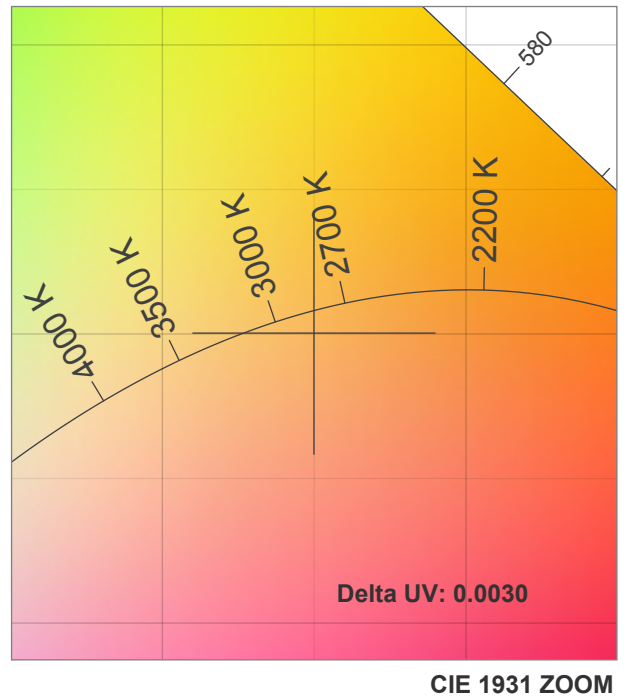
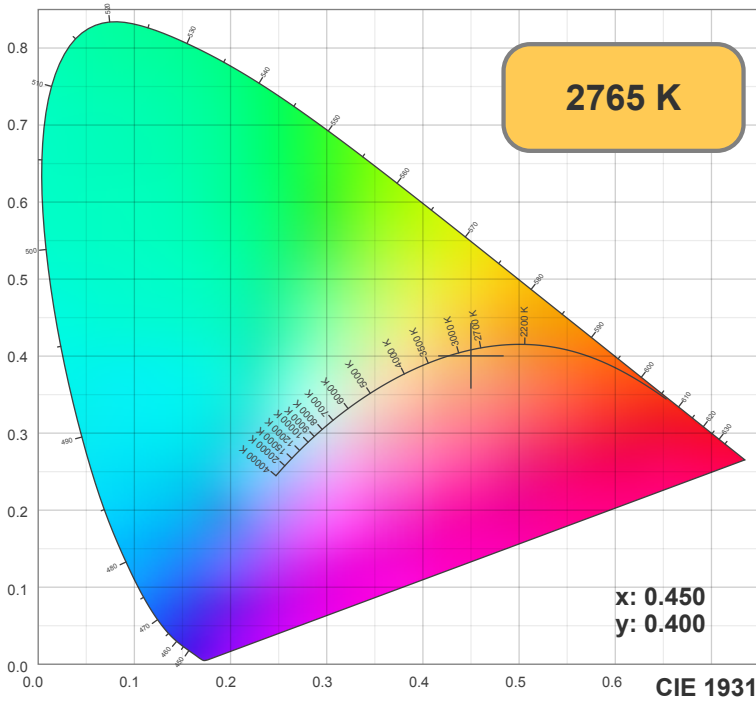
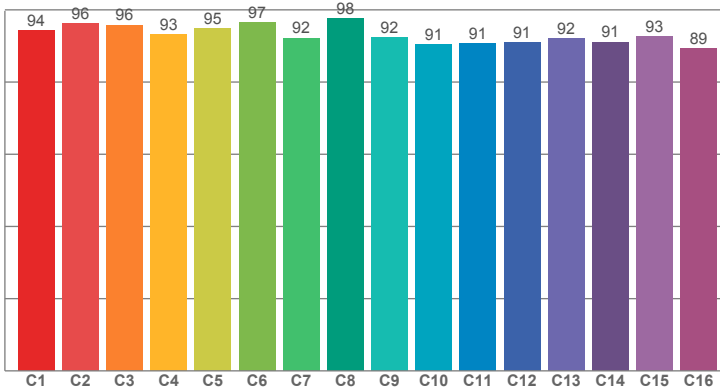


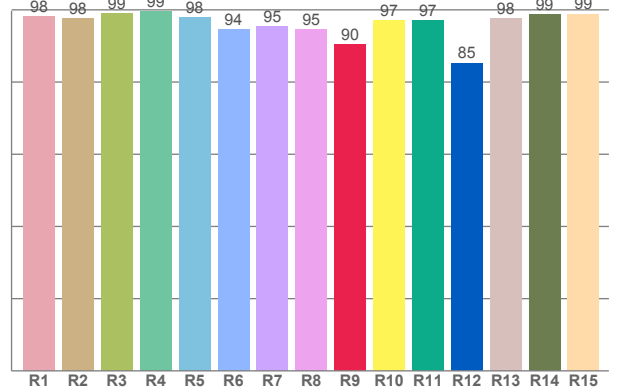
20%



TM30: 93.2



CRI: 97.1 (R1-R8)



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
98.18	97.69	98.93	99.47	97.87	94.49	95.29	94.65	90.50	97.01	97.07	85.27	97.64	98.78	98.85

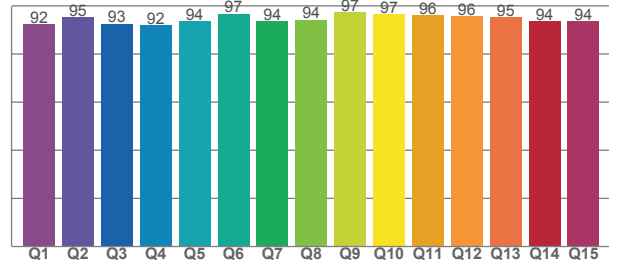
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94.30	96.28	95.81	93.16	94.95	96.53	92.24	97.57	92.44	90.51	90.71	90.87	92.07	91.10	92.68	89.25

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92.44	95.38	92.61	92.01	93.77	96.74	93.76	94.27	97.42	96.53	96.01	95.67	95.37	93.68	93.75

