

Light efficiency:



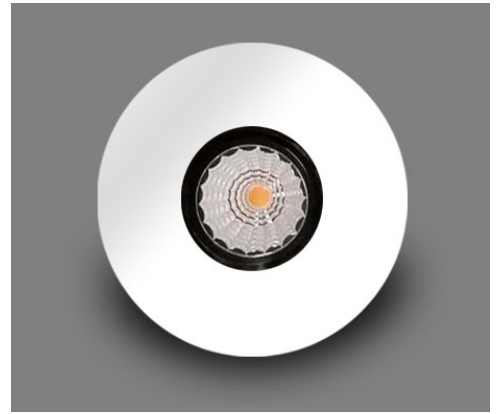
Output: 1391 lm

Light quality:

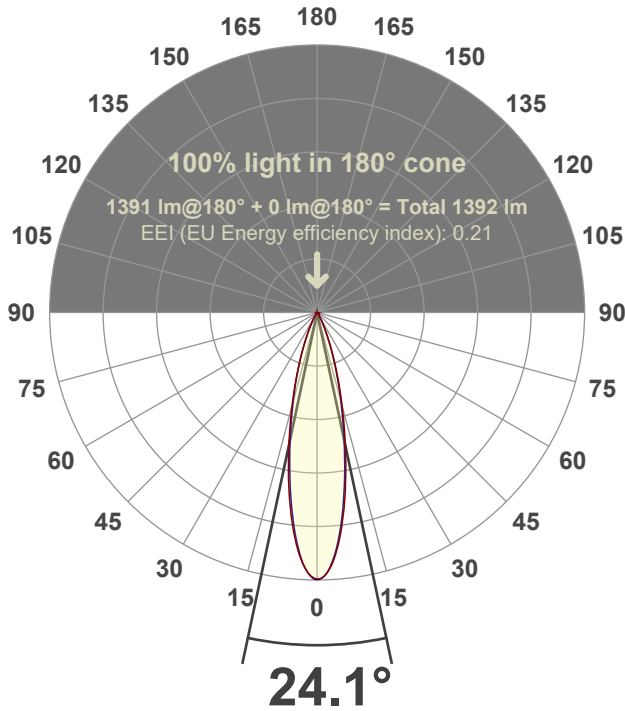


Peak: 6081 cd

Power: 20.7 W



Beam angle



Test number:

GR-F-F-CZ20-30k-SP-RD-91A-Rev2

Luminaire Model:

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

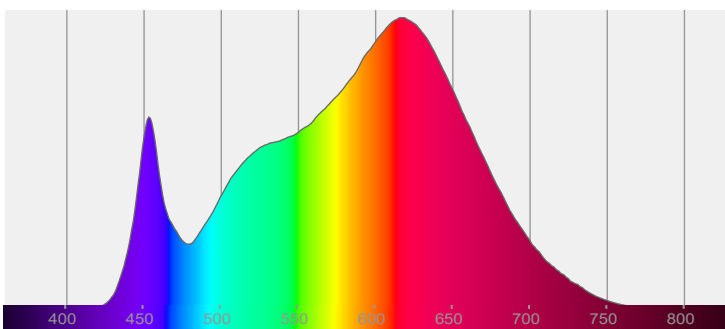
Date and time:

3/9/2022 2:12:58 PM

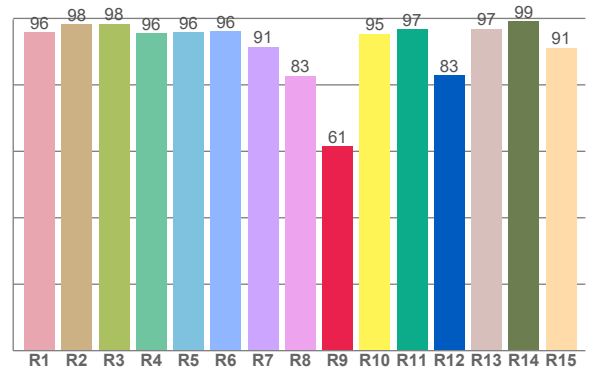
Delivered Lumens

1391

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 <sub>f</sub>	TM30 R <sub>g</sub>	CQS	x	y	u	v	Δuv
	94.3	61.5	92.1	100.3	91.6	0.424	0.394	0.247	0.344	-0.0024

