GL OPTIC Polska Sp. z o.o., Poznańska 70, PL 62-040 Puszczykowo

RAPORT POMIARU SPEKTRALNEGO

Data wydania: 2024-08-26 Numer badania: GLR0272024

Opis

Zleceniodawca: Spacetronik Sp. z o. o.
64-000 Kościan
ul. Wiśniowa 36

Obiekt badania: GLOW D5 GL0202024
Zmierzył: Piotr Augustyniak

Wyposażenie

- Pomiar spektralny

Kula całkująca: GL OPTI SPHERE 2000 SN: GL180408
Spektroradiometr: GL SPECTIS 5.0 Touch UV-VIS-NIR SN: Xt050222

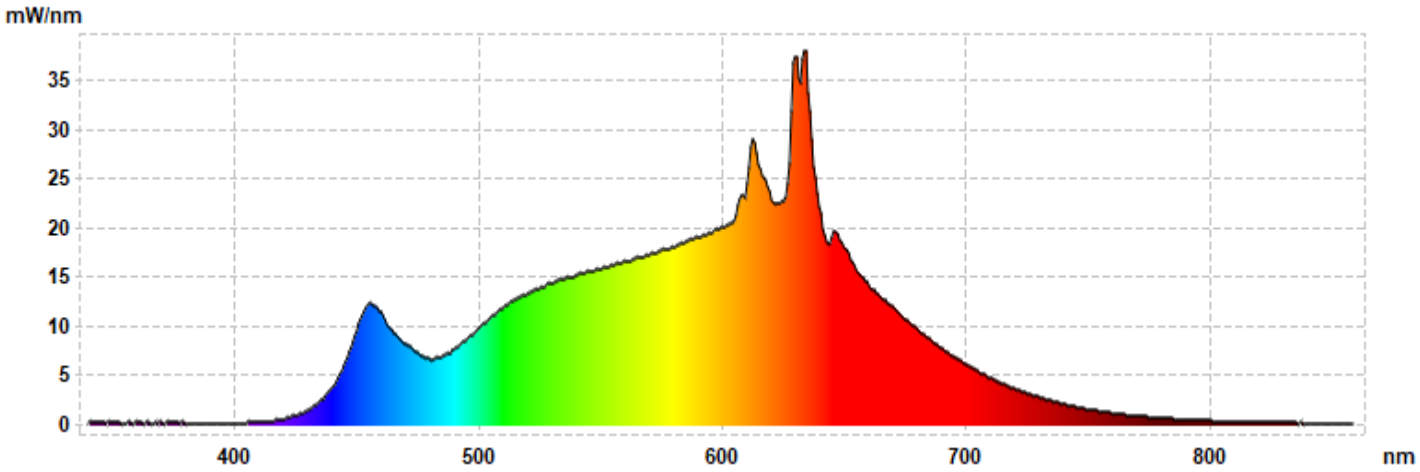
Warunki pomiarowe

Temperatura otoczenia:	25.3 +/- 0.4 ºC
Zakres pomiarowy:	350 nm – 850 nm
Czas stabilizacji:	30 minut

Light quality control

tryb 1 100%

Spectrum (350nm – 850 nm)

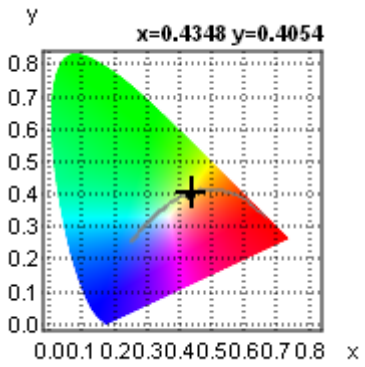


Results

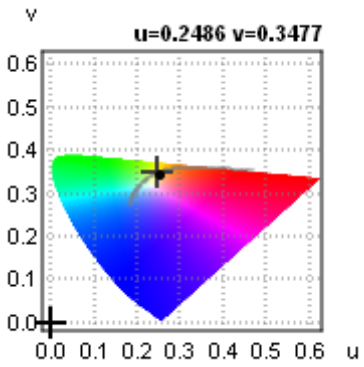
CIE 1931 2˚observer	
x	0.4348
y	0.4054
u'	0.2486
v'	0.5216
CCT [K]	3047
Y [lm]	1213.09
Purity	0.522
Radiometric [W]	4.1008

Rendering Indices	
Ra	**97.5**
R1	99.2
R2	99.8
R3	97.4
R4	99.0
R5	98.3
R6	97.1
R7	96.0
R8	93.2
R9	83.9
R10	97.1
R11	98.0
R12	83.2
R13	99.5
R14	97.2

