

Light efficiency:



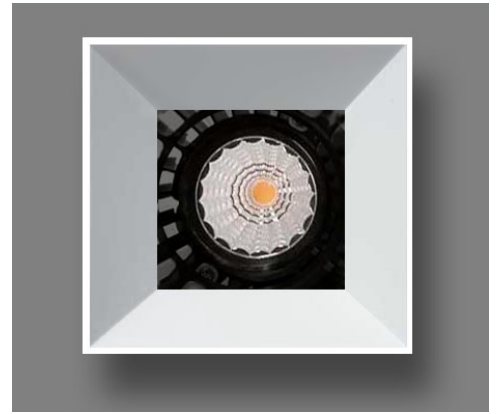
Output: 1514 lm

Light quality:

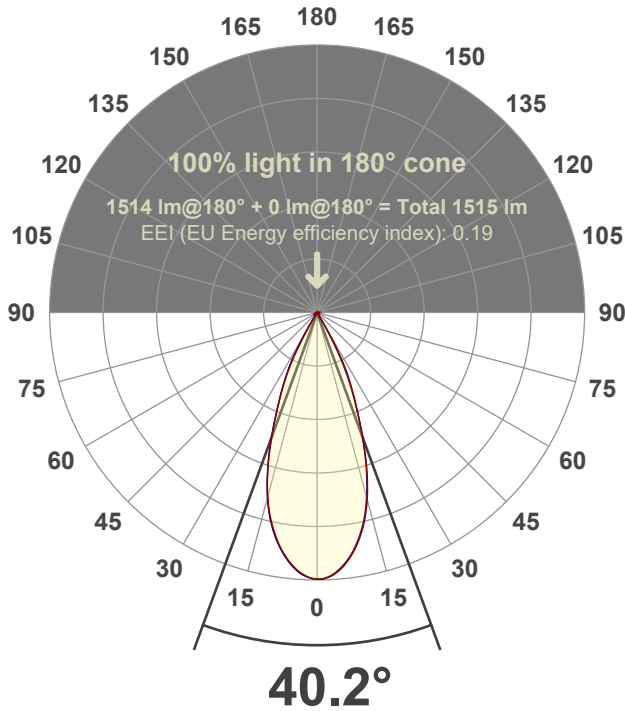


Peak: 3507 cd

Power: 21.3 W



Beam angle



Test number:

GR-O-F-A20-3019-FL-SQ-Rev2

Luminaire Model:

Graffiti Open Square Fixed Downlight-A20-3019 38° Optic

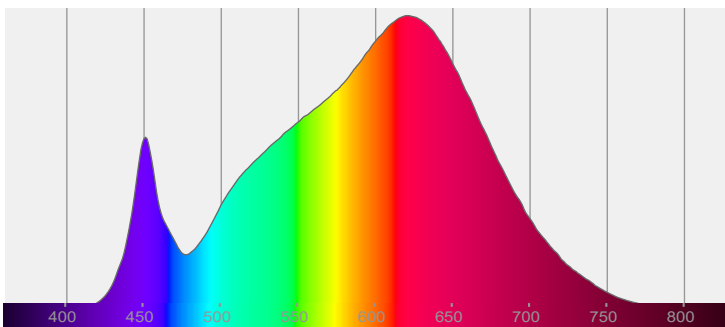
Date and time:

6/21/2022 8:22:37 PM

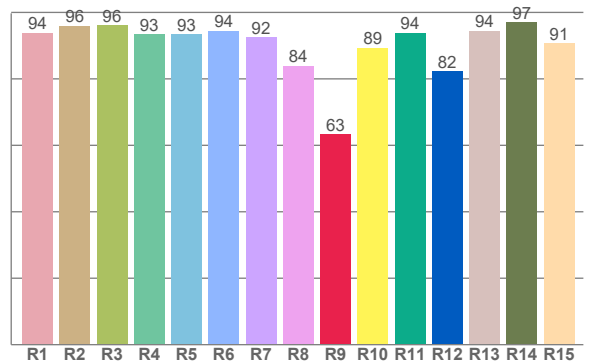
Delivered Lumens

1514

Spectra



CRI: 92.9 (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
	92.9	63.3	91.1	101.7	89.9	0.433	0.397	0.251	0.345	-0.0024

