

Light efficiency:



Output: 1074 lm

Light quality:

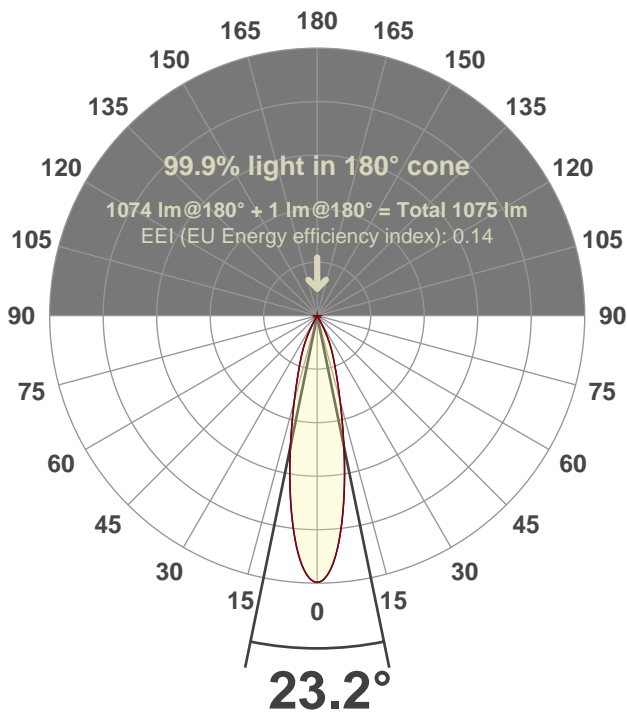


Peak: 4825 cd

Power: 15.0 W



Beam angle



Test number:

CR4D-R-DR-C14-30K-24 (GR-CZ20-NF-RD)

Luminaire Model:

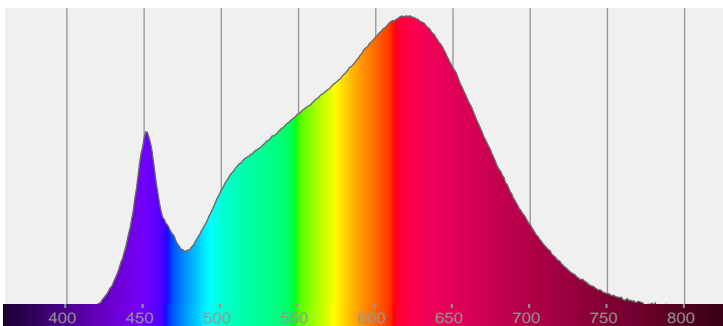
Core 4" Round Deep Regress C14 30K 24 deg

Date and time:

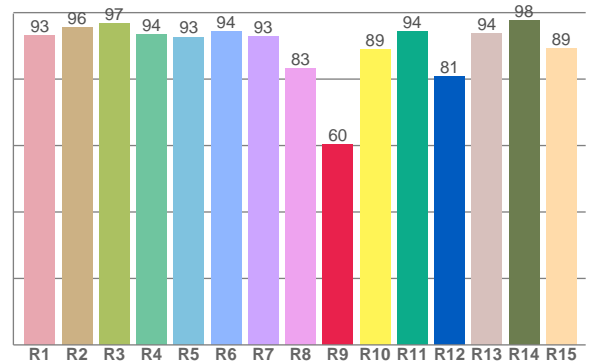
6/14/2017 12:25:18 PM

LUM: 1074

Spectra



CRI: 92.8 (R1-R8)



Color parameters

	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
	CRI	CRI R9	TM30 R <sub>f</sub>	TM30 R <sub>g</sub>	CQS	x	y	u	v	Δuv
	92.8	60.5	91.9	100.3	91.0	0.429	0.400	0.247	0.346	-0.0003

# R<sub>f</sub> 91.9

Fidelity index R<sub>f</sub>

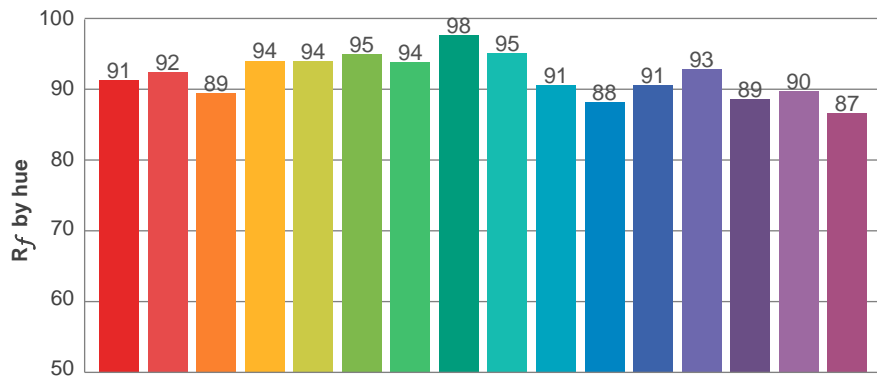
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# R<sub>g</sub> 100.3

