

Light efficiency:



Output: 1832 lm

Light quality:

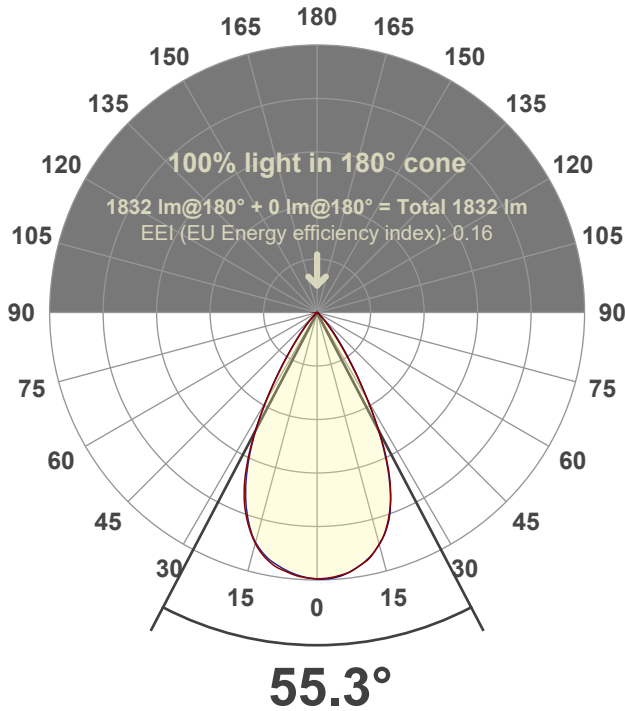


Peak: 2324 cd

Power: 20.7 W



Beam angle



Test number:

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

Luminaire Model:

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

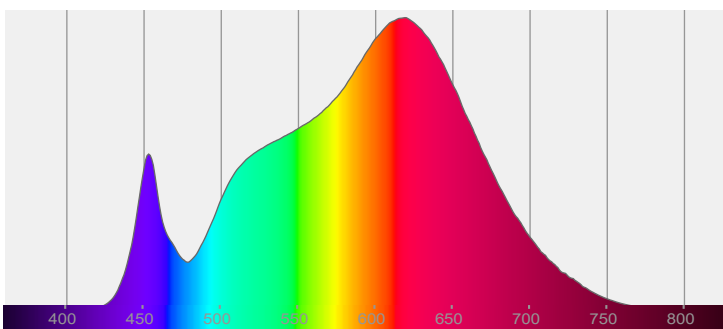
Date and time:

6/30/2022 7:53:50 PM

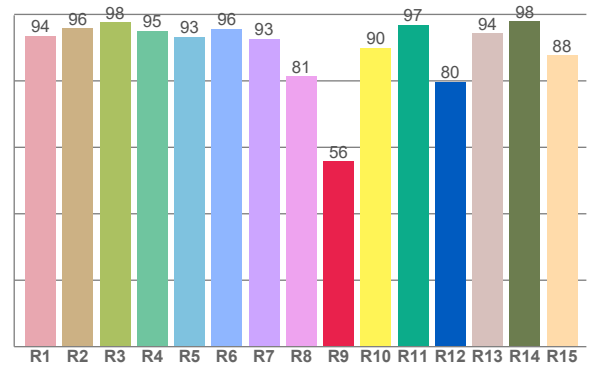
Delivered Lumens

1832

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 divition from black body
	CRI	CRI R9	TM30 R <sub>f</sub>	TM30 R <sub>g</sub>	CQS	x	y	u	v	Δuv
	93.1	55.7	92.1	99.1	91.6	0.437	0.408	0.249	0.349	0.0015

