

Light efficiency:



Output: 1093 lm

Light quality:

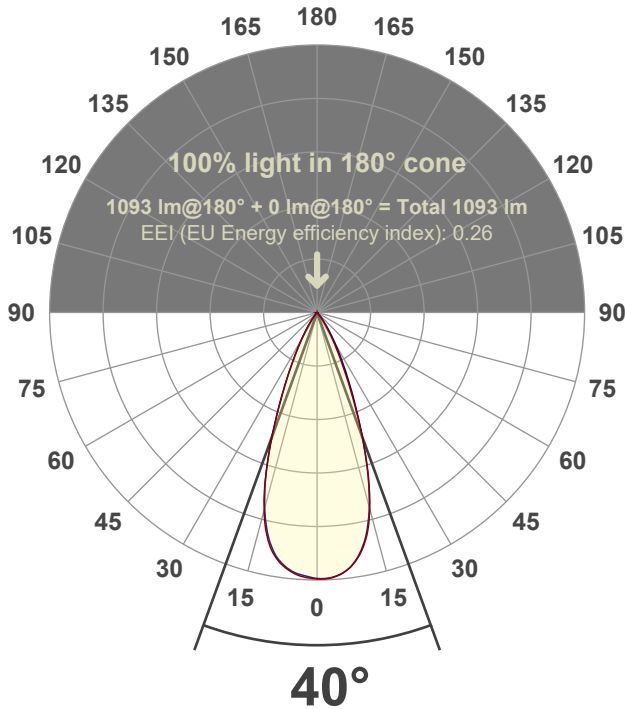


Peak: 2290 cd

Power: 20.8 W



Beam angle



Test number:

GR-F-F-CZ20-30k-WF-SQ-91A-Rev2

Luminaire Model:

Graffiti Flat Square Fixed Downlight-CZ20 30k 60° Optic-Solite

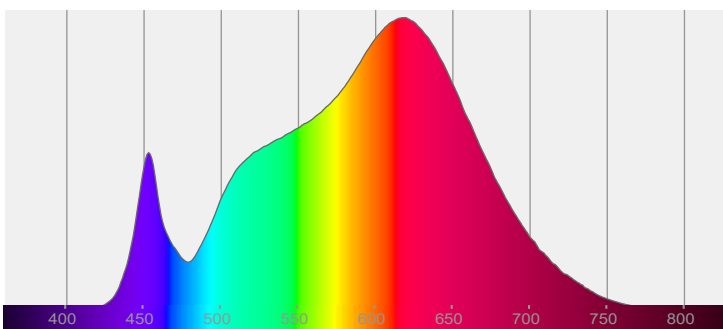
Date and time:

6/30/2022 7:49:31 PM

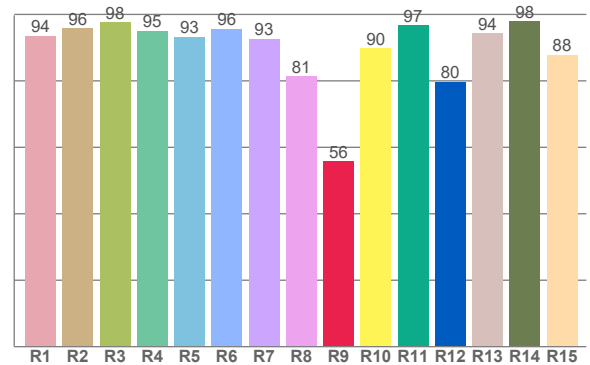
Delivered Lumens

1093

Spectra



CRI: 93.1 (R1-R8)



