

Light efficiency:



Output: 1675 lm

Light quality:

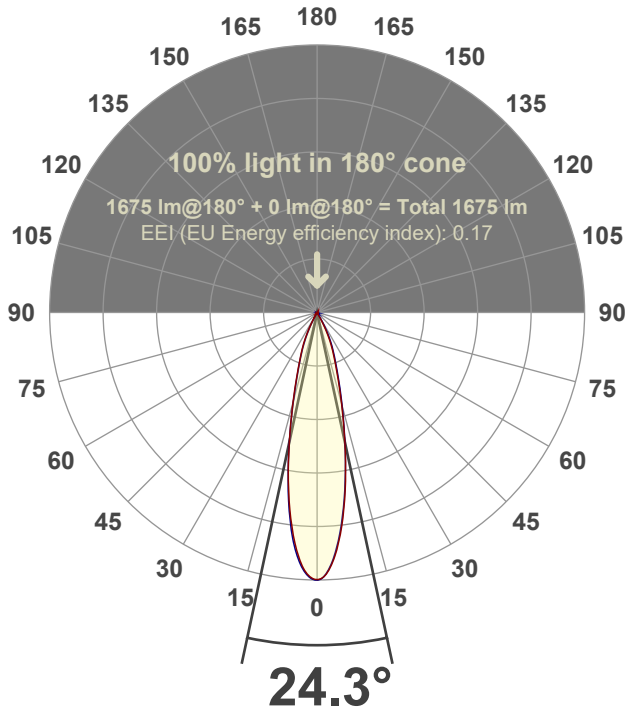


Peak: 7341 cd

Power: 20.7 W



Beam angle



Test number:

GR-F-CZ20-30k-NF-RD-Rev2

Luminaire Model:

Graffiti Regress Round Fixed Downlight-CZ20 30k 24° Optic

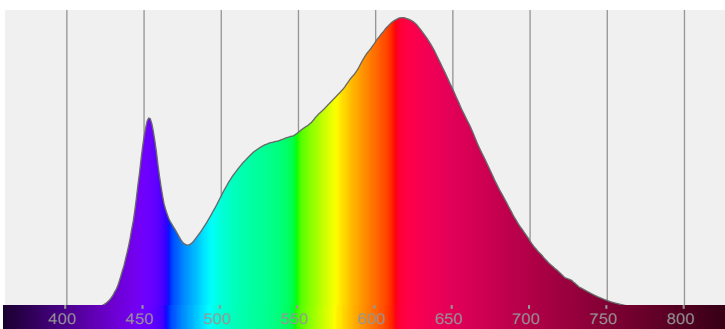
Date and time:

3/9/2022 4:58:24 PM

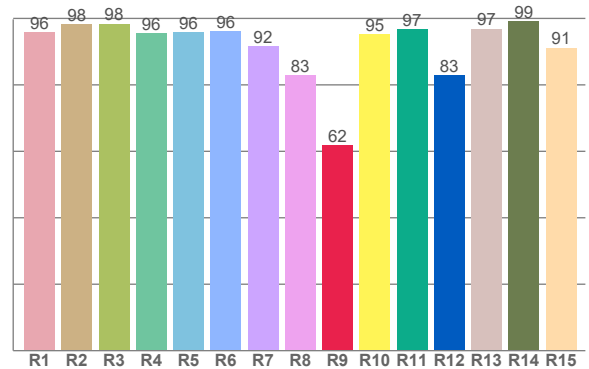
Delivered Lumens

1675

Spectra



CRI: 94.3 (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
	94.3	61.7	92.1	100.4	91.6	0.425	0.394	0.247	0.344	-0.0023

