ANNEX 27 ESTUDI LUMÍNIC APARCAMENT

Annex 27 Estudi Lumínic aparcament

Estudi Lumínic d'acord a l'Annex 1 del DECRET 190/2015 de desplegament de la Llei 6/2001, de 31 de maig, d'ordenació ambiental de l'enllumenament per a la protecció del medi nocturn ha de contenir la documentació que s'estableix a continuació:

1. Dades referents a la persona titular de la instal·lació i a l'autor o autora del document.

Promotor:	AJUNTAMENT DE SANT JUST DESVERN
N.I.F. del promotor:	P0821900H
Tècnic/s redactor/s d'aquest Estudi:	Marc Grifell Vera
Titulació o càrrec redactor/s:	Arquitecte
Data de començament de l'obra:	Abril de 2024

2. Any d'autorització o legalització de la instal·lació d'il·luminació:
   Instal·lació nova
   Prevista per 2026

3. Ubicació de la instal·lació.

   PAVELLÓ POLIESPORTIU, APARCAMENT I ARRANJAMENT I DESVIACIÓ DEL CAMÍ DE LA SALUT

Adreça de l'obra:	Carrer de Maria Montessori, s/n
Localitat:	08960 Sant Just Desvern
Província:	Barcelona

4. Zona de protecció segons el Mapa envers la contaminació lumínica a Catalunya.

   Zona E3- Protecció Moderada

5. Flux lluminós total de la instal·lació d'il·luminació.

   135.100 lm

6. Característiques de les instal·lacions i dels aparells d'il·luminació exterior.

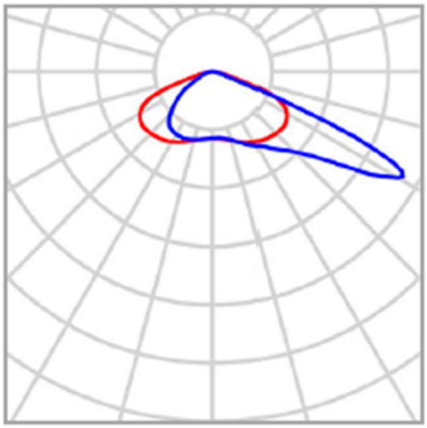
6.1 Nombre i tipologia de làmpades.

Kosmos M R2 LT-06 700mA 3K
20 unitats
CCT: 3.000 K
Radiància: 440 nm
Eficàcia lluminosa: 128,7 lm/W
Potència: 52,50 W

6.2 Tipus de projectors

Òptica asimètrica LT 06

ÓPTICA ASIMÉTRICA VIARIA ME-01 / LA-01 ÓPTICA ASIMÉTRICA LT-06 ÓPTICA SIMÉTRICA VIARIA SO-01									
Options	Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
medium	R2	350	2200	3615	23	157	3110	26,5	117
medium	R2	525	2200	5130	35,5	145	4415	39,5	112
medium	R2	700	2200	6500	48	135	5590	52,5	106
medium	R3	350	2200	5395	35	156	4640	39	119
medium	R3	525	2200	7625	53	144	6560	59	112
medium	R3	700	2200	9630	72	134	8280	78	106



S'adjunta documentació fotomètrica dels projectors.

6.3 Horari de funcionament previst
L'horari s'ajusta segons rellotges astronòmics programats

7. Càlculs luminotècnics de la instal·lació i Plànols que il·lustrin la localització dels punts de llum i altres aparells d'il·luminació.

S'adjunta l'estudi lumínic

Cariboni group

PRJ15263_REV_1 APARCAMENT SANT JUST

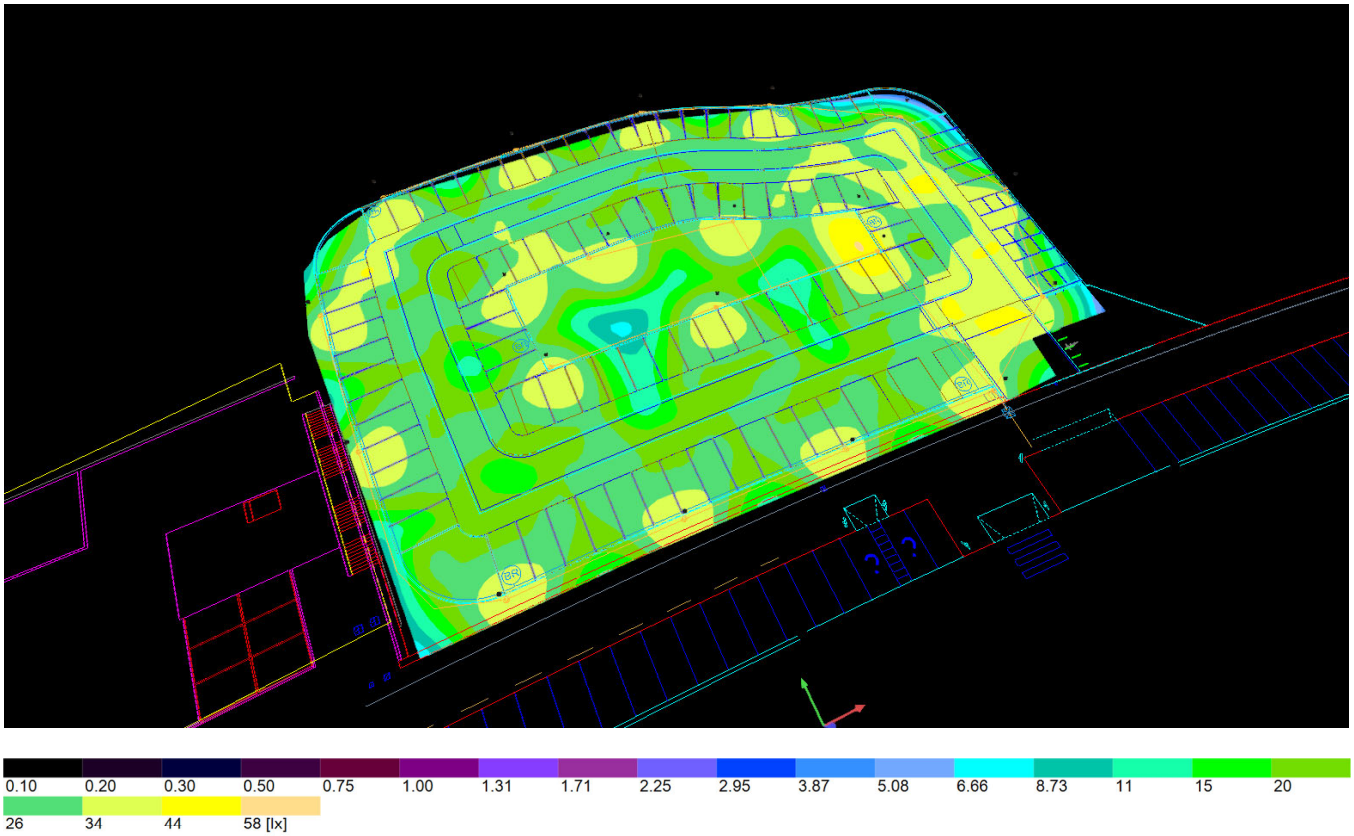
Contactos

Lighting Dept.

Cariboni Group Spa
Via della Tecnica, 19 23875
Osnago (LC) - Italy

T +39 039.95211

Imágenes


0.10 0.20 0.30 0.50 0.75 1.00 1.31 1.71 2.25 2.95 3.87 5.08 6.66 8.73 11 15 20
26 34 44 58 [lx]

1

Lista de luminarias

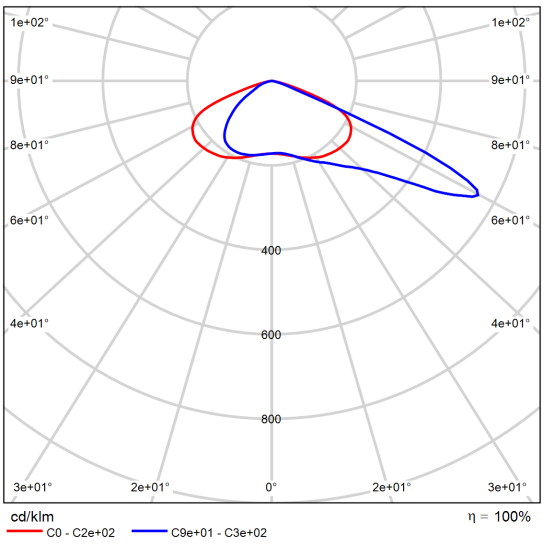
Φ_{total}	P_{total}	Rendimiento lumínico
135100 lm	1050.0 W	128.7 lm/W

Uni.	Fabricante	N° de artículo	Nombre del artículo	P	Φ	Rendimiento lumínico
20	CARIBONI GROUP	06KS2C40937 CHM4	KOSMOS M R2 LT-06 700mA 3K	52.5 W	6755 lm	128.7 lm/W

Ficha de producto

CARIBONI GROUP - KOSMOS M R2 LT-06 700mA 3K

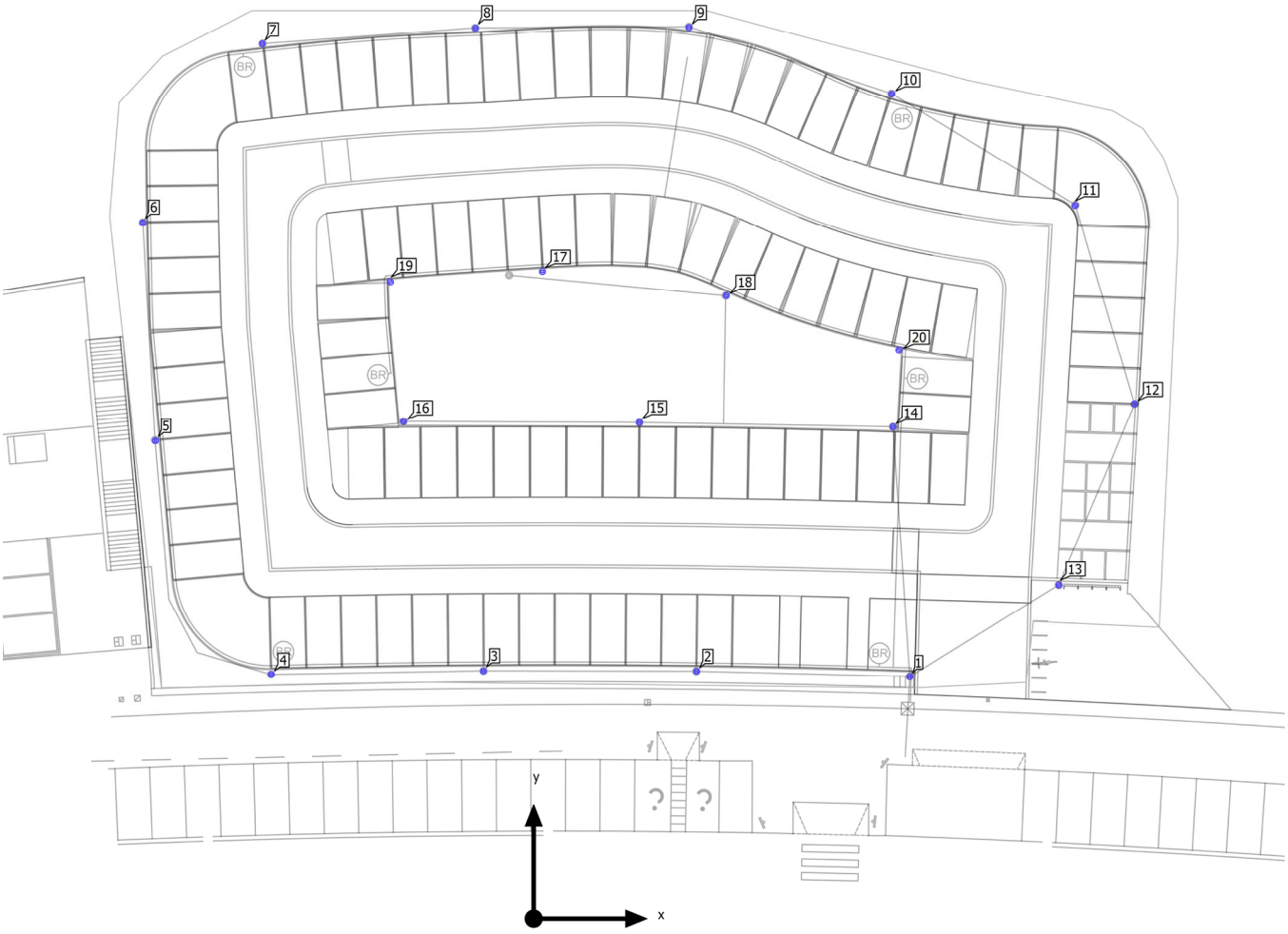
N° de artículo	06KS2C40937CHM4
P	52.5 W
$\Phi_{Lámpara}$	6755 lm
$\Phi_{Luminaria}$	6755 lm
η	100.00 %
Rendimiento lumínico	128.7 lm/W
CCT	3000 K
CRI	70



CDL polar

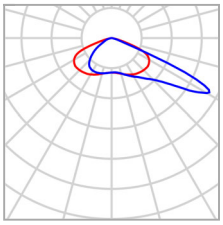
Area 1

Plano de situación de luminarias



Area 1

Plano de situación de luminarias



Fabricante	CARIBONI GROUP	P	52.5 W
N° de artículo	06KS2C40937CHM4	$\Phi_{Luminaria}$	6755 lm
Nombre del artículo	KOSMOS M R2 LT-06 700mA 3K		
Lámpara	1x R2 52.5W700mA 3K		

Luminarias individuales

X	Y	Altura de montaje	Luminaria
26.499 m	17.067 m	5.000 m	1
11.479 m	17.452 m	5.000 m	2
-3.546 m	17.468 m	5.000 m	3
-18.495 m	17.232 m	5.000 m	4
-26.658 m	33.709 m	5.000 m	5
-27.543 m	49.100 m	5.000 m	6
-19.133 m	61.722 m	5.000 m	7
-4.096 m	62.839 m	5.000 m	8
10.943 m	62.891 m	5.000 m	9
25.238 m	58.149 m	5.000 m	10
38.153 m	50.298 m	5.000 m	11
42.332 m	36.290 m	5.000 m	12
37.005 m	23.496 m	5.000 m	13

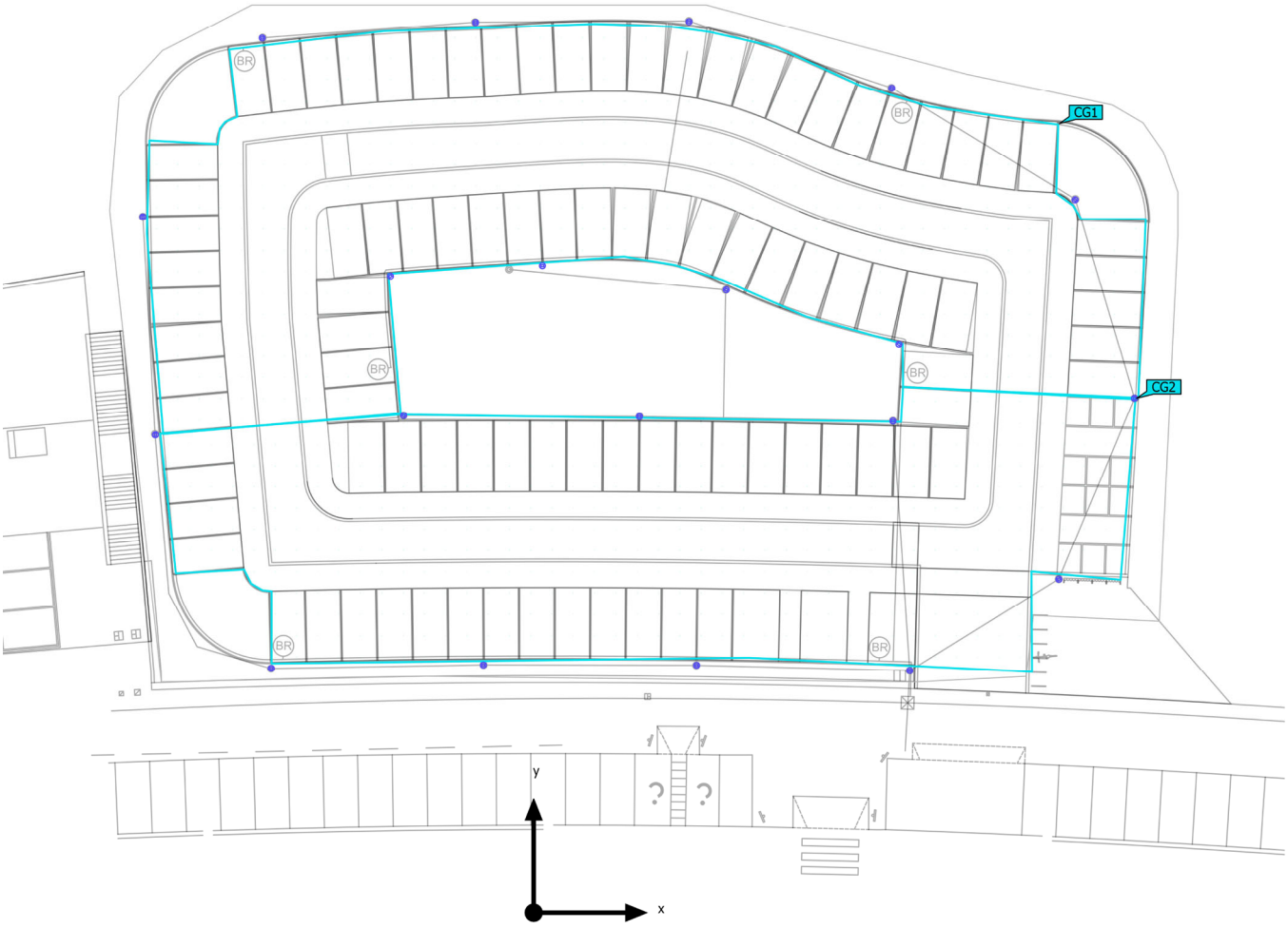
Area 1

Plano de situación de luminarias

X	Y	Altura de montaje	Luminaria
25.315 m	34.674 m	5.000 m	14
7.445 m	34.993 m	5.000 m	15
-9.169 m	35.063 m	5.000 m	16
0.614 m	45.674 m	5.000 m	17
13.568 m	43.959 m	5.000 m	18
-10.097 m	44.942 m	5.000 m	19
25.736 m	40.101 m	5.000 m	20

Area 1 (Scena luce 1)

Objetos de cálculo



Area 1 (Scena luce 1)

Objetos de cálculo

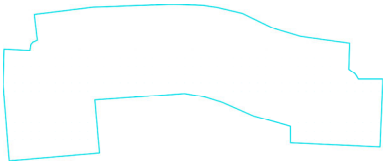
Superficie de cálculo

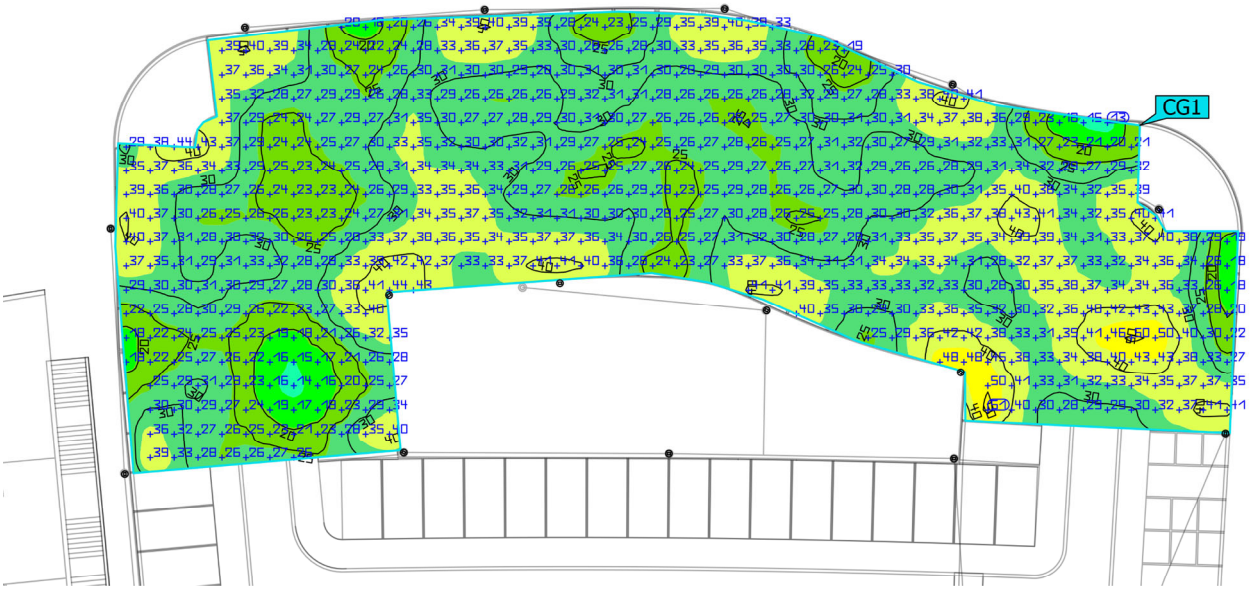
Propiedades	Ē	$E_{mín}$	$E_{máx}$	g_1	g_2	Índice
Superficie di calcolo 1 Iluminancia perpendicular Altura: 0.000 m	30.7 lx	13.3 lx	51.4 lx	0.43	0.26	CG1
Superficie di calcolo 2 Iluminancia perpendicular Altura: 0.000 m	28.9 lx	11.8 lx	54.0 lx	0.41	0.22	CG2

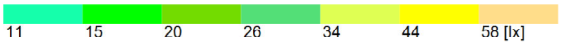
Perfil de uso: Preimpostazione DIALux, Standard (area di transito all'aperto)

Area 1 (Scena luce 1)

Superficie di calcolo 1





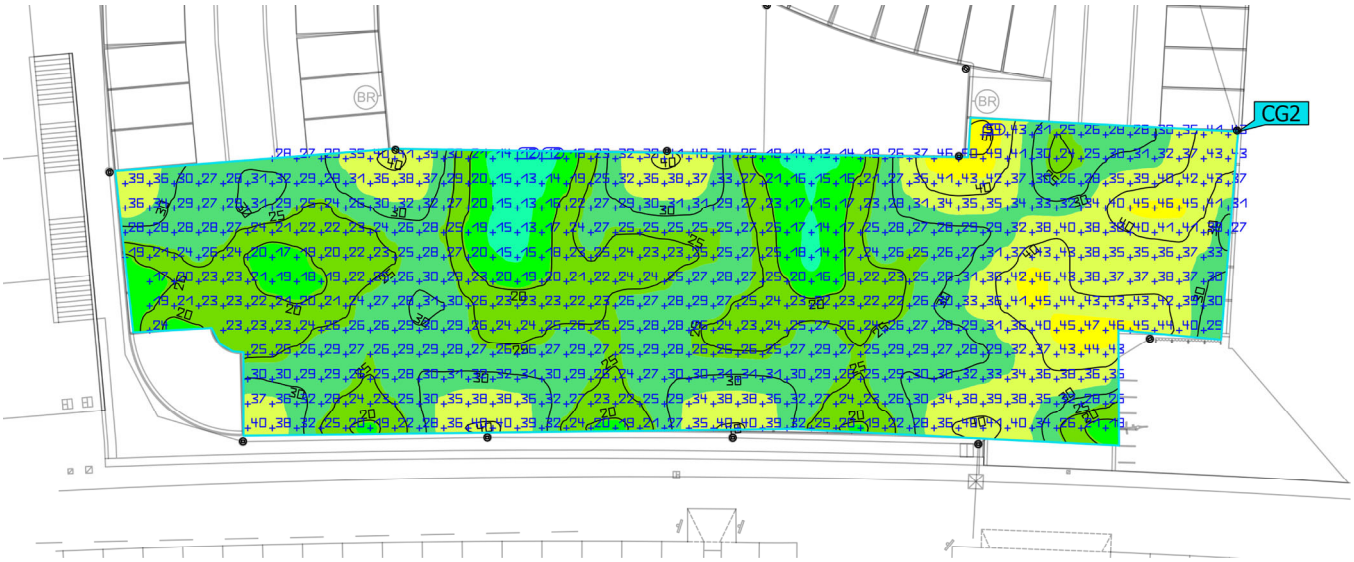


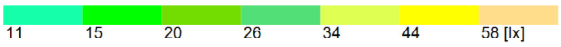
Propiedades	Ē	$E_{mín}$	$E_{máx}$	g_1	g_2	Índice
Superficie di calcolo 1 Iluminancia perpendicular Altura: 0.000 m	30.7 lx	13.3 lx	51.4 lx	0.43	0.26	CG1

Perfil de uso: Preimpostazione DIALux, Standard (area di transito all'aperto)

Area 1 (Scena luce 1)

Superficie di calcolo 2





Propiedades	Ē	$E_{mín}$	$E_{máx}$	g_1	g_2	Índice
Superficie di calcolo 2 Iluminancia perpendicular Altura: 0.000 m	28.9 lx	11.8 lx	54.0 lx	0.41	0.22	CG2

Perfil de uso: Preimpostazione DIALux, Standard (area di transito all'aperto)

Cariboni Group S.p.A.
Registered Office and Factory
Via G. A Prato, 22
38068 Rovereto (TN), Italy
T. +39 0464 422247

Sales Office and Warehouse
Via della Tecnica, 19
23875 Osnago (LC), Italy
T. +39 039 95211
E. info@caribonigroup.com
W. www.caribonigroup.com

Osnago, 31.10.2023

Ajuntament Sant Just Desvern
Plaça de Jacint Verdaguer, 2,
08960 Sant Just Desvern,
Barcelona, España

Objecto: Ausencia de contaminación Lumínica

Cariboni Group declara que por el proyecto PRJ15263_REV_1 APARCAMENT SANT JUST donde está prevista la instalación del producto KOSMOS 06KS2C40937CHM4 KOSMOS M R2 LT-06 700mA 3K instalado a columna no tiene contaminación lumínica hacia el cielo si el producto se instala en paralelo al suelo, respectando nuestro proyecto lumínico.

