

Light efficiency:



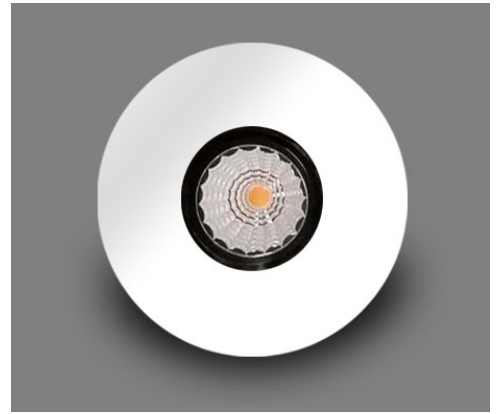
Light quality:



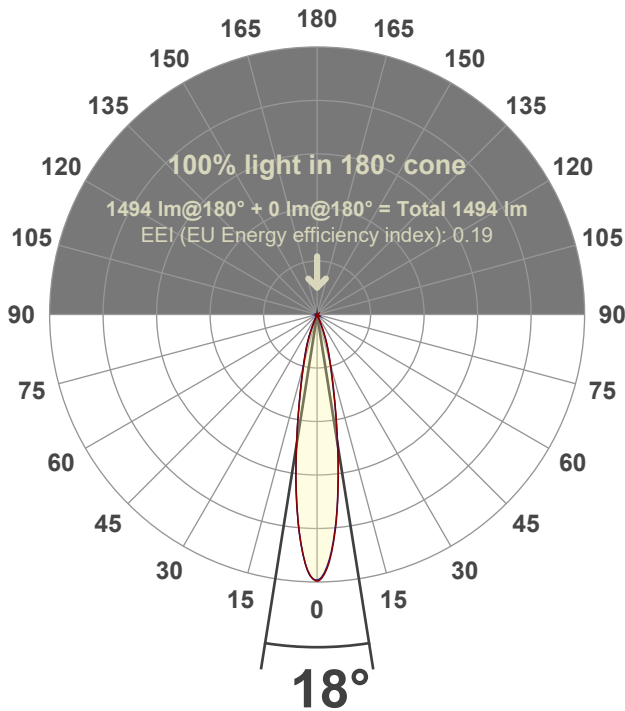
Output: 1494 lm

Peak: 11367 cd

Power: 20.7 W



Beam angle



Test number:

GR-F-F-CZ20-30k-SP-RD-Rev2

Luminaire Model:

Graffiti Flat Round Fixed Downlight-CZ20 30k 15° Optic

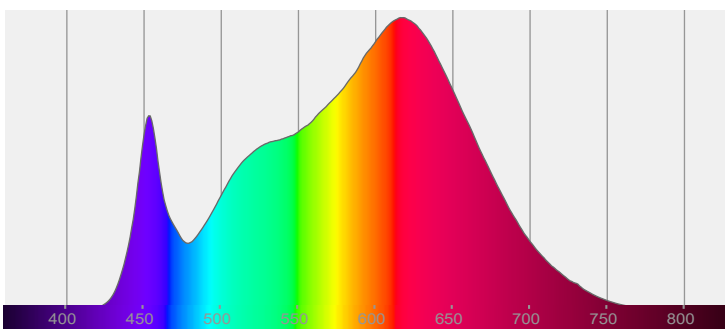
Date and time:

3/9/2022 2:09:01 PM

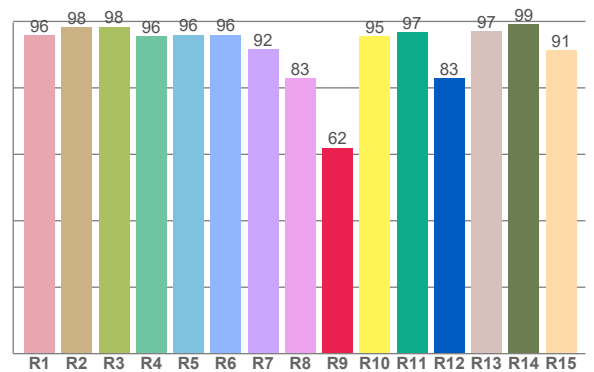
Delivered Lumens

1494

Spectra



CRI: 94.3 (R1-R8)