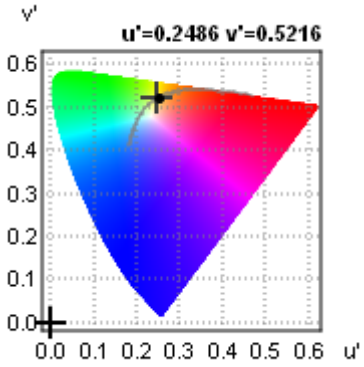
CIE 1931



CIE 1960



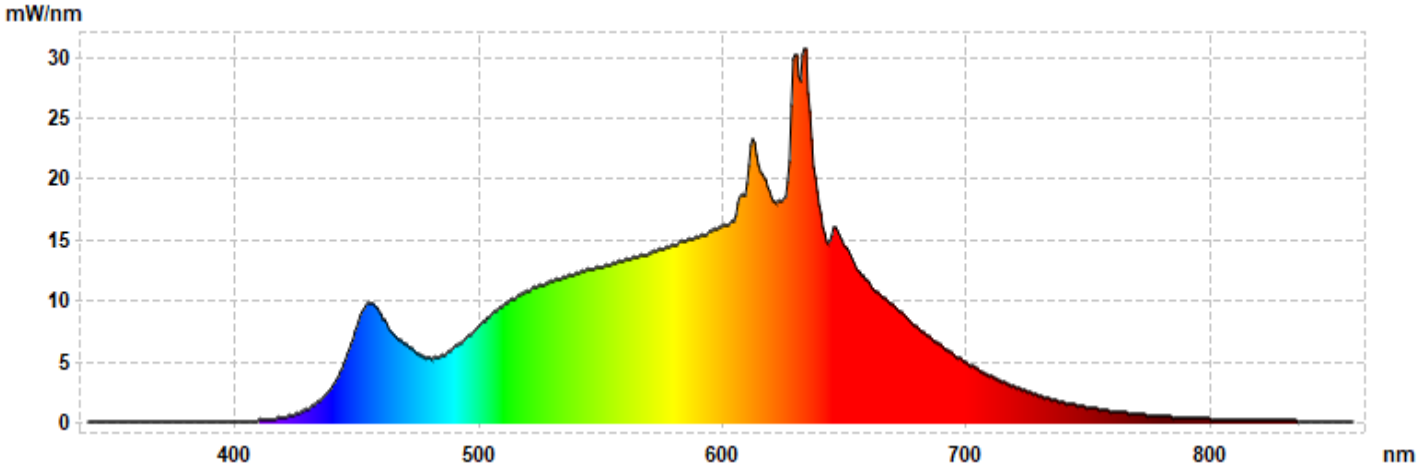
CIE 1976



Light quality control

tryb 1 80%

Spectrum (350nm – 850 nm)

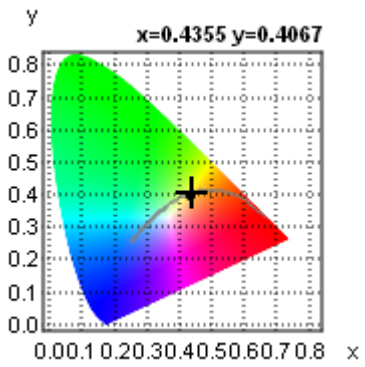


Results

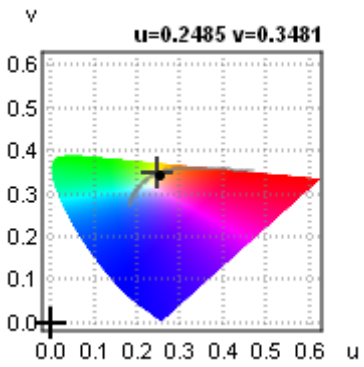
CIE 1931 2˚observer	
x	0.4355
y	0.4067
u'	0.2485
v'	0.5222
CCT [K]	3045
Y [lm]	975.00
Purity	0.528
Radiometric [W]	3.2857

Rendering Indices	
Ra	**97.5**
R1	99.3
R2	99.5
R3	97.0
R4	99.0
R5	98.3
R6	97.4
R7	96.3
R8	93.4
R9	84.0
R10	96.6
R11	97.9
R12	82.9
R13	99.6
R14	97.0

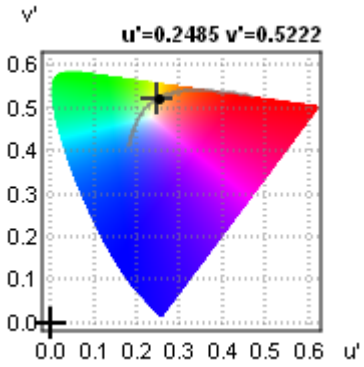
CIE 1931



CIE 1960



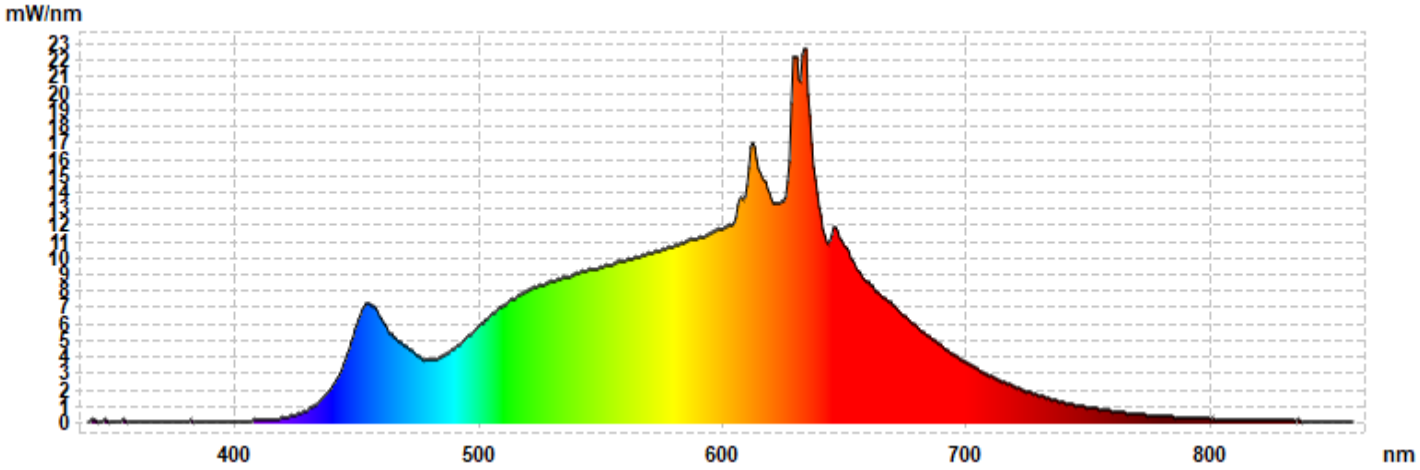
CIE 1976



Light quality control

tryb 1 60%

Spectrum (350nm – 850 nm)

