

Light efficiency:



Output: 1684 lm

Light quality:

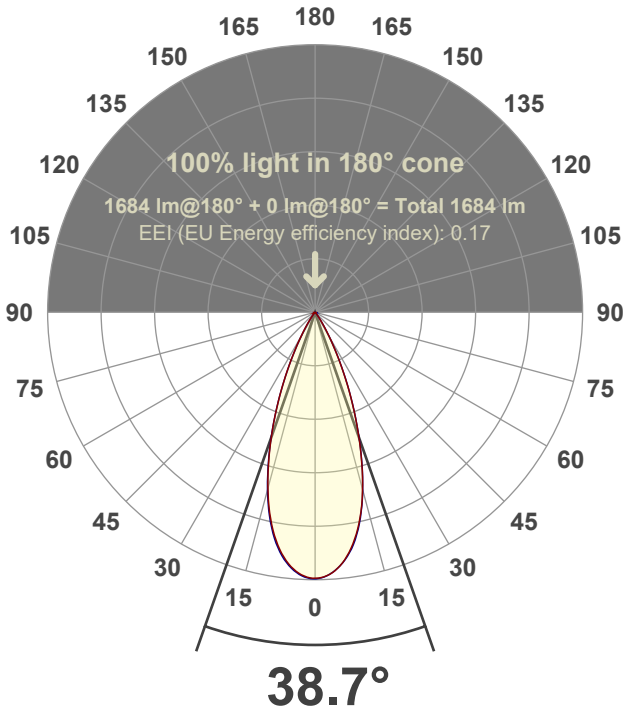


Peak: 3830 cd

Power: 20.7 W



Beam angle



Test number:

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

Luminaire Model:

Graffiti Regress Round Fixed Downlight-CZ20 30k 38° Optic-Solite

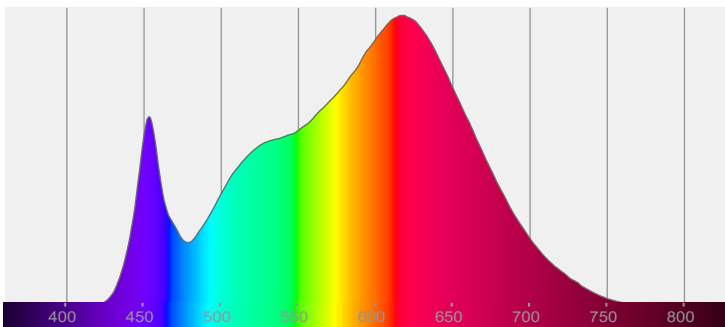
Date and time:

3/9/2022 4:16:38 PM

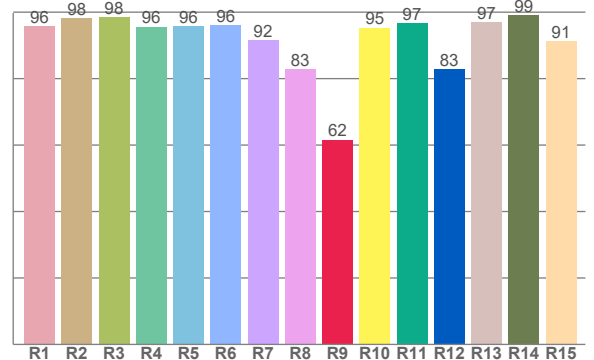
Delivered Lumens

1684

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 divition from black body
CRI	CRI R9	TM30 R <sub>f</sub>	TM30 R <sub>g</sub>	CQS	x	y	u	v	Δuv
94.3	61.6	92.1	100.4	91.6	0.425	0.394	0.247	0.344	-0.0024

