



Projector Buyer's Guide to Color Brightness by Model

Projector buyers should proceed with caution.

Derived when presentations consisted of a black font on a white background, the old lumens metric only measures white light. Lumens, or brightness, tells the projector buyer little about the brightness of colors in photos, videos or graphics.

Fortunately, a newer metric gives projector buyers a measurement for the brightness of colors. Color Light Output, or more simply Color Brightness, quantifies the brightness of Red, Green and Blue; the primary colors of light.

The photograph below shows two projectors setup side-by-side, set in their brightest mode. Both offer similar resolution, price and white brightness levels.

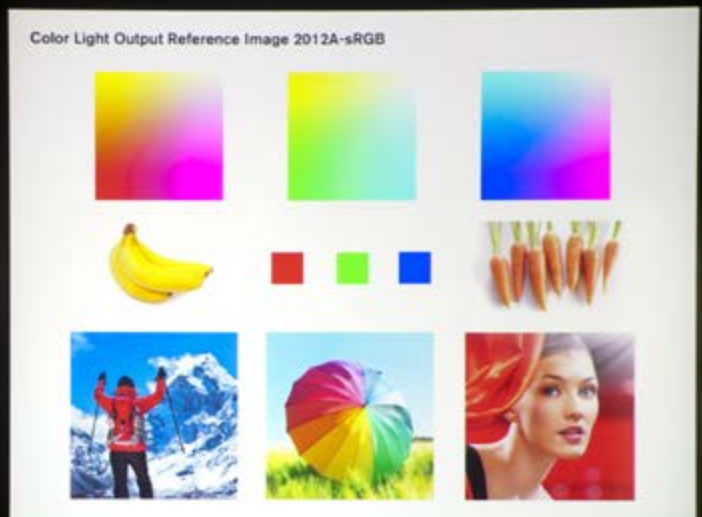
The projector on the left exhibits low Color Brightness; only a fraction of its white brightness. The one on the right shows equal amounts of Color and White Brightness. Colors on the right are much brighter, providing more impact.

This document starts with a listing of projectors where the manufacturer specifies both White and Color Brightness. Second is a table containing projectors measured for their Color Brightness level by a 3rd party laboratory because the manufacturer did not specify the color brightness.

Insist on brighter colors. When selecting a projector, consider both the brightness of White as well as the brightness of Color.

Low Color Brightness

High Color Brightness



Actual photograph of side by side projected images from an identical signal source. Both projectors are set to their brightest mode. Testing and photography conducted by Lumita Inc.

Table 1: Models with Manufacturer Specification for Color Brightness

Many manufacturers provide specifications for both White Light Output (White Brightness) and Color Light Output (Color Brightness). Manufacturers publish specifications on product performance and are responsible for their legitimacy and reliability. See manufacturer's websites or contact the manufacturer for details.

	White Brightness	Color Brightness		White Brightness	Color Brightness		White Brightness	Color Brightness
Dukane			EX3220	3000	3000	PowerLite 119W	4000	4000
ImagePro 8104	2500	2500	EX3240	3200	3200	PowerLite 1221	2800	2800
ImagePro 8107	2500	2500	EX3260	3300	3300	PowerLite 1222	3000	3000
ImagePro 8112	3000	3000	EX3280	3600	3600	PowerLite 1224	3200	3200
ImagePro 8755	2400	2400	EX5210	2800	2800	PowerLite 1261W	2800	2800
ImagePro 8928	2700	2700	EX5220	3000	3000	PowerLite 1262W	3000	3000
ImagePro 8930	3200	3200	EX5230	3500	3500	PowerLite 1263W	3000	3000
ImagePro 8931	3000	3000	EX5240	3200	3200	PowerLite 1264	3200	3200
ImagePro 8932	3200	3200	EX5250	3600	3600	PowerLite 1266	3600	3600
ImagePro 8933	3000	3000	EX5260	3600	3600	PowerLite 1284	3200	3200
ImagePro 8957	4000	4000	EX5280	3800	3800	PowerLite 1286	3600	3600
ImagePro 8958	4000	4000	EX6210	2700	2700	PowerLite 1288	4000	4000
ImagePro 8959	5000	5000	EX6220	3000	3000	PowerLite 1751	2600	2600
ImagePro 8970	5000	5000	EX7210	2800	2800	PowerLite 1761W	2600	2600
ImagePro 8971	6000	6000	EX7220	3000	3000	PowerLite 1770W	3000	3000
ImagePro 8972	4000	4000	EX7230	3000	3000	PowerLite 1771W	3000	3000
ImagePro 8973	5500	5500	EX7235	3000	3000	PowerLite 1776W	3000	3000
ImagePro 8974	4200	4200	EX7240	3200	3200	PowerLite 1780W	3000	3000
ImagePro 8975	5000	5000	EX7260	3600	3600	PowerLite 1781W	3200	3200
ImagePro 8977	7000	7000	EX7280	4000	4000	PowerLite 1785W	3200	3200
ImagePro 8979	6000	6000	EX9200	3200	3200	PowerLite 1795F	3200	3200
Epson			EX9210	3400	3400	PowerLite 1835	3500	3500
BrightLink 436Wi	3000	3000	EX9220	3600	3600	PowerLite 1850W	3700	3700
BrightLink 450Wi	2500	2500	EX9230	3500	3500	PowerLite 1880	4000	4000
BrightLink 475Wi	2600	2600	EX9240	4000	4000	PowerLite 1925W	4000	4000
BrightLink 485Wi	3100	3100	EV-100	2000	2000	PowerLite 1930	4200	4200
BrightLink 536Wi	3400	3400	EV-105	2000	2000	PowerLite 1940W	4200	4200
BrightLink 575Wi	2700	2700	EV-110	2200	2200	PowerLite 1945W	4200	4200
BrightLink 585Wi	3300	3300	EV-115	2200	2200	PowerLite 1950	4500	4500
BrightLink 595Wi	3300	3300	HC 1080	3400	3400	PowerLite 1955	4500	4500
BrightLink 685Wi	3500	3500	HC 2200	2700	2700	PowerLite 1960	5000	5000
BrightLink 695Wi	3500	3500	HC 2250	2700	2700	PowerLite 1965	5000	5000
BrightLink 696Ui	3800	3800	HC 3200	3000	3000	PowerLite 1975W	5000	5000
BrightLink 697Ui	4400	4400	HC 3800	3000	3000	PowerLite 1980WU	4400	4400
BrightLink 710Ui	4000	4000	HC 3810	3000	3000	PowerLite 1985WU	4800	4800
BrightLink 1480Fi	5000	5000	HC 4010	2400	2400	PowerLite 2040	4200	4200
BrightLink 1480Fi+	5000	5000	HC 5040B	2600	2600	PowerLite 2042	4400	4400
BrightLink 1485Fi	5000	5000	HC 5050UB	2600	2600	PowerLite 2065	5500	5500
BrightLink 1485Fi+	5000	5000	LS300	3600	3600	PowerLite 2140W	4200	4200
BrightLink Pro 1410Wi	3100	3100	LS500	4000	4000	PowerLite 2142W	4200	4200
BrightLink Pro 1420Wi	3300	3300	MegaPlex MG-850HD	2800	2800	PowerLite 2155W	5000	5000
BrightLink Pro 1430Wi	3300	3300	MovieMate 85HD	2500	2500	PowerLite 2165W	5500	5500
BrightLink Pro 1450Ui	3800	3800	PC 4040	2200	2200	PowerLite 2245U	4200	4200
BrightLink Pro 1460Ui	4400	4400	PC 4050	2400	2400	PowerLite 2247U	4200	4200
BrightLink Pro 1470Ui	4000	4000	PC 6040UB	2500	2500	PowerLite 2250U	5000	5000
EF-100	2000	2000	PC 6050UB	2600	2600	PowerLite 2255U	5000	5000
EF-100W/B	2000	2000	PC LS10500	1500	1500	PowerLite 2265U	5500	5500
EF11	1000	1000	PowerLite 107	3500	3500	PowerLite 4100	4500	4500
EF12	1000	1000	PowerLite 108	3700	3700	PowerLite 420	2500	2500
EX10000	4500	4500	PowerLite 109W	4000	4000	PowerLite 4200W	4500	4500
EX3212	2800	2800	PowerLite 118	3800	3800	PowerLite 425W	2500	2500