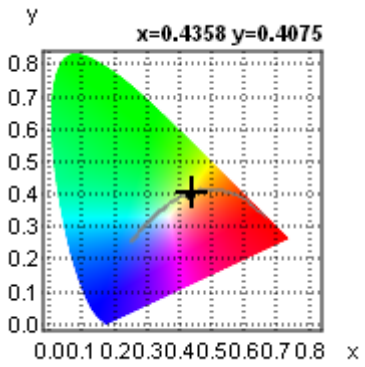


Results

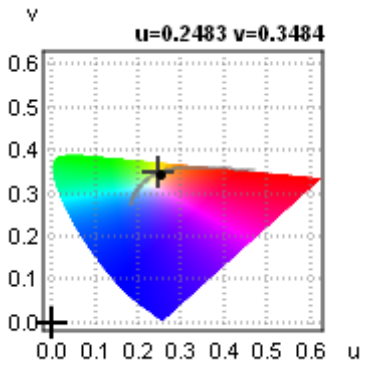
CIE 1931 2˚observer	
x	0.4358
y	0.4075
u'	0.2483
v'	0.5226
CCT [K]	3048
Y [lm]	718.18
Purity	0.531
Radiometric [W]	2.4214

Rendering Indices	
Ra	**97.6**
R1	99.3
R2	99.3
R3	96.7
R4	99.1
R5	98.3
R6	97.6
R7	96.6
R8	93.7
R9	84.4
R10	96.1
R11	97.8
R12	82.6
R13	99.5
R14	96.8

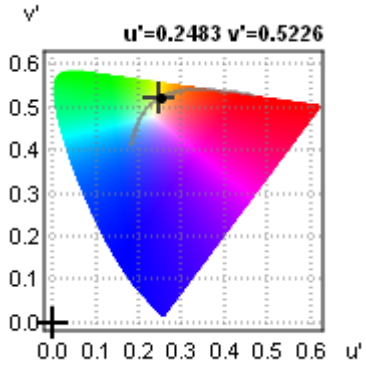
CIE 1931



CIE 1960



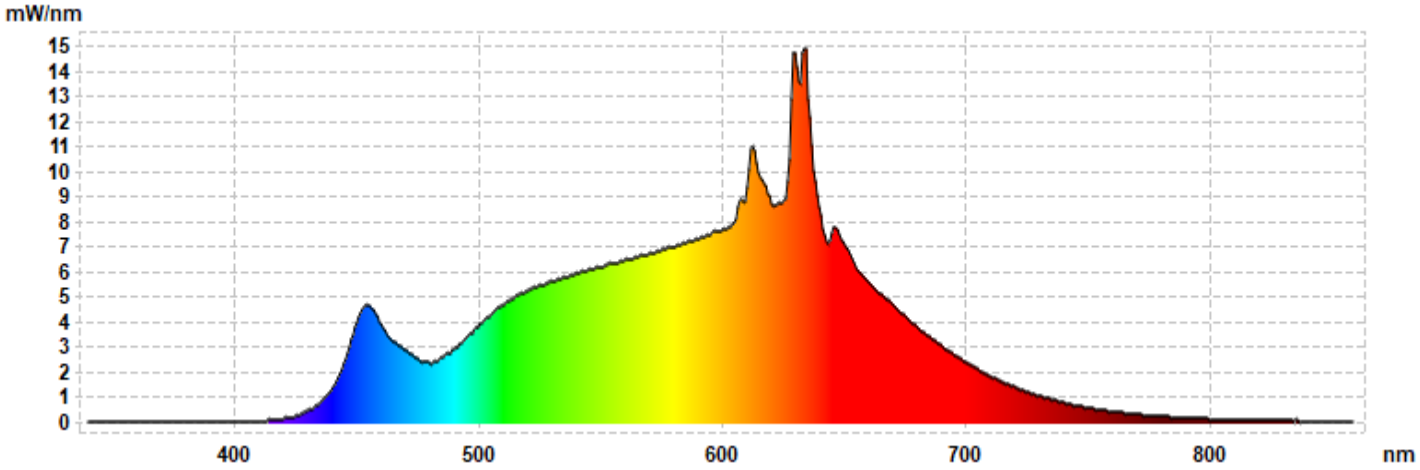
CIE 1976



Light quality control

tryb 1 40%

Spectrum (350nm – 850 nm)

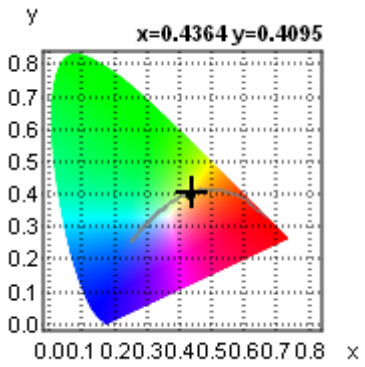


Results

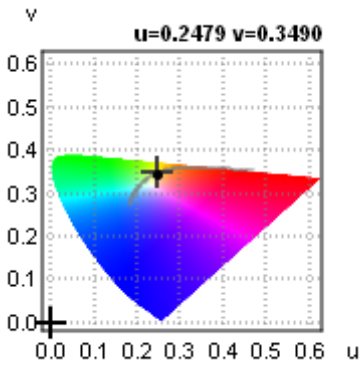
CIE 1931 2˚observer	
x	0.4364
y	0.4095
u'	0.2479
v'	0.5234
CCT [K]	3052
Y [lm]	471.16
Purity	0.539
Radiometric [W]	1.5827

Rendering Indices	
Ra	**97.6**
R1	99.3
R2	98.8
R3	96.2
R4	99.0
R5	98.1
R6	98.0
R7	97.0
R8	94.0
R9	84.5
R10	95.2
R11	97.8
R12	81.8
R13	99.3
R14	96.6

