

**Lighting Services Inc** **LumeLEX SERIES**

# LX2048 • 120/277V • LUMENETIX-ARAYA 19MM



**Elegant fixture designed specifically for the most demanding architecture applications.**

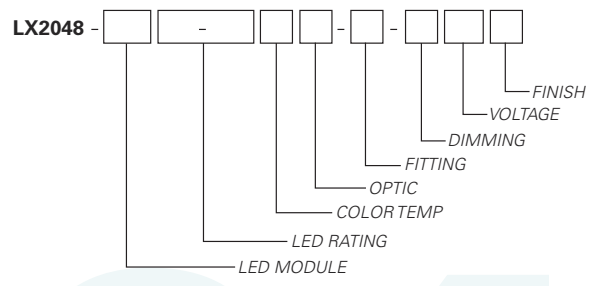
- Designed for the Lumenetix-araya Color Tuning LED module up to 22 Watts
- Extremely tight color consistency (less than 2 MacAdam Ellipses, ± 0.002 DUV), (2000K to 6000K at 2 SDCM)
- System efficiency up to 42 lumens/watt
- On board closed loop feedback compensates each channel for thermal and optical depreciation.
- 50,000 hour life to 70% lumen output, L70 at 95°F max ambient
- Tunable white from 1650K to 8000K
- Full color tuning and gradients of saturated colors
- Color Rendering Index (CRI) of 90+ from 2000K to 6000K
- 1000 produced lumens
- Tested to LM79 and LM80 Protocols
- Choice of dimming down to 1%. Compatible with 2 zones for 0-10V
- 0-10V with the ability to control intensity and CCT simultaneously
- Compatible with DMX and RDM
- Uses the following four DMX channels: Dimming, CCT, Saturation, and Hue
- Field interchangeable optics (15°- 60°) modify the beam spread distribution
- Accessory holder accepts up to two size-AA LSI filters and accessories
- Finishes: LSI Black, White, and Silver
- Fixture weight: 3.5 lbs
- All modules are field replaceable
- Fixed center stem
- Maximum stem length is 48"

## FIXTURE PART NUMBERS

Please review the **ORDERING INFORMATION** section on the next page as well as the **MOUNTING OPTIONS** on page 3 to create a part number for each fixture that specifies the following:

- LED Module
- LED Rating
- Color Temperature
- Optic (mm/beam spread)
- Fitting/Controls (Dimming)
- Voltage
- Finish

### PART NUMBER

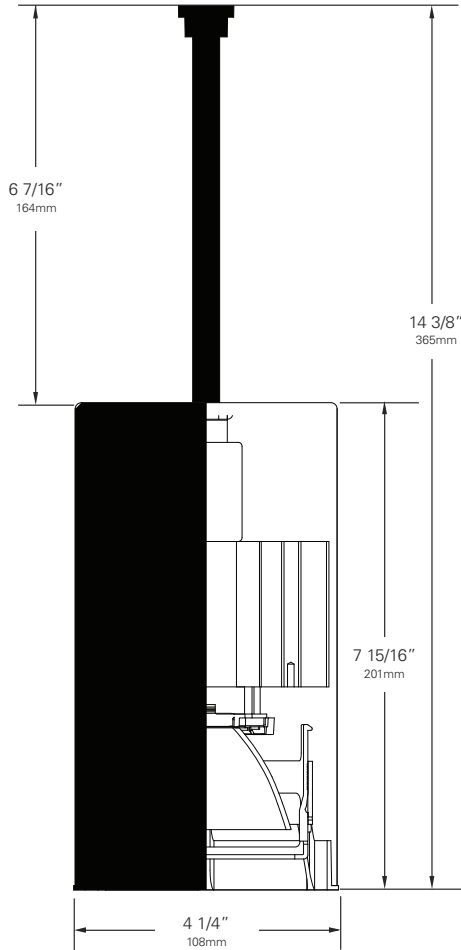


Example Part Number: **LX2048-L1910-90DWM9-CT1-10120W** is a fixture with a Lumenetix-araya 19mm LED module, 1000 Lumen/90 CRI/20 Watt LED rating, Dynamic White (1650° - 8000°K) Color Temperature, 70mm 20° Optic, CT1 CONTROLTrack fitting with 0-10V compatible control gear, 120V and a White finish.

