

## 3<sup>rd</sup> Generation COB LED Arrays



### Description

The Luminus Generation 3 LED COB array series delivers solutions for the most demanding spot lighting, down lighting and directional applications in general lighting. Available in lumen packages from less than 1,000 to over 20,000lm. All Gen. 3 COBs deliver 150 lumen per Watt (LPW) at junction temperature  $T_j = 85^\circ\text{C}$ . Offered in the widest CRI range in the industry, with a complete white color range, providing lighting designers and manufacturers the choices necessary to meet the optimum performance at the most cost effective price. Tight color control combined with the highest lumen performance, quality, consistency and reliability make Luminus your one stop solution.

### Features

- Wide lumen package range
  - 1,000lm to over 20,000lm,  $T_j = 85^\circ\text{C}$
- High Lumen per Watt
  - $>150$  LPW @ 3000K, 80 CRI,  $T_j = 85^\circ\text{C}$
  - $>170$  LPW @ 5000K, 70 CRI,  $T_j = 85^\circ\text{C}$
- 2700K, 3000K, 3500K, 4000K, 5000K, 6500K
- CRI 90 and 80 min. standard at most CCTs
- High temperature ( $T_j = 85^\circ\text{C}$ ) binning
- Lowest thermal resistance for excellent heat transfer and uniform spreading
- 3-SDCM chromaticity binning for the most accurate color

### Applications

- Spot and Track Lighting
- Shop and Retail Lighting
- Directional, high color rendering
- Hospitality and office space
- Halogen/CMH replacements
- PARs, BRs, MR16s, AR111
- Industrial high bay
- Outdoor area and roadway
- Architectural and Landscape

## CLM-9 Product Family

Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CLM-9	9.6	240	33.8	8.16	CLM-9-27-80-36-AC30	80	2700	1,150	142	82	90	82	94
					CLM-9-30-80-36-AC30		3000	1,215	150	82	99	82	97
					CLM-9-35-80-36-AC30		3500	1,250	154	81	92	81	95
					CLM-9-40-80-36-AC30		4000	1,270	157	81	92	81	95
					CLM-9-50-80-36-AC30		5000	1,275	157	80	94	80	95
					CLM-9-65-80-36-AC30		6500	1,270	157	80	90	80	94
					CLM-9-27-90-36-AC30	90	2700	950	117	92	101	90	101
					CLM-9-30-90-36-AC30		3000	1,020	126	91	101	90	101
					CLM-9-35-90-36-AC30		3500	1,040	128	92	101	90	100
					CLM-9-40-90-36-AC30		4000	1,100	136	90	98	88	99
					CLM-9-50-90-36-AC30	95	5000	1,105	136	90	97	89	98
					CLM-9-27-95-36-AC30		2700	905	112	97	105	95	101
					CLM-9-30-95-36-AC30		3000	955	118	96	106	94	102
					CLM-9-35-95-36-AC30	70	3500	1,000	123	96	100	94	100
					CLM-9-40-70-36-AC30		4000	1,360	168	71	-	-	-
					CLM-9-50-70-36-AC30		5000	1,380	170	71	95	72	93
CLM-9-65-70-36-AC30	6500	1,385	171	71	-		-	-					

## CXM-9 Product Family

Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CXM-9	9.6	360	34	12.2	CXM-9-27-80-36-AC30	80	2700	1,735	142	82	90	82	94
					CXM-9-30-80-36-AC30		3000	1,835	150	82	99	82	97
					CXM-9-35-80-36-AC30		3500	1,890	154	81	92	81	95
					CXM-9-40-80-36-AC30		4000	1,915	156	81	92	81	95
					CXM-9-50-80-36-AC30		5000	1,930	158	80	94	80	95
					CXM-9-65-80-36-AC30		6500	1,920	157	80	90	80	94
					CXM-9-27-90-36-AC30	90	2700	1,430	117	92	101	90	101
					CXM-9-30-90-36-AC30		3000	1,545	126	91	101	90	101
					CXM-9-35-90-36-AC30		3500	1,575	129	92	101	90	100
					CXM-9-40-90-36-AC30		4000	1,660	136	90	98	88	99
					CXM-9-50-90-36-AC30	95	5000	1,670	136	90	97	89	98
					CXM-9-27-95-36-AC30		2700	1,370	112	97	105	95	101
					CXM-9-30-95-36-AC30		3000	1,440	118	96	106	94	102
					CXM-9-35-95-36-AC30	70	3500	1,505	123	96	100	94	100
					CXM-9-40-70-36-AC30		4000	2,055	168	71	-	-	-
					CXM-9-50-70-36-AC30		5000	2,090	171	71	95	72	93
CXM-9-65-70-36-AC30	6500	1,920	171	71	-		-	-					

