

# MAR-L4 • 120/277V • LED • XICATO

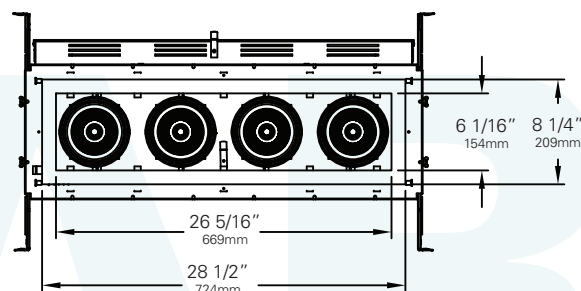
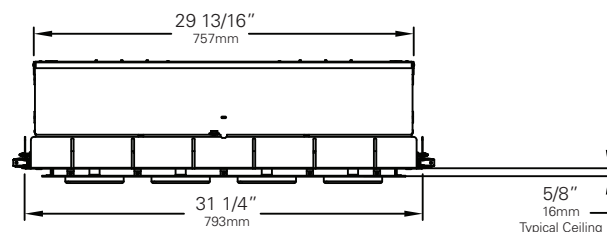
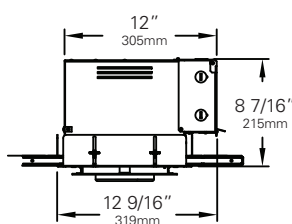


## The LumeLEX MAR4 Series features the highly efficient Xicato XTM Modules and a variety of optics and accessory options for unprecedented flexibility.

- Designed for the Xicato™ XTM LED module up to 20 Watts
- Extremely tight color consistency (less than 2 MacAdam Ellipses)
- System efficiency up to 100 lumens/watt
- Backed by Xicato's Five Year Color Consistency and Lumen Maintenance Warranty
- Tested to LM79 and LM80 Protocols
- 50,000 hour life to 70% lumen output, L<sub>70</sub> at 95°F max ambient
- Integral electronic driver compatible with reverse phase (ELV compatible) dimmers down to 5%
- Choice of 13°, 24° or 43° field changeable optic
- 25° Aiming
- Choice of LED modules with various lumen outputs
- Choice of color temperatures
- Color Rendering Index (CRI) of either 98 (high) or 83+ (standard)
- No UV or IR emissions; no mercury or lead
- All LumeLEX modules are field replaceable
- Can be ordered for 120V or 277V
- Sturdy steel housing with spun aluminum lamp holders
- Accepts up to three size-B LSI filters and accessories
- Thermally protected and approved for all Non-IC ceiling types, including air handling plenums
- Unique spring-loaded clamping system facilitates installation in plaster, sheetrock or acoustic tiles
- Supplied with LED driver
- Flange finishes: LSI Black, White and Silver
- Fixture weight: 21 LB



## SPECIFICATIONS



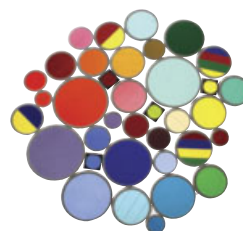
**MAR-L4** • 120/277V • LED • XICATO**ORDERING INFORMATION**

- Choose the product code  
**(L4)** for Large 4-head fixture
- Choose the numeric code to designate the desired LED Rating  
**Lumens/CRI/Wattage**  
**(13-98)** for 1300/98/18  
**(20-83)** for 2000/83/20  
**(21-98)** for 2100/98/24  
**(27-83)** for 2700/83/24
- Choose the numeric code to designate the desired  
**Color Temperature**  
**(27)** for 2700K                      **(30)** for 3000K  
**(35)** for 3500K                      **(40)** for 4000K
- Use the following alpha-numeric codes to designate the **Optic:**  
**(M13)** for 13°    **(M24)** for 24°    **(M43)** for 43°
- Choose the letter code for **Dimming Type:**  
**(TE)** Trailing Edge (ELV Reverse Phase) (5%)  
**(10)** 0-10V (10%)  
**(L3)** Lutron Ecosystem
- Choose the desired **Voltage:**  
**(120)** for 120V    **(277)** for 277V
- Choose a **Finish** for your fixture:  
Black **(B)**    White **(W)**    Silver **(S)**    Trimless **(T)**

Example:

**LX****MAR-L4** - **13-98** - **27** - **M24** - **TE** - **120** - **W**  
FIXTURE                      LED RATING                      COLOR TEMP                      OPTIC                      DIMMING                      VOLTAGE                      FINISH

- Don't forget your Accessories!