Lighting Services Inc

LumeLEX SERIES

# LX2048 • 120/277V • LUMENETIX-ARAYA 19MM



## ORDERING INFORMATION

### Base Fixture Model

- LX2048-L19

### LED Rating (Lumens/CRI/Wattage)

- 10-90 = 1000/90/22

### Color Temperature

- DW= Dynamic White 1650-8000K\*
- CO= Full Color and Dynamic White 1650-8000K (DMX Dimming only)

### Optic

- S1 = 50mm/15°
- M2 = 70mm/ 20°      M4 = 70mm/ 35°
- M6 = 70mm/ 60°      M8 = 70mm/ 40° Wide Field Angle
- M9 = 70mm/ 20° Wide Field Angle

### Fitting/Controls (Dimming)

- CT1-10 = CONTROLTrack Fitting & 0-10V (1%)\*
- CT1-DX = CONTROLTrack Fitting & DMX (<1%)
- 5A-10 = Canopy Fitting & 0-10V (1%)\*
- 5A-DX = Canopy Fitting & DMX (<1%)

### Voltage

- 120 = 120V      230 = 220-240V      277 = 277V

### Finish

- B = Black      W = White      S = Silver

### Example Part Number:

**LX2048-L19**   **10-90**   **DW**   **M9** – **CT1-10**   **120**   **W**

FIXTURE MODEL     LED RATING     COLOR TEMP     OPTIC     FITTING/ DIMMING     VOLTAGE     FINISH

### Other Options (Consult Factory):

- Custom Stems, specify length (4" - 48")
- Custom color, RAL palette

\*0-10V available in Dynamic White only.

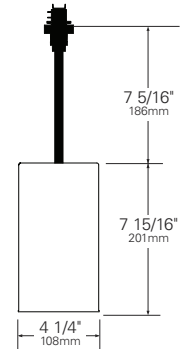
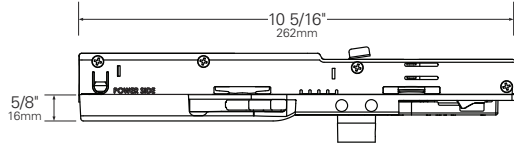
# LX2048 • MOUNTING OPTIONS

**FITTING**

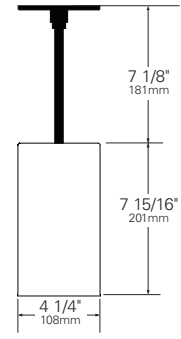
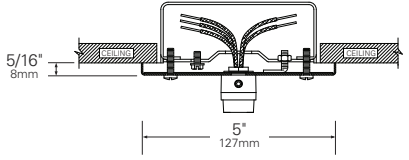
**SIDE VIEW**

**STEM LENGTH VIEW**

**CT1 CONTROLTrack Fitting**



**5A Canopy Fitting**



sixteen5hundred	Project 21-12877-4 Date 6/24/2021 Tunable White   Color Tuning	Catalog Number LX2048-L19 10-90 CO S1 CT1-DX 120 S	Type
	Submitted By 16500, INC	Notes	

# LX2048 • PERFORMANCE

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

Each available LED module is defined by four characteristics – module type (dynamic white vs full color), control type (0-10V and DMX), 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 letter and a number that immediately follow the product series number. For example, in the part number LX2048-L1910-90COM2-CT1-DX120B, the “10-90CO” represents a 19mm Lumenetix-araya module with an output of 1000 Lumens, a minimum CRI of 90, with full color tuning and power usage of 22 Watts.

The available optics (reflectors) are characterized by size, beam angle, and in some cases the characteristics of the field angle (narrow or wide). The optic is specified by the two characters that follow the LED designation in the part number. For example, the “M2” in LX2048-L1910-90COM2-CT1-DX120B is a 70mm diameter optic that has a 20-Degree beam with a narrow field.