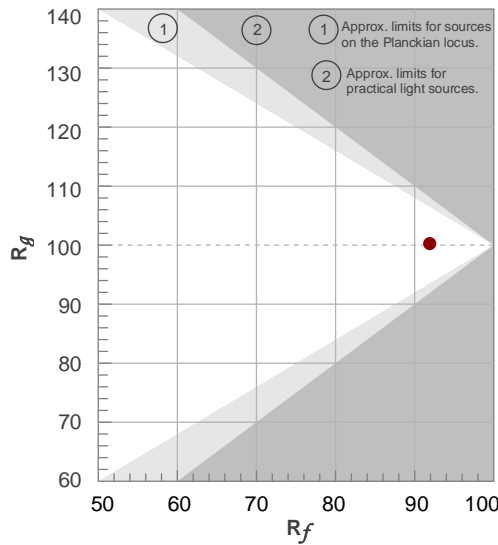
Gammut index R<sub>g</sub>

TM30: 91.9

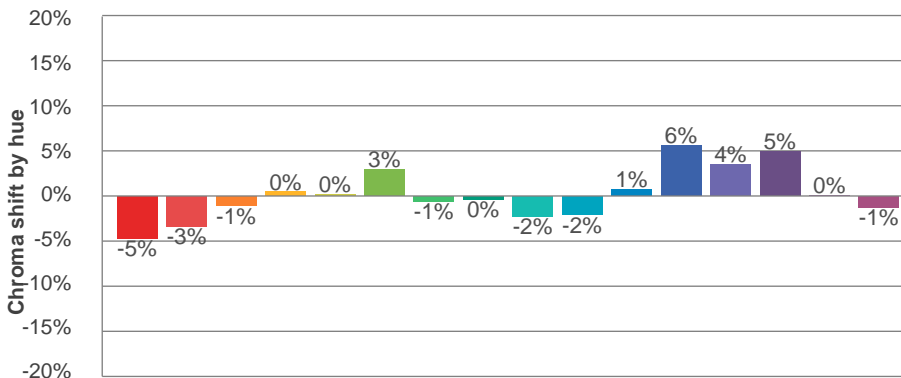
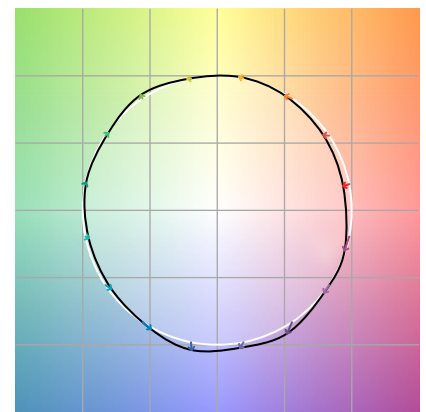
TM-30Color



Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	-1%
2	92	-3%	3%
3	89	-1%	5%
4	94	0%	3%
5	94	0%	3%
6	95	3%	0%
7	94	-1%	-3%
8	98	0%	-1%
9	95	-2%	2%
10	91	-2%	5%
11	88	1%	8%
12	91	6%	2%
13	93	4%	-3%
14	89	5%	-8%
15	90	0%	-7%
16	87	-1%	-11%



