

# Photometric Report

VDO Atomic Bold – Backlight

MARTIN PROFESSIONAL R&D OPTICAL LABORATORY

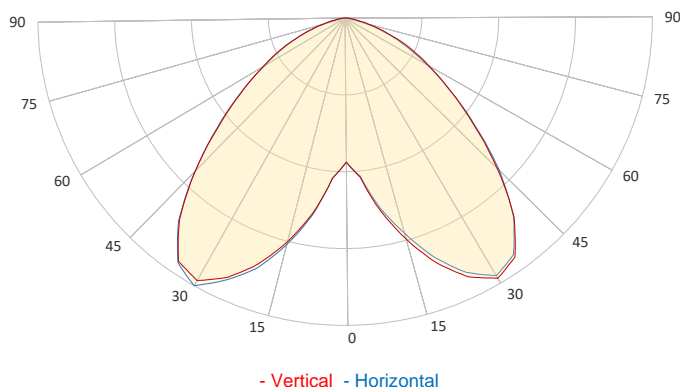
## GENERAL SPECIFICATIONS

Total Fixture Output:	170 lm
Light Engine Output:	200 lm
Efficacy:	7 lm/W
Lens Option:	N/A
Beam Angle (50%):	104°
Field Angle (10%):	147°
Cut-off Angle (3%):	165°
CRI:	17
CQS:	50
TM-30 Rf:	50
TM-30 Rg:	117
TLCI:	16
Color Temperature:	2,000-11,000 K



## SAMPLE MEASUREMENT

POLAR PLOT

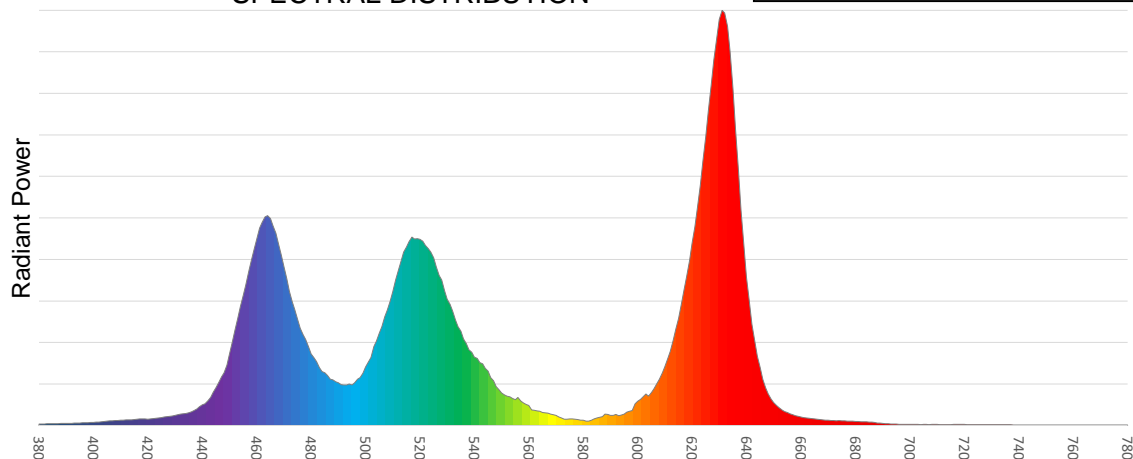


Catalog Number:	MAR-90357703
Measured Output:	165 lm
Measured Peak:	65.8 cd
Consumed Power:	24 W
Efficacy:	6.9 lm/W

Beam Angle (50%):	103.9°
Field Angle (10%):	146.6°
Cut-off Angle (3%):	164.6°

Measurement Condition:	
Ambient Temperature:	25° +/- 5° C
AC Supply:	230V/50Hz
Fan Mode:	Regulated Fan Speed
Fixture Warm-up Time:	30 minutes