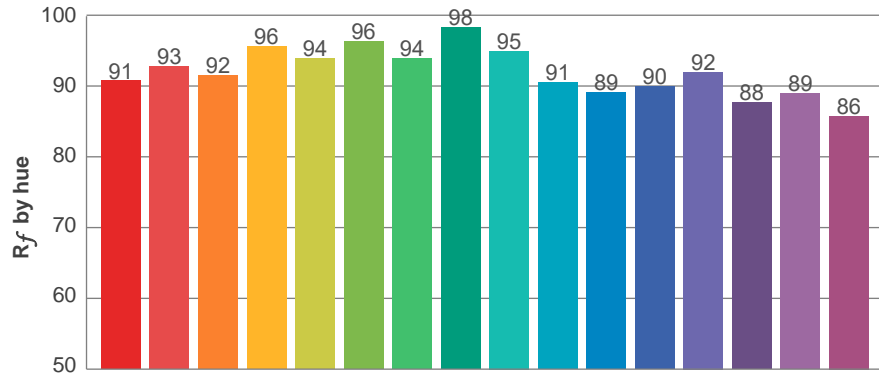
**$R_f$  92.1**  
Fidelity index  $R_f$

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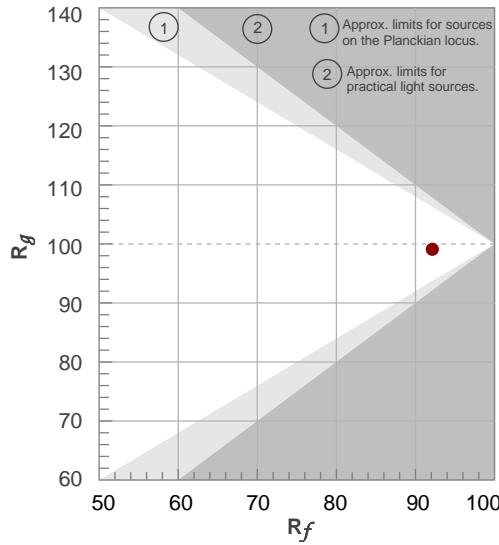
**$R_g$  99.1**  
Gammut index  $R_g$

TM30: 92.1

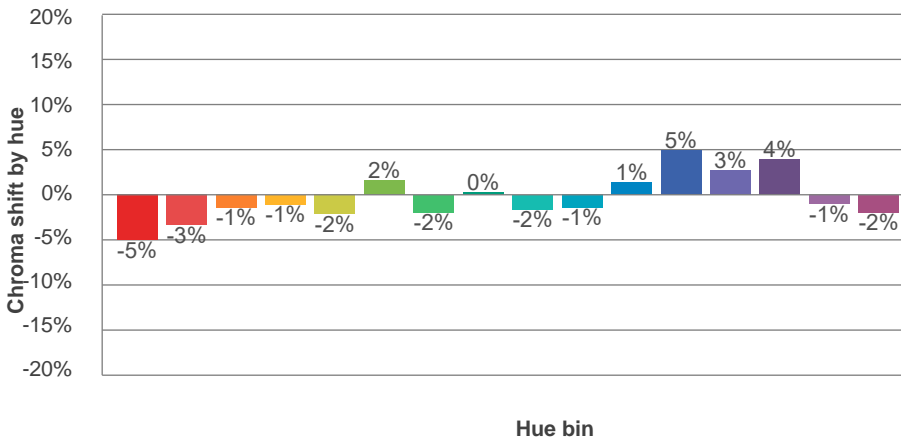
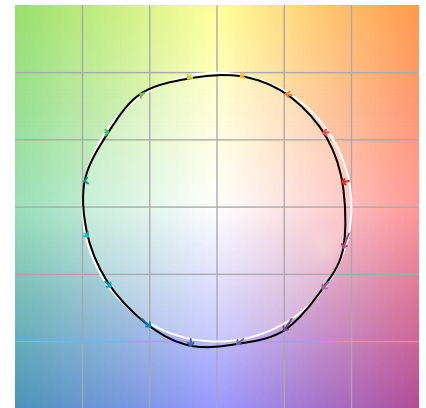
TM-30Color



