

Light efficiency:



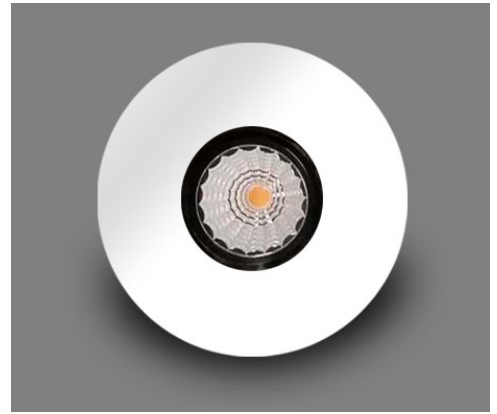
Output: 1259 lm

Light quality:

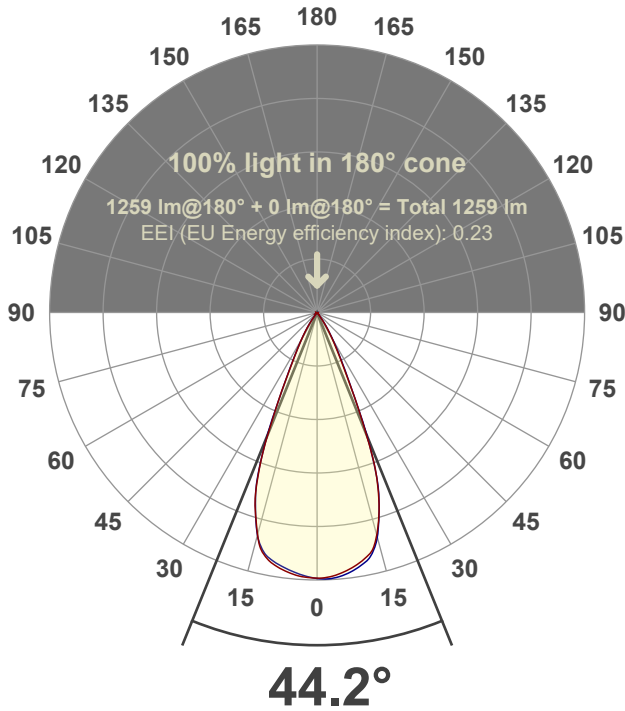


Peak: 2465 cd

Power: 20.8 W



Beam angle



Test number:

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

Luminaire Model:

Graffiti Flat Round Fixed Downlight-CZ20 30k 60° Optic

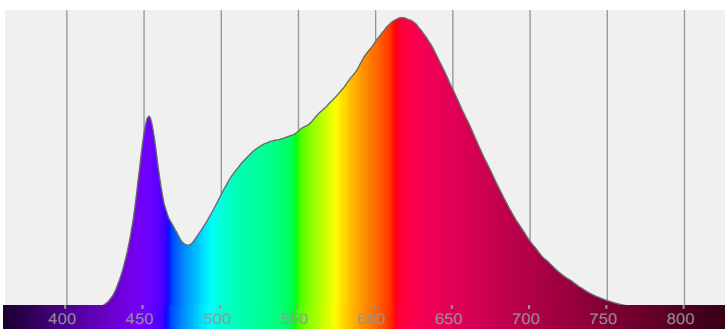
Date and time:

3/9/2022 3:39:08 PM

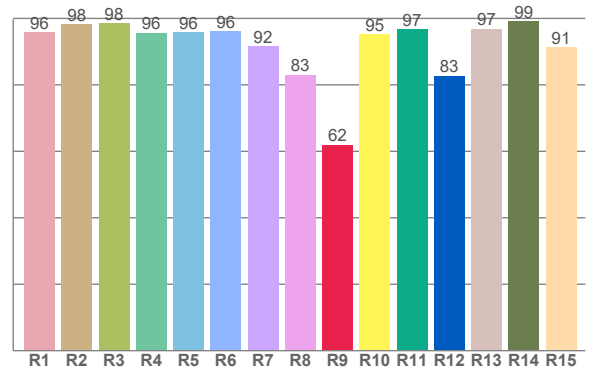
Delivered Lumens

1259

Spectra



CRI: 94.4 (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
	94.4	61.9	92.1	100.4	91.7	0.424	0.394	0.247	0.344	-0.0023

