Photometric Report

MAC Viper XIP Spectral Enhancement Filter – Narrow

MARTIN PROFESSIONAL R&D OPTICAL LABORATORY

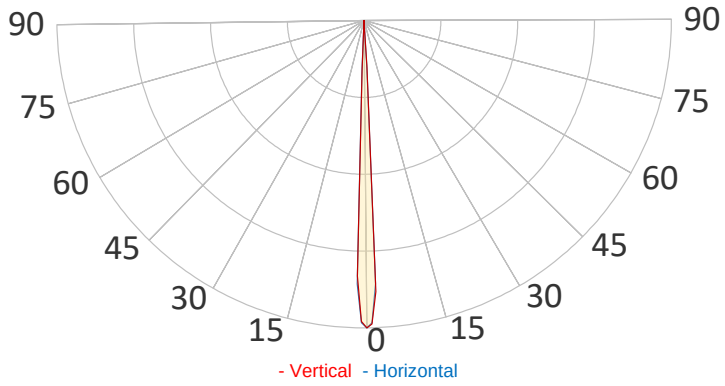
GENERAL SPECIFICATIONS

Total Fixture Output:	18700 lm
Light Engine Output:	56000 lm
Efficacy:	29,5 lm/W
Lens Option:	N/A
Beam Angle (50%):	5,1 - 49,3°
Field Angle (10%):	5,7 - 51,0°
Cut-off Angle (3%):	5,9 - 51,3°
CRI:	90 (+/- 3)
CQS:	83 (+/- 3)
TM-30 Rf:	78 (+/- 3)
TM-30 Rg:	107 (+/- 3)
TLCI:	68 (+/- 3)
Color Temperature:	5800 K (+/- 250 K)



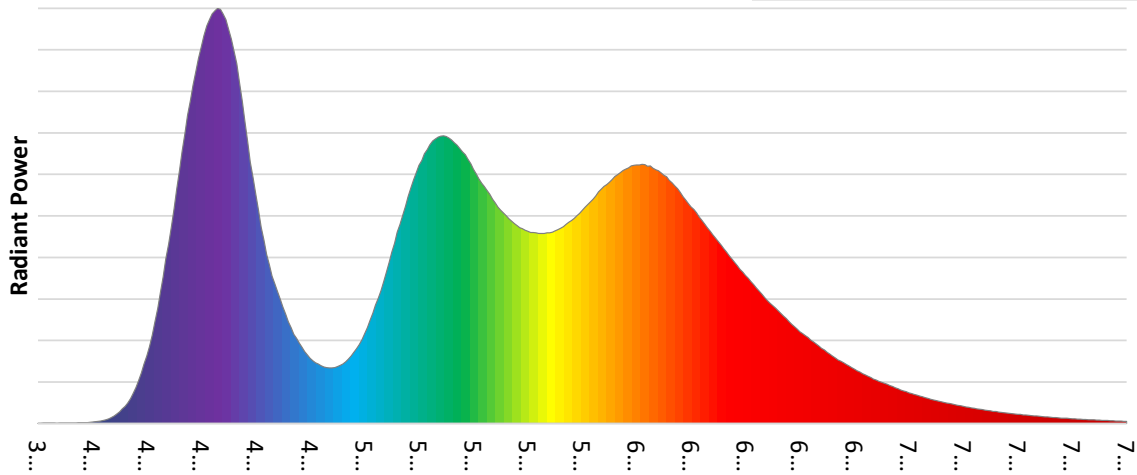
SAMPLE MEASUREMENT

POLAR PLOT



Catalog Number:	MAR-90250300HU
Measured Output:	10720 lm
Measured Peak:	1726246 cd
Consumed Power:	900 W
Efficacy:	11,9 lm/W
Beam Angle (50%):	5,2°
Field Angle (10%):	6,1°
Cut-off Angle (3%):	6,4°
Measurement Condition:	
Ambient Temperature:	25° +/- 5° C
AC Supply:	230V/50Hz
Fan Mode:	Constant Fan Full
Fixture Warm-up Time:	30 minutes