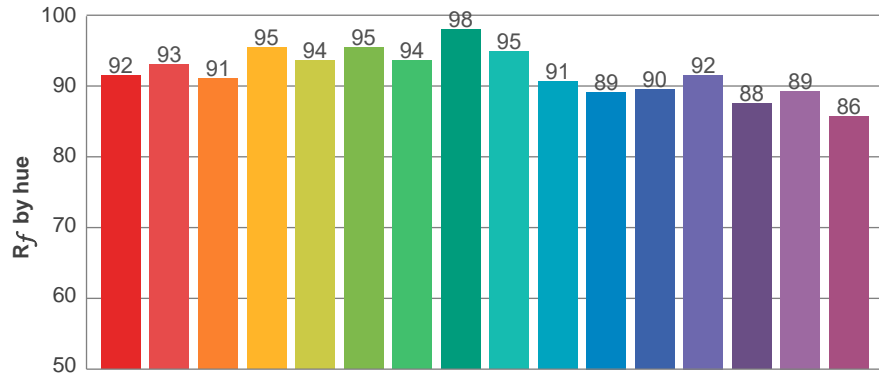
**$R_f$  92.1**  
Fidelity index  $R_f$

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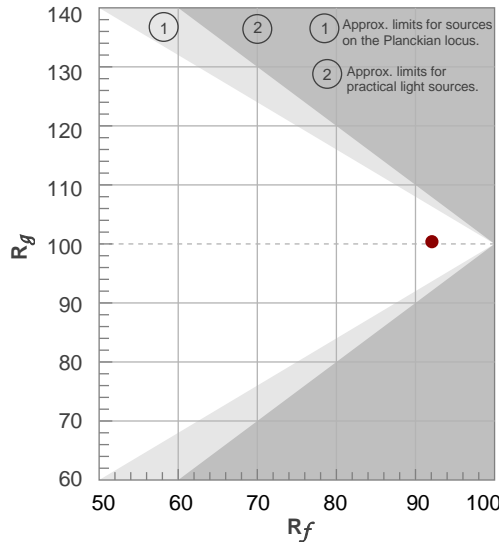
**$R_g$  100.4**  
Gammut index  $R_g$

TM30: 92.1

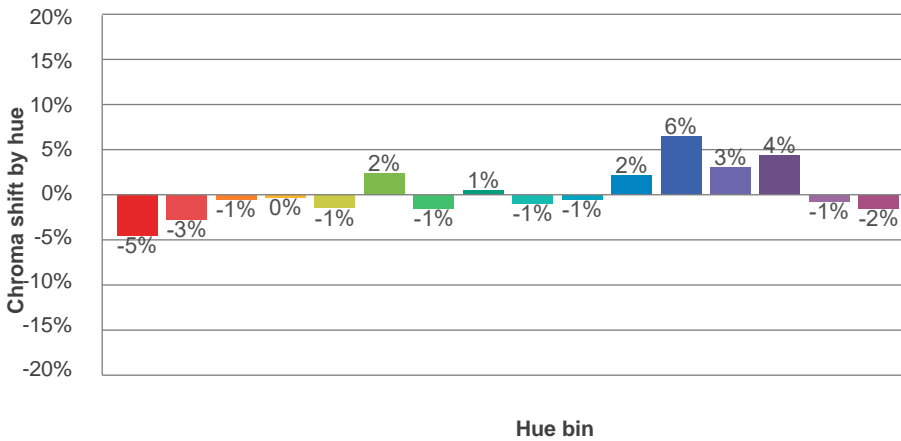
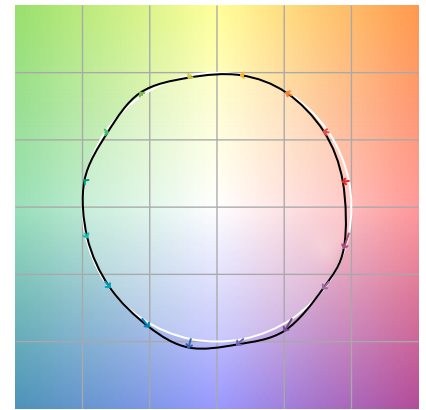
TM-30Color