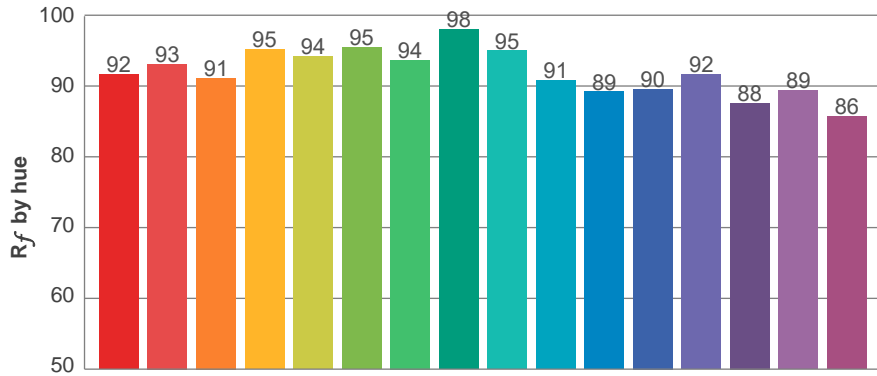
**$R_f$  92.1**  
Fidelity index  $R_f$

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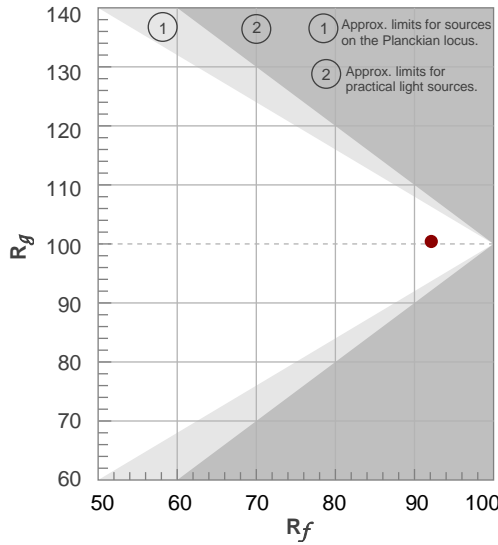
**$R_g$  100.4**  
Gammut index  $R_g$

TM30: 92.1

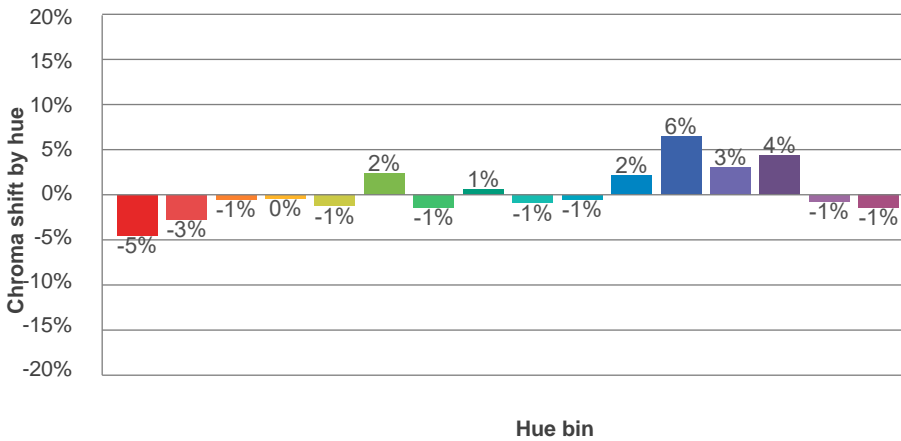
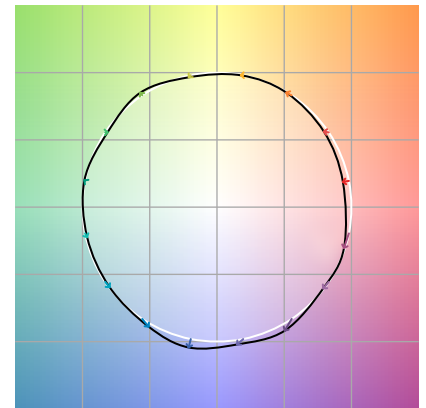
TM-30Color



