

PF25.2-C16-UK-B



Produkteigenschaften (pro Segment)

Abmessungen PCB	140mm x 14mm (total: 25'200mm x 14mm)
Material	Flex PCB Print
Klebeband	3M VHB 9460, auf der Rückseite
Farbtemperatur	2700K / 3000K / 4000K / 5000K / 5700K / 6500K
Farbwiedergabe CRI	Ra >80, Ra >90 R9 >50
LED	1 x 16 Samsung LM281B+ PRO (VK-RANK) LED in Serie (16 Stk.), LM80 getestet
Anschlüsse / Verbindungen	4 x Löt pads (+, -)
Abstrahlungswinkel	120°
Lichtquellentyp	NDSL
XLMF	> 96% (binning condition LED, 55°C)
SF (Survival factor)	1
Garantie	5 Jahre (siehe *Anmerkung, Seite 3)

Photometrische Daten (pro Segment)

CCT (K)	CRI (Ra)	If (mA)	Uf typ.(V) ³	P typ. (W) ¹	ΣFlux (lm) ²	ΣFlux (lm) ²	Efficacy (lm/W)	ENERGIE Klasse ⁴
			Tc 40°C		Tc 25°C	Tc 40°C	Tc 40°C	Tc 40°C
2700	>80	30	42.6	1.3	249	243	187	C
		75	44.0	3.3	610	595	180	C
		100	44.6	4.5	802	782	174	C
		120	45.1	5.4	952	927	172	D
	>90 R9>50	30	42.6	1.3	212	207	159	D
		75	44.0	3.3	519	506	153	D
		100	44.6	4.5	683	665	148	D
		120	45.1	5.4	810	789	146	D
3000	>80	30	42.6	1.3	257	250	192	C
		75	44.0	3.3	628	613	186	C
		100	44.6	4.5	826	805	179	C
		120	45.1	5.4	980	955	177	C
	>90 R9>50	30	42.6	1.3	219	214	165	D
		75	44.0	3.3	537	524	159	D
		100	44.6	4.5	706	689	153	D
		120	45.1	5.4	838	817	151	D
4000	>80	30	42.6	1.3	268	261	201	B
		75	44.0	3.3	656	639	194	C
		100	44.6	4.5	862	840	187	C
		120	45.1	5.4	1023	997	185	C
	>90 R9>50	30	42.6	1.3	234	228	175	C
		75	44.0	3.3	574	559	169	D
		100	44.6	4.5	754	735	163	D
		120	45.1	5.4	895	872	161	D
6500	>80	30	42.6	1.3	268	261	201	B
		75	44.0	3.3	656	639	194	C
		100	44.6	4.5	862	840	187	C
		120	45.1	5.4	1023	997	185	C
	>90 R9>50	30	42.6	1.3	234	228	175	C
		75	44.0	3.3	574	559	169	D
		100	44.6	4.5	754	735	163	D
		120	45.1	5.4	895	872	161	D

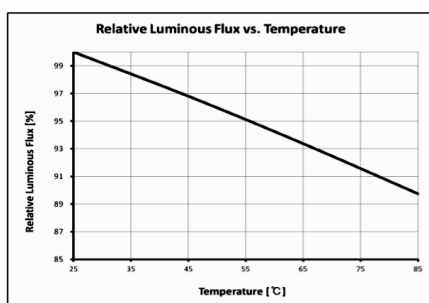
¹ Leistungstoleranzen Pon 10%. Messunsicherheit +/-5%. Werte basieren auf Mittelwert von AZ LED Bin

² Lum Flux Toleranzen von +/-15%. Die Lumenangaben basieren auf der Hochrechnung von einzelnen LEDs

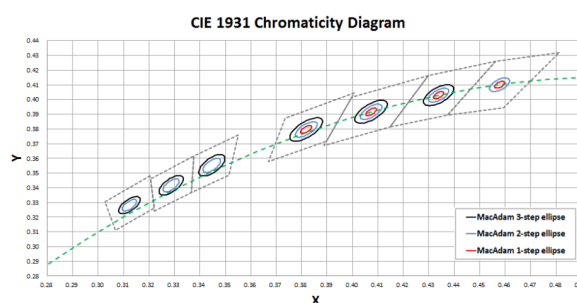
³ Angaben basieren auf AZ Bin bei Tc 40°C. Spannungstoleranz +/- 5%

