

Light efficiency:



Output: 1355 lm

Light quality:

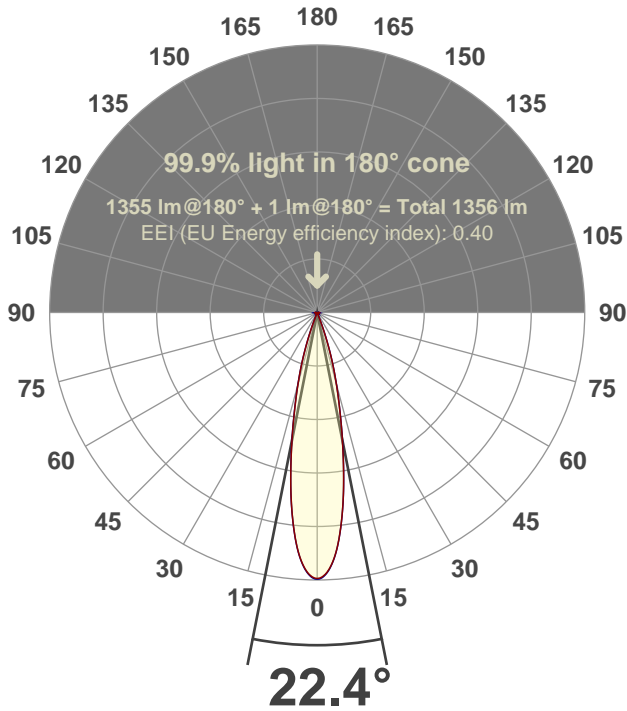


Peak: 7604 cd

Power: 30.0 W



Beam angle



Test number:

CR4D-S-FL-C28-30k-24 (GRF-CZ20-NF-SQ)

Luminaire Model:

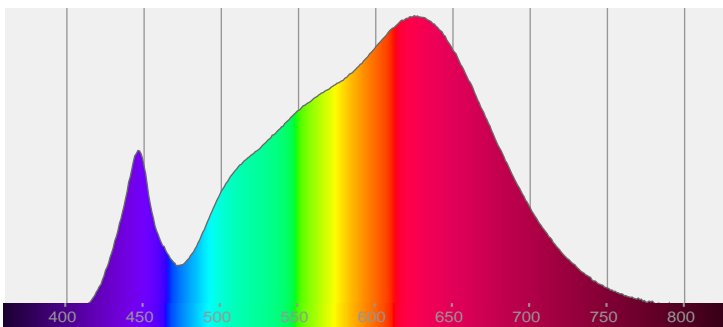
Core 4" Square Flat C28 30K 24°

Date and time:

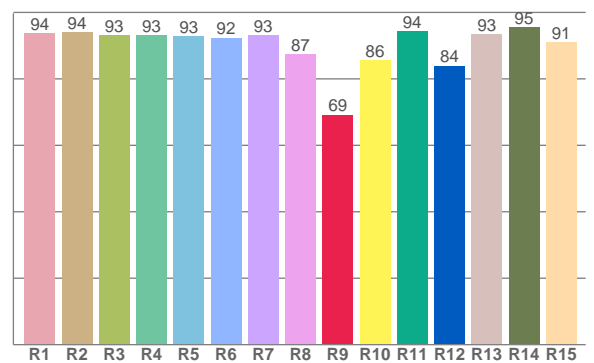
4/3/2017 1:08:31 PM

LUM: 1355

Spectra



CRI: 92.5 (R1-R8)



Color parameters

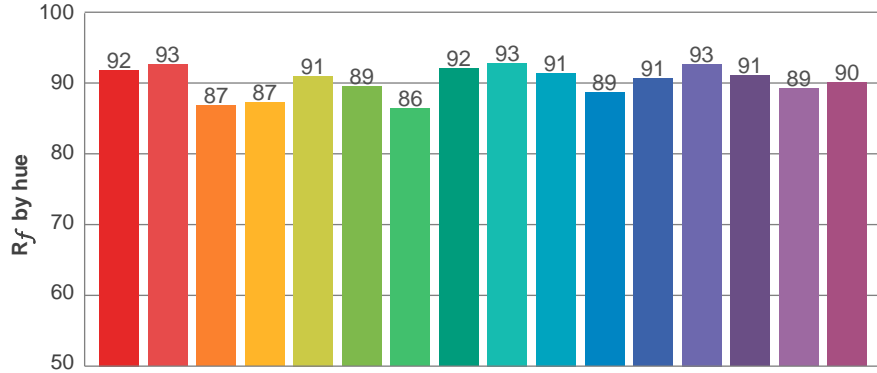
Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CRI	CRI R9	TM30 R <sub>f</sub>	TM30 R <sub>g</sub>	CQS	x	y	u	v	Δuv
92.5	69.1	90.4	103.1	90.2	0.429	0.400	0.248	0.346	-0.0007