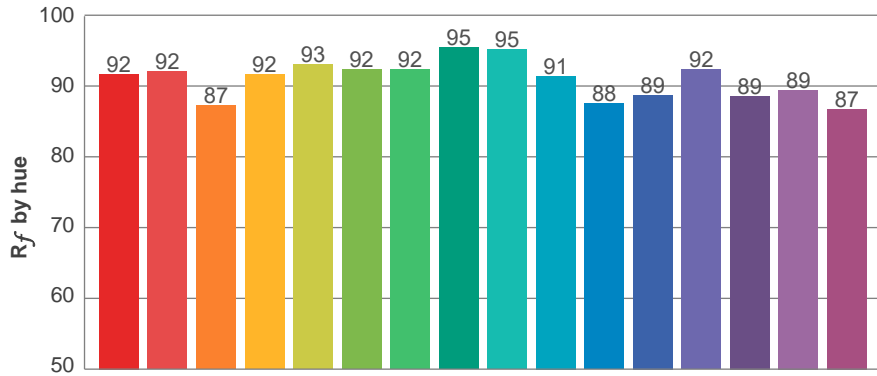
**$R_f$  91.1**  
Fidelity index  $R_f$

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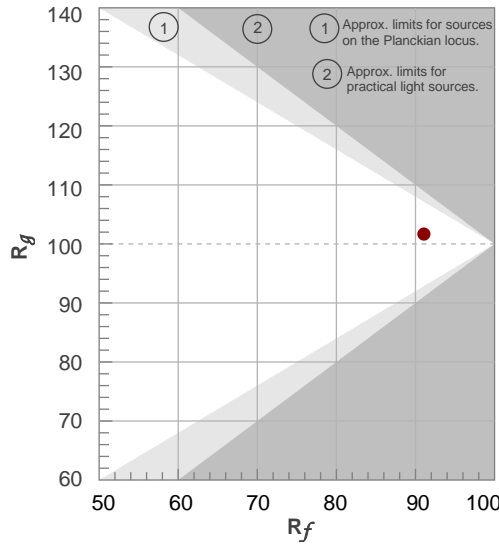
**$R_g$  101.7**  
Gammut index  $R_g$

TM30: 91.1

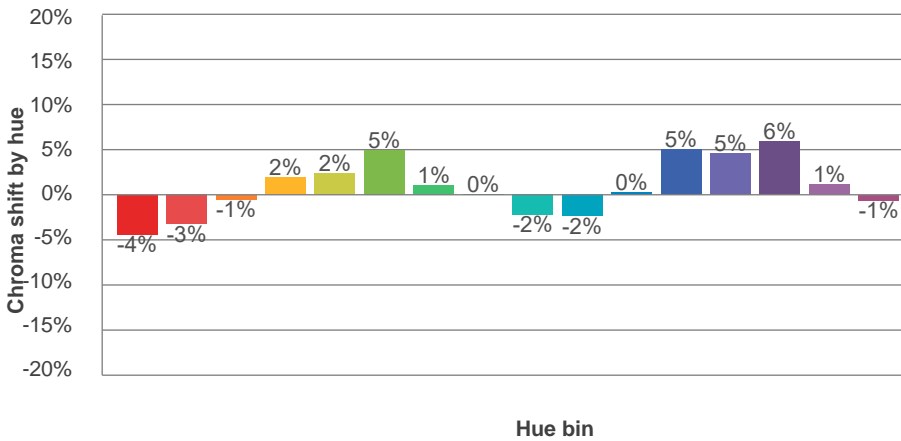
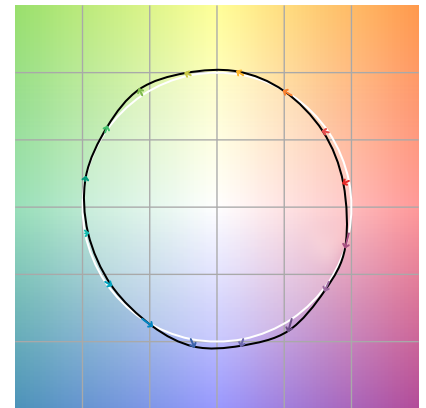
TM-30Color



