



# ALPHALIGHT™ Selection Guide

Teledyne Part Number	Aperture Size (Diagonal)	Hue (λD nm)	Brightness (fL) Constant Current	Fwd VDC ± .5V	Electrical Max. Power (W)
AL0252M -W	0.25"	White	4000	3.5	.105
-R	7.47 mm	615-640	7900	2.5	.100
-G		525	8800	3.5	.105
-B		470	1800	3.5	.105
AL0505M-1W	0.50"	White	3800	3.5	.105
-1R	10.7 mm	615-640	5300	2.5	.100
-1G		525	5200	3.5	.105
-1B		470	900	3.5	.105
AL0505M-2W	0.50"	White	6700	3.5	.210
-2R	10.7 mm	615-640	7900	2.5	.200
-2G		525	9600	3.5	.210
-2B		470	1500	3.5	.210
AL0707M-W	0.70"	White	3800	3.5	.630
-R	19.41 mm	615-640	6000	2.5	.600
-G		525	5000	3.5	.630
-B		470	1000	3.5	.630
AL1010M-W	1.0"	White	4400	3.5	.840
-R	27.18 mm	615-640	5700	2.5	.800
-G		525	5800	3.5	.840
-B		470	1100	3.5	.840
SB1010M-W	1.0"	White	5600	3.5	1.68
-R	27.18 mm	615-640	7200	2.5	1.60
-G		525	6400	3.5	1.68
-B		470	1300	3.5	1.68
UB1010M-R	1.0"	615-640	150,000	2.5	.875
-G	25 mm	525	225,000	3.5	1.225
-B		470	60,000	3.5	1.225
AL1414M-W	1.4"	White	3400	3.5	1.26
-R	36.35 mm	615-640	4000	2.5	1.20
-G		525	4800	3.5	1.26
-B		470	800	3.5	1.26

Teledyne's ALPHALIGHT™ product is fully patent protected (U.S. Patents #5,440,197, #5,684,354, #5,892,325, #6,043,591 domestically as well as foreign additional patents pending) for this specific application. For more information, please visit our website at [www.teledynelighting.com](http://www.teledynelighting.com)



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SB1414M-W	1.4"	White	4000	3.5	1.89
-R	36.35 mm	615-640	7000	2.5	1.80
-G		525	6000	3.5	1.89
-B		470	1000	3.5	1.89
AL2020M-W	2.0"	White	3000	3.5	1.68
-R	50.8 mm	615-640	5000	2.5	1.60
-G		525	4000	3.5	1.68
-B		470	700	3.5	1.68
AL0252C	0.25" 7.47 mm	Red (625) Green (525) Blue (470)	12800 Equal Energy White	2.5 3.5 3.5	.310
AL0505C -1	0.50"	Red (625)	8000	2.5	.156
-2	10.7 mm	Green (525) Blue (470)	12000 Equal Energy White	3.5 3.5	.340
AL0707C	0.70" 19.41 mm	Red (625) Green (525) Blue (470)	6500 Equal Energy White	2.5 3.5 3.5	1.14
SB0707C	0.70" 19.41 mm	Red (625) Green (525) Blue (470)	8300 Equal Energy White	2.5 3.5 3.5	2.28
AL1010C	1.0" 27.18 mm	Red (625) Green (525) Blue (470)	4000 Equal Energy White	2.5 3.5 3.5	1.55
AL1414C	1.4" 36.35 mm	Red (625) Green (525) Blue (470)	3000 Equal Energy White	2.5 3.5 3.5	2.28
AL30ATIC-CC	3.15" 80.00 mm	Red (625) Green (525) Blue (470)	9000 Equal Energy White (Pulsed at 660 Hz)	7 12 12	

**Notes:**

- 1.0 Maximum rating at 10% duty cycle
- 2.0 Equal energy White ratio (%) equals: Red=30%; Green=62%; Blue=8%
- 3.0 Chromaticity (measurement uncertainty of colors is ±0.02):
  - 3.1 Red: x = 0.67 to 0.43, y = .27 to .33
  - 3.2 Green: x = 0.14 to 0.28, y = .64 to .73
  - 3.3 Blue: x = 0.11 to 0.15, y = .04 to .10
  - 3.4 White: x = 0.31 to 0.35, y = .31 to .35
- 4.0 Uniformity is 1.4:1
- 5.0 Area of the aperture is enlarged up to 15% to accommodate optical interface with LCD's