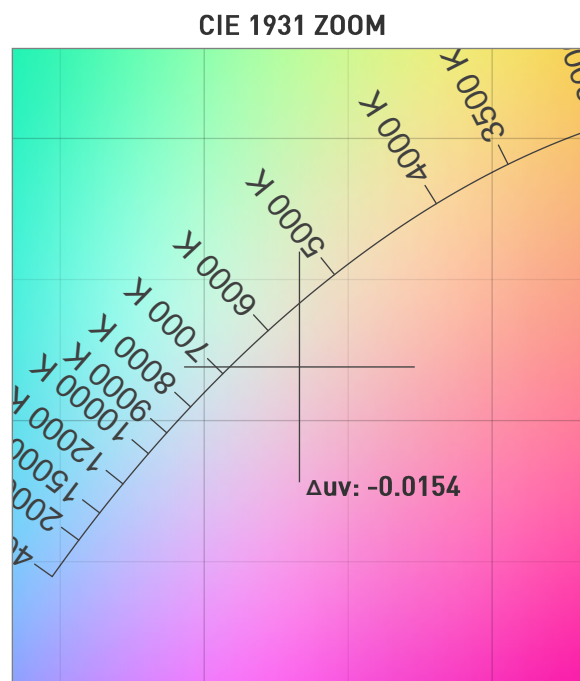
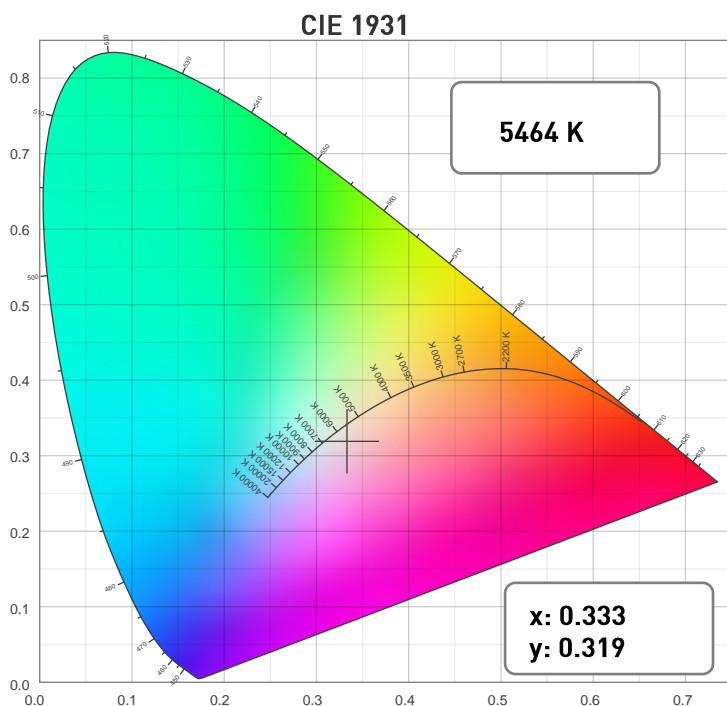
SPECTRAL DISTRIBUTION



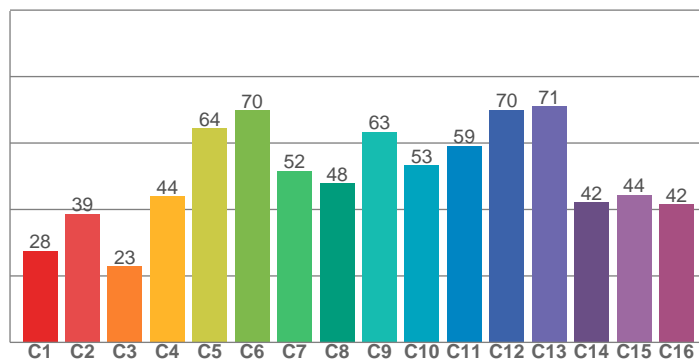
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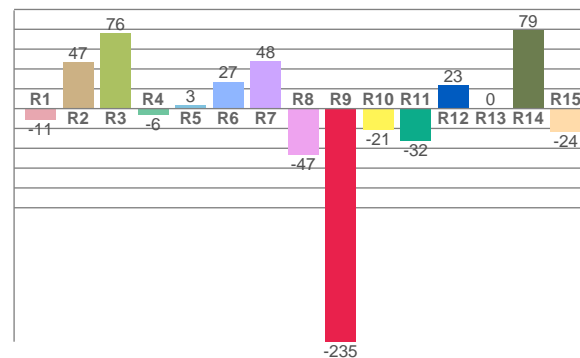
## CHROMATICITY