⁴ Pro Produkt ist nur die eingefärbte Klasse für die Energieetikette von Simplex Electronic relevant

Helligkeit / Temperatur



Color Bin



Technische Daten (pro Segment)

Nennspannung	Typ. 44VDC, @40°C
Nennstrom LED¹	Typ. 0.075A, max. 0.15A (max. 3m x 0.12A pro Segment = max. 2.52A)
Betriebsspannung	41V - 48V
Umgebungstemperaturbereich	-35°C ... +50°C
Betriebstemperaturbereich¹	Max. -20°C ... +75°C (am Tc-Punkt)
LED binning	MacAdam3, @150mA/LED
Photobiological safety	According to IEC 62471: exempt
Blue light hazard	According to IEC TR 62778: pass
Normen	EN IEC 62031
IP-Schutzart	IP00

¹ Das Überschreiten des zugelassenen Betriebsstrom & Betriebstemperatur führt zu einer Überlastung des Moduls. Dies kann zu einer starken Reduzierung der Lebensdauer bis hin zur Zerstörung führen.

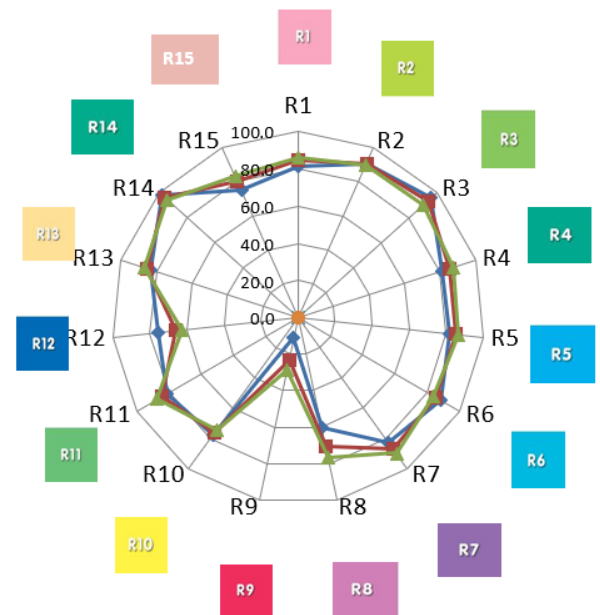
Lebensdauer Daten

mA/LED	Tc	L70	L70B50	L70B10	L80	L80B50	L80B10	L90	L90B50	L90B10
Reported values in h (Ra80 / 9'000h Test @ 150mA/LED)										
150	55°C	>54'000	>54'000	>54'000	>54'000	>54'000	>54'000	>54'000	>54'000	43'000
150	75°C	>54'000	>54'000	>54'000	>54'000	>54'000	>54'000	48'000	49'000	38'000
150	85°C	>54'000	>54'000	>54'000	>54'000	>54'000	>54'000	45'000	46'000	35'000
Calculated values in h (Ra80 / 9'000h Test @ 150mA/LED)										
150	55°C	182'000	185'000	142'000	114'000	117'000	89'000	55'000	56'000	43'000
150	75°C	160'000	164'000	123'000	101'000	103'000	78'000	48'000	49'000	38'000
150	85°C	151'000	154'000	151'000	95'000	97'000	73'000	45'000	46'000	35'000
Reported values in h (Ra90 / 9'000h Test @ 150mA/LED)										
150	55°C	>60'000	>60'000	>60'000	>60'000	>60'000	>60'000	42'000	43'000	31'000
150	75°C	>60'000	>60'000	>60'000	>60'000	>60'000	60'000	36'000	37'000	29'000
150	85°C	>60'000	>60'000	>60'000	>60'000	>60'000	58'000	34'000	34'000	28'000
Calculated values in h (Ra90 / 9'000h Test @ 150mA/LED)										
150	55°C	135'000	140'000	100'000	85'000	88'000	64'000	42'000	43'000	31'000
150	75°C	119'000	122'000	94'000	75'000	77'000	60'000	36'000	37'000	29'000
150	85°C	112'000	114'000	92'000	71'000	72'000	58'000	34'000	34'000	28'000

*Anmerkung: Simpex trägt nur die Verantwortung für das Produkt selbst und keine Folgeschäden oder Folgekosten. Allfällige Garantie Anforderungen müssen vor dem Projekt besprochen werden. Es gelten die allgemeinen Geschäftsbedingungen der Simpex Electronic AG.