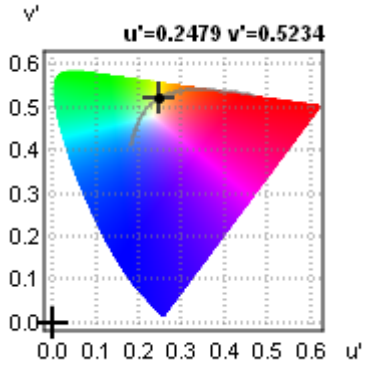
CIE 1931



CIE 1960



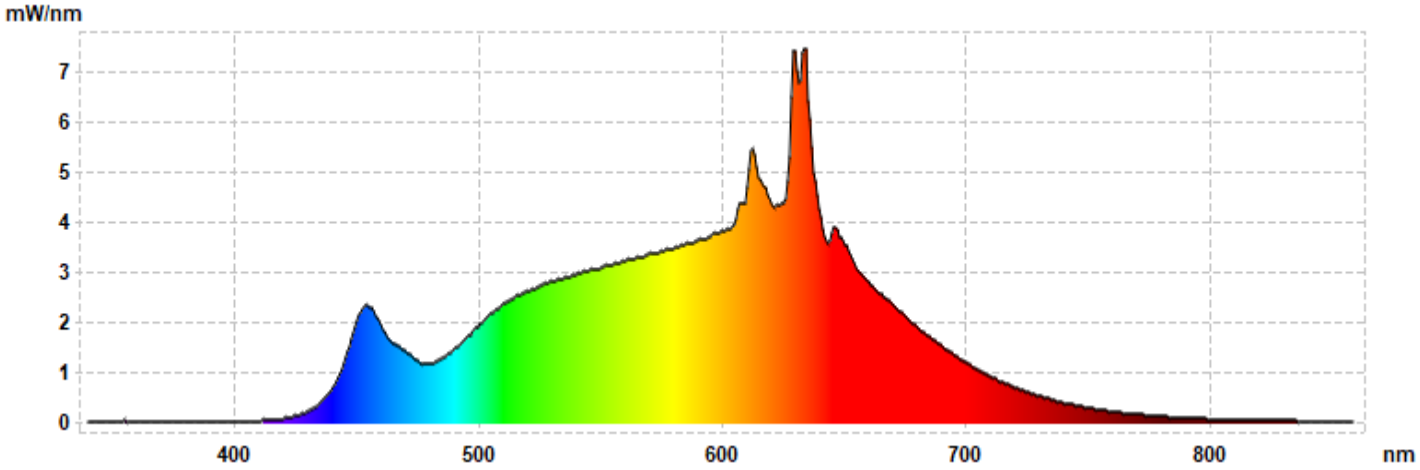
CIE 1976



Light quality control

tryb 1 20%

Spectrum (350nm – 850 nm)

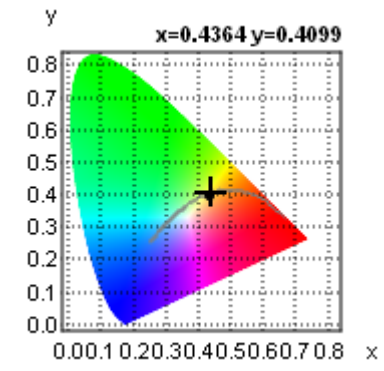


Results

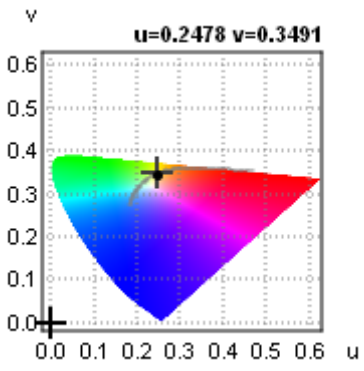
CIE 1931 2˚observer	
x	0.4364
y	0.4099
u'	0.2478
v'	0.5236
CCT [K]	3055
Y [lm]	234.04
Purity	0.540
Radiometric [W]	0.7871

Rendering Indices	
Ra	**97.6**
R1	99.4
R2	98.8
R3	96.0
R4	99.0
R5	98.2
R6	98.1
R7	97.3
R8	94.5
R9	85.5
R10	95.1
R11	97.5
R12	81.8
R13	99.3
R14	96.5

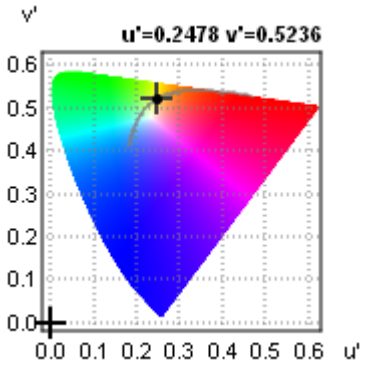
CIE 1931



CIE 1960



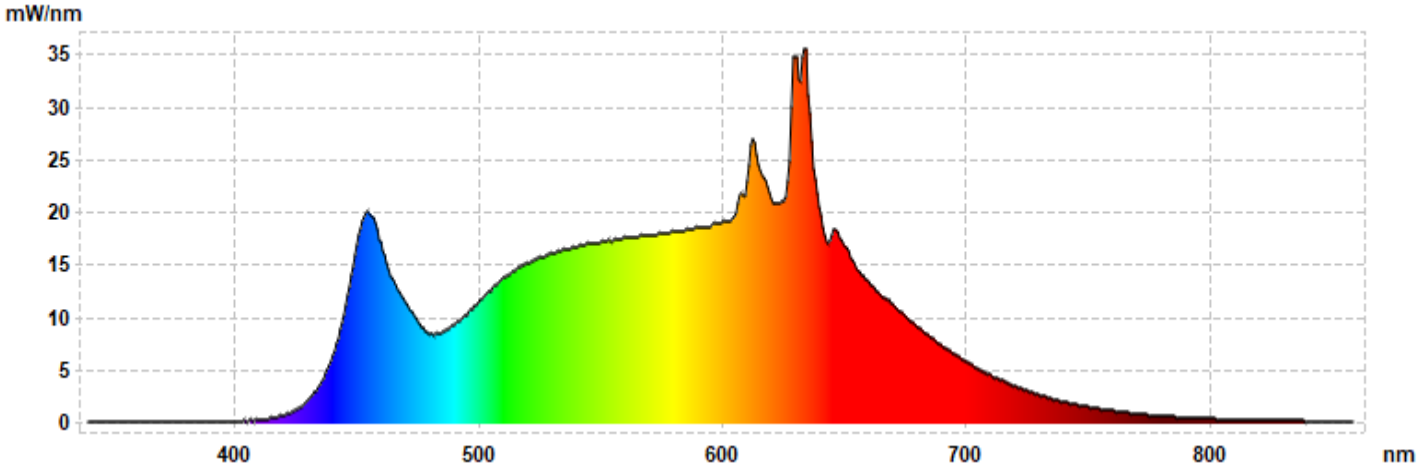
CIE 1976



Light quality control

tryb 2 100%

Spectrum (350nm – 850 nm)