Color parameters

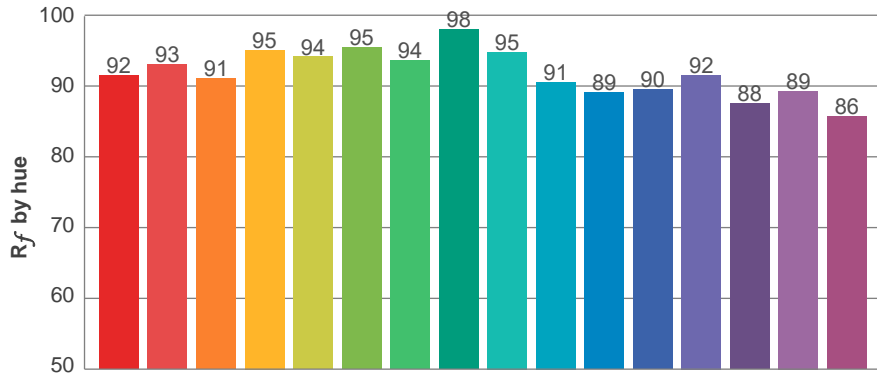
	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
	CRI	CRI R9	TM30 R _f	TM30 R _g	CQS	x	y	u	v	Δuv
	94.3	62.0	92.1	100.4	91.6	0.423	0.393	0.247	0.343	-0.0026

R_f 92.1
Fidelity index R_f

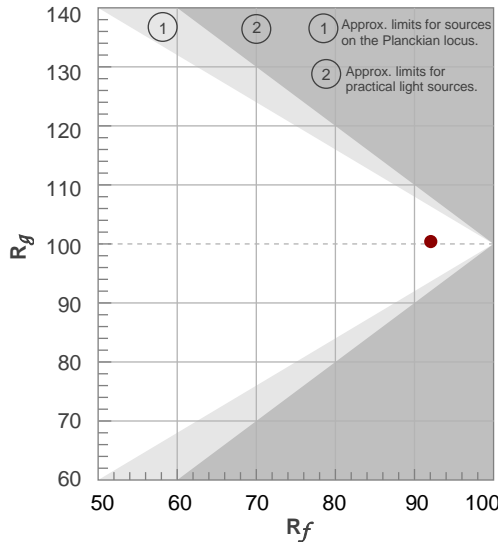
R_g 100.4
Gammut index R_g

TM30: 92.1

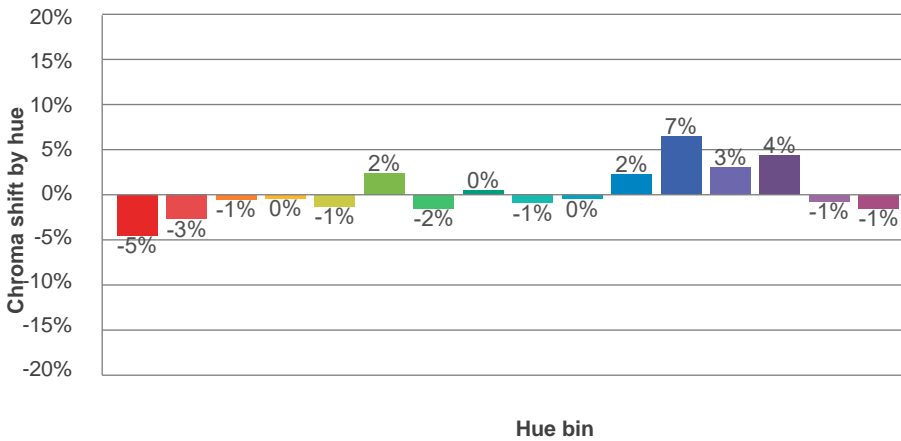
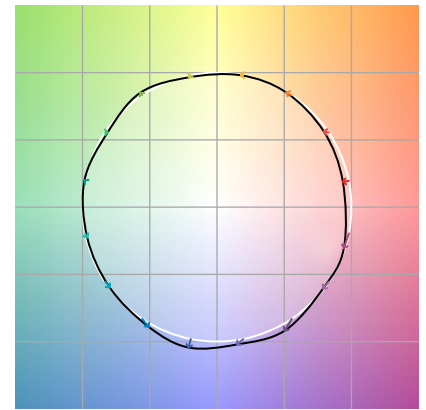
TM-30Color