CXM-11 Product Family													
Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CXM-11	11.6	450	33.8	15.2	CXM-11-27-80-36-AC30	80	2700	2,155	142	82	90	82	94
					CXM-11-30-80-36-AC30		3000	2,280	150	82	99	82	97
					CXM-11-35-80-36-AC30		3500	2,345	154	81	92	81	95
					CXM-11-40-80-36-AC30		4000	2,380	156	81	92	81	95
					CXM-11-50-80-36-AC30		5000	2,395	157	80	94	80	95
					CXM-11-65-80-36-AC30		6500	2,386	157	80	90	80	94
					CXM-11-27-90-36-AC30	90	2700	1,780	117	92	101	90	101
					CXM-11-30-90-36-AC30		3000	1,915	126	91	101	90	101
					CXM-11-35-90-36-AC30		3500	1,955	129	92	101	90	100
					CXM-11-40-90-36-AC30		4000	2,065	136	90	98	88	99
					CXM-11-50-90-36-AC30	5000	2,075	136	90	97	89	98	
					CXM-11-27-95-36-AC30	95	2700	1,700	112	97	105	95	101
					CXM-11-30-95-36-AC30		3000	1,790	118	96	106	94	102
					CXM-11-35-95-36-AC30		3500	1,870	123	96	100	94	100
					CXM-11-40-70-36-AC30	70	4000	2,550	168	71	-	-	-
					CXM-11-50-70-36-AC30		5000	2,595	171	71	95	72	93
CXM-11-65-70-36-AC30	6500	2,596	171	71	-		-	-					

CLM-14 Product Family													
Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CLM-14	14.3	500	33.8	17	CLM-14-27-80-36-AC30	80	2700	2,400	142	82	90	82	94
					CLM-14-30-80-36-AC30		3000	2,540	150	82	99	82	97
					CLM-14-35-80-36-AC30		3500	2,610	154	81	92	81	95
					CLM-14-40-80-36-AC30		4000	2,650	157	81	92	81	95
					CLM-14-50-80-36-AC30		5000	2,665	158	80	94	80	95
					CLM-14-65-80-36-AC30		6500	2,655	157	80	90	80	94
					CLM-14-27-90-36-AC30	90	2700	1,980	117	92	101	90	101
					CLM-14-30-90-36-AC30		3000	2,135	126	91	101	90	101
					CLM-14-35-90-36-AC30		3500	2,175	129	92	101	90	100
					CLM-14-40-90-36-AC30		4000	2,295	136	90	98	88	99
					CLM-14-50-90-36-AC30	5000	2,310	137	90	97	89	98	
					CLM-14-27-95-36-AC30	95	2700	1,895	112	97	105	95	101
					CLM-14-30-95-36-AC30		3000	1,990	118	96	106	94	102
					CLM-14-35-95-36-AC30		3500	2,080	123	96	100	94	100
					CLM-14-40-70-36-AC30	70	4000	2,840	168	71	-	-	-
					CLM-14-50-70-36-AC30		5000	2,885	171	71	95	72	93
CLM-14-65-70-36-AC30	6500	2,890	171	71	-		-	-					

CXM-14 Product Family													
Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CXM-14	14.3	720	34	24.5	CXM-14-27-80-36-AC30	80	2700	3,410	140	82	90	82	94
					CXM-14-30-80-36-AC30		3000	3,600	148	82	99	82	97
					CXM-14-35-80-36-AC30		3500	3,710	152	81	92	81	95
					CXM-14-40-80-36-AC30		4000	3,755	154	81	92	81	95
					CXM-14-50-80-36-AC30		5000	3,785	156	80	94	80	95
					CXM-14-65-80-36-AC30		6500	3,770	155	80	90	80	94
					CXM-14-27-90-36-AC30	90	2700	2,810	115	92	101	90	101
					CXM-14-30-90-36-AC30		3000	3,030	125	91	101	90	101
					CXM-14-35-90-36-AC30		3500	3,090	127	92	101	90	100
					CXM-14-40-90-36-AC30		4000	3,260	134	90	98	88	99
					CXM-14-50-90-36-AC30	95	5000	3,275	135	90	97	89	98
					CXM-14-27-95-36-AC30		2700	2,685	110	97	105	95	101
					CXM-14-30-95-36-AC30	3000	2,830	116	96	106	94	102	
					CXM-14-35-95-36-AC30	3500	2,955	121	96	100	94	100	
					CXM-14-40-70-36-AC30	70	4000	4,030	166	71	-	-	-
					CXM-14-50-70-36-AC30		5000	4,095	168	71	95	72	93
CXM-14-65-70-36-AC30	6500	4,100	168	71	-		-	-					

