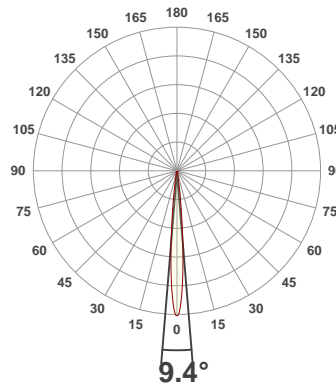
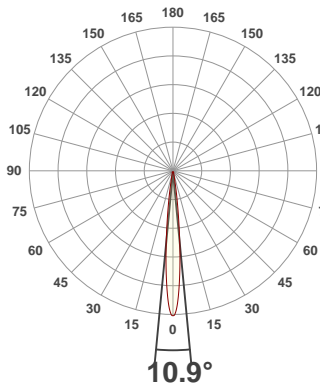


PRODUCT INFORMATION

SERIAL NUMBER:	VFR-210604-0023-MS
DATE OF MEASUREMENT:	2021-06-04
SIZE (l x w. x h):	298 mm x 71 mm x 59.5 mm

ANGULAR DISTRIBUTION AT C0/180 | ANGULAR DISTRIBUTION AT C90/270 | LIGHT OUTPUT DATA

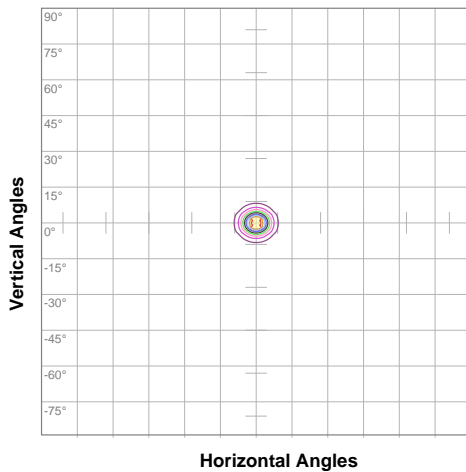


TOTAL LUMEN OUTPUT:	1071 lm
EFFICACY:	53 lm/W
PEAK INTENSITY:	21252 cd
COLOR RENDERING INDEX (CRI):	79.8
COLOR TEMPERATURE (CCT):	3366K
FIDELITY INDEX (TM30rf):	79.0
GAMUT INDEX (TM30Rg):	100.0

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	10.9°
BEAM ANGLE (FWHM) C90/270:	9.4°
FIELD ANGLE (10%) C0/180:	20.8°
FIELD ANGLE (10%) C90/270:	18.3°
NUMBER OF PLANES MEASURED:	8

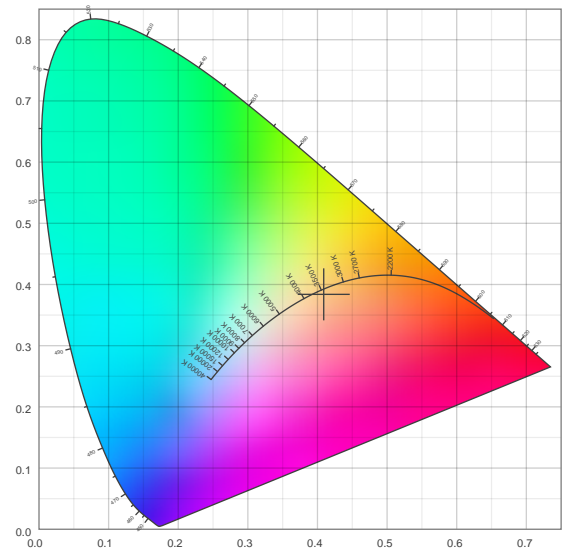
ISOCANDELA DIAGRAM



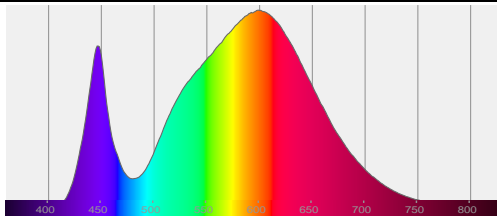
10%	2122 cd
20%	4245 cd
30%	6367 cd
40%	8490 cd
50%	10612 cd
60%	12734 cd
70%	14857 cd
80%	16979 cd
90%	19101 cd

