

## Luminous Flux Bins

### A. Photometric Luminous Flux Bin Structure for 1W Emitter and Star

Color	Bin Code	Photometric Flux (lm)	
		Minimum	Maximum
White	Q	30.6	39.8
	R	39.8	51.7
	S	51.7	67.2
	T	67.2	87.4
Warm White	Q	30.6	39.8
	R	39.8	51.7
	S	51.7	67.2
	T	67.2	87.4
Green	Q	30.6	39.8
	R	39.8	51.7
	S	51.7	67.2
	T	67.2	87.4
Blue	K	8.2	10.7
	L	10.7	13.9
	M	13.9	18.1
Amber	Q	30.6	39.8
	R	39.8	51.7
Red	P	23.5	30.6
	Q	30.6	39.8
	R	39.8	51.7

- ProLight maintains a tolerance of  $\pm 10\%$  on flux and power measurements.

# Luminous Flux Bins

## B. Photometric Luminous Flux Bin Structure for 3W Emitter and Star

Color	Bin Code	Photometric Flux (lm)	
		Minimum	Maximum
White	S	51.7	67.2
	T	67.2	87.4
	U	87.4	113.6
	V	113.6	147.7
Warm White	S	51.7	67.2
	T	67.2	87.4
	U	87.4	113.6
	V	113.6	147.7
Green	T	67.2	87.4
	U	87.4	113.6
	V	113.6	147.7
Blue	M	13.9	18.1
	N	18.1	23.5
	P	23.5	30.6
	Q	30.6	39.8
Amber	S	51.7	67.2
	T	67.2	87.4
Red	S	51.7	67.2
	T	67.2	87.4

- ProLight maintains a tolerance of  $\pm 10\%$  on flux and power measurements.

# Luminous Flux Bins

## C. Photometric Luminous Flux Bin Structure for 4W Emitter and Star

### 1. PG1N(A)-4LWE(S)-3SC and PG1N(A)-4LVE(S)-3SC

Color	Bin Code	Photometric Flux (lm)	
		Minimum	Maximum
White	U	87.4	113.6
	V	113.6	147.7
	W	147.7	192
Warm White	U	87.4	113.6
	V	113.6	147.7
	W	147.7	192

- ProLight maintains a tolerance of  $\pm 10\%$  on flux and power measurements.

### 2. PG1N(A)-4LWE(S)-SD and PG1N(A)-4LVE(S)-SD

Color	Bin Code	Photometric Flux (lm)	
		Minimum	Maximum
White	V	113.6	147.7
	W	147.7	192
	X	192	249.6
Warm White	V	113.6	147.7
	W	147.7	192
	X	192	249.6

- ProLight maintains a tolerance of  $\pm 10\%$  on flux and power measurements.

# Luminous Flux Bins

## D. Photometric Luminous Flux Bin Structure for 5W Star

Color	Bin Code	Photometric Flux (lm)	
		Minimum	Maximum
White	V	113.6	147.7
	W	147.7	192
	X	192	249.6
Warm White	U	87.4	113.6
	V	113.6	147.7
	W	147.7	192
	X	192	249.6
Green	W	147.7	192
	X	192	249.6
Blue	Q	30.6	39.8
	R	39.8	51.7
	S	51.7	67.2
Amber	U	87.4	113.6
	V	113.6	147.7
	W	147.7	192
Red	U	87.4	113.6
	V	113.6	147.7
	W	147.7	192

- ProLight maintains a tolerance of  $\pm 10\%$  on flux and power measurements.

# Radiometric Power Bins for Dental LED

## A. Radiometric Power Bin Structure for 1W Emitter and Star

Color	Bin Code	Radiometric Power (mW)	
		Minimum	Maximum
Royal Blue	K	145	175
	L	175	225
	M	225	275

- ProLight maintains a tolerance of  $\pm 10\%$  on flux and power measurements.

## B. Radiometric Power Bin Structure for 3W Emitter and Star

Color	Bin Code	Radiometric Power (mW)	
		Minimum	Maximum
Royal Blue	N	275	335
	P	335	435
	Q	435	515

- ProLight maintains a tolerance of  $\pm 10\%$  on flux and power measurements.