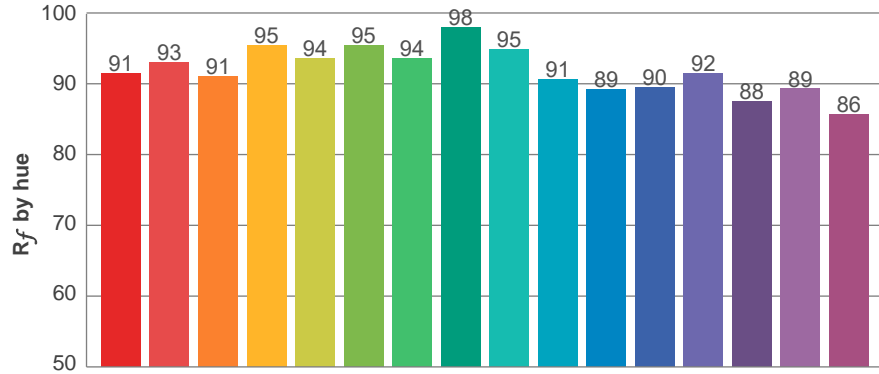
**$R_f$  92.1**  
Fidelity index  $R_f$

---

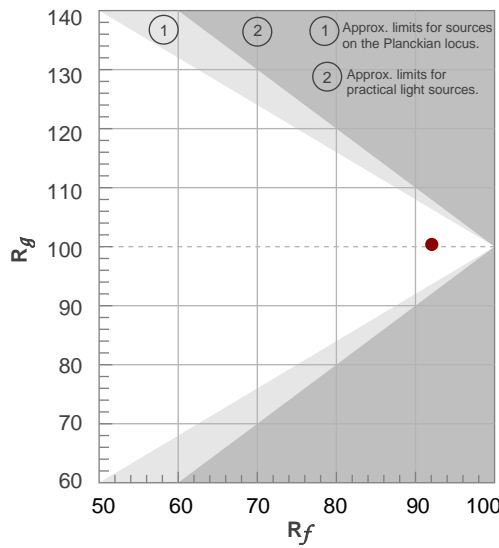
**$R_g$  100.4**  
Gammut index  $R_g$

TM30: 92.1

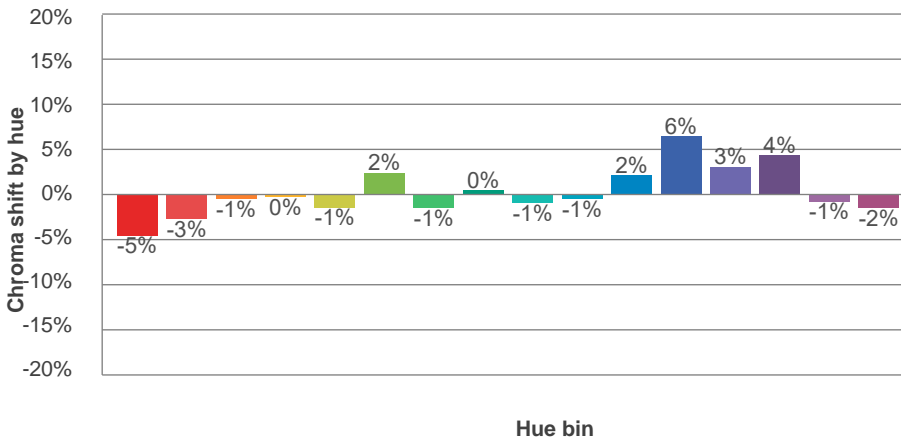
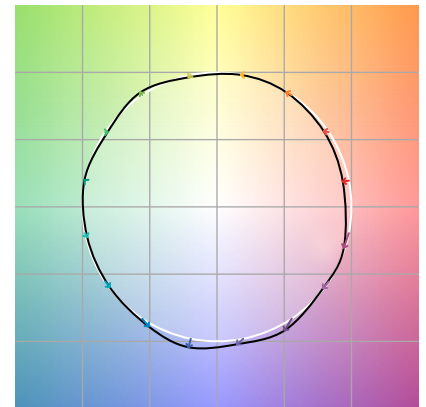
TM-30Color