CQS: 94.3



Color parameters

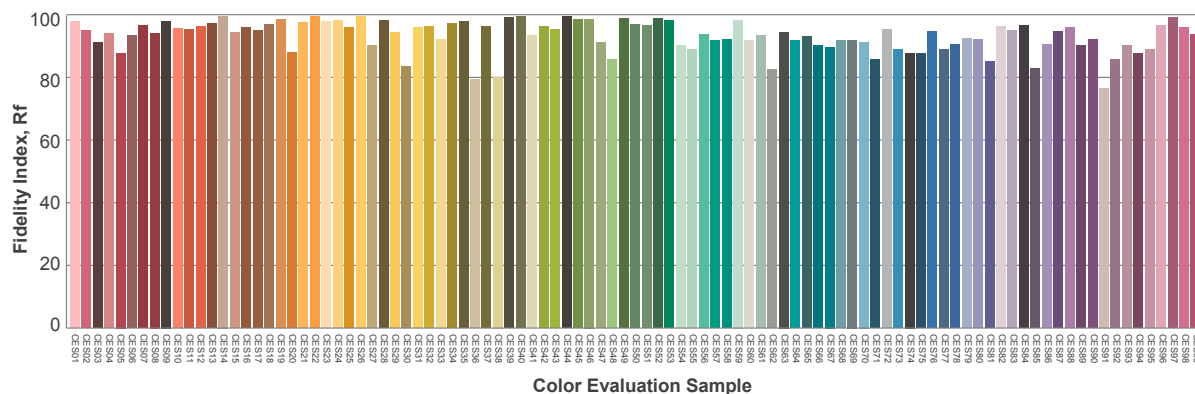
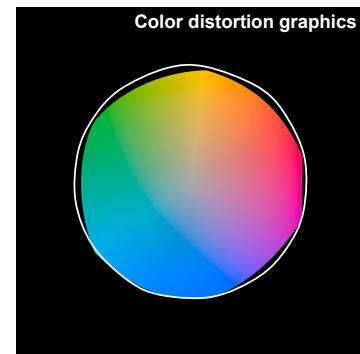
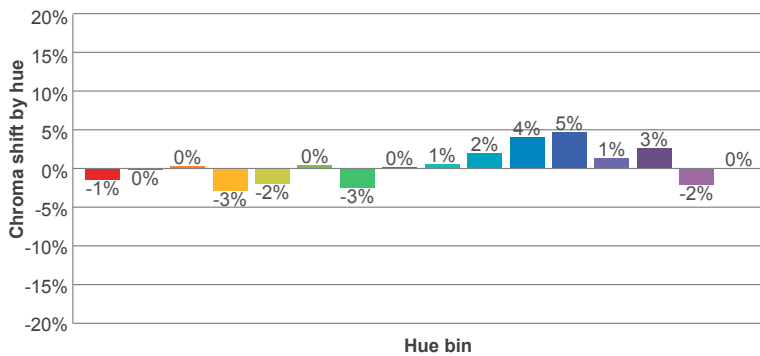
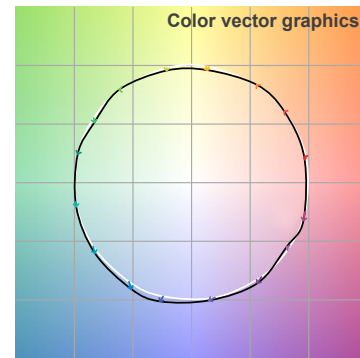
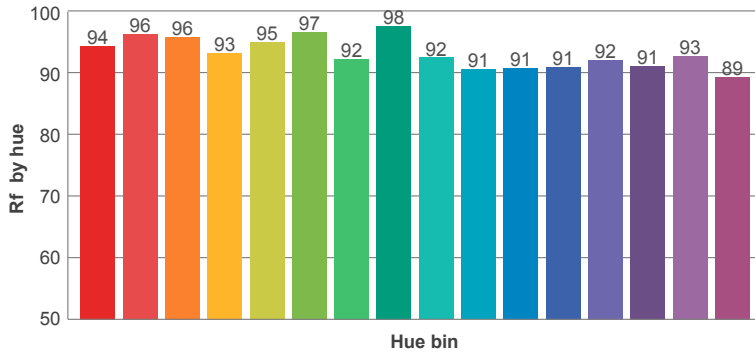
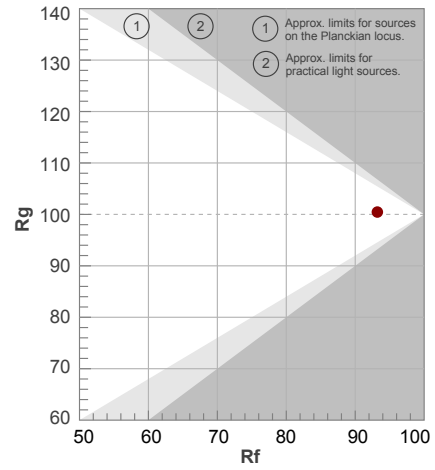
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Duv
2765 K	97.1	90.5	93.2	100.5	94.3	0.4	0.4	0.3	0.3	-0.0030