INPUT POWER:	20.2 W
POWER FACTOR:	1.0
OPTICAL POWER:	3.35 mW
PEAK WAVELENGTH:	599 nm
DOMINANT WAVELENGTH:	584 nm

CIE 1931



SPECTRAL DISTRIBUTION | CIE 1931 ZOOM



	x: 0.409
	y: 0.384
	u: 0.241
	v: 0.339
	Δuv: -0.0038

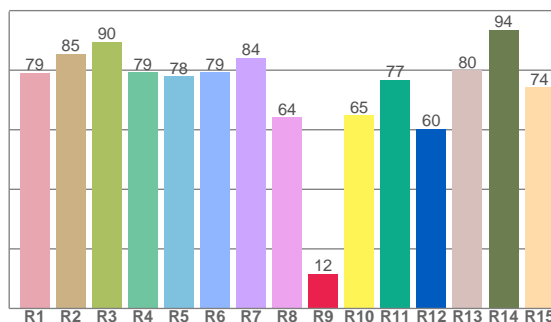
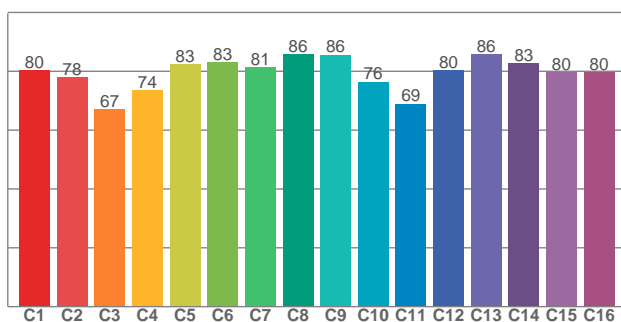
ZONAL LUMEN SUMMARY

0°-10° 716 lm	10°-20° 203 lm	20°-30° 92.5 lm	30°-40° 30.5 lm	40°-50° 16.3 lm	50°-60° 11.3 lm	60°-70° 1.87 lm	70°-80° 0.022 lm	80°-90° 0.005 lm
90°-100° 0.004 lm	100°-110° 0.004 lm	110°-120° 0.004 lm	120°-130° 0.004 lm	130°-140° 0.003 lm	140°-150° 0.003 lm	150°-160° 0.002 lm	160°-170° 0.002 lm	170°-180° 0.001 lm

COLOR DETAILS

TM30: 79.0

CRI: 79.8 (R1-R8)



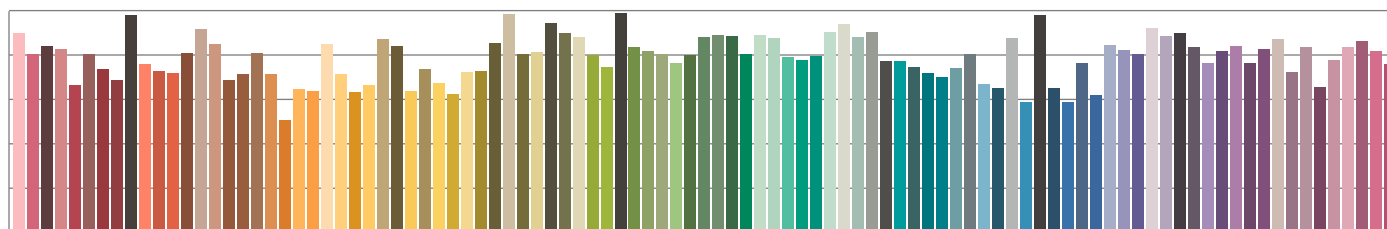
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80.5	78.1	67.1	73.6	82.5	83.1	81.5	85.9	85.6	76.4	69.0	80.2	85.8	82.8	79.8	79.7

CRI R values, only R1-R8 are used to calculate final CRI value

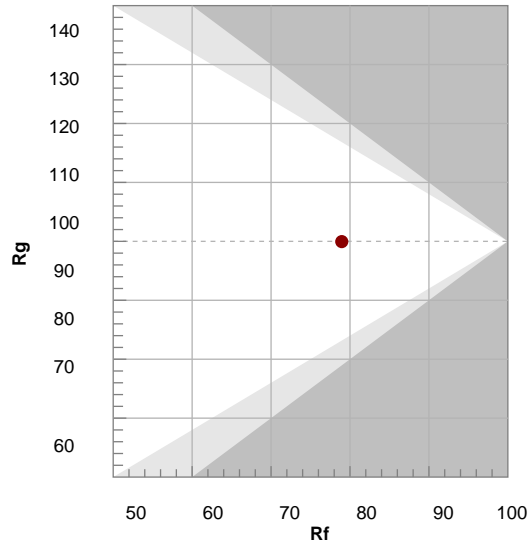
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
79.0	85.5	89.5	79.2	77.9	79.3	84.1	64.2	11.7	64.8	76.7	60.2	80.0	93.6	74.3

