

Light efficiency:



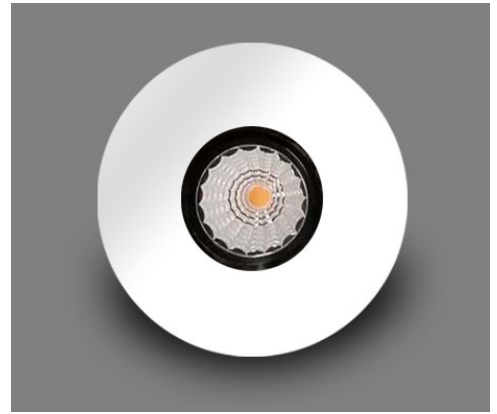
Output: 1095 lm

Light quality:

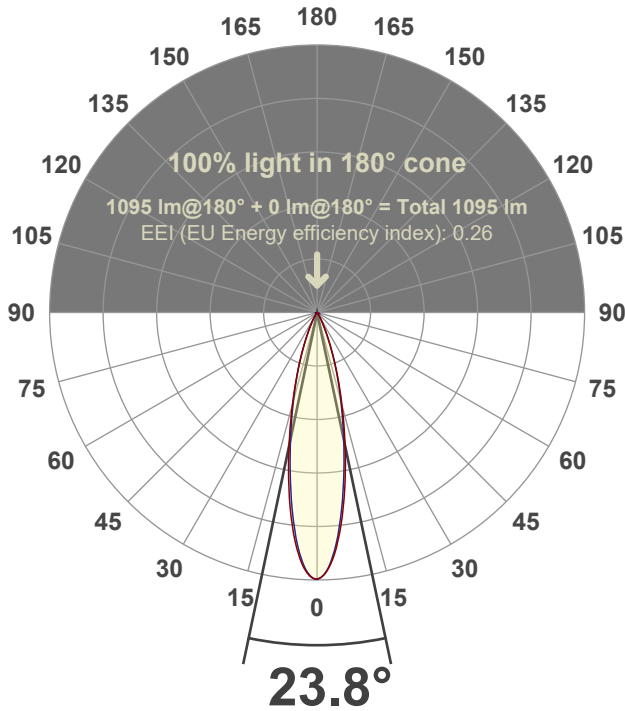


Peak: 4830 cd

Power: 21.3 W



Beam angle



Test number:

GR-F-F-A20-3019-SP-RD-91A-Rev2

Luminaire Model:

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

Date and time:

4/28/2022 7:32:29 PM

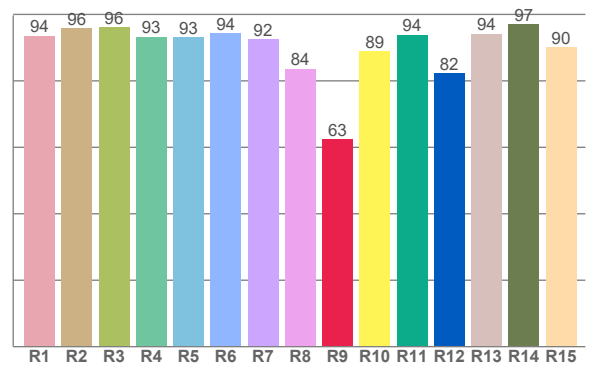
Delivered Lumens

1095

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	62.5	91.1	101.5	89.9	0.437	0.399	0.253	0.346	-0.0019