Table 1: Continued

	White Brightness	Color Brightness		White Brightness	Color Brightness		White Brightness	Color Brightness
Epson (Continued)			PowerLite FH52+	4000	4000	PL HC 3500	2500	2500
PowerLite 430	3000	3000	PowerLite L400U	4500	4500	PL HC 3600e	2500	2500
PowerLite 4300	5200	5200	PowerLite L500W	5000	5000	PL HC 3700	3000	3000
PowerLite 435W	3000	3000	PowerLite L510U	5000	5000	PL HC 3900	2700	2700
PowerLite 4650	5200	5200	PowerLite L520U	5200	5200	PL HC 4000	2200	2200
PowerLite 470	2600	2600	PowerLite L520W	5200	5200	PL HC 500	2600	2600
PowerLite 475W	2600	2600	PowerLite L530U	5200	5200	PL HC 5010	2400	2400
PowerLite 4750W	4200	4200	PowerLite L610	6000	6000	PL HC 5020UB	2400	2400
PowerLite 4770W	5000	5000	PowerLite L610U	6000	6000	PL HC 5020UBe	2400	2400
PowerLite 480	3000	3000	PowerLite L610W	6000	6000	PL HC 5030UB	2400	2400
PowerLite 485W	3100	3100	PowerLite L615U	6000	6000	PL HC 5030UBe	2400	2400
PowerLite 4855WU	4000	4000	PowerLite L630SU	6000	6000	PL HC 5040UB	2500	2500
PowerLite 520	2700	2700	PowerLite L630U	6200	6200	PL HC 5040UBe	2500	2500
PowerLite 525W	2800	2800	PowerLite L635SU	6000	6000	PL HC 640	3200	3200
PowerLite 530	3200	3200	PowerLite L730U	7000	7000	PL HC 660	3300	3300
PowerLite 535W	3400	3400	PowerLite L735U	7000	7000	PL HC 707	2700	2700
PowerLite 5510	5500	5500	PowerLite S11	2600	2600	PL HC 710HD	2800	2800
PowerLite 5520W	5500	5500	PowerLite S17	2700	2700	PL HC 725HD	2800	2800
PowerLite 5530U	5500	5500	PowerLite S27	2700	2700	PL HC 730HD	3000	3000
PowerLite 5535U	5500	5500	PowerLite S39	3300	3300	PL HC 740HD	3000	3000
PowerLite 570	2700	2700	PowerLite W06+	3700	3700	PL HC 750HD	3000	3000
PowerLite 575W	2700	2700	PowerLite W16	3000	3000	PL HC 760HD	3300	3300
PowerLite 580	3200	3200	PowerLite W16SK	6000	6000	PL HC 8345	1800	1800
PowerLite 585W	3300	3300	PowerLite W17	2800	2800	PL HC 8350	2000	2000
PowerLite 675W	3200	3200	PowerLite W29	3000	3000	PL HC LS100	4000	4000
PowerLite 680	3500	3500	PowerLite W39	3500	3500	PL Presenter	2500	2500
PowerLite 685W	3500	3500	PowerLite W49	3800	3800	PL Pro C4030	2000	2000
PowerLite 700U	4000	4000	PowerLite W52+	4000	4000	PL Pro C6020UB	2400	2400
PowerLite 905	3000	3000	PowerLite W70	2000	2000	PL Pro C6030UB	2400	2400
PowerLite 915W	3200	3200	PowerLite W75	2000	2000	PL Pro C9350	2000	2000
PowerLite 93+	2600	2600	PowerLite X06+	3600	3600	PL Pro G5450WU	4000	4000
PowerLite 935W	3700	3700	PowerLite X12	2800	2800	PL Pro G5550	4500	4500
PowerLite 95	2600	2600	PowerLite X15	3000	3000	PL Pro G5650W	4500	4500
PowerLite 955WH	3200	3200	PowerLite X17	2700	2700	PL Pro G6050W	5500	5500
PowerLite 965	3500	3500	PowerLite X27	2700	2700	PL Pro G6070W	5500	5500
PowerLite 965H	3500	3500	PowerLite X39	3500	3500	PL Pro G6150	6500	6500
PowerLite 96W	2700	2700	PowerLite X49	3600	3600	PL Pro G6170	6500	6500
PowerLite 97	2700	2700	PowerLite X51+	3800	3800	PL Pro G6270W	6500	6500
PowerLite 97H	2700	2700	PL HC 1040	3000	3000	PL Pro G6450WU	4500	4500
PowerLite 970	4000	4000	PL HC 1060	3200	3200	PL Pro G6470WU	4500	4500
PowerLite 975W	3600	3600	PL HC 1440	4400	4400	PL Pro G6550WU	5200	5200
PowerLite 98	2700	2700	PL HC 1450	4200	4200	PL Pro G6570WU	5200	5200
PowerLite 98H	3000	3000	PL HC 2000	1800	1800	PL Pro G6750WU	6000	6000
PowerLite 980W	3800	3800	PL HC 2030	2000	2000	PL Pro G6770WU	6000	6000
PowerLite 982W	4200	4200	PL HC 2040	2200	2200	PL Pro G6800	7000	7000
PowerLite 99W	3000	3000	PL HC 2045	2200	2200	PL Pro G6870	7000	7000
PowerLite 99WH	3000	3000	PL HC 2100	2500	2500	PL Pro G6900WU	6000	6000
PowerLite 990U	3800	3800	PL HC 2150	2500	2500	PL Pro G6970WU	6000	6000
PowerLite 992F	4000	4000	PL HC 3000	2300	2300	PL Pro G7000W	6500	6500
PowerLite D6150	3500	3500	PL HC 3010e	2200	2200	PL Pro G7100	6500	6500
PowerLite D6155W	3500	3500	PL HC 3020	2300	2300	PL Pro G7200W	7500	7500
PowerLite D6250	4000	4000	PL HC 3020e	2300	2300	PL Pro G7400U	5500	5500
PowerLite E20	3400	3400	PL HC 3100	2600	2600	PL Pro G7500U	6500	6500