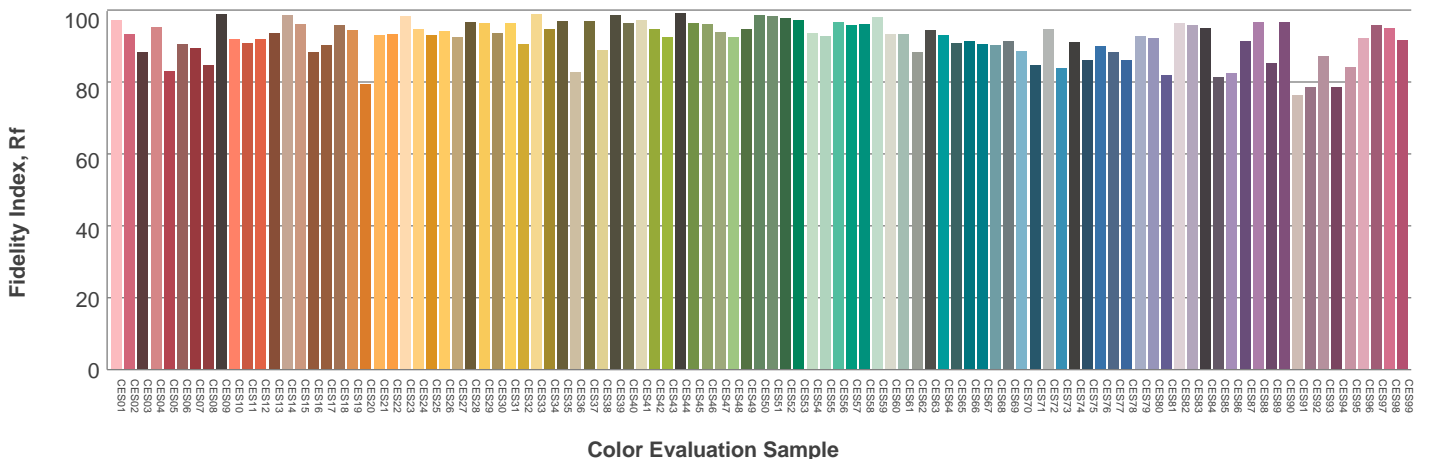
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	92	-5%	0%
2	93	-3%	3%
3	91	-1%	4%
4	95	0%	2%
5	94	-1%	2%
6	95	2%	0%
7	94	-1%	-1%
8	98	1%	0%
9	95	-1%	3%
10	91	-1%	5%
11	89	2%	7%
12	90	6%	0%
13	92	3%	-5%
14	88	4%	-9%
15	89	-1%	-6%
16	86	-2%	-11%