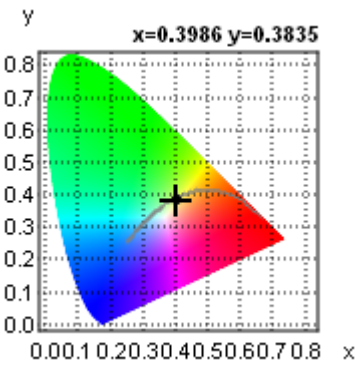


Results

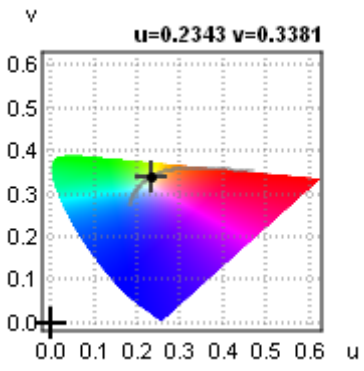
CIE 1931 2˚observer	
x	0.3986
y	0.3835
u'	0.2343
v'	0.5072
CCT [K]	3593
Y [lm]	1258.15
Purity	0.347
Radiometric [W]	4.3010

Rendering Indices	
Ra	**97.7**
R1	97.8
R2	99.1
R3	96.7
R4	99.6
R5	97.9
R6	96.1
R7	97.3
R8	97.2
R9	94.7
R10	98.4
R11	97.4
R12	78.4
R13	98.1
R14	97.0

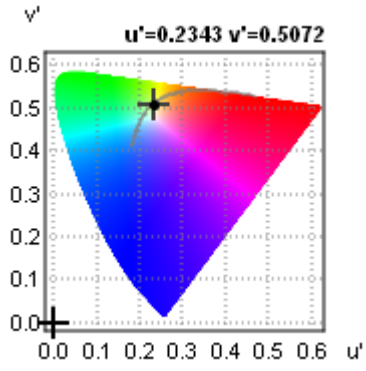
CIE 1931



CIE 1960



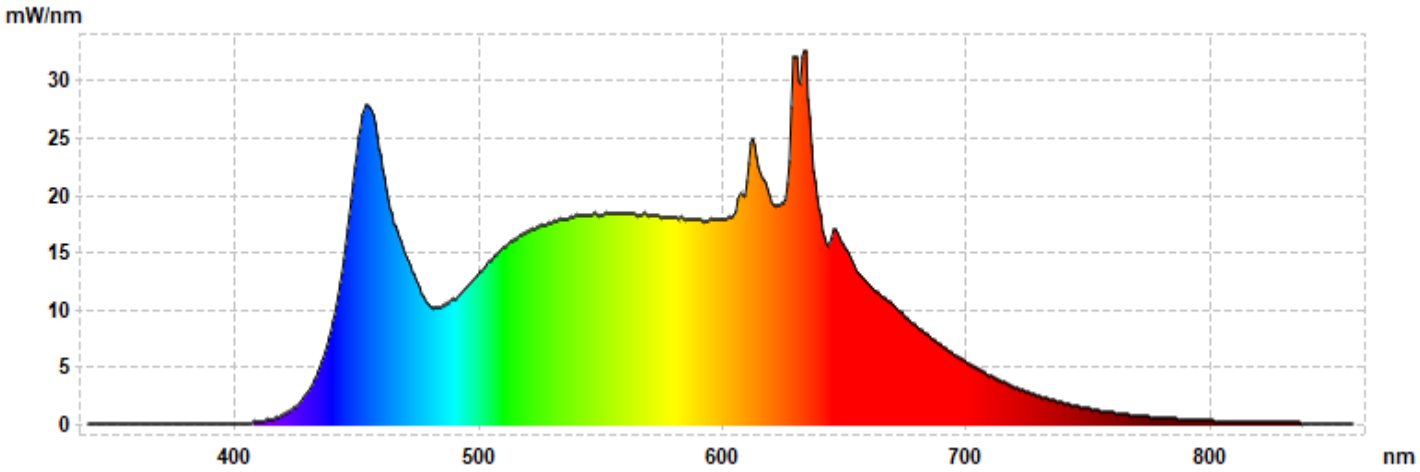
CIE 1976



Light quality control

tryb 3 100%

Spectrum (350nm – 850 nm)

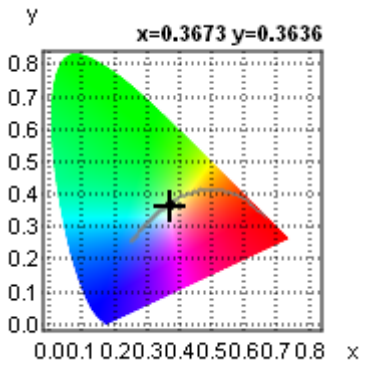


Results

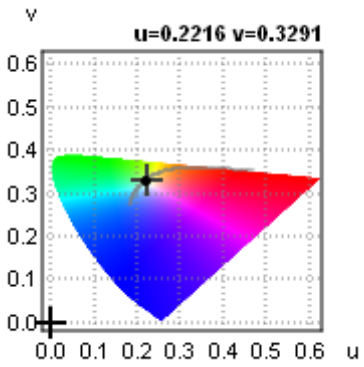
CIE 1931 2˚observer	
x	0.3673
y	0.3636
u'	0.2216
v'	0.4937
CCT [K]	4291
Y [lm]	1295.24
Purity	0.193
Radiometric [W]	4.4849

