

Light efficiency:



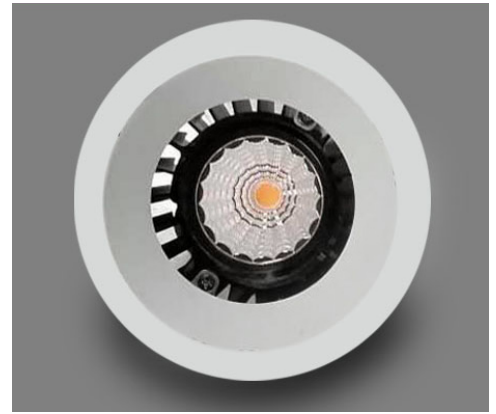
Output: 1565 lm

Light quality:

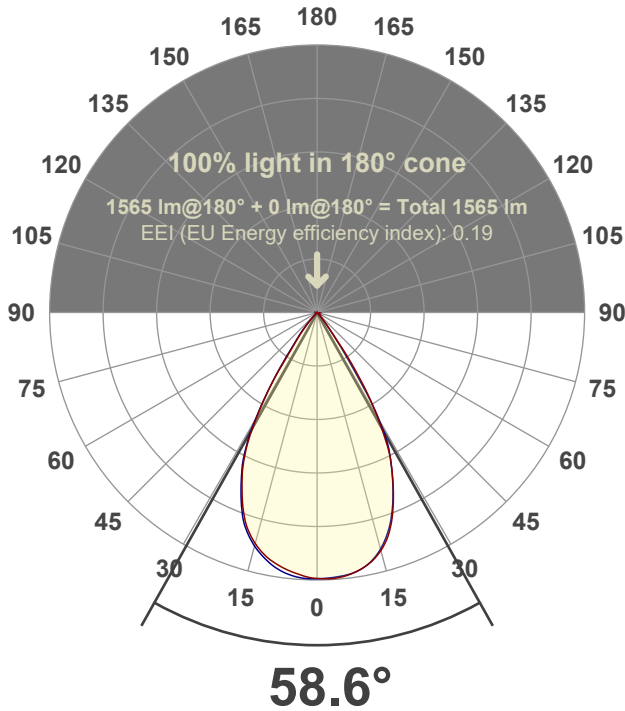


Peak: 1958 cd

Power: 21.3 W



Beam angle



Test number:

**GR-O-F-A20-3019-WF-RD-Rev2**

Luminaire Model:

**Graffiti Open Round Fixed Downlight-A20-3019 60° Optic**

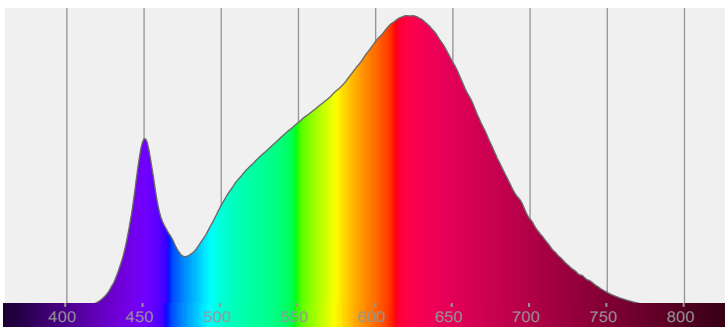
Date and time:

**4/28/2022 8:19:43 PM**

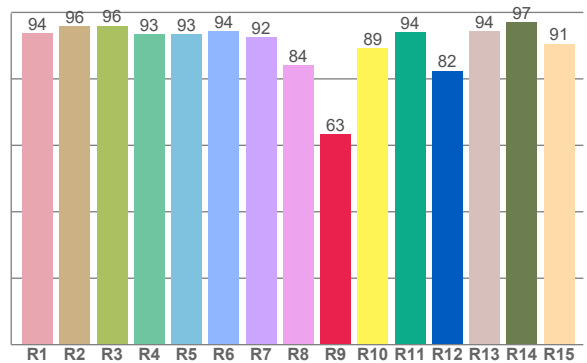
Delivered Lumens

**1565**

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	63.4	91.0	101.8	89.9	0.434	0.397	0.251	0.346	-0.0022