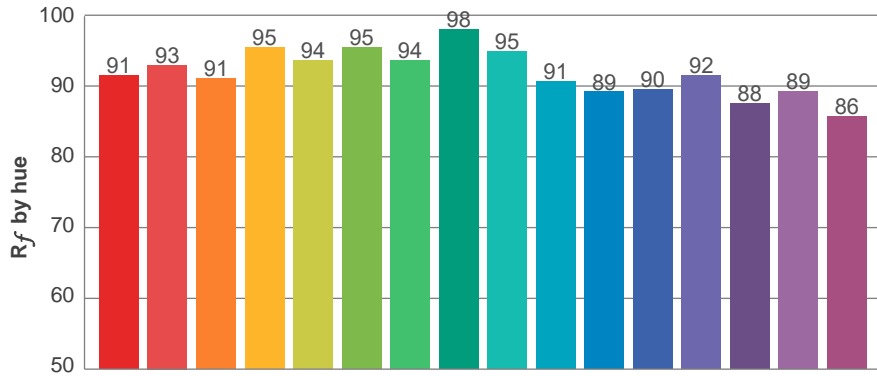
**$R_f$  92.1**  
Fidelity index  $R_f$

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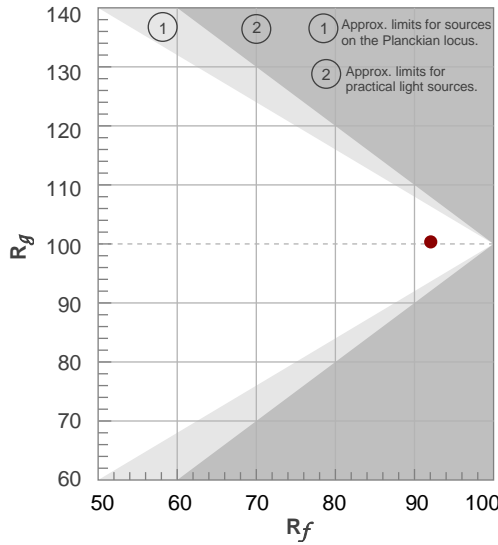
**$R_g$  100.3**  
Gammut index  $R_g$

TM30: 92.1

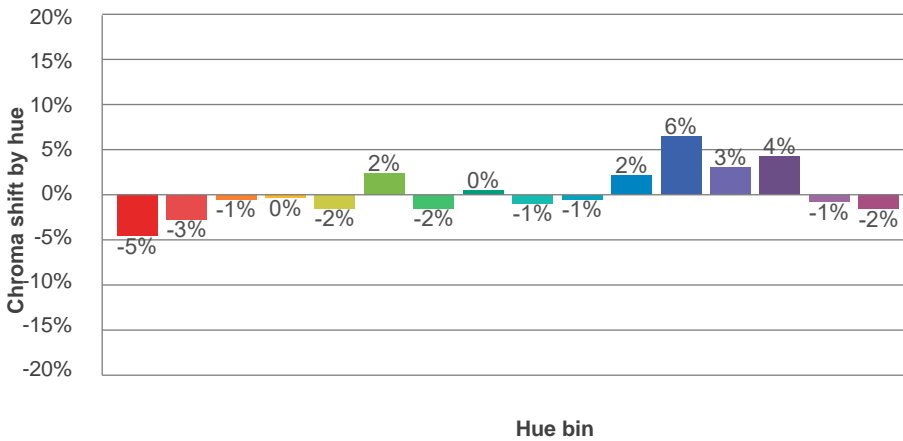
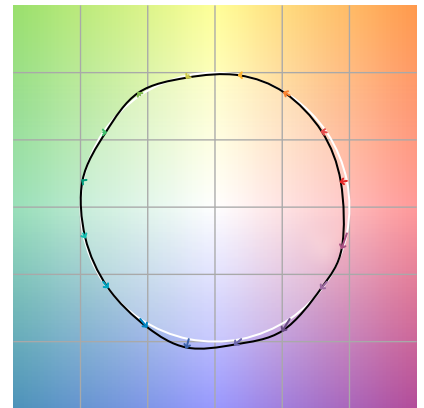
TM-30Color