Table 1: Continued

	White Brightness	Color Brightness		White Brightness	Color Brightness		White Brightness	Color Brightness
Epson (Continued)			VS345	3000	3000	EB-4850WU	4000	4000
PL Pro G7805	8000	8000	VS350	3300	3300	EB-4950WU	4500	4500
PL Pro G7900U	7000	7000	VS350W	3700	3700	EB-520	2700	2700
PL Pro G7905U	7000	7000	VS355	3300	3300	EB-525W	2800	2800
PL Pro L1100U	6000	6000	VS410	4000	4000	EB-530	3200	3200
PL Pro L1200U	7000	7000	EB-107	3500	3500	EB-535W	3400	3400
PL Pro L1300U	8000	8000	EB-108	3700	3700	EB-536Wi	3400	3400
PL Pro L1405U	8000	8000	EB-109W	4000	4000	EB-536WT	3400	3400
PL Pro L1500U	12000	12000	EB-1420Wi	3300	3300	EB-5510	5500	5500
PL Pro L1505U	12000	12000	EB-1430Wi	3300	3300	EB-5520W	5500	5500
PL Pro L1715S	15000	15000	EB-1440Ui	3800	3800	EB-5530U	5500	5500
PL Pro L1750U	15000	15000	EB-1450Ui	3800	3800	EB-570	2700	2700
PL Pro L1755U	15000	15000	EB-1460Ui	4400	4400	EB-575Wi	2700	2700
PL Pro L25000U	25000	25000	EB-1470Ui	4000	4000	EB-580	3200	3200
PL Pro Z8000WUNL	6000	6000	EB-1480Fi	5000	5000	EB-585W	3300	3300
PL Pro Z8050WNL	7000	7000	EB-1485Fi	5000	5000	EB-585Wi	3300	3300
PL Pro Z8150NL	8000	8000	EB-1751	2600	2600	EB-590WT	3300	3300
PL Pro Z8250NL	10000	10000	EB-1761W	2600	2600	EB-595Wi	3300	3300
PL Pro Z8255NL	10000	10000	EB-1771W	3000	3000	EB-670	3100	3100
PL Pro Z8350WNL	8500	8500	EB-1776W	3000	3000	EB-675Wi	3200	3200
PL Pro Z8450WUNL	7000	7000	EB-1780W	3000	3000	EB-680	3500	3500
PL Pro Z8455WUNL	7000	7000	EB-1781W	3200	3200	EB-680Wi	3500	3500
PL Pro Z9750UNL	7500	7500	EB-1785W	3200	3200	EB-685W	3500	3500
PL Pro Z9800WNL	8300	8300	EB-1795F	3200	3200	EB-685Wi	3500	3500
PL Pro Z9870NL	8700	8700	EB-1930	4200	4200	EB-695Wi	3500	3500
PL Pro Z9870UNL	8700	8700	EB-1935	4200	4200	EB-696Ui	3800	3800
PL Pro Z9900WNL	9200	9200	EB-1940W	4200	4200	EB-700U	4000	4000
PL Pro Z10000UNL	10000	10000	EB-1945W	4200	4200	EB-710Ui	4000	4000
PL Pro Z10005UNL	10000	10000	EB-1950	4500	4500	EB-720	3800	3800
PL Pro Z11000WNL	11000	11000	EB-1955	4500	4500	EB-725W	4000	4000
PL Pro Z11005NL	11000	11000	EB-1960	5000	5000	EB-725Wi	4000	4000
Pro L1060U	6000	6000	EB-1965	5000	5000	EB-735F	3600	3600
Pro L1060W	6000	6000	EB-1970W	5000	5000	EB-735Fi	3600	3600
Pro L1070U	7000	7000	EB-1975W	5000	5000	EB-750F	3600	3600
Pro L1070W	7000	7000	EB-1980WU	4400	4400	EB-755F	3600	3600
Pro L1075U	7000	7000	EB-1985WU	4800	4800	EB-800F	5000	5000
Pro L12000Q	12000	12000	EB-2040	4200	4200	EB-805F	5000	5000
Pro L12002Q	12000	12000	EB-2042	4400	4400	EB-935W	3700	3700
Pro L1490U	9000	9000	EB-2055	5000	5000	EB-940H	3000	3000
Pro L1495U	9000	9000	EB-2065	5500	5500	EB-945	3000	3000
Pro L20000U	15000	15000	EB-2140W	4200	4200	EB-945H	3000	3000
Pro L20002U	15000	15000	EB-2142W	4200	4200	EB-950WH	3000	3000
VS210	2600	2600	EB-2155W	5000	5000	EB-950WHV	3000	3000
VS220	2700	2700	EB-2165W	5500	5500	EB-955W	3000	3000
VS230	2800	2800	EB-2245U	4200	4200	EB-955WH	3200	3200
VS240	3000	3000	EB-2247U	4200	4200	EB-965	3500	3500
VS250	3200	3200	EB-2250U	5000	5000	EB-965H	3500	3500
VS260	3300	3300	EB-2255U	5000	5000	EB-97H	2700	2700
VS315W	2600	2600	EB-2265U	5500	5500	EB-970	4000	4000
VS320	2700	2700	EB-4550	4500	4500	EB-972	4100	4100
VS330	2700	2700	EB-4650	5200	5200	EB-98	3000	3000
VS335W	2700	2700	EB-4750W	4200	4200	EB-98H	3000	3000
VS340	2800	2800	EB-4770W	5000	5000	EB-980W	3800	3800

