

Light efficiency:



Output: 852 lm

Light quality:

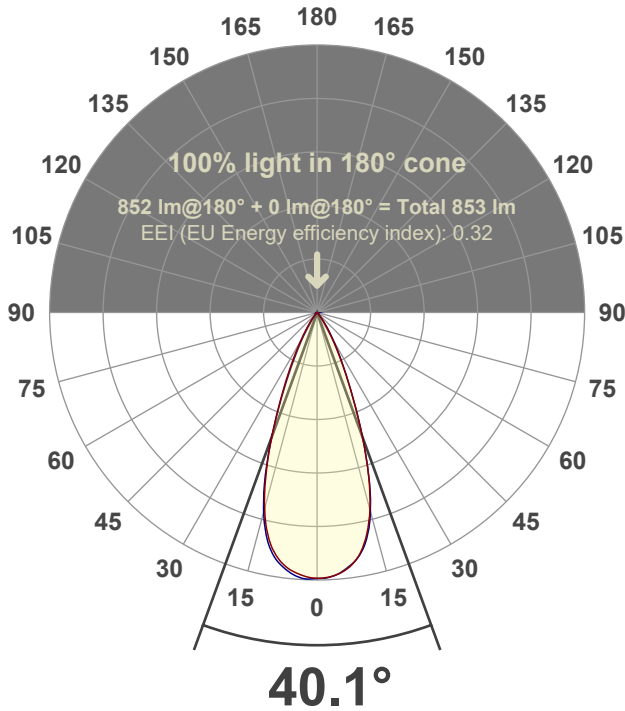


Peak: 1791 cd

Power: 21.3 W



Beam angle



Test number:

GR-F-F-A20-3019-WF-SQ-91A-Rev2

Luminaire Model:

Graffiti Flat Square Fixed Downlight-A20-3019 60° Optic-Solite

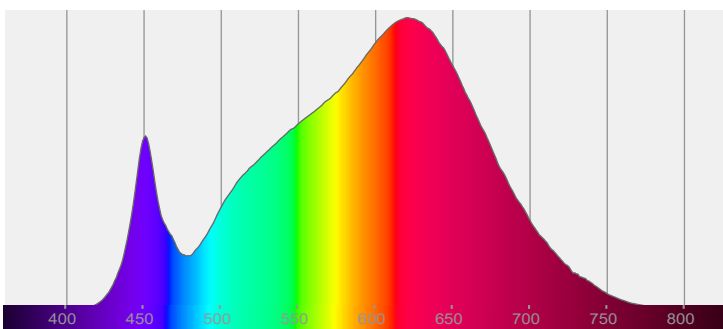
Date and time:

6/21/2022 7:56:46 PM

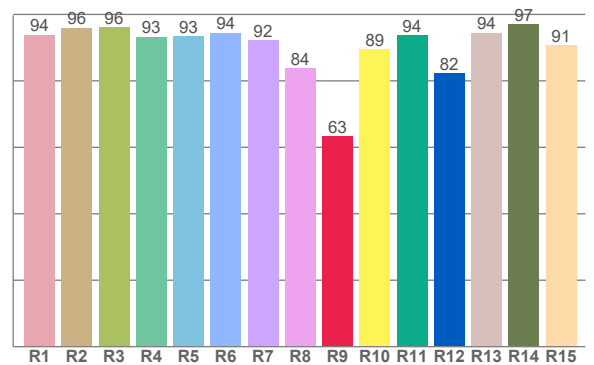
Delivered Lumens

852

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	63.2	90.9	101.8	89.8	0.432	0.396	0.251	0.345	-0.0027