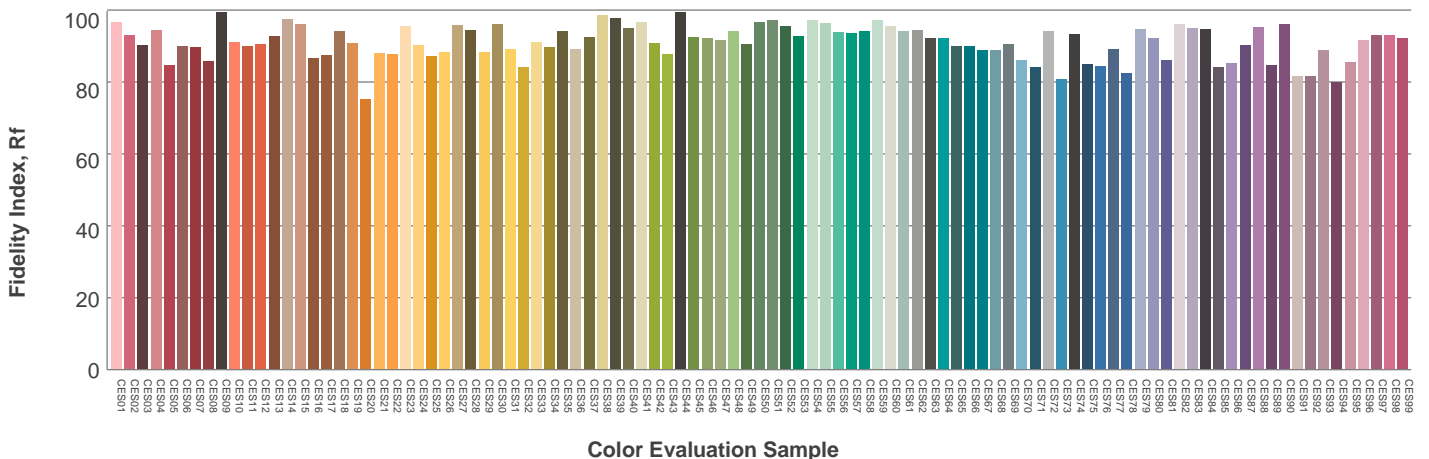
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	92	-3%	3%
3	87	-1%	7%
4	92	2%	5%
5	93	2%	4%
6	92	5%	-1%
7	92	1%	-4%
8	95	0%	-3%
9	95	-2%	0%
10	91	-2%	5%
11	88	0%	9%
12	89	5%	4%
13	92	5%	-3%
14	89	6%	-7%
15	89	1%	-7%
16	87	-1%	-11%