Direzione Tecnica, Alberto Pirola

Cariboni group SpA

Cariboni

File_Name_221226r0_CE+UKCA_Kosmos_Small_Medium Save Date_09/01/2023 12:31

CE	**CE\EU - DICHIARAZIONE DI CONFORMITA' - EC\EU - DECLARATION OF CONFORMITY CE\EU - DECLARATION DE CONFORMITE - EU\EG KONFORMITÄTSERKLÄRUNG EU – DECLARACION DE CONFORMIDAD**

Noi / We / Nous / Wir / Nosotros **Cariboni Group S.p.A.**

Dichiariamo sotto la nostra propria responsabilità, che il prodotto
Declare under sole responsibility that the product
Déclarons sous notre responsabilité, que le produit
Erklären in alleiniger Verantwortung, dans das Produkt
Declaramos bajo nuestra responsabilidad, que el producto

Modello / Name / Modèle / Bezeichnung / Modelo **KOSMOS Small \ Medium LA \ SO \ TP**

al quale si riferisce questa dichiarazione, è conforme alle norme e direttive:
to wich this declaration relates is in conformity with the following EC\EU-directive(s):
auquel cette déclaration se réfère est conforme aux normes:
auf das sich diese Erklärung bezieht, mit der/den folgenden EG\EU-Richtlinie(n) übereinstimmt:
al cual se refiere esta declaración, es conforme a las normas y directrices:

Directive 2014/30/EU		**Directive 2014/35/EU**		**Directive 2009/125/EC**	
Electromagnetic compatibility		Low voltage directive		Energy related products	
EN 55015:2019+A1:2020	X	EN 60598-1:2015 + A1:2018	X	Reg.(EU) 2019/2020	X
EN 61000-3-2:2019+A1:2021	X	EN 60598-2-2:2011 Recessed			
EN 61000-3-3:2013+A1:2019	X	EN 60598-2-13:2007 + A1:2007 + A2:2017 Ground Recessed			
EN 61547:2010	X	EN 60598-2-5:2016 Flood			
		EN 60598-2-3 + A1:2015 Street	X		
		EN 62493:2015 Emc Exposure	X		
		EN 62471:2015 Photobiological Risk Group: **RG0**	X		
Directive 2011/65/EU	X	**Directive 2010/30/EC**	X	**UNI 10819:2021**	X
Restriction of hazardous substances (RoHS)		Product labeling of energy consumption		Luce e illuminazione - Impianti di illuminazione esterna - grandezze illuminotecniche e procedure di calcolo per la valutazione della dispersione verso l'alto del flusso luminoso	
EN 50581	**X**	**Reg.874/2012/EC**	**X**		

Grado di Protezione IP \ IP Protection class \ Dégré de protection IP CEI EN60529, CEI70-1	IP66
Classe Isolamento Elettrico \ Protection against electric shock \ Protection au choc électrique CEI EN 60598-1	cl.II
Resistenza all'urto \ Impact Tests \ Résistance au Choc CEI EN 62262	IK09
Filo Incandescente \ Glow wire test \ Résistance au fil incandescence CEI EN 60695-2	850°C
Ta massima \ Ta max \ Ta max	-30° a +50°

Alberto Pirola
Techical Manager
Cariboni group SpA

Cariboni

UKCA - DECLARATION OF CONFORMITY

We **Cariboni Group S.p.A.**

Declare under sole responsibility that the product

Name **KOSMOS Small \ Medium LA \ SO \ TP**

to wich this declaration relates is in conformity with the following EC\EU-directive(s):

Directive 2014/30/EU		**Directive 2014/35/EU**		**Directive 2009/125/EC**	
Electromagnetic compatibility		Low voltage directive		Energy related products	
EN 55015:2019+A1:2020	X	EN 60598-1:2015 + A1:2018	X	Reg.(EU) 2019/2020	X
EN 61000-3-2:2019+A1:2021	X	EN 60598-2-2:2011 Recessed			
EN 61000-3-3:2013+A1:2019	X	EN 60598-2-13:2007 + A1:2007 + A2:2017 Ground Recessed			
EN 61547:2010	X	EN 60598-2-5:2016 Flood			
		EN 60598-2-3 + A1:2015 Street	X		
		EN 62493:2015 Emc Exposure	X		
		EN 62471:2015 Photobiological Risk Group: **RG0**	X		
Directive 2011/65/EU	X	**Directive 2010/30/EC**	X		
Restriction of hazardous substances (RoHS)		Product labeling of energy consumption			
EN 50581	**X**	**Reg.874/2012/EC**	**X**		

IP Protection class	IP66
Protection against electric shock	cl.II
Impact Tests	IK09
Glow wire test	850°C
Ta max	-30° a +50°

Alberto Pirola
Techical Manager

Cariboni group SpA

IMQ S.p.A. - Società con Socio Unico
I-20138 Milano - via Quintiliano, 43
tel. 0250731 (r.a.) - fax 0250991500
e-mail: info@imq.it - www.imq.it

Rea Milano 1595884
Registro Imprese Milano 12898410159
C.F./P.I. 12898410159
Capitale Sociale € 4.000.000

CA04.09866
SN.U000AV

PID:
04010011
CID:
C.1993.5503

Certificato di approvazione

Approval certificate

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

PRD N° 005B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

IMQ, ente di certificazione accreditato, autorizza la ditta

IMQ, accredited certification body, grants to

CARIBONI GROUP SPA
VIA G. A PRATO 22
38068 ROVERETO TN
IT - Italy

all'uso del marchio

the licence to use the mark

ENEC 03,IMQ

Il presente certificato è stato rilasciato sotto la presunzione e subordinatamente al fatto che il concessionario detenga tutti i necessari diritti legali relativi ai prodotti presentati per le prove e la certificazione, descritti nell'Allegato al presente certificato; inoltre, esso è soggetto alle condizioni previste nel Regolamento "MARCHI IMQ - Regolamento per la certificazione di prodotti".

La validità dei certificati ENEC è verificabile sul sito www.enec.com

This certificate has been issued under the presumption and conditional on the fact that the licensee holds all necessary legal rights with regard to the products presented for testing and certification, and listed in the annex to this certificate; moreover, it is subjected to the conditions foreseen by Rules "IMQ MARKS - RULES for product certification".

Validity of ENEC licences can be checked at www.enec.com

per i seguenti prodotti

Apparecchi di illuminazione stradale
(Serie KOSMOS)

for the following products

Luminaires for road and street lighting
(Series KOSMOS)

Emesso il / Issued on ***2020-05-25***

Aggiornato il / Updated on ---

Sostituisce / Replaces ---

IMQ S.p.A. cosign

IMQ S.p.A. - Società con Socio Unico
I-20138 Milano - via Quintiliano, 43
tel. 0250731 (r.a.) - fax 0250991500
e-mail: info@imq.it - www.imq.it

Rea Milano 1595884
Registro Imprese Milano 12898410159
C.F./P.I. 12898410159
Capitale Sociale € 4.000.000

Allegato - Certificato di approvazione
Annex - Approval certificate

Emesso il / Issued on 2020-05-25
Aggiornato il / Updated on ---
Sostituisce / Replaces ---

Prodotto | Product

Apparecchi di illuminazione stradale
Luminaires for road and street lighting

Concessionario | Licence Holder

CARIBONI GROUP SPA
VIA G. A PRATO 22
38068 ROVERETO TN
IT - Italy

Marchio | Mark

ENEC
03,IMQ

Costruito a | Manufactured at

97001834	CLROBO.C04PPROBO.P	23875	OSNAGO	LC	Italy
95001565	CLROBO.C	38068	ROVERETO	TN	Italy

Copia del presente certificato deve essere conservata presso i luoghi di produzione sopra elencati.

Copy of this certificate must be available at the manufacturing places listed above

Norme / Specifiche tecniche

Prodotto/i conforme/i alle Norme/Specifiche tecniche:

EN 60598-1:2015 + A1:2018
EN 60598-2-3:2003 + A1:2011
IEC/TR 62778:2014
Limitazioni ENEC all. B
Prodotti conformi agli obiettivi di sicurezza della Direttiva B.T. 2014/35/UE (Allegato I).

Standards / Technical specifications

Product/s complying to Standards/Technical specifications:

EN 60598-1:2015 + A1:2018
EN 60598-2-3:2003 + A1:2011
IEC/TR 62778:2014
ENEC Limitation encl. B
Products meeting the safety objectives of Low Voltage Directive 2014/35/EU (Annex I).

Rapporti | Test Reports

AI18-0024657-01; AI20-0048670-01

Caratteristiche tecniche | Technical characteristics

Tensione nominale / Rated voltage	**220-240V**
Tipo di installazione / Type of installation	**parete/plafone/palo/sospension / wall/ceiling/pole/suspension**
Classificazione del materiale del piano di appoggio / Classification according to material of supporting surface	**normalmente infiammabile / normally flammable**
Classe di isolamento / Degree of protection (class)	**II**
Serie / Series	**KOSMOS**
Gruppo di rischio / Risk group	**RG1 alla distanza di 3,75m / RG1 at 3,75m distance**

Articoli (con dettagli) | Articles (with details)

AR.U002SL

Marca / Trade mark	**Cariboni group**
N.lampade/Pn / No.lamps/Rw	**12 LED / 29W**
Attacco lamp./tipo / Lamp cap/type	**LED/ 2200-3000-4000K MAX 700mA**
Rif. di tipo / Type ref.	**KOSMOS-S**
Rif. a cat. / Cat. ref.	**06KS1ABCDEF**
IP /	**IP66**

AR.U002SO

Marca / Trade mark	**Cariboni group**
N.lampade/Pn / No.lamps/Rw	**12 LED / 29W**
Attacco lamp./tipo / Lamp cap/type	**LED/ 2200-3000-4000K MAX 700mA**

Rif. di tipo / Type ref. **KOSMOS-M**
Rif. a cat. / Cat. ref. **06KS2ABCDEF, 06KS4ABCDEF**
IP / **IP66**

AR.U002SP

Marca / Trade mark **Cariboni group**
N.lampade/Pn / No.lamps/Rw **24 LED / 55W**
Attacco lamp./tipo / Lamp cap/type **LED/ 2200-3000-4000K MAX 700mA**
Rif. di tipo / Type ref. **KOSMOS-M**
Rif. a cat. / Cat. ref. **06KS2ABCDEF, 06KS4ABCDEF**
IP / **IP66**

AR.U002SQ

Marca / Trade mark **Cariboni group**
N.lampade/Pn / No.lamps/Rw **36 LED / 80W**
Attacco lamp./tipo / Lamp cap/type **LED/ 2200-3000-4000K MAX 700mA**
Rif. di tipo / Type ref. **KOSMOS-M**
Rif. a cat. / Cat. ref. **06KS2ABCDEF, 06KS4ABCDEF**
IP / **IP66**

Ulteriori informazioni |Additional Information

06KS1: identifica il KOSMOS-S (DIAM.270 mm)
06KS2: identifica il KOSMOS-M (DIAM.420 mm)
06KS4: identifica la sospensione su fune di tesata (KOSMOS-M DIAM. 420mm)

A: Identifica il numero di LED => B2: 12 LED - C4: 24 LED - D6: 36 LED
B: identifica la corrente dei LED => 0: 700mA - 3: 350mA - 5: 525mA
C: identifica la temperatura di colore dei LED => 0: 4000K - 9: 3000K - 1: 2200K
D: identifica il tipo di ottica => 30: ST-01 - 31: LA-01 - 32: ME-01 - 33: ME-02 - 34: AP-01_SX - 35: RS-01 - 36: AP-01_DX - 37: LT-6 - 38: LT-5 - 39: SO-01 - 40: MB-01 - 89: LT-S2 - 42: LR-20
E: identifica il colore dell'apparecchio
F: identifica il tipo di cablaggio =>
HM3: ALVIT autoapprendimento
HM4: programmabile
HF1: comunicazione su linea elettrica di REVERBERI
HH: 1-10 V.
HL: DALI

ACCESSORI
06KS905X0 - Braccio per montaggio a parete L 350mm - Montaggio a soffitto
06KS906X0 - Giunto a snodo superiore diam. 60 millimetri
06KS912X0 - Asta a braccio singolo L 350mm diam. 102mm
06KS913X0 - Asta a braccio singolo L 700mm diam. 102mm
06KS914X0 - Asta a doppio braccio L 350mm diam. 102mm
06KS915X0 - Asta a doppio braccio L 700mm diam. 102mm
06KS907X0 - Asta a braccio singolo L 350mm diam. 60-76mm
06KS908X0 - Asta a braccio singolo L 700mm diam. 60-76mm
06KS910X0 - Asta a doppio braccio L 350mm diam. 60-76mm
06KS911X0 - Asta a doppio braccio L 700mm diam. 60-76mm
06KS903X0 - Kit di fissaggio su past braccio pastorale a gas
06KS904X0 - Giunto per diam. Braccio da 60mm
06KS902X0 - Kit di sospensione per corda
06KS901X0 - Braccio per palo superiore diam. 60mm (solo KOSMOS-M)

Grado di protezione contro gli urti meccanici esterni secondo la norma EN 62262:2002 / IEC 62262:2002: IK09 (10 J).

Con le seguenti ottiche: 30:ST-01 - 31: LA-01 - 32: ME-01 - 33: ME-02 - 34: AP-01_SX - 35: RS-01 - 36: AP-01_DX - 37: LT-6 - 38: LT-5 - 39: SO-01 - 40: MB-01 - 89: LT-S2: rischio fotobiologico RG0 alla distanza di 3,50m
Con la seguente ottica: 42: LR-20 fino a 12 led rischio fotobiologico RG0 alla distanza di 4,25m, più di 12 LED, ma fino a 36 LED RG0 alla distanza di 6,25m

06KS1: Identifies the KOSMOS-S (DIAM. 270mm)
06KS2: Identifies the KOSMOS-M (DIAM. 420mm)
06KS4: Identifies the KOSMOS-M Span wire (KOSMOS-M DIAM. 420mm)

A: Identifies the number of LEDs => B2: 12 LED - C4: 24 LED - D6: 36 LED
B: Identifies the current of the LEDs => 0: 700mA - 3: 350mA - 5: 525mA
C: Identifies the color temperature of the LEDs => 0: 4000K - 9: 3000K - 1: 2200K
D: Identifies the type of optic => 30: ST-01 - 31: LA-01 - 32: ME-01 - 33: ME-02 - 34: AP-01_SX - 35: RS-01 - 36: AP-01_DX - 37: LT-6 - 38: LT-5 - 39: SO-01 - 40: MB-01 - 89: LT-S2 - 42: LR-20
E: Identifies the color of the appliance
F: Identifies the wiring type =>
HM3: Self-learning ALVIT

HM4: Programmable
HF1: power line communication by REVERBERI
HH: 1-10V
HL: DALI

ACCESSORIES
06KS905X0 - Arm for wall-mounting L 350mm - Ceiling mount
06KS906X0 - Joint post top diam. 60mm
06KS912X0 - Single arm L 350mm pole diam.102mm
06KS913X0 - Single arm L 700mm pole diam.102mm
06KS914X0 - Double arm L 350mm pole diam.102mm
06KS915X0 - Double arm L 700mm pole diam.102mm
06KS907X0 - Single arm L 350mm pole diam. 60-76mm
06KS908X0 - Single arm L 700mm pole diam. 60-76mm
06KS910X0 - Double arm L 350mm pole diam. 60-76mm
06KS911X0 - Double arm L 700mm pole diam. 60-76mm
06KS903X0 - Fastening kit on ¾ gas pastoral arm
06KS904X0 - Joint for diam. 60mm arm
06KS902X0 - Suspension kit for string
06KS901X0 - Arm for post top diam. 60mm (only KOSMOS-M)

X: Identifies the color
Degree of protection against external mechanical impacts according to EN 62262:2002 / IEC 62262:2002: IK09 (10 J).

With the following lenses: 30: ST-01 - 31: LA-01 - 32: ME-01 - 33: ME-02 - 34: AP-01_SX - 35: RS-01 - 36: AP-01_DX - 37: LT-6 - 38: LT-5 - 39: SO-01 - 40: MB-01 - 89: LT-S2 photobiological risk: RG0 at a distance of 3.50m
With the following optic: 42: LR-20 up to 12 RG0 LEDs at a distance of 4.25m, more than 12 LEDs, but up to 36 LEDs RG0 at the distance of 6.25m

Componenti | Component List

Vedere apposito elenco /See relevant annex

Emesso il | Issued on **2020-05-25** *Aggiornato il | Updated on* --- *Sostituisce | Replaces* ---

Diritti di concessione | Annual Fees

SN.U000AV	**BTU.040100.DD23**	*Importo modelli ENEC - 0401 - Apparecchi di illuminazione e accessori / ENEC models - 0401 - Luminaires*	1

Ficha de línea
Rev. 25.03.22

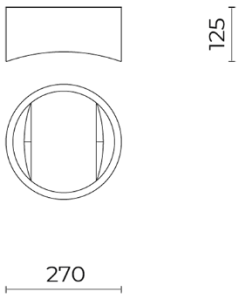
Kosmos

Opciones:	small, medium
Temperatura de color:	4000 K / 3000 K /
Tipo de óptica:	asimétrica viaria ST-01, ME-01, LA-01 simétrica viaria SO-01 rotosimétrica RS-01 pavimento mojado MB-01 pasos de peatones AP-01_SX pasos de peatones AP-01_DX asimétrica LT-06

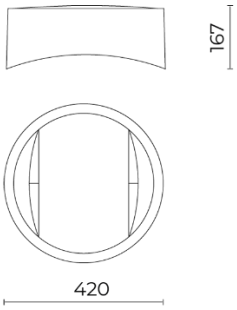
06KS_____

Color: Sablé 100 Noir

Small



Medium



Características generales

Descripción: luminaria LED para la iluminación de recorridos y espacios urbanos

Clase de aislamiento: clase II (clase I bajo pedido)

Tensión nominal: 220-240 V / 50-60 Hz

Grado de protección: IP66

Protección contra impactos: IK09

Dispositivo de protección contra sobrecargas: integrado 10 kV-10 kA, clase III, equipado con señal LED y termofusible para la desconexión al final de su vida útil; resistencia al impulso CL II 10 kV CM/DM

Factor de potencia: > 0.9

Temperatura ambiente Ta: -30 °C +50 °C

Peso: small 3,50 kg; medium 7,50 kg

Superficie expuesta máx.: small 0,06 m²; medium 0,030 m²

Superficie expuesta lateral: small 0,140 m²; medium 0,063 m²

Protecciones contra sobretensiones de modo común: 10 kV

Protecciones contra sobretensiones de modo diferencial: 10 kV

Controlador: integrado

Marcas y Certificaciones: ENEC / CE

Clasificación: CUT OFF

Cariboni group

Materiales

Cuerpo, recubrimiento del compartimento de componentes y sistema de fijación: aleación de aluminio fundido a presión UNI EN AB 47100 (contenido de cobre < 1 %) de grosor adecuado y con refuerzos estructurales para evitar tensiones que puedan causar daños o fisuras durante el uso normal

Apantallamiento: cristal plano templado

Grupo óptico: lentes PMMA de alta ransparencia

Juntas: espuma de silicona antienvejecimiento

Tornillos externos y componentes metálicos: acero inoxidable AISI 304

Tornillos internos: acero cromado y cincado

Placa de cableado: acero cincado

Acabado: fosfocromatización y pintado con polvos de poliéster, realizado en 16 fases para una mejor resistencia contra los agentes atmosféricos

Colores

Sablé 100 Noir

Instalación y mantenimiento

Instalación: extremo de poste / lado-poste / brazo / pared / pórtico / suspensión tensada

Diámetro de los postes: Ø 60 - 76 - 102 mm

Inclinación: regulación continua -10 ° +190 ° (en pasos de 5 °); horizontal ± 15 °, vertical 0 ° ÷ 360 °

Fijación extremo de poste: monobrazo fabricado en aleación de aluminio fundido a presión UNI EN AB 47100 (contenido de cobre < 1 %), con recubrimiento de polvo de tipo poliéster Sablé 100 Noir para poste Ø 76 mm, con reducción sobre poste Ø 60 mm H. 90 mm.

Fijación lado poste: extensión hacia el lado del poste (para postes Ø 60-76 mm o postes Ø 102 mm) con junta ajustable fabricada en aleación de aluminio fundido a presión UNI EN AB 47100 (contenido de cobre < 1 %), con recubrimiento de polvo de tipo poliéster Sablé 100 Noir; junta en L fabricada en aleación de aluminio fundido a presión UNI EN AB 47100 (contenido de cobre < 1 %), con recubrimiento de polvo de tipo poliéster Sablé 100 Noir para poste Ø 76 mm, con reducción sobre poste Ø 60 mm H. 90 mm.

Fijación en pared y falso techo: con junta fabricada en aleación de aluminio fundido a presión UNI EN AB 47100 (contenido de cobre < 1 %), tubo de hierro (Ø 60 mm) y placa de fijación de hierro cincado en caliente con recubrimiento de polvo de tipo poliéster Sablé 100 Noir.

Fijación en suspensión tensada: para red tensada viaria (cable Ø 6 ÷ 12 mm), fabricada en aleación de aluminio fundido a presión UNI EN AB 47100 (contenido de cobre < 1 %), con recubrimiento de polvo de tipo poliéster Sablé 100 Noir y soporte de acero inoxidable 304.

Cableado: producto precableado con cable de L 600 mm y conector de 2 vías

Ø cable de alimentación: 10 ÷ 14 mm

Cables flexibles 1x0,75 mm^2 doble aislamiento en goma de silicona

Prensacable: PG16

Sustituibilidad del grupo óptico: sustitución del disco LED

Sustituibilidad de la placa de cableado: placa desmontable

Ficha de línea
Rev. 25.03.22

Kosmos

Opciones:	small, medium
Temperatura de color:	4000 K / 3000 K /
Tipo de óptica:	asimétrica viaria ST-01, ME-01, LA-01 simétrica viaria SO-01 rotosimétrica RS-01 pavimento mojado MB-01 pasos de peatones AP-01_SX pasos de peatones AP-01_DX asimétrica LT-06

06KS_____

Color: Sablé 100 Noir

Cuerpo de alimentación: independiente del grupo óptico

Sistema óptico

Equipado con emisores blancos 4000 K, 3000 K y 2200 K (solo KOSMOS MEDIUM) colocados con sistema “pick and place” en el circuito eléctrico, MCPCB, capaz de disipar el calor. Sistema óptico compuesto por lentes de polimetilmetacrilato de alta transparencia, desarrolladas de forma que cada lámpara realice toda la fotometría. Con esta solución es posible garantizar que, en caso de error en el funcionamiento de un solo LED, no se cree una zona con menos iluminación respecto a las demás, sino que en el peor de los casos, se obtiene una reducción porcentual de la iluminación en toda la superficie.

Índice de reproducción cromática (IRC): ≥ 70 (≥ 80 bajo pedido); SDCM=4

Vida del grupo óptico: > 160 000 h @ 700 mA @ Ta 25 °C TM21 L80B10 L80B20

Vida del controlador: 100 000 h @ 700 mA @ Ta 25 °C

Clase de seguridad fotobiológica: EXEMPT

GROUP ULOR: 0 % - DLOR: 100 %

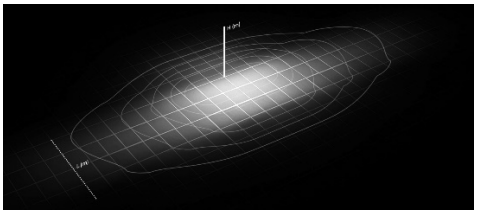
Categoría de intensidad luminosa: G*3 asimétrica viaria ST-01, ME-01, LA-01; G*3 pavimento mojado y simétrica viaria; G*6 asimétrica LT-06; G*6 pasos de peatones y rotosimétrica

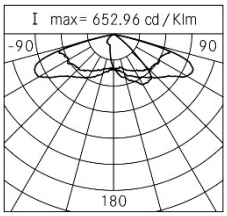
Normas de referencia

EN60598-1 / EN60598-2-3 / EN62471 / EN61547

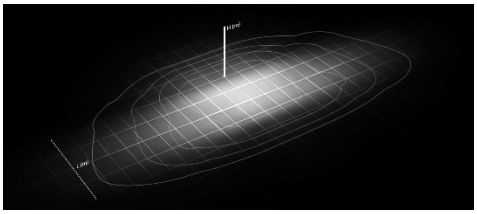
Ópticas asimétricas viarias

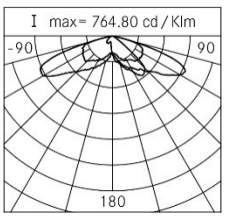
ST-01 L/H = 0,75 (L = Anchura calle, H = Altura poste)



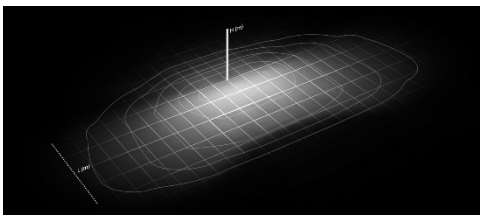


ME-01 L/H = 1 (L = Anchura calle, H = Altura poste)





LA-01 L/H = 1,25 (L = Anchura calle, H = Altura poste)



Las características del producto están sujetas a cambios y deben ser confirmadas en la fase de orden.
Con el fin de facilitar la actualización continua de sus productos, Cariboni Group se reserva el derecho de realizar cambios sin previo aviso.