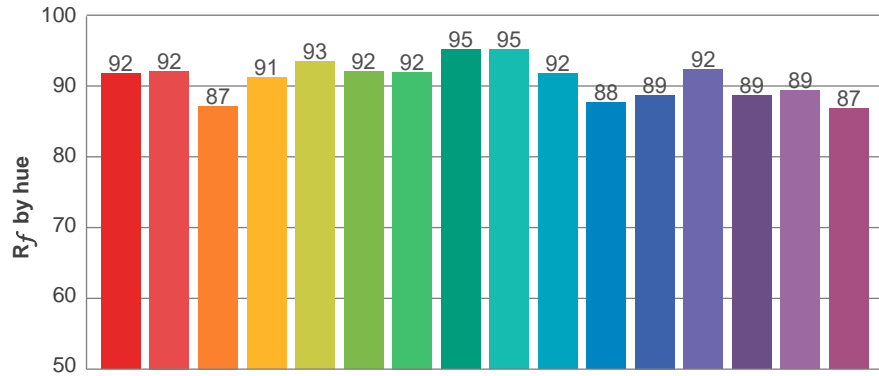
**$R_f$  91.0**  
Fidelity index  $R_f$

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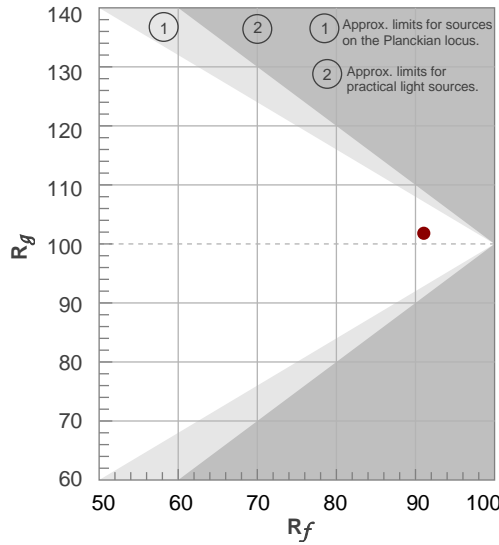
**$R_g$  101.8**  
Gammut index  $R_g$

TM30: 91.0

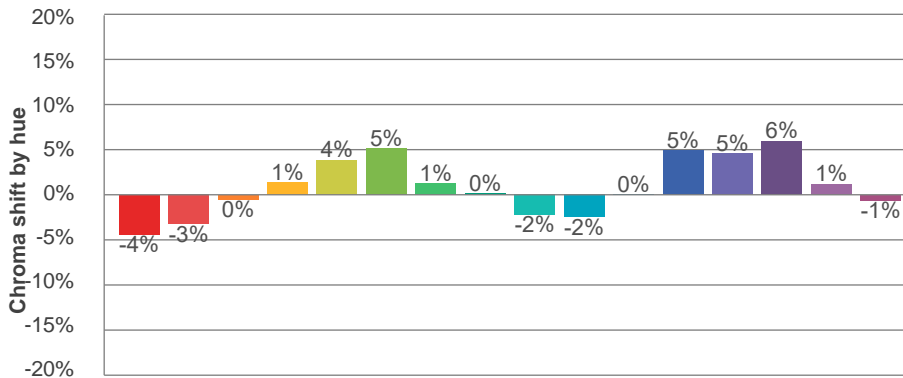
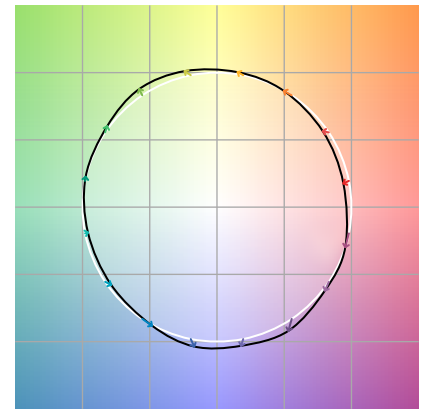
TM-30Color