**ACCESSORIES****Glass Color Filters B**

Selection of 95 permanent rimmed dichroic and rimmed and slotted standard colors.

**Other accessories:**

- **Spread Lenses B990, B992, B995, B996**
- **Beam Softener B998**
- **Light Blocking Screens B801S, B802S, B803S**
- **Color and Spread Gels B**
- **Backer Ring B**

# MAR-L4 • PERFORMANCE

The performance characteristics of the LumeLEX MAR Series can be customized based on the LED module and the optic (reflector) selected.

Each available LED module is defined by four characteristics – the color rendering index (CRI), the correlated color temperature (CCT), the power that it uses (watts), and its “available lumens.” Note that available lumens is a theoretical value that represents the light output of the module on its own – no fixture or optic attached.

In the LSI part number, the LED module is specified with a number that immediately follows the product series number.

For example, in the part number LXMAR-L4-13-98-27-M24-TE-120-W, the “13-98-27” represents an LED module with an output of 1300 lumens, a CRI of 98, a power usage of 18 watts and a color temperature of 2700K.

Additional parameters, such as Center Beam Candle Power (CBCP), Delivered Lumens, and Efficiency (Lumens per Watt) are all shown in a table that is organized by LED module and optic combination.

CBCP = Center Beam Candle Power			
LED Module	Optic (Reflector)		
Lumens/CRI/Wattage	M13	M24	M43
1300/98/18	7995	2847	1703
2000/83/20	12300	4600	2613
2100/98/24	12915	4599	2751
2700/83/24	18449	6579	3920

Delivered Lumens			
LED Module	Optic (Reflector)		
Lumens/CRI/Wattage	M13	M24	M43
1300/98/18	1027	1040	1027
2000/83/20	1580	1600	1580
2100/98/24	1659	1680	1659
2700/83/24	2133	2160	2133

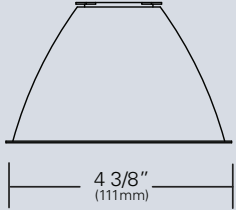
Efficiency = Lumens Per Watt			
LED Module	Optic (Reflector)		
Lumens/CRI/Wattage	M13	M24	M43
1300/98/18	57	58	57
2000/83/20	79	80	79
2100/98/24	69	70	69
2700/83/24	89	90	89

*Absolute range of values are +/- 10% of typical value, and are for all color temperatures*

LED Module	1300/98/18	2000/83/20	2100/98/24	2700/83/24
Lumens/CRI/Wattage SKU Code	13-98	20-83	21-98	15-83
Nominal Fixture Power (+/- 20%), Watts	18	20	24	24
Maximum Inrush Current Amps	10	10	10	10
Minimum Power Factor	0.92	0.92	0.92	0.92

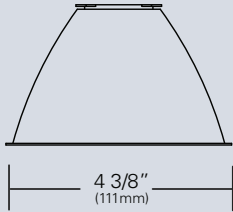
*Inrush current is instantaneous current drawn by the LED only when fixture is initially powered on or instantaneously changed from full dim to full bright. For more details see Dimming Application Sheet, IS-0119.*

# MAR-L4 • OPTICS



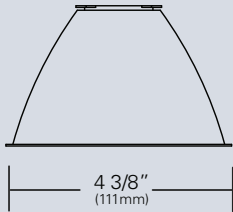
## M13 REFLECTOR (111mm/13°)

Computer designed polycarbonate specular optic. Tool-less, twist and lock installation.



## M24 REFLECTOR (111mm/24°)

Computer designed polycarbonate specular optic. Tool-less, twist and lock installation.



## M43 REFLECTOR (111mm/43°)

Computer designed polycarbonate specular optic. Tool-less, twist and lock installation.

