Lumidox®II Radiant Flux and Irradiance Values for LED Arrays

2026

Find values for:

96-Well LED Arrays with Lens Mat and Active Cooling Base

Radiant Flux Values per STAGE[1]

		Stage 1 Radiant Flux		Stage 2 Radiant Flux		Stage 3 Radiant Flux		Stage 4 Radiant Flux		Stage 5 Radiant Flux	
Catalog No.	Wavelength	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)
LUM296LA255	UVC-255	--	--	--	--	--	--	--	--	--	--
LUM296LA365	UV365	25	2.4	50	4.8	75	7.2	100	9.6	125	12.0
LUM296LA375	UV375	20	1.9	45	4.3	65	6.2	90	8.6	115	11.0
LUM296LA385	UV385	25	2.4	60	5.8	90	8.6	125	12.0	160	15.4
LUM296LA395	UV395	25	2.4	55	5.3	90	8.6	125	12.0	155	14.9
LUM296LA405	UV405	25	2.4	55	5.3	90	8.6	120	11.5	155	14.9
LUM296LA420	420-Violet	35	3.4	65	6.2	95	9.1	125	12.0	155	14.9
LUM296LA445	445-Indigo	55	5.3	95	9.1	140	13.4	180	17.3	225	21.6
LUM296LA470	470-Blue	50	4.8	85	8.2	120	11.5	155	14.9	190	18.2
LUM296LA505	505-Cyan	40	3.8	60	5.8	75	7.2	95	9.1	110	10.6
LUM296LA527	527-Green	30	2.9	45	4.3	60	5.8	75	7.2	85	8.2
LUM296LA590	590-Amber	35	3.4	60	5.8	85	8.2	110	10.6	135	13.0
LUM296LA630	630-Red	25	2.4	50	4.8	75	7.2	100	9.6	130	12.5
LUM296LA660	660-Deep Red	30	2.9	65	6.2	100	9.6	135	13.0	165	15.8
LUM296LA730	IR730	25	2.4	55	5.3	85	8.2	115	11.0	145	13.9
LUM296LAWHT	White	40	3.8	70	6.7	100	9.6	130	12.5	160	15.4

Irradiance Values per STAGE[2]

		Irradiance at Surface of Each Lens Mat Tip				
		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Catalog No.	Wavelength	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)
LUM296LA255	UVC-255	--	--	--	--	--
LUM296LA365	UV365	125	255	380	510	635
LUM296LA375	UV375	100	230	330	460	585
LUM296LA385	UV385	125	305	460	635	815
LUM296LA395	UV395	125	280	460	635	790
LUM296LA405	UV405	125	280	460	610	790
LUM296LA420	420-Violet	175	330	485	635	790
LUM296LA445	445-Indigo	280	485	715	915	1150
LUM296LA470	470-Blue	255	435	615	790	970
LUM296LA505	505-Cyan	205	305	380	485	560
LUM296LA527	527-Green	155	230	305	380	430
LUM296LA590	590-Amber	180	305	435	560	660
LUM296LA630	630-Red	125	255	380	510	660
LUM296LA660	660-Deep Red	155	330	510	690	840
LUM296LA730	IR730	125	280	435	585	740
LUM296LAWHT	White	205	355	510	660	815

** See note about STAGE values on next page*

[1] Typical calibrations performed by Analytical Sales will display LED output as mW of **radiant flux** (or radiant power). This represents the flux/power of the UV, visible, or IR output being emitted by the LEDs.

[2] **Irradiance** represents the aforementioned radiant flux per unit area (typically cm2). Since output readings are taken from the top of the Lumidox arrays' lens mat, the irradiance is simply the radiant flux divided by the circular area of the lens mats' "nubs" or "protrusions".