Table 1: Continued

	White Brightness	Color Brightness		White Brightness	Color Brightness		White Brightness	Color Brightness
Epson (Continued)			EB-L1300U	8000	8000	EB-U50	3700	3700
EB-982W	4200	4200	EB-L1405U	8000	8000	EB-W03	2700	2700
EB-99WH	3000	3000	EB-L1490U	9000	9000	EB-W04	3000	3000
EB-990U	3800	3800	EB-L1495U	9000	9000	EB-W05	3300	3300
EB-992F	4000	4000	EB-L1500U	12000	12000	EB-W06	3700	3700
EB-D6150	3500	3500	EB-L15000U	12000	12000	EB-W8D	2500	2500
EB-D6155W	3500	3500	EB-L1505U	12000	12000	EB-W16	3000	3000
EB-D6250	4000	4000	EB-L1510S	12000	12000	EB-W16SK	6000	6000
EB-E01	3300	3300	EB-L1515S	12000	12000	EB-W22	3000	3000
EB-E10	3600	3600	EB-L1710S	15000	15000	EB-W28	3000	3000
EB-E20	3400	3400	EB-L1715S	15000	15000	EB-W29	3000	3000
EB-FH06	3500	3500	EB-L1750U	15000	15000	EB-W31	3200	3200
EB-FH52	4000	4000	EB-L1755U	15000	15000	EB-W32	3200	3200
EB-G6050W	5500	5500	EB-L200F	4500	4500	EB-W39	3500	3500
EB-G6070W	5500	5500	EB-L200SW	3800	3800	EB-W42	3600	3600
EB-G6150	6500	6500	EB-L200SX	3600	3600	EB-W420	3000	3000
EB-G6170	6500	6500	EB-L200W	4200	4200	EB-W49	3800	3800
EB-G6250W	6500	6500	EB-L200X	4200	4200	EB-W50	3800	3800
EB-G6270W	6500	6500	EB-L250F	4500	4500	EB-W52	4000	4000
EB-G6350	7000	7000	EB-L255F	4500	4500	EB-W70	2000	2000
EB-G6370	7000	7000	EB-L20000U	15000	15000	EB-W75	2000	2000
EB-G6450WU	4500	4500	EB-L25000U	25000	25000	EB-X03	2700	2700
EB-G6470WU	4500	4500	EB-L30000U	30000	30000	EB-X04	2800	2800
EB-G6550WU	5200	5200	EB-L30002U	30000	30000	EB-X05	3300	3300
EB-G6570WU	5200	5200	EB-L400U	4500	4500	EB-X06	3600	3600
EB-G6650WU	6000	6000	EB-L500W	5000	5000	EB-X18	3000	3000
EB-G6750WU	6000	6000	EB-L510U	5000	5000	EB-X20	2700	2700
EB-G6770WU	6000	6000	EB-L520U	5200	5200	EB-X24	3200	3200
EB-G6800	7000	7000	EB-L520W	5200	5200	EB-X25	3500	3500
EB-G6870	7000	7000	EB-L530U	5200	5200	EB-X27	2700	2700
EB-G6900WU	6000	6000	EB-L610	6000	6000	EB-X29	3000	3000
EB-G6970WU	6000	6000	EB-L610U	6000	6000	EB-X30	3500	3500
EB-G7000W	6500	6500	EB-L610W	6000	6000	EB-X31	3200	3200
EB-G7100	6500	6500	EB-L615U	6000	6000	EB-X39	3500	3500
EB-G7200W	7500	7500	EB-L630SU	6000	6000	EB-X36	3600	3600
EB-G7400U	5500	5500	EB-L630U	6200	6200	EB-X41	3600	3600
EB-G7500U	6500	6500	EB-L635SU	6000	6000	EB-X49	3600	3600
EB-G7800	8000	8000	EB-L730U	7000	7000	EB-X50	3600	3600
EB-G7805	8000	8000	EB-L735U	7000	7000	EB-X51	3800	3800
EB-G7900	7000	7000	EB-S03	2700	2700	EB-Z9750WU	7500	7500
EB-G7900U	7000	7000	EB-S04	3000	3000	EB-Z9800W	8300	8300
EB-G7905U	7000	7000	EB-S05	3200	3200	EB-Z9870U	8700	8700
EB-L1050U	5500	5500	EB-S17	2700	2700	EB-Z9875U	8700	8700
EB-L1060U	6000	6000	EB-S18	2900	2900	EB-Z9900W	9200	9200
EB-L1060W	6000	6000	EB-S27	2700	2700	EB-Z10000U	10000	10000
EB-L1065U	6000	6000	EB-S29	3000	3000	EB-Z10005U	10000	10000
EB-L1070U	7000	7000	EB-S31	3200	3200	EB-Z11000	11000	11000
EB-L1070W	7000	7000	EB-S39	3300	3300	EB-Z11000W	11000	11000
EB-L1075U	7000	7000	EB-S41	3300	3300	EB-Z11005	11000	11000
EB-L1100U	6000	6000	EB-U04	3000	3000	EH-LS100	4000	4000
EB-L1105U	6000	6000	EB-U05	3400	3400	EH-LS10000	1500	1500
EB-L12000Q	12000	12000	EB-U32	3200	3200	EH-LS10500	1500	1500
EB-L1200U	7000	7000	EB-U42	3600	3600	EH-LS300B	3600	3600