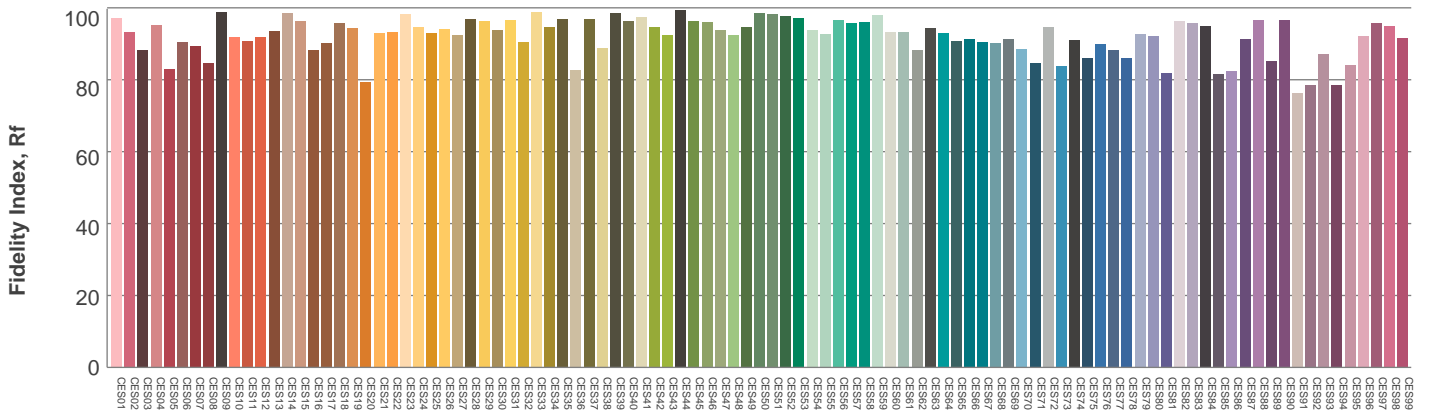
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	0%
2	93	-3%	3%
3	91	-1%	4%
4	95	0%	2%
5	94	-1%	2%
6	95	2%	0%
7	94	-1%	-1%
8	98	0%	0%
9	95	-1%	3%
10	91	-1%	5%
11	89	2%	7%
12	90	6%	0%
13	92	3%	-5%
14	88	4%	-9%
15	89	-1%	-6%
16	86	-2%	-11%