TM30 COLOR EVALUATION SAMPLE



TM30 DETAILS

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-12%	-2%
2	78	-9%	9%
3	67	-3%	17%
4	74	6%	16%
5	83	12%	9%
6	83	11%	-3%
7	81	3%	-12%
8	86	-3%	-8%
9	86	-9%	-3%
10	76	-12%	8%
11	69	-3%	19%
12	80	6%	12%
13	86	9%	3%
14	83	11%	-7%
15	80	3%	-14%
16	80	-4%	-13%



FIDELITY INDEX

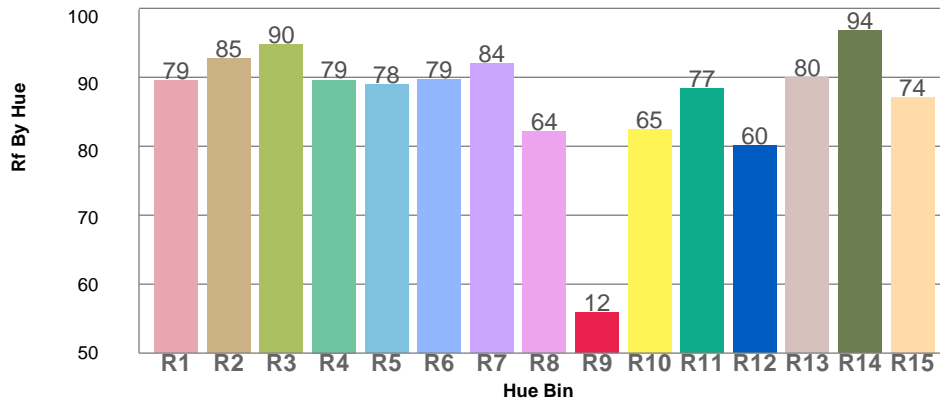
R_f 79.0

GAMUT INDEX

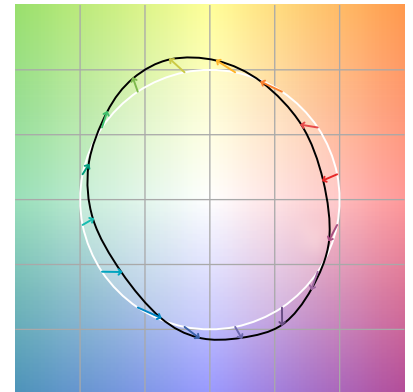
R_g 100.0

Approx. limits for sources on the Planckian locus.
Approx. limits for practical light sources.