Color parameters

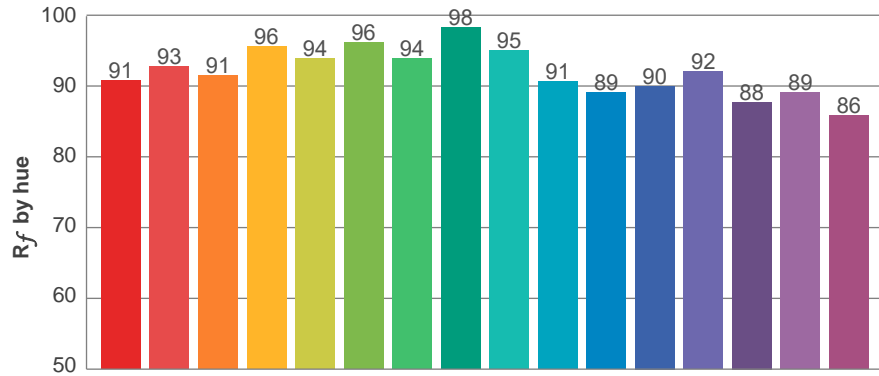
	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
	CRI	CRI R9	TM30 R _f	TM30 R _g	CQS	x	y	u	v	Δuv
	93.1	55.9	92.2	99.2	91.6	0.436	0.408	0.249	0.348	0.0015

R_f 92.2
Fidelity index R_f

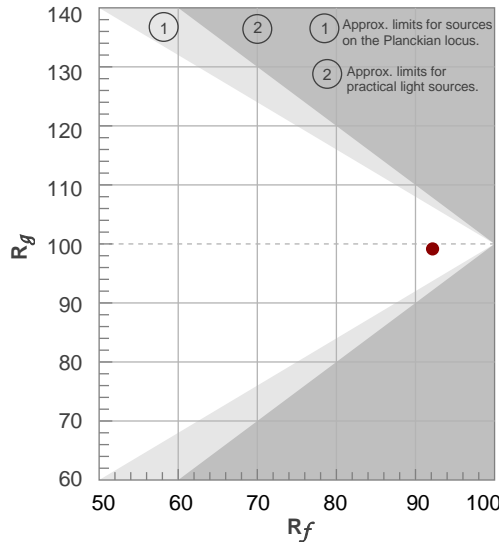
R_g 99.2
Gammut index R_g

TM30: 92.2

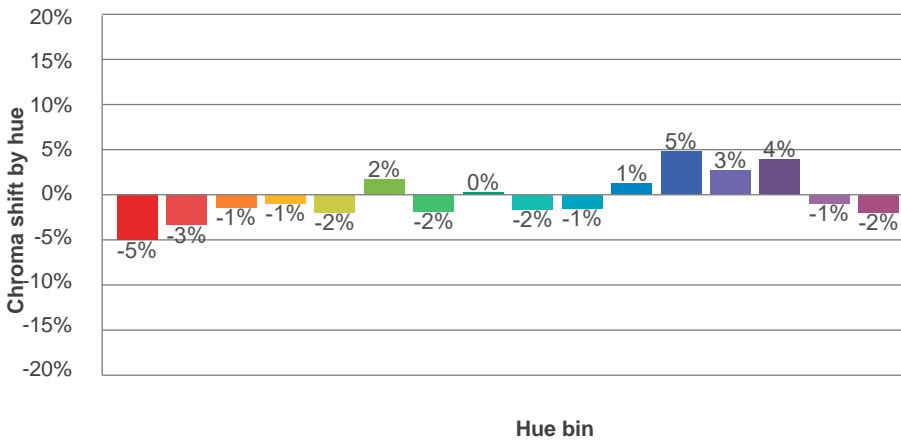
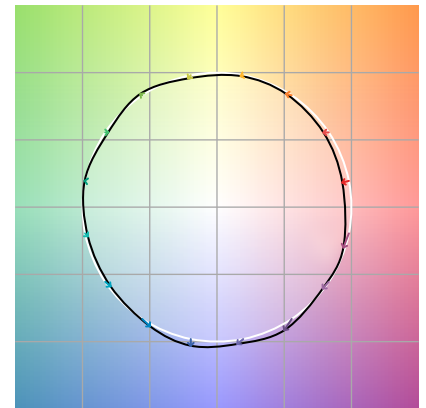
TM-30Color



