

Light efficiency:



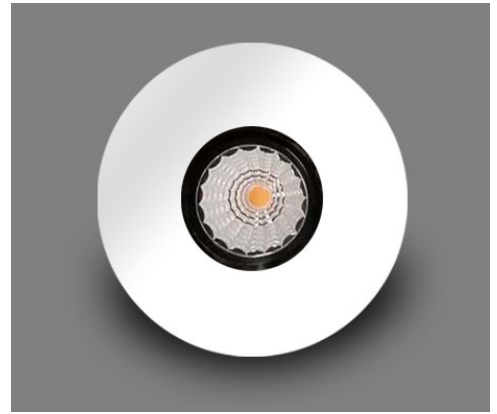
Output: 1167 lm

Light quality:

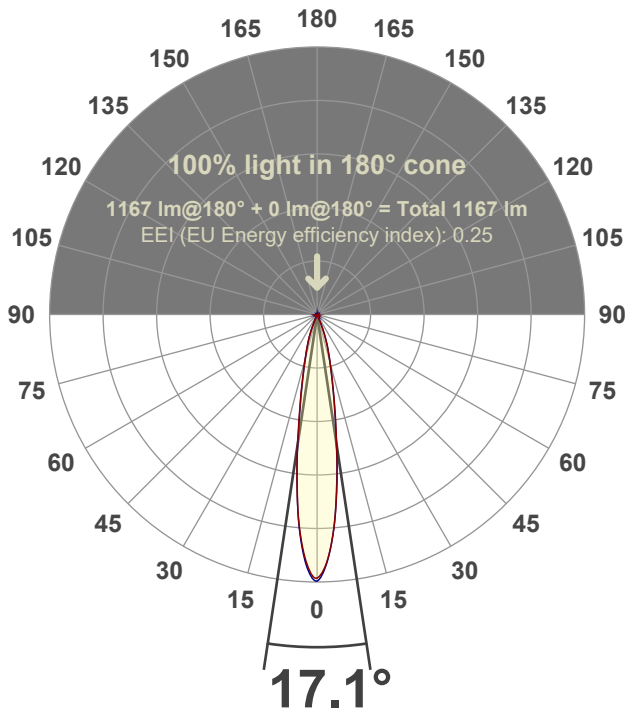


Peak: 9386 cd

Power: 21.3 W



Beam angle



Test number:

GR-F-F-A20-3019-SP-RD-Rev2

Luminaire Model:

Graffiti Flat Round Fixed Downlight-A20-3019 15° Optic

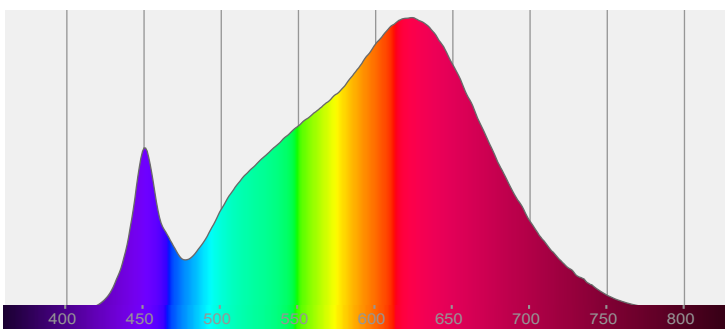
Date and time:

4/28/2022 7:35:03 PM

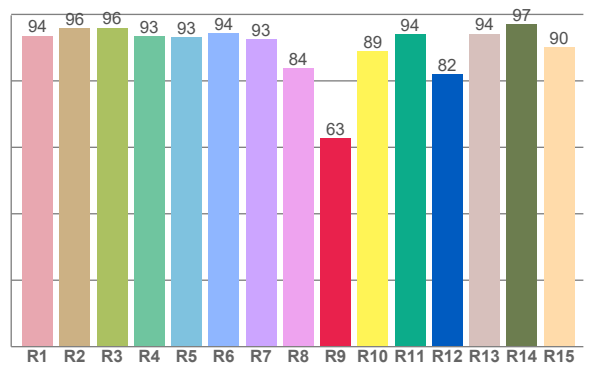
Delivered Lumens

1167

Spectra



CRI: 92.8 (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
	92.8	62.7	91.1	101.5	90.0	0.436	0.399	0.252	0.346	-0.0018