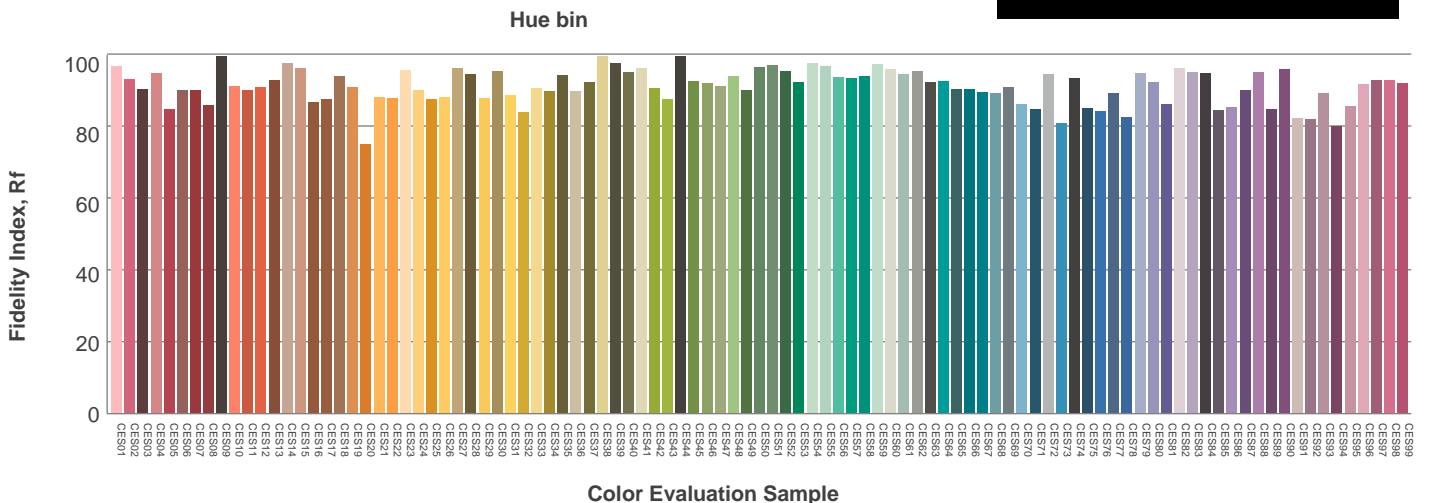
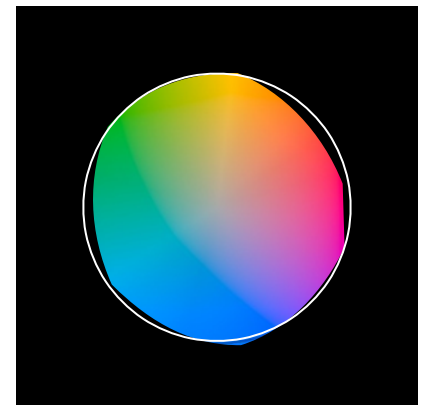
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	92	-3%	3%
3	87	0%	7%
4	91	1%	5%
5	93	4%	4%
6	92	5%	-1%
7	92	1%	-5%
8	95	0%	-3%
9	95	-2%	0%
10	92	-2%	4%
11	88	0%	9%
12	89	5%	4%
13	92	5%	-3%
14	89	6%	-7%
15	89	1%	-7%
16	87	-1%	-11%