SPECTRAL DISTRIBUTION



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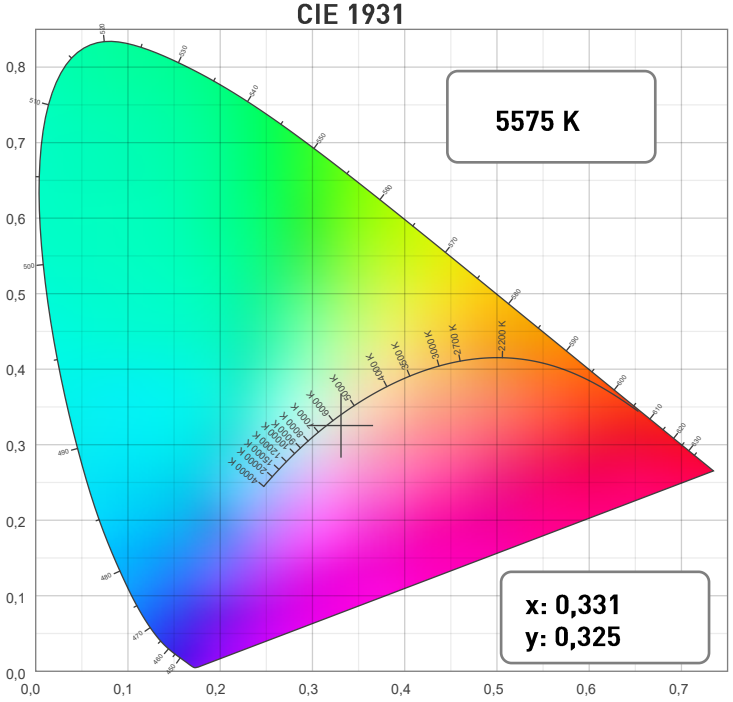
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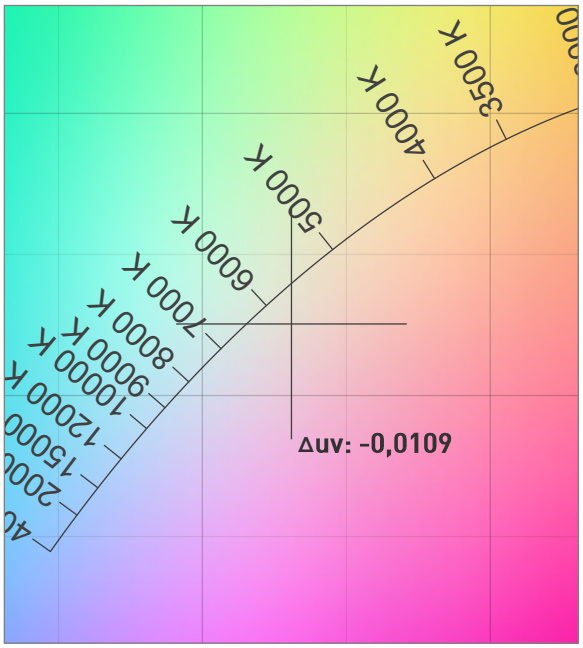
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CHROMATICITY