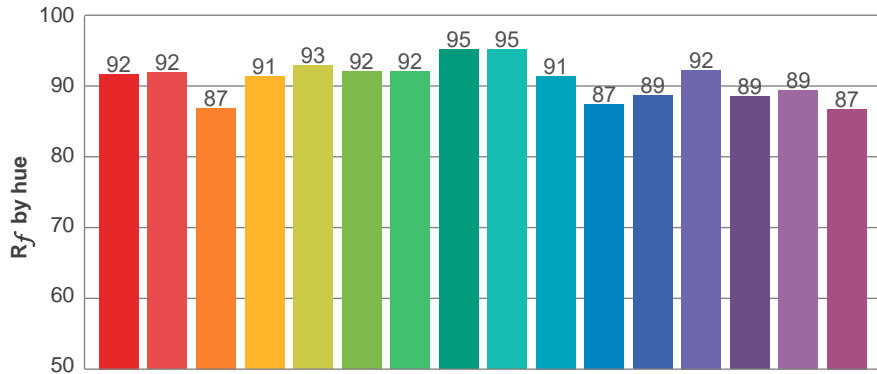
**$R_f$  90.9**  
Fidelity index  $R_f$

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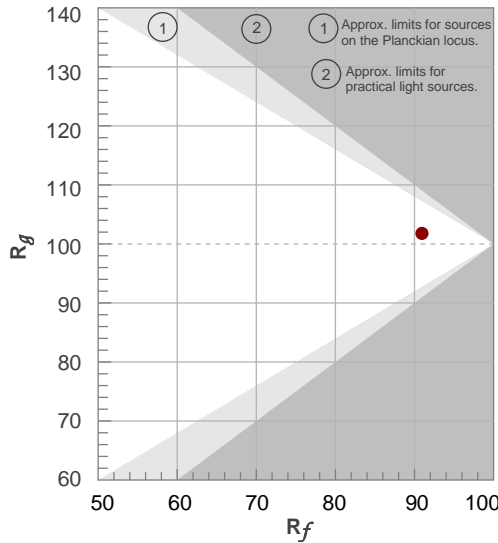
**$R_g$  101.8**  
Gammut index  $R_g$

TM30: 90.9

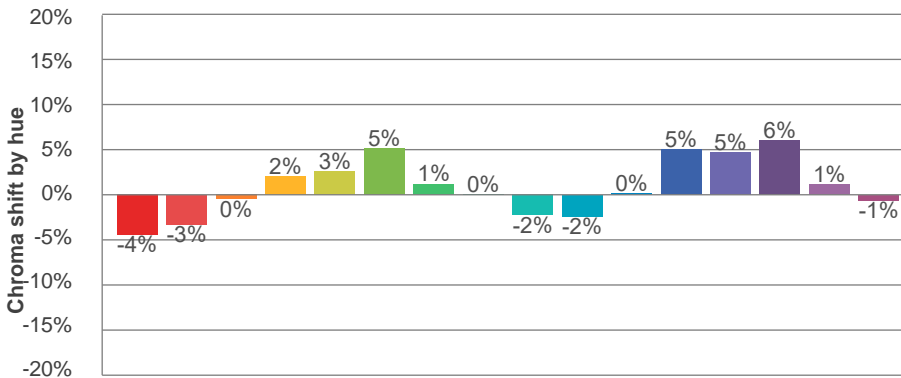
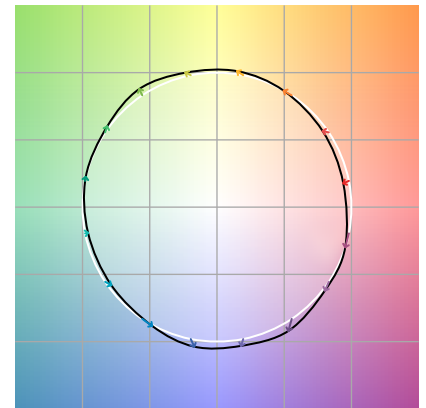
TM-30Color