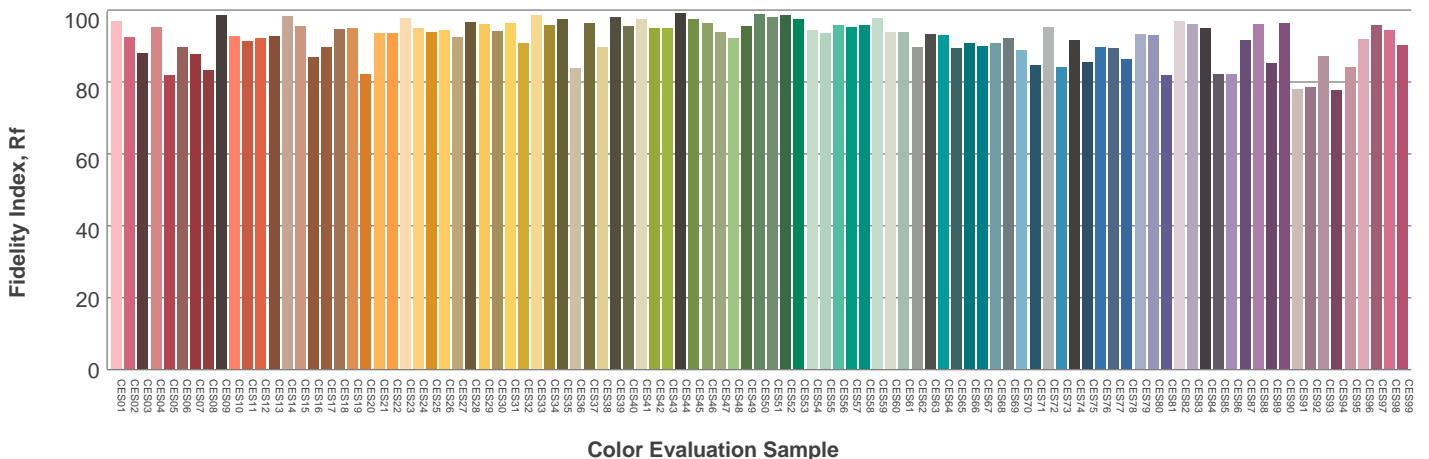
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	0%
2	93	-3%	2%
3	91	-1%	4%
4	96	-1%	2%
5	94	-2%	2%
6	96	2%	1%
7	94	-2%	-1%
8	98	0%	0%
9	95	-2%	3%
10	91	-1%	5%
11	89	1%	8%
12	90	5%	1%
13	92	3%	-5%
14	88	4%	-9%
15	89	-1%	-7%
16	86	-2%	-11%