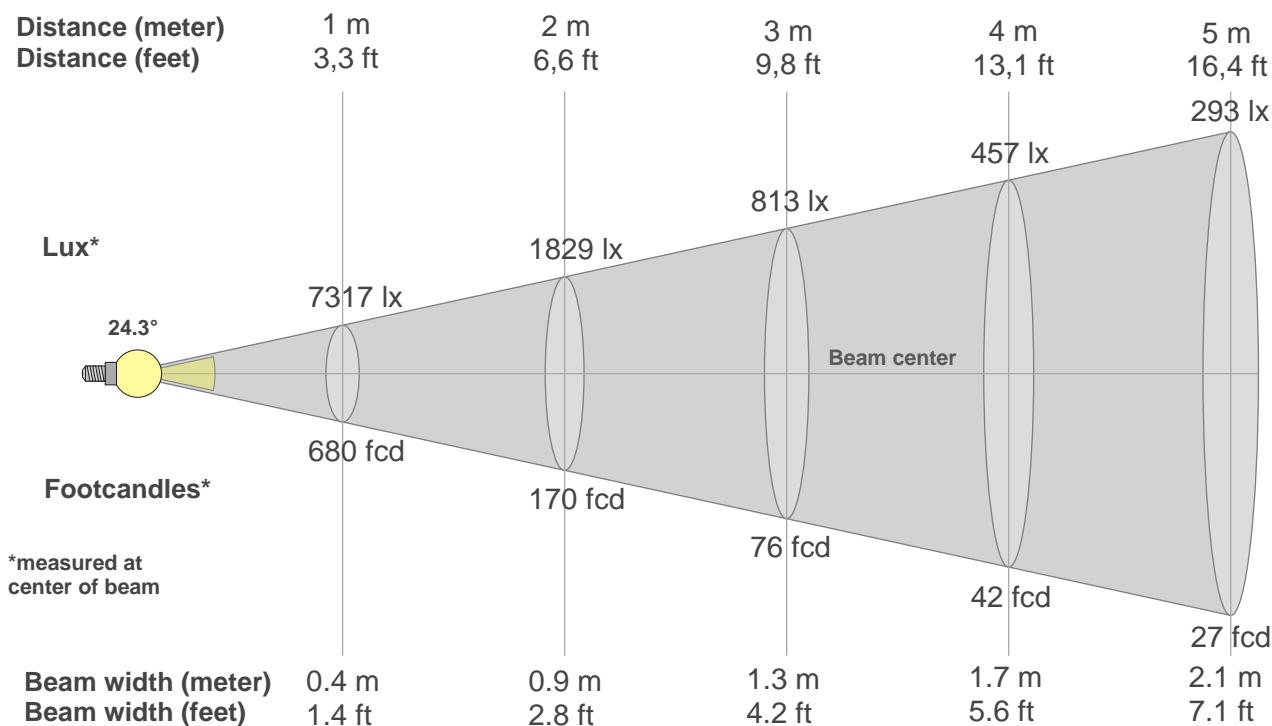
Color vector graphics



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
7317lx	1829lx	813lx	457lx	293lx	203lx	149lx	114lx	90lx	73lx	60lx	51lx	43lx	37lx	33lx	29lx	25lx	23lx	20lx	18lx
679.8fcd	170fcd	75.5fcd	42.5fcd	27.2fcd	18.9fcd	13.9fcd	10.6fcd	8.4fcd	6.8fcd	5.6fcd	4.7fcd	4fcd	3.5fcd	3fcd	2.7fcd	2.4fcd	2.1fcd	1.9fcd	1.7fcd

#### 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°
7317	7191	6764	6119	5356	4536	3716	2955	2336	1847	1471	1176	922	669	419	211	75	16	11	9
100%	98%	92%	84%	73%	62%	51%	40%	32%	25%	20%	16%	13%	9%	6%	3%	1%	0%	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°
7317	7146	6707	6069	5297	4492	3716	3012	2407	1906	1542	1257	1013	777	529	297	118	34	8	6
100%	98%	92%	83%	72%	61%	51%	41%	33%	26%	21%	17%	14%	11%	7%	4%	2%	0%	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°
7317	7180	6797	6192	5436	4580	3721	2949	2300	1786	1402	1134	884	633	391	185	44	19	12	10
100%	98%	93%	85%	74%	63%	51%	40%	31%	24%	19%	15%	12%	9%	5%	3%	1%	0%	0%	0%