Table 1: Continued

	White Brightness	Color Brightness		White Brightness	Color Brightness
Epson (Continued)			CP-EW300	3000	3000
EH-LS300W	3600	3600	CP-SX8350	5000	5000
EH-LS500W/B	4000	4000	CP-WU8440	4200	4200
EH-TW490	3000	3000	CP-WU8450	5000	5000
EH-TW5100	1800	1800	CP-WU8460	6000	6000
EH-TW5200	2000	2000	CP-WUX8441	5000	5000
EH-TW5210	2200	2200	CP-WUX8460	6000	6000
EH-TW530	3000	3000	CP-WX2515WN	2700	2700
EH-TW5300	2200	2200	CP-WX3015WN	3000	3000
EH-TW5350	2200	2200	CP-WX3030WN	3000	3000
EH-TW5400	2500	2500	CP-WX4022WN	4000	4000
EH-TW5600	2500	2500	CP-WX8240	4000	4000
EH-TW5650	2500	2500	CP-WX8240A	4000	4000
EH-TW570	3000	3000	CP-WX8255A	5500	5500
EH-TW5700	2700	2700	CP-X2521WN	2700	2700
EH-TW5750	2500	2500	CP-X2530WN	2700	2700
EH-TW5820	2700	2700	CP-X3021WN	3200	3200
EH-TW6100	2300	2300	CP-X3030WN	3200	3200
EH-TW630	3300	3300	CP-X4015WN	4000	4000
EH-TW6300	2600	2600	CP-X4022WN	4000	4000
EH-TW640	3300	3300	CP-X5022WN	5000	5000
EH-TW650	3200	3200	CP-X8150	5000	5000
EH-TW6600	2500	2500	CP-X8160	6000	6000
EH-TW6600W	2500	2500	CP-X8170	7000	7000
EH-TW6700	3000	3000	Sony		
EH-TW6700W	3000	3000	VPL-CW275	5100	5100
EH-TW6800	2800	2800	VPL-CX275	5200	5200
EH-TW7000	3000	3000	VPL-DW120	2600	2600
EH-TW7100	3000	3000	VPL-DW126	2600	2600
EH-TW7200	2000	2000	VPL-DX120	2600	2600
EH-TW7300	2300	2300	VPL-DX140	3200	3200
EH-TW7400	2400	2400	VPL-DX146	3200	3200
EH-TW750	3400	3400	VPL-EW225	2600	2600
EH-TW8200	2400	2400	VPL-EW246	3100	3100
EH-TW8200W	2400	2400	VPL-EW276	3700	3700
EH-TW8300	2500	2500	VPL-EX225	2700	2700
EH-TW8300W	2500	2500	VPL-EX246	3200	3200
EH-TW8400	2600	2600	VPL-EX276	3700	3700
EH-TW8400W	2600	2600	VPL-FH30	4300	4300
EH-TW9200	2400	2400	VPL-FH31B	4300	4300
EH-TW9200W	2400	2400	VPL-FH31W	4300	4300
EH-TW9300	2500	2500	VPL-FH36B	5200	5200
EH-TW9300W	2500	2500	VPL-FH36W	5200	5200
EH-TW9400	2600	2600	VPL-FH500L	7000	7000
Hitachi			VPL-FX30	4200	4200
CP-A222WN	2200	2200	VPL-FX35	5000	5000
CP-A352WN	3500	3500	VPL-FX37	6000	6000
CP-AW2519N	2500	2500	VPL-FX500L	7000	7000
CP-AW2519NM	2500	2500			
CP-AW252WN	2500	2500			
CP-AW312WN	3000	3000			
CP-D31N	3000	3000			
CP-D32WN	3200	3200			

Table 2: Models Tested by 3rd Party Laboratory for Color Brightness

The manufacturers in table two have not provided Color Light Output (Color Brightness) specifications. These models were tested by third party laboratories in accordance with IDMS 15.4 in order to provide critical information to buyers.

	White Brightness	Tested Color Brightness		White Brightness	Tested Color Brightness		White Brightness	Tested Color Brightness
3M			HT1085ST	2200	1390	MU706	4000	720
MP225A	32	30	HT2050	2200	1450	MW516	2800	670
AAXA			HT2050A	2200	1450	MW519	2800	700
M6	1200	610	HT2150ST	2200	1280	MW523	3000	430
MP-300-03	550	150	HT2550	2200	1200	MW526	3200	620
P2 Jr.	55	30	HT3050	2000	1130	MW526A	3300	660
P3	50	20	HT3550	2000	1000	MW526AE	3300	700
P300	300	140	HT4050	2000	1230	MW529E	3300	720
P4-X	95	40	HT5550	1800	975	MW535A	3600	650
P450	450	190	HT8050	2200	1500	MW560	4000	800
Acer			Joybee GP2	200	30	MW571	3200	670
C120	100	90	LH770	5000	1800	MW571H	3300	580
H5360	2500	600	LU950	5000	1600	MW571	3200	670
H5370BD	2500	570	LU951ST	5000	1500	MW612	4000	740
H5380BD	3000	660	LU9715	8000	2900	MW621ST	3000	530
H6500	2100	720	LW61ST	2000	550	MW632ST	3200	600
H6502BD	3400	650	LW720	4000	1400	MW665	3200	650
H6510BD	3000	580	LX770	5000	2000	MW705	4000	840
H6810	3500	720	MH530	3200	670	MW707	3500	700
H7850	3000	870	MH530FHD	3300	600	MW721	3500	810
K132	500	130	MH535FHD	3600	500	MW727	4200	830
P1173	3000	590	MH535A	3600	650	MW732	4000	850
P1185	3200	750	MH630	3000	770	MW769	4200	950
P1273	3000	710	MH680	3000	700	MW814ST	2500	770
P1283	3000	650	MH733	4000	730	MW824ST	3200	590
P1383W	3100	660	MH740	4000	730	MW826ST	3400	500
P1387W	4500	850	MH741	4000	810	MW843UST	3000	560
P1500	3000	530	MH750	4500	820	MW851UST	2500	460
P5271	3100	700	MH760	5000	1050	MW853UST	3200	860
P5515	4000	720	MH856UST	3500	1200	MW855UST	3500	1050
P7505	5000	980	MP512	2200	610	MW860USTi	3000	480
S1386WHN	3600	750	MP515	2500	750	MW870UST	3000	530
X110P	2700	700	MP522	2000	540	MW883UST	3300	700
X113PH	3000	710	MP522ST	2000	590	MX503	2700	830
X1161P	2700	720	MP525P	2500	840	MX505	3000	640
X1163	3000	720	MP622	2700	1090	MX511	2700	700
X117H	3600	750	MP622C	2200	1010	MX518	2800	720
X118H	3600	500	MP780ST	2500	600	MX520	3000	610
X1211K	2500	670	MS502	2700	760	MX522	3000	430
X123PH	3000	670	MS504	3000	700	MX525	3200	430
X1240	2700	650	MS510	2700	730	MX525A	3300	560
X1261P	2700	640	MS513	2700	700	MX570	3200	380
X1373WH	3000	560	MS514H	3200	740	MX613ST	2500	660
Acto			MS517	2800	700	MX620ST	3000	630
DX221ST	3200	470	MS521	3000	460	MX632ST	3200	490
ASUS			MS524	3200	670	MX660P	3000	790
S1	200	120	MS524A	3300	720	MX661	3000	680
BenQ			MS524AE	3300	600	MX707	3500	750
CH100	1000	800	MS535A	3600	550	MX711	3200	770
HC1200	2800	1740	MS536	4000	1100	MX723	3700	660
HT1070	2000	1200	MS612ST	2500	710	MX726	4000	870
HT1070A	2200	900	MS614	2700	710	MX731	4000	600
HT1075	2200	1390	MU686	3500	650	MX763	3700	830