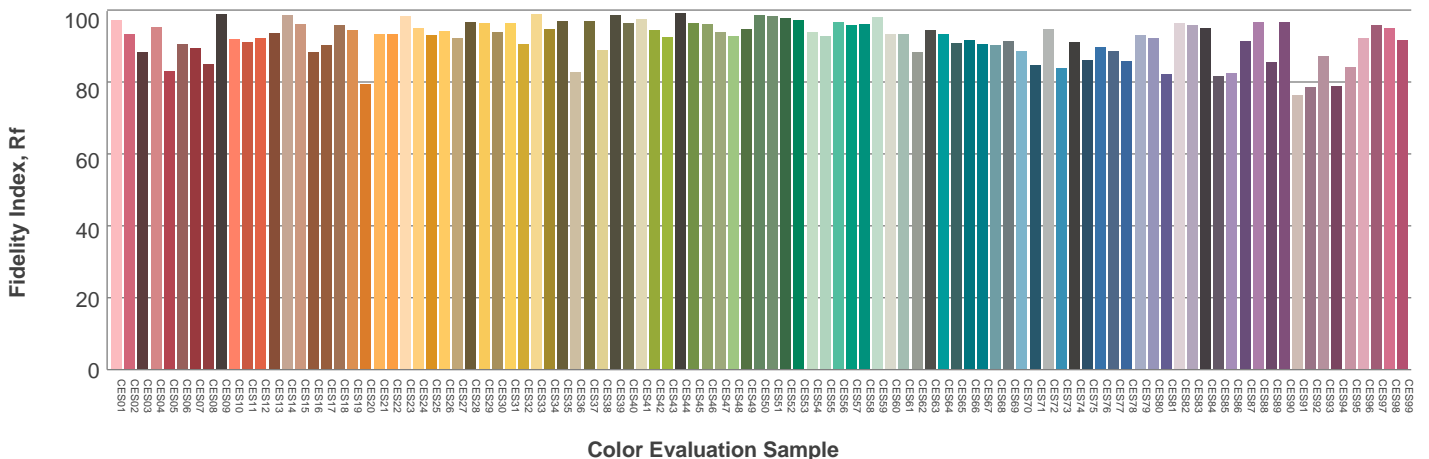
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	92	-5%	0%
2	93	-3%	3%
3	91	-1%	4%
4	95	0%	2%
5	94	-1%	2%
6	95	2%	0%
7	94	-1%	-1%
8	98	1%	0%
9	95	-1%	3%
10	91	-1%	5%
11	89	2%	7%
12	90	6%	0%
13	92	3%	-5%
14	88	4%	-9%
15	89	-1%	-6%
16	86	-1%	-11%