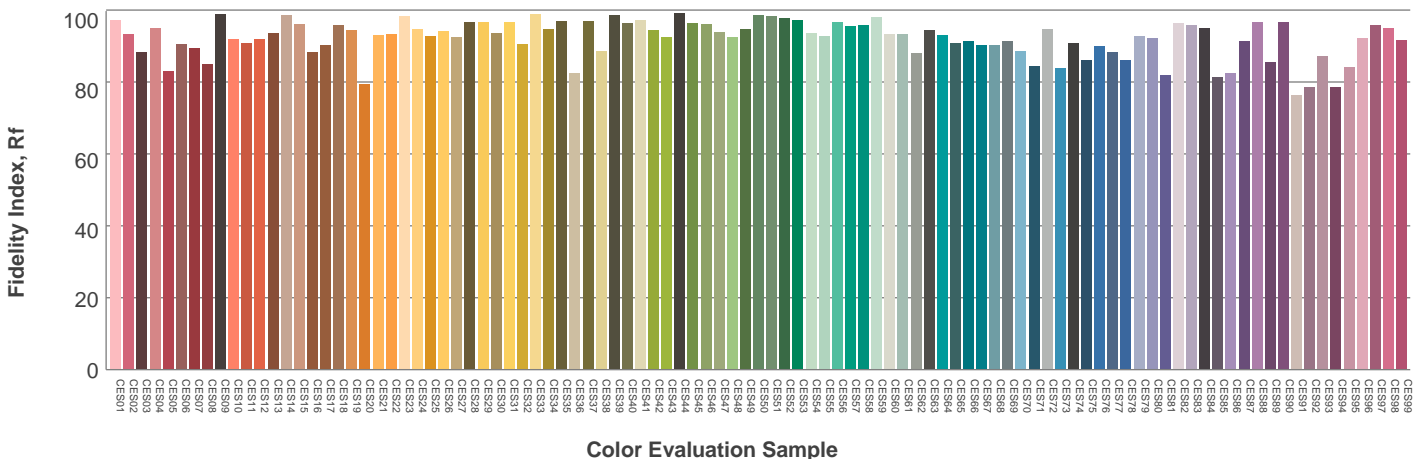
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	92	-5%	0%
2	93	-3%	3%
3	91	-1%	4%
4	95	0%	2%
5	94	-1%	2%
6	95	2%	0%
7	94	-2%	-1%
8	98	0%	0%
9	95	-1%	3%
10	91	0%	5%
11	89	2%	7%
12	90	7%	0%
13	92	3%	-5%
14	88	4%	-9%
15	89	-1%	-6%
16	86	-1%	-11%