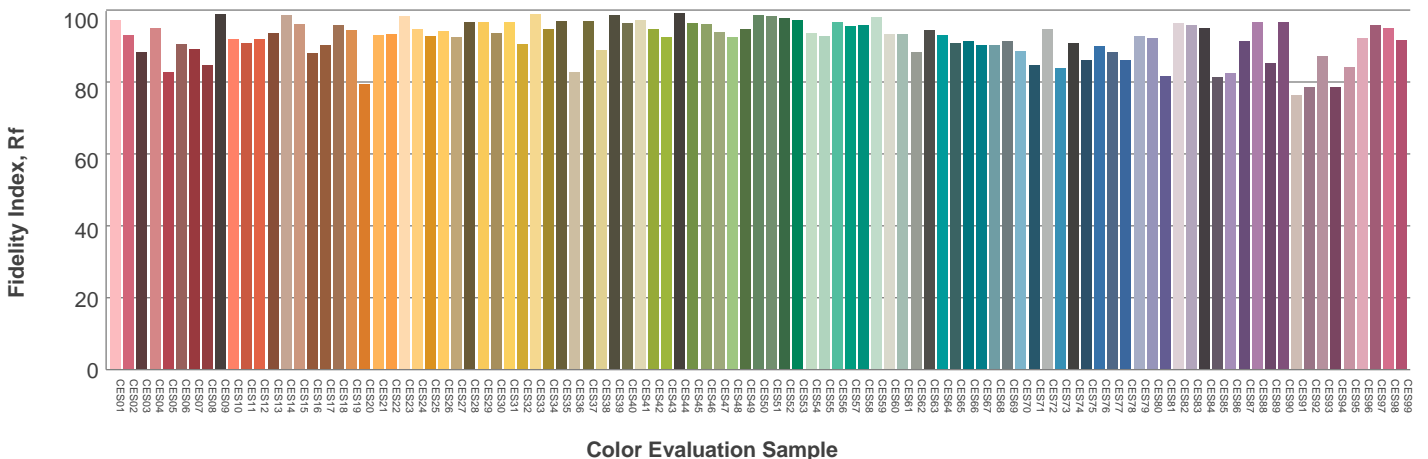
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	0%
2	93	-3%	3%
3	91	-1%	4%
4	95	0%	2%
5	94	-2%	2%
6	95	2%	0%
7	94	-2%	-1%
8	98	0%	0%
9	95	-1%	3%
10	91	-1%	5%
11	89	2%	7%
12	90	6%	0%
13	92	3%	-5%
14	88	4%	-9%
15	89	-1%	-6%
16	86	-2%	-11%