20%

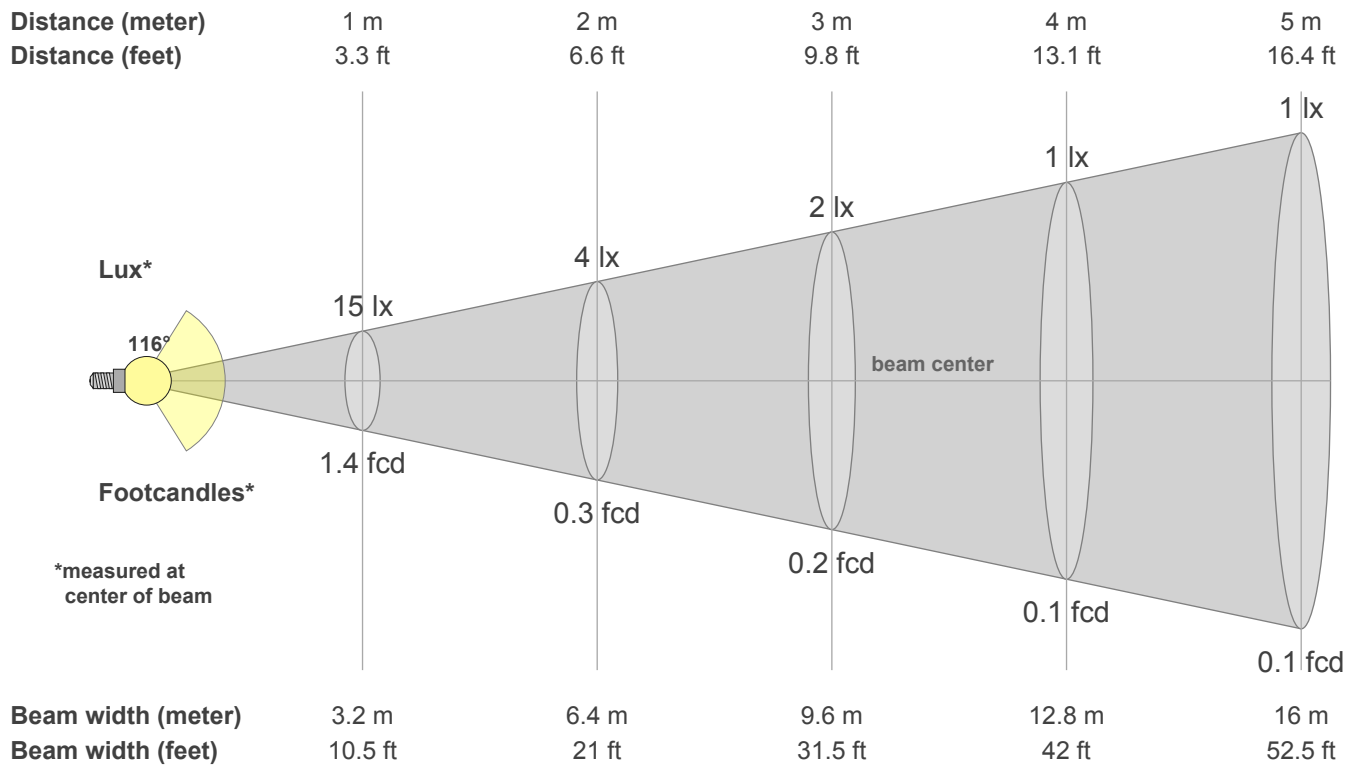
Rf 93.2
Fidelity index Rf

Rg 100.5
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-1%	1%
2	96	0%	1%
3	96	0%	1%
4	93	-3%	-2%
5	95	-2%	1%
6	97	0%	1%
7	92	-3%	3%
8	98	0%	1%
9	92	1%	4%
10	91	2%	6%
11	91	4%	5%
12	91	5%	-2%
13	92	1%	-5%
14	91	3%	-6%
15	93	-2%	0%
16	89	0%	-8%



20%



Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
14.9	14.9	14.8	14.4	14.1	13.5	12.9	12.1	11.3	10.4	9.4	8.2	7.0	5.7	4.4	3.1	1.8	0.7	0.2	0.2
100%	100%	99%	97%	94%	91%	86%	81%	75%	70%	63%	55%	47%	38%	30%	21%	12%	5%	1%	1%

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
14.9	14.9	14.8	14.4	14.1	13.5	12.9	12.1	11.3	10.4	9.4	8.2	7.0	5.7	4.4	3.1	1.8	0.7	0.2	0.2
100%	100%	99%	97%	94%	91%	86%	81%	75%	70%	63%	55%	47%	38%	30%	21%	12%	5%	1%	1%

Intensities in 180° c-plane

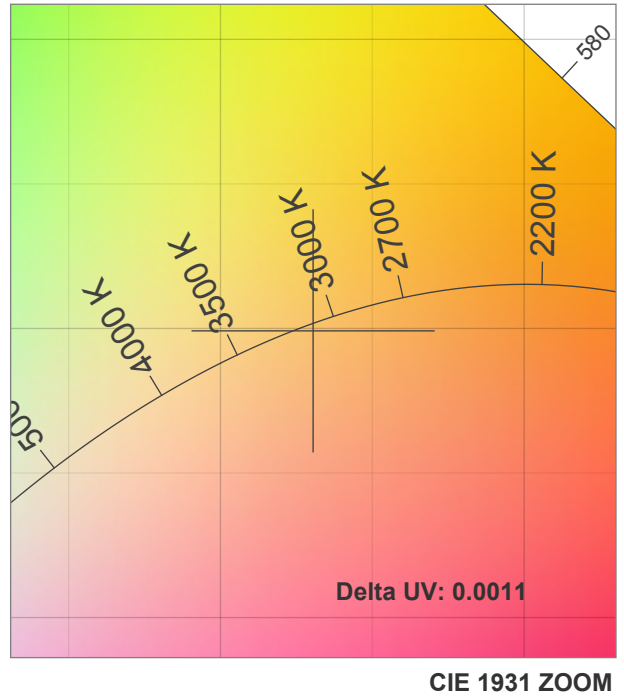
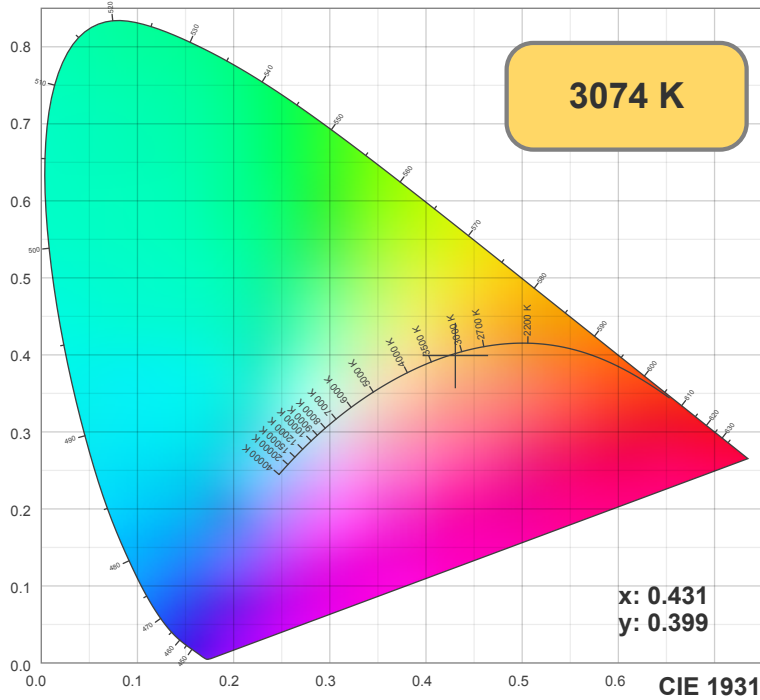
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
14.9	15.0	14.7	14.5	14.1	13.6	12.9	12.2	11.3	10.4	9.3	8.2	7.0	5.7	4.3	3.0	1.7	0.7	0.2	0.2
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	63%	55%	47%	38%	29%	20%	12%	5%	1%	1%