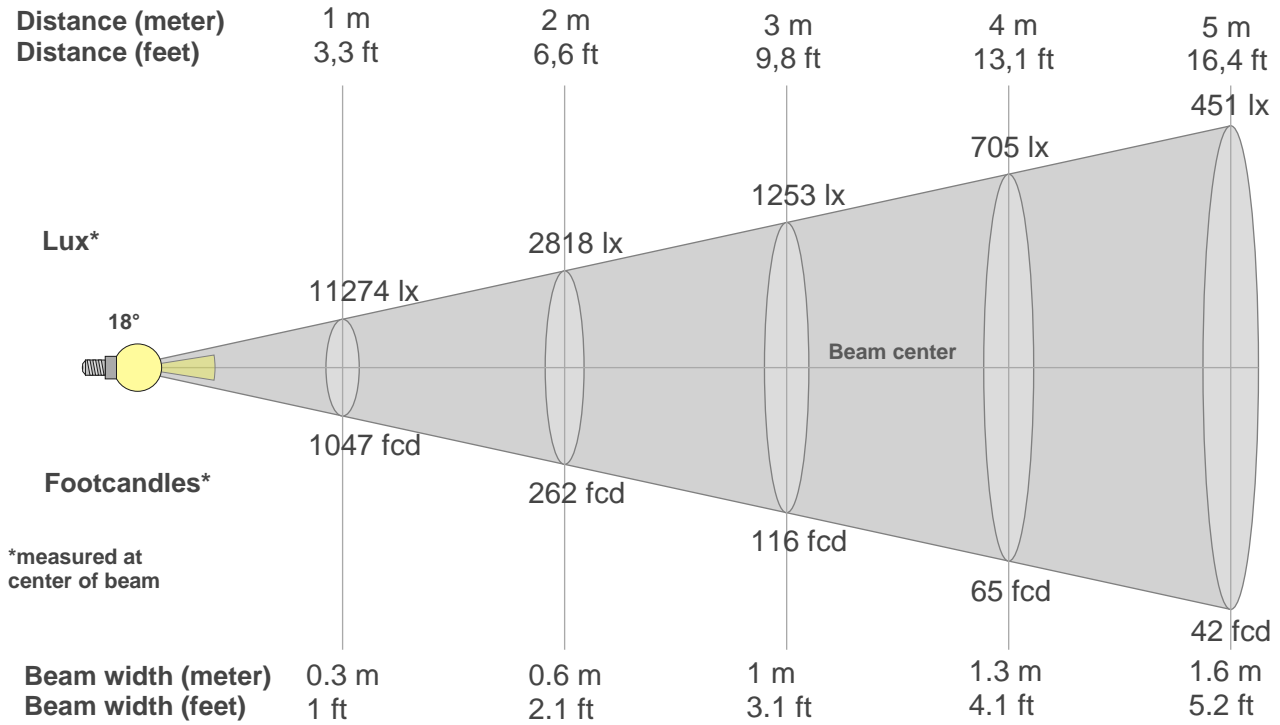
Color vector graphics



Color distortion



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
11274lx	2818lx	1253lx	705lx	451lx	313lx	230lx	176lx	139lx	113lx	93lx	78lx	67lx	58lx	50lx	44lx	39lx	35lx	31lx	28lx
1047.3fcd	261.8fcd	116.4fcd	65.5fcd	41.9fcd	29.1fcd	21.4fcd	16.4fcd	12.9fcd	10.5fcd	8.7fcd	7.3fcd	6.2fcd	5.3fcd	4.7fcd	4.1fcd	3.6fcd	3.2fcd	2.9fcd	2.6fcd

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
11.3K	11.1K	10.8K	10.4K	9.7K	9.1K	8.2K	7.4K	6.5K	5.7K	4.8K	4.2K	3.6K	3.0K	2.6K	2.2K	2.0K	1.7K	1.4K	1.2K
100%	99%	96%	92%	86%	81%	73%	65%	58%	50%	43%	37%	32%	27%	23%	20%	17%	15%	13%	11%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
11.3K	11.1K	10.7K	10.3K	9.7K	9.0K	8.2K	7.3K	6.5K	5.6K	4.8K	4.1K	3.5K	2.9K	2.5K	2.2K	1.8K	1.6K	1.3K	1.1K
100%	99%	95%	92%	86%	80%	73%	65%	57%	50%	43%	36%	31%	26%	22%	19%	16%	14%	12%	10%

Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
11.3K	11.1K	10.9K	10.4K	9.7K	9.1K	8.2K	7.4K	6.5K	5.7K	4.8K	4.2K	3.6K	3.0K	2.6K	2.2K	1.9K	1.7K	1.4K	1.2K
100%	99%	96%	92%	86%	80%	73%	65%	58%	50%	43%	37%	32%	27%	23%	20%	17%	15%	13%	11%