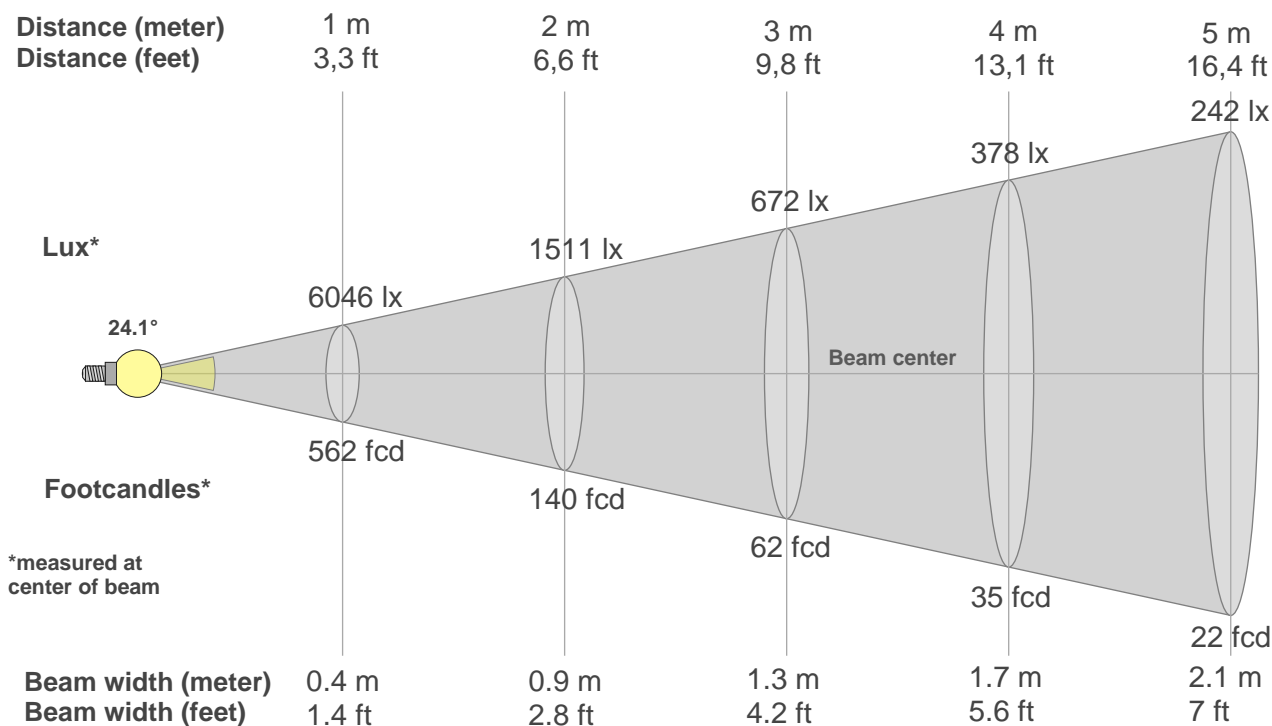
Color vector graphics



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
6046lx	1511lx	672lx	378lx	242lx	168lx	123lx	94lx	75lx	60lx	50lx	42lx	36lx	31lx	27lx	24lx	21lx	19lx	17lx	15lx
561.7fcd	140.4fcd	62.4fcd	35.1fcd	22.5fcd	15.6fcd	11.5fcd	8.8fcd	6.9fcd	5.6fcd	4.6fcd	3.9fcd	3.3fcd	2.9fcd	2.5fcd	2.2fcd	1.9fcd	1.7fcd	1.6fcd	1.4fcd

### 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°
6046	5923	5598	5091	4452	3778	3120	2508	1960	1509	1133	826	584	404	282	196	136	96	70	49
100%	98%	93%	84%	74%	62%	52%	41%	32%	25%	19%	14%	10%	7%	5%	3%	2%	2%	1%	1%

### 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°
6046	5960	5553	4988	4333	3640	2966	2380	1868	1428	1055	753	537	377	263	184	133	100	73	52
100%	99%	92%	83%	72%	60%	49%	39%	31%	24%	17%	12%	9%	6%	4%	3%	2%	2%	1%	1%

### 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°
6046	5922	5576	5046	4432	3775	3116	2514	1987	1530	1144	829	595	422	293	204	145	106	77	56
100%	98%	92%	83%	73%	62%	52%	42%	33%	25%	19%	14%	10%	7%	5%	3%	2%	2%	1%	1%