Table 2: Continued

	White Brightness	Tested Color Brightness
BenQ (Continued)		
MX764	4200	980
MX806PST	3000	560
MX810ST	2500	490
MX815ST	2700	720
MX816ST	3000	640
MX819ST	3000	520
MX825ST	3300	500
MX850UST	2500	400
PU9530	6000	2000
SH915	4000	780
SH940	4000	1160
SP840	4000	480
SU917	5000	900
SU922	5000	1280
SX920	5000	1150
TH530	3200	680
TH585	3500	700
TH670	3000	610
TH671ST	3000	700
TH681	3000	840
TH683	3200	620
TH685	3500	600
TH685i	3500	700
TK800	3000	550
TK850	3000	500
W1070	2000	1570
W1080ST	2000	1470
W1090	2000	1500
W1500	2200	1440
W7000	2000	1500
W770ST	2500	680
X1300i	3000	1500
Canon		
LV-S300	3000	620
LV-WX300	3000	700
LV-X300	3000	630
LX-MU500Z	5000	1750
LX-MH502Z	5000	1800
LX-MU800Z	8000	2900
Casio		
XJ-A130	2000	540
XJ-A141	2500	1200
XJ-A142	2500	1000
XJ-A246	2500	1340
XJ-A252	3000	1170
XJ-A256	3000	1370
XJ-A257	3000	1400
XJ-F10X	3300	1740
XJ-F100W	3500	1230
XJ-F101W	3500	1400
XJ-F11X	3300	1200
XJ-F20XN	3300	1580
XJ-F21XN	3300	1100

	White Brightness	Tested Color Brightness
XJ-F210WN	3500	1420
XJ-F211WN	3500	1400
XJ-H1700	4000	770
XJ-M140	2500	1440
XJ-M151	3000	1640
XJ-M240	2500	1280
XJ-M245	2500	1160
XJ-M251	3000	1650
XJ-S400U	4000	1700
XJ-S400W	4000	1500
XJ-ST145	2500	510
XJ-UT310WN	3100	1890
XJ-UT351W	3500	2180
XJ-V1	2700	1360
XJ-V10X	3300	1790
XJ-V100W	3000	1580
XJ-V110W	3500	1990
XJ-V2	3000	1670
Christie		
D13WU-HS	13500	6000
DHD400S	3500	940
DHD800	8000	2000
Dell		
1220	2700	550
1409X	2500	820
1450	3000	640
1510X	3500	770
1610HD	3500	910
2400MP	3000	710
4320	4300	1080
M110	300	80
M115HD	450	120
M900HD	900	180
S300wi	2200	480
S500wi	3200	880
S560	3400	800
Hisense		
L5F	3000	1300
Hitachi		
CP-DX250	2500	480
CP-DX300	3000	650
LP-WU3500	3500	1200
LP-WU6500	5000	1800
LP-WU9750B	8000	2300
InFocus		
IN102	2500	740
IN110	2100	530
IN110a	2100	550
IN1112	2200	590
IN1112a	2200	530
IN1116	2400	550
IN1116LC	2400	460
IN1118HD	2400	470
IN112	2700	640

	White Brightness	Tested Color Brightness
IN112a	3000	700
IN112x	3200	670
IN112xa	3500	600
IN112xv	3400	680
IN114	2700	660
IN114a	3000	670
IN114ST	2700	560
IN114x	3200	640
IN114xa	3500	500
IN114xv	3400	500
IN1146	1000	250
IN116	2700	630
IN116a	3000	660
IN116x	3200	630
IN116xa	3500	600
IN116xv	3400	700
IN118HDa	3000	400
IN119HDx	3200	590
IN122	3200	760
IN122a	3500	800
IN124	3200	840
IN124a	3500	710
IN124ST	3000	690
IN124x	4000	830
IN126	3200	810
IN126ST	3000	630
IN126STa	3300	700
IN128HDx	4000	670
IN1338HD	4000	690
IN134	4000	760
IN136	4000	760
IN138HD	4000	760
IN2102	2500	760
IN2104	2500	650
IN2112	3000	750
IN2114	3000	760
IN2116	3000	730
IN2124	3200	800
IN2124a	3500	820
IN2124x	4200	760
IN2126	3200	840
IN2128HDa	3500	740
IN2134	4500	790
IN2136	4500	750
IN2138HD	4500	1000
IN3102	3000	840
IN3104	3500	1010
IN3114	3500	910
IN3116	3500	930
IN3124	4800	1050
IN3126	4000	760
IN3128HD	4000	590
IN3138HD	4000	720
IN3138HDa	4000	600

Table 2: Continued

	White Brightness	Tested Color Brightness
InFocus (Continued)		
IN3144	5000	850
IN3148HD	5000	1100
IN35	2500	840
IN37	3000	970
IN3914	2700	730
IN5312	4500	1190
Work Big IN24+	2400	720
Work Big IN26+	2400	640
Work Big IN32	2000	940
Work Big IN34	2500	670
Work Big IN36	3000	870
JVC		
LX-UH1B	2000	750
LG		
BS-275	2700	700
BU50NST	5000	2950
BU60PST	6000	3200
HF80JA	2000	530
HF85JA	1500	400
HU70LA	1500	800
HU80KA	2500	650
HU85LA	2700	1800
PA75U	700	230
PA77U	700	300
PB63U	500	220
PF1000U	1000	250
PF1500	1400	400
PF50KA	600	200
PH300W	300	200
PH550	550	300
PW800	800	340
Mimio		
mimioProjector	2800	550
Miroir		
M300A	400	200
Mitsubishi		
EX240U	2500	510
HC1500	1600	720
HC4000	1300	400
HC7800D	1500	1090
HD4000U	2000	690
WD380U-EST	2800	660
XD211U	2200	660
XD221U	2300	810
XD221U-ST	2000	650
XD250U	2700	1050
XD3500U	5000	940
XD360U-EST	2500	350
XD460U	2600	850
XD490U	3000	780
XD500U	2200	640
XD700U	5000	850

	White Brightness	Tested Color Brightness
NEC		
NP110	2200	640
NP200	2100	480
NP40	2200	830
NP4001	4500	1640
NP4100	6200	1950
NP50	2600	740
NP60	3000	790
NP61	3000	700
NP-M282X	2800	810
NP-M283X	2800	780
NP-M322W	3200	810
NP-M322X	3200	870
NP-M323W	3200	950
NP-M323X	3200	910
NP-M333XS	3300	920
NP-M352WS	3500	1020
NP-M353WS	3500	900
NP-M363W	3600	950
NP-M363X	3600	890
NP-M402H	4000	1060
NP-M402X	4000	1030
NP-M403H	4000	770
NP-M403X	4000	1000
NP-P502H	5000	1300
NP-P502WL	5000	1200
NP-PE401H	4000	1020
NP-PX750U	7500	1250
NP-PX750U+	7500	660
NP-PX800X	8000	1890
NP-U260W	2600	540
NP-U300X	3000	770
NP-U310W	3100	690
NP-U321H	3200	650
NP-V260	2600	620
NP-V260W	2600	620
NP-V260X	2600	640
NP-V300W	3000	740
NP-V300X	3000	740
NP-V302H	3000	530
NP-V332W	3300	620
NP-V332X	3300	580
NP-VE281	2800	590
NP-VE281X	2800	700
NP-VE303	3000	700
NP-VE303X	3000	630
P502HL	5000	2000
P502HL-2	5000	1250
PX-602UL	6000	2200
PX-750U2	7500	2200
PX-803UL	8000	2900
V311W	3100	690
V311X	3100	720
Optoma		
4K550ST	4500	1200