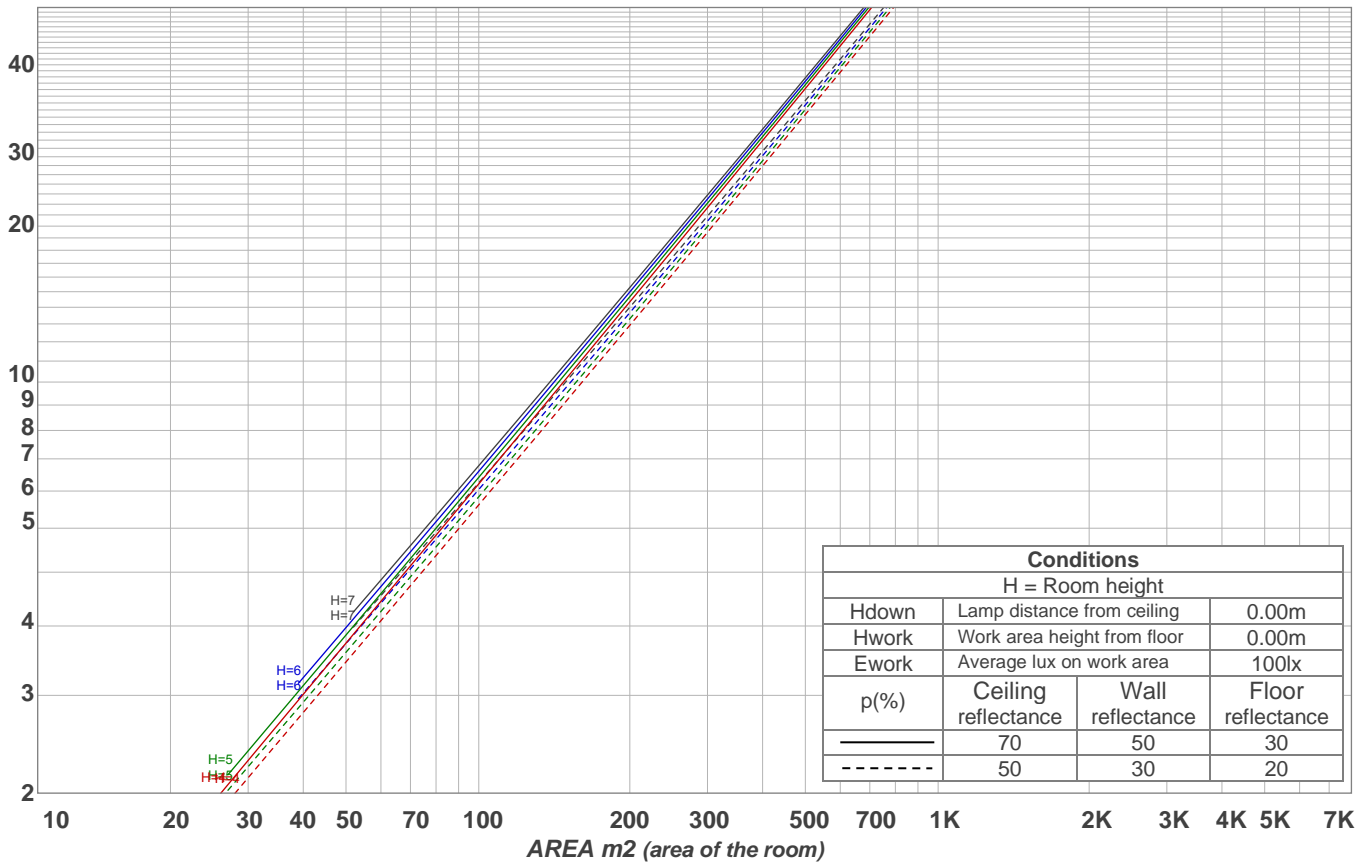
Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
11.3K	11.1K	10.9K	10.4K	9.8K	9.0K	8.2K	7.4K	6.5K	5.6K	4.9K	4.2K	3.6K	3.1K	2.7K	2.3K	2.0K	1.7K	1.5K	1.3K
100%	99%	97%	92%	87%	80%	73%	66%	58%	50%	43%	37%	32%	28%	24%	21%	18%	15%	14%	12%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18°	38.8°	47.2°	99.1%	98.8%

LAMPS (number of lamps)
50

Light planning Luminaire budgetary diagram



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	50	30	10	0
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
RCR	(RCR: Room Cavity Ratio)																				
	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	100	100	
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97	97	97	
2	112	109	106	104	110	107	105	102	104	102	100	101	100	98	98	97	96	95	95	95	
3	109	105	102	99	107	104	101	98	101	99	97	99	97	95	97	95	94	93	93	93	
4	106	101	98	95	105	100	97	95	99	96	94	97	95	93	95	93	92	91	91	91	
5	104	99	95	92	102	98	94	92	96	93	91	95	92	90	93	91	90	89	89	89	
6	101	96	92	90	100	95	92	89	94	91	89	93	90	88	92	90	88	87	87	87	
7	99	94	90	87	98	93	90	87	92	89	87	91	88	86	90	88	86	85	85	85	
8	97	91	88	86	96	91	88	85	90	87	85	89	87	85	89	86	84	84	84	84	
9	95	90	86	84	94	89	86	84	88	85	83	88	85	83	87	85	83	82	82	82	
10	93	88	84	82	93	87	84	82	87	84	82	86	83	82	86	83	81	81	81	81	

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
719 lm	642 lm	109 lm	4.88 lm	2.78 lm	2.84 lm	3.60 lm	4.54 lm	5.24 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