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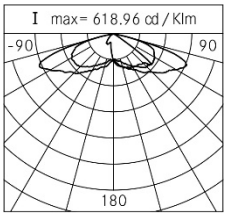
Ficha de línea
Rev. 25.03.22

Kosmos

Opciones:	small, medium
Temperatura de color:	4000 K / 3000 K /
Tipo de óptica:	asimétrica viaria ST-01, ME-01, LA-01
	simétrica viaria SO-01
	rotosimétrica RS-01
	pavimento mojado MB-01
	pasos de peatones AP-01_SX
	pasos de peatones AP-01_DX
	asimétrica LT-06

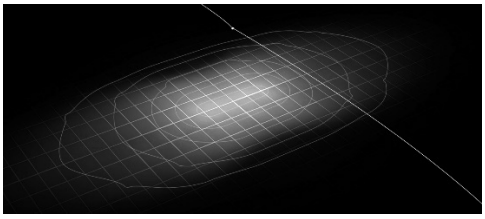
06KS_____

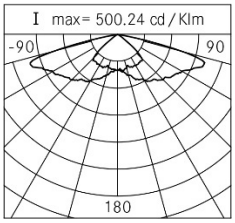
Color: Sablé 100 Noir



Ópticas simétricas viarias

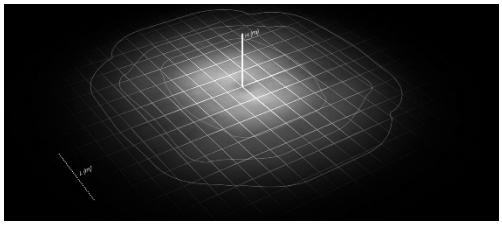
SO-01

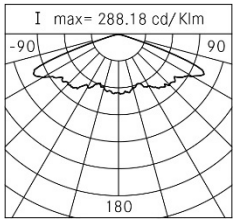




Ópticas rotosimétricas

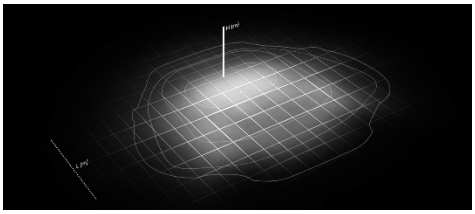
RS-01

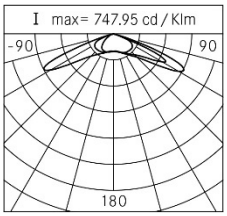




Ópticas asimétricas

LT-06 L/H = 2 (L = Anchura calle, H = Altura poste)





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Ficha de línea
Rev. 25.03.22

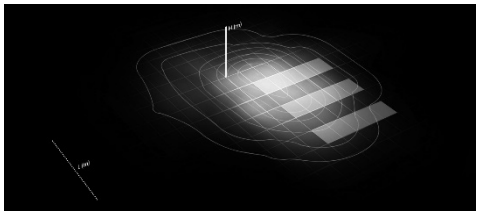
Kosmos
Opciones: small, medium
Temperatura de color: 4000 K / 3000 K /
Tipo de óptica: asimétrica viaria ST-01, ME-01, LA-01
simétrica viaria SO-01
rotosimétrica RS-01
pavimento mojado MB-01
pasos de peatones AP-01_SX
pasos de peatones AP-01_DX
asimétrica LT-06

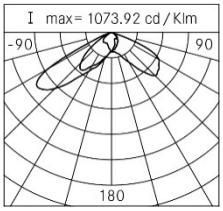
06KS_____

Color: Sablé 100 Noir

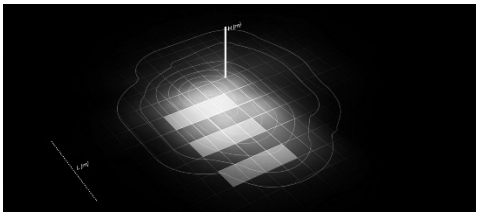
Ópticas para pasos de peatones

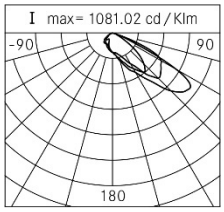
AP-01_SX





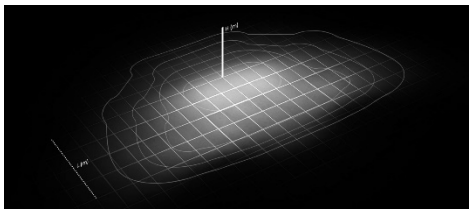
AP-01_DX

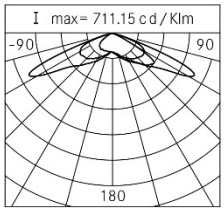




Ópticas para pavimento mojado

MB-01





Datos de prestaciones

ÓPTICA ASIMÉTRICA VIARIA ST-01 / ME-01 / LA-01 ÓPTICA SIMÉTRICA VIARIA SO-01 ÓPTICA ROTOSIMÉTRICA RS-01 ÓPTICA ASIMÉTRICA LT-06									
Options	**Sources**	**mA**	**K**	**φ mod [lm]**	**P mod [W]**	**η mod [lm/W]**	**φ app [lm]**	**P app [W]**	**η app [lm/W]**
small	R1	350	4000	2330	12	203	2005	13,5	149
small	R1	525	4000	3300	17,5	189	2840	20	142
small	R1	700	4000	4170	24	174	3585	27	133
medium	R1	350	4000	2355	11,5	205	2025	13,5	150
medium	R1	525	4000	3350	17,5	191	2885	20	144
medium	R1	700	4000	4260	24	178	3665	27	136
medium	R2	350	4000	4680	23	203	4025	26,5	152
medium	R2	525	4000	6645	35,5	187	5715	39,5	145
medium	R2	700	4000	8415	48	175	7235	52,5	138
medium	R3	350	4000	6980	34,5	202	6005	39	154
medium	R3	525	4000	9875	53	186	8490	58,5	145

Las características del producto están sujetas a cambios y deben ser confirmadas en la fase de orden.
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Ficha de línea
Rev. 25.03.22

Kosmos
Opciones: small, medium
Temperatura de color: 4000 K / 3000 K /
Tipo de óptica: asimétrica viaria ST-01, ME-01, LA-01
simétrica viaria SO-01
rotosimétrica RS-01
pavimento mojado MB-01
pasos de peatones AP-01_SX
pasos de peatones AP-01_DX
asimétrica LT-06

06KS_____

Color: Sablé 100 Noir

ÓPTICA ASIMÉTRICA VIARIA ST-01 / ME-01 / LA-01
ÓPTICA SIMÉTRICA VIARIA SO-01
ÓPTICA ROTOSIMÉTRICA RS-01
ÓPTICA ASIMÉTRICA LT-06

Options	Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
small	R1	350	3000	2175	12	189	1875	13,5	139
small	R1	525	3000	3080	17,5	176	2650	20	133
small	R1	700	3000	3890	24	162	3345	27	124
medium	R1	350	3000	2200	11,5	191	1890	13,5	140
medium	R1	525	3000	3130	17,5	179	2690	20	135
medium	R1	700	3000	3975	24	166	3420	27	127
medium	R2	350	3000	4370	23	190	3760	26,5	142
medium	R2	525	3000	6200	35,5	175	5335	39,5	135
medium	R2	700	3000	7855	48	164	6755	52,5	129
medium	R3	350	3000	6515	34,5	189	5605	39	144
medium	R3	525	3000	9215	53	174	7925	58,5	135

ÓPTICA PARA PAVIMENTO MOJADO MB-01
ÓPTICA PARA PASOS DE PEATONES AP-01_SX / AP-01_DX

Options	Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
medium	R2	350	4000	4680	23	203	4025	26,5	152
medium	R2	525	4000	6645	35,5	187	5715	39,5	145
medium	R2	700	4000	8415	48	175	7235	52,5	138
medium	R3	350	4000	6980	34,5	202	6005	39	154
medium	R3	525	4000	9875	53	186	8490	58,5	145
medium	R3	700	4000	12465	72	173	10720	78	137

ÓPTICA PARA PAVIMENTO MOJADO MB-01
ÓPTICA PARA PASOS DE PEATONES AP-01_SX / AP-01_DX

Options	Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
medium	R2	350	3000	4370	23	190	3760	26,5	142
medium	R2	525	3000	6200	35,5	175	5335	39,5	135
medium	R2	700	3000	7855	48	164	6755	52,5	129
medium	R3	350	3000	6515	34,5	189	5605	39	144
medium	R3	525	3000	9215	53	174	7925	58,5	135
medium	R3	700	3000	11635	72	162	10005	78	128

ÓPTICA ASIMÉTRICA VIARIA ME-01 / LA-01
ÓPTICA ASIMÉTRICA LT-06
ÓPTICA SIMÉTRICA VIARIA SO-01

Options	Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
medium	R2	350	2200	3615	23	157	3110	26,5	117
medium	R2	525	2200	5130	35,5	145	4415	39,5	112
medium	R2	700	2200	6500	48	135	5590	52,5	106
medium	R3	350	2200	5395	35	156	4640	39	119
medium	R3	525	2200	7625	53	144	6560	59	112
medium	R3	700	2200	9630	72	134	8280	78	106

Los datos se refieren al flujo y eficiencia del modulo LED sin lentes. Si usted necesita los datos del modulo LED con lentes, hay que moltiplicar los datos por el factor 0.90.
Los valores indicados en esta hoja de datos deben considerarse valores nominales con una tolerancia de +/-7%.

Leyenda

mA = Corriente de

alimentación K = Temperatura de color

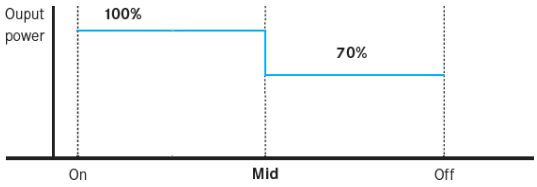
φ lám [lm] = Flujo de la lámpara

P lám [W] = Potencia de la lámpara
η lám [lm/W] = Eficiencia de la lámpara
φ lum [lm] = Flujo de la luminaria
P lum [W] = Potencia de la luminaria
η lum [lm/W] = Eficiencia de la luminaria

Regulación de flujo

Autoaprendizaje de medianoche virtual con programación personalizable (código con final _HM4)

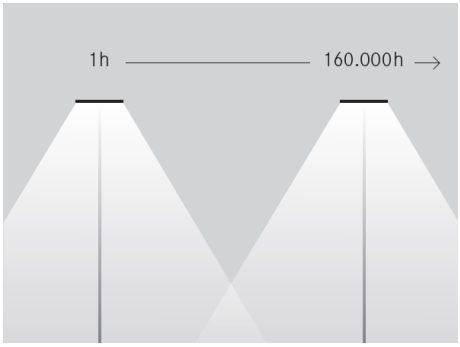
Disponibles versiones personalizables bajo pedido del cliente; mediante un algoritmo de medianoche virtual es posible reducir con precisión el porcentaje del flujo luminoso de la luminaria y de su consumo de potencia eléctrica. El sistema se puede programar para el funcionamiento con protocolo DALI.



Profile **standard**
700 mA 525 mA 350 mA
Mid (mezzanotte virtuale - *virtual midnight* - virtuellen mitternacht)
Ex. code: 01KI.....**HM4**

Constant Lumen Output CLO (standard)

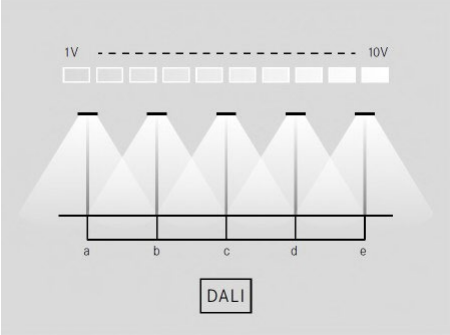
La función del CLO es compensar la disminución natural del flujo luminoso de los LEDES. Mediante un aumento gradual de corriente, previamente programado, el flujo luminoso se mantiene a lo largo del tiempo sin descender por debajo del valor límite preestablecido.



Group Management: Regulación de flujo 1 -10 V (bajo pedido) y DALI (bajo pedido)

1-10 V — Es un control de tipo analógico que se basa en la distribución de una señal de tensión entre 1 V y 10 V, donde 1 V corresponde al valor mínimo de intensidad luminosa y 10 V al valor máximo.

DALI — Es un control de tipo digital en el que a cada luminaria se le asigna una dirección unívoca que permite controlar cada punto de luz y crear grupos de control.

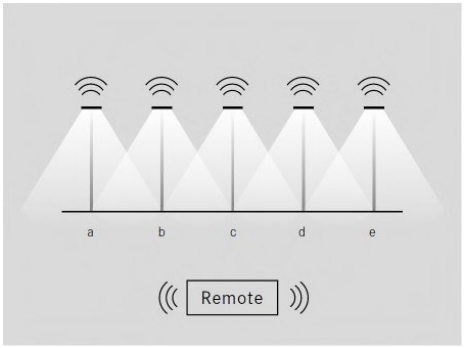


Remote Management (bajo pedido)

Los sistemas de telecontrol por ondas canalizadas y sin cables permiten gestionar desde remoto la regulación del flujo luminoso, la monitorización del sistema, las estadísticas de consumo y la señal de averías. Los sistemas de telegestión, además de reducir el consumo y los gastos de gestión, preparan la infraestructura necesaria para alojar otros sistemas o servicios para el territorio compatibles con los proyectos más innovadores de iluminación inteligente.

Ondas canalizadas — Mediante la comunicación por ondas canalizadas, es decir, sin cables auxiliares en la instalación, es posible comunicar con cada punto de luz. El sistema permite monitorizar desde remoto cada una de las luminarias y modificar el perfil de consumo.

Sin cables — El sistema de telegestión sin cables es capaz de gestionar las luminarias desde remoto de manera fácil y sin vínculos debidos al sistema ya existente. La tecnología sin cables permite monitorizar desde remoto cada una de las luminarias y modificar el perfil de consumo.



Sensores (bajo pedido)

Detectores de movimiento y de presencia — El uso de los sensores de movimiento permite detectar el paso de personas o vehículos y regular el flujo emitido para garantizar los niveles adecuados de seguridad. Si no se detecta movimiento de personas ni vehículos, el flujo luminoso se reduce para contener el consumo y los costes. El tipo de sensor y las modalidades de instalación se deben definir en función del contexto de aplicación y las geometrías del espacio de proyecto. El control del sistema, que comunica los sistemas 1 -10 V, DALI o Sin cables, puede ser centralizado. Los sensores se deben montar fuera del producto.

Sensor luminoso — Las luminarias Cariboni con regulación DALI, 1-10 V o Sin cables son compatibles con los sensores luminosos que regulan la emisión de luz en salida a partir de la cantidad de luz ya presente en el espacio. Esta solución evita el derroche y asegura la recuperación de los costes de inversión en poco tiempo.

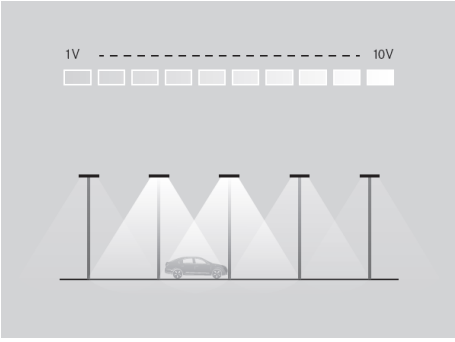
Ficha de línea
Rev. 25.03.22

Kosmos

Opciones:	small, medium
Temperatura de color:	4000 K / 3000 K /
Tipo de óptica:	asimétrica viaria ST-01, ME-01, LA-01
	simétrica viaria SO-01
	rotosimétrica RS-01
	pavimento mojado MB-01
	pasos de peatones AP-01_SX
	pasos de peatones AP-01_DX
	asimétrica LT-06

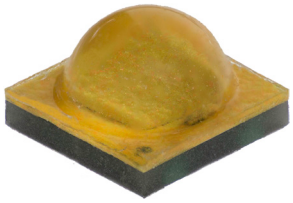
06KS_____

Color: Sablé 100 Noir

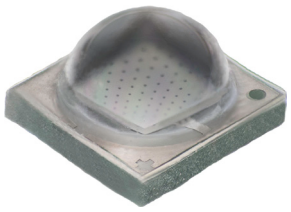


Cariboni group

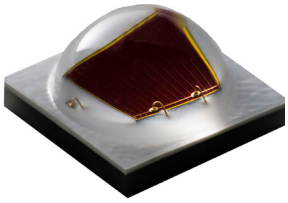
Cree® XLamp® XP-G3 LEDs



XP-G3 White



XP-G3 Royal Blue



XP-G3 Photo Red

PRODUCT DESCRIPTION

XLamp® XP-G3 LEDs are optimized for directional, high-lumen lighting applications where efficacy and optical control are critical, such as roadway, portable and horticulture. The compact and proven 3.45-mm XP platform has an excellent ecosystem of optics and system solutions available, enabling lighting manufacturers to simplify their design process and shorten time-to-market.

XP-G3 LEDs are available in Royal Blue and two different White and Photo Red versions: Standard & S Line. The White Standard version delivers best-in-class TM-21 lifetimes and color stability over time. The S Line versions of White and Photo Red deliver improved efficiency, best-in-class sulfur resistance and better system-level reliability through switching and dimming cycles. With these S Line versions, Cree delivers high-power LED technology that is optimized for both general and horticulture lighting applications where sensors and switching are becoming common.

In this document, the terms White and Photo Red denote the white or photo red XP-G3 LED without regard to its Standard or S Line features. The terms Standard and S Line are used when necessary to differentiate the performace of the Standard XP-G3 LED from the XP-G3 LED with the S Line option.

FEATURES

- Available in no CRI minimum white, 70-, 80- and 90-CRI white, royal blue & photo red
- ANSI-compatible chromaticity bins
- 3-step and 5-step options
- White binned at 85 °C, royal blue & photo red binned at 25 °C
- Maximum drive current: white, royal blue: 2000 mA, photo red: 1500 mA
- Low thermal resistance: white: 3 °C/W, royal blue: 2 °C/W, photo red (Standard): 2.5 °C/W, photo red (S Line): 1 °C/W
- Wide viewing angle: 125°–130°
- Unlimited floor life at ≤ 30 ºC/85% RH
- Reflow solderable - JEDEC J-STD-020C
- Electrically neutral thermal path
- RoHS and REACh compliant
- UL® recognized component (E349212)

Cree, Inc.
4600 Silicon Drive
Durham, NC 27703
USA Tel: +1.919.313.5300

TABLE OF CONTENTS

CHARACTERISTICS

Characteristics	Unit	Minimum	Typical	Maximum
Thermal resistance, junction to solder point - white	°C/W		3	
Thermal resistance, junction to solder point - royal blue	°C/W		2	
Thermal resistance, junction to solder point - photo red (Standard)	°C/W		2.5	
Thermal resistance, junction to solder point - photo red (S Line)	°C/W		1	
Viewing angle (FWHM) - white	degrees		125	
Viewing angle (FWHM) - royal blue	degrees		130	
Viewing angle (FWHM) - photo red	degrees		125	
Temperature coefficient of voltage	mV/°C		-1.6	
ESD withstand voltage (HBM per Mil-Std-883D)			Class 3A	
DC forward current - white, royal blue	mA			2000
DC forward current - photo red	mA			1500
Reverse voltage	V			5
Forward voltage (@ 350 mA, 85 °C) - white	V		2.70	2.90
Forward voltage (@ 350 mA, 25 °C) - royal blue	V		2.79	3.0
Forward voltage (@ 350 mA, 25 °C) - photo red (Standard)	V		1.99	2.2
Forward voltage (@ 350 mA, 25 °C) - photo red (S Line)	V		1.95	2.2
Forward voltage (@ 700 mA, 85 °C) - white	V		2.80	
Forward voltage (@ 700 mA, 25 °C) - royal blue	V		2.90	
Forward voltage (@ 700 mA, 25 °C) - photo red (Standard)	V		2.18	
Forward voltage (@ 700 mA, 25 °C) - photo red (S Line)	V		2.13	
Forward voltage (@ 1000 mA, 85 °C) - white	V		2.87	
Forward voltage (@ 1000 mA, 25 °C) - royal blue	V		2.99	
Forward voltage (@ 1000 mA, 25 °C) - photo red (Standard)	V		2.36	
Forward voltage (@ 1000 mA, 25 °C) - photo red (S Line)	V		2.26	
Forward voltage (@ 1500 mA, 85 °C) - white	V		2.97	
Forward voltage (@ 1500 mA, 25 °C) - royal blue	V		3.11	
Forward voltage (@ 1500 mA, 25 °C) - photo red (Standard)	V		2.65	
Forward voltage (@ 1500 mA, 25 °C) - photo red (S Line)	V		2.46	
Forward voltage (@ 2000 mA, 85 °C) - white	V		3.06	
Forward voltage (@ 2000 mA, 25 °C) - royal blue	V		3.20	
LED junction temperature	°C			150

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C

The following table provides order codes for XLamp XP-G3 White (Standard) LEDs. For a complete description of the order code nomenclature, please see the Bin and Order Code Formats section (page 39). For definitions of the chromaticity kits, please see the Cree's Standard Chromaticity Kits section (page 38).

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
DT	7000 K	S5	172	187		XPGDWT-B1-0000-00MDT		
		S4	164	179	XPGDWT-01-0000-00LDT	XPGDWT-B1-0000-00LDT		
		S3	156	170	XPGDWT-01-0000-00KDT	XPGDWT-B1-0000-00KDT	XPGDWT-H1-0000-00KDT	
		S2	148	161	XPGDWT-01-0000-00JDT	XPGDWT-B1-0000-00JDT	XPGDWT-H1-0000-00JDT	
		R5	139	152			XPGDWT-H1-0000-00HDT	
CB	6500 K	S3	156	170			XPGDWT-H1-0000-00KCB	
		S2	148	161			XPGDWT-H1-0000-00JCB	
		R5	139	152			XPGDWT-H1-0000-00HCB	
E0	>6500 K	S4	164	179	XPGDWT-01-0000-00LE0	XPGDWT-B1-0000-00LE0		
		S3	156	170	XPGDWT-01-0000-00KE0	XPGDWT-B1-0000-00KE0	XPGDWT-H1-0000-00KE0	
		S2	148	161	XPGDWT-01-0000-00JE0	XPGDWT-B1-0000-00JE0	XPGDWT-H1-0000-00JE0	
		R5	139	152			XPGDWT-H1-0000-00HE0	
E1	6500 K	S4	164	179	XPGDWT-01-0000-00LE1	XPGDWT-B1-0000-00LE1		
		S3	156	170	XPGDWT-01-0000-00KE1	XPGDWT-B1-0000-00KE1	XPGDWT-H1-0000-00KE1	
		S2	148	161	XPGDWT-01-0000-00JE1	XPGDWT-B1-0000-00JE1	XPGDWT-H1-0000-00JE1	
		R5	139	152			XPGDWT-H1-0000-00HE1	
DV	6000 K	S5	172	187	XPGDWT-01-0000-00MDV	XPGDWT-B1-0000-00MDV		
		S4	164	179	XPGDWT-01-0000-00LDV	XPGDWT-B1-0000-00LDV		
		S3	156	170	XPGDWT-01-0000-00KDV	XPGDWT-B1-0000-00KDV	XPGDWT-H1-0000-00KDV	
		S2	148	161	XPGDWT-01-0000-00JDV	XPGDWT-B1-0000-00JDV	XPGDWT-H1-0000-00JDV	
		R5	139	152			XPGDWT-H1-0000-00HDV	
		R4	130	142				
		R3	122	133				XPGDWT-U1-0000-00FDV
		R2	114	124				XPGDWT-U1-0000-00EDV

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
50	6000 K	S5	172	187	XPGDWT-01-0000-00M50	XPGDWT-B1-0000-00M50		
		S4	164	179	XPGDWT-01-0000-00L50	XPGDWT-B1-0000-00L50		
		S3	156	170	XPGDWT-01-0000-00K50	XPGDWT-B1-0000-00K50	XPGDWT-H1-0000-00K50	
		S2	148	161	XPGDWT-01-0000-00J50	XPGDWT-B1-0000-00J50	XPGDWT-H1-0000-00J50	
		R5	139	152			XPGDWT-H1-0000-00H50	
		R4	130	142				
		R3	122	133				XPGDWT-U1-0000-00F50
		R2	114	124				XPGDWT-U1-0000-00E50
E2	5700 K	S5	172	187	XPGDWT-01-0000-00ME2	XPGDWT-B1-0000-00ME2		
		S4	164	179	XPGDWT-01-0000-00LE2	XPGDWT-B1-0000-00LE2		
		S3	156	170	XPGDWT-01-0000-00KE2	XPGDWT-B1-0000-00KE2	XPGDWT-H1-0000-00KE2	
		S2	148	161	XPGDWT-01-0000-00JE2	XPGDWT-B1-0000-00JE2	XPGDWT-H1-0000-00JE2	
		R5	139	152			XPGDWT-H1-0000-00HE2	
		R4	130	142				
		R3	122	133				XPGDWT-U1-0000-00FE2
		R2	114	124				XPGDWT-U1-0000-00EE2
2E	5700 K	S5	172	187		XPGDWT-B1-0000-00M2E		
		S4	164	179		XPGDWT-B1-0000-00L2E		
		S3	156	170		XPGDWT-B1-0000-00K2E	XPGDWT-H1-0000-00K2E	
		S2	148	161		XPGDWT-B1-0000-00J2E	XPGDWT-H1-0000-00J2E	
		R5	139	152			XPGDWT-H1-0000-00H2E	
		R4	130	142				
		R3	122	133				XPGDWT-U1-0000-00F2E
		R2	114	124				XPGDWT-U1-0000-00E2E