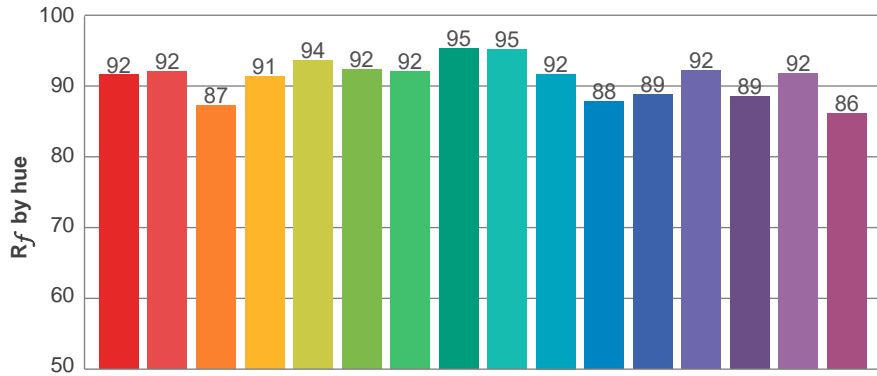
**$R_f$  91.1**  
Fidelity index  $R_f$

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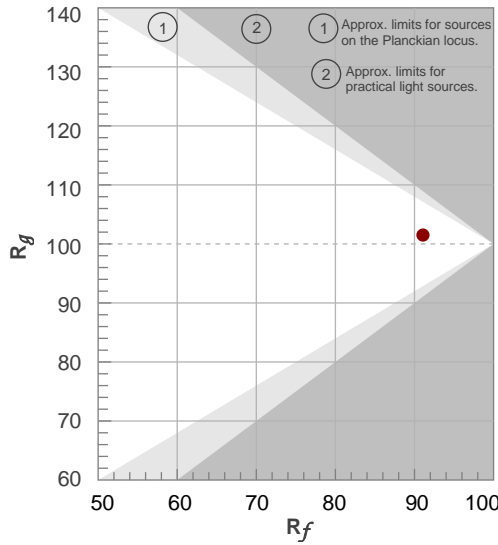
**$R_g$  101.5**  
Gammut index  $R_g$

TM30: 91.1

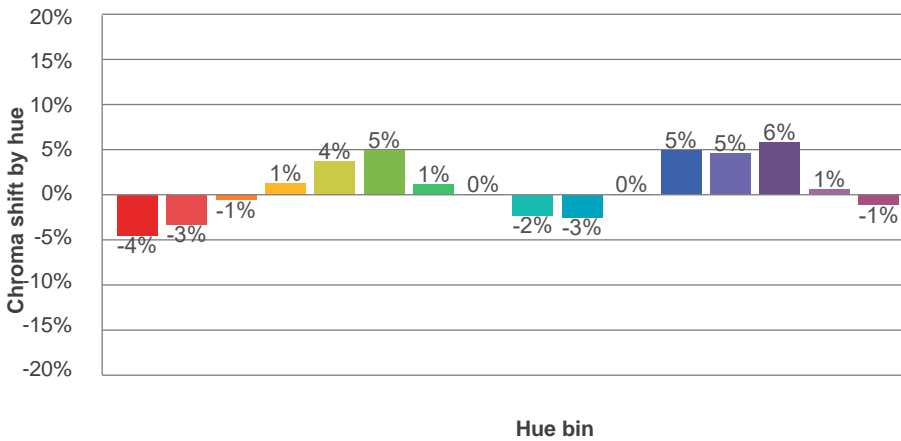
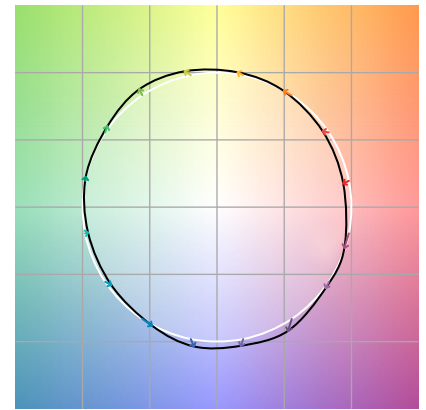
TM-30Color