Intensities in 180° c-plane

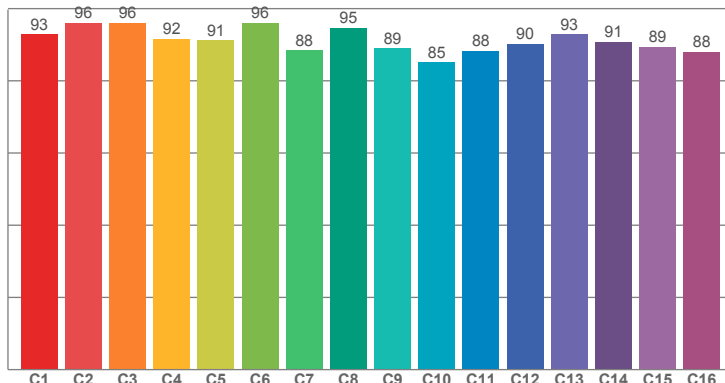
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
14.9	15.0	14.7	14.5	14.1	13.6	12.9	12.2	11.3	10.4	9.3	8.2	7.0	5.7	4.3	3.0	1.7	0.7	0.2	0.2
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	63%	55%	47%	38%	29%	20%	12%	5%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2.5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
116.0°	162.4°	360.0°	75.4%	50.7%

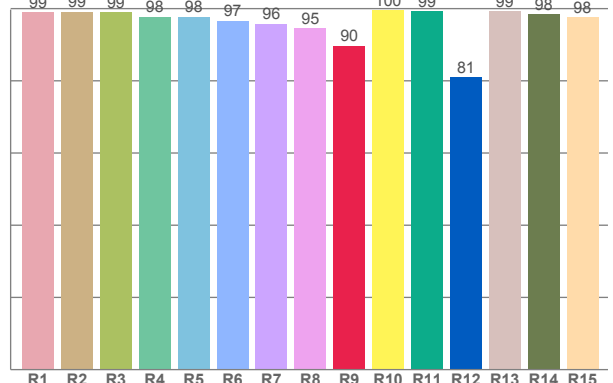
50%



TM30: 91.4



CRI: 97.4 (R1-R8)



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
98.91	99.13	98.93	97.73	97.67	96.63	95.76	94.52	89.73	99.56	99.19	80.96	99.18	98.38	97.55

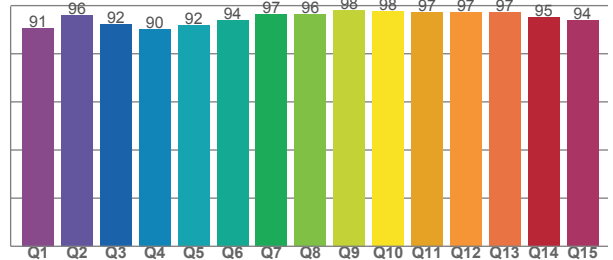
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.86	96.04	96.10	91.64	91.22	96.02	88.39	94.68	88.96	85.18	88.31	90.30	92.83	90.85	89.39	88.04

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90.75	95.88	92.08	90.30	91.71	94.09	96.58	96.32	98.07	97.52	97.16	97.35	97.22	95.08	93.77