	White Brightness	Tested Color Brightness
CinemaX P1	3000	1300
CinemaX P2	3000	1500
CinemaX Pro	3500	800
DH1009	3200	590
DH1011	3000	640
DH1012	3200	780
DS331	3200	500
DS339	2600	760
DS550	2600	650
DU380	3800	630
DW326e	3000	710
DX326	2800	710
DX346	3000	690
DX550	2600	640
EH200ST	3000	500
EH320USTi	4000	660
EH330UST	3600	950
EH331	3300	640
EH336	3400	600
EH341	3500	680
EH345	3200	670
EH400+	4000	900
EH412	4500	950
EH412ST	4000	870
EH415	4200	800
EH415ST	3500	800
EH416	4200	620
EH460ST	4200	810
EH465	4800	850
EH500	4700	1000
EH501	5000	430
EH503	5000	1190
EH504	5000	1050
EH512	5000	1500
EH515	5500	830
EH615T	6200	750
EH7700	7000	1900
EP1691	2500	820
EP716	1800	510
EP719	2000	600
EP721	2200	550
EP727	2200	590
EP728	2700	810
EP771	3000	930
ES522	2800	660
EW1691e	3000	770
EW536	2800	700
EW695UT	3500	780
EX525ST	2500	570
EX530	2600	650
EX532	2800	650
EX551	2800	640
EX685UT	3000	620
EX765	4000	810
EX784	5000	1060

Table 2: Continued

	White Brightness	Tested Color Brightness		White Brightness	Tested Color Brightness		White Brightness	Tested Color Brightness
Optoma (Continued)			S343	3600	750	X351	3600	700
EX785	5000	1300	S365	3600	700	X355	3500	680
GT1080	2800	500	TS526	2800	700	X365	3600	470
GT1080HDR	3800	910	TS551	2800	640	X400+	4000	780
GT1090HDR	4200	1500	TW766W	4000	800	X412	4200	850
GT5500	3500	690	TX536	2800	670	X416	4300	800
GT5600	3600	730	TX542	2800	680	X600	6000	1070
GT750e	3000	950	TX631-3D	3500	850	X605	6000	1500
GT760	3400	600	UHD30	3400	890	ZH403	4000	1100
H180X	3000	660	UHD35	3600	900	ZH406ST	4200	1300
H181X	3200	580	UHD38	4000	800	ZH500T	5000	940
H182X	3200	760	UHD50	2400	1000	ZH506	5000	1200
HD131Xe	2500	480	UHD50x	3400	790	ZH510T	5000	1200
HD131Xw	2500	650	UHD51A	2400	1000	ZU500TST	5000	1700
HD141X	3000	700	UHD60	3000	1000	ZU510T	5300	1100
HD142X	3000	700	UHD65	2200	1200	ZU510T-W	5500	1700
HD143X	3000	560	UHL55	1500	1100	ZU610T-W	6000	1900
HD146X	3600	700	W303	3200	500	ZW210ST	2000	410
HD20	1700	1020	W304M	3100	780	ZW212ST	2500	390
HD23	2500	680	W305ST	3200	490	ZW400	4000	1500
HD243X	3300	600	W306ST	3500	730	ZX210ST	2000	360
HD25E	2800	420	W307UST	3500	660	ZX212ST	2500	280
HD25-LV	3500	670	W311	3200	490	Panasonic		
HD26	3200	670	W312	3200	710	PT-CW230EA	2500	550
HD27	3200	600	W316	3400	660	PT-D5700U	6000	3050
HD27e	3400	560	W316ST	3400	640	PT-DW830UW	8500	3400
HD27HDR	3400	760	W318ST	3500	840	PT-DZ570U	4000	2240
HD28DSE	3000	630	W331	3200	620	PT-DZ6710	6000	2990
HD28HDR	3600	650	W335	3800	650	PT-DZ770UK	7000	2340
HD29Darbee	3200	630	W341	3600	780	PT-DZ780B	7000	3200
HD33	1800	940	W345	3300	710	PT-DZ870UK	8500	3700
HD37	2600	1980	W351	3800	810	PT-JW130H	1000	600
HD39Darbee	3500	1100	W355	3600	720	PT-JX200HWU	2000	1200
HD39HDR	4000	1100	W400	4000	900	PT-LS26U	2600	670
HD65	1600	650	W412	4400	1050	PT-RW330U	3500	750
HD66	2500	710	W415	4500	800	PT-RW430UK	3500	800
ML300	300	130	W416	4500	650	PT-RZ120	12000	7200
ML500	500	140	W512	5500	1400	PT-RZ370U	3500	840
ML550	500	150	WU334	3600	700	PT-RZ470UW	3500	830
ML750	700	110	WU336	3400	550	PT-RZ570	5200	2700
ML1000P	1000	170	WU416	4200	630	PT-RZ570BU	5400	2050
PK320	100	60	WU465	4800	960	PT-RZ670U	6500	3700
PRO150S	2800	810	WU515	6000	1300	PT-RZ970	9400	5200
PRO160S	3000	810	X303	3000	410	PT-SD2600C	2600	670
PRO250X	2800	740	X304M	3000	620	Philips		
PRO260X	3000	770	X305ST	3000	540	PicoPix PPX2340	40	30
PRO360W	3000	820	X306ST	3200	680	Promethean		
PT100	50	10	X309ST	3700	500	PRM-35	2500	600
PT110	100	20	X312	3200	610	Ricoh		
S303	3000	670	X313	3000	710	PJ HD5450	3500	730
S310e	3200	730	X316	3200	590	PJ S2240	3000	710
S316	3200	710	X318ST	3300	600	PJ WX2240	3100	700
S321	3200	570	X341	3300	560	PJ WX4240N	3000	540
S334e	3800	960	X343	3600	650	PJ X2240	3000	690
S341	3500	620	X345	3200	670			

Table 2: Continued

	White Brightness	Tested Color Brightness
Samsung		
LSP7T	2200	880
LSP9T	2800	1700
Sharp		
PG-F212X	2300	860
PG-LW2000	2800	770
PG-LW3000	3000	870
PG-LX2000	2800	790
XR-30X	2300	740
XR-32X	2500	750
XR-41X	2600	660
Smart		
LightRaise 40Wi	2500	750
LightRaise 60Wi	2500	620
SLR60Wi2	3000	670
UX60	2000	730
Toshiba		
TDP-T45U	2500	670
ViewSonic		
LS600W	3000	2000
LS700-4K	3500	960
LS810	5200	1600
LS820	3500	1460
LS830	4500	1100
PA502S	3500	750
PA502X	3500	780
PA503S	3600	790
PA503W	3600	760
PA503X	3600	770
PG603W	3600	490
PG603X	3600	500
PG701WU	3500	700
PG703W	4000	910
PG703X	4000	850
PG705HD	4000	710
PG706HD	4000	700
PG707X	4000	650
PG707W	4000	600
PG800HD	5000	1100
PJ506D	2000	630
PJD5123	2700	730
PJD5132	2800	730
PJD5133	2700	700
PJD5134	3000	670
PJD5153	3200	770
PJD5155	3300	900
PJD5223	2700	680
PJD5232	2800	580
PJD5233	2700	640
PJD5234	2800	640
PJD5234L	3000	690
PJD5255	3300	940
PJD5255L	3300	850
PJD5353LS	3200	830
PJD5523W	2700	620