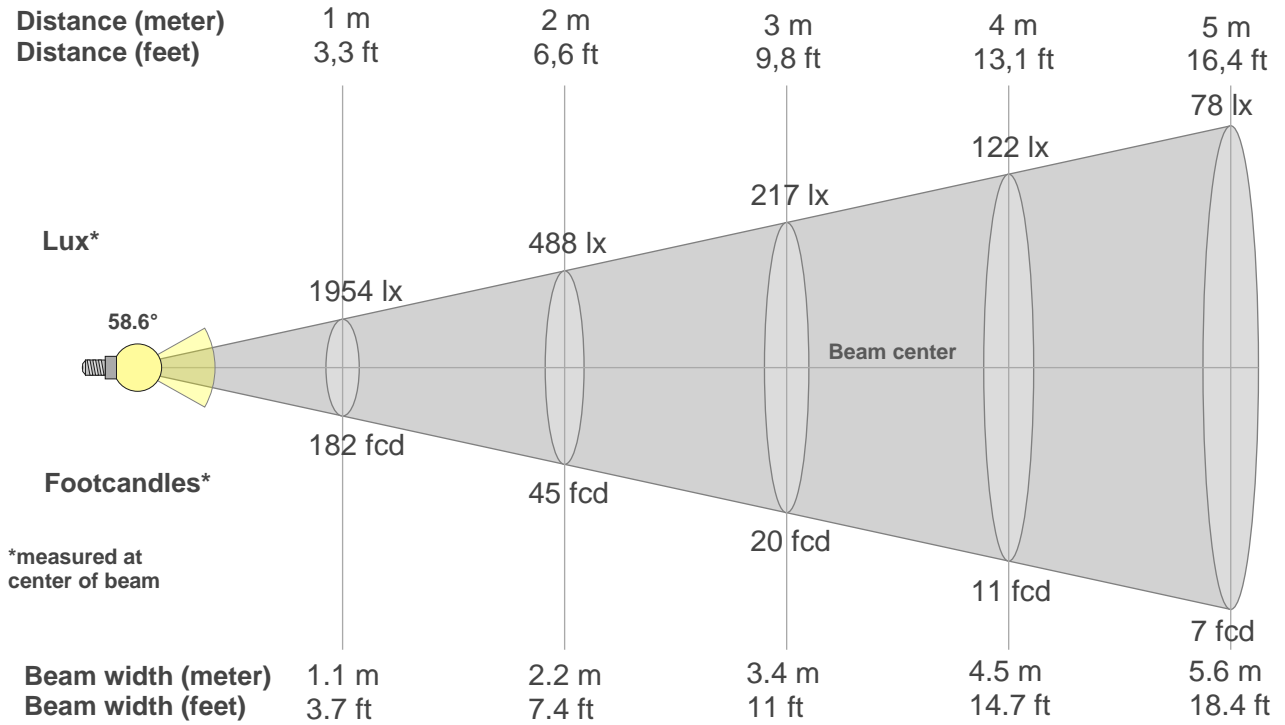
Color vector graphics



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
1954lx	488lx	217lx	122lx	78lx	54lx	40lx	31lx	24lx	20lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	5lx	5lx
181.5fcd	45.4fcd	20.2fcd	11.3fcd	7.3fcd	5fcd	3.7fcd	2.8fcd	2.2fcd	1.8fcd	1.5fcd	1.3fcd	1.1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	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°
1954	1957	1955	1947	1932	1908	1877	1835	1779	1706	1612	1498	1375	1245	1092	900	700	479	276	144
100%	100%	100%	100%	99%	98%	96%	94%	91%	87%	83%	77%	70%	64%	56%	46%	36%	25%	14%	7%

#### 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°
1954	1953	1948	1941	1929	1908	1876	1829	1765	1688	1596	1488	1370	1244	1110	915	655	386	214	128
100%	100%	100%	99%	99%	98%	96%	94%	90%	86%	82%	76%	70%	64%	57%	47%	34%	20%	11%	7%

#### 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°
1954	1945	1928	1909	1886	1859	1825	1782	1728	1661	1574	1470	1358	1240	1092	899	694	479	297	207
100%	100%	99%	98%	97%	95%	93%	91%	88%	85%	81%	75%	69%	63%	56%	46%	36%	25%	15%	11%