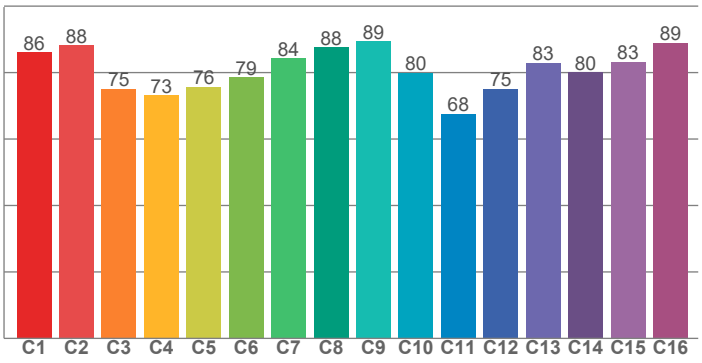
CIE 1931



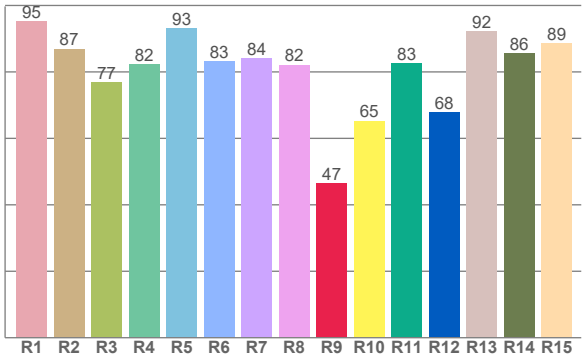
CIE 1931 ZOOM



TM30: 80,3



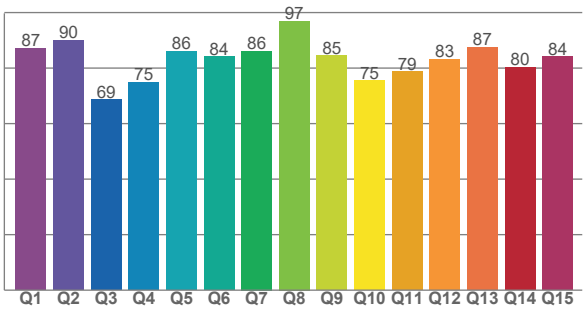
CRI: 85,5 (R1-R8)



COLOR PARAMETERS

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg
5575 K	85,5	46,6	80,3	105,9

CQS: 81,9



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
68	81,9	0,331	0,325	0,212	0,313	-0,0109

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TM30

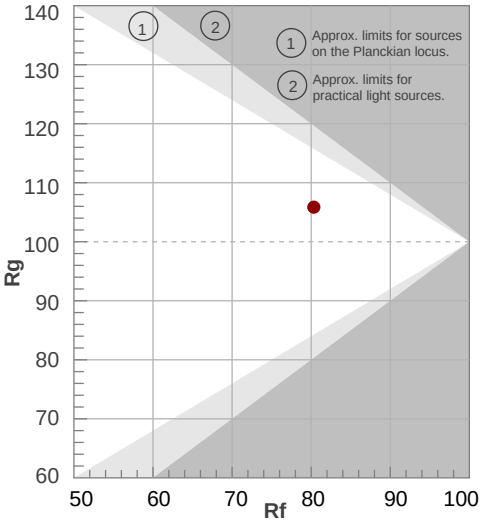
Rf 80,3

Fidelity index Rf

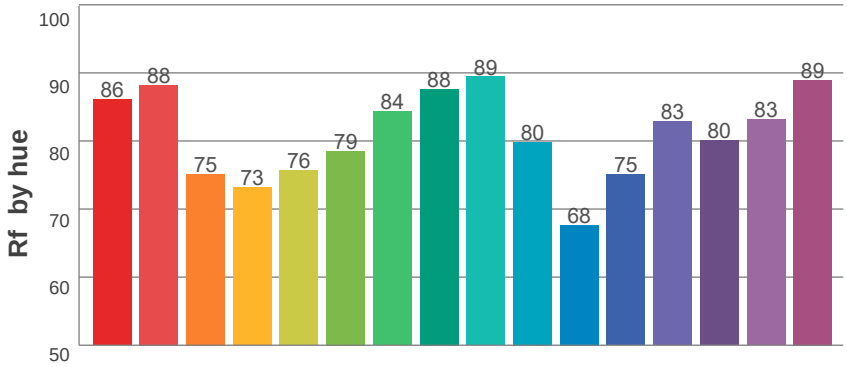
Rg 105,9

Gamut index Rg

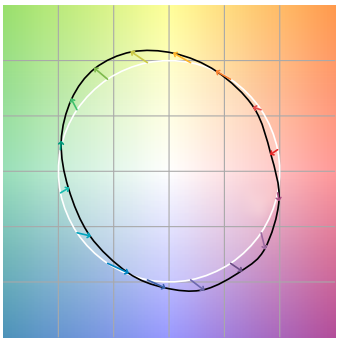
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	86	-7%	-3%
2	88	-4%	5%
3	75	-1%	14%
4	73	5%	16%
5	76	12%	12%
6	79	14%	4%
7	84	9%	-5%
8	88	1%	-7%
9	89	-8%	-3%
10	80	-8%	9%
11	68	-3%	20%
12	75	4%	17%
13	83	11%	10%
14	80	11%	4%
15	83	11%	-10%
16	89	2%	-6%