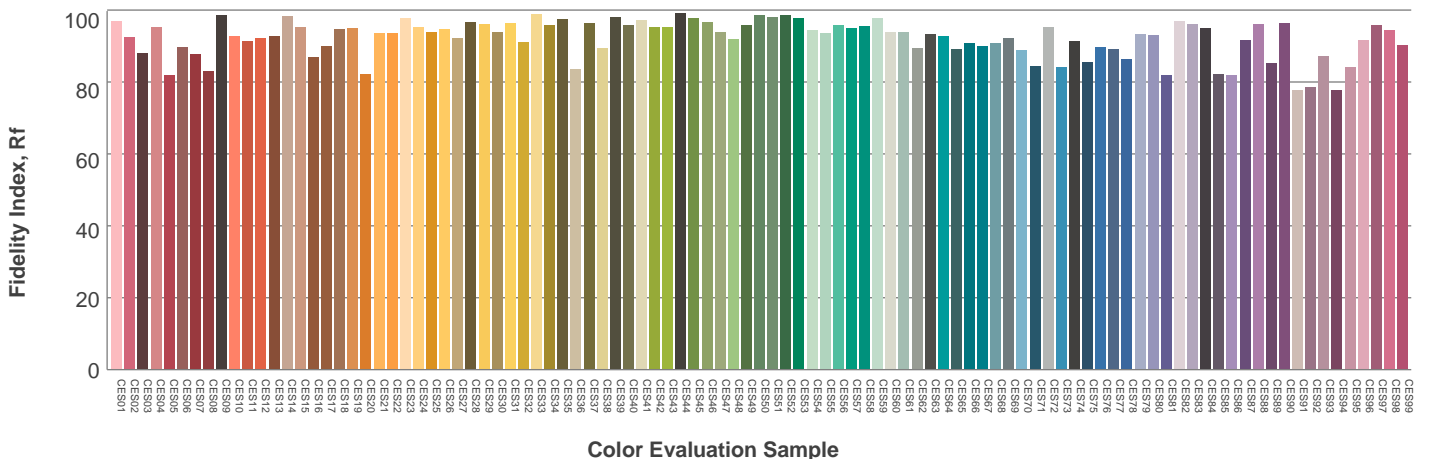
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	0%
2	93	-3%	2%
3	92	-1%	4%
4	96	-1%	2%
5	94	-2%	2%
6	96	2%	1%
7	94	-2%	-1%
8	98	0%	0%
9	95	-2%	3%
10	91	-1%	5%
11	89	1%	8%
12	90	5%	1%
13	92	3%	-5%
14	88	4%	-9%
15	89	-1%	-7%
16	86	-2%	-11%