TM30: 50.4



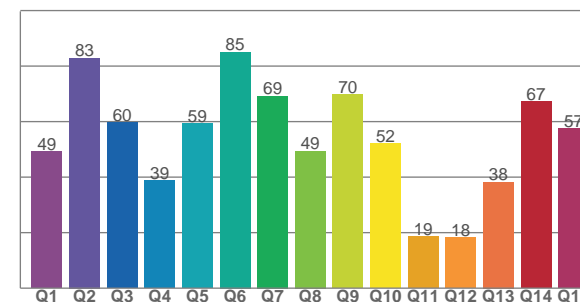
CRI: 17.0 (R1-R8)



## COLOR PARAMETERS

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg
5464 K	17.0	-235.1	50.4	116.5

CQS: 50.1



Television Lighting Consistency Index	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964	Color Deviation from Black Body
TLCI	CQS	x	y	u	v	Δuv
16	50.1	0.333	0.319	0.216	0.311	-0.0154

## VDO Atomic Bold – Backlight

# TM30

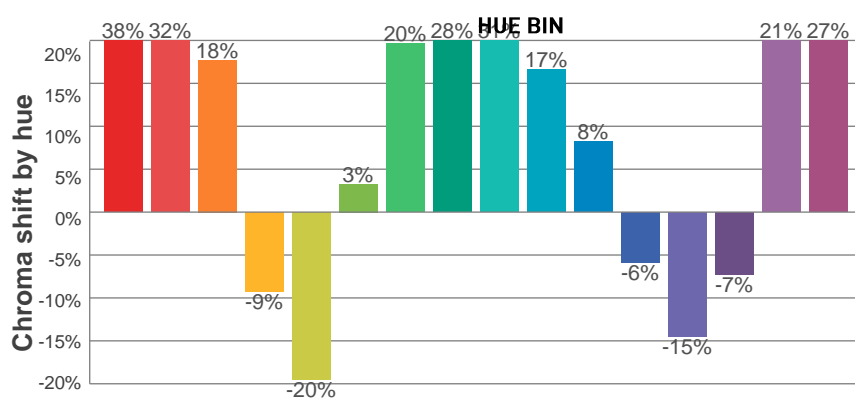
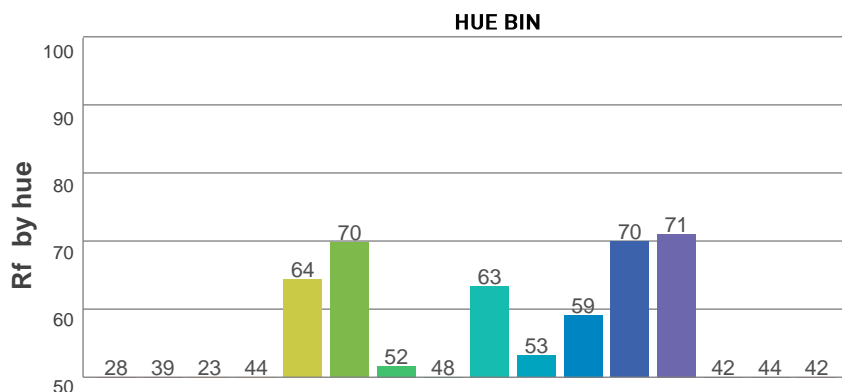
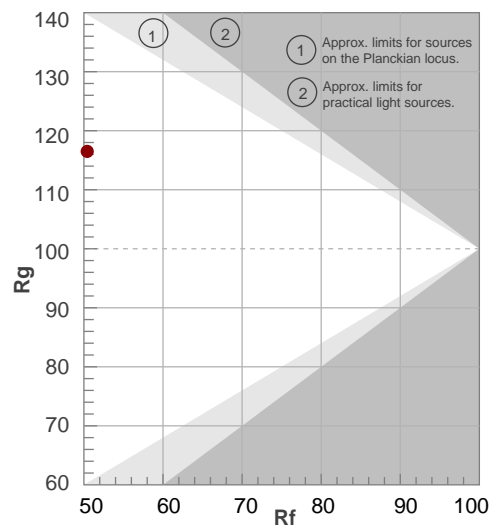
## Rf 50.4