CQS: 94.1



Color parameters

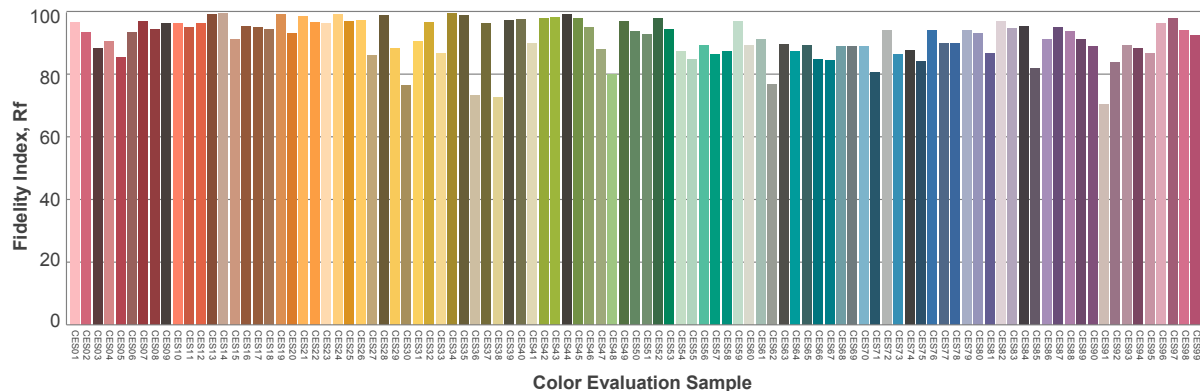
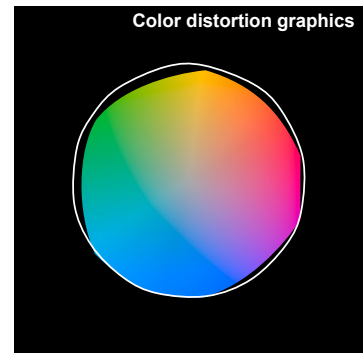
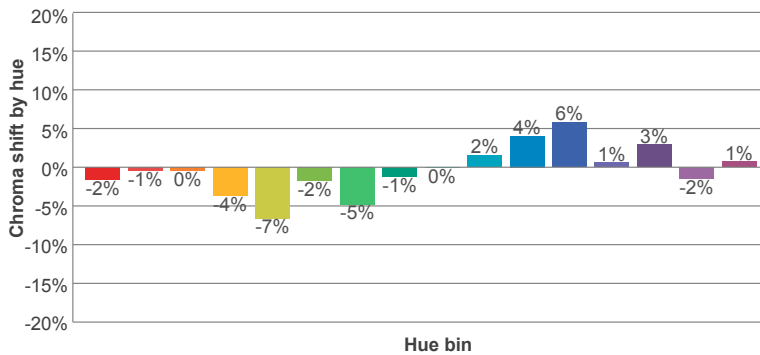
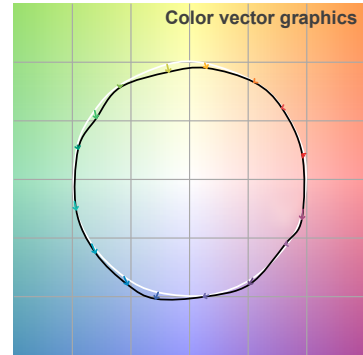
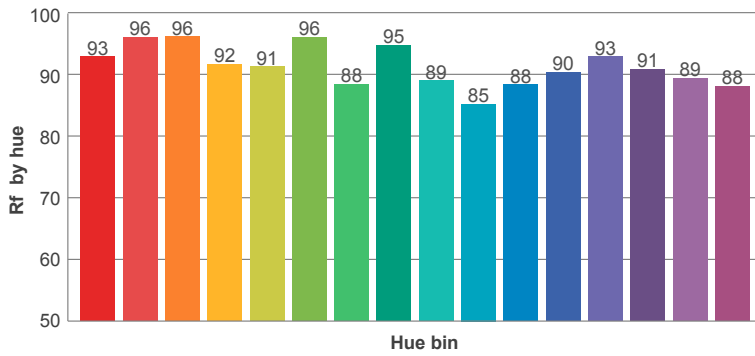
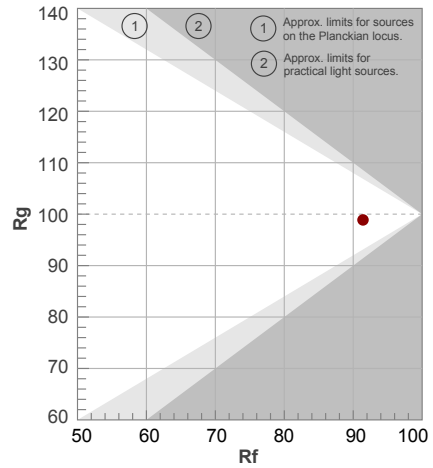
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Duv
3074 K	97.4	89.7	91.4	98.9	94.1	0.4	0.4	0.2	0.3	-0.0011

50%

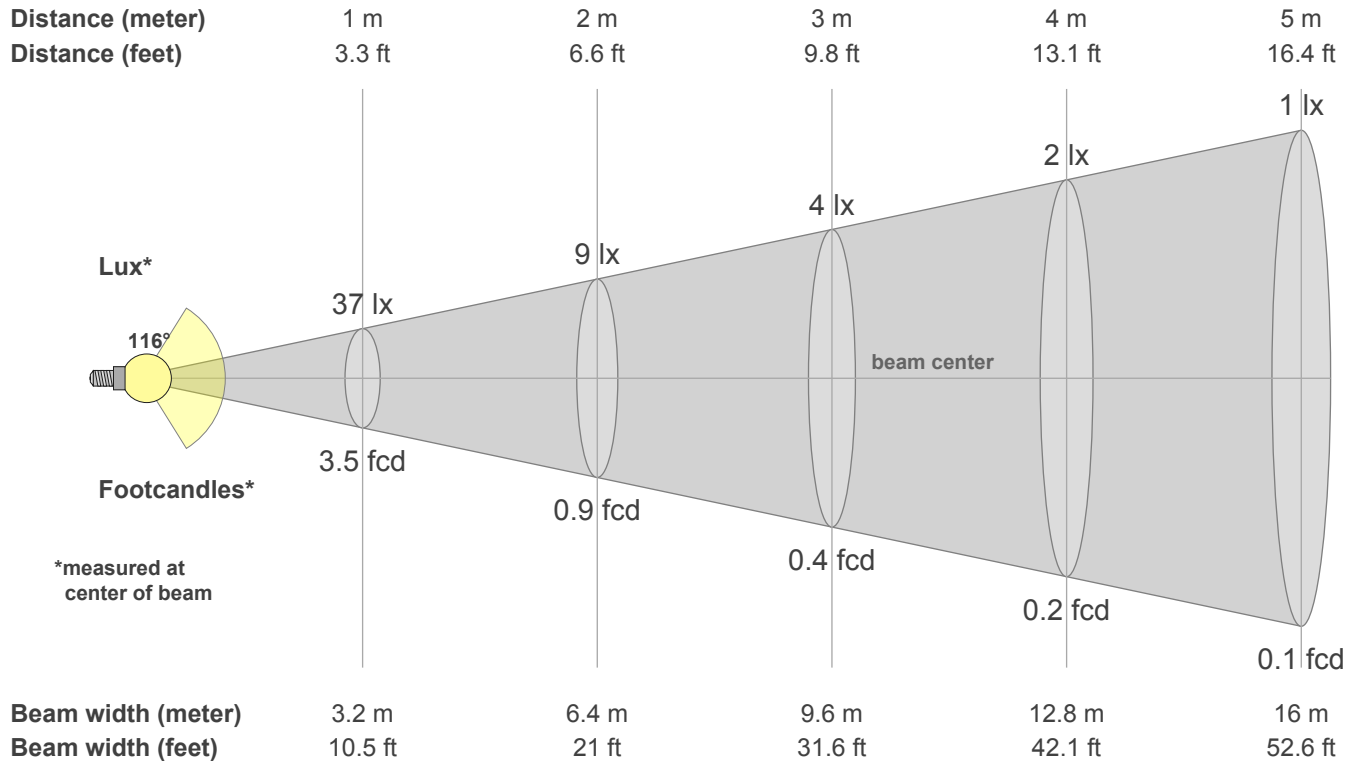
Rf 91.4
Fidelity index Rf

Rg 98.9
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-2%	2%
2	96	-1%	0%
3	96	0%	0%
4	92	-4%	-2%
5	91	-7%	0%
6	96	-2%	1%
7	88	-5%	5%
8	95	-1%	3%
9	89	0%	7%
10	85	2%	8%
11	88	4%	6%
12	90	6%	-1%
13	93	1%	-5%
14	91	3%	-5%
15	89	-2%	-2%
16	88	1%	-8%