CXM-18 Product Family													
Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CXM-18	17.5	900	34	30.6	CXM-18-27-80-36-AA30	80	2700	4,358	143	82	90	82	94
					CXM-18-30-80-36-AA30		3000	4,605	151	82	99	82	97
					CXM-18-35-80-36-AA30		3500	4,742	156	81	92	81	95
					CXM-18-40-80-36-AA30		4000	4,804	158	81	92	81	95
					CXM-18-50-80-36-AA30		5000	4,837	159	80	94	80	95
					CXM-18-65-80-36-AA30		6500	4,819	158	80	90	80	94
					CXM-18-27-90-36-AA30	90	2700	3,592	118	92	101	90	101
					CXM-18-30-90-36-AA30		3000	3,873	127	91	101	90	101
					CXM-18-35-90-36-AA30		3500	3,951	130	92	101	90	100
					CXM-18-40-90-36-AA30		4000	4,168	137	90	98	88	99
					CXM-18-50-90-36-AA30	95	5000	4,189	138	90	97	89	98
					CXM-18-27-95-36-AA30		2700	3,436	113	97	105	95	101
					CXM-18-30-95-36-AA30	3000	3,617	119	96	106	94	102	
					CXM-18-35-95-36-AA30	3500	3,778	124	96	100	94	100	
					CXM-18-40-70-36-AA30	70	4000	5,152	169	71	-	-	-
					CXM-18-50-70-36-AA30		5000	5,239	172	71	95	72	93
CXM-18-65-70-36-AA30	6500	5,245	172	71	-		-	-					

CLM-22 Product Family													
Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CLM-22	22	1,100	33.8	37.2	CLM-22-27-80-36-AC30	80	2700	5,442	146	82	90	82	94
					CLM-22-30-80-36-AC30		3000	5,750	155	82	99	82	97
					CLM-22-35-80-36-AC30		3500	5,921	159	81	92	81	95
					CLM-22-40-80-36-AC30		4000	5,999	161	81	92	81	95
					CLM-22-50-80-36-AC30		5000	6,040	162	80	94	80	95
					CLM-22-65-80-36-AC30		6500	6,017	162	80	90	80	94
					CLM-22-27-90-36-AC30	90	2700	4,485	121	92	101	90	101
					CLM-22-30-90-36-AC30		3000	4,836	130	91	101	90	101
					CLM-22-35-90-36-AC30		3500	4,933	133	92	101	90	100
					CLM-22-40-90-36-AC30		4000	5,204	140	90	98	88	99
					CLM-22-50-90-36-AC30	95	5000	5,230	141	90	97	89	98
					CLM-22-27-95-36-AC30		2700	4,290	115	97	105	95	101
					CLM-22-30-95-36-AC30		3000	4,517	121	96	106	94	102
					CLM-22-35-95-36-AC30		3500	4,717	127	96	100	94	100
					CLM-22-40-70-36-AC30	70	4000	6,433	173	71	-	-	-
					CLM-22-50-70-36-AC30		5000	6,541	176	71	95	72	93
CLM-22-65-70-36-AC30	6500	6,549	176	71	-		-	-					

CXM-22 Product Family													
Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CXM-22	22	1,100	51	56.1	CXM-22-27-80-54-AC30	80	2700	7,841	140	82	90	82	94
					CXM-22-30-80-54-AC30		3000	8,285	148	82	99	82	97
					CXM-22-35-80-54-AC30		3500	8,531	152	81	92	81	95
					CXM-22-40-80-54-AC30		4000	8,643	154	81	92	81	95
					CXM-22-50-80-54-AC30		5000	8,702	155	80	94	80	95
					CXM-22-65-80-54-AC30		6500	8,670	155	80	90	80	94
					CXM-22-27-90-54-AC30	90	2700	6,462	115	92	101	90	101
					CXM-22-30-90-54-AC30		3000	6,969	124	91	101	90	101
					CXM-22-35-90-54-AC30		3500	7,107	127	92	101	90	100
					CXM-22-40-90-54-AC30		4000	7,498	134	90	98	88	99
					CXM-22-50-90-54-AC30	95	5000	7,535	134	90	97	89	98
					CXM-22-27-95-54-AC30		2700	6,181	110	97	105	95	101
					CXM-22-30-95-54-AC30		3000	6,508	116	96	106	94	102
					CXM-22-35-95-54-AC30		3500	6,797	121	96	100	94	100
					CXM-22-40-70-54-AC30	70	4000	9,270	165	71	-	-	-
					CXM-22-50-70-54-AC30		5000	9,425	168	71	95	72	93
CXM-22-65-70-54-AC30	6500	9,435	168	71	-		-	-					