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
3E	5000 K	S5	172	187		XPGDWT-B1-0000-00M3E		
		S4	164	179		XPGDWT-B1-0000-00L3E		
		S3	156	170		XPGDWT-B1-0000-00K3E	XPGDWT-H1-0000-00K3E	
		S2	148	161		XPGDWT-B1-0000-00J3E	XPGDWT-H1-0000-00J3E	
		R5	139	152			XPGDWT-H1-0000-00H3E	
		R4	130	142				
		R3	122	133				XPGDWT-U1-0000-00F3E
		R2	114	124				XPGDWT-U1-0000-00E3E
E3	5000 K	S5	172	187	XPGDWT-01-0000-00ME3	XPGDWT-B1-0000-00ME3		
		S4	164	179	XPGDWT-01-0000-00LE3	XPGDWT-B1-0000-00LE3		
		S3	156	170	XPGDWT-01-0000-00KE3	XPGDWT-B1-0000-00KE3	XPGDWT-H1-0000-00KE3	
		S2	148	161	XPGDWT-01-0000-00JE3	XPGDWT-B1-0000-00JE3	XPGDWT-H1-0000-00JE3	
		R5	139	152			XPGDWT-H1-0000-00HE3	
		R4	130	142				
		R3	122	133				XPGDWT-U1-0000-00FE3
		R2	114	124				XPGDWT-U1-0000-00EE3
F4	4750K	S5	172	187		XPGDWT-B1-0000-00MF4		
		S4	164	179	XPGDWT-01-0000-00LF4	XPGDWT-B1-0000-00LF4		
		S3	156	170	XPGDWT-01-0000-00KF4	XPGDWT-B1-0000-00KF4	XPGDWT-H1-0000-00KF4	
		S2	148	161	XPGDWT-01-0000-00JF4	XPGDWT-B1-0000-00JF4	XPGDWT-H1-0000-00JF4	
		R5	139	152		XPGDWT-B1-0000-00HF4	XPGDWT-H1-0000-00HF4	
		R4	130	142			XPGDWT-H1-0000-00GF4	
		R3	122	133				XPGDWT-U1-0000-00FF4
		R2	114	124				XPGDWT-U1-0000-00EF4

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
4E	4500K	S5	172	187		XPGDWT-B1-0000-00M4E		
		S4	164	179		XPGDWT-B1-0000-00L4E		
		S3	156	170		XPGDWT-B1-0000-00K4E	XPGDWT-H1-0000-00K4E	
		S2	148	161		XPGDWT-B1-0000-00J4E	XPGDWT-H1-0000-00J4E	
		R5	139	152			XPGDWT-H1-0000-00H4E	
		R4	130	142			XPGDWT-H1-0000-00G4E	
		R3	122	133				XPGDWT-U1-0000-00F4E
		R2	114	124				XPGDWT-U1-0000-00E4E
		Q5	107	117				XPGDWT-U1-0000-00D4E
E4	4500 K	S5	172	187		XPGDWT-B1-0000-00ME4		
		S4	164	179	XPGDWT-01-0000-00LE4	XPGDWT-B1-0000-00LE4		
		S3	156	170	XPGDWT-01-0000-00KE4	XPGDWT-B1-0000-00KE4	XPGDWT-H1-0000-00KE4	
		S2	148	161	XPGDWT-01-0000-00JE4	XPGDWT-B1-0000-00JE4	XPGDWT-H1-0000-00JE4	
		R5	139	152		XPGDWT-B1-0000-00HE4	XPGDWT-H1-0000-00HE4	
		R4	130	142			XPGDWT-H1-0000-00GE4	
		R3	122	133				XPGDWT-U1-0000-00FE4
		R2	114	124				XPGDWT-U1-0000-00EE4
		Q5	107	117				XPGDWT-U1-0000-00DE4
F5	4200 K	S5	172	187		XPGDWT-B1-0000-00MF5		
		S4	164	179	XPGDWT-01-0000-00LF5	XPGDWT-B1-0000-00LF5		
		S3	156	170	XPGDWT-01-0000-00KF5	XPGDWT-B1-0000-00KF5		
		S2	148	161	XPGDWT-01-0000-00JF5	XPGDWT-B1-0000-00JF5	XPGDWT-H1-0000-00JF5	
		R5	139	152		XPGDWT-B1-0000-00HF5	XPGDWT-H1-0000-00HF5	
		R4	130	142			XPGDWT-H1-0000-00GF5	
		R3	122	133				XPGDWT-U1-0000-00FF5
		R2	114	124				XPGDWT-U1-0000-00EF5
		Q5	107	117				XPGDWT-U1-0000-00DF5

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
5E	4000 K	S5	172	187		XPGDWT-B1-0000-00M5E		
		S4	164	179		XPGDWT-B1-0000-00L5E		
		S3	156	170		XPGDWT-B1-0000-00K5E		
		S2	148	161		XPGDWT-B1-0000-00J5E	XPGDWT-H1-0000-00J5E	
		R5	139	152			XPGDWT-H1-0000-00H5E	
		R4	130	142			XPGDWT-H1-0000-00G5E	
		R3	122	133				XPGDWT-U1-0000-00F5E
		R2	114	124				XPGDWT-U1-0000-00E5E
		Q5	107	117				XPGDWT-U1-0000-00D5E
E5	4000 K	S5	172	187		XPGDWT-B1-0000-00ME5		
		S4	164	179	XPGDWT-01-0000-00LE5	XPGDWT-B1-0000-00LE5		
		S3	156	170	XPGDWT-01-0000-00KE5	XPGDWT-B1-0000-00KE5		
		S2	148	161	XPGDWT-01-0000-00JE5	XPGDWT-B1-0000-00JE5	XPGDWT-H1-0000-00JE5	
		R5	139	152		XPGDWT-B1-0000-00HE5	XPGDWT-H1-0000-00HE5	
		R4	130	142			XPGDWT-H1-0000-00GE5	
		R3	122	133				XPGDWT-U1-0000-00FE5
		R2	114	124				XPGDWT-U1-0000-00EE5
		Q5	107	117				XPGDWT-U1-0000-00DE5
F6	3700 K	S4	164	179	XPGDWT-01-0000-00LF6	XPGDWT-B1-0000-00LF6		
		S3	156	170	XPGDWT-01-0000-00KF6	XPGDWT-B1-0000-00KF6		
		S2	148	161	XPGDWT-01-0000-00JF6	XPGDWT-B1-0000-00JF6	XPGDWT-H1-0000-00JF6	
		R5	139	152	XPGDWT-01-0000-00HF6	XPGDWT-B1-0000-00HF6	XPGDWT-H1-0000-00HF6	
		R4	130	142			XPGDWT-H1-0000-00GF6	
		R3	122	133				
		R2	114	124				XPGDWT-U1-0000-00EF6
		Q5	107	117				XPGDWT-U1-0000-00DF6
		Q4	100	109				XPGDWT-U1-0000-00CF6

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
6E	3500 K	S4	164	179		XPGDWT-B1-0000-00L6E		
		S3	156	170		XPGDWT-B1-0000-00K6E		
		S2	148	161		XPGDWT-B1-0000-00J6E	XPGDWT-H1-0000-00J6E	
		R5	139	152		XPGDWT-B1-0000-00H6E	XPGDWT-H1-0000-00H6E	
		R4	130	142			XPGDWT-H1-0000-00G6E	
		R3	122	133				
		R2	114	124				XPGDWT-U1-0000-00E6E
		Q5	107	117				XPGDWT-U1-0000-00D6E
		Q4	100	109				XPGDWT-U1-0000-00C6E
6G	3500 K	R2	114	124				XPGDWT-U1-0000-00E6G
		Q5	107	117				XPGDWT-U1-0000-00D6G
		Q4	100	109				XPGDWT-U1-0000-00C6G
E6	3500 K	S4	164	179		XPGDWT-B1-0000-00LE6		
		S3	156	170	XPGDWT-01-0000-00KE6	XPGDWT-B1-0000-00KE6		
		S2	148	161	XPGDWT-01-0000-00JE6	XPGDWT-B1-0000-00JE6	XPGDWT-H1-0000-00JE6	
		R5	139	152	XPGDWT-01-0000-00HE6	XPGDWT-B1-0000-00HE6	XPGDWT-H1-0000-00HE6	
		R4	130	142			XPGDWT-H1-0000-00GE6	
		R3	122	133				
		R2	114	124				XPGDWT-U1-0000-00EE6
		Q5	107	117				XPGDWT-U1-0000-00DE6
		Q4	100	109				XPGDWT-U1-0000-00CE6

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
F7	3200K	S4	164	179		XPGDWT-B1-0000-00LF7		
		S3	156	170	XPGDWT-01-0000-00KF7	XPGDWT-B1-0000-00KF7		
		S2	148	161	XPGDWT-01-0000-00JF7	XPGDWT-B1-0000-00JF7		
		R5	139	152	XPGDWT-01-0000-00HF7	XPGDWT-B1-0000-00HF7	XPGDWT-H1-0000-00HF7	
		R4	130	142			XPGDWT-H1-0000-00GF7	
		R3	122	133				
		R2	114	124				XPGDWT-U1-0000-00EF7
		Q5	107	117				XPGDWT-U1-0000-00DF7
		Q4	100	109				XPGDWT-U1-0000-00CF7
7E	3000 K	S4	164	179		XPGDWT-B1-0000-00L7E		
		S3	156	170		XPGDWT-B1-0000-00K7E		
		S2	148	161		XPGDWT-B1-0000-00J7E		
		R5	139	152		XPGDWT-B1-0000-00H7E	XPGDWT-H1-0000-00H7E	
		R4	130	142			XPGDWT-H1-0000-00G7E	
		R3	122	133				
		R2	114	124				XPGDWT-U1-0000-00E7E
		Q5	107	117				XPGDWT-U1-0000-00D7E
		Q4	100	109				XPGDWT-U1-0000-00C7E
7G	3000 K	R2	114	124				XPGDWT-U1-0000-00E7G
		Q5	107	117				XPGDWT-U1-0000-00D7G
		Q4	100	109				XPGDWT-U1-0000-00C7G

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
E7	3000 K	S4	164	179		XPGDWT-B1-0000-00LE7		
		S3	156	170	XPGDWT-01-0000-00KE7	XPGDWT-B1-0000-00KE7		
		S2	148	161	XPGDWT-01-0000-00JE7	XPGDWT-B1-0000-00JE7		
		R5	139	152	XPGDWT-01-0000-00HE7	XPGDWT-B1-0000-00HE7	XPGDWT-H1-0000-00HE7	
		R4	130	142			XPGDWT-H1-0000-00GE7	
		R3	122	133				
		R2	114	124				XPGDWT-U1-0000-00EE7
		Q5	107	117				XPGDWT-U1-0000-00DE7
		Q4	100	109				XPGDWT-U1-0000-00CE7
F8	2850 K	R5	139	152			XPGDWT-H1-0000-00HF8	
		R4	130	142			XPGDWT-H1-0000-00GF8	
		R3	122	133			XPGDWT-H1-0000-00FF8	
		R2	114	124				XPGDWT-U1-0000-00EF8
		Q5	107	117				XPGDWT-U1-0000-00DF8
		Q4	100	109				XPGDWT-U1-0000-00CF8
8E	2700 K	S4	164	179		XPGDWT-B1-0000-00L8E		
		S3	156	170		XPGDWT-B1-0000-00K8E		
		S2	148	161		XPGDWT-B1-0000-00J8E		
		R5	139	152			XPGDWT-H1-0000-00H8E	
		R4	130	142			XPGDWT-H1-0000-00G8E	
		R3	122	133			XPGDWT-H1-0000-00F8E	
		R2	114	124				XPGDWT-U1-0000-00E8E
		Q5	107	117				XPGDWT-U1-0000-00D8E
		Q4	100	109				XPGDWT-U1-0000-00C8E
8G	2700 K	R2	114	124				XPGDWT-U1-0000-00E8G
		Q5	107	117				XPGDWT-U1-0000-00D8G
		Q4	100	109				XPGDWT-U1-0000-00C8G

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes			
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Typical	70 CRI Minimum	80 CRI Minimum	90 CRI Minimum
E8	2700K	S4	164	179		XPGDWT-B1-0000-00LE8		
		S3	156	170		XPGDWT-B1-0000-00KE8		
		S2	148	161		XPGDWT-B1-0000-00JE8		
		R5	139	152			XPGDWT-H1-0000-00HE8	
		R4	130	142			XPGDWT-H1-0000-00GE8	
		R3	122	133			XPGDWT-H1-0000-00FE8	
		R2	114	124				XPGDWT-U1-0000-00EE8
		Q5	107	117				XPGDWT-U1-0000-00DE8
		Q4	100	109				XPGDWT-U1-0000-00CE8
EA	2200 K	R3	122	133		XPGDWT-B1-0000-00FEA		
		R2	114	124		XPGDWT-B1-0000-00EEA		

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (S LINE) - T_J = 85 °C

The following table provides order codes for XLamp XP-G3 White (S Line) LEDs. For a complete description of the order code nomenclature, please see the Bin and Order Code Formats section (page 39). For definitions of the chromaticity kits, please see the Cree's Standard Chromaticity Kits section (page 38).

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Minimum
E1	6500 K	S4	164	179	XPGDWT-BS-0000-00LE1
		S3	156	170	XPGDWT-BS-0000-00KE1
DV	6000 K	S5	172	187	XPGDWT-BS-0000-00MDV
		S4	164	179	XPGDWT-BS-0000-00LDV
		S3	156	170	XPGDWT-BS-0000-00KDV
50	6000 K	S4	164	179	XPGDWT-BS-0000-00L50
		S3	156	170	XPGDWT-BS-0000-00K50
E2	5700 K	S5	172	187	XPGDWT-BS-0000-00ME2
		S4	164	179	XPGDWT-BS-0000-00LE2
		S3	156	170	XPGDWT-BS-0000-00KE2
2E	5700 K	S5	172	187	XPGDWT-BS-0000-00M2E
		S4	164	179	XPGDWT-BS-0000-00L2E
		S3	156	170	XPGDWT-BS-0000-00K2E
3E	5000 K	S6	180	196	XPGDWT-BS-0000-00N3E
		S5	172	187	XPGDWT-BS-0000-00M3E
		S4	164	179	XPGDWT-BS-0000-00L3E
E3	5000 K	S6	180	196	XPGDWT-BS-0000-00NE3
		S5	172	187	XPGDWT-BS-0000-00ME3
		S4	164	179	XPGDWT-BS-0000-00LE3
4E	4500K	S6	180	196	XPGDWT-BS-0000-00N4E
		S5	172	187	XPGDWT-BS-0000-00M4E
		S4	164	179	XPGDWT-BS-0000-00L4E
E4	4500 K	S6	180	196	XPGDWT-BS-0000-00NE4
		S5	172	187	XPGDWT-BS-0000-00ME4
		S4	164	179	XPGDWT-BS-0000-00LE4

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - WHITE (S LINE) - T_J = 85 °C (CONTINUED)

Chromaticity		Minimum Luminous Flux (lm) @ 350 mA			Order Codes
Kit	CCT	Code	Flux (lm) @ 85 °C	Flux (lm) @25 °C*	70 CRI Minimum
5E	4000 K	S6	180	196	XPGDWT-BS-0000-00N5E
		S5	172	187	XPGDWT-BS-0000-00M5E
		S4	164	179	XPGDWT-BS-0000-00L5E
E5	4000 K	S6	180	196	XPGDWT-BS-0000-00NE5
		S5	172	187	XPGDWT-BS-0000-00ME5
		S4	164	179	XPGDWT-BS-0000-00LE5
6E	3500 K	S4	164	179	XPGDWT-BS-0000-00L6E
		S3	156	170	XPGDWT-BS-0000-00K6E
		S2	148	161	XPGDWT-BS-0000-00J6E
E6	3500 K	S4	164	179	XPGDWT-BS-0000-00LE6
		S3	156	170	XPGDWT-BS-0000-00KE6
		S2	148	161	XPGDWT-BS-0000-00JE6
F7	3200K	S4	164	179	XPGDWT-BS-0000-00LF7
		S3	156	170	XPGDWT-BS-0000-00KF7
		S2	148	161	XPGDWT-BS-0000-00JF7
7E	3000 K	S4	164	179	XPGDWT-BS-0000-00L7E
		S3	156	170	XPGDWT-BS-0000-00K7E
		S2	148	161	XPGDWT-BS-0000-00J7E
E7	3000 K	S4	164	179	XPGDWT-BS-0000-00LE7
		S3	156	170	XPGDWT-BS-0000-00KE7
		S2	148	161	XPGDWT-BS-0000-00JE7

Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

* Flux values @ 25 °C are calculated and for reference only.

FLUX CHARACTERISTICS - COLOR (STANDARD) - T_J = 25 °C

The following table provides the order code for XLamp XP-G3 color (Standard) LEDs. For a complete description of the order code nomenclature, please see the Bin and Order Code Formats section (page 39).

Color	PWL Kit Code	Peak Wavelength Range				Typical Dominant Wavelength (nm) @ 350 mA, T_j=25 °C	Minimum Radiant Flux (mW) @ 350 mA,		Calculated Minimum PPF (µmol/s) @ 350 mA, 25 °C	Order Code
		Minimum		Maximum			Code	Flux (mW) @25 °C		
		Group	PWL (nm)	Group	PWL (nm)					
Royal Blue	01	H26	440	H47	455	451	E4	635	2.41	XPGDRY-L1-0000-00401
						451	F2	680	2.58	XPGDRY-L1-0000-00501
						451	F4	730	2.77	XPGDRY-L1-0000-00601

Color	PWL Kit Code	Peak Wavelength Range				Typical Dominant Wavelength (nm) @ 350 mA, T_j=25 °C	Minimum Radiant Flux (mW) @ 350 mA,		Calculated Minimum PPF (µmol/s) @ 350 mA, 25 °C	Order Code
		Minimum		Maximum			Code	Flux (mW) @25 °C		
		Group	PWL (nm)	Group	PWL (nm)					
Photo Red (Standard)	01	P2	650	P5	670	645	31	475	2.58	XPGDPR-L1-0000-00E01
		P2	650	P5	670	645	32	500	2.72	XPGDPR-L1-0000-00F01

FLUX CHARACTERISTICS - COLOR (S LINE) - T_J = 25 °C

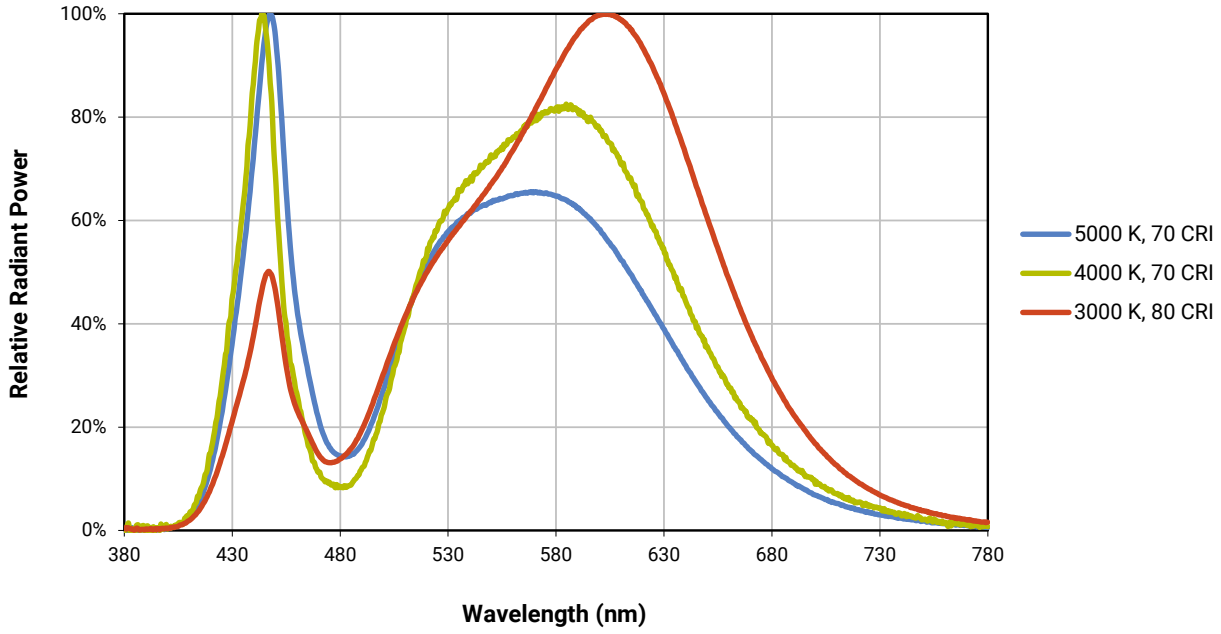
The following table provides the order code for XLamp XP-G3 color (S Line) LEDs. For a complete description of the order code nomenclature, please see the Bin and Order Code Formats section (page 39

Color	PWL Kit Code	Peak Wavelength Range				Typical Dominant Wavelength (nm) @ 350 mA, T_j=25 °C	Minimum Radiant Flux (mW) @ 350 mA,		Calculated Minimum PPF (µmol/s) @ 350 mA, 25 °C	Order Code
		Minimum		Maximum			Code	Flux (mW) @25 °C		
		Group	PWL (nm)	Group	PWL (nm)					
Photo Red (S Line)	01	P2	650	P5	670	645	32	500	2.72	XPGDPR-LS-0000-00F01
		P2	650	P5	670	645	33	525	2.85	XPGDPR-LS-0000-00G01

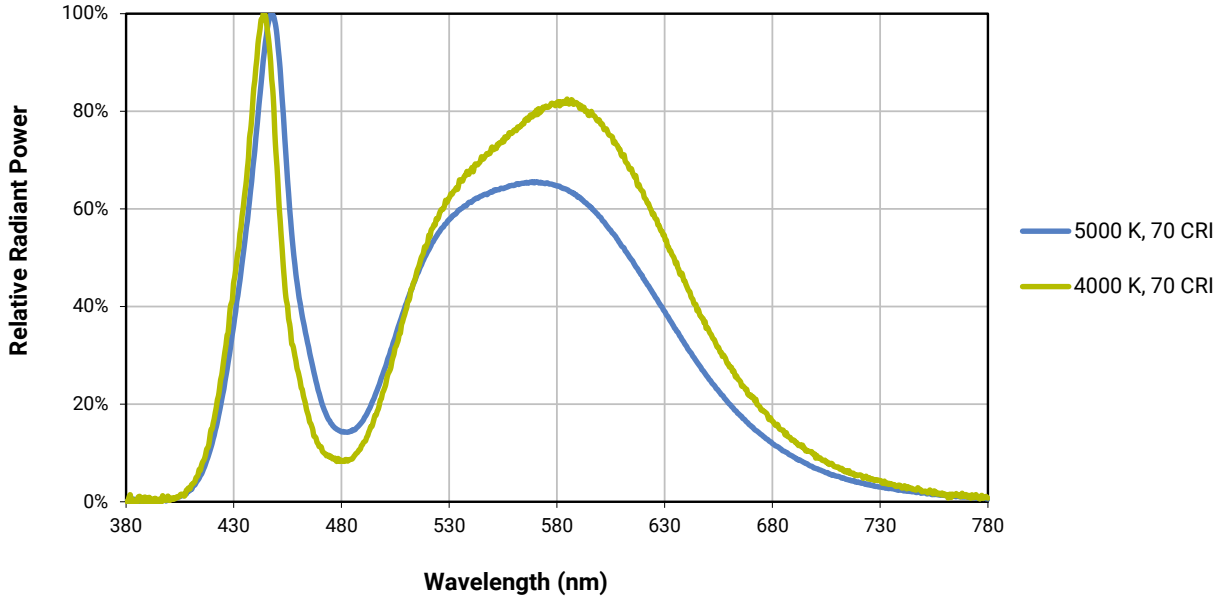
Notes

- Cree maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 41).
- Cree XLamp XP-G3 LED order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.
- Dominant wavelengths are calculated based on peak wavelength specifications and are for reference only.
- Calculated Photosynthetic Photon Flux (PPF) values are for reference only.