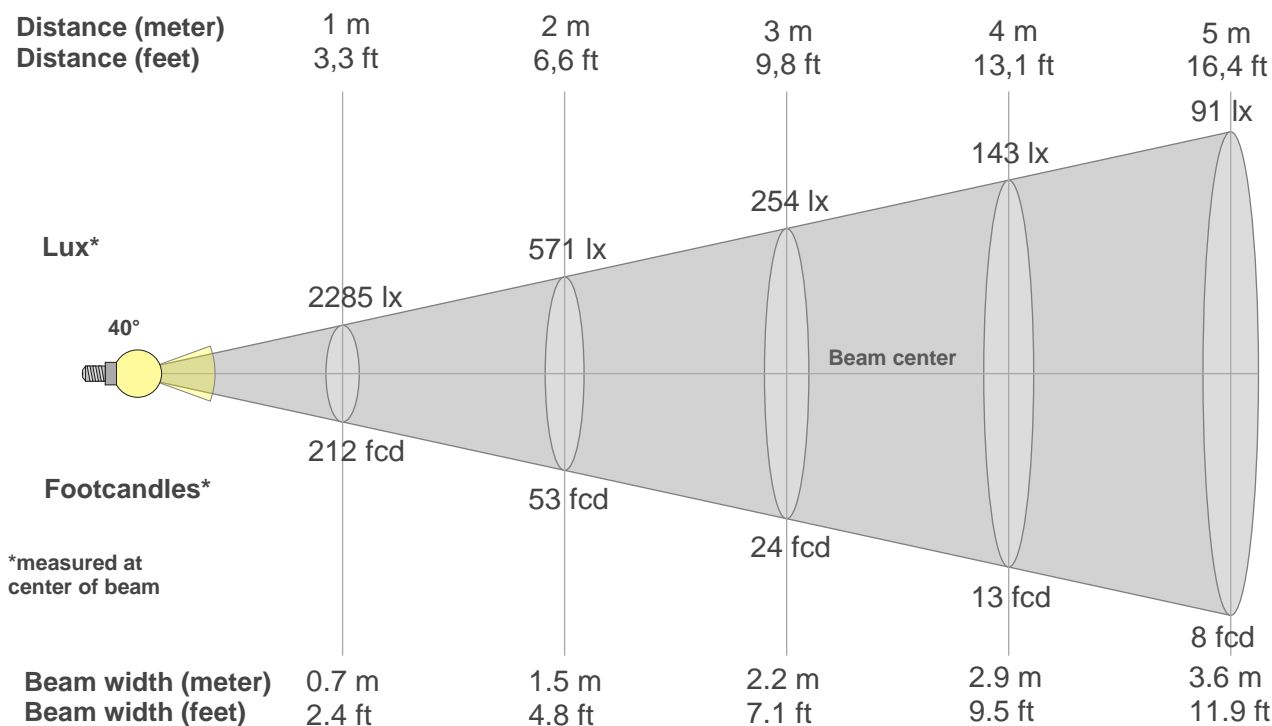
Color vector graphics



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
2285lx	571lx	254lx	143lx	91lx	63lx	47lx	36lx	28lx	23lx	19lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	6lx
212.3fcd	53.1fcd	23.6fcd	13.3fcd	8.5fcd	5.9fcd	4.3fcd	3.3fcd	2.6fcd	2.1fcd	1.8fcd	1.5fcd	1.3fcd	1.1fcd	0.9fcd	0.8fcd	0.7fcd	0.7fcd	0.6fcd	0.5fcd

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°
2285	2285	2271	2240	2189	2107	1994	1839	1640	1403	1141	894	679	505	373	278	205	146	101	68
100%	100%	99%	98%	96%	92%	87%	80%	72%	61%	50%	39%	30%	22%	16%	12%	9%	6%	4%	3%

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°
2285	2283	2268	2236	2183	2102	1984	1822	1622	1391	1145	915	725	566	435	330	246	182	130	91
100%	100%	99%	98%	96%	92%	87%	80%	71%	61%	50%	40%	32%	25%	19%	14%	11%	8%	6%	4%

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°
2285	2279	2263	2231	2182	2111	2008	1860	1651	1404	1141	890	677	514	389	289	210	149	103	70
100%	100%	99%	98%	95%	92%	88%	81%	72%	61%	50%	39%	30%	22%	17%	13%	9%	7%	5%	3%