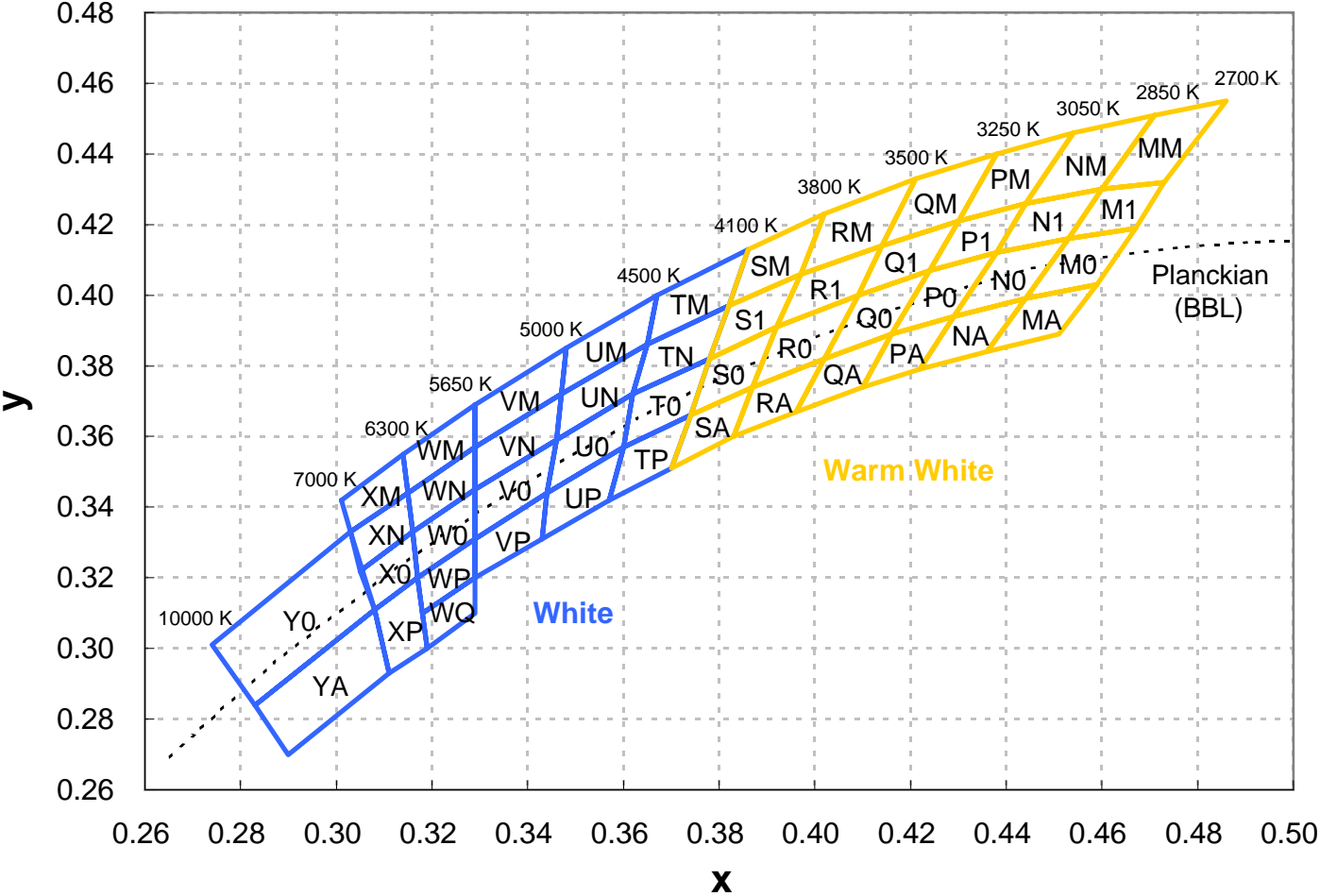
## C. Radiometric Power Bin Structure for 5W Star

Color	Bin Code	Radiometric Power (mW)	
		Minimum	Maximum
Royal Blue	R	515	635
	S	635	755
	T	755	875
	U	875	1050

- ProLight maintains a tolerance of  $\pm 10\%$  on flux and power measurements.

# Color Bins

## White and Warm White Binning Structure Graphical Representation



# Color Bins

## White Bin Structure

Bin Code	x	y	Typ. CCT (K)	Bin Code	x	y	Typ. CCT (K)
T0	0.378	0.382	4300	W0	0.329	0.345	5970
	0.374	0.366			0.329	0.331	
	0.360	0.357			0.317	0.320	
	0.362	0.372			0.316	0.333	
TN	0.382	0.397	4300	WN	0.329	0.345	5970
	0.378	0.382			0.316	0.333	
	0.362	0.372			0.315	0.344	
	0.365	0.386			0.329	0.357	
TP	0.374	0.366	4300	WP	0.329	0.331	5970
	0.370	0.351			0.329	0.320	
	0.357	0.342			0.318	0.310	
	0.360	0.357			0.317	0.320	
TM	0.386	0.413	4300	WQ	0.329	0.320	5970
	0.382	0.397			0.329	0.310	
	0.365	0.386			0.319	0.300	
	0.367	0.400			0.318	0.310	
U0	0.362	0.372	4750	WM	0.329	0.369	5970
	0.360	0.357			0.329	0.357	
	0.344	0.344			0.315	0.344	
	0.346	0.359			0.314	0.355	
UN	0.365	0.386	4750	X0	0.308	0.311	6650
	0.362	0.372			0.305	0.322	
	0.346	0.359			0.316	0.333	
	0.347	0.372			0.317	0.320	
UP	0.360	0.357	4750	XN	0.305	0.322	6650
	0.357	0.342			0.303	0.333	
	0.343	0.331			0.315	0.344	
	0.344	0.344			0.316	0.333	
UM	0.365	0.386	4750	XP	0.308	0.311	6650
	0.367	0.400			0.317	0.320	
	0.348	0.385			0.319	0.300	
	0.347	0.372			0.311	0.293	
V0	0.329	0.331	5320	XM	0.301	0.342	6650
	0.329	0.345			0.314	0.355	
	0.346	0.359			0.315	0.344	
	0.344	0.344			0.303	0.333	
VN	0.329	0.345	5320	Y0	0.308	0.311	8000
	0.329	0.357			0.283	0.284	
	0.347	0.372			0.274	0.301	
	0.346	0.359			0.303	0.333	
VP	0.329	0.331	5320	YA	0.308	0.311	8000
	0.344	0.344			0.311	0.293	
	0.343	0.331			0.290	0.270	
	0.329	0.320			0.283	0.284	
VM	0.329	0.357	5320				
	0.329	0.369					
	0.348	0.385					
	0.347	0.372					