# MAR-L4 • PHOTOMETRIC DATA

**LED RATING: 20-83**

**M13 Optic**

Beam Spread (minimum) **13°**  
Center Beam Candlepower **12300**  
CRI **83**

**M24 Optic**

Beam Spread (minimum) **24°**  
Center Beam Candlepower **4600**  
CRI **83**

**M43 Optic**

Beam Spread (minimum) **43°**  
Center Beam Candlepower **2613**  
CRI **83**

**LED RATING: 27-83**

**M13 Optic**

Beam Spread (minimum) **13°**  
Center Beam Candlepower **18449**  
CRI **83**

**M24 Optic**

Beam Spread (minimum) **24°**  
Center Beam Candlepower **6579**  
CRI **83**

**M43 Optic**

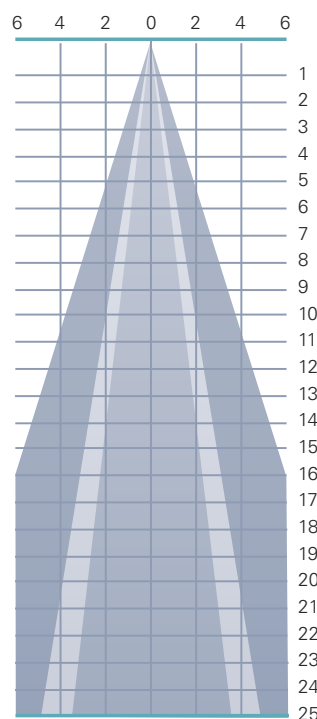
Beam Spread (minimum) **43°**  
Center Beam Candlepower **3920**  
CRI **83**

**LED RATING: 20-83**

All Max. Footcandles at 0° Beam Axis

	M43 (43°)	M24 (24°)	M13 (13°)
2613	4600	12300	
653	1150	3075	
290	511	1367	
163	288	769	
105	184	492	
73	128	342	
53	94	251	
41	72	192	
32	57	152	
26	46	123	
22	38	102	
18	32	85	
15	27	73	
13	23	63	
12	20	55	
10	18	48	
9	16	43	
8	14	38	
7	13	34	
7	12	31	
6	10	28	
5	10	25	
5	9	23	
5	8	21	
4	7	20	

**All Distances in Feet**



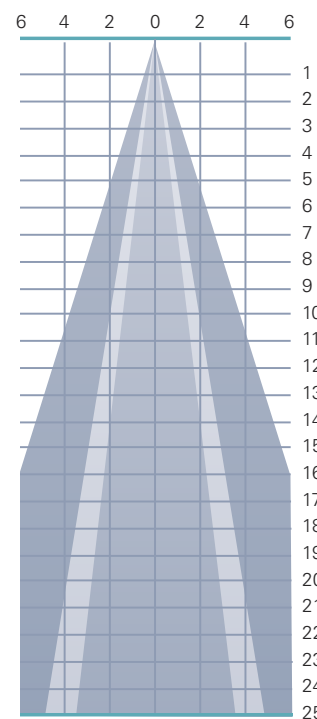
Photometric Data based on LED Rating: 20-83 (2000 Lumens/83CRI/20watts)

**LED RATING: 27-83**

All Max. Footcandles at 0° Beam Axis

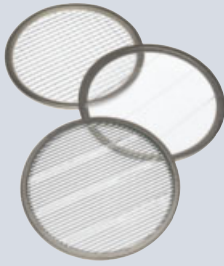
	M43 (43°)	M24 (24°)	M13 (13°)
3920	6579	18449	
980	1645	4612	
436	731	2050	
245	411	1153	
157	263	738	
109	183	512	
80	134	377	
61	103	288	
48	81	228	
39	66	184	
32	54	152	
27	46	128	
23	39	109	
20	34	94	
17	29	82	
15	26	72	
14	23	64	
12	20	57	
11	18	51	
10	16	46	
9	15	42	
8	14	38	
7	12	35	
7	11	32	
6	11	30	

**All Distances in Feet**



Photometric Data based on LED Rating: 10-98 (2700 Lumens/83CRI/24watts)

# MAR-L4 • ACCESSORIES

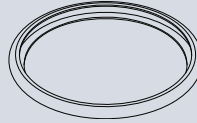


## SPREAD LENSES AND BEAM SOFTENER

No.	Description	% of Light Transmission
990	Spread Lens/Clear	83 (5°X 50°)
992	Spread Lens/Clear	85 (5°X 30°)
995	Spread Lens/Clear	83 (50°X 50°)
996	Spread Lens/Clear	86 (45°X 50°)
998	Beam Softener/Clear	80 (45°X 45°)

## BACKER RING B

Stainless steel ring to hold gel when no other size Baccessories are being used.



## LOUVER HEX B

1/8" thick Hexcell black metal louver used for thin profile.



## <sup>1</sup>LIGHT BLOCKING SCREENS B

Stainless steel mesh screens used alone or in combinations will block from approximately 20% to 90% of the transmitted light without changing color temperature of the light.



No.	% of Light Blocked
B801S	20
B802S	30
B803S	40

1. Figures vary based upon LED Module/Optic being used and relationship of screen(s) to LED Module/Optic and to each other.

# MAR-L4 • GELS

As the foremost innovator in accent lighting, LSI offers a complete range of pre-cut Gels to modify the spread and color of light for the LumeLEX LED Series.