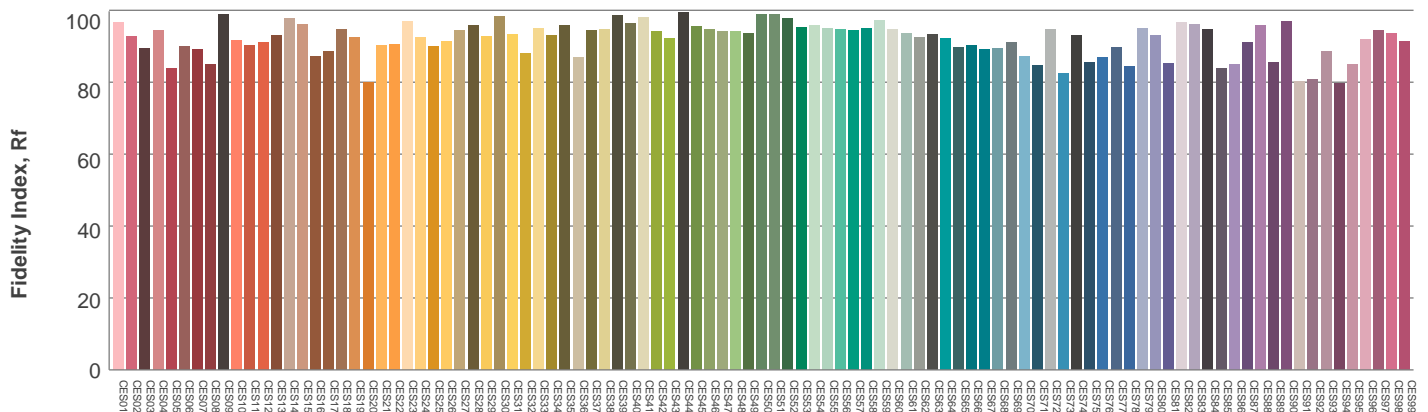
Color vector graphics



Color distortion

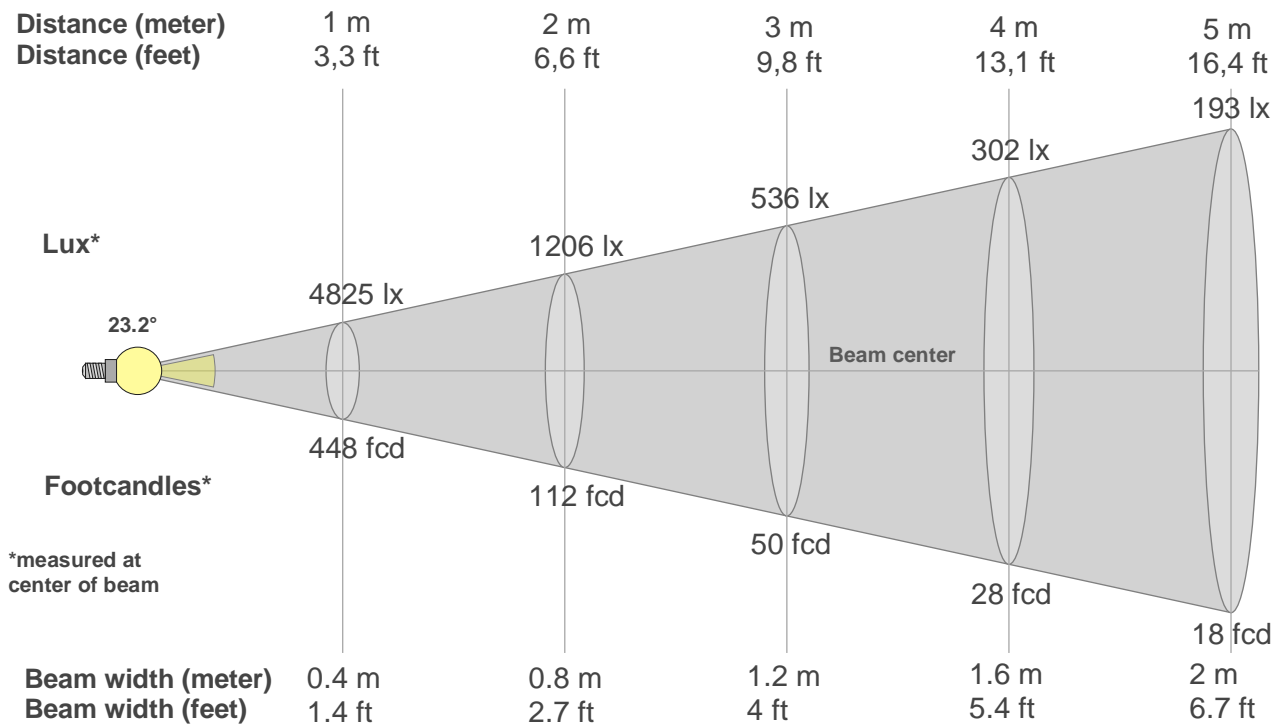


Hue bin



Color Evaluation Sample

Beam details



Beam intensities from 1-20m

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
4825lx	1206lx	536lx	302lx	193lx	134lx	98lx	75lx	60lx	48lx	40lx	34lx	29lx	25lx	21lx	19lx	17lx	15lx	13lx	12lx
448.3fcd	112.1fcd	49.8fcd	28fcd	17.9fcd	12.5fcd	9.1fcd	7fcd	5.5fcd	4.5fcd	3.7fcd	3.1fcd	2.7fcd	2.3fcd	2fcd	1.8fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4825	4722	4433	3981	3436	2857	2301	1821	1432	1137	915	741	583	414	246	114	47	33	28	23
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	19%	15%	12%	9%	5%	2%	1%	1%	1%	0%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4825	4722	4433	3981	3436	2857	2301	1821	1432	1137	915	741	583	414	246	114	47	33	28	23