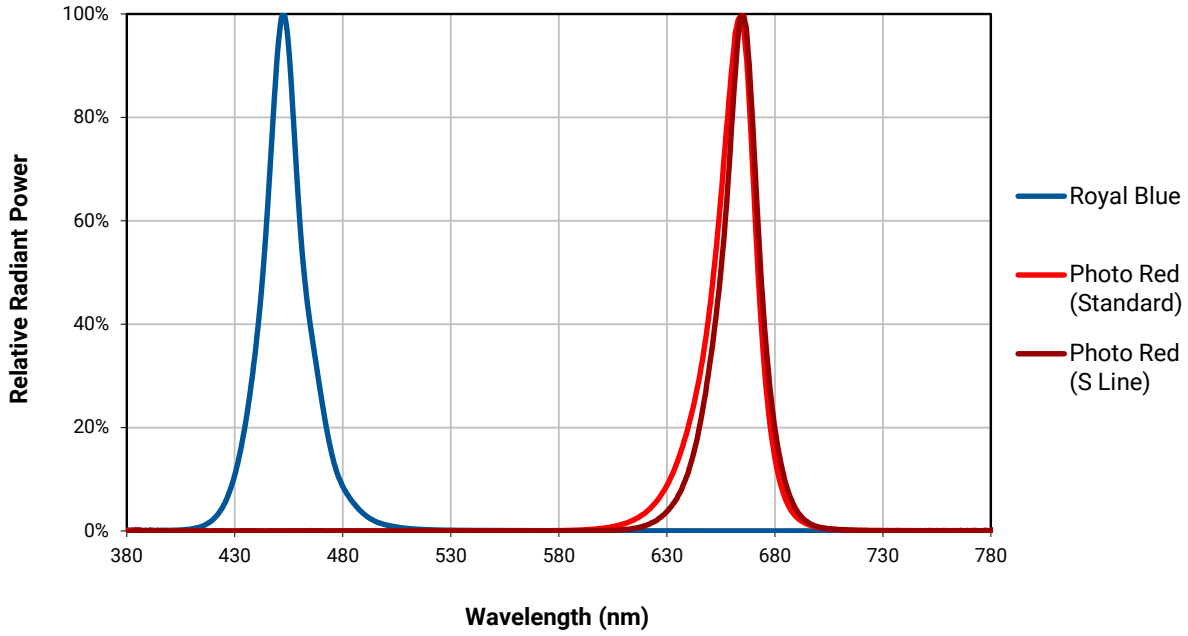
RELATIVE SPECTRAL POWER DISTRIBUTION - WHITE (STANDARD)



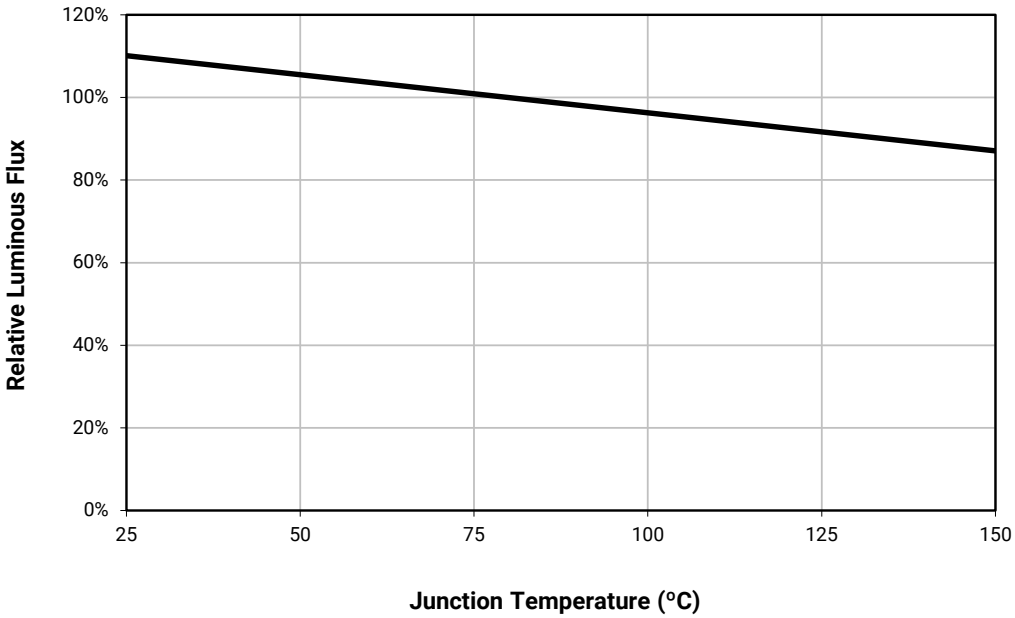
RELATIVE SPECTRAL POWER DISTRIBUTION - WHITE (S LINE)



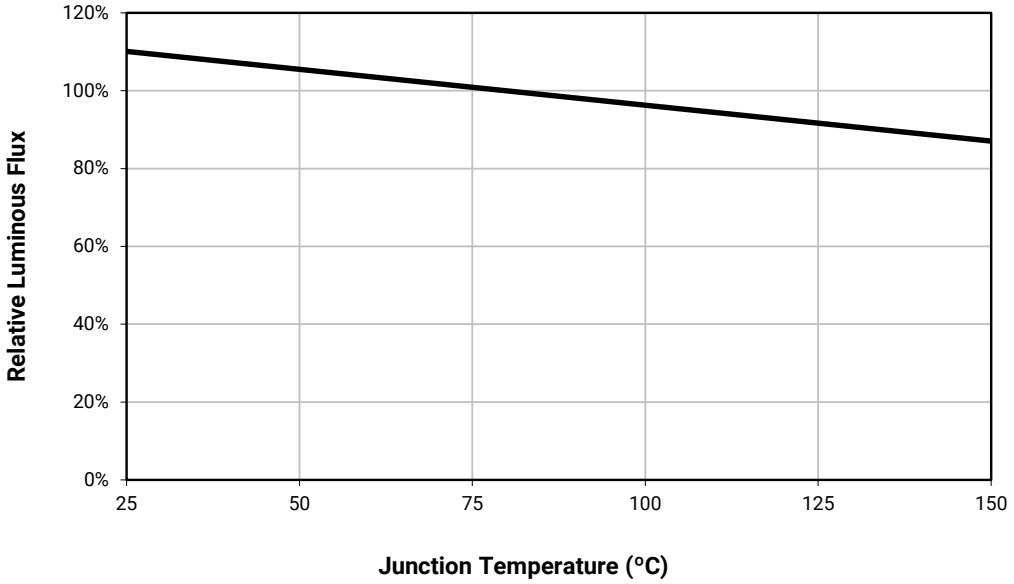
RELATIVE SPECTRAL POWER DISTRIBUTION - COLOR



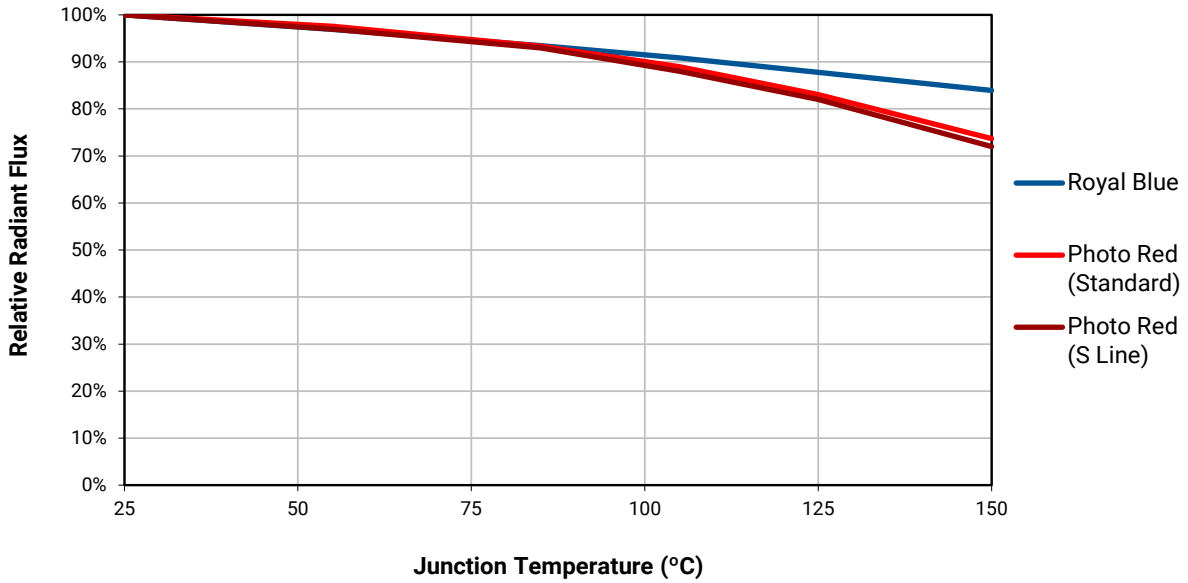
RELATIVE FLUX VS. JUNCTION TEMPERATURE - WHITE (STANDARD) - I_F = 350 mA



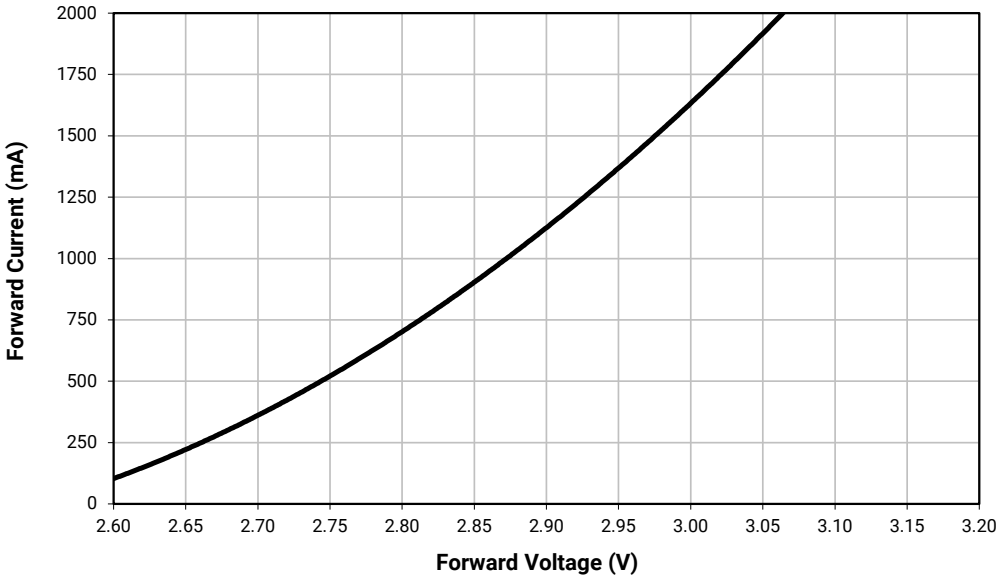
RELATIVE FLUX VS. JUNCTION TEMPERATURE - WHITE (S LINE) - I_F = 350 mA



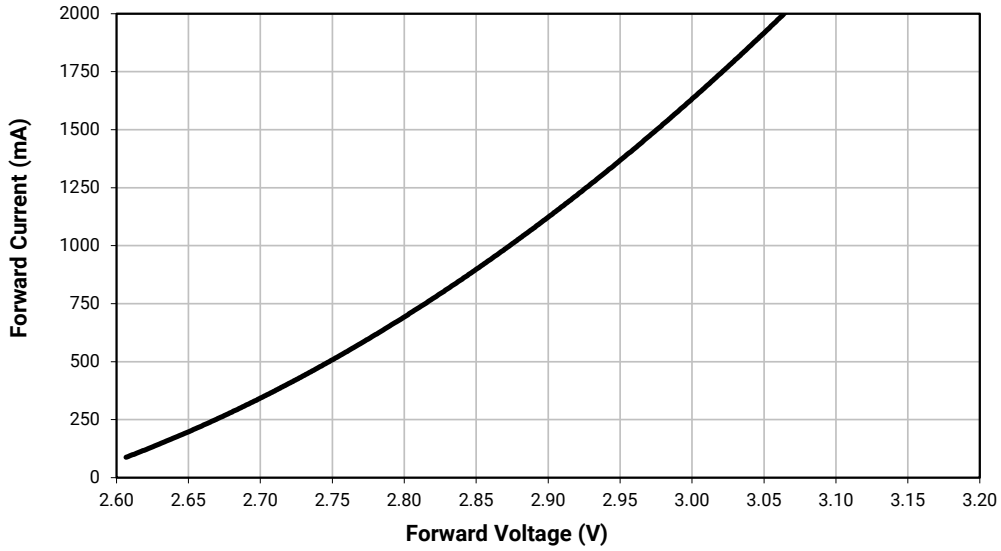
RELATIVE FLUX VS. JUNCTION TEMPERATURE - COLOR - I_F = 350 mA



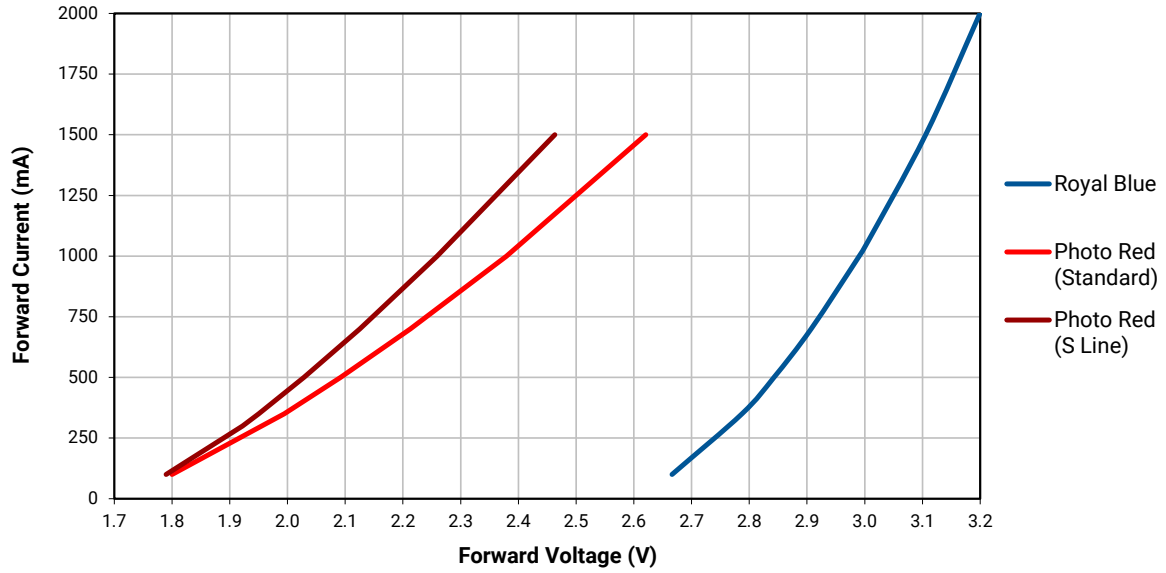
ELECTRICAL CHARACTERISTICS - WHITE (STANDARD) - T_J = 85 °C



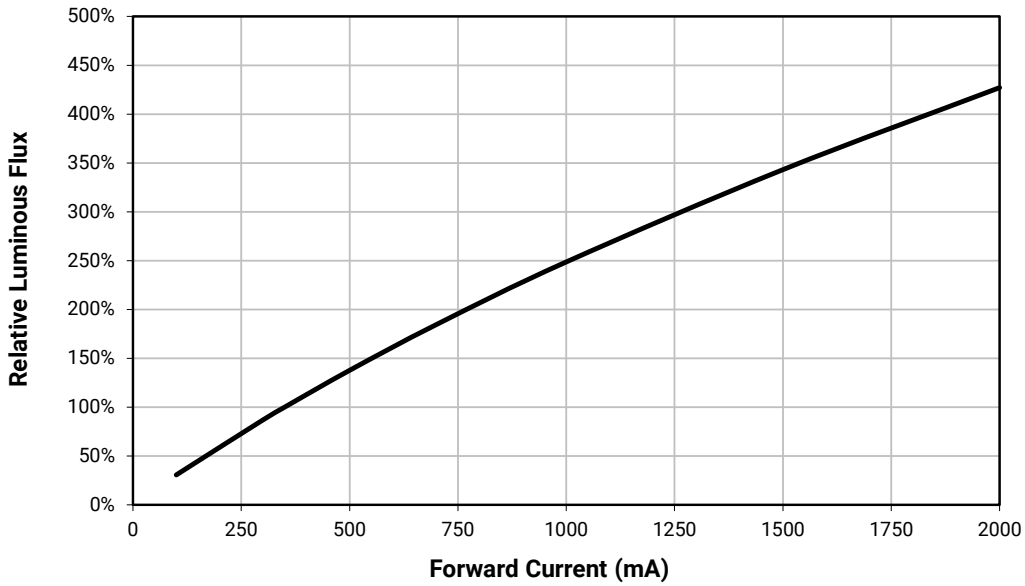
ELECTRICAL CHARACTERISTICS - WHITE (S LINE) - T_J = 85 °C



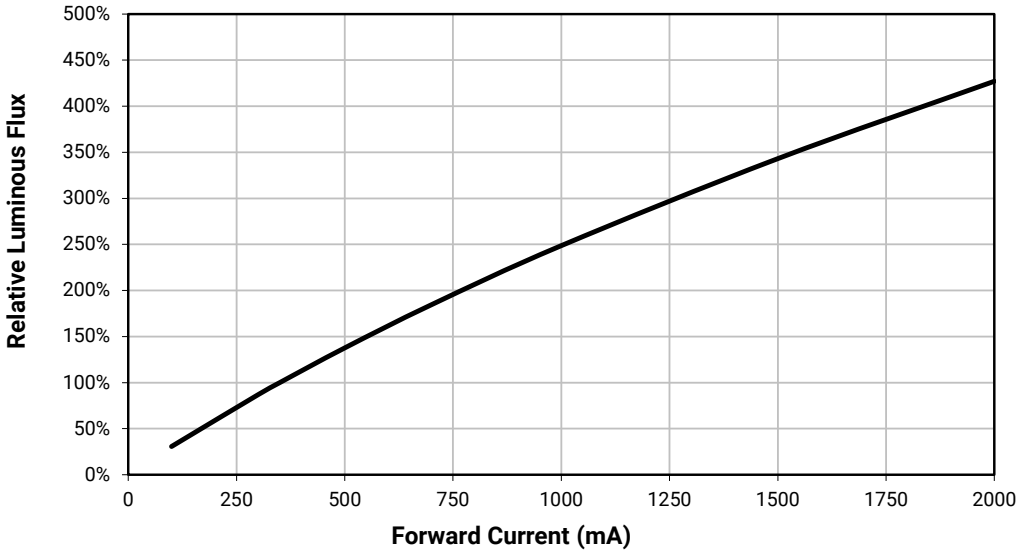
ELECTRICAL CHARACTERISTICS - COLOR (T_J = 25 °C)



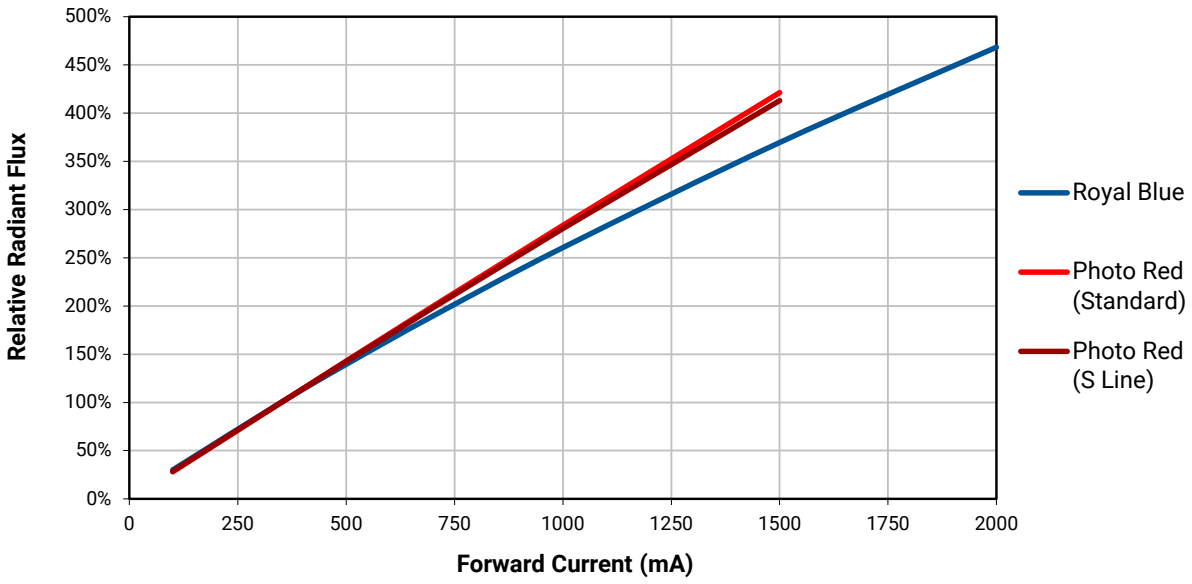
RELATIVE LUMINOUS FLUX VS. CURRENT - WHITE (STANDARD) - T_J = 85 °C



RELATIVE LUMINOUS FLUX VS. CURRENT - WHITE (S LINE) - T_J = 85 °C

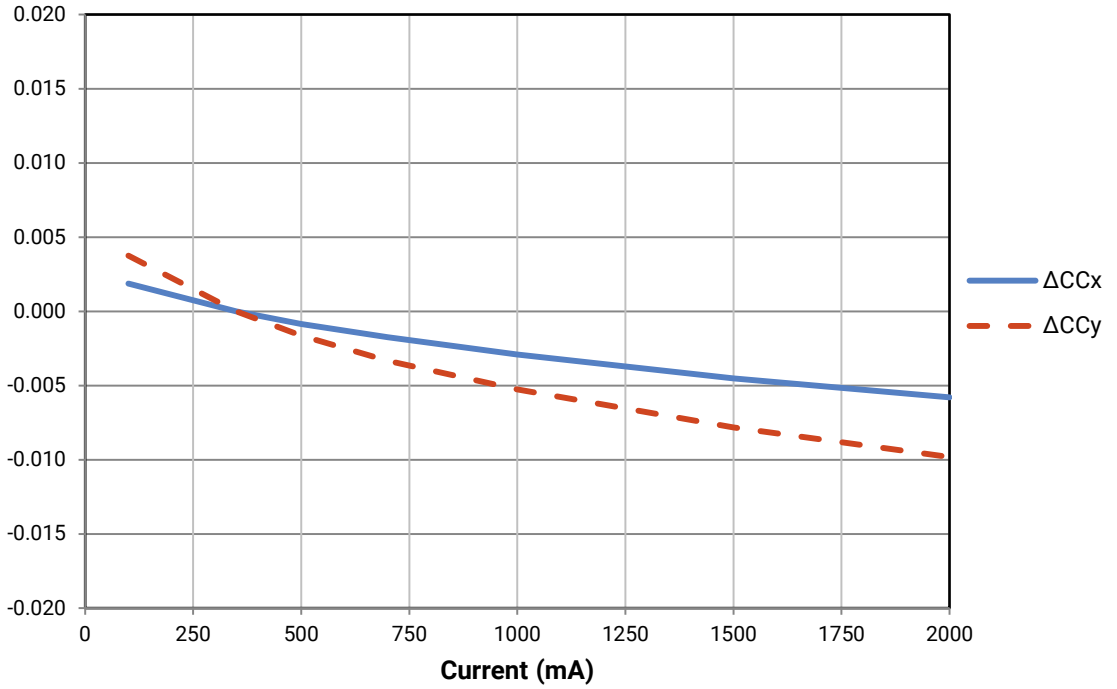


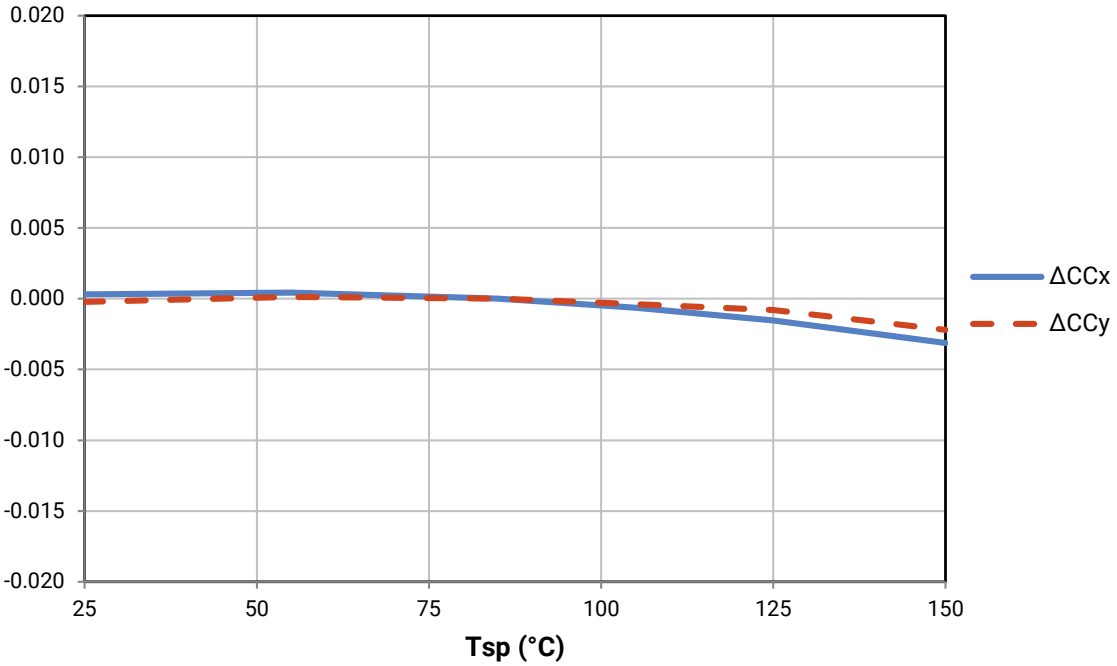
RELATIVE RADIANT FLUX VS. CURRENT - COLOR (T_J = 25 °C)



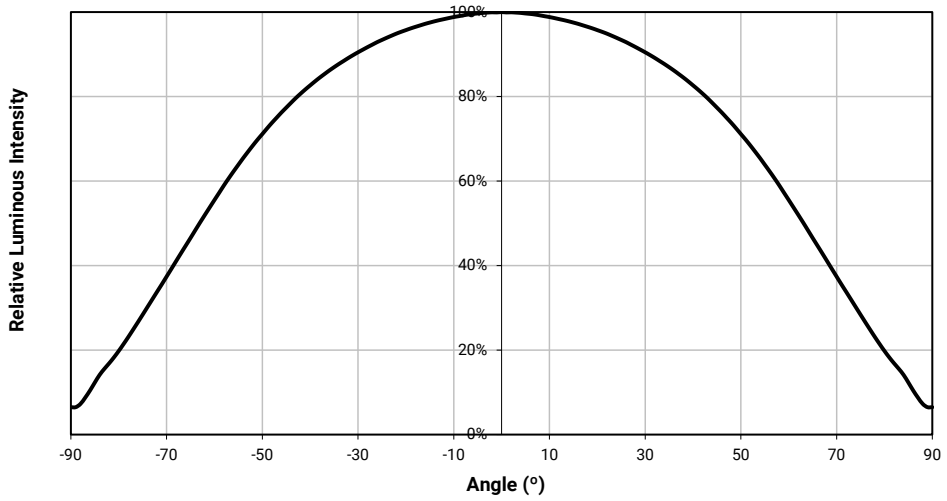
RELATIVE CHROMATICITY VS. CURRENT AND TEMPERATURE

Data shown is representative of typical XP-G3 70 CRI performance.