**$R_f$  90.4**  
Fidelity index  $R_f$

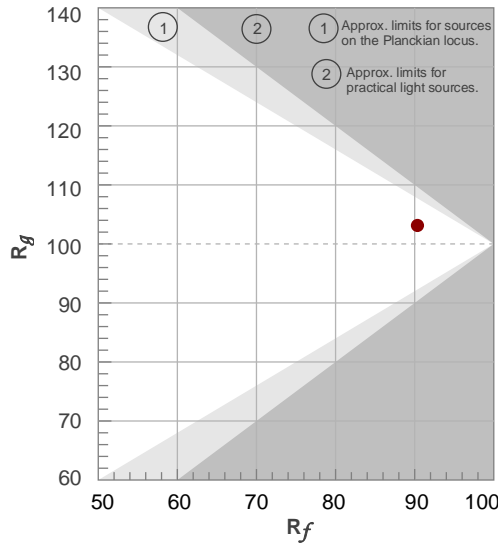
**$R_g$  103.1**  
Gammut index  $R_g$

TM30: 90.4

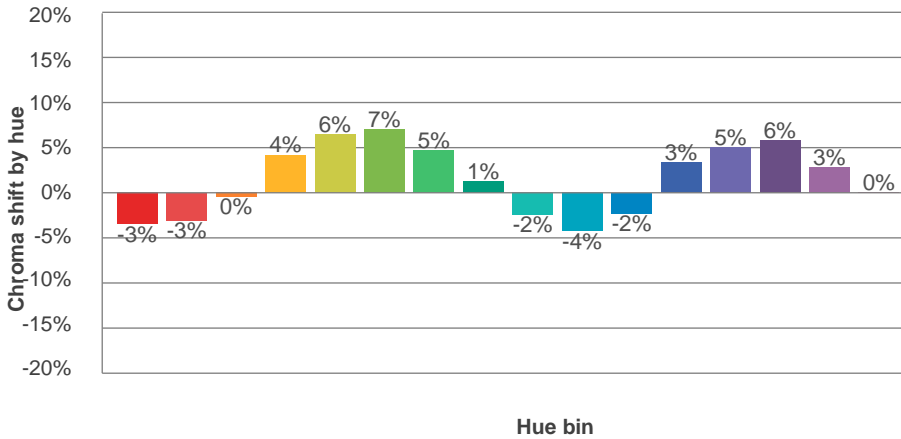
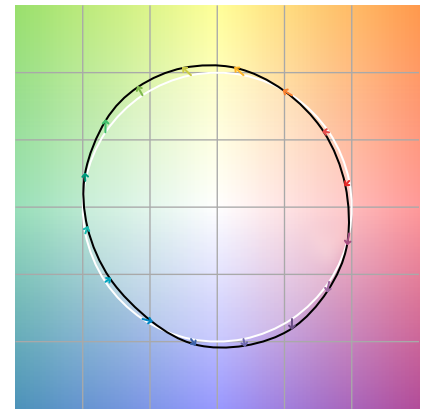
TM-30Color