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	19%	15%	12%	9%	5%	2%	1%	1%	1%	0%

Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4825	4722	4433	3981	3436	2857	2301	1821	1432	1137	915	741	583	414	246	114	47	33	28	23
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	19%	15%	12%	9%	5%	2%	1%	1%	1%	0%

Intensities in 270° c-plane

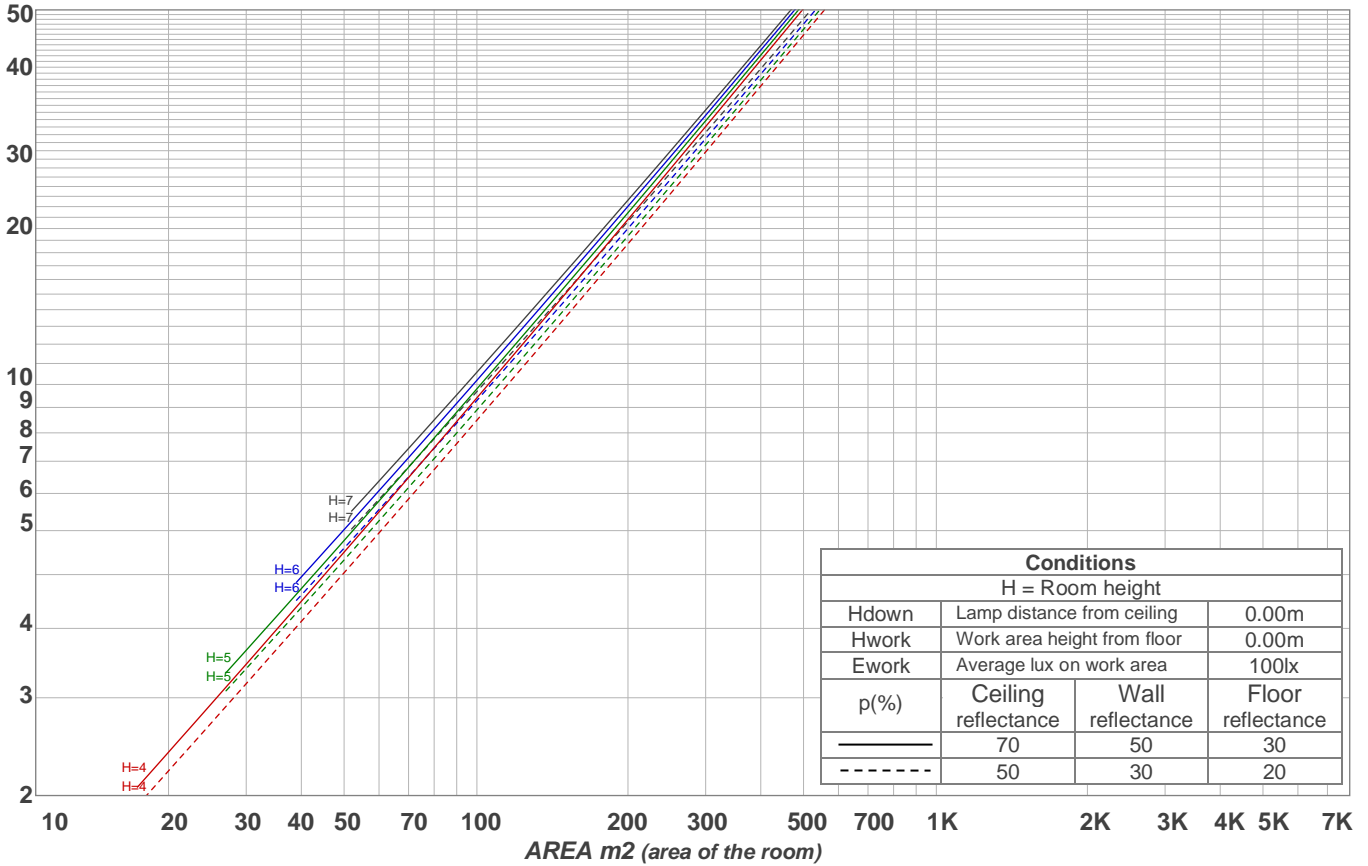
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4825	4722	4433	3981	3436	2857	2301	1821	1432	1137	915	741	583	414	246	114	47	33	28	23
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	19%	15%	12%	9%	5%	2%	1%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23.2°	50.4°	59.7°	99.4%	98.5%