96-Well LED Arrays with Lens Mat and Solid Base

Radiant Flux Values per STAGE[1]

		Stage 1 Radiant Flux		Stage 2 Radiant Flux		Stage 3 Radiant Flux		Stage 4 Radiant Flux		Stage 5 Radiant Flux	
Catalog No.	Wavelength	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)
LUM296LS255	UVC-255	--	--	--	--	--	--	--	--	--	--
LUM296LS365	UV365	50	4.8	100	9.6	150	14.4	200	19.2	295	28.3
LUM296LS375	UV375	45	4.3	90	8.6	135	13.0	185	17.8	275	26.4
LUM296LS385	UV385	60	5.8	125	12.0	190	18.2	260	25.0	395	37.9
LUM296LS395	UV395	55	5.3	125	12.0	190	18.2	260	25.0	390	37.4
LUM296LS405	UV405	55	5.3	120	11.5	190	18.2	255	24.5	385	37.0
LUM296LA420	420-Violet	65	6.2	125	12.0	185	17.8	240	23.0	360	34.6
LUM296LS445	445-Indigo	95	9.1	180	17.3	265	25.4	355	34.1	525	50.4
LUM296LS470	470-Blue	85	8.2	155	14.9	225	21.6	295	28.3	440	42.2
LUM296LS505	505-Cyan	60	5.8	95	9.1	130	12.5	165	15.8	230	22.1
LUM296LS527	527-Green	45	4.3	75	7.2	100	9.6	130	12.5	170	16.3
LUM296LS590	590-Amber	60	5.8	110	10.6	155	14.9	205	19.7	305	29.3
LUM296LS630	630-Red	50	4.8	100	9.6	155	14.9	205	19.7	310	29.8
LUM296LS660	660-Deep Red	65	6.2	135	13.0	200	19.2	265	25.4	400	38.4
LUM296LS730	IR730	55	5.3	115	11.0	175	16.8	235	22.6	355	34.1
LUM296LSWHT	White	70	6.7	130	12.5	190	18.2	250	24.0	365	35.0

Irradiance Values per STAGE[2]

		Irradiance at Surface of Each Lens Mat Tip				
		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Catalog No.	Wavelength	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)
LUM296LS255	UVC-255	--	--	--	--	--
LUM296LS365	UV365	255	510	765	1020	1500
LUM296LS375	UV375	230	460	690	940	1400
LUM296LS385	UV385	305	635	970	1325	2010
LUM296LS395	UV395	280	635	970	1325	1985
LUM296LS405	UV405	280	610	970	1300	1960
LUM296LS420	420-Violet	330	635	940	1220	1835
LUM296LS445	445-Indigo	485	915	1350	1810	2675
LUM296LS470	470-Blue	430	790	1145	1500	2240
LUM296LS505	505-Cyan	305	485	660	840	1170
LUM296LS527	527-Green	230	380	510	660	865
LUM296LS590	590-Amber	305	560	790	1045	1555
LUM296LS630	630-Red	255	510	790	1045	1580
LUM296LS660	660-Deep Red	330	690	1020	1350	2035
LUM296LS730	IR730	280	585	890	1200	1810
LUM296LSWHT	White	355	660	970	1275	1860

Please contact us should you have any questions on your specific output needs.

[1] Typical calibrations performed by Analytical Sales will display LED output as mW of **radiant flux** (or radiant power). This represents the flux/power of the UV, visible, or IR output being emitted by the LEDs.

[2] **Irradiance** represents the aforementioned radiant flux per unit area (typically cm2). Since output readings are taken from the top of the Lumidox arrays' lens mat, the irradiance is simply the radiant flux divided by the circular area of the lens mats' "nubs" or "protrusions".