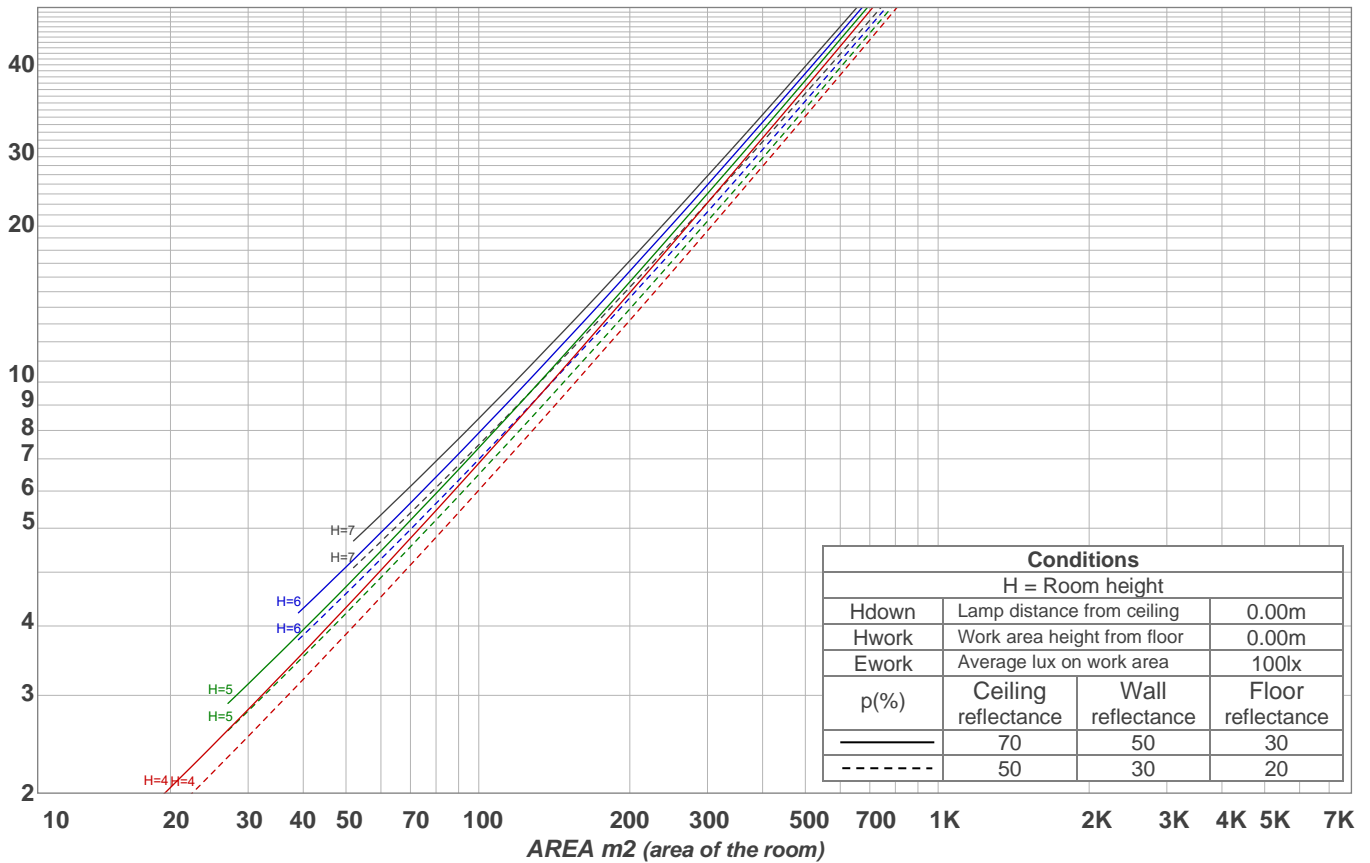
#### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1954	1955	1949	1936	1915	1886	1847	1801	1746	1680	1598	1492	1375	1254	1105	917	702	496	327	231
100%	100%	100%	99%	98%	97%	95%	92%	89%	86%	82%	76%	70%	64%	57%	47%	36%	25%	17%	12%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
58.6°	75.3°	86.6°	99.5%	98.9%

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		
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94	94		
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	92	90	88	88		
3	104	98	93	89	102	96	92	88	94	90	87	91	88	86	89	87	84	83	83		
4	99	92	87	83	97	91	86	82	89	84	81	87	83	80	85	82	79	78	78		
5	94	86	81	77	93	86	80	77	84	79	76	82	78	75	81	77	75	73	73		
6	90	82	76	72	89	81	76	72	79	75	71	78	74	71	77	73	70	69	69		
7	86	77	72	68	85	77	71	67	75	71	67	74	70	67	73	69	66	65	65		
8	82	73	67	64	81	73	67	63	71	67	63	70	66	63	70	66	63	61	61		
9	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	59	58	58		
10	75	66	60	57	74	65	60	57	65	60	57	64	60	56	63	59	56	55	55		

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
184 lm	498 lm	590 lm	252 lm	30.7 lm	2.62 lm	2.13 lm	3.04 lm	3.15 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