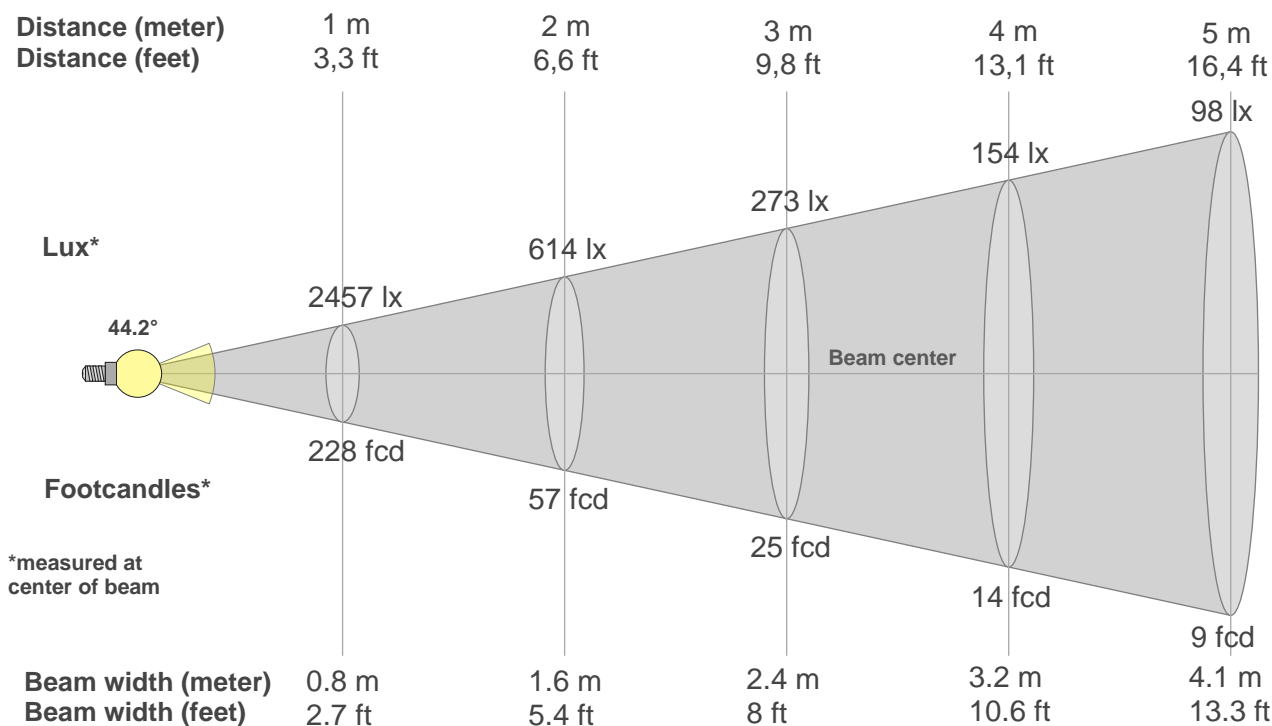
Color vector graphics



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
2457lx	614lx	273lx	154lx	98lx	68lx	50lx	38lx	30lx	25lx	20lx	17lx	15lx	13lx	11lx	10lx	9lx	8lx	7lx	6lx
228.2fcd	57.1fcd	25.4fcd	14.3fcd	9.1fcd	6.3fcd	4.7fcd	3.6fcd	2.8fcd	2.3fcd	1.9fcd	1.6fcd	1.4fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd

#### 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°
2457	2450	2434	2410	2378	2338	2285	2198	2049	1853	1596	1241	864	567	404	295	211	143	88	45
100%	100%	99%	98%	97%	95%	93%	89%	83%	75%	65%	50%	35%	23%	16%	12%	9%	6%	4%	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°
2457	2464	2456	2436	2408	2370	2319	2215	2055	1851	1607	1249	871	604	431	310	217	151	95	54
100%	100%	100%	99%	98%	96%	94%	90%	84%	75%	65%	51%	35%	25%	18%	13%	9%	6%	4%	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°
2457	2451	2442	2421	2393	2356	2300	2210	2038	1849	1584	1240	860	578	420	309	223	152	93	52
100%	100%	99%	99%	97%	96%	94%	90%	83%	75%	64%	50%	35%	24%	17%	13%	9%	6%	4%	2%