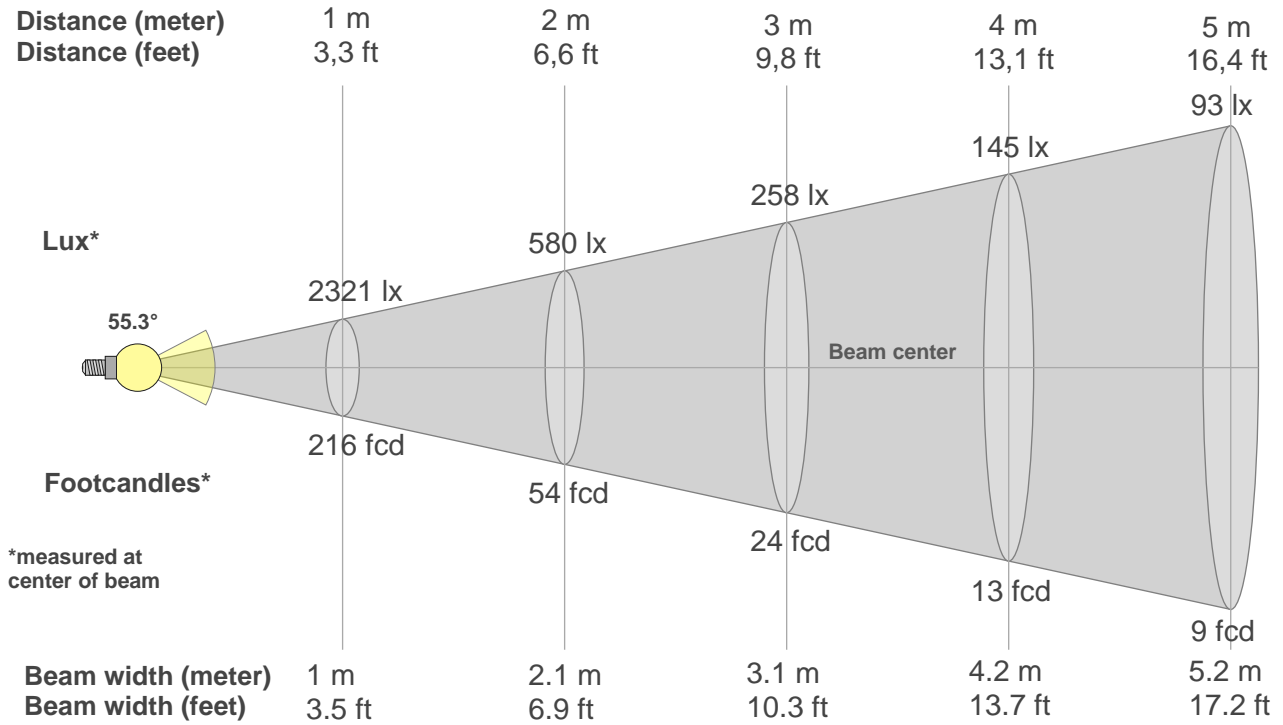
Color vector graphics



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
2321lx	580lx	258lx	145lx	93lx	64lx	47lx	36lx	29lx	23lx	19lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	6lx
215.6fcd	53.9fcd	24fcd	13.5fcd	8.6fcd	6fcd	4.4fcd	3.4fcd	2.7fcd	2.2fcd	1.8fcd	1.5fcd	1.3fcd	1.1fcd	1fcd	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°
2321	2317	2307	2291	2267	2230	2192	2126	2054	1961	1848	1714	1552	1350	1122	895	688	511	369	263
100%	100%	99%	99%	98%	96%	94%	92%	88%	85%	80%	74%	67%	58%	48%	39%	30%	22%	16%	11%

#### 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°
2321	2322	2313	2295	2265	2230	2183	2126	2056	1969	1858	1712	1533	1332	1116	900	701	533	403	301
100%	100%	100%	99%	98%	96%	94%	92%	89%	85%	80%	74%	66%	57%	48%	39%	30%	23%	17%	13%

#### 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°
2321	2316	2305	2284	2261	2229	2183	2123	2041	1944	1832	1698	1537	1344	1124	902	695	515	369	261
100%	100%	99%	98%	97%	96%	94%	91%	88%	84%	79%	73%	66%	58%	48%	39%	30%	22%	16%	11%