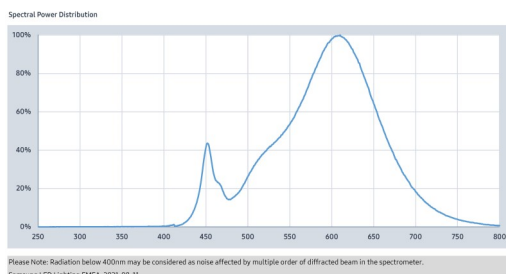
SAMSUNG LM281B+ PRO LED (CRI80 & TM30-15)

Input	LED1	LED2	LED2
	LM281B plus	LM281B plus	LM281B plus
CCT	2580K-3230K	3230K-4280K	5300K-7050K
CRI	80	80	80
Current	150mA	150mA	150mA
Sorting Tc	25°C	25°C	25°C
CCT [K]	3006	4052	6199
Cx	0.4317	0.3758	0.3185
Cy	0.3939	0.3661	0.3280
CRI [Ra]	82.8	85.3	86.3
R1	81.4	84.5	86.0
R2	90.2	90.3	89.6
R3	96.2	93.7	90.5
R4	81.6	85.4	87.5
R5	82.0	84.9	86.3
R6	88.2	85.5	83.9
R7	82.5	87.3	89.9
R8	60.5	70.5	76.8
R9	11.1	23.5	29.0
R10	78.0	76.3	74.2
R11	81.3	84.6	87.4
R12	75.8	65.9	63.0
R13	83.2	85.7	87.0
R14	98.2	96.5	94.9
R15	74.9	80.5	83.2
TM30-15			
Rf (Fidelity)	80.8	82.8	83.2
Rg (Gamut)	99.6	98.0	97.4