50%



Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
37.3	37.2	36.7	36.0	35.0	33.7	32.2	30.4	28.3	25.9	23.3	20.5	17.5	14.3	10.9	7.6	4.5	2.0	0.6	0.4
100%	100%	98%	97%	94%	90%	86%	81%	76%	69%	62%	55%	47%	38%	29%	20%	12%	5%	2%	1%

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
37.3	37.2	36.7	36.0	35.0	33.7	32.2	30.4	28.3	25.9	23.3	20.5	17.5	14.3	10.9	7.6	4.5	2.0	0.6	0.4
100%	100%	98%	97%	94%	90%	86%	81%	76%	69%	62%	55%	47%	38%	29%	20%	12%	5%	2%	1%

Intensities in 180° c-plane

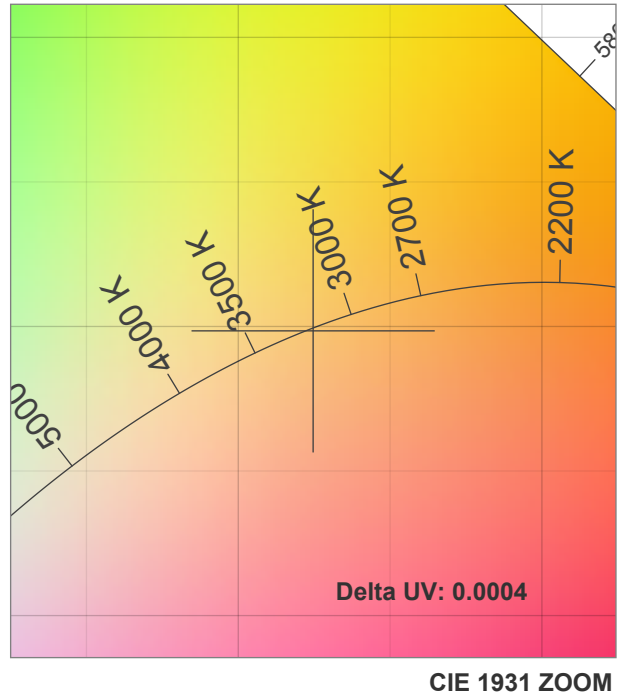
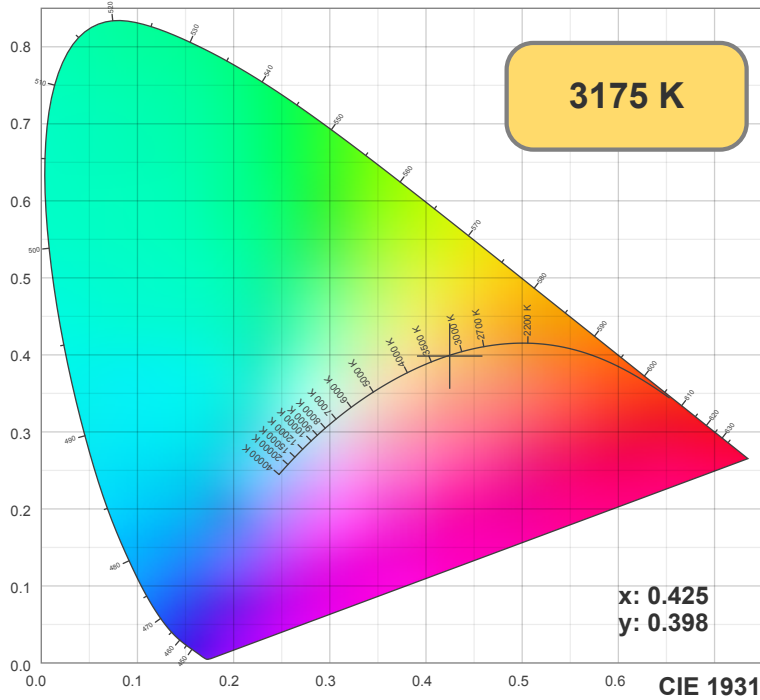
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
37.3	37.2	36.8	36.0	35.1	33.8	32.2	30.4	28.3	25.9	23.3	20.5	17.4	14.2	10.9	7.5	4.4	1.8	0.6	0.4
100%	100%	99%	97%	94%	91%	86%	81%	76%	70%	63%	55%	47%	38%	29%	20%	12%	5%	2%	1%

Intensities in 180° c-plane

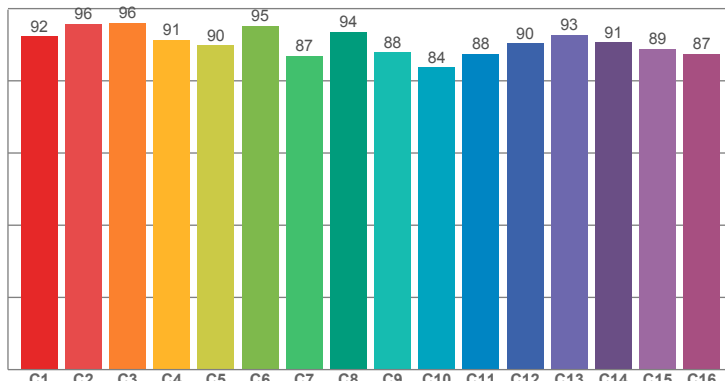
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
37.3	37.2	36.8	36.0	35.1	33.8	32.2	30.4	28.3	25.9	23.3	20.5	17.4	14.2	10.9	7.5	4.4	1.8	0.6	0.4
100%	100%	99%	97%	94%	91%	86%	81%	76%	70%	63%	55%	47%	38%	29%	20%	12%	5%	2%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2.5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
116.1°	162.5°	360.0°	75.3%	50.7%