## LumeLEX® SPREAD GELS

Size: B (4 1/4" diameter)	Spread Gel
GEL-L1-B	1° Spread Gel
GEL-L5-B	5° Spread Gel
GEL-L10-B	10° Spread Gel
GEL-L20-B	20° Spread Gel
GEL-L30-B	30° Spread Gel
GEL-L40-B	40° Spread Gel
GEL-L60-B	60° Spread Gel
GEL-L80-B	80° Spread Gel
GEL-L30B5-B	30° by 5° Spread Gel
GEL-L40B2-B	40° by 0.2° Spread Gel
GEL-L60B1-B	60° by 1° Spread Gel
GEL-L60B10-B	60° by 10° Spread Gel
GEL-L75B45-B	5° by 45° Spread Gel
GEL-L90B60-B	90° by 60° Spread Gel
GEL-R101-B	Beam Softener

## LumeLEX® COLOR GELS

Size: B (4 1/4" diameter)	Gel Color	Size: B (4 1/4" diameter)	Gel Color
GEL-R2-B	Bastard Amber	GEL-R312-B	Canary
GEL-R7-B	Pale Yellow	GEL-R3204-B	Half Blue
GEL-R12-B	Straw	GEL-R331-B	Shell Pink
GEL-R13-B	Straw Tint	GEL-R383-B	Sapphire Blue
GEL-R14-B	Medium Straw	GEL-R397-B	Pale Grey
GEL-R21-B	Golden Amber	GEL-R2001-B	Storaro Red
GEL-R25-B	Orange Red	GEL-R2004-B	Storaro Green
GEL-R26-B	Light Red	GEL-R2009-B	Storaro Violet
GEL-R27-B	Medium Red	GEL-R3202-B	Full Blue
GEL-R57-B	Lavender	GEL-R3206-B	Third Blue
GEL-R62-B	Booster Blue	GEL-R3216-B	Eighth Blue (Boosts 3200K to 3300K)
GEL-R71-B	Sea Blue	GEL-R3318-B	Tough 1/8 Minusgreen
GEL-R72-B	Azure Blue	GEL-R3410-B	Roscosun (1/8 CTO) (Reduces 5500K to 4900K)
GEL-R91-B	Primary Green	GEL-R3441-B	Full Straw (CTS)
GEL-R97-B	Light Grey	GEL-R3443-B	Quarter Straw (CTS)
GEL-R98-B	Medium Grey	GEL-R4330-B	CalColor 30 Cyan
GEL-R101-B	Light Frost	GEL-R4415-B	CalColor 15 Green
GEL-R104-B	Tough Silk	GEL-R4490-B	CalColor 90 Green
GEL-R119-B	Lt. Hamburg Frost	GEL-R4860-B	CalColor 60 Pink
GEL-R121-B	Blue Diffusion	GEL-R4890-B	CalColor 90 Pink
GEL-R305-B	Rose Gold	GEL-R4930-B	CalColor 30 Lavender

# COLOR MEDIA

## COLOR FILTERS

As the foremost innovator in accent lighting, LSI offers a complete range of permanent fade-free glass color filters, which are available in nine stock diameters. All glass color filters are rimmed in a seamless aluminum ring and are slotted for heat expansion.



Size	Diameter	LSI Fixture Series	No.	Color	% of Light Transmission
AAA	2 3/8"	LumeLEX® 2020/2030/2031/2038, SSLCX16, SSL260, LumeLEX MAR-S	902	Medium Pink	36
			903	Deep Pink	37
			904	Flesh Pink	73
ZM	2 13/16"	LZ Zoom	906	Pale Lavender	14
			907	Surprise Pink	19
AA	3"	LumeLEX® 2024 (with LX2024-Holder or LX2024-Barndoor), LumeLEX® 2044, LumeLEX 2048	908	Lilac	21
			910	Warm Red	10
			911	Strawberry	6
			912	Ruby	4
A	3 1/2"	LumeLEX® 2060, SSL230, SSLCX30, SSLGR30CL, SSLGR36	913	Magenta	1
			914	Light Amethyst	25
B	4 1/4"	LumeLEX® MAR-L	915	Medium Amethyst	16
			916	Deep Amethyst	4
			917	Olive	18
C	4 3/4"	LumeLEX® 2084, LumeLEX® 2088, SSL238, SSLCX36, SSLCX38, SSLGR38CL	918	Light Green	68
			920	Medium Green	25
			921	Deep Green	7
			922	Silver green	65
			923	Yellow Green	49
			924	Emerald Green	12
			925	Light Turquoise	68
			926	Medium Turquoise	40
			927	Deep Turquoise	17
			928	Light Blue	34
			930	Medium Blue	3
			932	Daylight	59
			933	Gene Moore Blue	18
			936	Grey	56
			937	Light Blue Green	17
			939	Light Amber	68
			940	Medium Amber	48
			941	Deep Amber	43
			942	Straw	78
			943	Gold	87
			944	Canary Yellow	84
			945	Lemon	81
			946	Pumpkin	32
			947	Tangerine	20
			948	Orange	23
			949	Pink Gold	54
			950	Bronze	48
			951	Brass	11
			952	Autumn Tan	11
			953	Leaf Brown	19
			954	Butter Pecan	3
			955	Toasted Almond	1