Rendering Indices	
Ra	**97.2**
R1	97.3
R2	99.0
R3	96.0
R4	98.5
R5	96.9
R6	95.3
R7	97.4
R8	97.2
R9	97.0
R10	98.0
R11	98.0
R12	72.7
R13	97.9
R14	96.8

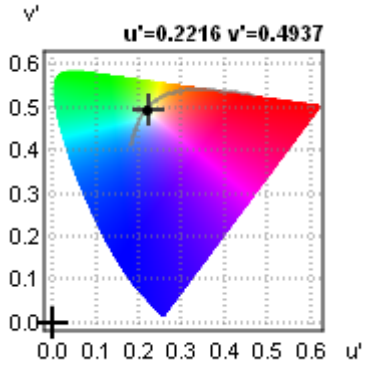
CIE 1931



CIE 1960



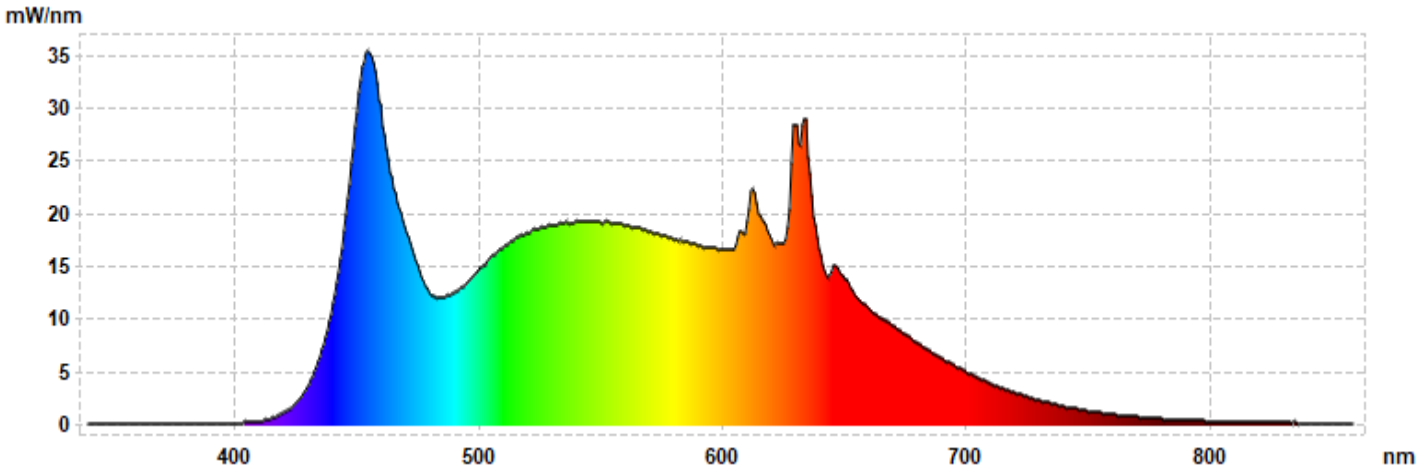
CIE 1976



Light quality control

tryb 4 100%

Spectrum (350nm – 850 nm)

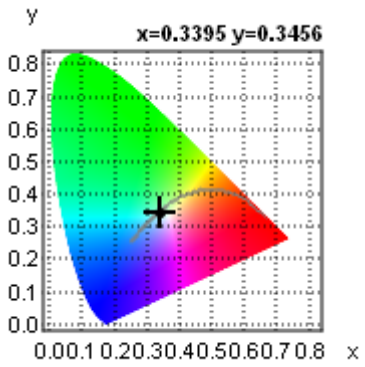


Results

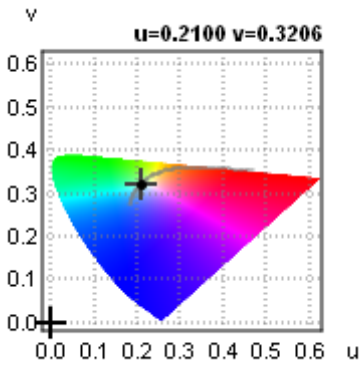
CIE 1931 2˚observer	
x	0.3395
y	0.3456
u'	0.2100
v'	0.4809
CCT [K]	5206
Y [lm]	1310.62
Purity	0.056
Radiometric [W]	4.6073

Rendering Indices	
Ra	**96.9**
R1	97.5
R2	98.7
R3	95.2
R4	98.0
R5	96.3
R6	94.3
R7	97.8
R8	97.7
R9	96.6
R10	96.1
R11	97.4
R12	72.9
R13	98.6
R14	96.6