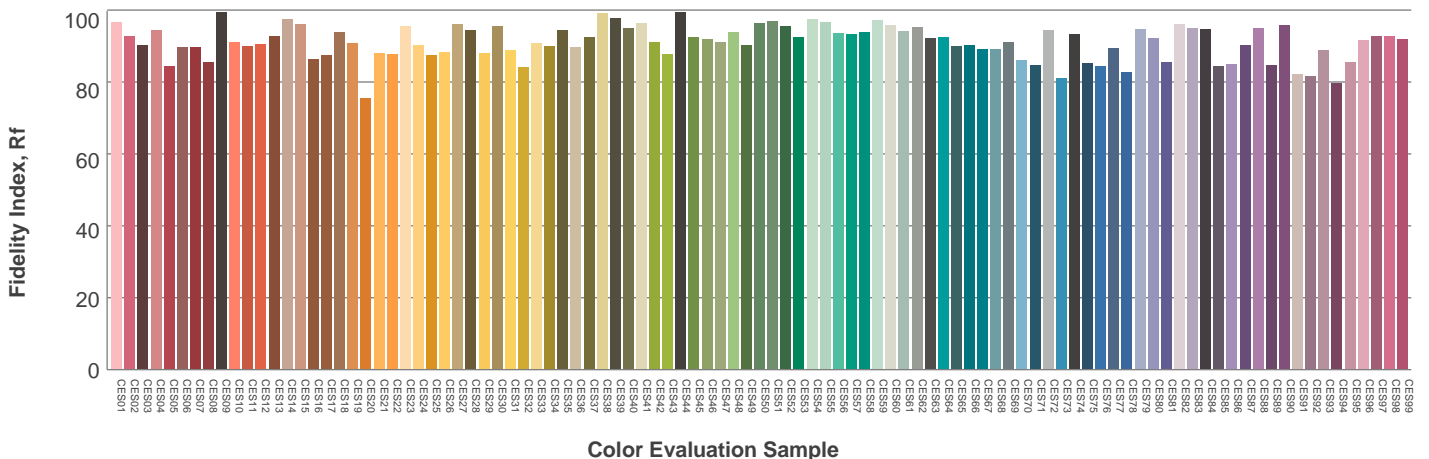
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	92	-3%	3%
3	87	-1%	7%
4	91	1%	4%
5	94	4%	4%
6	92	5%	-1%
7	92	1%	-5%
8	95	0%	-3%
9	95	-2%	0%
10	92	-3%	4%
11	88	0%	9%
12	89	5%	3%
13	92	5%	-3%
14	89	6%	-7%
15	92	1%	-5%
16	86	-1%	-11%