### Fidelity index $R_f$

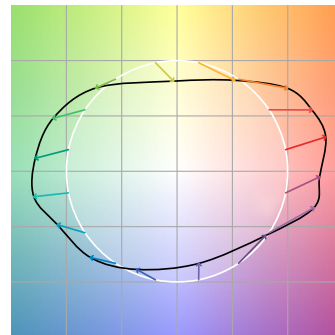
**Rg 116.5**

## Gamut index Rg

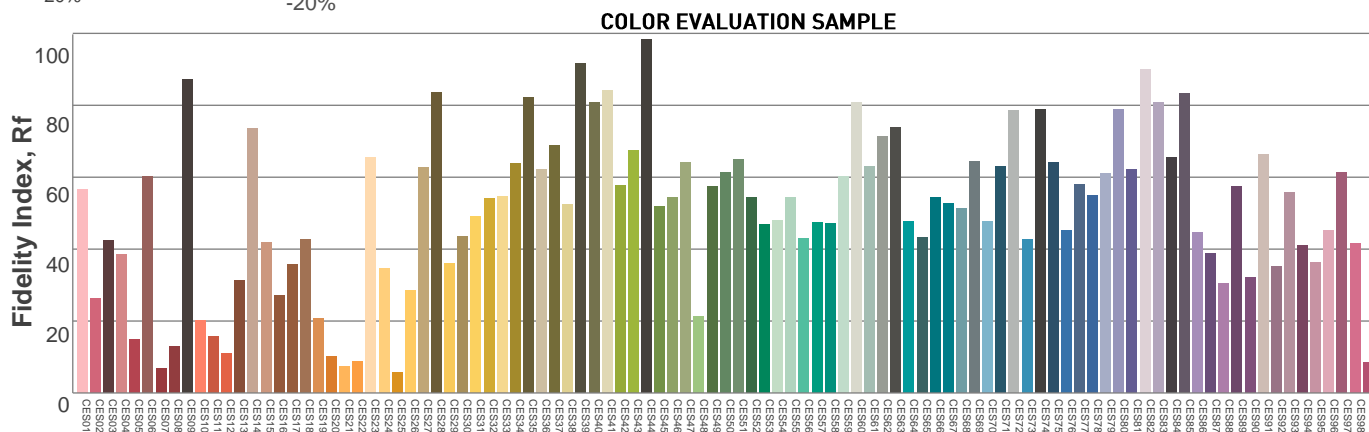
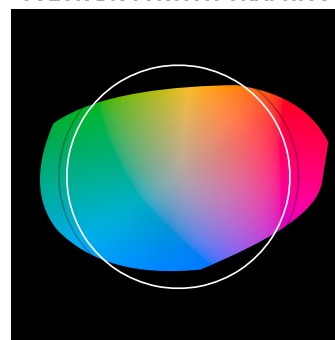
		Graphic shifts (%)	
Hue Bin	$R_f$	Chroma	Hue
1	28	38%	4%
2	39	32%	-22%
3	23	18%	-41%
4	44	-9%	-35%
5	64	-20%	-13%
6	70	3%	19%
7	52	20%	22%
8	48	28%	13%
9	63	31%	-3%
10	53	17%	-20%
11	59	8%	-22%
12	70	-6%	-18%
13	71	-15%	3%
14	42	-7%	34%
15	44	21%	41%
16	42	27%	20%