Color vector graphics



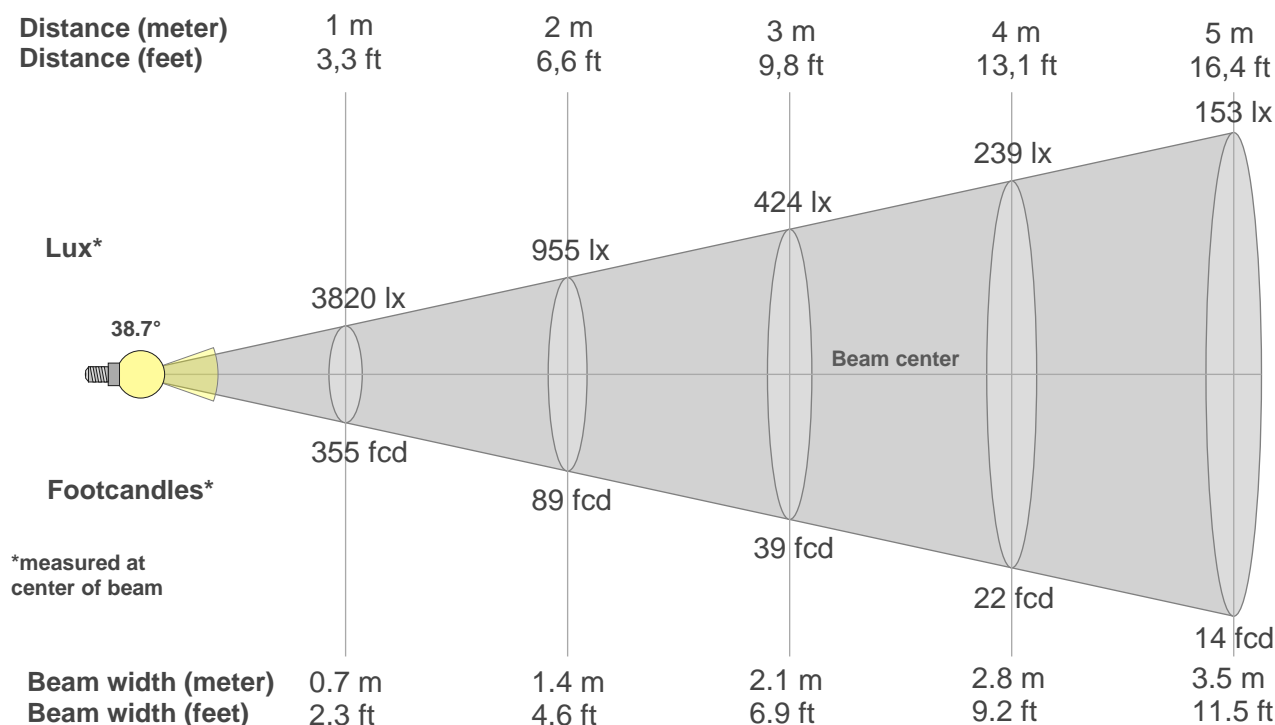
Color distortion



Color Evaluation Sample

[www.graffitilighting.com](http://www.graffitilighting.com) As a result of our continuous improvement, values are subject to change without notice. These are delivered results and can vary +/- 10% from published source data range.

### 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
3820lx	955lx	424lx	239lx	153lx	106lx	78lx	60lx	47lx	38lx	32lx	27lx	23lx	19lx	17lx	15lx	13lx	12lx	11lx	10lx
354.9fcd	88.7fcd	39.4fcd	22.2fcd	14.2fcd	9.9fcd	7.2fcd	5.5fcd	4.4fcd	3.5fcd	2.9fcd	2.5fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd	1fcd	0.9fcd

#### 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°
3820	3796	3739	3635	3483	3292	3062	2792	2480	2139	1799	1471	1161	873	638	450	305	200	131	87
100%	99%	98%	95%	91%	86%	80%	73%	65%	56%	47%	39%	30%	23%	17%	12%	8%	5%	3%	2%

#### 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°
3820	3804	3734	3632	3494	3314	3083	2800	2482	2146	1804	1470	1158	877	637	440	291	186	125	85
100%	100%	98%	95%	91%	87%	81%	73%	65%	56%	47%	38%	30%	23%	17%	12%	8%	5%	3%	2%

#### 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°
3820	3795	3735	3635	3483	3288	3052	2776	2466	2134	1801	1475	1165	883	641	452	311	209	140	95
100%	99%	98%	95%	91%	86%	80%	73%	65%	56%	47%	39%	30%	23%	17%	12%	8%	5%	4%	2%