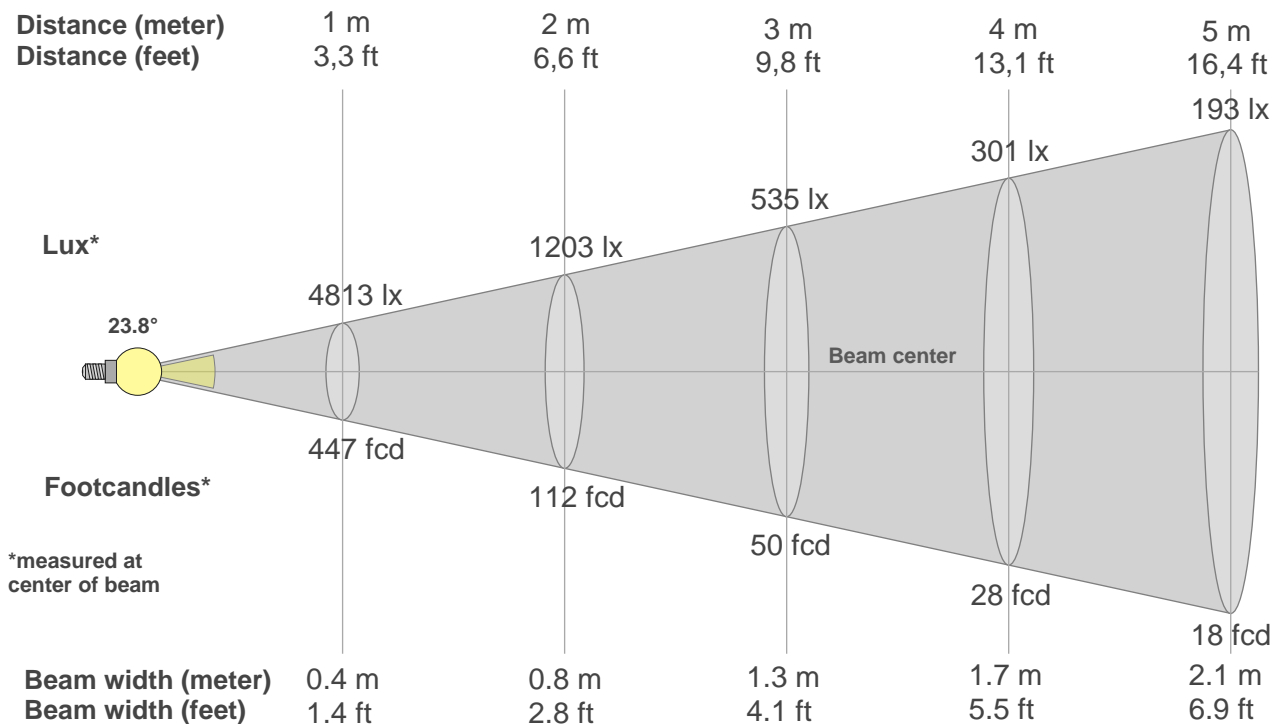
Color vector graphics



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
4813lx	1203lx	535lx	301lx	193lx	134lx	98lx	75lx	59lx	48lx	40lx	33lx	28lx	25lx	21lx	19lx	17lx	15lx	13lx	12lx
447.1fcd	111.8fcd	49.7fcd	27.9fcd	17.9fcd	12.4fcd	9.1fcd	7fcd	5.5fcd	4.5fcd	3.7fcd	3.1fcd	2.6fcd	2.3fcd	2fcd	1.7fcd	1.5fcd	1.4fcd	1.2fcd	1.1fcd

#### 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°
4813	4694	4409	3969	3471	2955	2451	1978	1553	1201	893	645	455	314	214	151	106	75	52	37
100%	98%	92%	82%	72%	61%	51%	41%	32%	25%	19%	13%	9%	7%	4%	3%	2%	2%	1%	1%

#### 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°
4813	4677	4339	3876	3351	2819	2319	1879	1497	1165	875	627	430	292	200	138	96	68	47	34
100%	97%	90%	81%	70%	59%	48%	39%	31%	24%	18%	13%	9%	6%	4%	3%	2%	1%	1%	1%

#### 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°
4813	4710	4446	4040	3537	2987	2455	1970	1544	1180	882	646	464	326	227	158	109	78	56	41
100%	98%	92%	84%	73%	62%	51%	41%	32%	25%	18%	13%	10%	7%	5%	3%	2%	2%	1%	1%