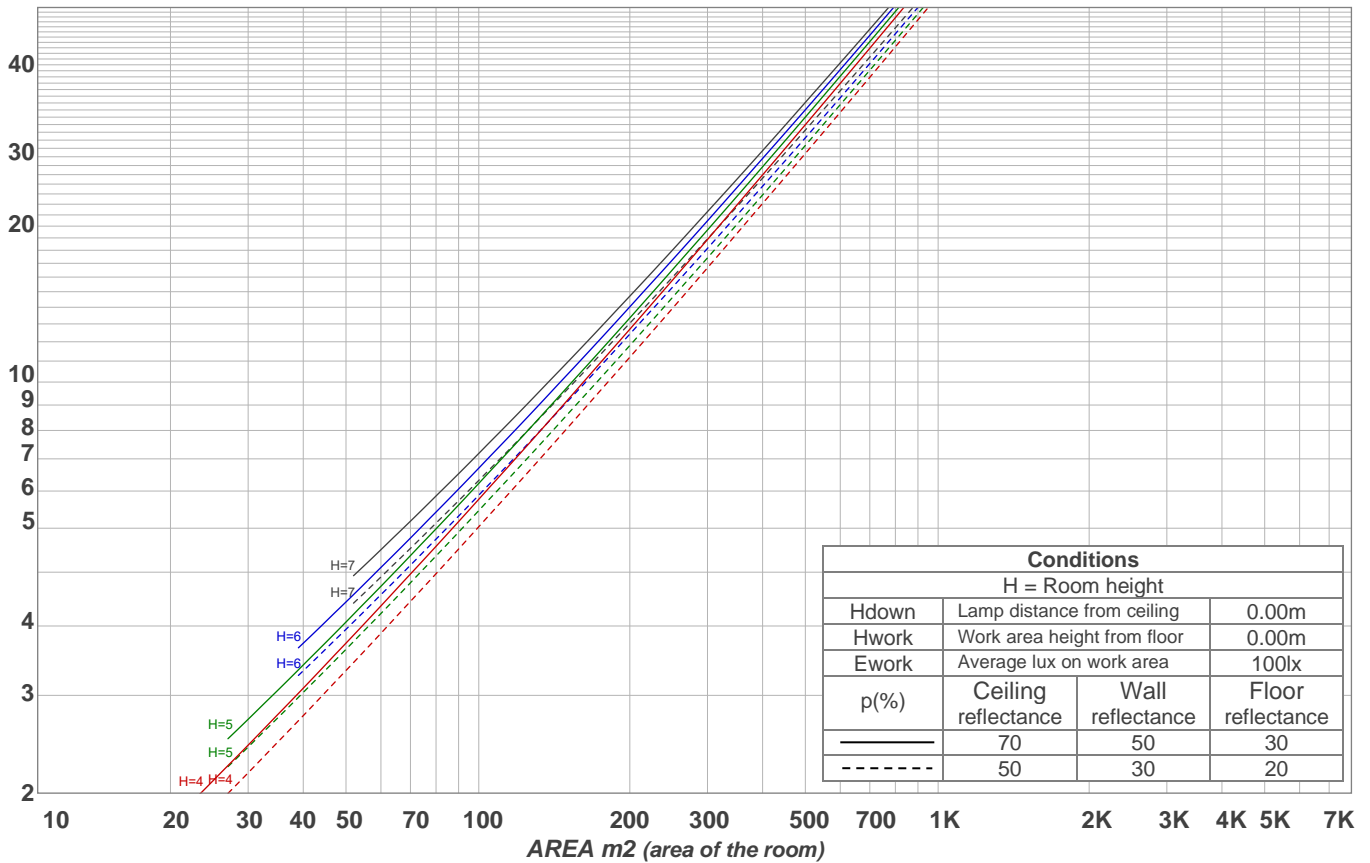
#### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
2321	2313	2298	2275	2245	2211	2167	2108	2034	1929	1807	1664	1500	1317	1118	904	703	527	385	276
100%	100%	99%	98%	97%	95%	93%	91%	88%	83%	78%	72%	65%	57%	48%	39%	30%	23%	17%	12%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
55.3°	78.1°	93.6°	99.0%	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	108	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94	94	94	
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88	88	88	
3	103	97	92	88	101	96	91	88	93	89	86	91	88	85	88	86	84	82	82	82	
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	78	77	77	77	
5	94	86	80	76	92	85	80	76	83	78	75	81	77	74	80	76	74	72	72	72	
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68	68	68	
7	85	76	71	67	84	76	70	66	74	70	66	73	69	66	72	68	65	64	64	64	
8	81	72	67	63	80	72	66	62	71	66	62	70	65	62	69	65	62	60	60	60	
9	78	68	63	59	77	68	63	59	67	62	59	66	62	59	65	61	58	57	57	57	
10	74	65	59	56	73	65	59	56	64	59	56	63	59	55	62	58	55	54	54	54	

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
217 lm	580 lm	640 lm	292 lm	69.2 lm	14.9 lm	7.68 lm	6.18 lm	4.03 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