24-Well, 18mm Spaced LED Arrays with Lens Mat and Active Cooling Base

Radiant Flux Values per STAGE[1]

		Stage 1 Radiant Flux		Stage 2 Radiant Flux		Stage 3 Radiant Flux		Stage 4 Radiant Flux		Stage 5 Radiant Flux	
Catalog No.	Wavelength	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)
LUM22418LA255	UVC-255	--	--	--	--	--	--	--	--	--	--
LUM22418LA365	UV365	100	2.4	165	4.0	225	5.4	290	7.0	355	8.5
LUM22418LA375	UV375	55	1.3	115	2.8	175	4.2	230	5.5	290	7.0
LUM22418LA385	UV385	75	1.8	160	3.8	250	6.0	335	8.0	425	10.2
LUM22418LA395	UV395	70	1.7	150	3.6	225	5.4	300	7.2	380	9.1
LUM22418LA405	UV405	90	2.2	165	4.0	240	5.8	315	7.6	395	9.5
LUM22418LA420	420-Violet	155	3.7	230	5.5	300	7.2	370	8.9	445	10.7
LUM22418LA445	445-Indigo	130	3.1	200	4.8	270	6.5	345	8.3	415	10.0
LUM22418LA470	470-Blue	110	2.6	165	4.0	220	5.3	275	6.6	330	7.9
LUM22418LA505	505-Cyan	100	2.4	125	3.0	145	3.5	170	4.1	195	4.7
LUM22418LA527	527-Green	80	1.9	95	2.3	115	2.8	130	3.1	145	3.5
LUM22418LA590	590-Amber	110	2.6	140	3.4	170	4.1	200	4.8	230	5.5
LUM22418LA630	630-Red	70	1.7	110	2.6	145	3.5	185	4.4	225	5.4
LUM22418LA660	660-Deep Red	--	--	--	--	--	--	--	--	--	--
LUM22418LA730	IR730	--	--	--	--	--	--	--	--	--	--
LUM22418LAWHT	White	105	2.5	150	3.6	195	4.7	240	5.8	285	6.8

Irradiance Values per STAGE[2]

		Irradiance at Surface of Each Lens Mat Tip				
		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Catalog No.	Wavelength	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)
LUM22418LA255	UVC-255	--	--	--	--	--
LUM22418LA365	UV365	125	210	285	370	450
LUM22418LA375	UV375	70	145	225	295	370
LUM22418LA385	UV385	95	205	320	430	540
LUM22418LA395	UV395	90	190	285	380	485
LUM22418LA405	UV405	115	210	305	400	505
LUM22418LA420	420-Violet	200	295	380	470	565
LUM22418LA445	445-Indigo	165	255	345	440	530
LUM22418LA470	470-Blue	140	210	280	350	420
LUM22418LA505	505-Cyan	125	160	185	215	250
LUM22418LA527	527-Green	100	120	145	165	185
LUM22418LA590	590-Amber	140	180	215	255	300
LUM22418LA630	630-Red	90	140	185	235	285
LUM22418LA660	660-Deep Red	--	--	--	--	--
LUM22418LA730	IR730	--	--	--	--	--
LUM22418LAWHT	White	135	190	250	305	365

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[2] **Irradiance** represents the aforementioned radiant flux per unit area (typically cm2). Since output readings are taken from the top of the Lumidox arrays' lens mat, the irradiance is simply the radiant flux divided by the circular area of the lens mats' "nubs" or "protrusions".

24-Well, 18mm Spaced LED Arrays with Lens Mat and Solid Base

Radiant Flux Values per STAGE[1]

