

LM-79

Test Report

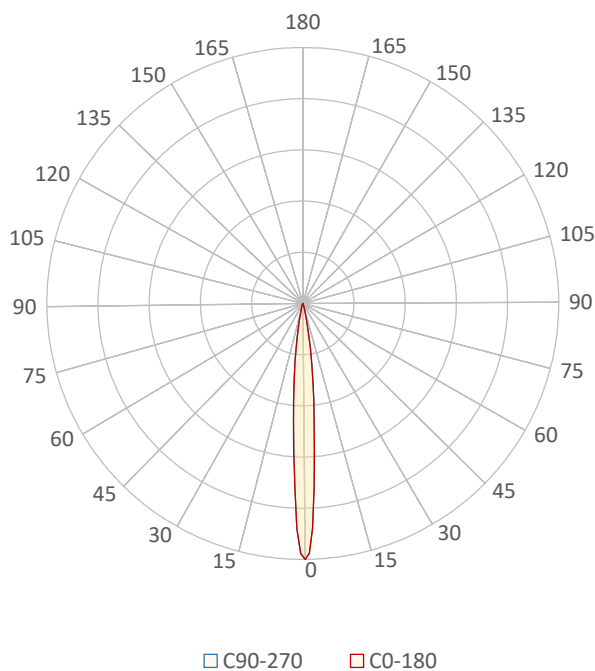
LM79-REVO-2200K-CRI80-DEG8

General Discription

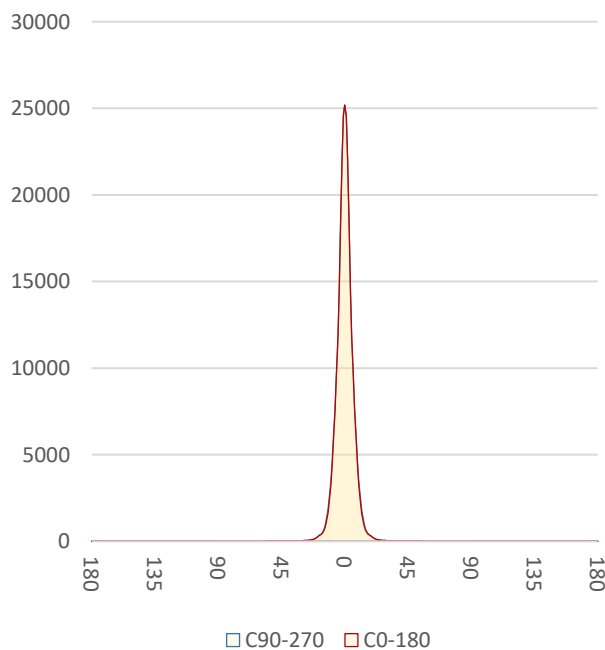
Item number	R-X-X-10-5
Date and time	11-6-2021 15:21:07
CCT (Kelvin)	2221 K
Beam angle	9,2 x 9,3°
Luminous flux	1197 lm
Efficiency	63 lm/watt
Weighted energy	19,0 kWh/1000h
Power factor	0,95
CRI (RA)	85,6
Fidelity index Rf	Rf 88,3
Gammut index Rg	Rg 96,3
Peak	25268 cd



Polar diagram



Cartesian diagram



CLS LED BV
info@cls-led.com
www.cls-led.com

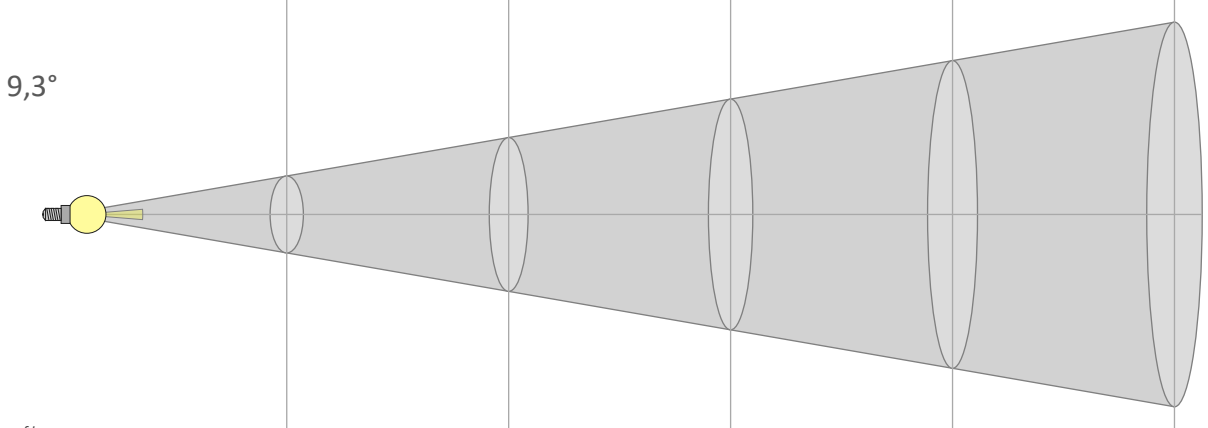
2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf