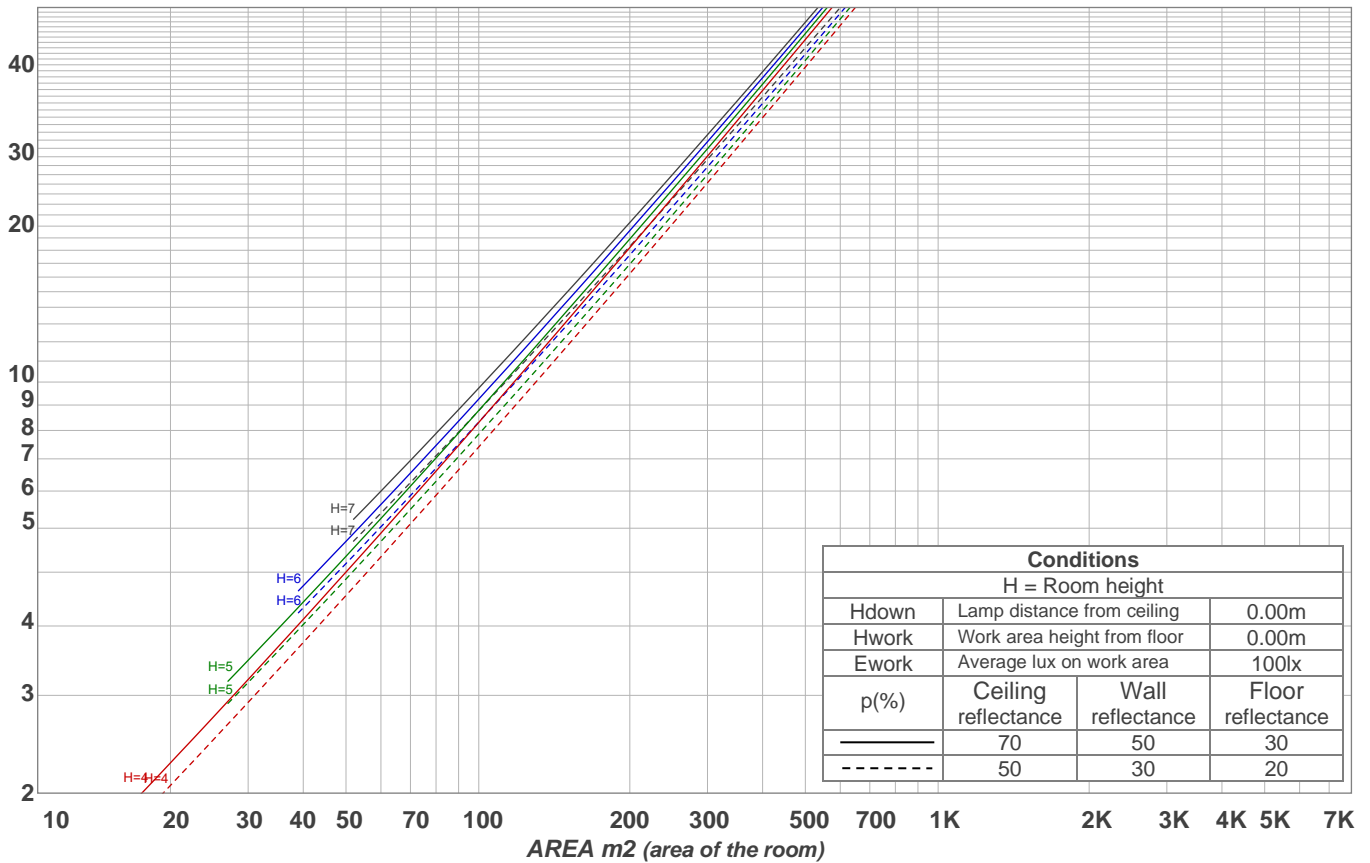
#### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
2457	2443	2422	2396	2367	2334	2285	2190	2039	1841	1607	1249	870	595	420	303	217	151	96	53
100%	99%	99%	98%	96%	95%	93%	89%	83%	75%	65%	51%	35%	24%	17%	12%	9%	6%	4%	2%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>44.2°</b>	<b>62.6°</b>	<b>74.9°</b>	<b>99.2%</b>	<b>99.0%</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	94	92	91	91	91	
3	106	100	96	93	104	99	95	92	96	93	91	94	91	89	92	90	88	86	86	86	
4	102	95	91	87	100	94	90	87	92	89	86	90	87	85	88	86	84	82	82	82	
5	98	91	86	83	96	90	85	82	88	84	81	87	83	81	85	82	80	79	79	79	
6	94	87	82	78	93	86	81	78	85	81	78	83	80	77	82	79	77	75	75	75	
7	91	83	78	75	89	82	78	75	81	77	74	80	76	74	79	76	73	72	72	72	
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69	69	69	
9	84	76	72	68	83	76	71	68	75	71	68	74	70	68	74	70	68	66	66	66	
10	81	73	69	65	80	73	68	65	72	68	65	72	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°
229 lm	579 lm	354 lm	79.8 lm	5.76 lm	2.10 lm	2.43 lm	3.23 lm	3.88 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