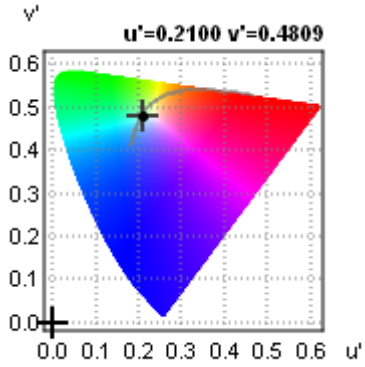
CIE 1931



CIE 1960



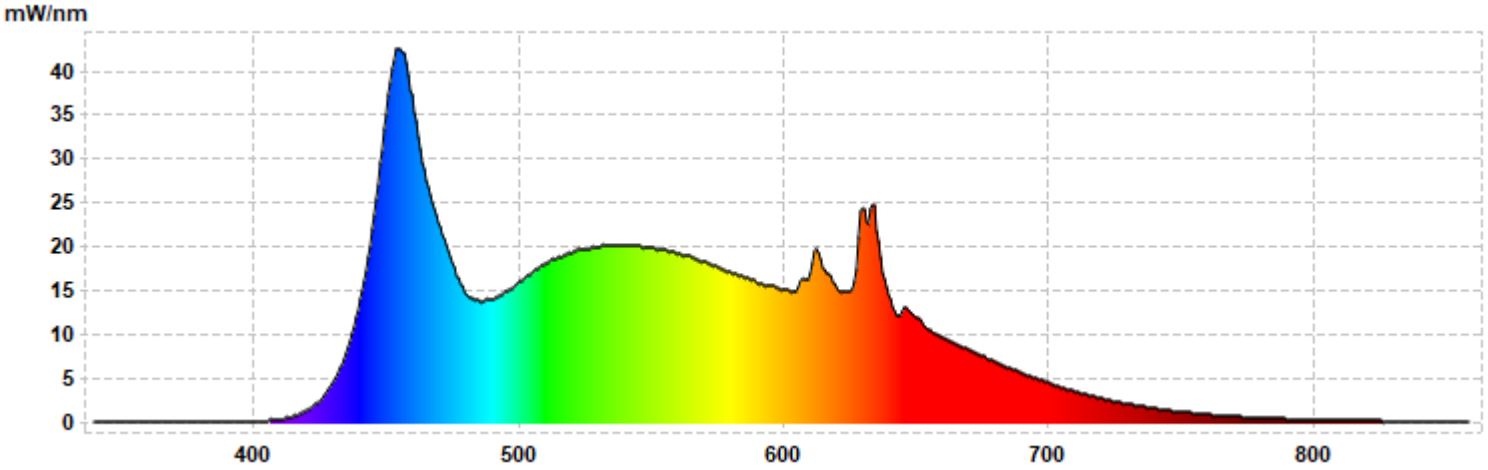
CIE 1976



Light quality control

tryb 5 100%

Spectrum (350nm – 850 nm)

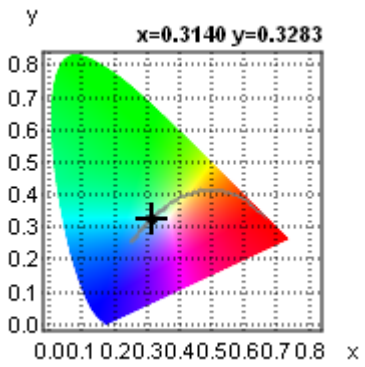


Results

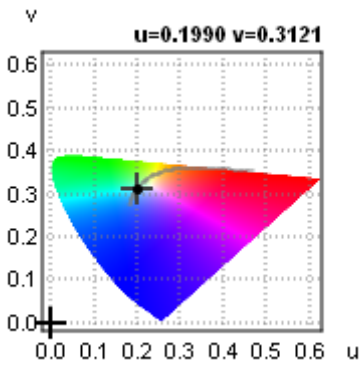
CIE 1931 2˚observer	
x	0.3140
y	0.3283
u'	0.1990
v'	0.4681
CCT [K]	6441
Y [lm]	1316.56
Purity	0.069
Radiometric [W]	4.7017

Rendering Indices	
Ra	**95.5**
R1	97.2
R2	98.8
R3	95.3
R4	93.8
R5	93.8
R6	93.2
R7	96.3
R8	96.0
R9	96.4
R10	93.9
R11	94.5
R12	66.8
R13	98.9
R14	97.1