### Light planning

### Luminaire budgetary diagram

LAMPS (number of lamps)



### Luminaire budgetary diagram

AREA m2 (area of the room)

### Coefficients of Utilization

Ceiling reflectance	80				70				50			30			10			0
Wall reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
<b>RCR</b>	<b>(RCR: Room Cavity Ratio)</b>																	
	Room Values are expressed as percentage of Lumens delivered to the task surface																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	113	111	109	113	111	109	108	107	105	104	103	102	101	100	99	98	97
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93
3	108	103	99	97	106	102	98	96	99	97	94	97	95	93	95	93	91	90
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87
5	101	95	91	88	100	94	91	88	93	90	87	91	88	86	90	88	86	84
6	98	92	88	85	97	91	87	84	90	86	84	89	86	83	88	85	83	82
7	95	89	85	82	94	88	84	82	87	84	81	86	83	81	85	82	80	79
8	93	86	82	79	92	86	82	79	85	81	79	84	81	78	83	80	78	77
9	90	83	79	77	89	83	79	76	82	79	76	82	78	76	81	78	76	75
10	88	81	77	74	87	81	77	74	80	76	74	79	76	74	79	76	74	73

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
363 lm	461 lm	222 lm	23.4 lm	5.74 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm

**UGR**

p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X    Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	18.4	18.8	18.4	19.0	19.2	18.4	18.8	18.4	19.0	19.2
	3H	18.4	19.0	18.8	19.2	19.4	18.4	19.0	18.8	19.2	19.4
	4H	18.5	19.1	18.9	19.3	19.5	18.5	19.1	18.9	19.3	19.5
	6H	18.8	19.3	19.1	19.6	19.9	18.8	19.3	19.1	19.6	19.9
	8H	19.0	19.4	19.3	19.7	20.1	19.0	19.4	19.3	19.7	20.1
	12H	19.2	19.6	19.6	20.0	20.4	19.2	19.6	19.6	20.0	20.4
4H	2H	18.3	18.8	18.7	19.1	19.3	18.3	18.8	18.7	19.1	19.3
	3H	18.6	19.1	19.0	19.4	19.8	18.6	19.1	19.0	19.4	19.8
	4H	18.8	19.2	19.2	19.6	20.1	18.8	19.2	19.2	19.6	20.1
	6H	19.1	19.6	19.6	19.9	20.3	19.1	19.6	19.6	19.9	20.3
	8H	19.4	19.8	19.9	20.2	20.5	19.4	19.8	19.9	20.2	20.5
	12H	19.8	20.1	20.3	20.5	21.0	19.8	20.1	20.3	20.5	21.0
8H	4H	18.8	19.2	19.3	19.6	19.9	18.8	19.2	19.3	19.6	19.9
	6H	19.4	19.6	19.9	20.1	20.6	19.4	19.6	19.9	20.1	20.6
	8H	19.9	20.1	20.4	20.6	21.2	19.9	20.1	20.4	20.6	21.2
	12H	20.4	20.6	21.0	21.1	21.7	20.4	20.6	21.0	21.1	21.7
12H	4H	18.8	19.1	19.3	19.5	20.0	18.8	19.1	19.3	19.5	20.0
	6H	19.5	19.7	20.0	20.2	20.8	19.5	19.7	20.0	20.2	20.8
	8H	20.0	20.2	20.6	20.7	21.3	20.0	20.2	20.6	20.7	21.3
Corrected glare indices referring to 1074 lm total luminous flux											