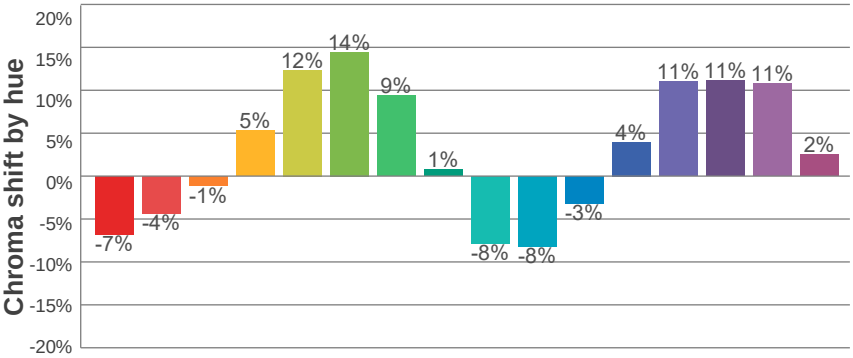
HUE BIN



COLOR VECTOR GRAPHICS



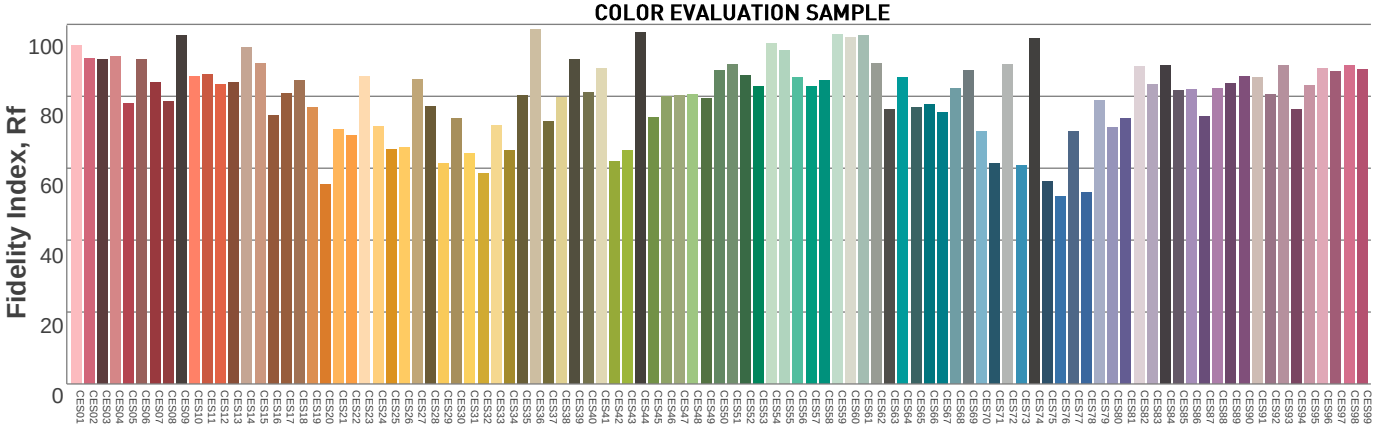
HUE BIN



COLOR DISTORTION GRAPHICS



COLOR EVALUATION SAMPLE



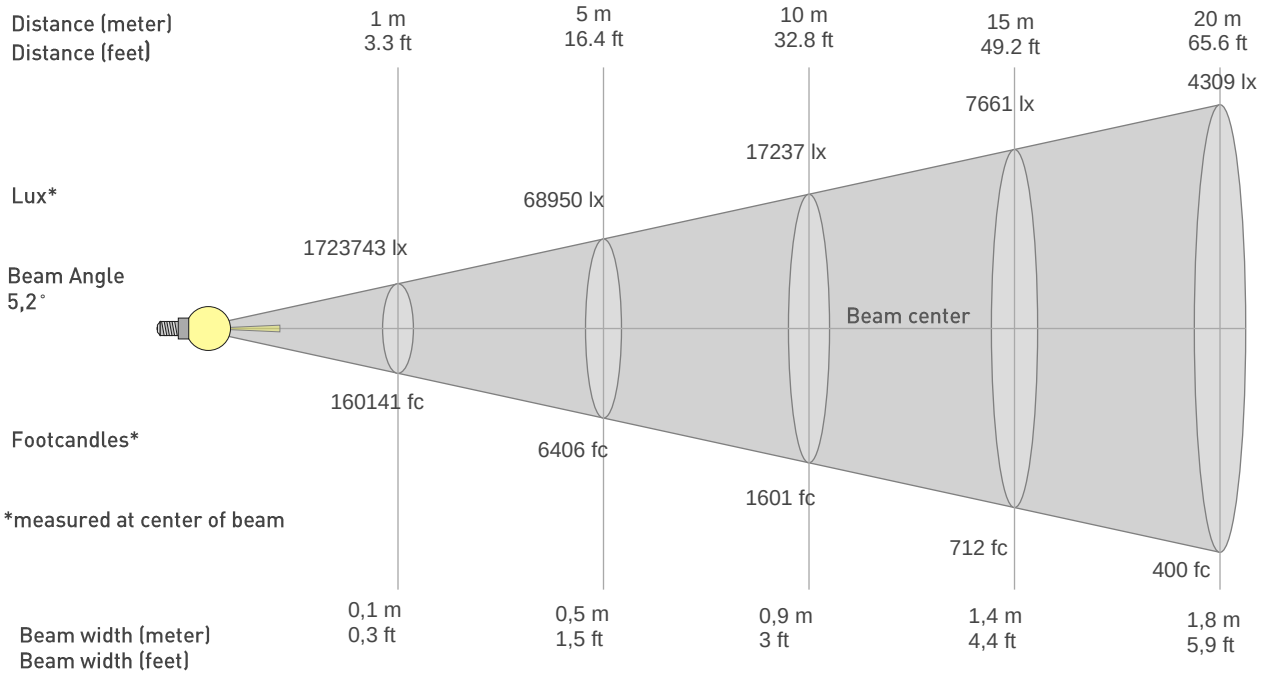
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BEAM DETAILS



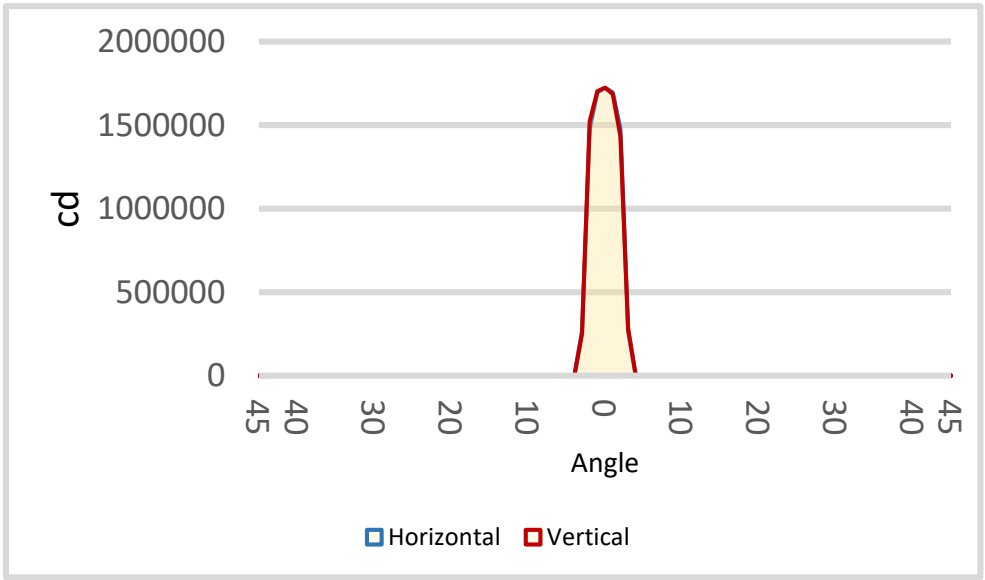
Beam width: = 0,1 * distance

Illuminance: = 1723743 / (distance^2)

distance in [m] for illuminance in [lux] distance in [ft] for illuminance in [fc]

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
1723743lx	430936lx	191527lx	107734lx	68950lx	47882lx	35178lx	26933lx	21281lx	17237lx	14246lx	11970lx	10200lx	8795lx	7661lx	6733lx	5965lx	5320lx	4775lx	4309lx
160141fc	40035,2fc	17793,4fc	10008,8fc	6405,6fc	4448,4fc	3268,2fc	2502,2fc	1977fc	1601,4fc	1323,5fc	1112,1fc	947,6fc	817fc	711,7fc	625,6fc	554,1fc	494,3fc	443,6fc	400,4fc



BEAM ANGLE 50%	FIELD ANGLE 10%	CUTOFF ANGLE 3%
5,2°	6,1°	6,4°

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