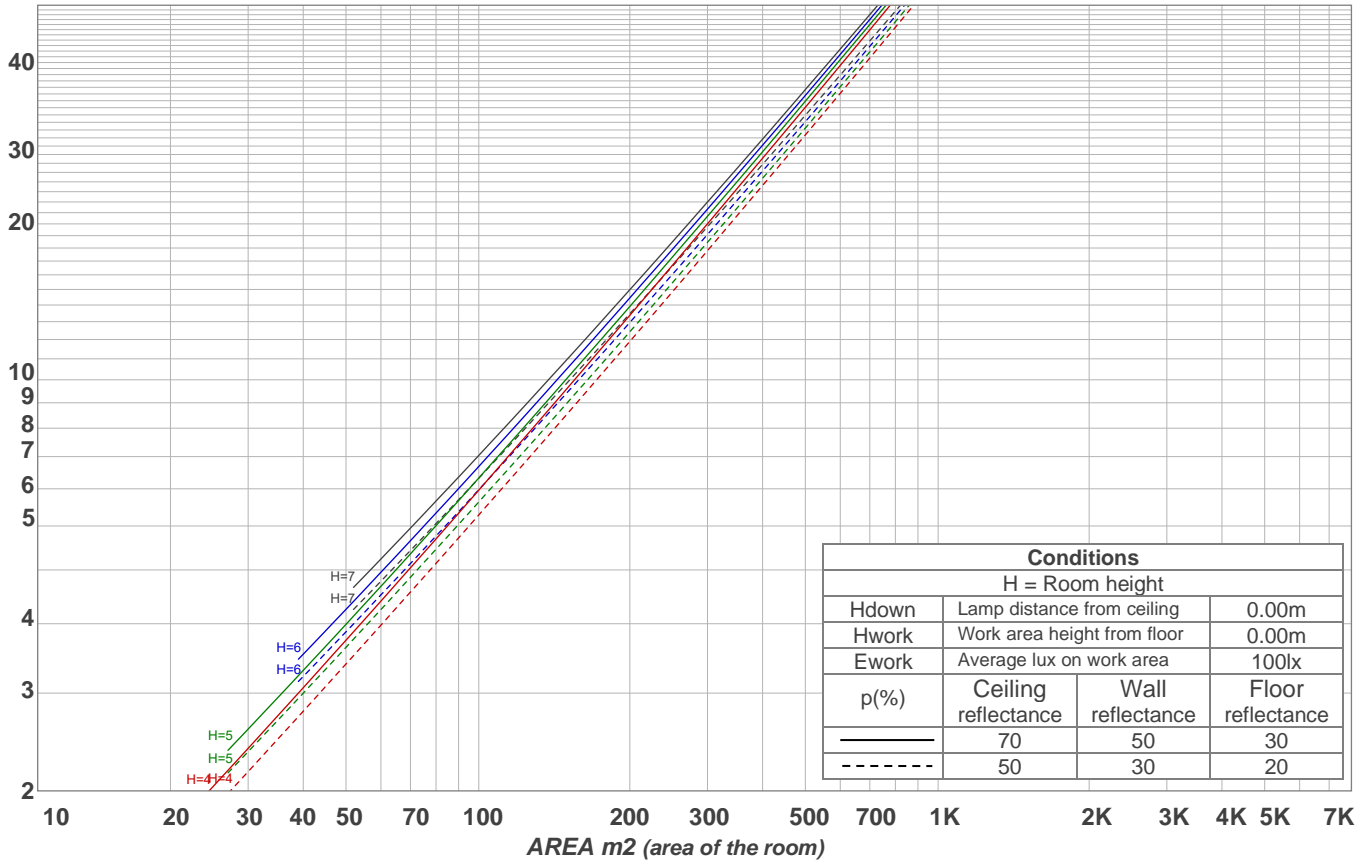
#### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3820	3806	3746	3647	3509	3321	3080	2798	2483	2145	1804	1470	1156	872	626	425	281	184	120	80
100%	100%	98%	95%	92%	87%	81%	73%	65%	56%	47%	38%	30%	23%	16%	11%	7%	5%	3%	2%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>38.7°</b>	<b>61.5°</b>	<b>75°</b>	<b>99.2%</b>	<b>98.0%</b>

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	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95	95	95	
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90	90	90	
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86	86	86	
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82	82	82	
5	97	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	78	78	78	
6	94	86	82	78	92	86	81	78	84	80	77	83	79	77	82	79	76	75	75	75	
7	90	83	78	74	89	82	77	74	81	77	74	80	76	73	79	76	73	72	72	72	
8	87	79	74	71	86	79	74	71	78	74	71	77	73	70	76	73	70	69	69	69	
9	84	76	71	68	83	76	71	68	75	71	68	74	70	67	73	70	67	66	66	66	
10	81	73	68	65	80	73	68	65	72	68	65	71	68	65	71	67	65	64	64	64	

**Zonal Lumen Summary**

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
341 lm	716 lm	465 lm	113 lm	24.6 lm	10.9 lm	6.67 lm	3.20 lm	3.67 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

[www.graffitilighting.com](http://www.graffitilighting.com) As a result of our continuous improvement, values are subject to change without notice. These are delivered results and can vary +/- 10% from published source data range.