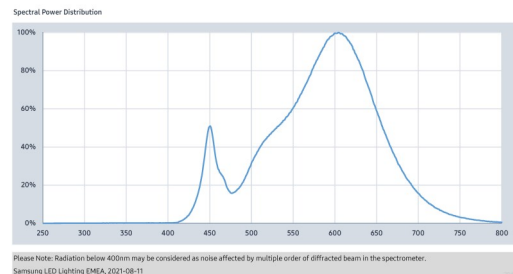


Spektren

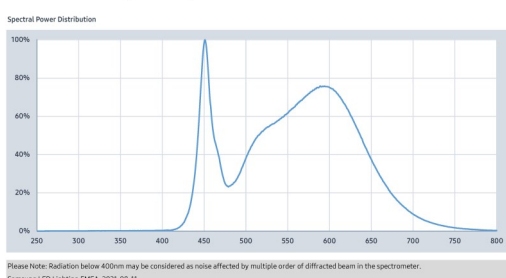
LM281B+ PRO, CRI80, 2700K



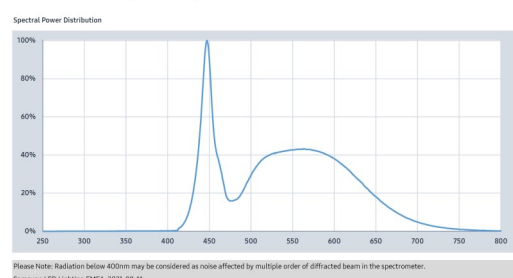
LM281B+ PRO, CRI80, 3000K



LM281B+ PRO, CRI80, 4000K

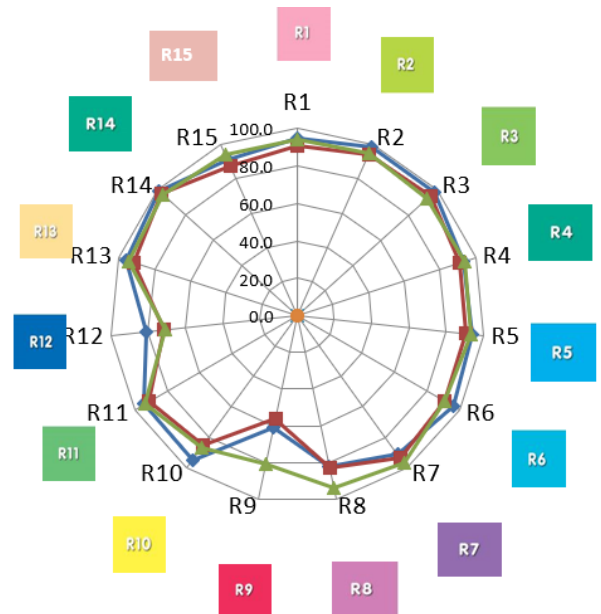


LM281B+ PRO, CRI80, 6500K



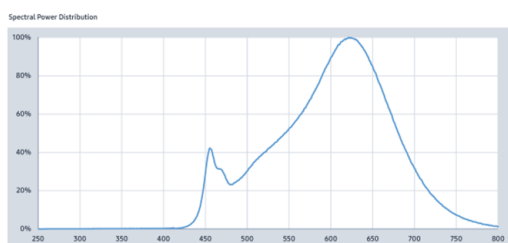
SAMSUNG LM281B+ PRO LED (CRI90 & TM30-15)

Input	LED1	LED2	LED2
	LM281B plus	LM281B plus	LM281B plus
CCT	2580K-3230K	3230K-4280K	5300K-7050K
CRI	90	90	90
Current	150mA	150mA	150mA
Sorting Tc	25°C	25°C	25°C
CCT [K]	3029	4029	6507
Cx	0.4326	0.3799	0.3128
Cy	0.3985	0.3789	0.3285
CRI [Ra]	93.6	91.2	93.9
R1	94.5	91.0	94.2
R2	98.3	94.0	95.0
R3	98.3	95.6	93.5
R4	93.3	91.2	94.0
R5	94.2	90.2	93.1
R6	96.3	91.0	90.5
R7	91.3	93.4	97.1
R8	82.3	83.0	93.8
R9	61.3	56.2	80.5
R10	94.9	85.1	87.1
R11	94.4	91.1	93.4
R12	81.1	71.5	70.8
R13	95.8	91.8	94.7
R14	99.6	97.4	96.6
R15	90.9	87.7	94.1
TM30-15			
Rf (Fidelity)	90.0	89.2	90.3
Rg (Gamut)	98.3	98.7	99.4



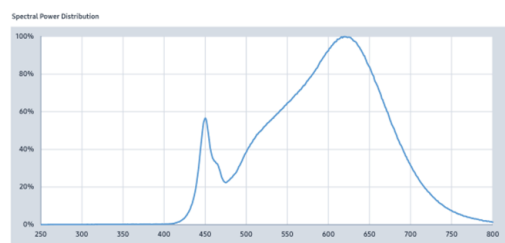
Spektren

LM281B+ PRO, CRI90, 2700K



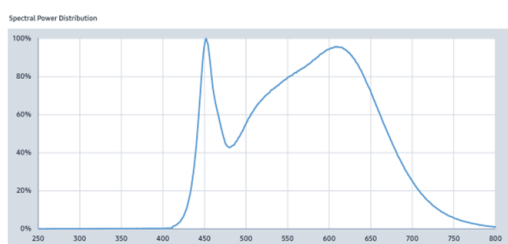
Please Note: Radiation below 400nm may be considered as noise affected by multiple order of diffracted beam in the spectrometer.
Samsung LED Lighting EMEA, 2021-08-11

LM281B+ PRO, CRI90, 3000K



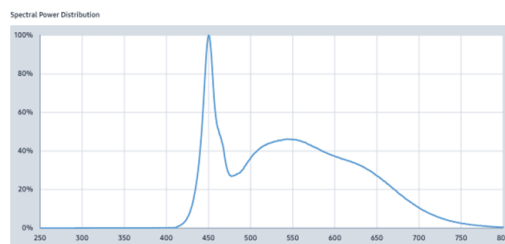
Please Note: Radiation below 400nm may be considered as noise affected by multiple order of diffracted beam in the spectrometer.
Samsung LED Lighting EMEA, 2021-08-11