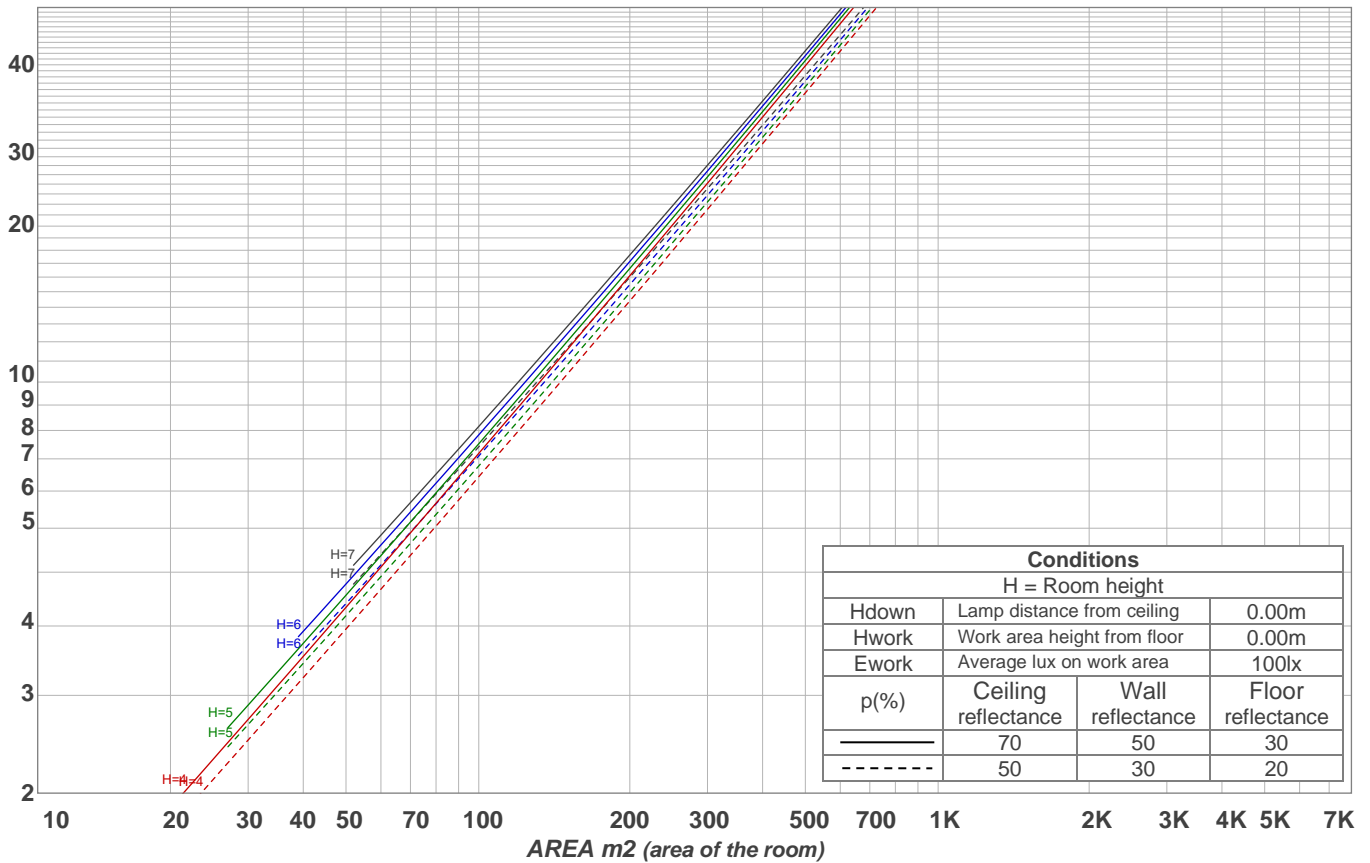
### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
6046	5898	5517	4959	4292	3611	2973	2396	1891	1468	1107	804	560	375	256	180	126	90	65	48
100%	98%	91%	82%	71%	60%	49%	40%	31%	24%	18%	13%	9%	6%	4%	3%	2%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
24.1°	47.2°	62.6°	98.2%	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		
1	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96	96		
2	110	106	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92	92		
3	107	102	98	95	105	100	97	94	98	95	92	95	93	91	93	91	90	88	88		
4	103	97	93	90	101	96	92	89	94	91	88	92	90	87	91	88	86	85	85		
5	100	94	89	86	98	93	89	86	91	87	85	89	86	84	88	85	83	82	82		
6	97	90	86	82	95	89	85	82	88	84	82	87	84	81	86	83	81	80	80		
7	94	87	83	79	93	86	82	79	85	82	79	84	81	78	83	80	78	77	77		
8	91	84	80	77	90	84	80	77	83	79	76	82	78	76	81	78	76	75	75		
9	89	82	77	74	88	81	77	74	80	77	74	80	76	74	79	76	74	73	73		
10	86	79	75	72	85	79	75	72	78	74	72	77	74	72	77	74	72	71	71		

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
454 lm	598 lm	232 lm	56.0 lm	16.1 lm	10.2 lm	9.97 lm	8.82 lm	5.80 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