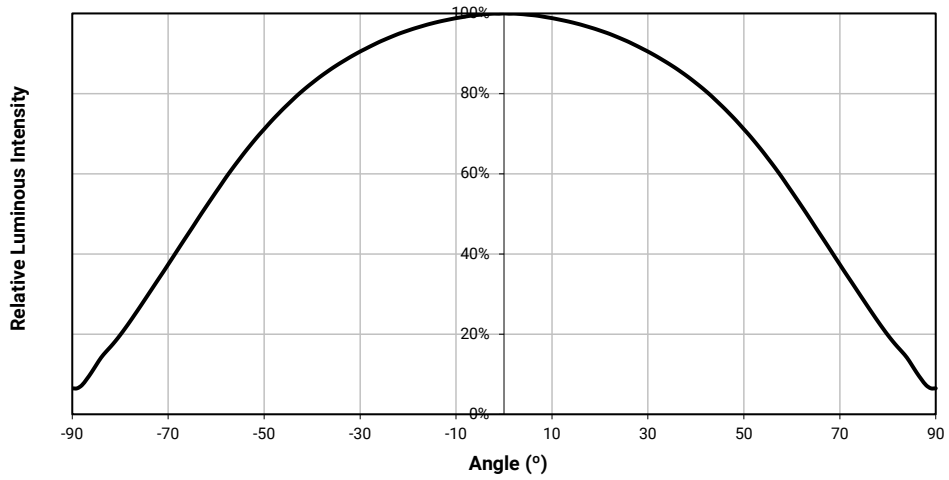




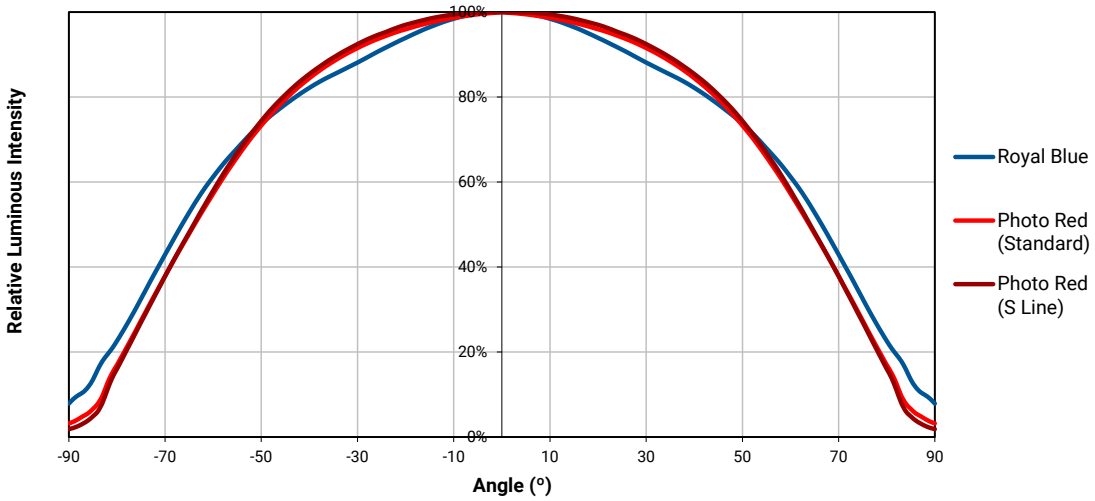
TYPICAL SPATIAL DISTRIBUTION - WHITE (STANDARD)



TYPICAL SPATIAL DISTRIBUTION - WHITE (S LINE)

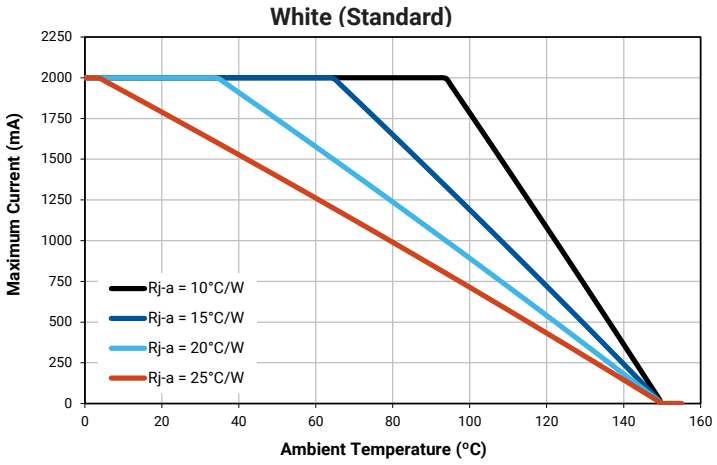


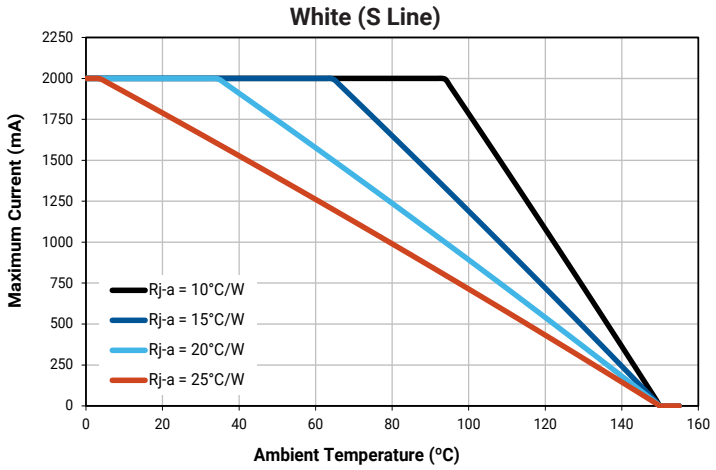
TYPICAL SPATIAL DISTRIBUTION - COLOR

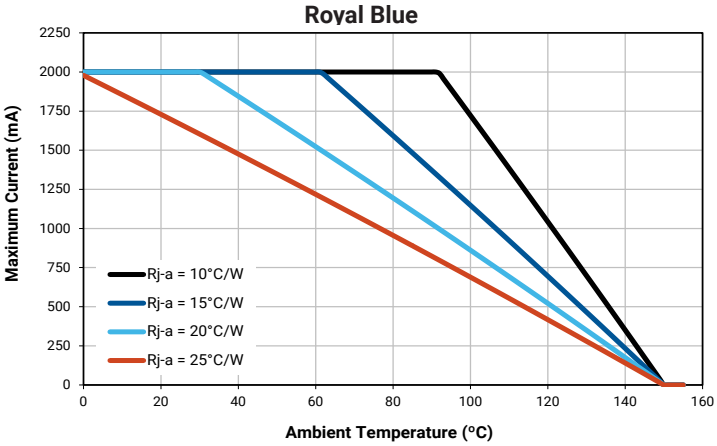


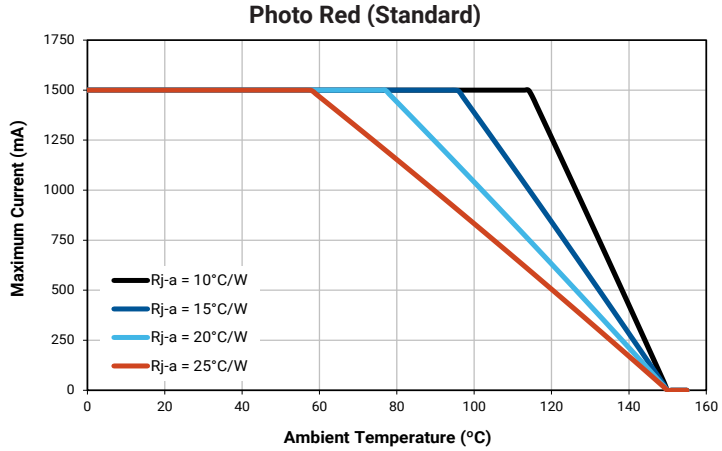
THERMAL DESIGN

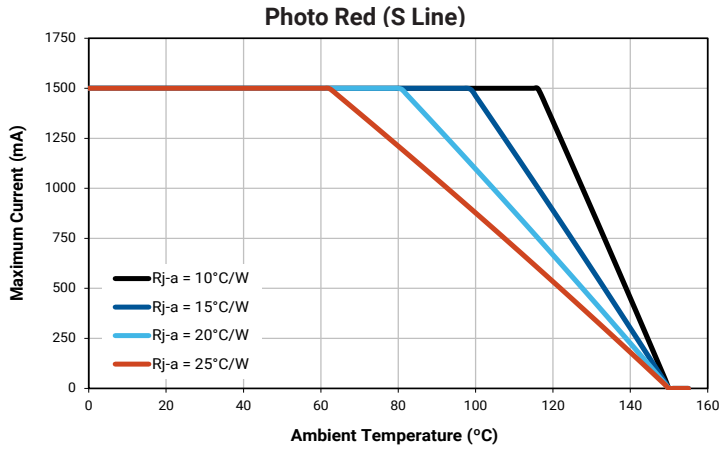
The maximum forward current is determined by the thermal resistance between the LED junction and ambient. It is crucial for the end product to be designed in a manner that minimizes the thermal resistance from the solder point to ambient in order to optimize lamp life and optical characteristics.











PERFORMANCE GROUPS - LUMINOUS FLUX

XLamp XP-G3 White LEDs are tested for luminous flux and placed into one of the following luminous-flux groups.

Group Code	Minimum Luminous Flux (lm) @ 350 mA	Maximum Luminous Flux (lm) @ 350 mA
Q4	100	107
Q5	107	114
R2	114	122
R3	122	130
R4	130	139
R5	139	148
S2	148	156
S3	156	164
S4	164	172
S5	172	180
S6	180	188
S7	188	196

PERFORMANCE GROUPS - RADIANT FLUX (T_J = 25 °C)

XLamp XP-G3 Royal Blue LEDs are tested for radiant flux and placed into one of the following bins.

Group Code	Minimum Radiant Flux (mW)	Maximum Radiant Flux (mW)	Calculated PPF (µmol/s)	
			Minimum	Maximum
E4	635	680	2.41	2.58
F2	680	730	2.58	2.77
F4	730	780	2.77	2.96

XLamp XP-G3 Photo Red (Standard) LEDs are tested for radiant flux and placed into one of the following bins.

Group Code	Minimum Radiant Flux (mW)	Maximum Radiant Flux (mW)	Calculated PPF (µmol/s)	
			Minimum	Maximum
31	475	500	2.58	2.72
32	500	525	2.72	2.85

XLamp XP-G3 Photo Red (S Line) LEDs are tested for radiant flux and placed into one of the following bins.

Group Code	Minimum Radiant Flux (mW)	Maximum Radiant Flux (mW)	Calculated PPF (µmol/s)	
			Minimum	Maximum
32	500	525	2.72	2.85
33	525	550	2.85	2.99

Note

- Calculated PPF values are for reference only.

PERFORMANCE GROUPS - PEAK WAVELENGTH (T_J = 25 °C)

XLamp XP-G3 Royal Blue LEDs are tested for peak wavelength and sorted into one of the PWL bins defined below.

Group Code	Minimum Peak Wavelength (nm)	Maximum Peak Wavelength (nm)	Typical Dominant Wavelength (nm)
H26	440.0	442.5	446.5
H27	442.5	445.0	449.0
H36	445.0	447.5	451.5
H37	447.5	450.0	454.0
H46	450.0	452.5	456.5
H47	452.5	455.0	459.0

XLamp XP-G3 Photo Red LEDs are tested for peak wavelength and sorted into one of the PWL bins defined below.

Group Code	Minimum Peak Wavelength (nm)	Maximum Peak Wavelength (nm)	Typical Dominant Wavelength (nm)
P2	650	655	638
P3	655	660	643
P4	660	665	647
P5	665	670	652

Note

- Typical dominant wavelength values are calculated and for reference only.

PERFORMANCE GROUPS - FORWARD VOLTAGE

XLamp XP-G3 Photo Red LEDs are tested for forward voltage and sorted into one of the forward voltage bins defined below.

Forward Voltage Group	Minimum Forward Voltage (V) @ 350 mA	Maximum Forward Voltage (V) @ 350 mA
W	1.8	1.9
X	1.9	2.0
Y	2.0	2.1
Z	2.1	2.2

PERFORMANCE GROUPS - CHROMATICITY

Region	x	y	Region	x	y	Region	x	y	Region	x	y
0A	0.2950	0.2970	0B	0.2920	0.3060	0C	0.2984	0.3133	0D	0.2984	0.3133
	0.2920	0.3060		0.2895	0.3135		0.2962	0.3220		0.3048	0.3207
	0.2984	0.3133		0.2962	0.3220		0.3028	0.3304		0.3068	0.3113
	0.3009	0.3042		0.2984	0.3133		0.3048	0.3207		0.3009	0.3042
0R	0.2980	0.2880	0S	0.2895	0.3135	0T	0.2962	0.3220	0U	0.3037	0.2937
	0.2950	0.2970		0.2870	0.3210		0.2937	0.3312		0.3009	0.3042
	0.3009	0.3042		0.2937	0.3312		0.3005	0.3415		0.3068	0.3113
	0.3037	0.2937		0.2962	0.3220		0.3028	0.3304		0.3093	0.2993
1A	0.3048	0.3207	1B	0.3028	0.3304	1C	0.3115	0.3391	1D	0.3130	0.3290
	0.3130	0.3290		0.3115	0.3391		0.3205	0.3481		0.3213	0.3373
	0.3144	0.3186		0.3130	0.3290		0.3213	0.3373		0.3221	0.3261
	0.3068	0.3113		0.3048	0.3207		0.3130	0.3290		0.3144	0.3186
1R	0.3068	0.3113	1S	0.3005	0.3415	1T	0.3099	0.3509	1U	0.3144	0.3186
	0.3144	0.3186		0.3099	0.3509		0.3196	0.3602		0.3221	0.3261
	0.3161	0.3059		0.3115	0.3391		0.3205	0.3481		0.3231	0.3120
	0.3093	0.2993		0.3028	0.3304		0.3115	0.3391		0.3161	0.3059
2A	0.3215	0.3350	2B	0.3207	0.3462	2C	0.3290	0.3538	2D	0.3290	0.3417
	0.3290	0.3417		0.3290	0.3538		0.3376	0.3616		0.3371	0.3490
	0.3290	0.3300		0.3290	0.3417		0.3371	0.3490		0.3366	0.3369
	0.3222	0.3243		0.3215	0.3350		0.3290	0.3417		0.3290	0.3300
2R	0.3222	0.3243	2S	0.3196	0.3602	2T	0.3290	0.3690	2U	0.3290	0.3300
	0.3290	0.3300		0.3290	0.3690		0.3381	0.3762		0.3366	0.3369
	0.3290	0.3180		0.3290	0.3538		0.3376	0.3616		0.3361	0.3245
	0.3231	0.3120		0.3207	0.3462		0.3290	0.3538		0.3290	0.3180
3A	0.3371	0.3490	3B	0.3376	0.3616	3C	0.3463	0.3687	3D	0.3451	0.3554
	0.3451	0.3554		0.3463	0.3687		0.3551	0.3760		0.3533	0.3620
	0.3440	0.3427		0.3451	0.3554		0.3533	0.3620		0.3515	0.3487
	0.3366	0.3369		0.3371	0.3490		0.3451	0.3554		0.3440	0.3427
3R	0.3366	0.3369	3S	0.3381	0.3762						
	0.3440	0.3428		0.3480	0.3840						
	0.3429	0.3307		0.3463	0.3687						
	0.3361	0.3245		0.3376	0.3616						
4A	0.3530	0.3597	4B	0.3548	0.3736	4C	0.3641	0.3804	4D	0.3615	0.3659
	0.3615	0.3659		0.3641	0.3804		0.3736	0.3874		0.3702	0.3722
	0.3590	0.3521		0.3615	0.3659		0.3702	0.3722		0.3670	0.3578
	0.3512	0.3465		0.3530	0.3597		0.3615	0.3659		0.3590	0.3521

PERFORMANCE GROUPS - CHROMATICITY (CONTINUED)

Region	x	y	Region	x	y	Region	x	y	Region	x	y
5A1	0.3670	0.3578	5A2	0.3686	0.3649	5A3	0.3744	0.3685	5A4	0.3726	0.3612
	0.3686	0.3649		0.3702	0.3722		0.3763	0.3760		0.3744	0.3685
	0.3744	0.3685		0.3763	0.3760		0.3825	0.3798		0.3804	0.3721
	0.3726	0.3612		0.3744	0.3685		0.3804	0.3721		0.3783	0.3646
5B1	0.3702	0.3722	5B2	0.3719	0.3797	5B3	0.3782	0.3837	5B4	0.3763	0.3760
	0.3719	0.3797		0.3736	0.3874		0.3802	0.3916		0.3782	0.3837
	0.3782	0.3837		0.3802	0.3916		0.3869	0.3958		0.3847	0.3877
	0.3763	0.3760		0.3782	0.3837		0.3847	0.3877		0.3825	0.3798
5C1	0.3825	0.3798	5C2	0.3847	0.3877	5C3	0.3912	0.3917	5C4	0.3887	0.3836
	0.3847	0.3877		0.3869	0.3958		0.3937	0.4001		0.3912	0.3917
	0.3912	0.3917		0.3937	0.4001		0.4006	0.4044		0.3978	0.3958
	0.3887	0.3836		0.3912	0.3917		0.3978	0.3958		0.3950	0.3875
5D1	0.3783	0.3646	5D2	0.3804	0.3721	5D3	0.3863	0.3758	5D4	0.3840	0.3681
	0.3804	0.3721		0.3825	0.3798		0.3887	0.3836		0.3863	0.3758
	0.3863	0.3758		0.3887	0.3836		0.3950	0.3875		0.3924	0.3794
	0.3840	0.3681		0.3863	0.3758		0.3924	0.3794		0.3898	0.3716
6A1	0.3889	0.3690	6A2	0.3915	0.3768	6A3	0.3981	0.3800	6A4	0.3953	0.3720
	0.3915	0.3768		0.3941	0.3848		0.4010	0.3882		0.3981	0.3800
	0.3981	0.3800		0.4010	0.3882		0.4080	0.3916		0.4048	0.3832
	0.3953	0.3720		0.3981	0.3800		0.4048	0.3832		0.4017	0.3751
6B1	0.3941	0.3848	6B2	0.3968	0.3930	6B3	0.4040	0.3966	6B4	0.4010	0.3882
	0.3968	0.3930		0.3996	0.4015		0.4071	0.4052		0.4040	0.3966
	0.4040	0.3966		0.4071	0.4052		0.4146	0.4089		0.4113	0.4001
	0.4010	0.3882		0.4040	0.3966		0.4113	0.4001		0.4080	0.3916
6C1	0.4080	0.3916	6C2	0.4113	0.4001	6C3	0.4186	0.4037	6C4	0.4150	0.3950
	0.4113	0.4001		0.4146	0.4089		0.4222	0.4127		0.4186	0.4037
	0.4186	0.4037		0.4222	0.4127		0.4299	0.4165		0.4259	0.4073
	0.4150	0.3950		0.4186	0.4037		0.4259	0.4073		0.4221	0.3984
6D1	0.4017	0.3751	6D2	0.4048	0.3832	6D3	0.4116	0.3865	6D4	0.4082	0.3782
	0.4048	0.3832		0.4080	0.3916		0.4150	0.3950		0.4116	0.3865
	0.4116	0.3865		0.4150	0.3950		0.4221	0.3984		0.4183	0.3898
	0.4082	0.3782		0.4116	0.3865		0.4183	0.3898		0.4147	0.3814
7A1	0.4147	0.3814	7A2	0.4183	0.3898	7A3	0.4242	0.3919	7A4	0.4203	0.3833
	0.4183	0.3898		0.4221	0.3984		0.4281	0.4006		0.4242	0.3919
	0.4242	0.3919		0.4281	0.4006		0.4342	0.4028		0.4300	0.3939
	0.4203	0.3833		0.4242	0.3919		0.4300	0.3939		0.4259	0.3853

PERFORMANCE GROUPS - CHROMATICITY (CONTINUED)

Region	x	y	Region	x	y	Region	x	y	Region	x	y
7B1	0.4221	0.3984	7B2	0.4259	0.4073	7B3	0.4322	0.4096	7B4	0.4281	0.4006
	0.4259	0.4073		0.4299	0.4165		0.4364	0.4188		0.4322	0.4096
	0.4322	0.4096		0.4364	0.4188		0.4430	0.4212		0.4385	0.4119
	0.4281	0.4006		0.4322	0.4096		0.4385	0.4119		0.4342	0.4028
7C1	0.4342	0.4028	7C2	0.4385	0.4119	7C3	0.4449	0.4141	7C4	0.4403	0.4049
	0.4385	0.4119		0.4430	0.4212		0.4496	0.4236		0.4449	0.4141
	0.4449	0.4141		0.4496	0.4236		0.4562	0.4260		0.4513	0.4164
	0.4403	0.4049		0.4449	0.4141		0.4513	0.4164		0.4465	0.4071
7D1	0.4259	0.3853	7D2	0.4300	0.3939	7D3	0.4359	0.3960	7D4	0.4316	0.3873
	0.4300	0.3939		0.4342	0.4028		0.4403	0.4049		0.4359	0.3960
	0.4359	0.3960		0.4403	0.4049		0.4465	0.4071		0.4418	0.3981
	0.4316	0.3873		0.4359	0.3960		0.4418	0.3981		0.4373	0.3893
8A1	0.4373	0.3893	8A2	0.4418	0.3981	8A3	0.4475	0.3994	8A4	0.4428	0.3906
	0.4418	0.3981		0.4465	0.4071		0.4523	0.4085		0.4475	0.3994
	0.4475	0.3994		0.4523	0.4085		0.4582	0.4099		0.4532	0.4008
	0.4428	0.3906		0.4475	0.3994		0.4532	0.4008		0.4483	0.3919
8B1	0.4465	0.4071	8B2	0.4513	0.4164	8B3	0.4573	0.4178	8B4	0.4523	0.4085
	0.4513	0.4164		0.4562	0.4260		0.4624	0.4274		0.4573	0.4178
	0.4573	0.4178		0.4624	0.4274		0.4687	0.4289		0.4634	0.4193
	0.4523	0.4085		0.4573	0.4178		0.4634	0.4193		0.4582	0.4099
8C1	0.4582	0.4099	8C2	0.4634	0.4193	8C3	0.4695	0.4207	8C4	0.4641	0.4112
	0.4634	0.4193		0.4687	0.4289		0.4750	0.4304		0.4695	0.4207
	0.4695	0.4207		0.4750	0.4304		0.4813	0.4319		0.4756	0.4221
	0.4641	0.4112		0.4695	0.4207		0.4756	0.4221		0.4700	0.4126
8D1	0.4483	0.3919	8D2	0.4532	0.4008	8D3	0.4589	0.4021	8D4	0.4538	0.3931
	0.4532	0.4008		0.4582	0.4099		0.4641	0.4112		0.4589	0.4021
	0.4589	0.4021		0.4641	0.4112		0.4700	0.4126		0.4646	0.4034
	0.4538	0.3931		0.4589	0.4021		0.4646	0.4034		0.4593	0.3944
AA1	0.4822	0.3973	AA2	0.4884	0.4067	AA3	0.4942	0.4066	AA4	0.4879	0.3972
	0.4884	0.4067		0.4946	0.4162		0.5006	0.4160		0.4942	0.4066
	0.4942	0.4066		0.5006	0.4160		0.5066	0.4158		0.5001	0.4064
	0.4879	0.3972		0.4942	0.4066		0.5001	0.4064		0.4936	0.3970
AB1	0.4946	0.4162	AB2	0.5008	0.4256	AB3	0.5069	0.4254	AB4	0.5006	0.4160
	0.5008	0.4256		0.5070	0.4350		0.5133	0.4348		0.5069	0.4254
	0.5069	0.4254		0.5133	0.4348		0.5196	0.4346		0.5131	0.4252
	0.5006	0.4160		0.5069	0.4254		0.5131	0.4252		0.5066	0.4158

PERFORMANCE GROUPS - CHROMATICITY (CONTINUED)

Region	x	y	Region	x	y	Region	x	y	Region	x	y
AC1	0.5066	0.4158	AC2	0.5131	0.4252	AC3	0.5192	0.4250	AC4	0.5126	0.4156
	0.5131	0.4252		0.5196	0.4346		0.5258	0.4343		0.5192	0.4250
	0.5192	0.4250		0.5258	0.4343		0.5321	0.4341		0.5253	0.4248
	0.5126	0.4156		0.5192	0.4250		0.5253	0.4248		0.5186	0.4154
AD1	0.4936	0.3970	AD2	0.5001	0.4064	AD3	0.5059	0.4062	AD4	0.4993	0.3969
	0.5001	0.4064		0.5066	0.4158		0.5126	0.4156		0.5059	0.4062
	0.5059	0.4062		0.5126	0.4156		0.5186	0.4154		0.5118	0.4061
	0.4993	0.3969		0.5059	0.4062		0.5118	0.4061		0.5050	0.3967

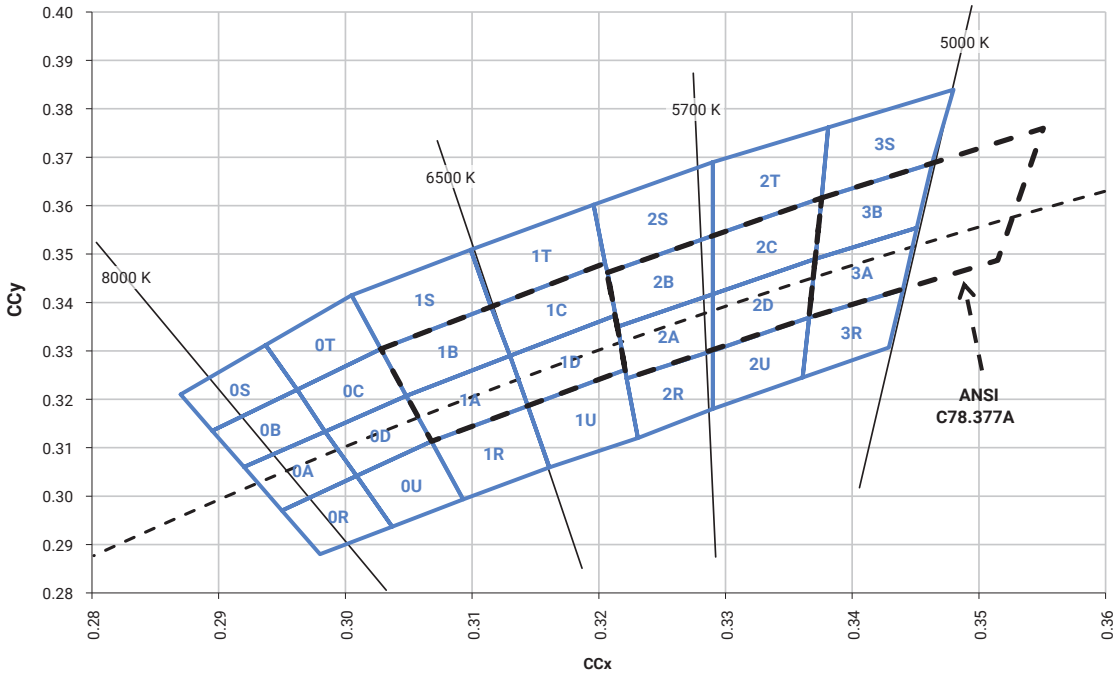
XLamp XP-G3 White LEDs are tested for chromaticity and placed into one of the regions defined by the following bounding coordinates.