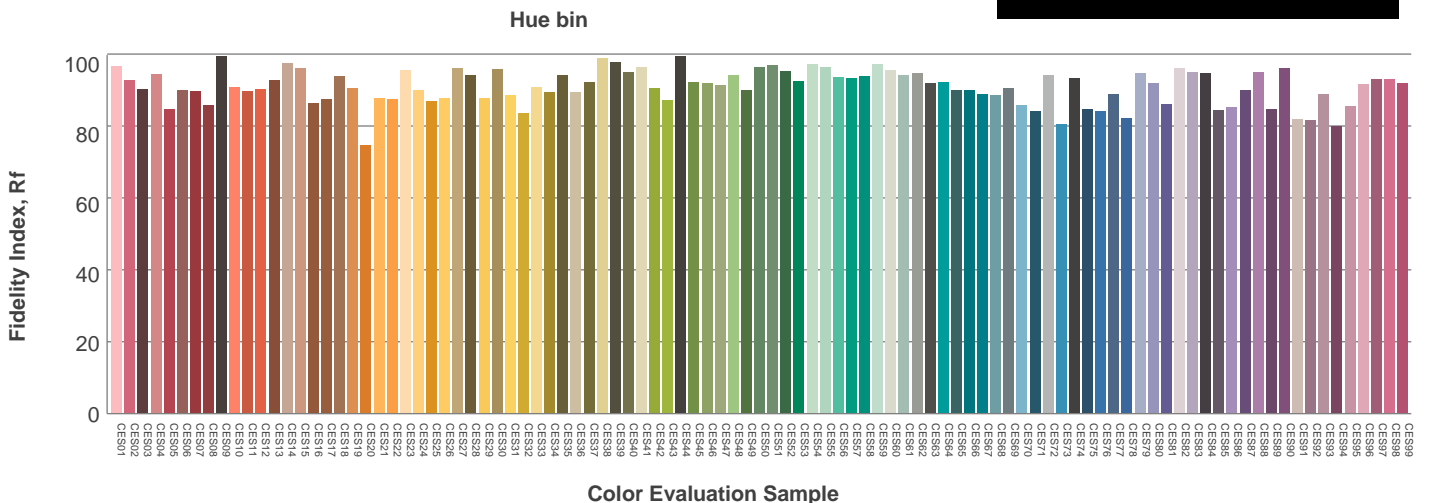
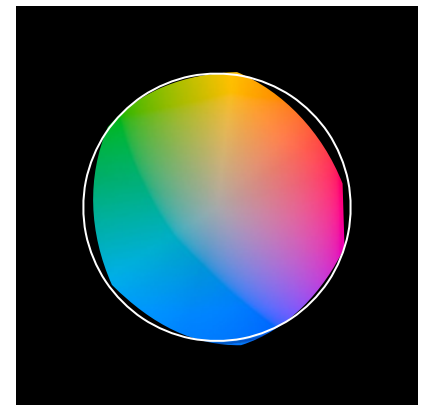
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	92	-3%	3%
3	87	0%	7%
4	91	2%	5%
5	93	3%	4%
6	92	5%	-1%
7	92	1%	-5%
8	95	0%	-3%
9	95	-2%	0%
10	91	-2%	5%
11	87	0%	9%
12	89	5%	4%
13	92	5%	-3%
14	89	6%	-7%
15	89	1%	-7%
16	87	-1%	-11%