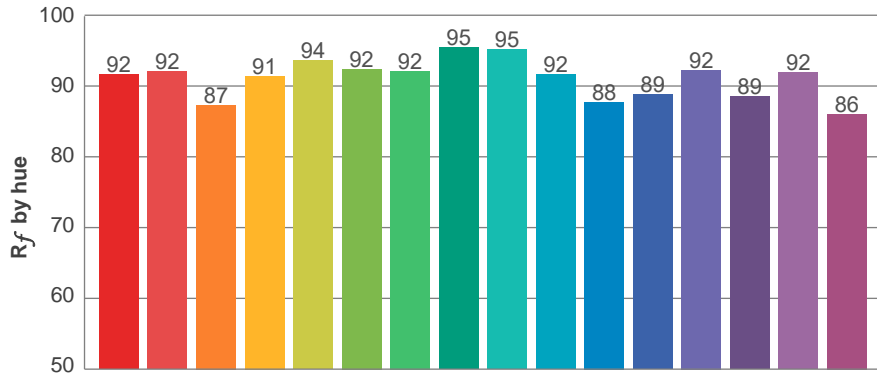
**$R_f$  91.1**  
Fidelity index  $R_f$

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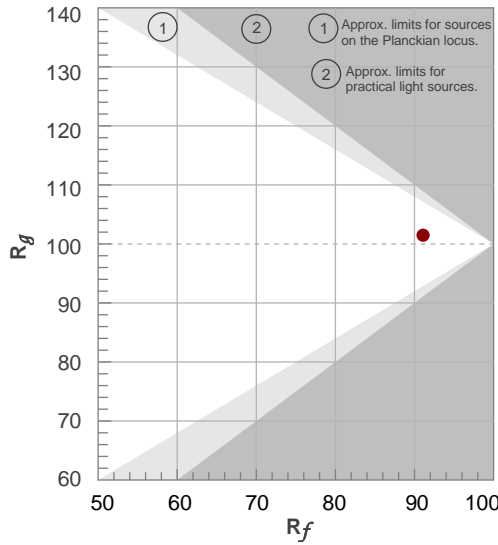
**$R_g$  101.5**  
Gammut index  $R_g$

TM30: 91.1

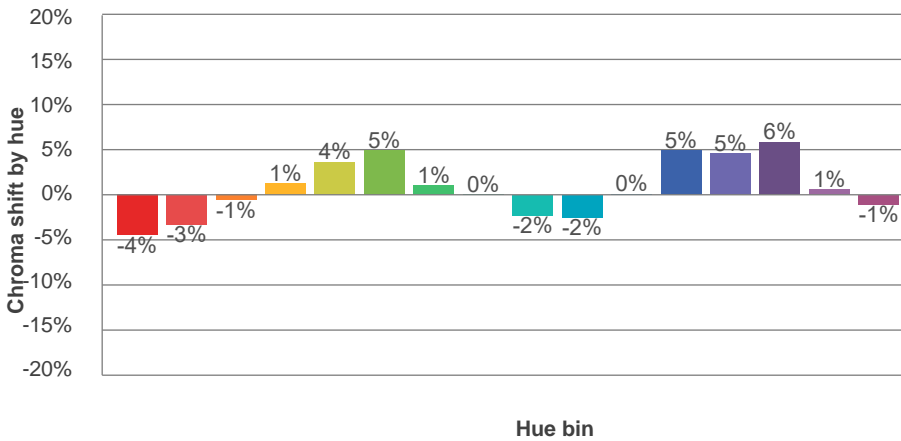
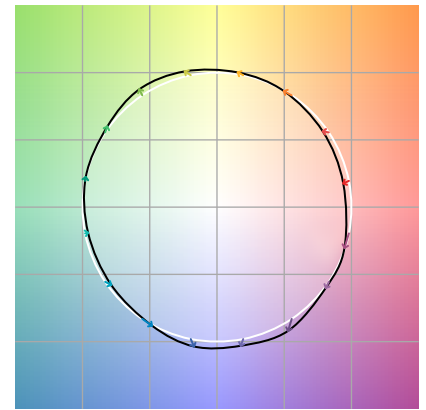
TM-30Color