- Tolerance on each color bin (x , y) is  $\pm 0.01$

Note: Although several bins are outlined, product availability in a particular bin varies by production run and by product performance. Not all bins are available in all colors.

# Color Bins

## Warm White Bin Structure

Bin Code	x	y	Typ. CCT (K)	Bin Code	x	y	Typ. CCT (K)
M0	0.453	0.416	2770	Q0	0.409	0.400	3370
	0.444	0.399			0.402	0.382	
	0.459	0.403			0.416	0.389	
	0.467	0.419			0.424	0.407	
M1	0.460	0.430	2770	Q1	0.414	0.414	3370
	0.453	0.416			0.409	0.400	
	0.467	0.419			0.424	0.407	
	0.473	0.432			0.430	0.421	
MA	0.459	0.403	2770	QA	0.416	0.389	3370
	0.444	0.399			0.402	0.382	
	0.436	0.384			0.396	0.367	
	0.451	0.389			0.410	0.374	
MM	0.471	0.451	2770	QM	0.421	0.433	3370
	0.460	0.430			0.414	0.414	
	0.473	0.432			0.430	0.421	
	0.486	0.455			0.438	0.440	
N0	0.438	0.412	2950	R0	0.392	0.391	3650
	0.429	0.394			0.387	0.374	
	0.444	0.399			0.402	0.382	
	0.453	0.416			0.409	0.400	
N1	0.444	0.426	2950	R1	0.414	0.414	3650
	0.438	0.412			0.409	0.400	
	0.453	0.416			0.392	0.391	
	0.460	0.430			0.397	0.406	
NA	0.444	0.399	2950	RA	0.387	0.374	3650
	0.429	0.394			0.383	0.360	
	0.422	0.379			0.396	0.367	
	0.436	0.384			0.402	0.382	
NM	0.454	0.446	2950	RM	0.421	0.433	3650
	0.444	0.426			0.414	0.414	
	0.460	0.430			0.397	0.406	
	0.471	0.451			0.402	0.423	
P0	0.424	0.407	3150	S0	0.392	0.391	3950
	0.416	0.389			0.387	0.374	
	0.429	0.394			0.374	0.366	
	0.438	0.412			0.378	0.382	
P1	0.430	0.421	3150	S1	0.397	0.406	3950
	0.424	0.407			0.392	0.391	
	0.438	0.412			0.378	0.382	
	0.444	0.426			0.382	0.397	
PA	0.429	0.394	3150	SA	0.387	0.374	3950
	0.416	0.389			0.383	0.360	
	0.410	0.374			0.370	0.351	
	0.422	0.379			0.374	0.366	
PM	0.438	0.440	3150	SM	0.402	0.423	3950
	0.430	0.421			0.397	0.406	
	0.444	0.426			0.382	0.397	
	0.454	0.446			0.386	0.413	

- Tolerance on each color bin (x , y) is  $\pm 0.01$

Note: Although several bins are outlined, product availability in a particular bin varies by production run and by product performance. Not all bins are available in all colors.

# Color Bins

## Dominant Wavelength Bin Structure

Color	Bin Code	Minimum Dominant Wavelength (nm)	Maximum Dominant Wavelength (nm)
Green	1	520	525
	2	525	530
	3	530	535
	4	535	540
Blue	A	455	460
	1	460	465
	2	465	470
	3	470	475
Royal Blue	4	445	450
	5	450	455
	6	455	460
Amber	1	584.5	587.0
	2	587.0	589.5
	4	589.5	592.0
	6	592.0	594.5
	7	594.5	597.0
Red	1	610	613.5
	2	613.5	620.5
	4	620.5	631.0

- ProLight maintains a tolerance of  $\pm 1$ nm for dominant wavelength measurements.