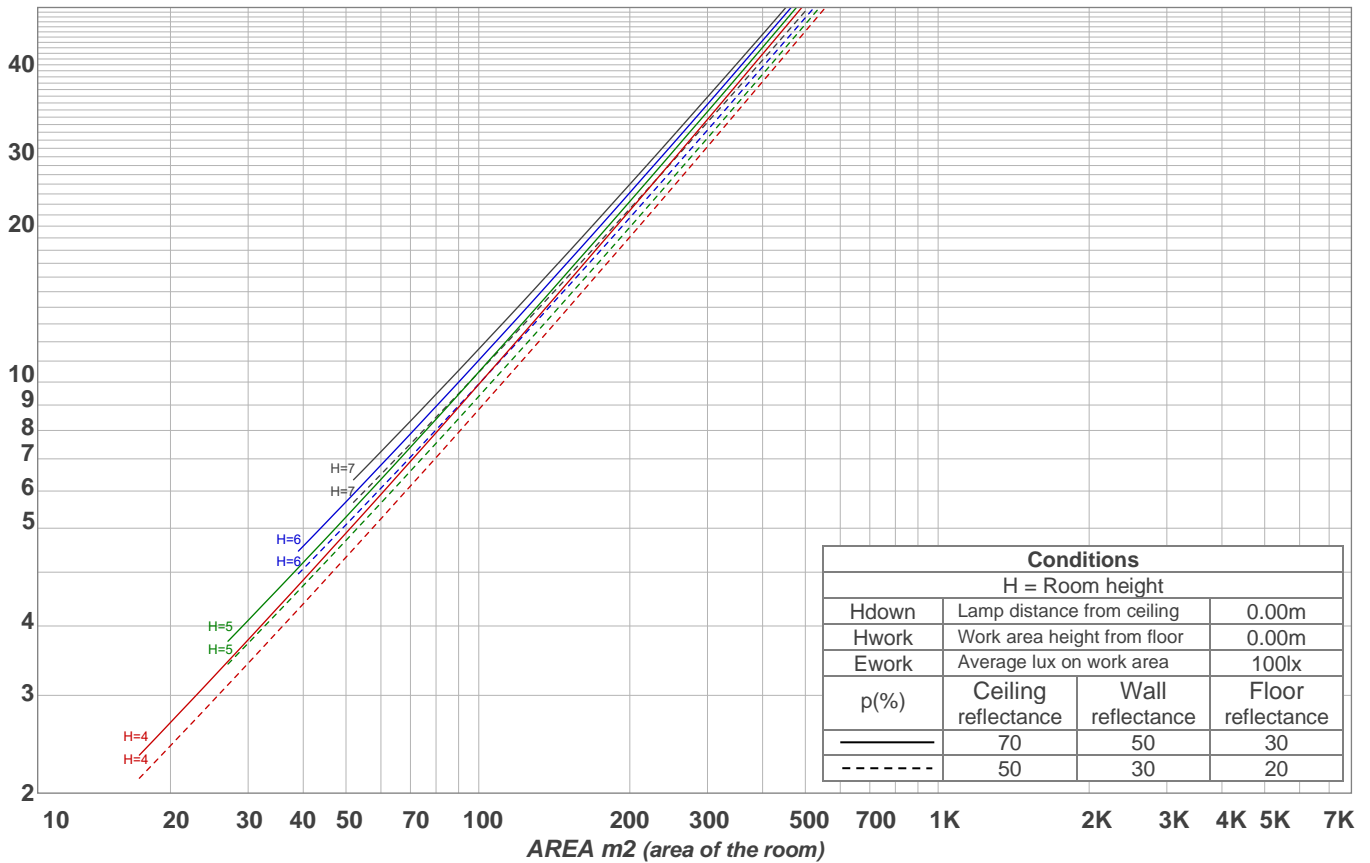
Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
2285	2268	2250	2220	2171	2100	1987	1829	1632	1401	1146	896	690	518	380	274	194	138	96	66
100%	99%	98%	97%	95%	92%	87%	80%	71%	61%	50%	39%	30%	23%	17%	12%	8%	6%	4%	3%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
40°	63.2°	78.6°	98.1%	97.0%

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	114	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94	94	94	
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	90	90	90	
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	89	87	85	85	85	
4	101	94	89	86	99	93	89	85	91	87	84	89	86	83	87	85	82	81	81	81	
5	97	90	85	81	95	89	84	81	87	83	80	85	82	79	84	81	79	77	77	77	
6	93	86	80	77	92	85	80	77	83	79	76	82	78	76	81	78	75	74	74	74	
7	90	82	77	73	88	81	76	73	80	76	73	79	75	72	78	74	72	71	71	71	
8	86	78	73	70	85	78	73	70	77	72	69	76	72	69	75	71	69	68	68	68	
9	83	75	70	67	82	75	70	67	74	70	66	73	69	66	72	69	66	65	65	65	
10	80	72	67	64	79	72	67	64	71	67	64	70	66	64	70	66	63	62	62	62	

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
210 lm	467 lm	285 lm	86.2 lm	17.5 lm	6.55 lm	6.77 lm	7.20 lm	6.04 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