		Stage 1 Radiant Flux		Stage 2 Radiant Flux		Stage 3 Radiant Flux		Stage 4 Radiant Flux		Stage 5 Radiant Flux	
Catalog No.	Wavelength	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)
LUM22418LS255	UVC-255	--	--	--	--	--	--	--	--	--	--
LUM22418LS365	UV365	165	4.0	290	7.0	415	10.0	545	13.1	795	19.1
LUM22418LS375	UV375	115	2.8	230	5.5	350	8.4	465	11.2	695	16.7
LUM22418LS385	UV385	160	3.8	335	8.0	515	12.4	690	16.6	945	22.7
LUM22418LS395	UV395	150	3.6	300	7.2	455	10.9	610	14.6	920	22.1
LUM22418LS405	UV405	165	4.0	315	7.6	470	11.3	625	15.0	930	22.3
LUM22418LA420	420-Violet	230	5.5	370	8.9	515	12.4	655	15.7	945	22.7
LUM22418LS445	445-Indigo	200	4.8	345	8.3	485	11.6	625	15.0	905	21.7
LUM22418LS470	470-Blue	165	4.0	275	6.6	390	9.4	500	12.0	725	17.4
LUM22418LS505	505-Cyan	125	3.0	170	4.1	220	5.3	265	6.4	350	8.4
LUM22418LS527	527-Green	95	2.3	130	3.1	165	4.0	200	4.8	245	5.9
LUM22418LS590	590-Amber	140	3.4	200	4.8	255	6.1	315	7.6	435	10.4
LUM22418LS630	630-Red	110	2.6	185	4.4	260	6.2	340	8.2	490	11.8
LUM22418LS660	660-Deep Red	--	--	--	--	--	--	--	--	--	--
LUM22418LS730	IR730	--	--	--	--	--	--	--	--	--	--
LUM22418LSWHT	White	150	3.6	240	5.8	335	8.0	425	10.2	605	14.5

Irradiance Values per STAGE[2]

		Irradiance at Surface of Each Lens Mat Tip				
		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Catalog No.	Wavelength	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)
LUM22418LS255	UVC-255	--	--	--	--	--
LUM22418LS365	UV365	210	370	530	695	1010
LUM22418LS375	UV375	145	295	445	590	885
LUM22418LS385	UV385	205	430	650	880	1205
LUM22418LS395	UV395	190	380	580	775	1170
LUM22418LS405	UV405	210	400	600	795	1185
LUM22418LS420	420-Violet	295	470	655	835	1205
LUM22418LS445	445-Indigo	255	440	620	800	1150
LUM22418LS470	470-Blue	210	350	500	635	925
LUM22418LS505	505-Cyan	160	215	280	335	445
LUM22418LS527	527-Green	120	165	210	255	310
LUM22418LS590	590-Amber	180	255	325	400	555
LUM22418LS630	630-Red	140	235	330	435	625
LUM22418LS660	660-Deep Red	--	--	--	--	--
LUM22418LS730	IR730	--	--	--	--	--
LUM22418LSWHT	White	190	305	430	540	770

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Low Output for Cell/Bio Work
96-Well LED Arrays with Lens Mat and Active Cooling Base

Radiant Flux Values per STAGE[1]

	Stage 1 Radiant Flux		Stage 2 Radiant Flux		Stage 3 Radiant Flux		Stage 4 Radiant Flux		Stage 5 Radiant Flux	
	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)
All Wavelengths	10	0.96	15	1.4	20	1.9	30	2.9	40	3.8

Irradiance Values per STAGE[2]

	Irradiance at Surface of Each Lens Mat Tip				
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)
All Wavelengths	51	76	102	153	204

Cell culture or biological applications push the limits of the lower end of the LEDs' output range. Our novel arming sequence facilitates this by slowly increasing the LEDs' output for enhanced stability.

Procedure

- Arm the array
- Wait at least 5-8 seconds (s)
- Press the START button a second time (LEDs light up)

Ramp Up Duration (To reach selected stage intensity.)

- **Quick (5-10 s)**: Press START button during "brightening" portion of arming cycle.
- **Slow (20-30 s)**: Press START button during "dark/dimming" portion of the arming cycle.

Low Output for Cell/Bio Work
24-Well, 18mm Spaced LED Arrays with Lens Mat and Active Cooling Base

Radiant Flux Values per STAGE[1]

	Stage 1 Radiant Flux		Stage 2 Radiant Flux		Stage 3 Radiant Flux		Stage 4 Radiant Flux		Stage 5 Radiant Flux	
	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)
All Wavelengths	10	0.24	15	0.36	20	0.48	30	0.72	40	0.96

Irradiance Values per STAGE[2]

	Irradiance at Surface of Each Lens Mat Tip				
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)	(mW/cm2)
All Wavelengths	13	19	25	38	51

Please contact us should you have any questions on your specific output needs.

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