LM281B+ PRO, CRI90, 4000K

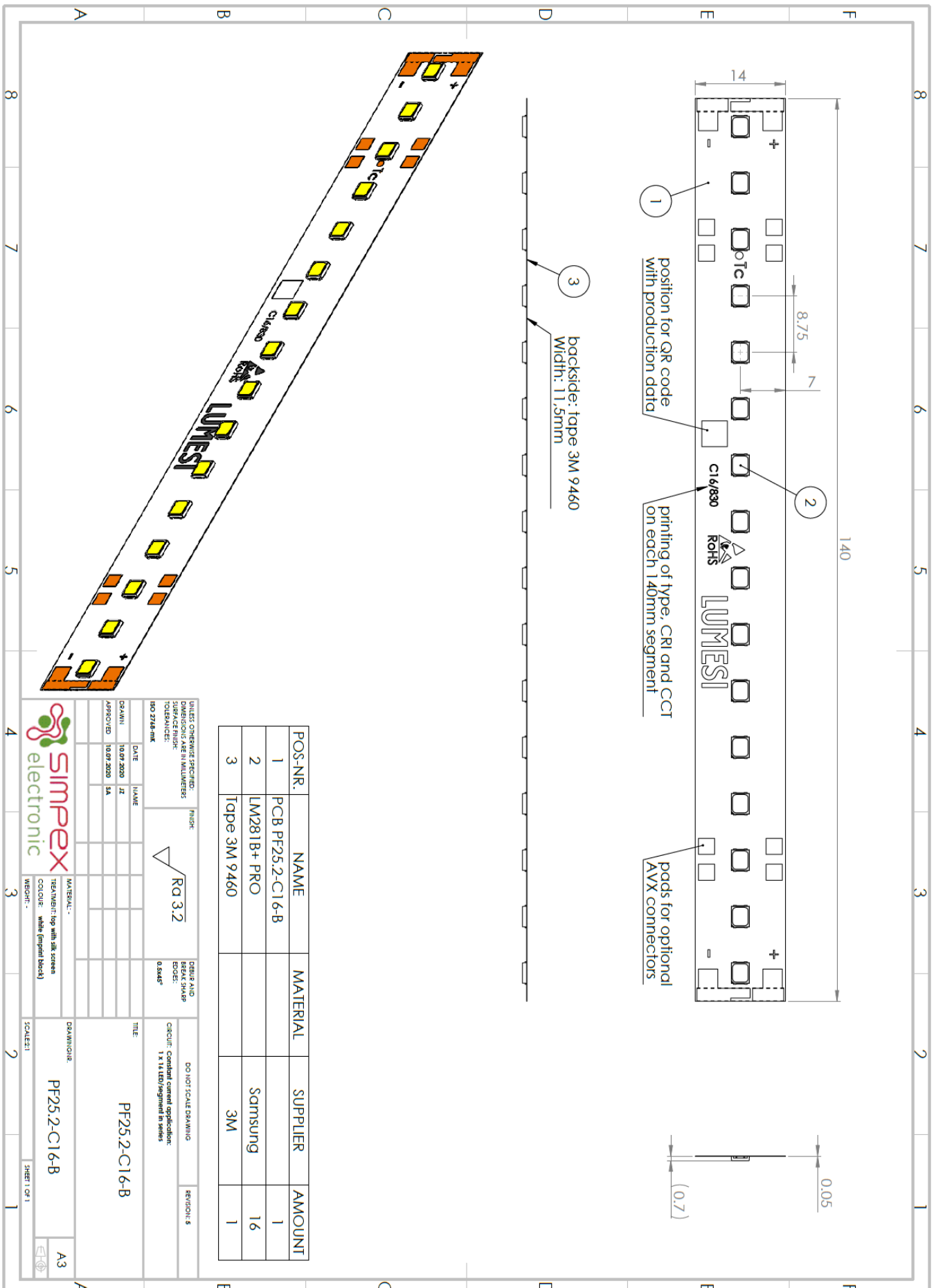


Please Note: Radiation below 400nm may be considered as noise affected by multiple order of diffracted beam in the spectrometer.
Samsung LED Lighting EMEA, 2021-08-11

LM281B+ PRO, CRI90, 6500K



Please Note: Radiation below 400nm may be considered as noise affected by multiple order of diffracted beam in the spectrometer.
Samsung LED Lighting EMEA, 2021-08-11



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