EasyWhite Color Temperatures – 3-Step Ellipse						
Bin Code	CCT	Center Point		Major Axis	Minor Axis	Rotation Angle (°)
		x	y	a	b	
6G	3500 K	0.4073	0.3917	0.00927	0.00414	53.2
7G	3000 K	0.4338	0.4030	0.00834	0.00408	53.2
8G	2700 K	0.4577	0.4099	0.00834	0.00420	48.5

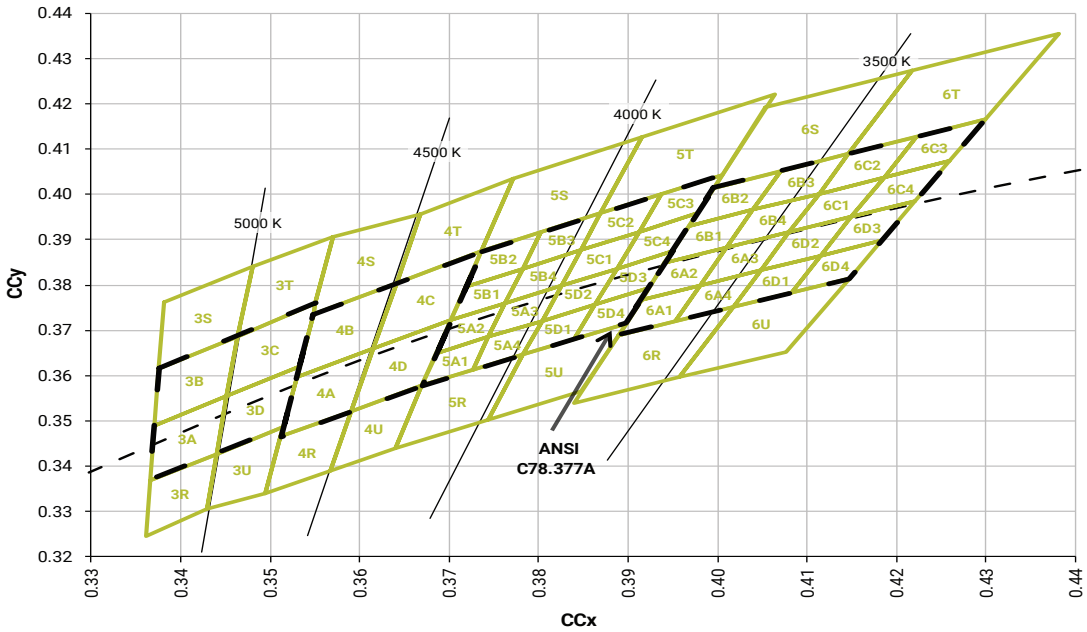
EasyWhite Color Temperatures – 5-Step Ellipse						
Bin Code	CCT	Center Point		Major Axis	Minor Axis	Rotation Angle (°)
		x	y	a	b	
2E	5700 K	0.3287	0.3417	0.01230	0.00600	72.0
3E	5000 K	0.3447	0.3553	0.01400	0.00520	65.0
4E	4500 K	0.3611	0.3658	0.01420	0.00550	61.5
5E	4000 K	0.3818	0.3797	0.01565	0.00670	53.7
6E	3500 K	0.4073	0.3917	0.01545	0.00690	54.0
7E	3000 K	0.4338	0.4030	0.01390	0.00680	53.2
8E	2700 K	0.4577	0.4099	0.01350	0.00700	48.5

CREE'S STANDARD CHROMATICITY REGIONS PLOTTED ON THE 1931 CIE CURVE

ANSI Cool White

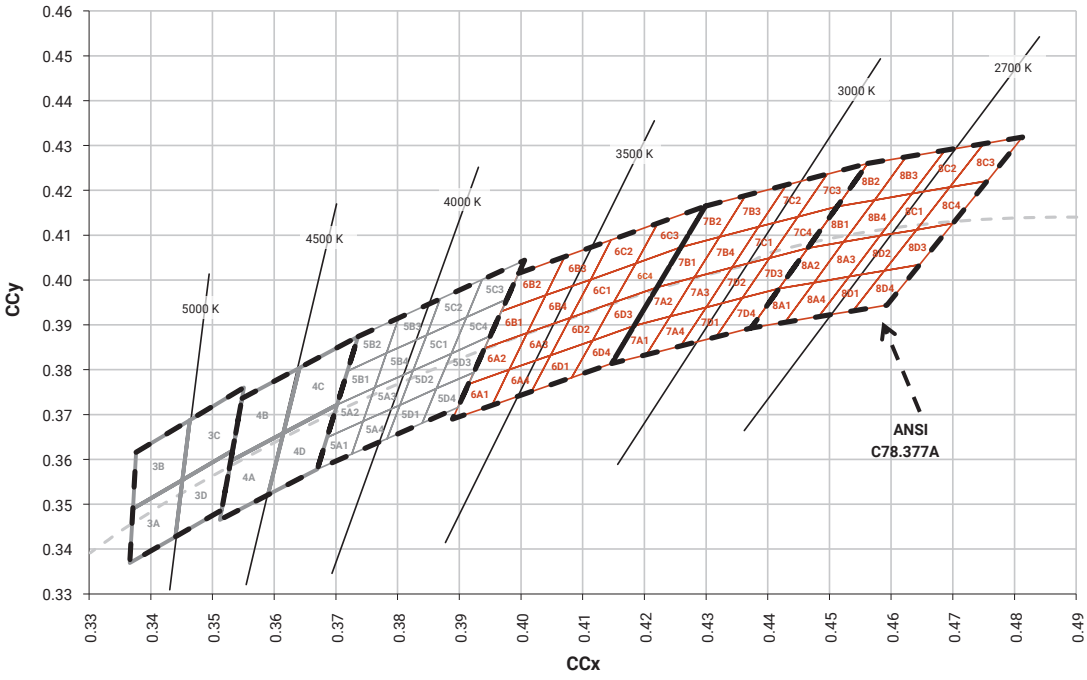


Neutral White

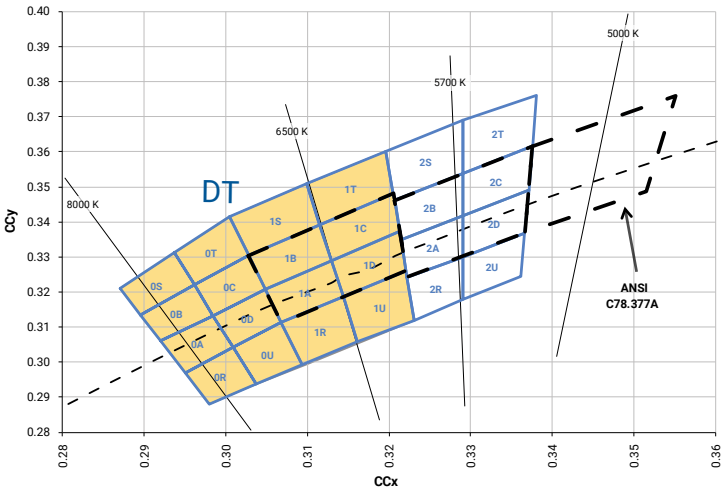


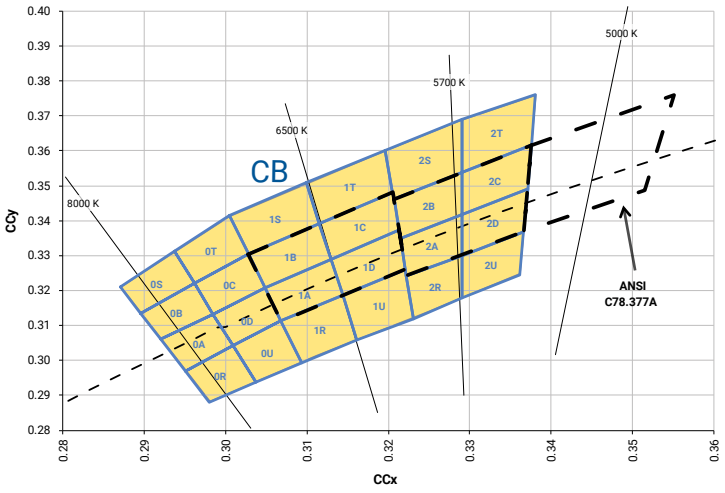
CREE'S STANDARD CHROMATICITY REGIONS PLOTTED ON THE 1931 CIE CURVE - CONTINUED

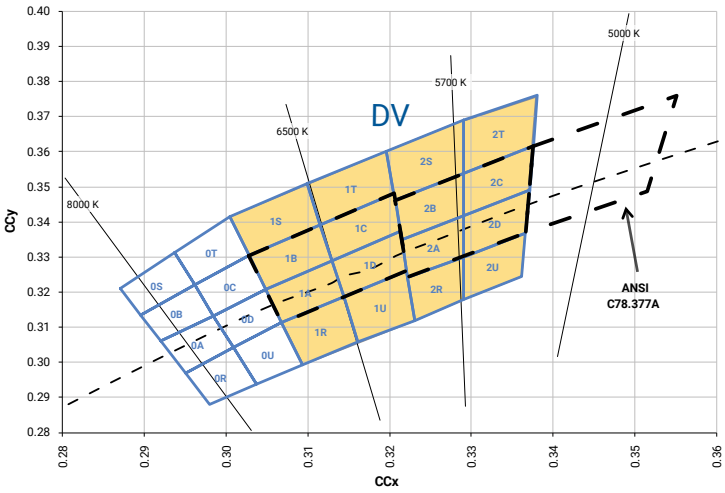
ANSI Neutral White and ANSI Warm White

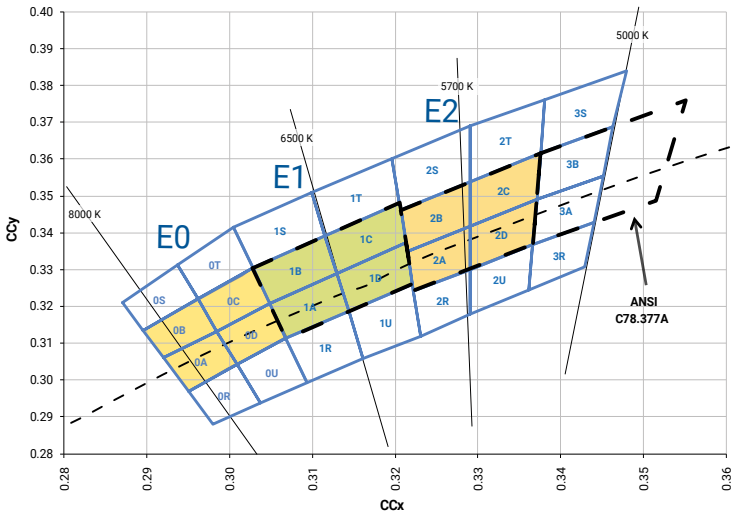


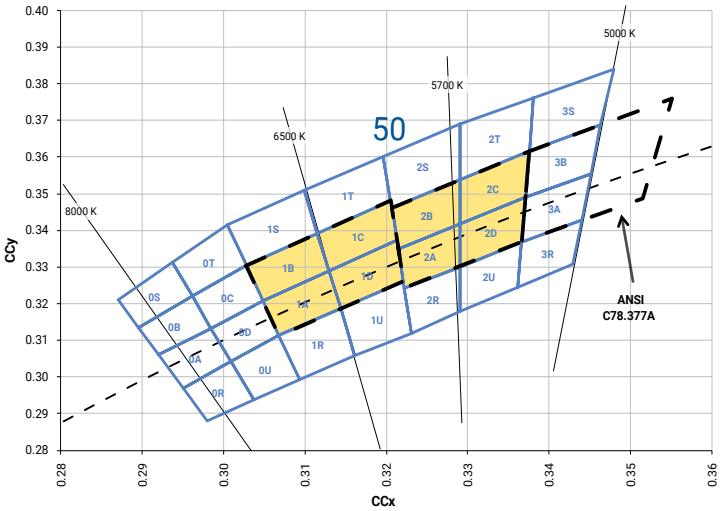
CREE'S STANDARD COOL WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS



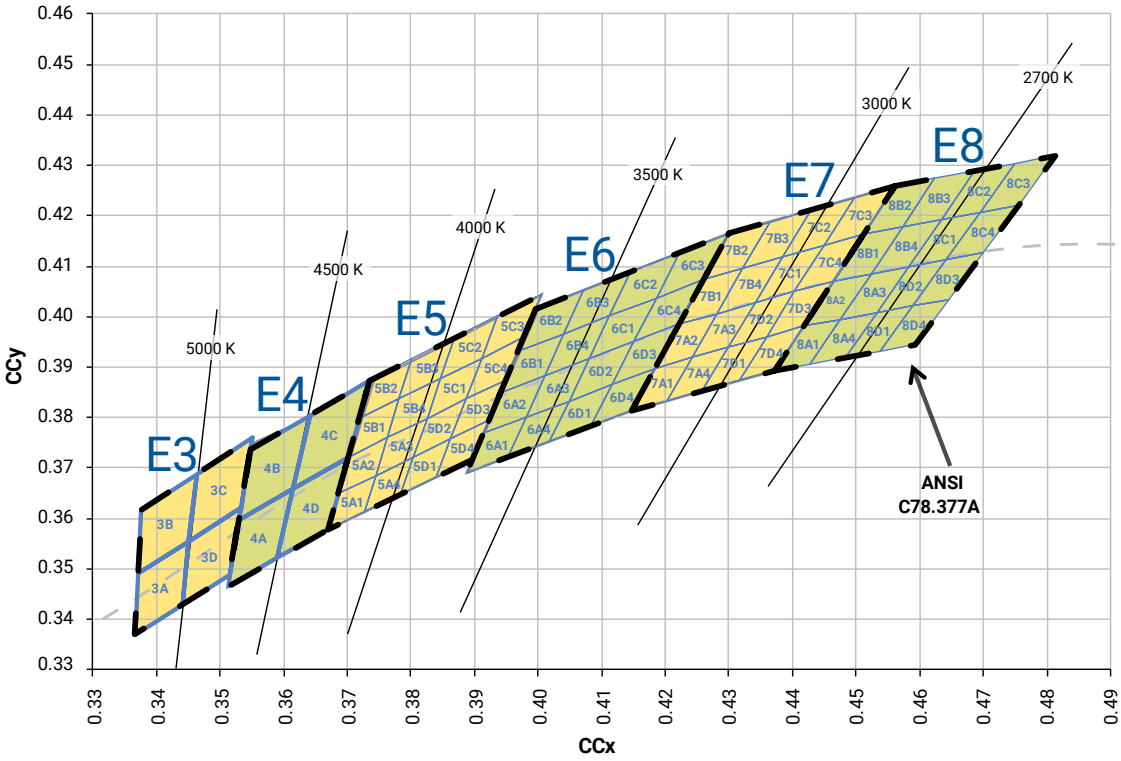


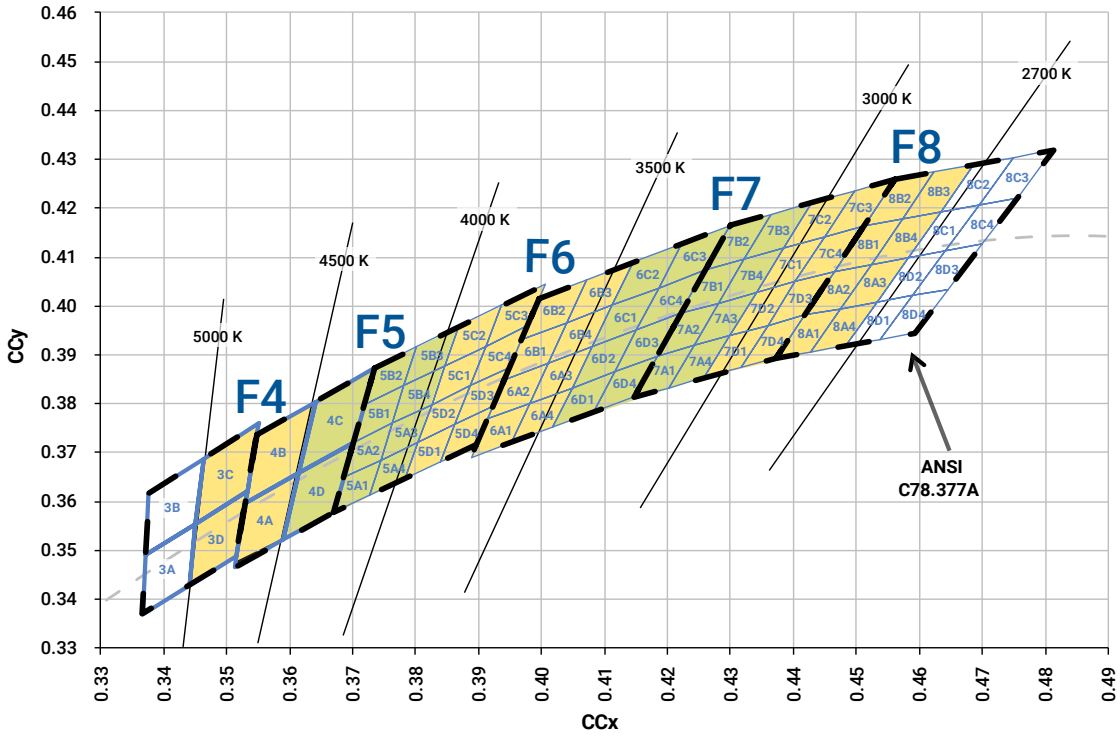




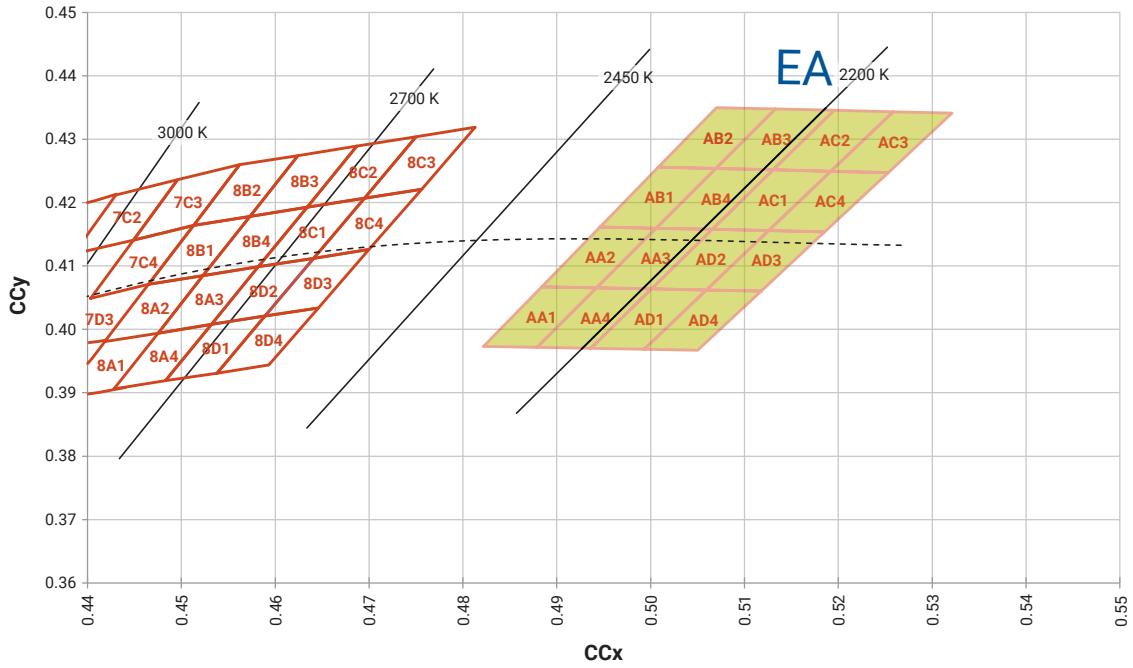


CREE'S STANDARD WARM AND NEUTRAL WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS

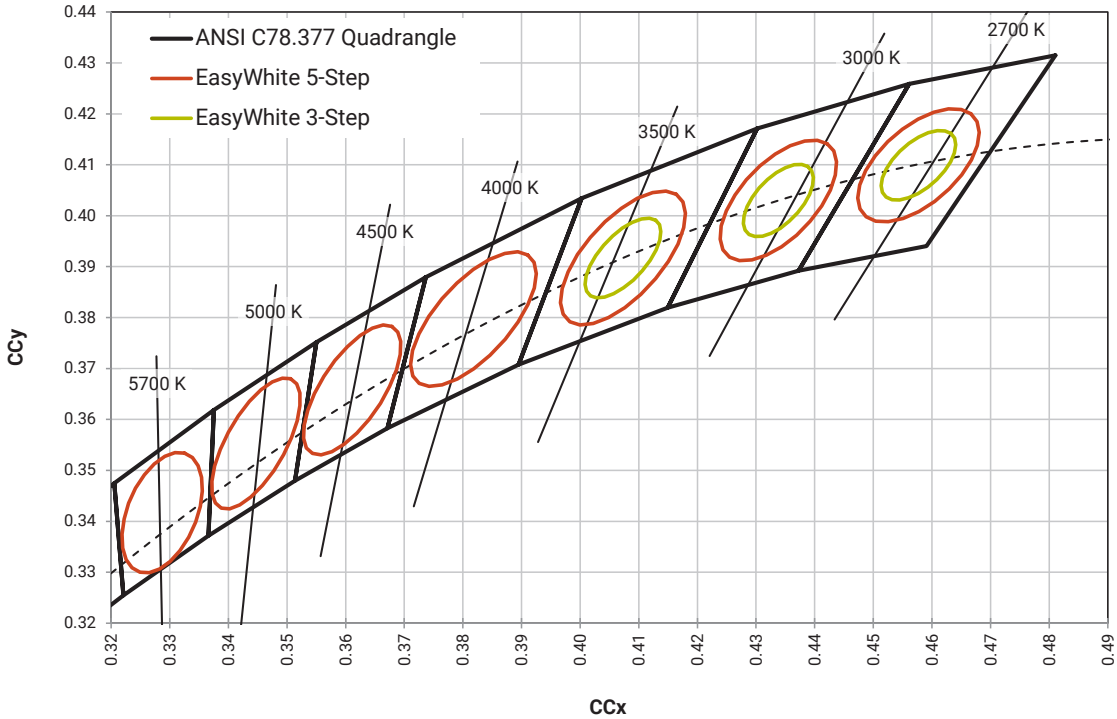




CREE'S STANDARD WARM AND NEUTRAL WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS - CONTINUED



CREE'S EASYWHITE® WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS



CREE'S STANDARD CHROMATICITY KITS

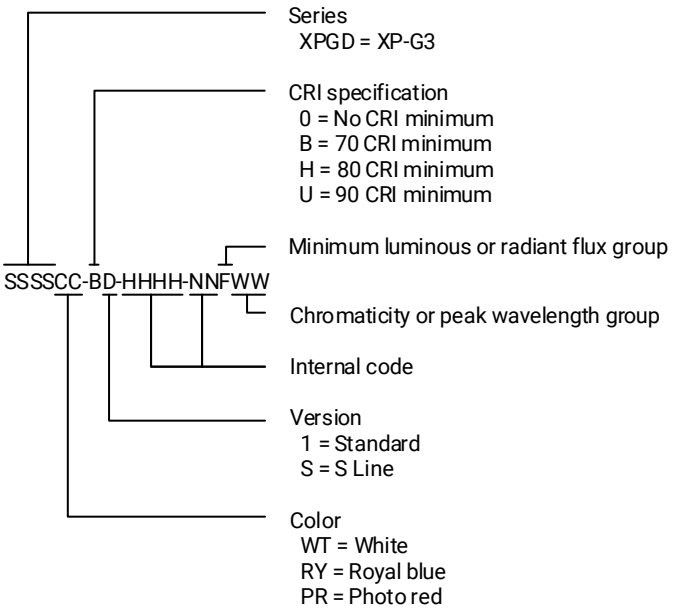
The following table provides the chromaticity bins associated with chromaticity kits.