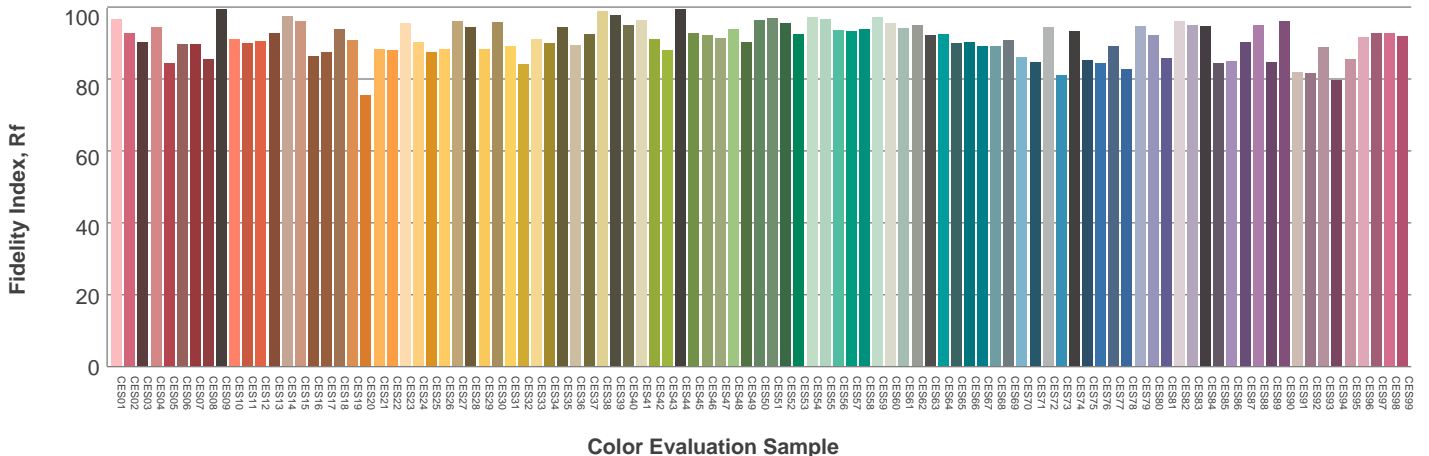
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	92	-3%	3%
3	87	-1%	7%
4	91	1%	4%
5	94	4%	4%
6	92	5%	-1%
7	92	1%	-5%
8	95	0%	-3%
9	95	-2%	0%
10	92	-2%	4%
11	88	0%	9%
12	89	5%	3%
13	92	5%	-3%
14	89	6%	-7%
15	92	1%	-5%
16	86	-1%	-11%