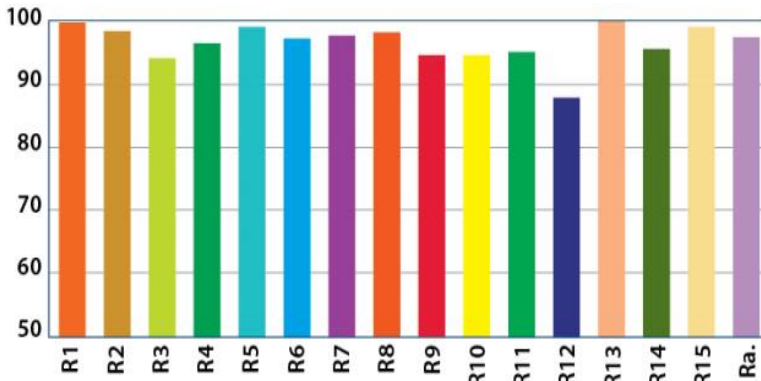
CXM-27 Product Family													
Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CXM-27	26.5	1,600	51	81.6	CXM-27-27-80-54-AA30	80	2700	11,735	144	82	90	82	94
					CXM-27-30-80-54-AA30		3000	12,400	152	82	99	82	97
					CXM-27-35-80-54-AA30		3500	12,769	156	81	92	81	95
					CXM-27-40-80-54-AA30		4000	12,937	159	81	92	81	95
					CXM-27-50-80-54-AA30		5000	13,025	160	80	94	80	95
					CXM-27-65-80-54-AA30		6500	12,976	159	80	90	80	94
					CXM-27-27-90-54-AA30	90	2700	9,672	119	92	101	90	101
					CXM-27-30-90-54-AA30		3000	10,429	128	91	101	90	101
					CXM-27-35-90-54-AA30		3500	10,638	130	92	101	90	100
					CXM-27-40-90-54-AA30		4000	11,222	138	90	98	88	99
					CXM-27-50-90-54-AA30	95	5000	11,279	138	90	97	89	98
					CXM-27-27-95-54-AA30		2700	9,252	113	97	105	95	101
					CXM-27-30-95-54-AA30		3000	9,741	119	96	106	94	102
					CXM-27-35-95-54-AA30	70	3500	10,173	125	96	100	94	100
					CXM-27-40-70-54-AA30		4000	13,874	170	71	-	-	-
					CXM-27-50-70-54-AA30		5000	14,106	173	71	95	72	93
CXM-27-65-70-54-AA30	6500	14,122	173	71	-	-	-						

CXM-32 Product Family													
Product	LES (mm)	Drive Current 1x (mA)	Typical Voltage (V)	Typical Power 1x drive (W)	Part Number	CRI	CCT (K)	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
								Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CXM-32	32	2,200	51	112.2	CXM-32-27-80-54-AC30	80	2700	15,830	141	82	90	82	94
					CXM-32-30-80-54-AC30		3000	16,775	150	82	99	82	97
					CXM-32-35-80-54-AC30		3500	17,225	154	81	92	81	95
					CXM-32-40-80-54-AC30		4000	17,450	156	81	92	81	95
					CXM-32-50-80-54-AC30		5000	17,570	157	80	94	80	95
					CXM-32-65-80-54-AC30		6500	17,505	156	80	90	80	94
					CXM-32-27-90-54-AC30	90	2700	13,050	116	92	101	90	101
					CXM-32-30-90-54-AC30		3000	14,070	125	91	101	90	101
					CXM-32-35-90-54-AC30		3500	14,350	128	92	101	90	100
					CXM-32-40-90-54-AC30		4000	15,140	135	90	98	88	99
					CXM-32-50-90-54-AC30	95	5000	15,215	136	90	97	89	98
					CXM-32-27-95-54-AC30		2700	12,480	111	97	105	95	101
					CXM-32-30-95-54-AC30		3000	13,140	117	96	106	94	102
					CXM-32-35-95-54-AC30	70	3500	13,725	122	96	100	94	100
					CXM-32-40-70-54-AC30		4000	18,715	167	71	-	-	-
					CXM-32-50-70-54-AC30		5000	19,030	170	71	95	72	93
CXM-32-65-70-54-AC30	6500	19,050	170	71	-	-	-						