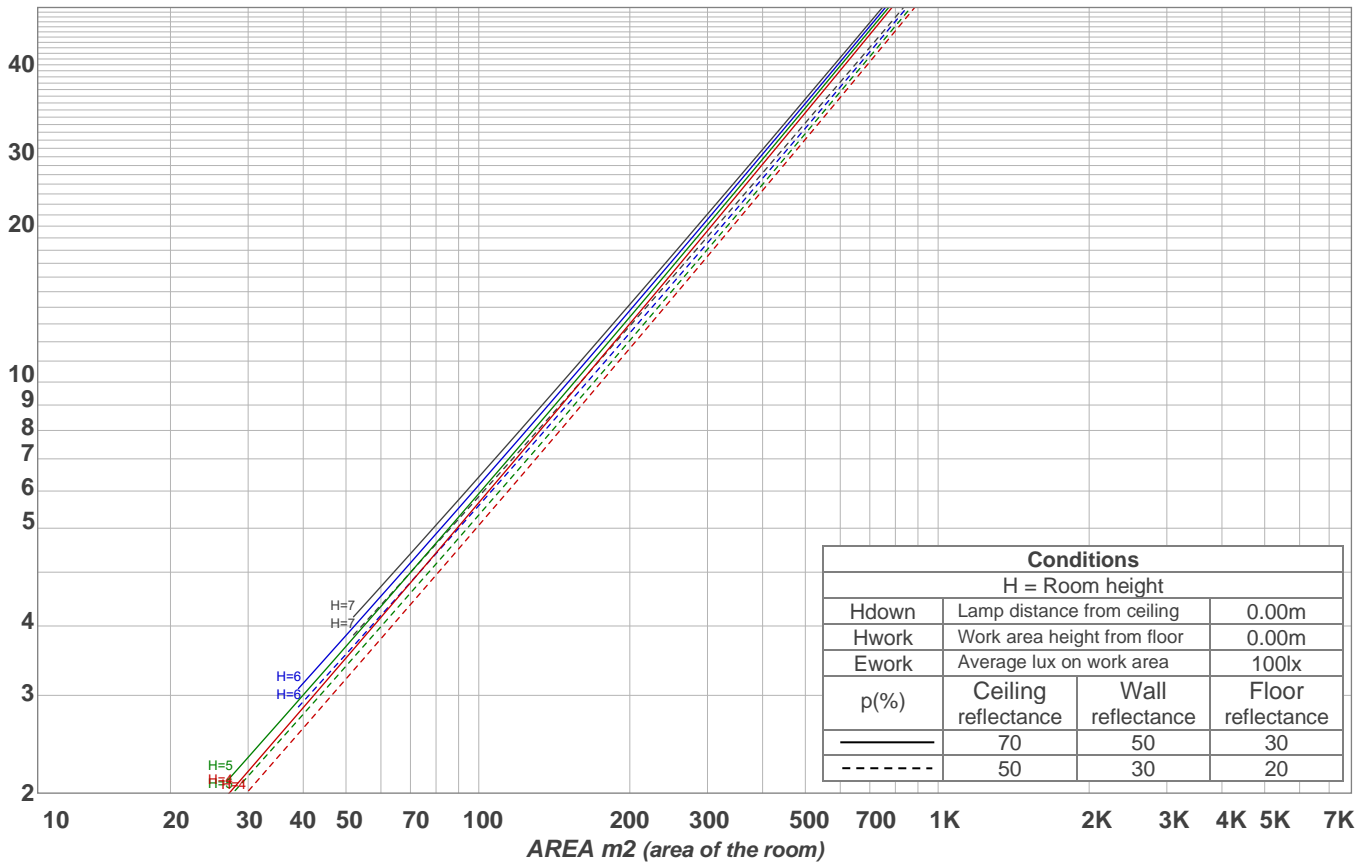
#### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
7317	7223	6889	6307	5506	4613	3723	2909	2221	1730	1370	1074	802	537	301	123	42	16	13	12
100%	99%	94%	86%	75%	63%	51%	40%	30%	24%	19%	15%	11%	7%	4%	2%	1%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>24.3°</b>	<b>50.8°</b>	<b>60.4°</b>	<b>99.3%</b>	<b>99.0%</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		
1	115	113	111	109	112	111	109	107	107	105	104	103	102	101	100	99	98	98	96		
2	111	107	104	102	109	106	103	101	103	100	98	100	98	96	97	96	94	94	93		
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	94	93	91	90	89		
4	104	99	95	92	103	98	94	91	96	92	90	94	91	89	92	90	88	87	86		
5	101	95	91	88	100	94	90	87	92	89	87	91	88	86	90	87	85	84	83		
6	98	92	87	84	97	91	87	84	90	86	84	88	85	83	87	85	83	81	80		
7	95	89	84	81	94	88	84	81	87	83	81	86	83	80	85	82	80	79	78		
8	92	86	82	79	92	85	81	79	84	81	78	84	80	78	83	80	78	77	76		
9	90	83	79	76	89	83	79	76	82	78	76	81	78	76	81	78	76	75	74		
10	88	81	77	74	87	80	77	74	80	76	74	79	76	74	79	76	73	73	72		

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
558 lm	730 lm	346 lm	22.8 lm	4.31 lm	3.42 lm	3.44 lm	3.70 lm	4.24 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