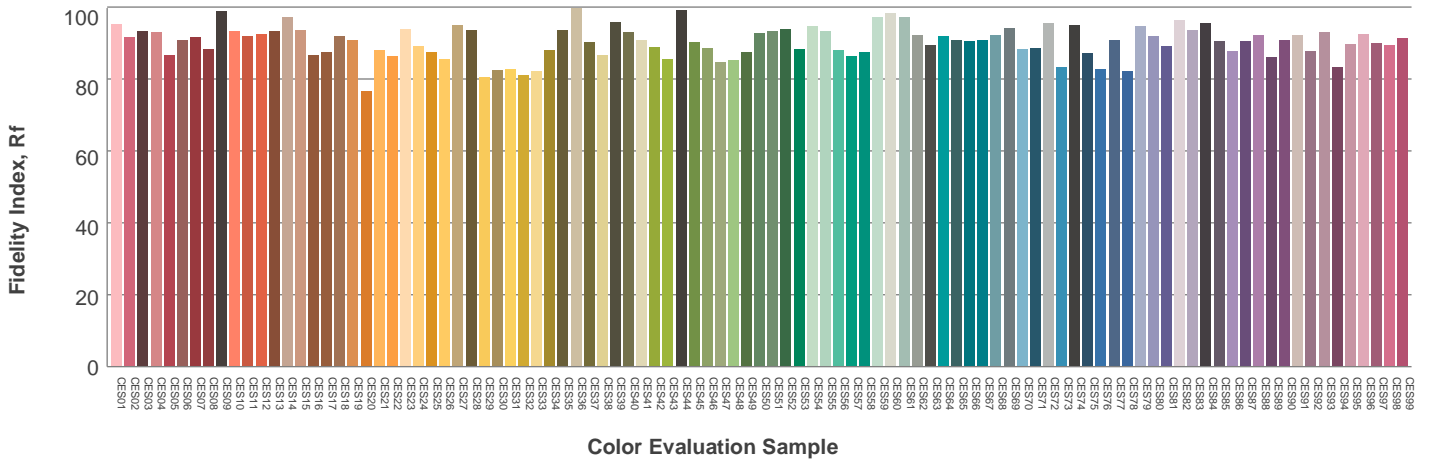
Hue Bin	$R_f$	Graphic shifts (%)	
		Chroma	Hue
1	92	-3%	-3%
2	93	-3%	3%
3	87	0%	7%
4	87	4%	7%
5	91	6%	5%
6	89	7%	-1%
7	86	5%	-7%
8	92	1%	-5%
9	93	-2%	-4%
10	91	-4%	0%
11	89	-2%	6%
12	91	3%	4%
13	93	5%	0%
14	91	6%	-4%
15	89	3%	-6%
16	90	0%	-8%



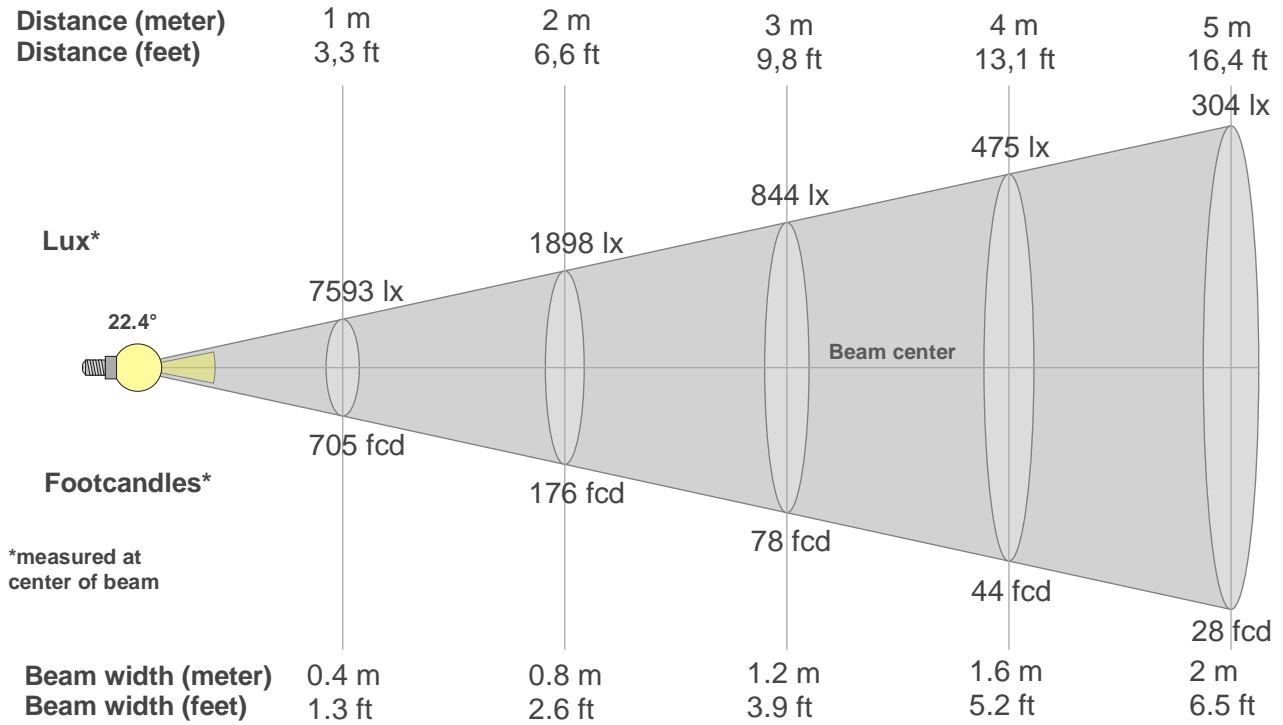
Color vector graphics



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
7593lx	1898lx	844lx	475lx	304lx	211lx	155lx	119lx	94lx	76lx	63lx	53lx	45lx	39lx	34lx	30lx	26lx	23lx	21lx	19lx
705.4fc	176.3fc	78.4fcd	44.1fcd	28.2fcd	19.6fcd	14.4fcd	11fcd	8.7fcd	7.1fcd	5.8fcd	4.9fcd	4.2fcd	3.6fcd	3.1fcd	2.8fcd	2.4fcd	2.2fcd	2fcd	1.8fcd