	White Brightness	Tested Color Brightness
PJD5533W	2800	740
PJD5553LWS	3200	840
PJD5555W	3300	860
PJD6220	2300	640
PJD6252L	3300	650
PJD6350	3300	730
PJD6352LS	3200	850
PJD6383S	3000	720
PJD6531W	3000	940
PJD6544W	3500	750
PJD6552LWS	3200	890
PJD6553W	3500	870
PJD6683WS	3000	830
PJD7525W	4000	1020
PJD7533W	4000	710
PJD7583W	3000	730
PJD7720HD	3200	730
PJD7820HD	3000	830
PJD7822HDL	3200	750
PJD7828HDL	3200	770
PLED-W500	500	120
PLED-W600	600	250
PLED-W800	800	250
Pro7827HD	2200	1310
Pro8200	2000	780
Pro8300	3000	720
Pro8400	4000	1030
Pro8450W	4500	980
Pro8500	5000	1300
Pro8520HD	5000	780
Pro9510L	6200	870
PS501W	3500	600
PS501X	3500	550
PS600W	3500	600
PS600X	3500	540
PS750HD	3000	600
PX700HD	3500	520
PX701HD	3500	650
PX703HD	3500	600
PX706HD	3000	670
PX727-4K	2200	1300
PX747-4K	3500	730
Vava		
VA-LT002	2500	1800
Vivitek		
D512-3D	2600	560
D5280	4500	900
D530	3200	790
D535	3200	620
D536-3D	3200	610
D537W	3200	720
D538W-3D	3200	680
D554	3000	650
D555	3000	670
D557WH	3000	640

	White Brightness	Tested Color Brightness
D791ST	3000	340
D795WT	3000	320
D803W-3D	3600	680
D832MX	3200	780
D865W	4000	670
D910HD	3000	710
D940VX	4300	930
D966HD	4500	910
DH758USTiR	3500	700
DW868	4500	760
H1180HD	2000	880
H1186	2000	1490
HK2288	2000	930
Qumi Q2	300	50
Qumi Q3 Plus	500	200
Qumi Q5	500	80
Qumi Q6	800	130
Qumi Q7	800	130
XGIMI		
H2	1350	800
Z6	500	400
ZTE		
Spro 2	200	190

What's behind this new Color Brightness standard?

Color Light Output, or simply Color Brightness, measures the illuminance of the color primaries Red, Green and Blue. The technical details of this measurement methodology are defined in the newly available Information Display Measurements Standard published by the Society for Information Displays.

The authors of this important standards document were volunteers from all corners of the display industry. These experts carefully examined each of the nearly 200 display metrics in the document to make sure each was relevant, scientifically valid, and worth including in the document.

The Society for Information Displays (SID) is a globally recognized organization working to help educate technical members of the display industry. SID was founded as a Professional Society back in 1962. SID is made up today of about 5,000 display professionals.



More information about this document can be found at: <http://www.icdm-sid.org/>

Why does the standard only measure Red, Green and Blue? What about all the other colors?

Computers and media players define colors as relative levels of Red, Green and Blue. For example, yellow is stored inside the computer as bright red, bright green and no blue.

Regardless of how the projector may create its image, the standard input signal is based on Red, Green and Blue and therefore it's important to measure these standard color primaries.

What does the Brightness metric we've used for years represent?

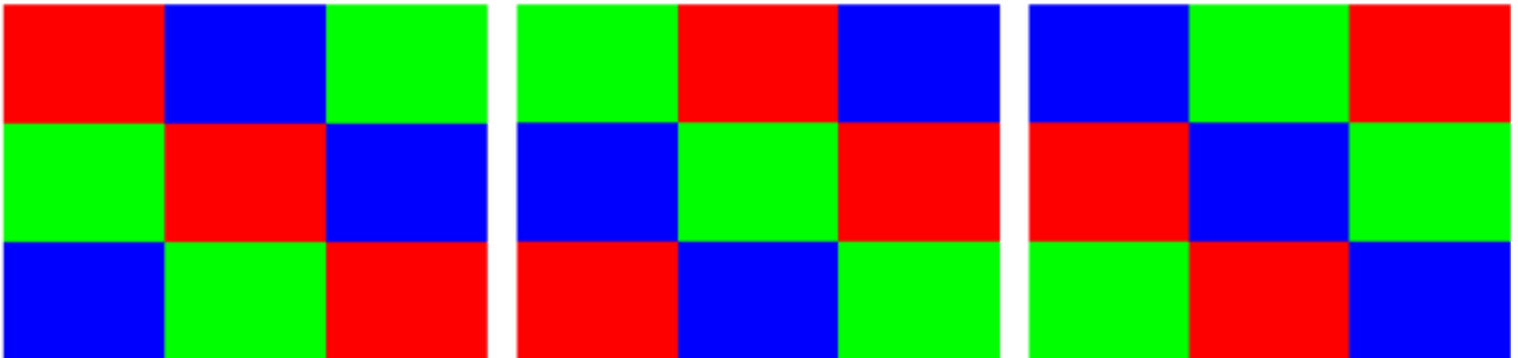
Brightness, or technically Light Output, is only a measurement of white light. To measure brightness, projector makers will take nine brightness readings across the entire image. The average of the nine measurements is multiplied by the screen area in square meters to determine the projector's lumen output.

How is Color Brightness measured?

Color Light Output is measured almost exactly the same way as "Brightness" or white light output...but instead of measuring white light, the primary colors are measured.

Instead of just nine measurements, there are total of 27 measurements taken, with the three sample images below.

The brightness of Red, Green and Blue are averaged, summed and multiplied by the screen area to determine the total amount of Color Brightness.



¹ The data in Table 1 was obtained from Projector Central based on information available from these manufacturers.

² The White Brightness data in Table 2 was obtained through Projector Central, as specified by the manufacturers. These manufacturers do not provide Color Brightness (Color Light Output) data. Color Brightness was determined in compliance with IDMS 15.4 by 3rd party laboratory testing of a single unit of each model. Serial numbers available upon request.