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	S1	M2	M4	M6	M8	M9
1000/90/22	2,070	3,012	2,017	1,080	1,598	2,923

Delivered Lumens						
LED Module	Optic (Reflector)					
Lumens/CRI/Wattage	S1	M2	M4	M6	M8	M9
1000/90/22	293	350	607	875	897	899

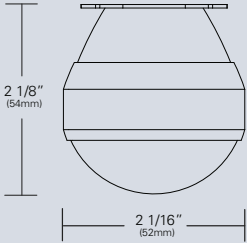
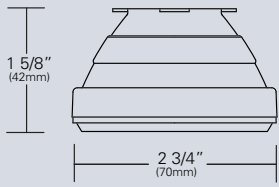
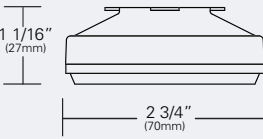
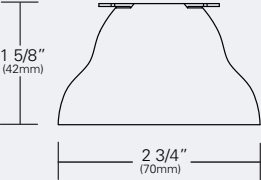
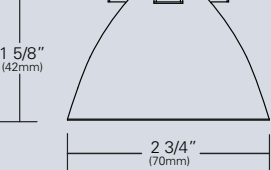
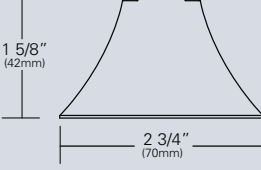
Efficiency = Lumens Per Watt						
LED Module	Optic (Reflector)					
Lumens/CRI/Wattage	S1	M2	M4	M6	M8	M9
1000/90/22	13	16	28	40	41	41

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

LED Module Lumens/CRI/Wattage Letter Code	1000/90/22 10-90
Nominal Fixture Power (+/- 20%), Watts	22
Maximum Inrush Current, Amps	10
Minimum Power Factor	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.

# LX2048 • OPTICS

 <p><b>LX-S15-REF-B (S1)</b> <b>(50mm/15°)</b> Anti-reflective coated aspheric lens. Tool-less, twist and lock installation. Black finish.</p>	 <p><b>LX-M20-REF-B (M2)</b> <b>(70mm/20°)</b> <b>(Narrow Field Angle)</b> Computer designed polycarbonate lens. Tool-less, twist and lock installation. Black finish.</p>
 <p><b>LX-M40-REF-B (M4)</b> <b>(70mm/35°)</b> <b>(Narrow Field Angle)</b> Computer designed polycarbonate specular optic. Tool-less, twist and lock installation. Black finish.</p>	 <p><b>LX-M80-REF-CLR (M8)</b> <b>(70mm/40°)</b> <b>(Wide Field Angle)</b> Computer designed polycarbonate specular optic. Tool-less, twist and lock installation. Aluminized finish.</p>
 <p><b>LX-M90-REF-CLR (M9)</b> <b>(70mm/20°)</b> <b>(Wide Field Angle)</b> Computer designed polycarbonate specular optic. Tool-less, twist and lock installation. Aluminized finish.</p>	 <p><b>LX-M60-REF-CLR (M6)</b> <b>(70mm/60°)</b> Computer designed polycarbonate specular optic. Tool-less, twist and lock installation. Aluminized finish.</p>

# LX2048 • PHOTOMETRIC DATA

**LED RATING: 10-90**

**S1- 50mm DIA Optic**

Beam Spread (minimum) **15°**  
Center Beam Candlepower **2070**  
CRI **90**

**M2-70mm DIA Optic**

(NFA: Narrow Field Angle)  
Beam Spread (minimum) **20°**  
Center Beam Candlepower **3012**  
CRI **90**

**M9- 70mm DIA Optic**

(WFA: Wide Field Angle)  
Beam Spread (minimum) **20°**  
Center Beam Candlepower **2923**  
CRI **90**

**M4- 70mm DIA Optic**

(NFA: Narrow Field Angle)  
Beam Spread (minimum) **35°**  
Center Beam Candlepower **2017**  
CRI **90**

**M8- 70mm DIA Optic**

(WFA: Wide Field Angle)  
Beam Spread (minimum) **40°**  
Center Beam Candlepower **1598**  
CRI **90**

**M6- 70mm DIA Optic**

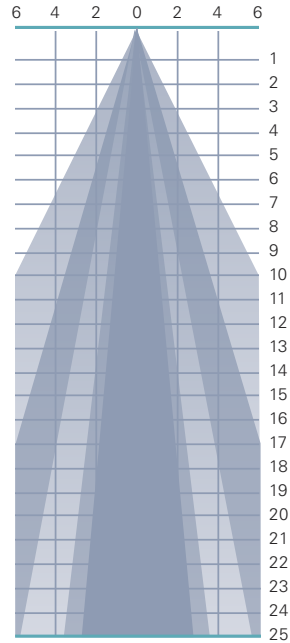
(NFA: Narrow Field Angle)  
Beam Spread (minimum) **60°**  
Center Beam Candlepower **1080**  
CRI **90**