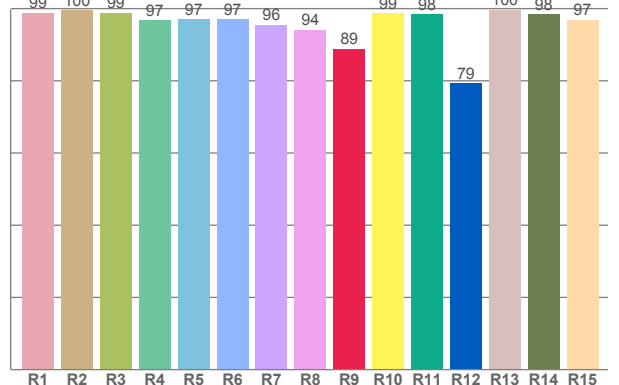
100%



TM30: 90.7



CRI: 97.2 (R1-R8)



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
98.81	99.54	98.87	96.75	97.08	96.99	95.56	94.09	88.84	98.66	98.41	79.35	99.61	98.38	96.94

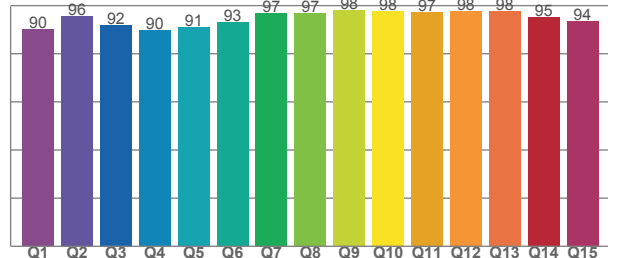
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.28	95.80	96.07	91.38	89.87	95.26	86.86	93.51	87.83	83.73	87.53	90.31	92.79	90.66	88.89	87.49

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90.13	95.69	92.04	89.71	90.88	92.96	96.98	96.70	98.05	97.79	97.39	97.66	97.58	95.26	93.65

CQS: 93.9



Color parameters

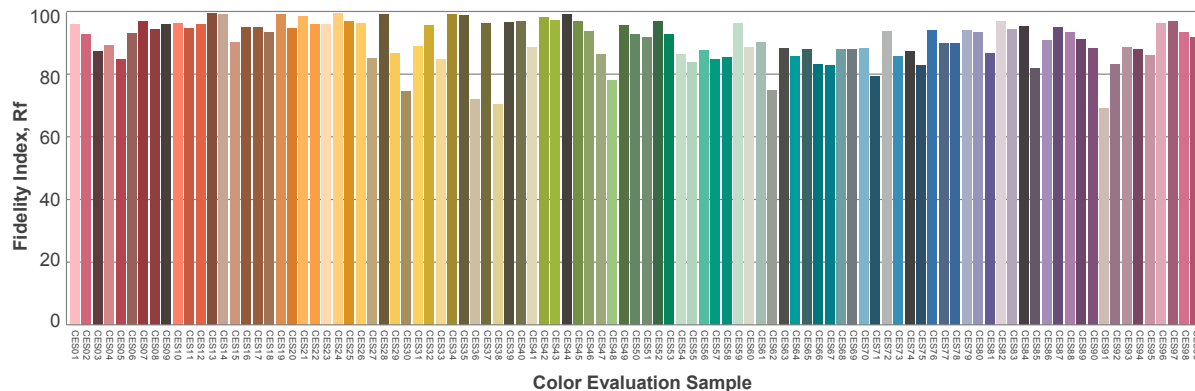
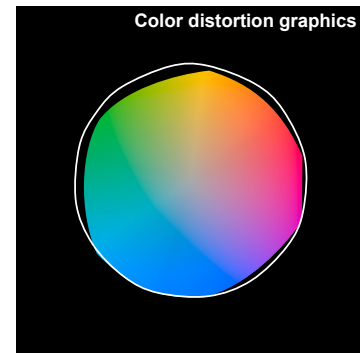
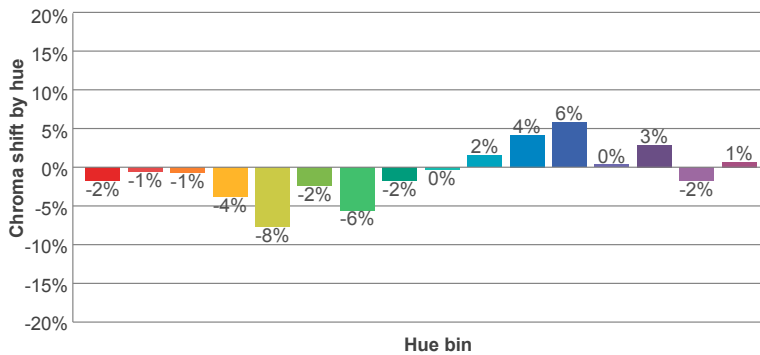
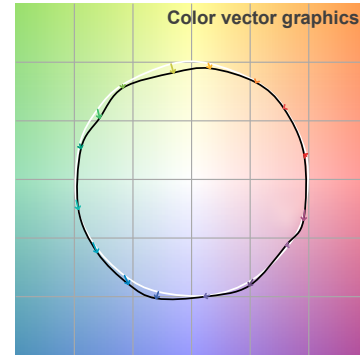
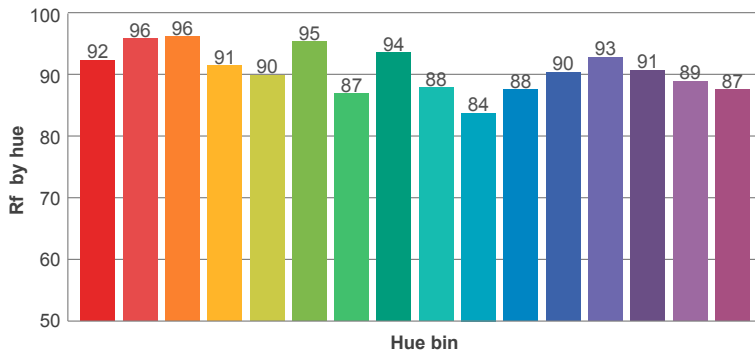
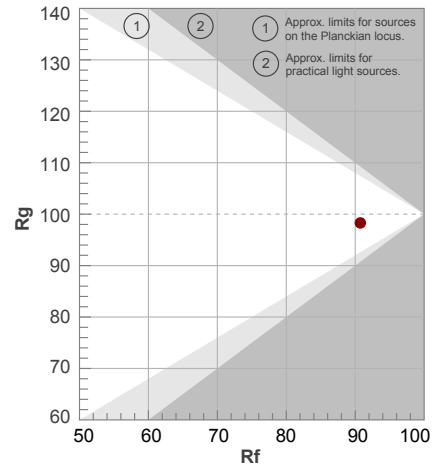
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Duv
3175 K	97.2	88.8	90.7	98.3	93.9	0.4	0.4	0.2	0.3	-0.0004