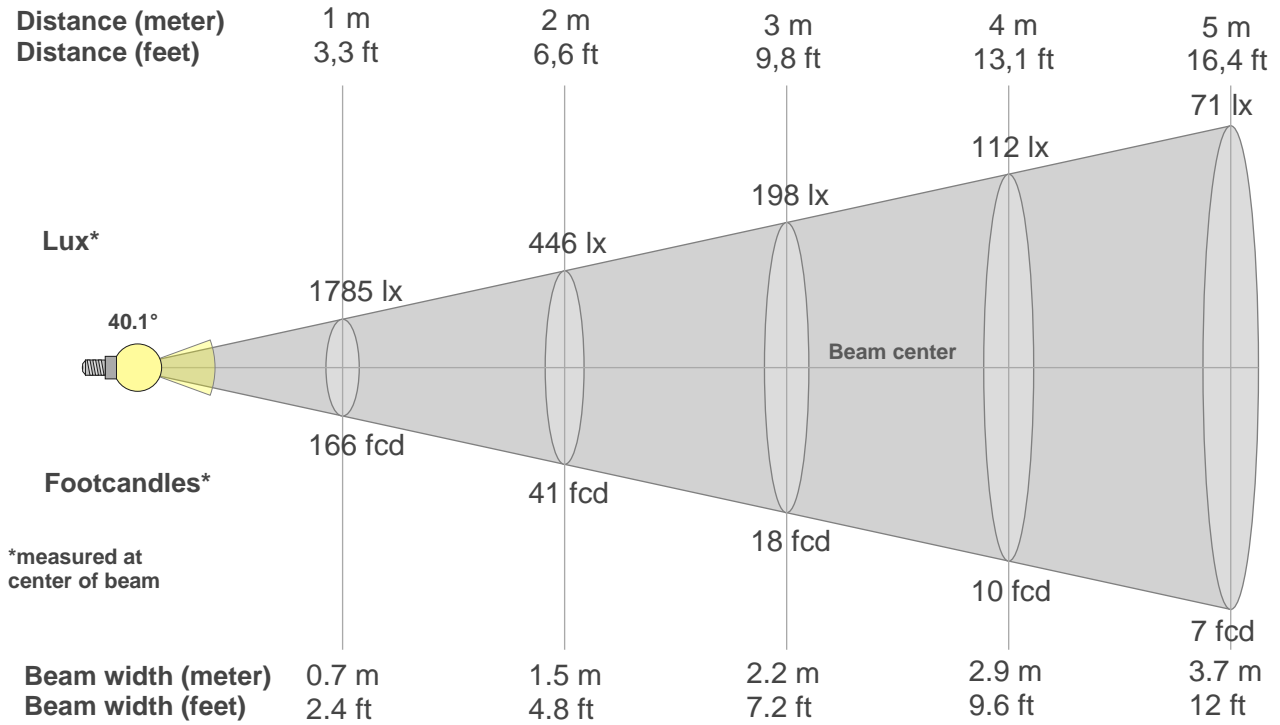
Color vector graphics



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
1785lx	446lx	198lx	112lx	71lx	50lx	36lx	28lx	22lx	18lx	15lx	12lx	11lx	9lx	8lx	7lx	6lx	6lx	5lx	4lx
165.8fcd	41.5fcd	18.4fcd	10.4fcd	6.6fcd	4.6fcd	3.4fcd	2.6fcd	2fcd	1.7fcd	1.4fcd	1.2fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd

**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°
1785	1780	1767	1744	1707	1647	1557	1438	1288	1106	900	702	539	405	299	217	154	110	77	53
100%	100%	99%	98%	96%	92%	87%	81%	72%	62%	50%	39%	30%	23%	17%	12%	9%	6%	4%	3%

**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°
1785	1784	1767	1738	1701	1649	1573	1458	1299	1107	902	706	536	411	315	238	176	127	87	59
100%	100%	99%	97%	95%	92%	88%	82%	73%	62%	51%	40%	30%	23%	18%	13%	10%	7%	5%	3%

**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°
1785	1778	1761	1736	1696	1637	1553	1437	1284	1097	900	713	551	420	315	235	173	124	87	60
100%	100%	99%	97%	95%	92%	87%	81%	72%	61%	50%	40%	31%	24%	18%	13%	10%	7%	5%	3%