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°
7593	7425	6996	6268	5339	4304	3336	2499	1808	1170	600	202	89	67	55	46	37	30	23	17
100%	98%	92%	83%	70%	57%	44%	33%	24%	15%	8%	3%	1%	1%	1%	1%	0%	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°
7593	7443	7004	6271	5344	4310	3341	2501	1804	1182	609	212	94	69	57	47	38	30	23	17
100%	98%	92%	83%	70%	57%	44%	33%	24%	16%	8%	3%	1%	1%	1%	1%	1%	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°
7593	7425	6996	6268	5339	4304	3336	2499	1808	1170	600	202	89	67	55	46	37	30	23	17
100%	98%	92%	83%	70%	57%	44%	33%	24%	15%	8%	3%	1%	1%	1%	1%	0%	0%	0%	0%

Intensities in 270° c-plane

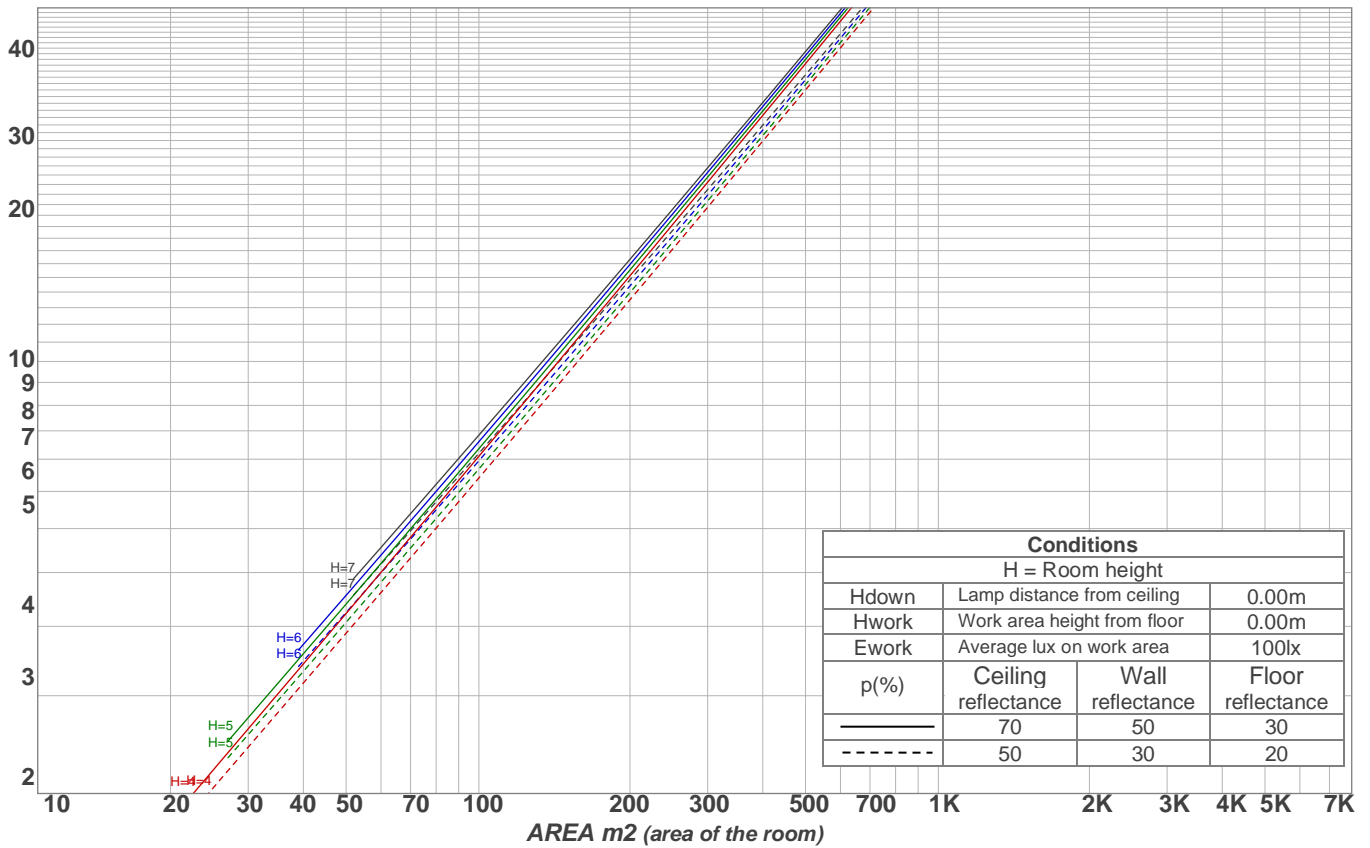
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
7593	7443	7004	6271	5344	4310	3341	2501	1804	1182	609	212	94	69	57	47	38	30	23	17
100%	98%	92%	83%	70%	57%	44%	33%	24%	16%	8%	3%	1%	1%	1%	1%	1%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22.4°	42.3°	49°	98.9%	98.3%