**Notes:**

1. Values given are approximate due to slight variations in glass color and thickness.



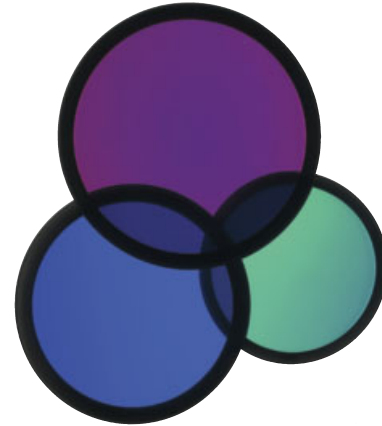
# COLOR MEDIA

## DICHROIC COLOR FILTERS

In addition to our complete line of glass color filters, LSI now offers dichroic glass color filters that achieve purer, more saturated, richer color by selective wavelength transmission. Since these filters reflect rather than absorb the unwanted color wavelengths, a higher intensity of colored light can be obtained with fewer or lower wattage fixtures. In addition, this selective transmission allows for very accurate color matching from filter to filter.

All standard LSI filter sizes are available in a wide palette of well chosen dichroic colors that can be used with all LSI fixtures that accept accessories.

LSI dichroic glass color filters have the added benefit of being rimmed for extra durability to allow for frequent usage without fear of breakage or edge chipping.



Size	Diameter	LSI Fixture Series	Technical Data	No.	Color	% of Light Transmission
AAA	2 3/8"	LumeLEX® 2020/2030/2031/2038, SSLCX16, SSL260, LumeLEX MAR-S	Dichroic color filters are created in a vacuum chamber by multi-layer vapor deposits of different minerals onto low expansion, chemically resistant Borosilicate glass.	2001	Light Pink	69
ZM	2 13/16"	LZ Zoom	Deposits are made in alternating layers of varying microscopic thickness which allow very narrow color wavelengths to be selectively transmitted and all other wavelengths to be reflected.	2002	Medium Pink	43
AA	3"	LumeLEX® 2024 (with LX2024-Holder or LX2024-Barndoor), LumeLEX® 2044, LumeLEX 2048	LSI does not recommend using dichroic color filters with lamps or fixtures that have beam spreads greater than 40° because a secondary color aura is created by the wide angular transmitted wavelengths that are different than the desired color wavelength.	2003	Hot Pink	11
A	3 1/2"	LumeLEX® 2060, SSL230, SSLCX30, SSLGR30CL, SSLGR36	Since there is mainly transmission and reflection of the color wavelengths by the dichroic filter and very little absorption, the dichroic filter can be used with many high temperature lights that normally would not accept color filters.	2004	Pale Pink	55
B	4 1/4"	LumeLEX® MAR-L		2010	Deep Magenta	29
C	4 3/4"	LumeLEX® 2084, LumeLEX® 2088, SSL238, SSLCX36, SSLCX38, SSLGR38CL		2011	Lavender	24
				2012	Vivid Magenta	31
				2013	Lavender Accent	48
				2014	Lilac	37
				2015	Purple Fusion	12
				2020	Sky Blue	39
				2021	Sea Blue	39
				2022	Cyan	33
				2023	Light Blue Green	30
				2024	Primary Blue	24
				2025	Medium Red Blue	15
				2026	Deep Purple	16
				2027	Peacock Blue	53
				2028	Mediterranean Blue	20
				2029	Boost Blue	51
				2040	Light Yellow Green	64
				2041	Fern Green	47
				2042	Turquoise	35
				2043	Primary Green	31
				2044	Industrial Green	64
				2050	Yellow	80
				2051	Amber	71
				2052	Amber Blush	38
				2053	Bastard Amber	71
				2054	Goldenrod	63
				2055	Bright Straw	56
				2060	Medium Orange	51
				2061	Orange	44
				2070	Flame Red	27
				2071	Primary Red	25