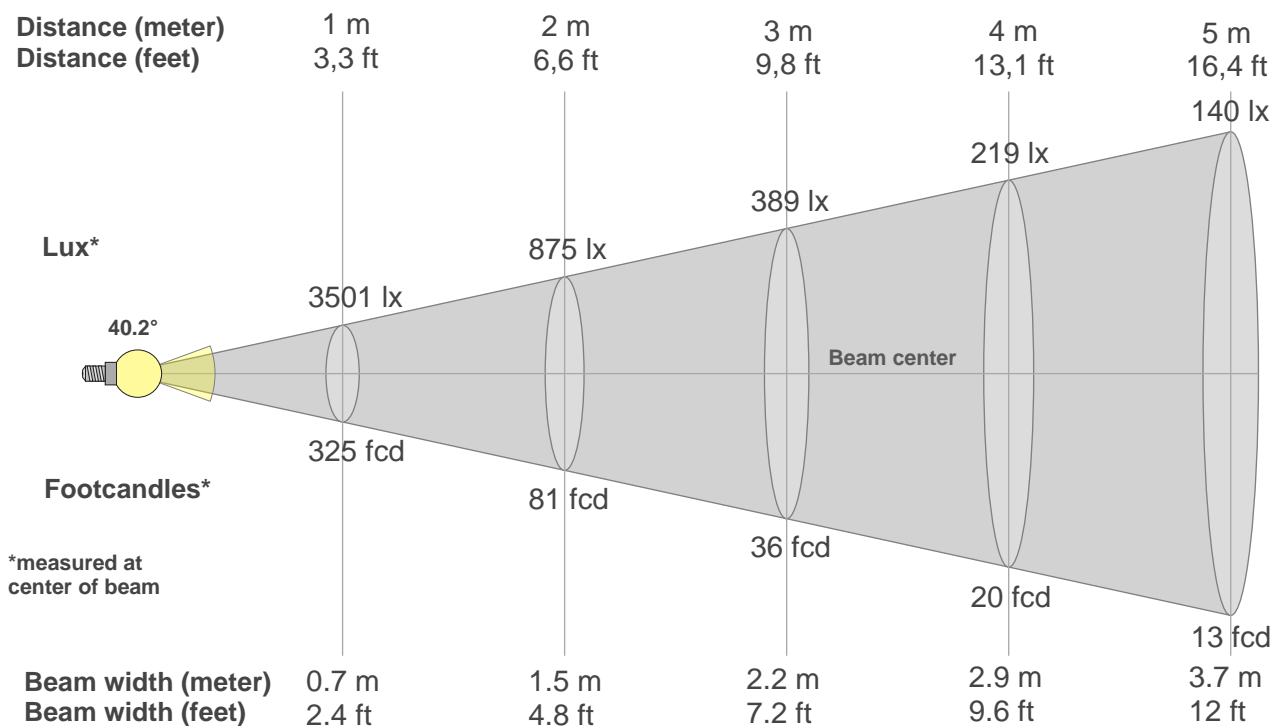
Color vector graphics



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
3501lx	875lx	389lx	219lx	140lx	97lx	71lx	55lx	43lx	35lx	29lx	24lx	21lx	18lx	16lx	14lx	12lx	11lx	10lx	9lx
325.3fcd	81.3fcd	36.1fcd	20.3fcd	13fcd	9fcd	6.6fcd	5.1fcd	4fcd	3.3fcd	2.7fcd	2.3fcd	1.9fcd	1.7fcd	1.4fcd	1.3fcd	1.1fcd	1fcd	0.9fcd	0.8fcd

#### 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°
3501	3488	3437	3350	3231	3076	2892	2669	2405	2103	1767	1451	1183	937	668	369	108	31	13	9
100%	100%	98%	96%	92%	88%	83%	76%	69%	60%	50%	41%	34%	27%	19%	11%	3%	1%	0%	0%

#### 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°
3501	3485	3428	3336	3214	3056	2868	2643	2379	2084	1766	1438	1146	864	574	284	73	25	13	9
100%	100%	98%	95%	92%	87%	82%	75%	68%	60%	50%	41%	33%	25%	16%	8%	2%	1%	0%	0%

#### 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°
3501	3477	3417	3316	3189	3032	2848	2635	2382	2087	1768	1456	1175	919	641	329	113	28	12	9
100%	99%	98%	95%	91%	87%	81%	75%	68%	60%	50%	42%	34%	26%	18%	9%	3%	1%	0%	0%

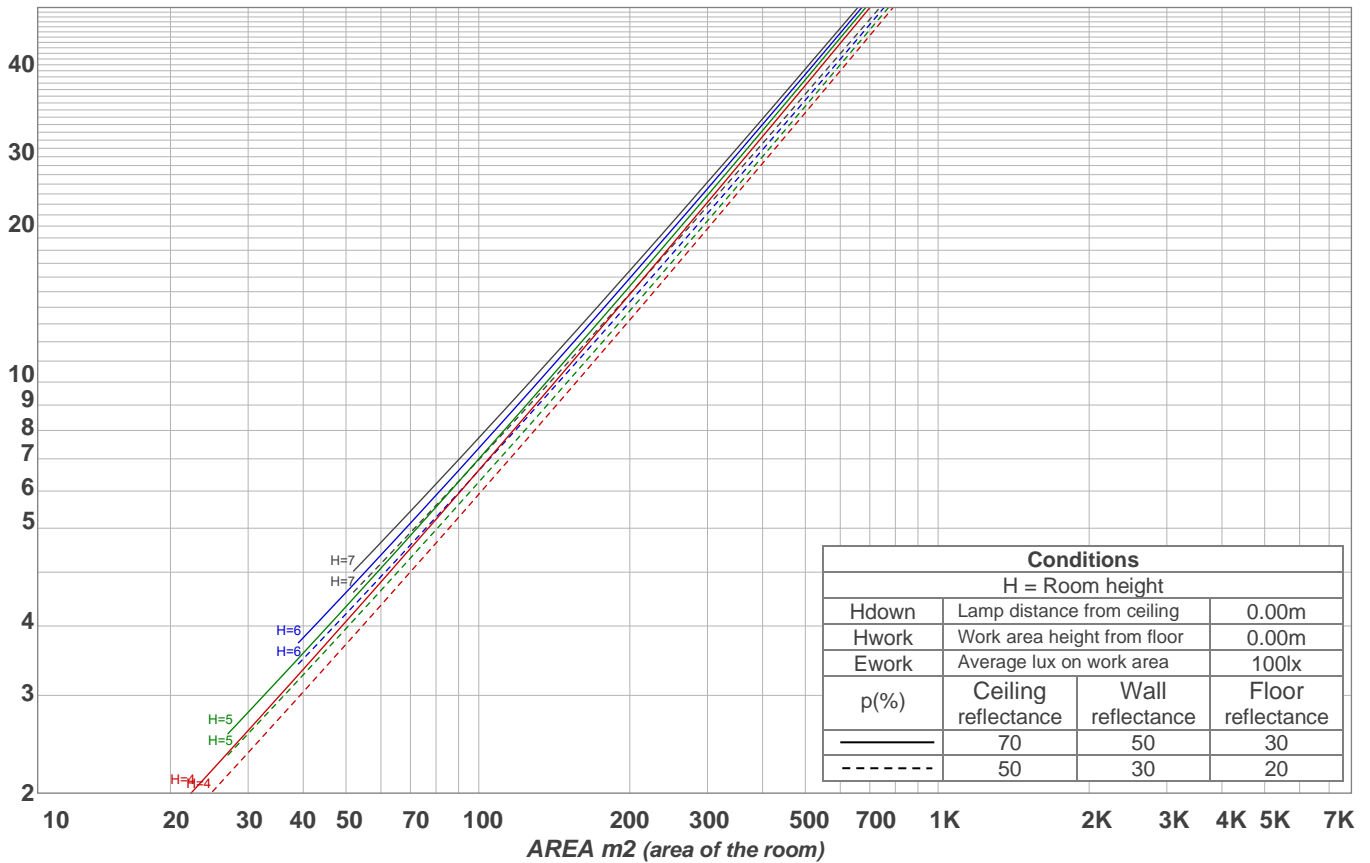
#### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3501	3480	3425	3329	3201	3047	2864	2647	2388	2089	1766	1458	1189	949	704	416	170	52	15	10
100%	99%	98%	95%	91%	87%	82%	76%	68%	60%	50%	42%	34%	27%	20%	12%	5%	1%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>40.2°</b>	<b>60°</b>	<b>64.9°</b>	<b>99.4%</b>	<b>99.1%</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	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91	91	91	
3	106	101	97	94	104	100	96	93	97	94	91	95	92	90	93	90	89	87	87	87	
4	102	96	92	88	101	95	91	88	93	90	87	91	88	86	89	87	85	84	84	84	
5	99	92	87	84	97	91	87	83	89	86	83	88	85	82	86	84	81	80	80	80	
6	95	88	83	80	94	87	83	80	86	82	79	85	81	79	83	80	78	77	77	77	
7	92	84	80	76	91	84	79	76	83	79	76	82	78	75	81	77	75	74	74	74	
8	89	81	76	73	88	81	76	73	80	76	73	79	75	72	78	75	72	71	71	71	
9	86	78	73	70	85	78	73	70	77	73	70	76	72	70	75	72	69	68	68	68	
10	83	75	71	67	82	75	70	67	74	70	67	73	70	67	73	69	67	66	66	66	

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
313 lm	684 lm	464 lm	37.9 lm	3.57 lm	2.43 lm	2.72 lm	3.50 lm	3.36 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