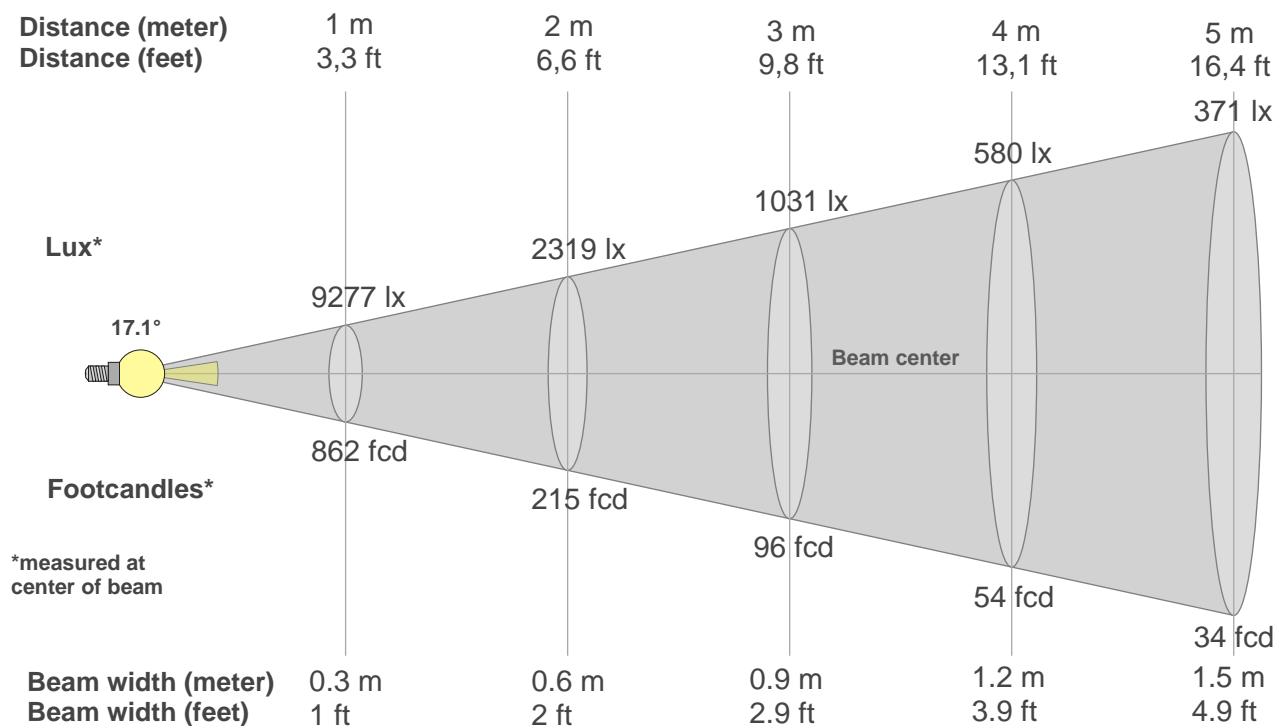
Color vector graphics



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
9277lx	2319lx	1031lx	580lx	371lx	258lx	189lx	145lx	115lx	93lx	77lx	64lx	55lx	47lx	41lx	36lx	32lx	29lx	26lx	23lx
861.8fcd	215.5fcd	95.8fcd	53.9fcd	34.5fcd	23.9fcd	17.6fcd	13.5fcd	10.6fcd	8.6fcd	7.1fcd	6fcd	5.1fcd	4.4fcd	3.8fcd	3.4fcd	3fcd	2.7fcd	2.4fcd	2.2fcd

#### Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
9277	9006	8815	8312	7804	7195	6496	5796	5084	4373	3785	3275	2789	2433	2077	1807	1574	1353	1174	994
100%	97%	95%	90%	84%	78%	70%	62%	55%	47%	41%	35%	30%	26%	22%	19%	17%	15%	13%	11%

#### Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
9277	9079	8800	8343	7785	7194	6457	5719	5015	4323	3689	3211	2733	2385	2067	1786	1574	1363	1187	1015
100%	98%	95%	90%	84%	78%	70%	62%	54%	47%	40%	35%	29%	26%	22%	19%	17%	15%	13%	11%

#### Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
9277	9113	8817	8493	7910	7326	6619	5843	5080	4376	3671	3144	2684	2266	1962	1659	1445	1251	1071	911
100%	98%	95%	92%	85%	79%	71%	63%	55%	47%	40%	34%	29%	24%	21%	18%	16%	13%	12%	10%