LM-79

Test Report

LM79-REVO-2200K-CRI80-DEG8

Beam details	1m	2m	3m	4m	5m
<i>Lux*</i>	25187 lx	6297 lx	2799 lx	1574 lx	1007 lx



9,3°

*measured at center of beam

<i>Footcandles*</i>	2340,0 fcd	585,0 fcd	260,0 fcd	146,2 fcd	93,6 fcd
<i>Beam width (meter)</i>	0,2 m	0,3 m	0,5 m	0,6 m	0,8 m
<i>Beam width 90° (meter)</i>	0,2 m	0,3 m	0,5 m	0,6 m	0,8 m
<i>Beam width (Feet)</i>	0,5 ft	1,1 ft	1,6 ft	2,1 ft	2,7 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
25187lx	6297lx	2799lx	1574lx	1007lx	700lx	514lx	394lx	311lx	252lx	208lx	175lx	149lx	129lx	112lx	98lx	87lx	78lx	70lx	63lx
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
2340fcd	585fcd	260fcd	146,2fcd	93,6fcd	65fcd	47,8fcd	36,6fcd	28,9fcd	23,4fcd	19,3fcd	16,2fcd	13,8fcd	11,9fcd	10,4fcd	9,1fcd	8,1fcd	7,2fcd	6,5fcd	5,8fcd

Intensities in 0° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
25,2K	24,6K	22,2K	18,2K	14,6K	11,8K	9,6K	7,6K	5,8K	4,4K	3,2K	2,3K	1,6K	1,1K	0,8K	0,6K	0,5K	0,4K	0,3K	0,3K
100%	98%	88%	72%	58%	47%	38%	30%	23%	18%	13%	9%	6%	5%	3%	2%	2%	2%	1%	1%

Intensities in 90° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
25,2K	24,6K	22,2K	18,1K	14,3K	11,6K	9,5K	7,7K	6,0K	4,6K	3,5K	2,6K	1,8K	1,3K	0,9K	0,7K	0,5K	0,4K	0,3K	0,3K
100%	98%	88%	72%	57%	46%	38%	31%	24%	18%	14%	10%	7%	5%	4%	3%	2%	2%	1%	1%

Intensities in 180° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
25,2K	24,6K	22,2K	18,2K	14,6K	11,8K	9,6K	7,6K	5,8K	4,4K	3,2K	2,3K	1,6K	1,1K	0,8K	0,6K	0,5K	0,4K	0,3K	0,3K
100%	98%	88%	72%	58%	47%	38%	30%	23%	18%	13%	9%	6%	5%	3%	2%	2%	2%	1%	1%

Intensities in 270° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
25,2K	24,6K	22,2K	18,1K	14,3K	11,6K	9,5K	7,7K	6,0K	4,6K	3,5K	2,6K	1,8K	1,3K	0,9K	0,7K	0,5K	0,4K	0,3K	0,3K
100%	98%	88%	72%	57%	46%	38%	31%	24%	18%	14%	10%	7%	5%	4%	3%	2%	2%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,3°	21,8°	30°	99,6%	98,9%



CLS LED BV
 info@cls-led.com
 www.cls-led.com

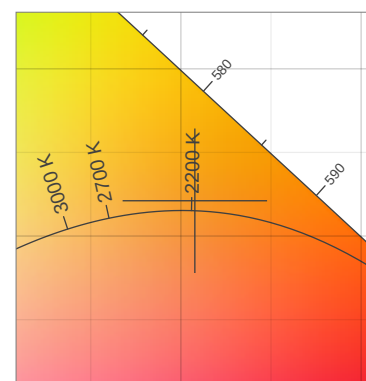
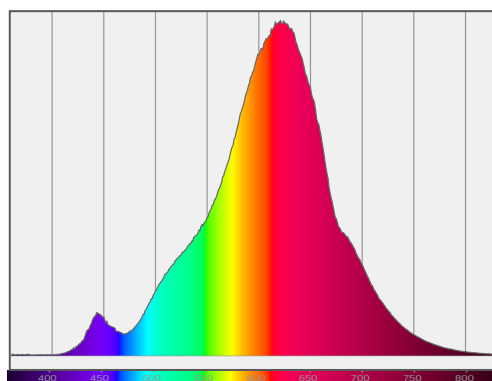
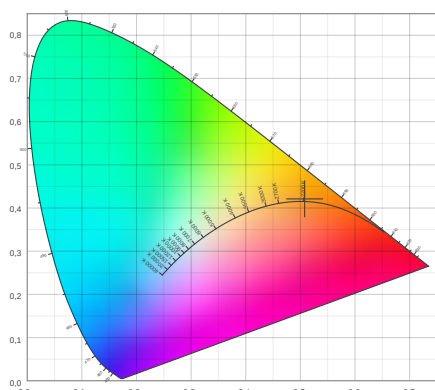
2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf

LM-79

Test Report

LM79-REVO-2200K-CRI80-DEG8

Color details



CIE 1931

x: 0,508



Spectra

CIE 1931 ZOOM

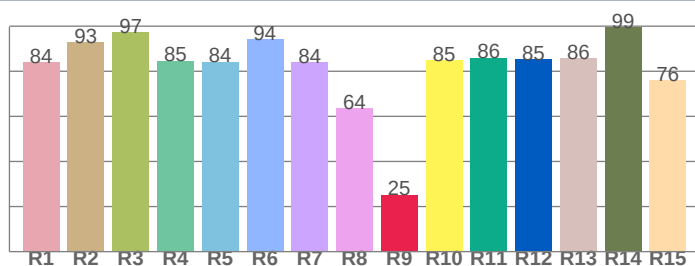
2221 K

y: 0,421

Δuv : 0,0019

CRI: 85,6 (R1-R8)

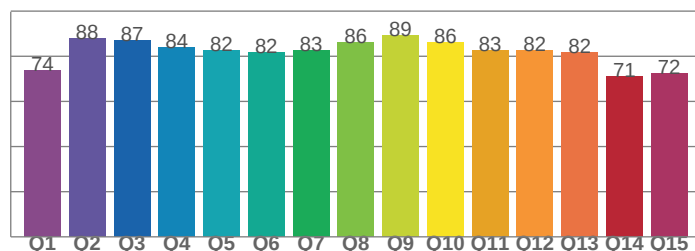
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
84,0	92,8	97,2	84,6	84,3	94,1	84,2	63,5
R9	R10	R11	R12	R13	R14	R15	
25,2	84,8	86,0	85,3	85,9	99,4	76,1	

CQS: 80,8

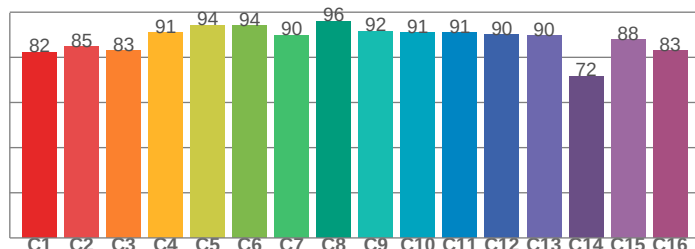
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
74,0	87,7	87,1	84,0	82,5	81,9	82,8	86,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
89,4	86,3	82,5	82,5	81,5	71,0	72,4	

TM30: 88,3

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



C1	C2	C3	C4	C5	C6	C7	C8
82,3	84,9	83,0	91,1	94,3	94,1	89,8	96,1
C9	C10	C11	C12	C13	C14	C15	
91,6	91,0	91,0	89,9	89,7	71,7	87,7	

Color parameters

Color temperature	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
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv



CLS LED BV
info@cls-led.com
www.cls-led.com

2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf

LM-79

Test Report

LM79-REVO-2200K-CRI80-DEG8

2221 K 85,6 25,2 88,3 96,3 80,8 0,508 0,421 0,289 0,359 0,0019

TM30 details

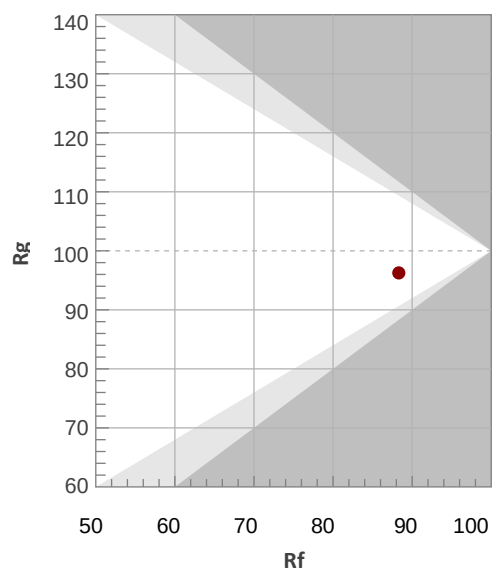
Rf 88,3

Fidelity index Rf

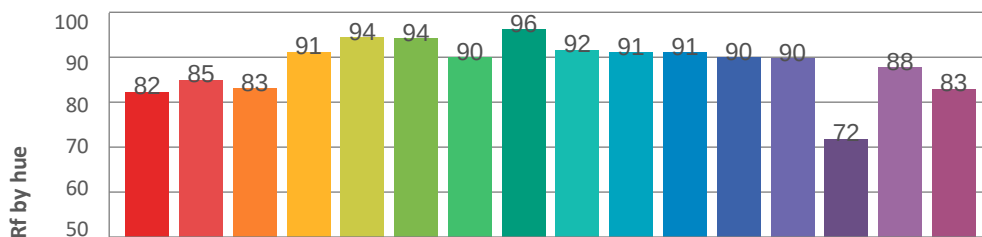
Rg 96,3

Gamut index Rg

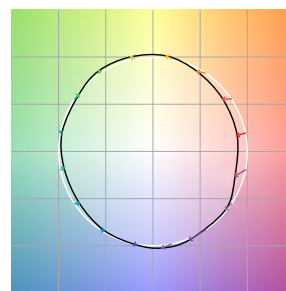
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	82	-9%	-1%
2	85	-8%	5%
3	83	-4%	8%
4	91	2%	6%
5	94	3%	4%
6	94	3%	0%
7	90	-1%	-7%
8	96	-2%	-1%
9	92	-4%	-1%
10	91	-5%	2%
11	91	-2%	3%
12	90	0%	2%
13	90	2%	-10%
14	72	-1%	-20%
15	88	-2%	-9%
16	83	-10%	-9%



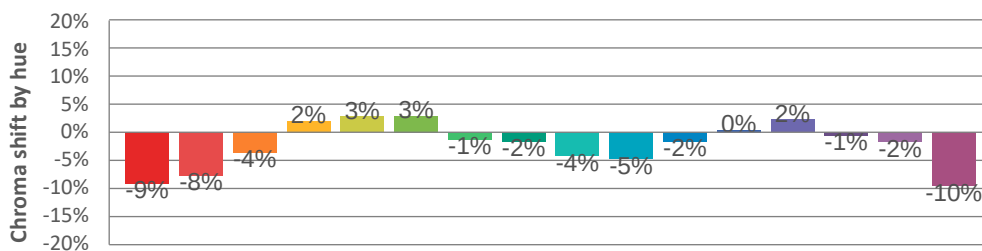
Hue binH



Color vector graphics



Hue bin



Color distortion graphics

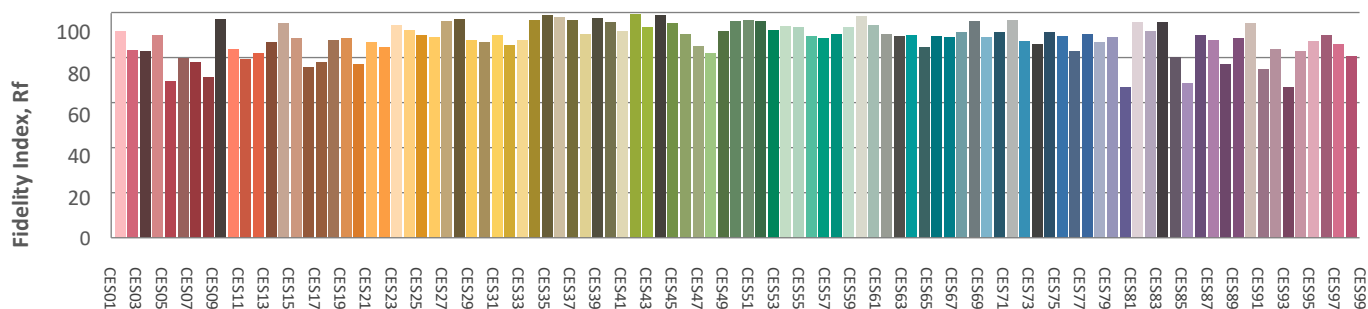


Color Evaluation Sample



CLS LED BV
info@cls-led.com
www.cls-led.com

2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf



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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Variation of the observer position for the luminaire distance S

LM-79

Test Report

LM79-REVO-2200K-CRI80-DEG8

n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
Standard table	n/a	n/a
Correction summand	n/a	n/a
Corrected glare indices referring to 1197lm total luminous flux		



CLS LED BV
info@cls-led.com
www.cls-led.com

2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf