a center connection to the LEDs is recommended to minimize voltage drop
 3. All values include an 8% buffer from maximum load
 4. Single String Max Modules values can be used with the remote mounting to power supply table

REMOTE MOUNTING DISTANCE

Power Supply	18 AWG (ft/m)	16 AWG (ft/m)	14 AWG (ft/m)	12 AWG (ft/m)
60W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1
100W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1

Notes: 1. Power supply always has 8% buffer
 2. These values are good for use with Power Supply Loading Table Single String Max Module values

LAYOUT GUIDE

Channel Depth (in.)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
1.57	3.9	3.5	3.2	3.5
2	4.9	4.3	3.9	4.3
3	7.1	5.9	5.9	5.9
4	9.8	5.9	7.9	5.9
5	11.8	5.9	9.8	5.9

Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
40	100	90	80	90
50	125	110	100	110
75	180	150	150	150
100	250	150	200	150
125	300	150	250	150

Notes: 1. Module spacing is defined to achieve minimum 600 lux at sign face (7328 white)
 2. Modules are staggered

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity		
		Per Bag	Per Box	Per Carton
LS-PRO2-24-SO-XXX-150-A	Modules	100	600	1200
	Feet	49.2	295.3	590.6
	Meters	15	90	180

Carton Dimensions (in./mm)			Box Dimensions (in./mm)		
L	W	H	L	W	H
20.5 / 520	14.6 / 370	10.2 / 260	13.8 / 350	9.8 / 250	9.1 / 230

PRO PREMIUM 2 HO

LS-PRO2-24-HO-XXX-200-A

Spaced at 8 in. (200 mm), our PRO Premium 2 HO modules generate up to 80 lumens per module in five available CCTs ranging from 3000K to 7100K. Constant current ensures no lumen loss. All our PRO Premium modules feature VersaLenz advanced optics which create the PRO Series beam pattern and enable large areas of light coverage.

- High-brightness channel letters
- Cabinet signs
- High-brightness box signs
- Accent and Contour lighting



24V DC



ONEWhite®
COLOR CONSISTENCY



CAPZUL®
WATERPROOF



VERSALENZ®
ADVANCED OPTICS



CONSTANT
CURRENT



UV
RESISTANT



9 Yr
WARRANTY



RoHS



IP68

LM-79

LM-80



ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-PRO2-24-HO-71K-200-A	7100K	200	1.52	5	80	122	400
LS-PRO2-24-HO-65K-200-A	6500K	200	1.52	5	80	122	400
LS-PRO2-24-HO-50K-200-A	5000K	200	1.52	5	80	122	400
LS-PRO2-24-SO-40K-200-A	4000K	200	1.52	5	76	76	380
LS-PRO2-24-SO-30K-200-A	3000K	200	1.52	5	76	76	380

*± 10%

MODULE DIMENSIONS

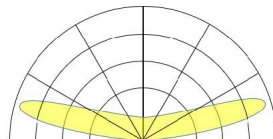
Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-PRO2-24-HO-XXX-200-A	2.26 / 57.3	0.72 / 18.28	0.44 / 11.25

PRODUCT RATINGS

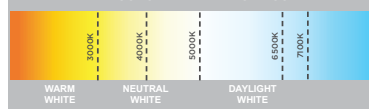
Luminous Efficacy	163.3 lm/W @ 6500K
Wattage per Module	0.49 W/module
Input Voltage	24 V DC
Input Current	0.020 A/module
Ingress Protection	IP68
Operating Temperature	-40° - +140° F (-40° - +60° C)
L70 Lifetime @ 60° C	70,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

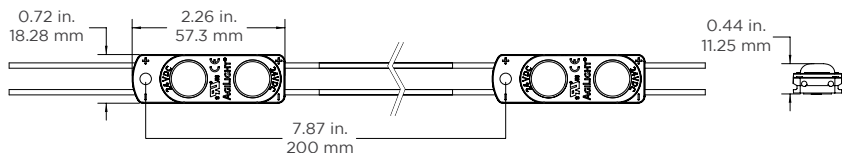
Pro Series Beam Pattern



WHITE COLOR TEMPERATURE SCALE



DIMENSION DRAWING



POWER SUPPLY LOADING

Power Supply (wired in parallel strings)	Max. # of Modules Per String	Total # of Modules	Total # of Feet	Total # of Meters
60W	110	115	75.5	23
100W	144	192	126	38.4

Notes: 1. Loading calculated at 25°C
2. For maximum loading to be reached, a center connection to the LEDs is recommended to minimize voltage drop
3. All values include an 8% buffer from maximum load
4. Single String Max Modules values can be used with the remote mounting to power supply table

REMOTE MOUNTING DISTANCE

Power Supply	18 AWG (ft/m)	16 AWG (ft/m)	14 AWG (ft/m)	12 AWG (ft/m)
60W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1
100W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1

Notes: 1. Power supply always has 8% buffer
2. These values are good for use with Power Supply Loading Table Single String Max Module values

LAYOUT GUIDE

Channel Depth (in.)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
1.57	3.9	3.5	3.2	3.5
2	4.9	4.3	3.9	4.3
3	7.1	6.3	5.9	6.3
4	9.8	7.9	7.9	7.9
5	11.8	7.9	9.8	7.9

Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
40	100	90	80	90
50	125	110	100	110
75	180	160	150	160
100	250	200	200	200
125	300	200	250	200

Notes: 1. Module spacing is defined to achieve minimum 600 lux at sign face (7328 white)
2. Modules are staggered

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity		
		Per Bag	Per Box	Per Carton
LS-PRO2-24-HO-XXX-200-A	Modules	100	600	1200
	Feet	65.6	393.7	787.4
	Meters	20	120	240

Carton Dimensions (in./mm)			Box Dimensions (in./mm)		
L	W	H	L	W	H
20.5 / 520	14.6 / 370	10.2 / 260	13.8 / 350	9.8 / 250	9.1 / 230

PRO PREMIUM 2 COLOR

LS-PRO2-24-SO-XXX-150-A

Spaced at 6 in. (150 mm), our PRO Premium 2 Color modules are rated IP68 and available in five radiant colors: Red, Green, Blue, Ruby Red and Yellow. Constant current ensures no lumen loss. All our PRO Premium modules feature VersaLenz advanced optics which create the PRO Series beam pattern and enable large areas of light coverage.



24V DC



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IP68

LM-79

LM-80



ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-PRO2-24-SO-RED-150-A	Red	150	2.0	6.7	27	55	180
LS-PRO2-24-SO-GRN-150-A	Green	150	2.0	6.7	49	100	327
LS-PRO2-24-SO-BLU-150-A	Blue	150	2.0	6.7	15	30	100
LS-PRO2-24-SO-RRD-150-A	Ruby Red	150	2.0	6.7	20	41	133
LS-PRO2-24-SO-YLW-150-A	Yellow	150	2.0	6.7	13	26	87

*± 10%

MODULE DIMENSIONS

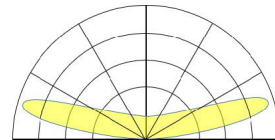
Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-PRO2-24-SO-XXX-150-A	2.26 / 57.3	0.72 / 18.28	0.44 / 11.25

PRODUCT RATINGS

Luminous Efficacy	56.3 lm/W (Red) 102.1 lm/W (Green) 20.0 lm/W (Blue) 37.7 lm/W (Ruby Red) 27.1 lm/W (Yellow)
Wattage per Module	0.48 W (Red, Green, Yellow) 0.53 W (Ruby Red) 0.75 W (Blue)
Input Voltage	24 V DC
Input Current (A/module)	0.020 (Red, Green, Yellow) 0.022 (Ruby Red) 0.031 (Blue)
Ingress Protection	IP68
Operating Temp.	-40° - +140° F (-40° - +60° C)
L70 Lifetime	70,000 Hours @ 60° C
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

Pro Series Beam Pattern

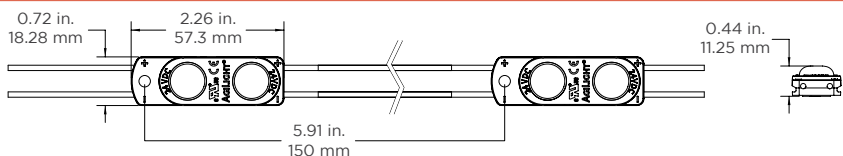


COLOR TEMPERATURE SCALE



- High-brightness channel letters
- High-brightness box signs
- Cabinet signs
- Accent lighting

DIMENSION DRAWING



POWER SUPPLY LOADING

Power Supply	Color	Max. # of Modules Per String	Total # of Modules	Total # of Feet	Total # of Meters
60W	Red, Green, Yellow	111	115	56.6	17.3
	Blue	71	74	36.5	11.1
	Ruby Red	101	105	51.4	15.7
100W	Red, Green, Yellow	179	192	94.3	28.8
	Blue	116	124	60.9	18.5
	Ruby Red	163	174	85.7	26.1

Notes: 1. Loading calculated at 25°C
2. For maximum loading to be reached, a center connection to the LEDs is recommended to minimize voltage drop
3. All values include an 8% buffer from maximum load
4. Single String Max Modules values can be used with the remote mounting to power supply table

REMOTE MOUNTING DISTANCE

Power Supply	18 AWG (ft/m)	16 AWG (ft/m)	14 AWG (ft/m)	12 AWG (ft/m)
60W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1
100W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1

Notes: 1. Power supply always has 8% buffer
2. These values are good for use with Power Supply Loading Table Single String Max Module values

LAYOUT GUIDE

Channel Depth (in.)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
1.57	3.9	3.5	3.2	3.5
2	4.9	4.3	3.9	4.3
3	7.1	5.9	5.9	5.9
4	9.8	5.9	7.9	5.9
5	11.8	5.9	9.8	5.9

Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
40	100	90	80	90
50	125	110	100	110
75	180	150	150	150
100	250	150	200	150
125	300	150	250	150

Notes: 1. Module spacing is defined to achieve minimum 600 lux at sign face (7328 white)
2. Modules are staggered

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity		
		Per Bag	Per Box	Per Carton
LS-PRO2-24-SO-XXX-150-A	Modules	100	600	1200
	Feet	49.2	295.3	590.6
	Meters	15	90	180

Carton Dimensions (in./mm)			Box Dimensions (in./mm)		
L	W	H	L	W	H
20.5 / 520	14.6 / 370	10.2 / 260	13.8 / 350	9.8 / 250	9.1 / 230

PRO PREMIUM 4

LS-PRO4-24-SO-XXX-200-A

Spaced at 8 in. (200 mm), our PRO Premium 4 modules generate up to 140 lumens per module in five available CCTs ranging from 3000K to 7100K. Constant current ensures no lumen loss. All our PRO Premium modules feature VersaLenz advanced optics which create the PRO Series beam pattern and enable large areas of light coverage.

- High-brightness channel letters
- Cabinet signs
- High-brightness box signs
- Accent and Contour lighting



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ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-PRO4-24-SO-71K-200-A	7100K	200	1.52	5	140	213	700
LS-PRO4-24-SO-65K-200-A	6500K	200	1.52	5	140	213	700
LS-PRO4-24-SO-50K-200-A	5000K	200	1.52	5	140	213	700
LS-PRO4-24-SO-40K-200-A	4000K	200	1.52	5	133	203	665
LS-PRO4-24-SO-30K-200-A	3000K	200	1.52	5	133	203	665

*± 10%

MODULE DIMENSIONS

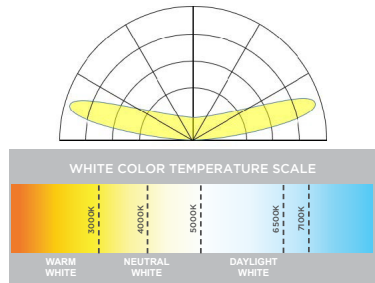
Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-PRO4-24-SO-XXX-200-A	3.32 / 84.3	0.72 / 18.28	0.44 / 11.25

PRODUCT RATINGS

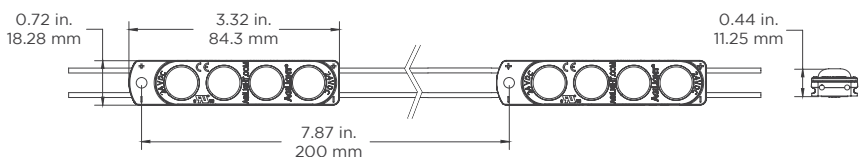
Luminous Efficacy	164.7 lm/W @ 6500K
Wattage per Module	0.85 W/module
Input Voltage	24 V DC
Input Current	0.035 A/module
Ingress Protection	IP68
Operating Temperature	-40° - +140° F (-40° - +60° C)
L70 Lifetime @ 60° C	70,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

Pro Series Beam Pattern



DIMENSION DRAWING



POWER SUPPLY LOADING

Power Supply (wired in parallel strings)	Max. # of Modules Per String	Total # of Modules	Total # of Feet	Total # of Meters
60W	63	66	43.3	13.2
100W	103	110	72.2	22

Notes: 1. Loading calculated at 25°C
2. For maximum loading to be reached, a center connection to the LEDs is recommended to minimize voltage drop
3. All values include an 8% buffer from maximum load
4. Single String Max Modules values can be used with the remote mounting to power supply table

REMOTE MOUNTING DISTANCE

Power Supply	18 AWG (ft/m)	16 AWG (ft/m)	14 AWG (ft/m)	12 AWG (ft/m)
60W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1
100W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1

Notes: 1. Power supply always has 8% buffer
2. These values are good for use with Power Supply Loading Table Single String Max Module values

LAYOUT GUIDE

Channel Depth (in.)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
4	9.8	7.9	7.9	7.9
5	11.8	7.9	9.8	7.9
6	14.8	7.9	11.8	7.9
7	17.7	7.9	14.2	7.9
8	19.7	7.9	15.8	7.9

Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
100	250	200	200	200
125	300	200	250	200
150	375	200	300	200
180	450	200	360	200
200	500	200	400	200

Notes: 1. Module spacing is defined to achieve minimum 600 lux at sign face (7328 white)
2. Modules are staggered

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity		
		Per Bag	Per Box	Per Carton
LS-PRO4-24-SO-XXX-200-A	Modules	100	400	800
	Feet	65.6	262.4	524.8
	Meters	20	80	160

Carton Dimensions (in./mm)			Box Dimensions (in./mm)		
L	W	H	L	W	H
20.5 / 520	14.6 / 370	10.2 / 260	13.8 / 350	9.8 / 250	9.1 / 230

PRO PREMIUM 4 HO

LS-PRO4-24-HO-XXX-300-A

Spaced at 12 in. (300 mm), our PRO Premium 4 HO modules generate up to 200 lumens per module in five available CCTs ranging from 3000K to 7100K. Constant current ensures no lumen loss. All our PRO Premium modules feature VersaLenz advanced optics which create the PRO Series beam pattern and enable large areas of light coverage.

- High-brightness channel letters
- High-brightness box signs
- Cabinet signs
- Accent and Contour lighting



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LM-79

LM-80



ORDERING GUIDE

Part Number	White Color Temp.	Module Spacing (mm)	Number of Modules		Nominal Light Output (lm)*		
			Per Foot	Per Meter	Per Module	Per Foot	Per Meter
LS-PRO4-24-HO-71K-300-A	7100K	300	1.02	3.33	200	204	666
LS-PRO4-24-HO-65K-300-A	6500K	300	1.02	3.33	200	204	666
LS-PRO4-24-HO-50K-300-A	5000K	300	1.02	3.33	200	204	666
LS-PRO4-24-HO-40K-300-A	4000K	300	1.02	3.33	190	194	633
LS-PRO4-24-HO-30K-300-A	3000K	300	1.02	3.33	190	194	633

*± 10%

MODULE DIMENSIONS

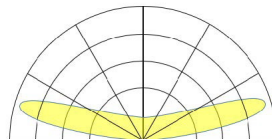
Part Number	Length (in/mm)	Width (in/mm)	Height (in/mm)
LS-PRO4-24-HO-XXX-300-A	3.32 / 84.3	0.72 / 18.28	0.44 / 11.25

PRODUCT RATINGS

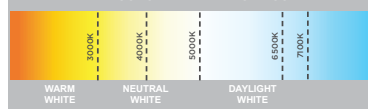
Luminous Efficacy	146.8 lm/W @ 6500K
Wattage per Module	1.34 W/module
Input Voltage	24 V DC
Input Current	0.056 A/module
Ingress Protection	IP68
Operating Temperature	-40° - +140° F (-40° - +60° C)
L70 Lifetime @ 60° C	70,000 Hours
Warranty	9 Year Limited Warranty

LUMINOUS INTENSITY DISTRIBUTION

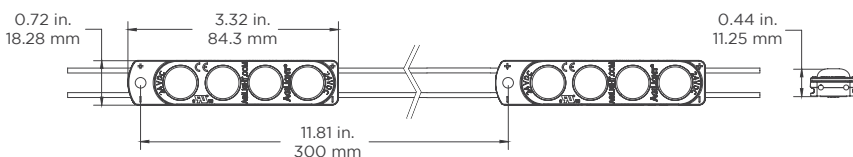
Pro Series Beam Pattern



WHITE COLOR TEMPERATURE SCALE



DIMENSION DRAWING



POWER SUPPLY LOADING

Power Supply (wired in parallel strings)	Max. # of Modules Per String	Total # of Modules	Total # of Feet	Total # of Meters
60W	39	41	40.4	12.3
100W	67	68	66.9	20.4

Notes: 1. Loading calculated at 25°C
 2. For maximum loading to be reached, a center connection to the LEDs is recommended to minimize voltage drop
 3. All values include an 8% buffer from maximum load
 4. Single String Max Modules values can be used with the remote mounting to power supply table

REMOTE MOUNTING DISTANCE

Power Supply	18 AWG (ft/m)	16 AWG (ft/m)	14 AWG (ft/m)	12 AWG (ft/m)
60W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1
100W	20 / 6.1	25 / 7.6	35 / 10.6	40 / 12.1

Notes: 1. Power supply always has 8% buffer
 2. These values are good for use with Power Supply Loading Table Single String Max Module values

LAYOUT GUIDE

Channel Depth (in.)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
4	9.8	7.9	7.9	7.9
5	11.8	9.8	9.8	9.8
6	14.8	11.8	11.8	11.8
7	17.7	11.8	14.2	11.8
8	19.7	11.8	15.8	11.8

Channel Depth (mm)	Single Row		Multiple Rows	
	Max. Stroke	Module Spacing	Row Spacing	Module Spacing
100	250	200	200	200
125	300	250	250	250
150	375	300	300	300
180	450	300	360	300
200	500	300	400	300

Notes: 1. Module spacing is defined to achieve minimum 600 lux at sign face (7328 white)
 2. Modules are staggered

SHIPPING INFORMATION

Module Type	Specs	Packaging Quantity		
		Per Bag	Per Box	Per Carton
LS-PRO4-24-HO-XXX-300-A	Modules	100	400	800
	Feet	98.4	393.7	787.4
	Meters	30	120	240

Carton Dimensions (in./mm)			Box Dimensions (in./mm)		
L	W	H	L	W	H
20.5 / 520	14.6 / 370	10.2 / 260	13.8 / 350	9.8 / 250	9.1 / 230