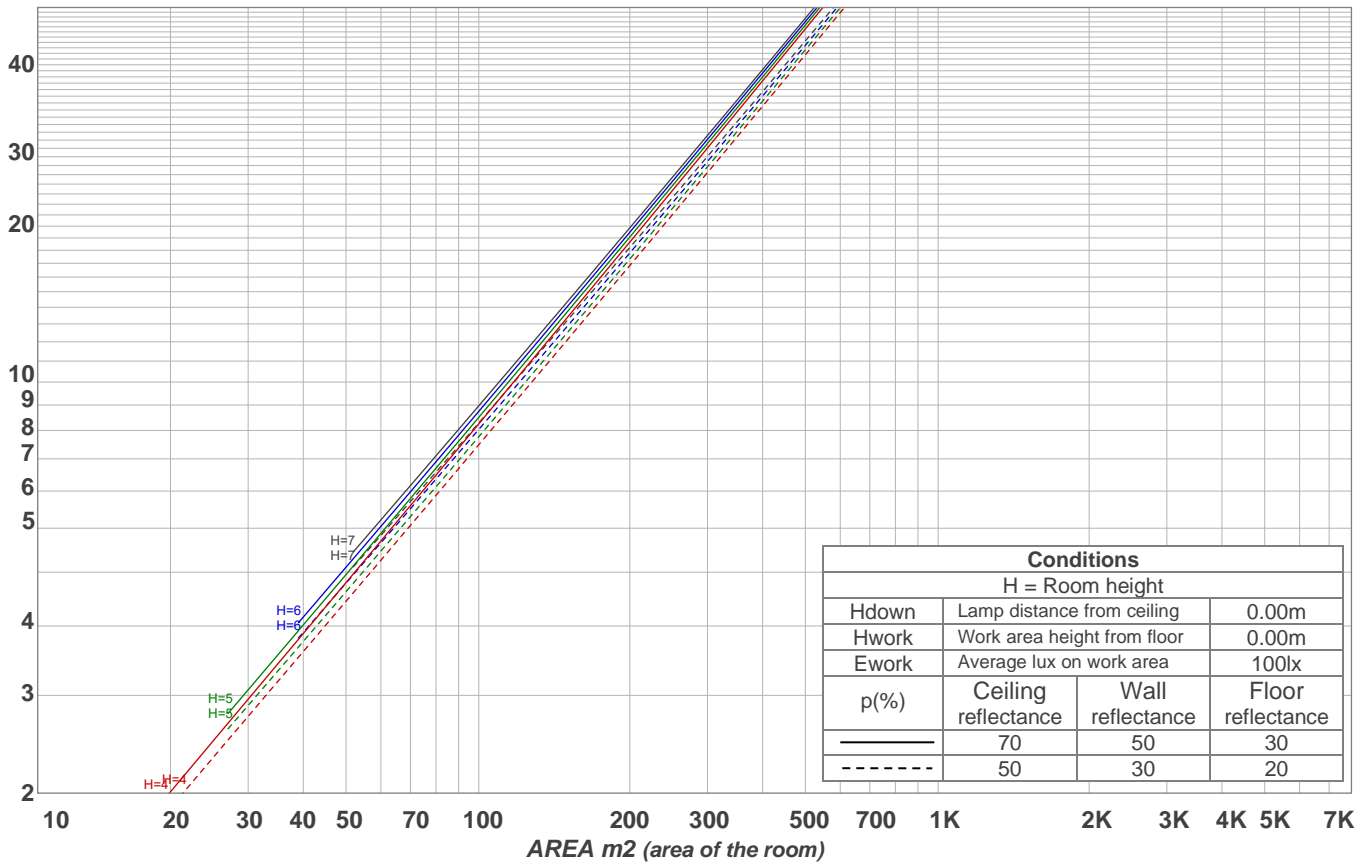
#### Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
9277	9170	8930	8541	7966	7390	6603	5811	5042	4293	3561	3074	2587	2209	1900	1606	1406	1206	1035	877
100%	99%	96%	92%	86%	80%	71%	63%	54%	46%	38%	33%	28%	24%	20%	17%	15%	13%	11%	9%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17.1°	38.2°	47.2°	99.1%	98.8%

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	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97	97	97	
2	112	109	106	104	110	107	105	102	104	102	100	101	100	98	99	97	96	95	95	95	
3	109	105	102	99	107	104	101	98	101	99	97	99	97	95	97	95	94	93	93	93	
4	106	102	98	95	105	101	97	95	99	96	94	97	95	93	95	93	92	91	91	91	
5	104	99	95	92	103	98	94	92	96	93	91	95	92	90	93	91	90	89	89	89	
6	101	96	92	90	100	95	92	90	94	91	89	93	90	88	92	90	88	87	87	87	
7	99	94	90	88	98	93	90	87	92	89	87	91	89	87	90	88	86	85	85	85	
8	97	92	88	86	96	91	88	85	90	87	85	89	87	85	89	86	85	84	84	84	
9	95	90	86	84	95	89	86	84	89	86	83	88	85	83	87	85	83	82	82	82	
10	93	88	84	82	93	87	84	82	87	84	82	86	84	82	86	83	82	81	81	81	

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
568 lm	494 lm	86.9 lm	3.28 lm	2.26 lm	2.30 lm	2.66 lm	3.54 lm	4.47 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