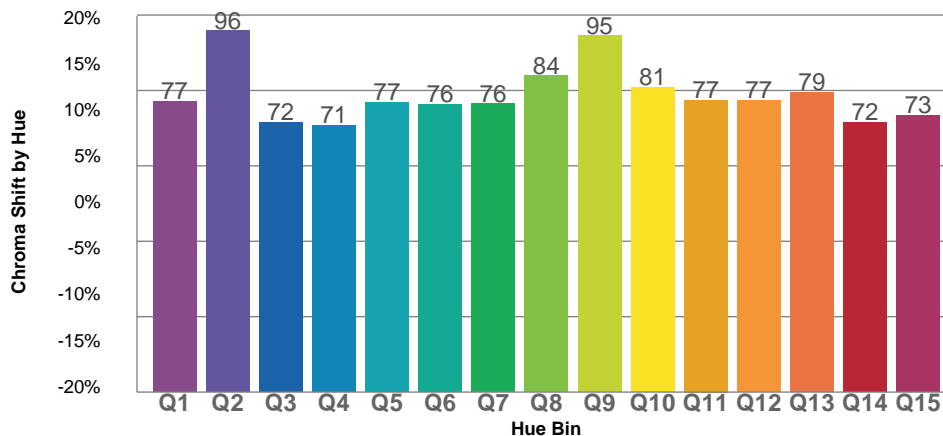
TM30 OVER 50



COLOR VECTOR GRAPHICS



TM30 CHROMA SHIFT



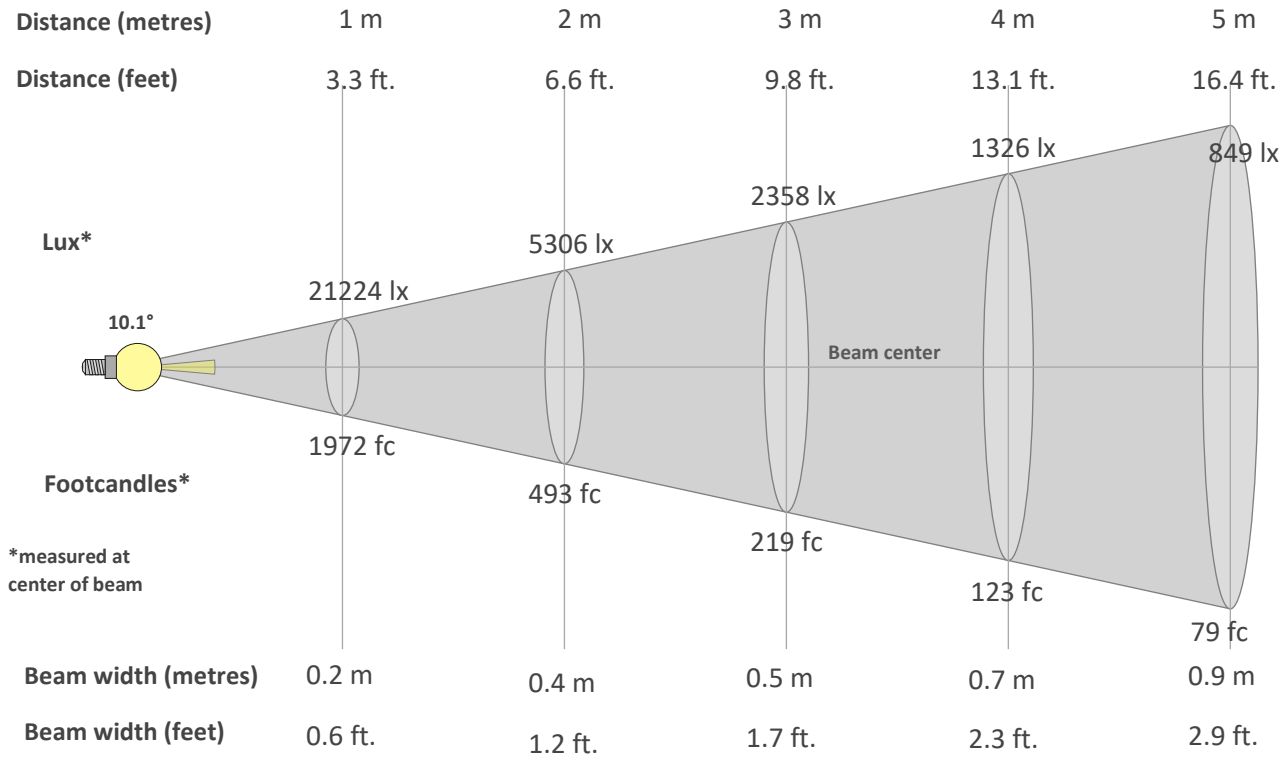
COLOR DISTORTION GRAPHICS



BEAM DETAILS

STR9-G3-300-CM-20W-DWT-10x10-ELV (ALL ON)

PRODUCT PHOTOMETRIC REPORT



Beam intensity 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
21224lx	5306lx	2358lx	1326lx	849lx	590lx	433lx	332lx	262lx	212lx	175lx	147lx	126lx	108lx	94lx	83lx	73lx	66lx	59lx	53lx
1971.8fc	492.9fc	219.1fc	123.2fc	78.9fc	54.8fc	40.2fc	30.8fc	24.3fc	19.7fc	16.3fc	13.7fc	11.7fc	10.1fc	8.8fc	7.7fc	6.8fc	6.1fc	5.5fc	4.9fc

Intensity in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
21.2K	20.7K	19.3K	17.1K	14.5K	11.8K	9.1K	6.8K	4.9K	3.4K	2.4K	1.7K	1.3K	1.0K	0.8K	0.7K	0.6K	0.5K	0.5K	0.4K
100%	98%	91%	81%	69%	56%	43%	32%	23%	16%	11%	8%	6%	5%	4%	3%	3%	2%	2%	2%