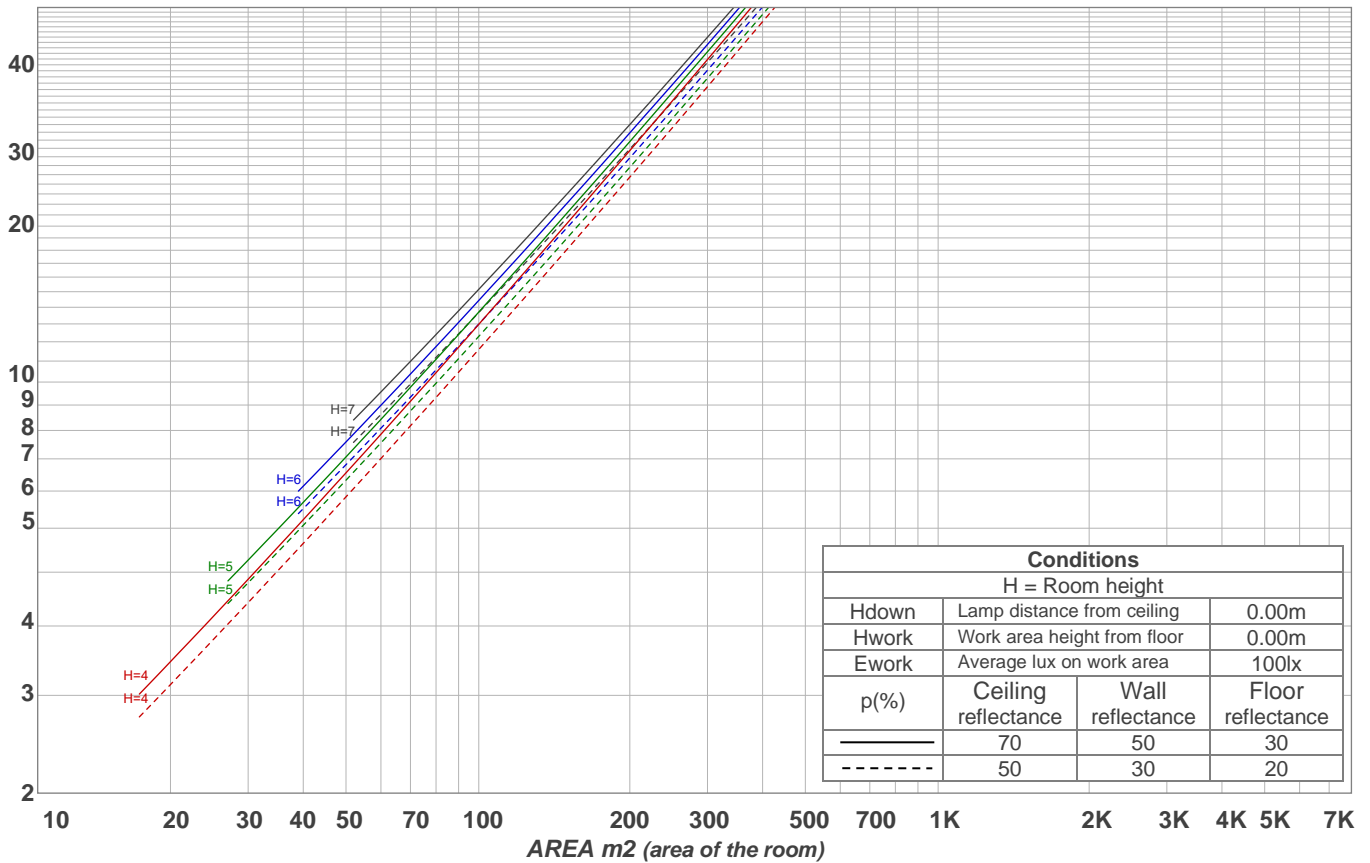
**Intensities in 270° c-plane**

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1785	1790	1779	1754	1715	1664	1580	1459	1302	1113	902	692	521	383	279	201	143	101	72	49
100%	100%	100%	98%	96%	93%	89%	82%	73%	62%	51%	39%	29%	21%	16%	11%	8%	6%	4%	3%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>40.1°</b>	<b>62.8°</b>	<b>78.2°</b>	<b>98.1%</b>	<b>97.0%</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	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94	94	94	
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	90	90	90	
3	105	99	95	92	103	98	94	91	95	92	89	93	90	88	91	89	87	85	85	85	
4	101	94	90	86	99	93	89	85	91	87	84	89	86	83	87	85	83	81	81	81	
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77	77	77	
6	93	86	81	77	92	85	80	77	84	79	76	82	79	76	81	78	75	74	74	74	
7	90	82	77	73	88	81	77	73	80	76	73	79	75	72	78	75	72	71	71	71	
8	86	78	73	70	85	78	73	70	77	73	70	76	72	69	75	72	69	68	68	68	
9	83	75	70	67	82	75	70	67	74	70	67	73	69	66	72	69	66	65	65	65	
10	80	72	67	64	80	72	67	64	71	67	64	71	67	64	70	66	64	63	63	63	

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
164 lm	369 lm	221 lm	64.8 lm	12.8 lm	4.87 lm	5.14 lm	5.86 lm	5.03 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