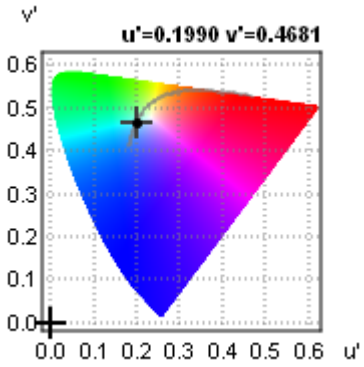
CIE 1931

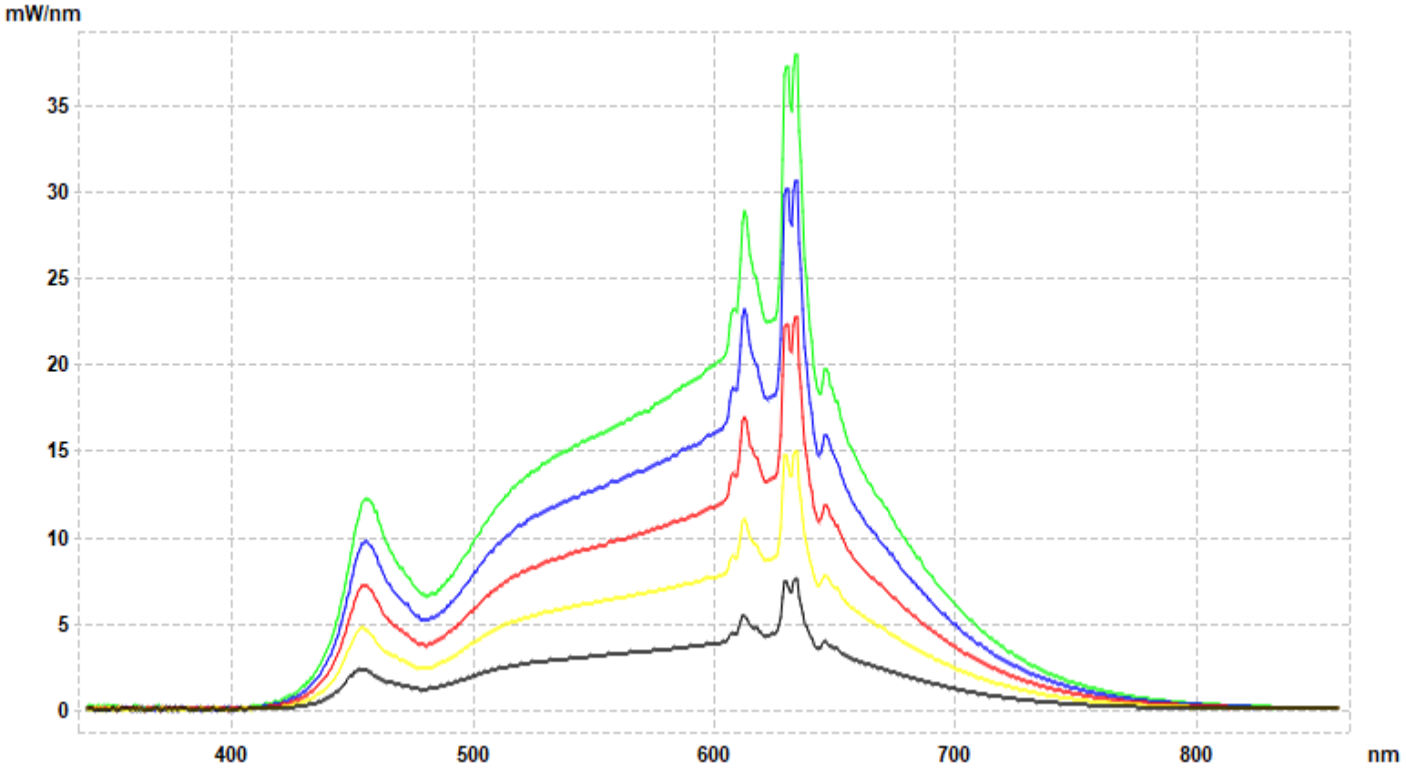


CIE 1960



CIE 1976

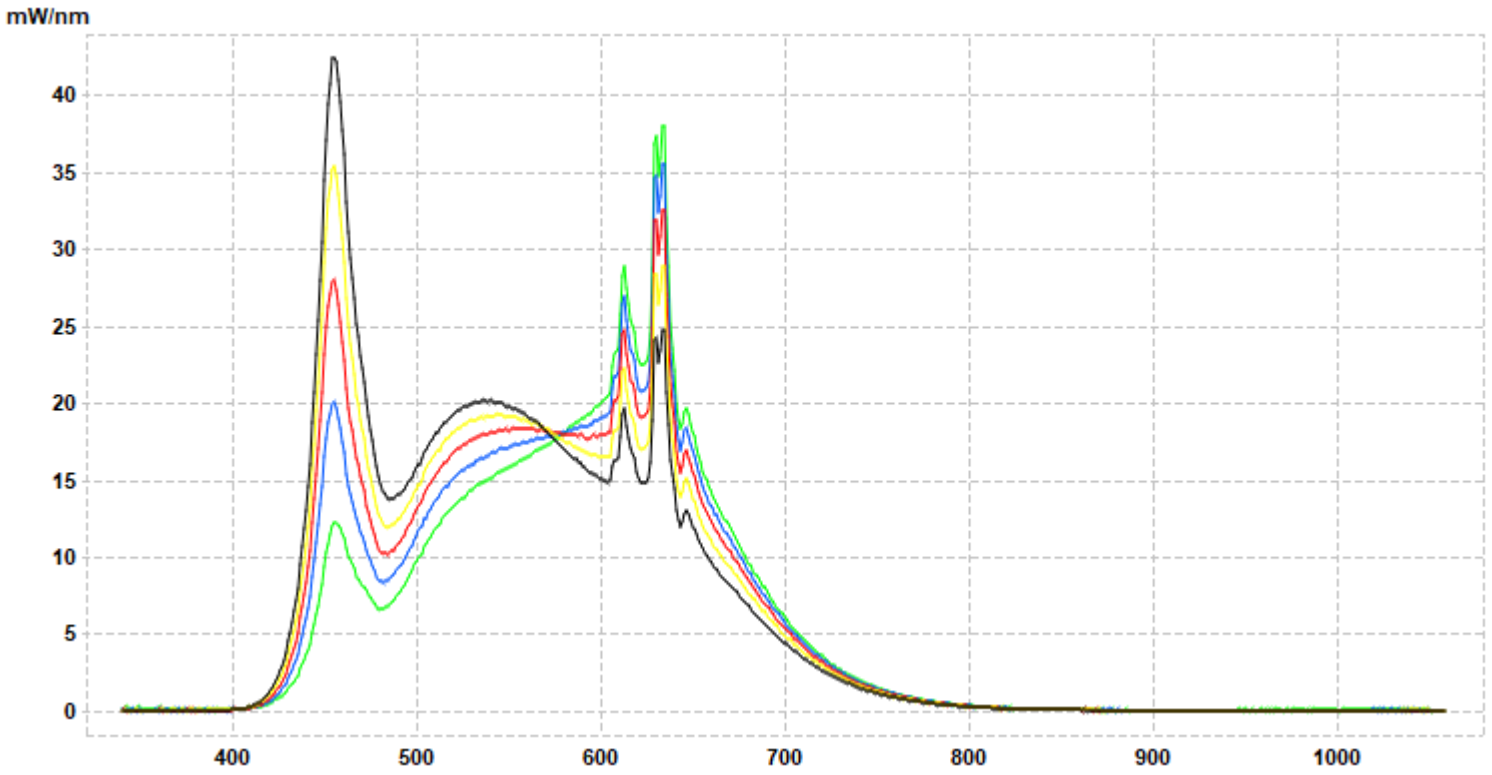




Comparison table

Pos.	Name	x	y	CCT [K]	Y [lm]	Ra	Radiometric [W]
1	tryb 1 100%	0.4348	0.4054	3047	1213.09	97.5	4.1008
2	tryb 1 80%	0.4355	0.4067	3045	975	97.5	3.2857
3	tryb 1 60%	0.4358	0.4075	3048	718.18	97.6	2.4214
4	tryb 1 40%	0.4364	0.4095	3052	471.16	97.6	1.5827
5	tryb 1 20%	0.4364	0.4099	3055	234.04	97.6	0.7871

Light quality control



Comparison table

Pos.	Name	x	y	CCT [K]	Y [lm]	Ra	Radiometric [W]
1	tryb 1 100%	0.4348	0.4054	3047	1213.09	97.5	4.1104
2	tryb 2 100%	0.3986	0.3835	3593	1258.15	97.7	4.3051
3	tryb 3 100%	0.3673	0.3636	4291	1295.24	97.2	4.4855
4	tryb 4 100%	0.3395	0.3456	5206	1310.62	96.9	4.6106
5	tryb 5 100%	0.314	0.3283	6441	1316.56	95.5	4.7019