## COLOR VECTOR GRAPHICS



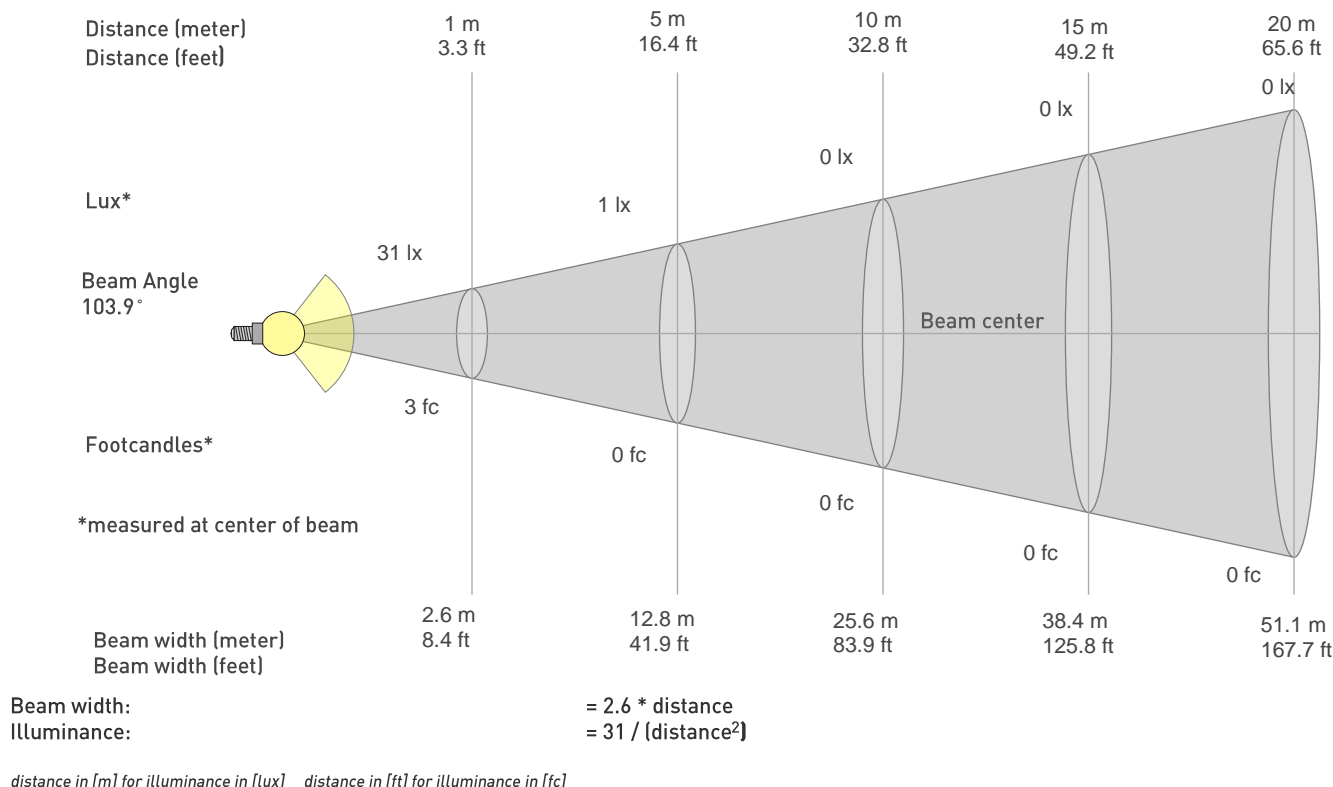
## COLOR DISTORTION GRAPHICS



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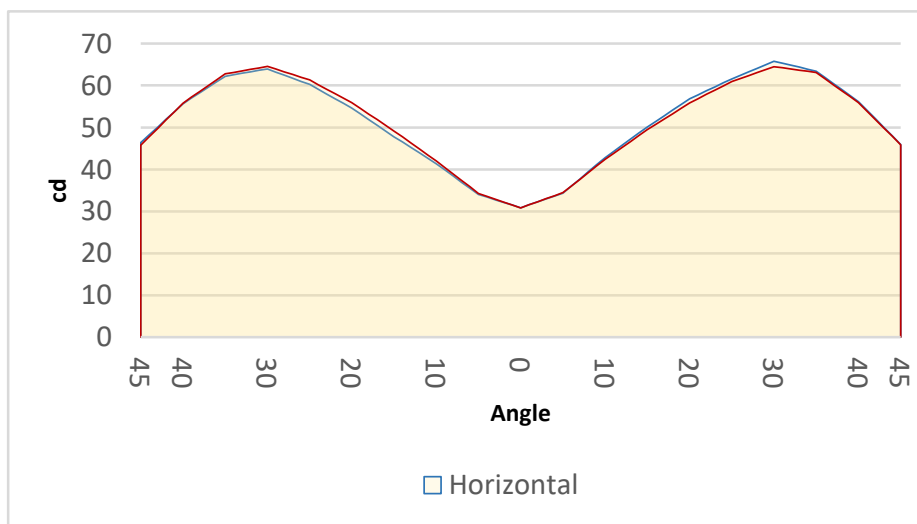
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## BEAM DETAILS



## BEAM ILLUMINANCE 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
31lx	8lx	3lx	2lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx
2.9fc	0.7fc	0.3fc	0.2fc	0.1fc	0.1fc	0.1fc	0fc	0fc	0fc	0fc	0fc	0fc	0fc	0fc	0fc	0fc	0fc	0fc	0fc



BEAM ANGLE 50%	FIELD ANGLE 10%	CUTOFF ANGLE 3%
103.9°	146.6°	164.6°