Light planning

Luminaire budgetary diagram

LAMPS (number of lamps)  
50



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
<b>RCR</b>	<b>(RCR: Room Cavity Ratio)</b>																				
	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	100	100
1	115	113	111	109	113	111	109	108	107	106	104	103	102	101	100	99	98	98	97	96	94
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	98	96	95	94
3	108	104	100	98	107	103	99	97	100	97	95	98	96	94	96	94	93	96	94	93	91
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	94	92	90	89
5	102	97	93	90	101	96	92	90	95	91	89	93	90	88	92	89	88	92	89	88	87
6	100	94	90	87	99	93	90	87	92	89	87	91	88	86	90	87	85	90	87	85	84
7	97	91	88	85	96	91	87	85	90	87	84	89	86	84	88	85	83	88	85	83	82
8	95	89	85	83	94	89	85	82	88	84	82	87	84	82	86	83	82	86	83	82	81
9	93	87	83	81	92	86	83	80	86	82	80	85	82	80	84	82	80	84	82	80	79
10	91	85	81	79	90	84	81	79	84	81	78	83	80	78	83	80	78	83	80	78	77

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
562 lm	617 lm	133 lm	16.3 lm	5.67 lm	5.60 lm	6.50 lm	4.58 lm	3.32 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

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	18.3	18.7	18.4	18.9	19.1	18.1	18.5	18.1	18.6	18.8
	3H	19.8	20.4	20.2	20.5	20.7	20.1	20.6	20.4	20.8	21.0
	4H	20.6	21.1	21.0	21.4	21.6	21.1	21.6	21.5	21.8	22.1
	6H	21.7	22.1	22.0	22.4	22.8	22.3	22.7	22.6	23.0	23.4
	8H	22.3	22.7	22.6	23.0	23.4	22.9	23.3	23.2	23.6	24.0
	12H	23.0	23.4	23.4	23.8	24.2	23.7	24.1	24.0	24.4	24.9
4H	2H	18.9	19.4	19.3	19.7	19.9	18.7	19.3	19.1	19.5	19.7
	3H	20.9	21.3	21.2	21.6	22.0	21.1	21.5	21.5	21.9	22.3
	4H	21.8	22.2	22.2	22.6	23.1	22.3	22.6	22.7	23.1	23.6
	6H	23.0	23.5	23.5	23.8	24.1	23.6	24.0	24.1	24.4	24.7
	8H	23.7	24.1	24.2	24.5	24.8	24.3	24.7	24.8	25.0	25.4
	12H	24.6	24.9	25.1	25.3	25.7	25.2	25.5	25.7	25.9	26.4
8H	4H	22.4	22.8	22.9	23.1	23.5	22.8	23.2	23.3	23.5	23.9
	6H	23.9	24.2	24.4	24.6	25.2	24.4	24.6	24.9	25.1	25.6
	8H	24.9	25.1	25.4	25.6	26.2	25.4	25.5	25.9	26.1	26.7
	12H	26.0	26.1	26.6	26.6	27.2	26.5	26.7	27.1	27.2	27.8
12H	4H	22.5	22.8	23.0	23.2	23.6	22.8	23.1	23.3	23.5	24.0
	6H	24.2	24.4	24.8	25.0	25.6	24.7	24.9	25.2	25.4	26.0
	8H	25.3	25.4	25.9	25.9	26.5	25.7	25.9	26.3	26.4	27.0
Corrected glare indices referring to 1355 lm total luminous flux											