100%

Rf 90.7
Fidelity index Rf

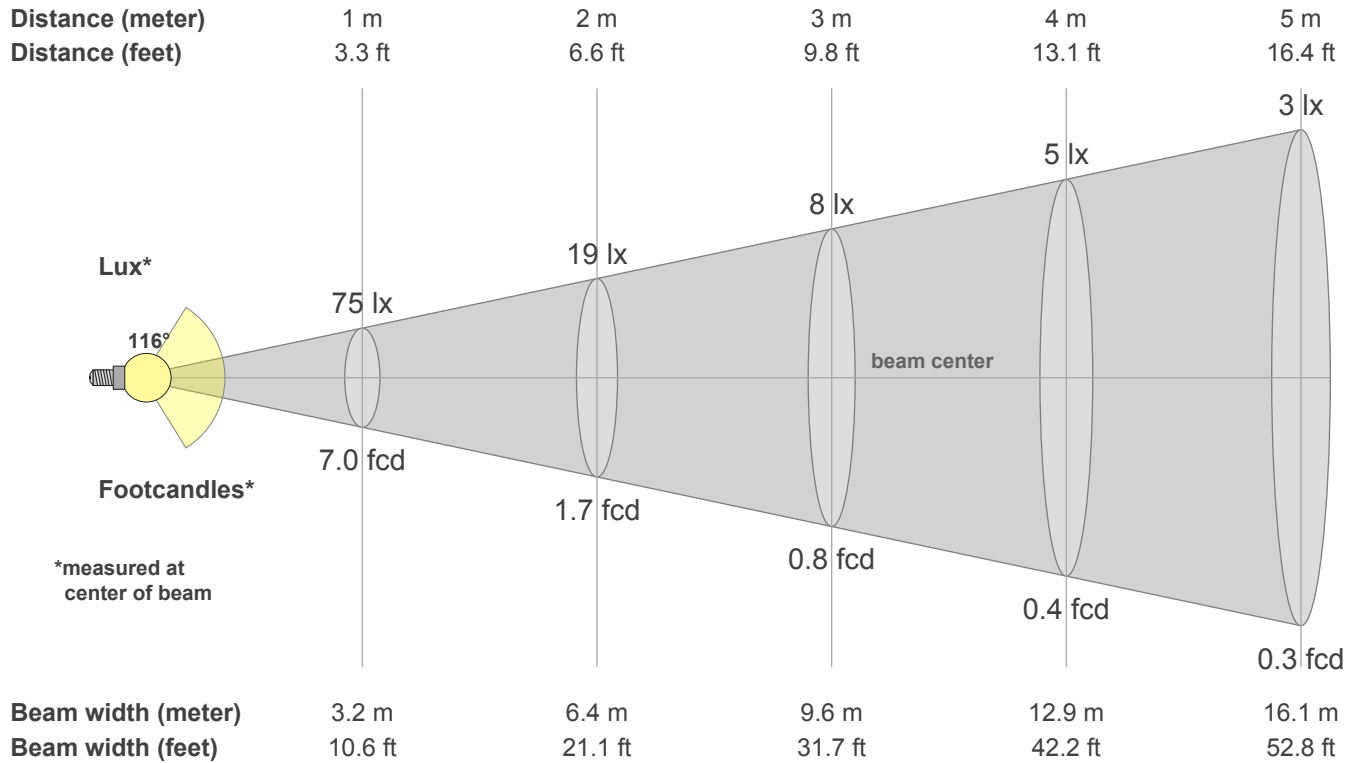
Rg 98.3
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	-2%	2%
2	96	-1%	0%
3	96	-1%	0%
4	91	-4%	-2%
5	90	-8%	-1%
6	95	-2%	1%
7	87	-6%	5%
8	94	-2%	3%
9	88	0%	8%
10	84	2%	9%
11	88	4%	7%
12	90	6%	-1%
13	93	0%	-5%
14	91	3%	-5%
15	89	-2%	-2%
16	87	1%	-8%



Viso Systems Aps – Copenhagen, Denmark – www.visosystems.com

100%



Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
75.3	75.0	74.1	72.7	70.7	68.1	64.9	61.2	57.0	52.3	47.1	41.4	35.4	28.9	22.1	15.4	9.1	3.8	1.0	0.8
100%	100%	98%	97%	94%	90%	86%	81%	76%	70%	63%	55%	47%	38%	29%	20%	12%	5%	1%	1%

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
75.3	75.0	74.1	72.7	70.7	68.1	64.9	61.2	57.0	52.3	47.1	41.4	35.4	28.9	22.1	15.4	9.1	3.8	1.0	0.8
100%	100%	98%	97%	94%	90%	86%	81%	76%	70%	63%	55%	47%	38%	29%	20%	12%	5%	1%	1%

Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
75.3	75.0	74.2	72.7	70.7	68.1	65.0	61.3	57.1	52.4	47.2	41.5	35.3	28.7	21.9	15.1	8.7	3.5	0.7	0.6
100%	100%	99%	97%	94%	91%	86%	81%	76%	70%	63%	55%	47%	38%	29%	20%	11%	5%	1%	1%

Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
75.3	75.0	74.2	72.7	70.7	68.1	65.0	61.3	57.1	52.4	47.2	41.5	35.3	28.7	21.9	15.1	8.7	3.5	0.7	0.6
100%	100%	99%	97%	94%	91%	86%	81%	76%	70%	63%	55%	47%	38%	29%	20%	11%	5%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2.5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
116.3°	162.3°	360.0°	75.4%	50.8%