**LED RATING: 10-90**

All Max. Footcandles at 0° Beam Axis

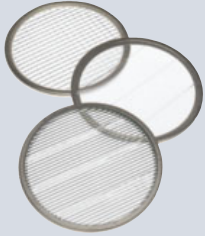
	M6 (60°) NFA	M8 (40°) WFA	M4 (35°) NFA	M9 (20°) WFA	M2 (20°) NFA	S1 (15°)
1080	1598	2017	2923	3012	2070	
270	400	504	731	753	518	
120	178	224	325	335	230	
68	100	126	183	188	129	
43	64	81	117	120	83	
30	44	56	81	84	58	
22	33	41	60	61	42	
17	25	32	46	47	32	
13	20	25	36	37	26	
11	16	20	29	30	21	
9	13	17	24	25	17	
8	11	14	20	21	14	
6	9	12	17	18	12	
6	8	10	15	15	11	
5	7	9	13	13	9	
4	6	8	11	12	8	
4	6	7	10	10	7	
3	5	6	9	9	6	
3	4	6	8	8	6	
3	4	5	7	8	5	
2	4	5	7	7	5	
2	3	4	6	6	4	
2	3	4	6	6	4	
2	3	4	5	5	4	
2	3	3	5	5	3	

**All Distances in Feet**



Photometric Data based on LED Rating: 10-90 (1000 Lumens/90CRI/22watts)  
\*WFA Optics not represented in graph

# LX2048 • ACCESSORIES



## SPREAD LENSES AND BEAM SOFTENER

No.	Description	% of Light Transmission
AA990	Spread Lens/Clear	83 (5°X 50°)
AA992	Spread Lens/Clear	85 (5°X 30°)
AA995	Spread Lens/Clear	83 (50°X 50°)
AA996	Spread Lens/Clear	86 (45°X 50°)
AA998	Beam Softener/Clear	80 (45°X 45°)



## LOUVER HEX AA

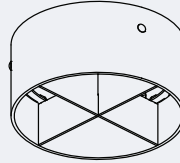
1/8" thick Hexcell black metal louver used for thin profile. Black finish.



## 1 LIGHT BLOCKING SCREENS AA

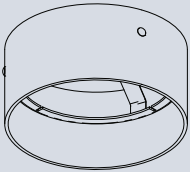
Stainless steel mesh screens used alone or in combinations will block from approximately 20% to 90% of the transmitted light without changing color temperature of the light.

No.	% of Light Blocked
AA801S	20
AA802S	30
AA803S	40



## HOOD-EXT-LX44-WXB-X

Cylindrical metal hood controls spill light and glare. Includes cross baffle. Specify finish.



## HOOD-EXT-LX44-NXB-X

Cylindrical metal hood controls spill light and glare. Does not include cross baffle. Specify finish.

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

Lighting Services Inc

# 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
ZM	2 13/16"	LZ ZOOM	903	Deep Pink	37
AA	3"	LumeLEX® 2044, LumeLEX 2048	904	Flesh Pink	73
A	3 1/2"	LumeLEX® 2060, SSL230, SSLCX30, SSLGR30CL	906	Pale Lavender	14
B	4 1/4"	LumeLEX® MAR-L	907	Surprise Pink	19
C	4 3/4"	290, LumeLEX® 2084, LumeLEX® 2088, SSL238, SSLCX36, SSLCX38, SSLGR38CL	908	Lilac	21
			910	Warm Red	10
			911	Strawberry	6
			912	Ruby	4
			913	Magenta	1
			914	Light Amethyst	25
			915	Medium Amethyst	16
			916	Deep Amethyst	4
			917	Olive	18
			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.



	Project 21-12877-4 Date 6/24/2021 Tunable White   Color Tuning Submitted By 16500, INC	Catalog Number LX2048-L19 10-90 CO S1 CT1-DX 120 S Notes	Type
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Lighting Services Inc

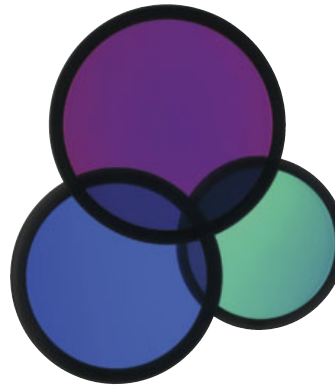
# COLOR MEDIA

## 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® 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	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"	290, 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