Intensity in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
21.2K	20.6K	18.7K	16.0K	12.8K	9.6K	6.9K	4.7K	3.2K	2.2K	1.6K	1.2K	0.9K	0.8K	0.6K	0.6K	0.5K	0.5K	0.4K	0.4K
100%	97%	88%	75%	60%	45%	32%	22%	15%	11%	8%	6%	4%	4%	3%	3%	2%	2%	2%	2%

Intensity in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
21.2K	20.7K	19.3K	17.1K	14.5K	11.8K	9.1K	6.8K	4.9K	3.4K	2.4K	1.7K	1.3K	1.0K	0.8K	0.7K	0.6K	0.5K	0.5K	0.4K
100%	98%	91%	81%	69%	56%	43%	32%	23%	16%	11%	8%	6%	5%	4%	3%	3%	2%	2%	2%

Intensity in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
21.2K	20.6K	18.7K	16.0K	12.8K	9.6K	6.9K	4.7K	3.2K	2.2K	1.6K	1.2K	0.9K	0.8K	0.6K	0.6K	0.5K	0.5K	0.4K	0.4K
100%	97%	88%	75%	60%	45%	32%	22%	15%	11%	8%	6%	4%	4%	3%	3%	2%	2%	2%	2%

GLARE EVALUATION ACCORDING TO UGR

p Ceiling	70	70	50	50	30	70	70	50	50	30	
p Walls	50	30	50	30	30	50	30	50	30	30	
p Floor	20	20	20	20	20	20	20	20	20	20	
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H 2H	3.5	3.8	3.5	4.0	4.1	4.5	4.8	4.6	5.0	5.2	
	3H	3.1	3.6	3.5	3.8	4.0	4.3	4.8	4.6	4.9	5.1
	4H	3.1	3.5	3.4	3.8	4.0	4.2	4.7	4.6	4.9	5.1
	6H	3.1	3.4	3.3	3.7	4.1	4.2	4.6	4.5	4.9	5.2
	8H	3.0	3.4	3.3	3.7	4.1	4.1	4.5	4.4	4.8	5.2
	12H	3.0	3.3	3.3	3.7	4.1	4.1	4.4	4.4	4.8	5.2
4H 2H	3.2	3.7	3.6	3.9	4.1	4.2	4.7	4.6	4.9	5.2	
	3H	3.1	3.5	3.4	3.8	4.2	4.2	4.5	4.5	4.9	5.3
	4H	2.9	3.3	3.4	3.7	4.2	4.0	4.4	4.4	4.8	5.3
	6H	2.9	3.3	3.4	3.6	3.9	3.9	4.4	4.4	4.7	5.0
	8H	2.8	3.2	3.3	3.5	3.9	3.9	4.3	4.4	4.6	4.9
	12H	2.7	3.0	3.2	3.4	3.9	3.8	4.1	4.3	4.5	4.9
8H 4H	2.8	3.2	3.3	3.5	3.9	3.9	4.3	4.4	4.6	4.9	
	6H	2.7	3.0	3.2	3.4	3.9	3.8	4.0	4.3	4.5	5.0
	8H	2.7	2.9	3.2	3.4	4.0	3.8	4.0	4.3	4.5	5.1
	12H	2.6	2.8	3.2	3.3	3.9	3.7	3.9	4.3	4.4	5.0
12H 4H	2.7	3.0	3.2	3.4	3.9	3.8	4.1	4.3	4.5	4.9	
	6H	2.7	2.9	3.2	3.4	4.0	3.8	4.0	4.3	4.5	5.1
	8H	2.6	2.8	3.2	3.3	3.9	3.7	3.9	4.3	4.4	5.0
Variation of the observer position for the luminaire distance S											
S = 1.0H	3.2 / -2.3					2.8 / -2.1					
S = 1.5H	5.3 / -11.8					4.6 / -8.5					
S = 2.0H	7.2 / -27.9					6.3 / -21.0					
CIE 117-1995. Corrected glare indices referring to 1071 lm total luminous flux											

ROAD REPORT

LCS Table			
BUG rating:		B2 U1 G0	
Forward light	Lumens		Lumens %
Low(0-30):	505.5		47.2%
Medium(30-60):	29.1		2.7%
High(60-80):	1		0.1%
Very high(80-90):	0		0%
Back light			
Low(0-30):	505.6		47.2%
Medium(30-60):	29.1		2.7%
High(60-80):	1		0.1%
Very high(80-90):	0		0%
Uplight			
Low(90-100):	0		0%
High(100-180):	0		0%