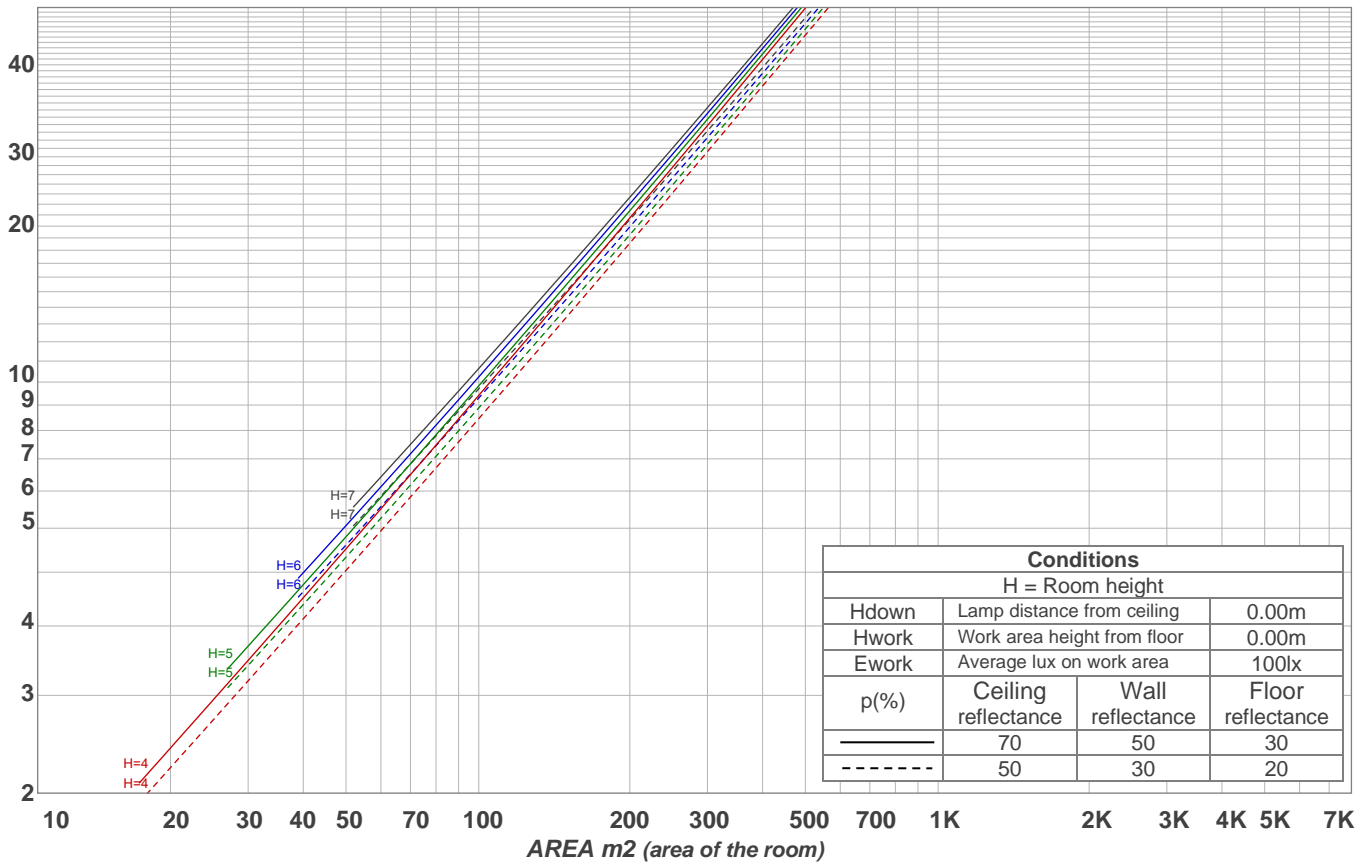
#### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4813	4702	4382	3920	3381	2828	2316	1876	1490	1159	877	637	444	314	224	162	119	88	64	49
100%	98%	91%	81%	70%	59%	48%	39%	31%	24%	18%	13%	9%	7%	5%	3%	2%	2%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>23.8°</b>	<b>47.2°</b>	<b>62.7°</b>	<b>98.4%</b>	<b>97.2%</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	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96	96	96	
2	110	107	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92	92	92	
3	107	102	98	95	105	100	97	94	98	95	93	96	93	91	93	91	90	88	88	88	
4	103	97	93	90	102	96	92	89	94	91	88	92	90	87	91	88	86	85	85	85	
5	100	94	89	86	98	93	89	86	91	88	85	90	87	84	88	86	83	82	82	82	
6	97	90	86	83	96	89	85	82	88	84	82	87	84	81	86	83	81	80	80	80	
7	94	87	83	80	93	86	82	79	85	82	79	84	81	79	83	80	78	77	77	77	
8	91	84	80	77	90	84	80	77	83	79	76	82	79	76	81	78	76	75	75	75	
9	89	82	77	74	88	81	77	74	80	77	74	80	76	74	79	76	74	73	73	73	
10	86	79	75	72	85	79	75	72	78	74	72	77	74	72	77	74	72	71	71	71	

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
357 lm	472 lm	184 lm	44.2 lm	12.8 lm	7.69 lm	7.18 lm	6.40 lm	4.29 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