## Sensus™ Series Gen 3 LED Products

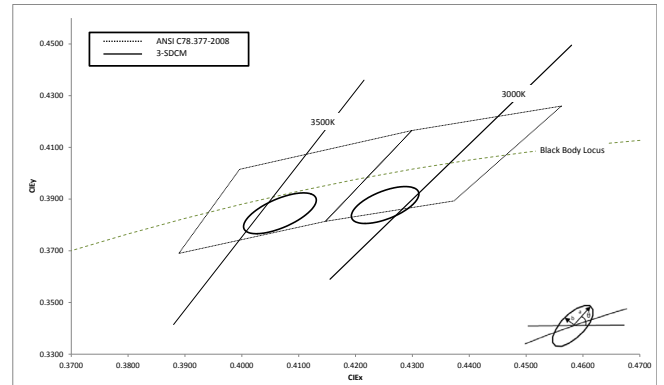
Product Part Number 3 SDCM	Typ. Current (mA)	CRI	Lumen Typ. 1X Current (85°C)		Color Metrics		TM-30	
			Lumen	Eff. (LPW)	CQS	GAI_BB <sub>15</sub>	Rf	Rg
CLM-9-30-80-36-AC32-F4-3	240	80	1,154	142	82	110	80	98
CLM-9-30-90-36-AC32-F4-3		90	969	119	90	118	88	103
CLM-9-35-80-36-AC32-F4-3	240	80	1,188	146	82	102	80	97
CLM-9-35-90-36-AC32-F4-3		90	988	122	92	104	88	101
CXM-9-30-80-36-AC32-F4-3	360	80	1,743	142	82	110	80	98
CXM-9-30-90-36-AC32-F4-3		90	1,468	120	90	118	88	103
CXM-9-35-80-36-AC32-F4-3	360	80	1,796	147	82	102	80	97
CXM-9-35-90-36-AC32-F4-3		90	1,496	122	92	104	88	101
CXM-11-30-80-36-AC32-F4-3	450	80	2,166	142	82	110	80	98
CXM-11-30-90-36-AC32-F4-3		90	1,819	120	90	118	88	103
CXM-11-35-80-36-AC32-F4-3	450	80	2,228	146	82	102	80	97
CXM-11-35-90-36-AC32-F4-3		90	1,857	122	92	104	88	101
CLM-14-30-80-36-AC32-F4-3	500	80	2,413	143	82	110	80	98
CLM-14-30-90-36-AC32-F4-3		90	2,028	120	90	118	88	103
CLM-14-35-80-36-AC32-F4-3	500	80	2,480	147	82	102	80	97
CLM-14-35-90-36-AC32-F4-3		90	2,066	122	92	104	88	101
CXM-14-30-80-36-AC32-F4-3	720	80	3,420	141	82	110	80	98
CXM-14-30-90-36-AC32-F4-3		90	2,879	118	90	118	88	103
CXM-14-35-80-36-AC32-F4-3	720	80	3,525	145	82	102	80	97
CXM-14-35-90-36-AC32-F4-3		90	2,936	121	92	104	88	101
CXM-18-30-80-36-AA32-F4-3	900	80	4,375	144	82	110	80	98
CXM-18-30-90-36-AA32-F4-3		90	3,679	121	90	118	88	103
CXM-18-35-80-36-AA32-F4-3	900	80	4,505	148	82	102	80	97
CXM-18-35-90-36-AA32-F4-3		90	3,753	123	92	104	88	101
CLM-22-30-80-36-AC32-F4-3	1,100	80	5,463	147	82	110	80	98
CLM-22-30-90-36-AC32-F4-3		90	4,594	124	90	118	88	103
CLM-22-35-80-36-AC32-F4-3	1,100	80	5,625	151	82	102	80	97
CLM-22-35-90-36-AC32-F4-3		90	4,686	126	92	104	88	101
CXM-22-30-80-54-AC32-F4-3	1,100	80	7,871	140	82	110	80	98
CXM-22-30-90-54-AC32-F4-3		90	6,620	118	90	118	88	103
CXM-22-35-80-54-AC32-F4-3	1,100	80	8,105	144	82	102	80	97
CXM-22-35-90-54-AC32-F4-3		90	6,752	120	92	104	88	101

## Widest Selection of the most Versatile Color Enrichment Products



**97 CRI AccuWhite™ R Values Chart**

AccuWhite™ high CRI products for lighting color-rich objects like grocery store produce, multi-color merchandise or museum art work.



**Sensus™ White Chromaticity Range**

Sensus™ creates a purer white light making white objects look “cleaner” and jewelry or crystal products sparkle.



## For further information



<http://www.luminus.com/products/cobarrays>



<http://www.luminus.com/wheretobuy>

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