Color	CCT	Kit	Chromaticity Bins
Cool White	7000 K	DT	0A, 0B, 0C, 0D, 0R, 0S, 0T, 0U, 1A, 1B, 1C, 1D, 1R, 1S, 1T, 1U
	6500 K	CB	0A, 0B, 0C, 0D, 0R, 0S, 0T, 0U, 1A, 1B, 1C, 1D, 1R, 1S, 1T, 1U, 2A, 2B, 2C, 2D, 2R, 2S, 2T, 2U
	>6500 K	E0	0A, 0B, 0C, 0D
	6500 K	E1	1A, 1B, 1C, 1D
	6000 K	DV	1A, 1B, 1C, 1D, 1R, 1S, 1T, 1U, 2A, 2B, 2C, 2D, 2R, 2S, 2T, 2U
	6200 K	50	1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D
	5700 K	E2	2A, 2B, 2C, 2D
	5700 K	2E	57E
Neutral White	5000 K	3E	50E
	5000 K	E3	3A, 3B, 3C, 3D
	4750 K	F4	3C, 3D, 4A, 4B
	4500 K	4E	45E
	4500 K	E4	4A, 4B, 4C, 4D
	4250 K	F5	4C, 4D, 5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4
	4000 K	5E	40E
	4000 K	E5	5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4, 5C1, 5C2, 5C3, 5C4, 5D1, 5D2, 5D3, 5D4
Warm White	3750 K	F6	5C1, 5C2, 5C3, 5C4, 5D1, 5D2, 5D3, 5D4, 6A1, 6A2, 6A3, 6A4, 6B1, 6B2, 6B3, 6B4
	3500 K	6E	35E, 35G
	3500 K	6G	35G
	3500 K	E6	6A1, 6A2, 6A3, 6A4, 6B1, 6B2, 6B3, 6B4, 6C1, 6C2, 6C3, 6C4, 6D1, 6D2, 6D3, 6D4
	3250 K	F7	6C1, 6C2, 6C3, 6C4, 6D1, 6D2, 6D3, 6D4, 7A1, 7A2, 7A3, 7A4, 7B1, 7B2, 7B3, 7B4
	3000 K	7E	30E, 30G
	3000 K	7G	30G
	3000 K	E7	7A1, 7A2, 7A3, 7A4, 7B1, 7B2, 7B3, 7B4, 7C1, 7C2, 7C3, 7C4, 7D1, 7D2, 7D3, 7D4
	2850 K	F8	7C1, 7C2, 7C3, 7C4, 7D1, 7D2, 7D3, 7D4, 8A1, 8A2, 8A3, 8A4, 8B1, 8B2, 8B3, 8B4
	2700 K	8E	27E, 27G
	2700 K	8G	27G
	2700 K	E8	8A1, 8A2, 8A3, 8A4, 8B1, 8B2, 8B3, 8B4, 8C1, 8C2, 8C3, 8C4, 8D1, 8D2, 8D3, 8D4
	2200 K	EA	AA1, AA2, AA3, AA4, AB1, AB2, AB3, AB4, AC1, AC2, AC3, AC4, AD1, AD2, AD3, AD4

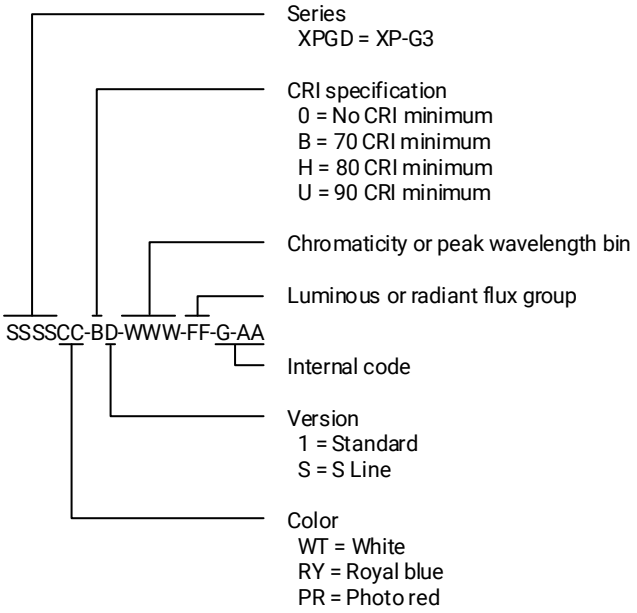
BIN AND ORDER CODE FORMATS

XP-G3 bin codes and order codes are configured in the following manner:

Order Code



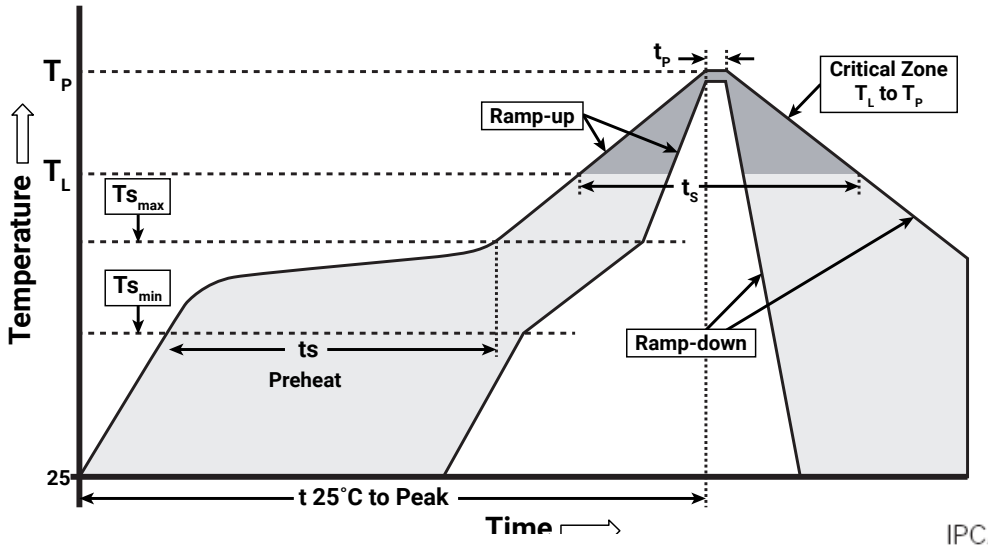
Bin Code



REFLOW SOLDERING CHARACTERISTICS

In testing, Cree has found XLamp XP-G3 LEDs to be compatible with JEDEC J-STD-020C, with the exception of the peak temperature requirements listed in the table below. As a general guideline, Cree recommends that users follow the recommended soldering profile provided by the manufacturer of the solder paste used, and therefore it is the lamp or luminaire manufacturer's responsibility to determine applicable soldering requirements.

Note that this general guideline may not apply to all PCB designs and configurations of reflow soldering equipment.



IPC/JEDEC J-STD-020C

Profile Feature	Lead-Free Solder
Average Ramp-Up Rate (Ts_{max} to T_p)	1.2 °C/second
Preheat: Temperature Min (Ts_{min})	120 °C
Preheat: Temperature Max (Ts_{max})	170 °C
Preheat: Time (ts_{min} to ts_{max})	65-150 seconds
Time Maintained Above: Temperature (T_L)	217 °C
Time Maintained Above: Time (t_L)	45-90 seconds
Peak/Classification Temperature (Tp)	235 - 245 °C
Time Within 5 °C of Actual Peak Temperature (tp)	20-40 seconds
Ramp-Down Rate	1 - 6 °C/second
Time 25 °C to Peak Temperature	4 minutes max.

Note: All temperatures refer to topside of the package, measured on the package body surface.

NOTES

Measurements

The luminous flux, radiant power, chromaticity, forward voltage and CRI measurements in this document are binning specifications only and solely represent product measurements as of the date of shipment. These measurements will change over time based on a number of factors that are not within Cree's control and are not intended or provided as operational specifications for the products. Calculated values are provided for informational purposes only and are not intended or provided as specifications.

Pre-Release Qualification Testing

Please read the LED Reliability Overview for details of the qualification process Cree applies to ensure long-term reliability for XLamp LEDs and details of Cree's pre-release qualification testing for XLamp LEDs. Cree did not perform Room Temperature Operating Life (RTOL) testing on the XP-G3 LED.

Lumen Maintenance

Cree now uses standardized IES LM-80-08 and TM-21-11 methods for collecting long-term data and extrapolating LED lumen maintenance. For information on the specific LM-80 data sets available for this LED, refer to the public LM-80 results document.

Please read the Long-Term Lumen Maintenance application note for more details on Cree's lumen maintenance testing and forecasting. Please read the Thermal Management application note for details on how thermal design, ambient temperature, and drive current affect the LED junction temperature.

Moisture Sensitivity

Cree recommends keeping XLamp LEDs in the provided, resealable moisture-barrier packaging (MBP) until immediately prior to soldering. Unopened MBPs that contain XLamp LEDs do not need special storage for moisture sensitivity.

Once the MBP is opened, XLamp XP-G3 LEDs may be stored as MSL 1 per JEDEC J-STD-033, meaning they have unlimited floor life in conditions of ≤ 30 °C/85% relative humidity (RH). Regardless of the storage condition, Cree recommends sealing any unsoldered LEDs in the original MBP.

RoHS Compliance

The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU Directive 2011/65/EC (RoHS2), as implemented January 2, 2013. RoHS Declarations for this product can be obtained from your Cree representative or from the Product Ecology section of the Cree website.

REACh Compliance

REACh substances of very high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, please contact a Cree representative to insure you get the most up-to-date REACh Declaration. REACh banned substance information (REACh Article 67) is also available upon request.

NOTES - CONTINUED

UL® Recognized Component

This product meets the requirements to be considered a UL Recognized Component with Level 4 enclosure consideration. The LED package or a portion thereof has been investigated as a fire and electrical enclosure per ANSI/UL 8750.

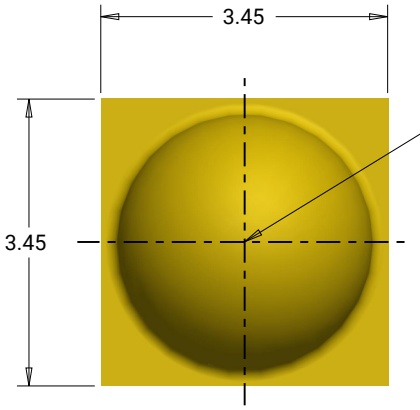
Vision Advisory

WARNING: Do not look at an exposed lamp in operation. Eye injury can result. For more information about LEDs and eye safety, please refer to the LED Eye Safety application note.

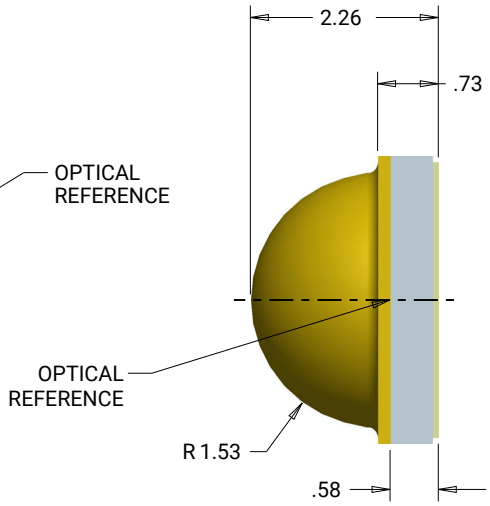
MECHANICAL DIMENSIONS (T_A = 25 °C)

Thermal vias, if present, are not shown on these drawings.

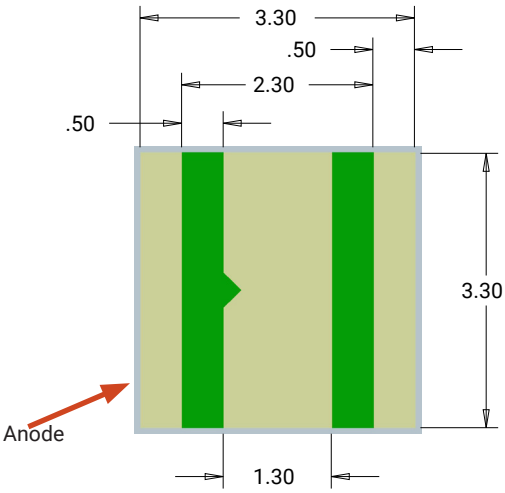
All measurements are ±.13 mm unless otherwise indicated.



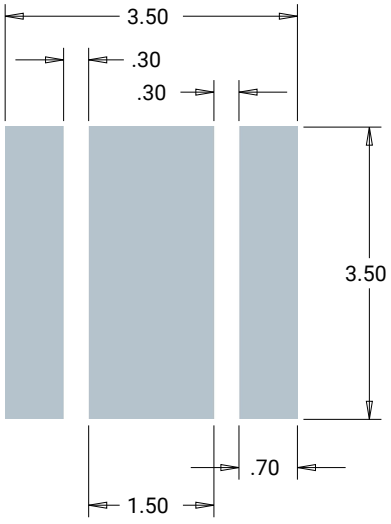
Top View



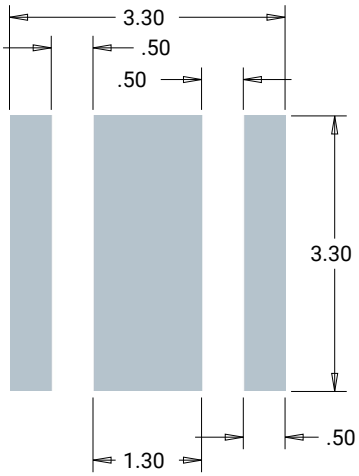
Side View



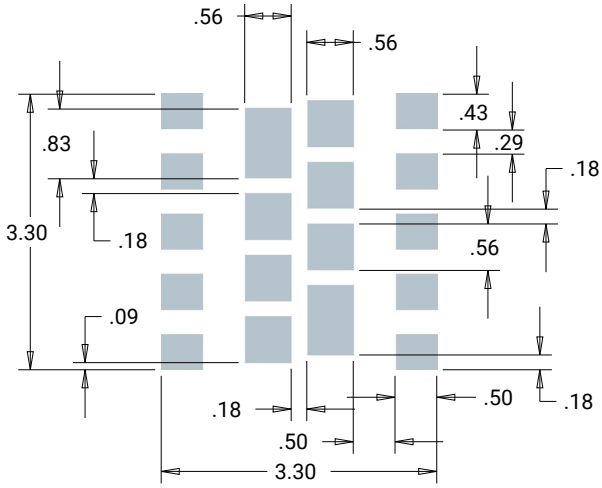
Bottom View



Recommended Copper Layout



Recommended Solder Pad (Solder Mask Pattern)



Recommended Stencil Openings*

Notes:

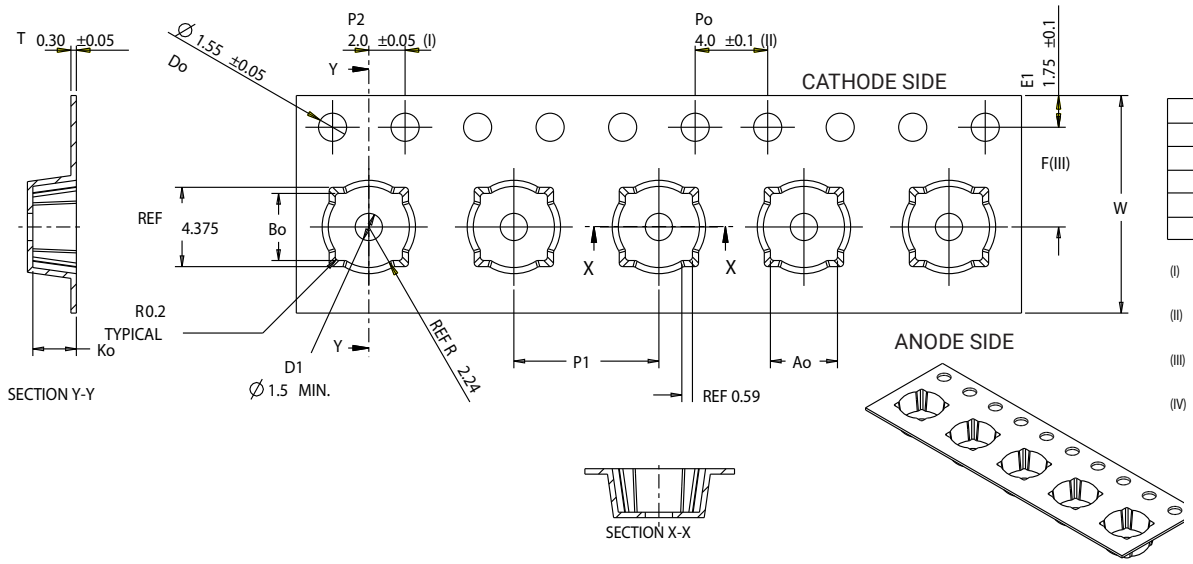
- Cree recommends using thermal pad kickouts to maximize component thermal performance.
- Cree recommends using white solder mask material to minimize system optical loss.

* This stencil has been tested and optimized for the avoidance of voiding when using ALPHA® LUMET® P30 Maxrel solder paste. For other solder pastes, a “window pane” design for the thermal pad stencil may result in a lower voiding percentage. Contact your local Cree Field Applications Engineer for consultation regarding your specific application.

TAPE AND REEL

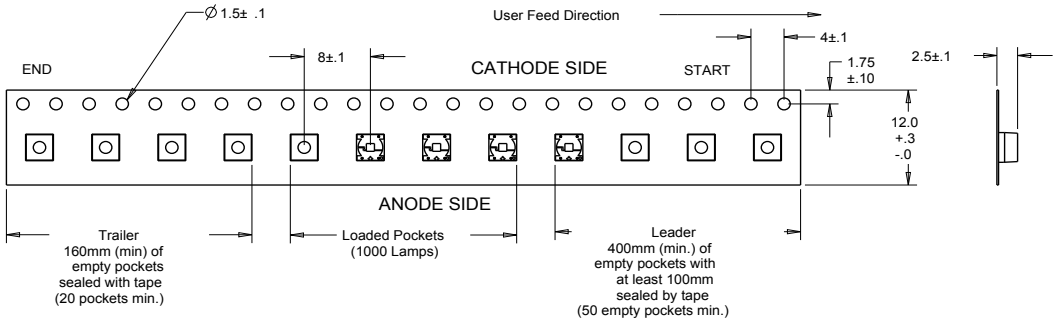
All Cree carrier tapes conform to EIA-481D, Automated Component Handling Systems Standard.

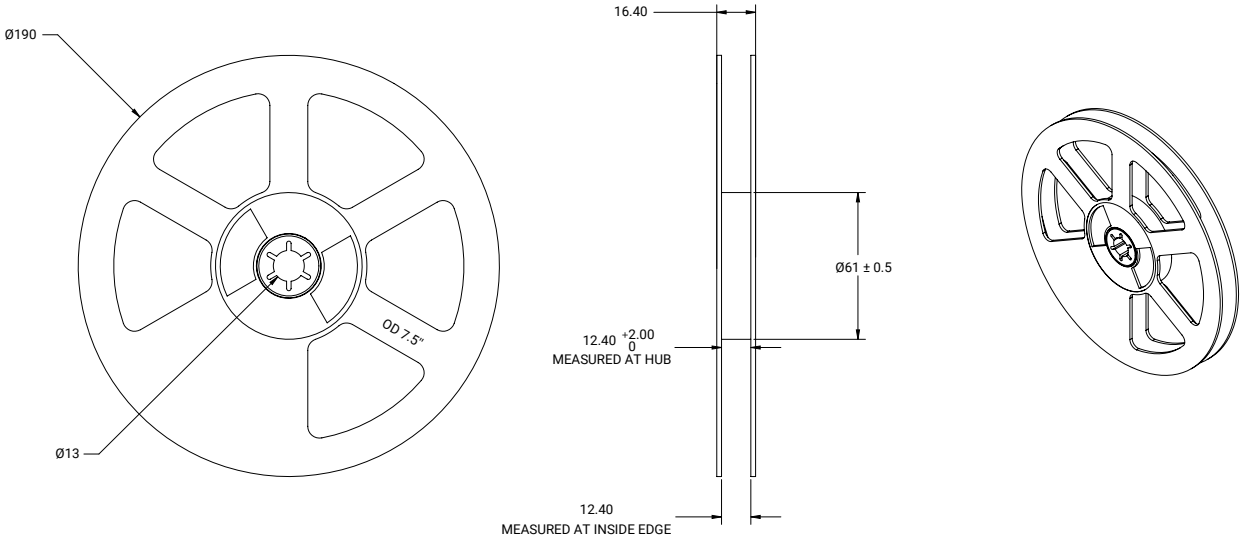
All dimensions in mm.



Ao	3.70	+/- 0.1
Bo	3.70	+/- 0.1
Ko	2.40	+0.0/-0.1
F	5.50	+/- 0.05
P 1	8.00	+/- 0.1
W	12.00	+0.3/-0.1

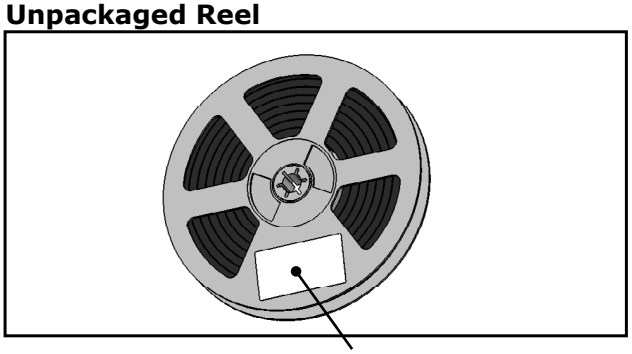
(I) Measured from centerline of sprocket hole to centerline of pocket.
(II) Cumulative tolerance of 10 sprocket holes is ± 0.20.
(III) Measured from centerline of sprocket hole to centerline of pocket.
(IV) Other material available.





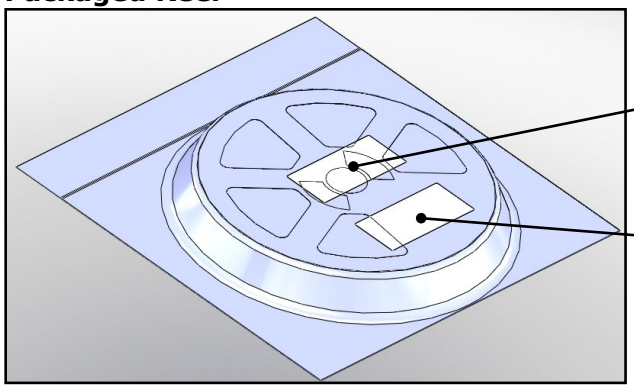
PACKAGING

Unpackaged Reel



Label with Cree Bin Code,
Quantity, Reel ID

Packaged Reel



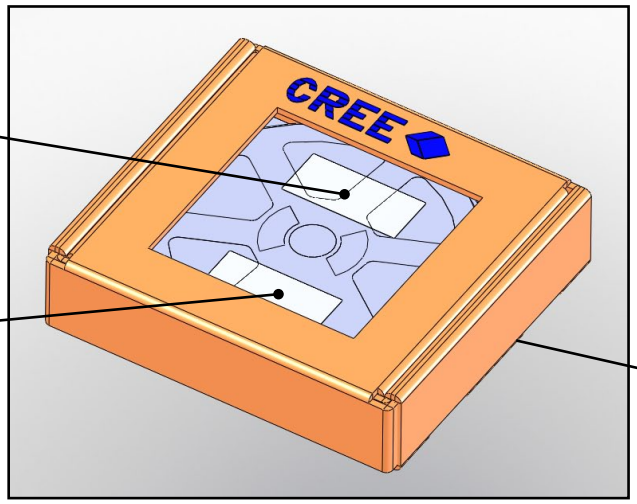
Label with Cree Order Code,
Quantity, Reel ID, PO #

Label with Cree Bin Code,
Quantity, Reel ID

Boxed Reel

Label with Cree Order Code,
Quantity, Reel ID, PO #

Label with Cree Bin Code,
Quantity, Reel ID



Patent Label
(on bottom of box)