

# LM-79

## Test Report

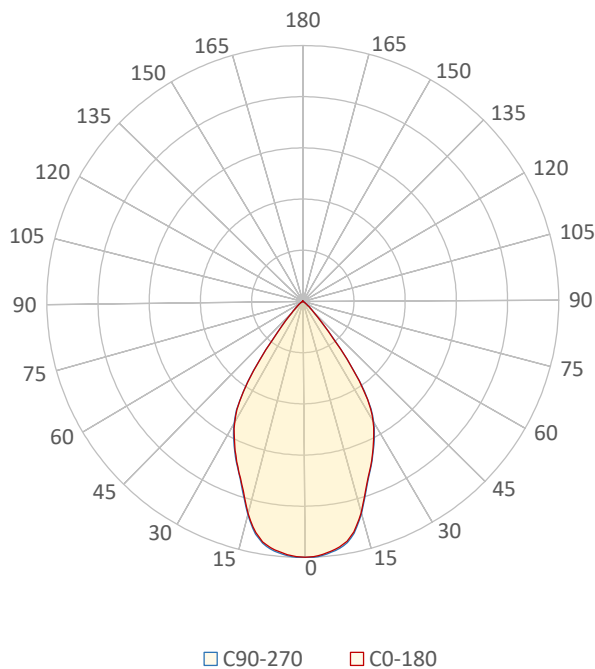
### LM79-RUBY-8-4000K-CRI80-FLOOD

#### General Description

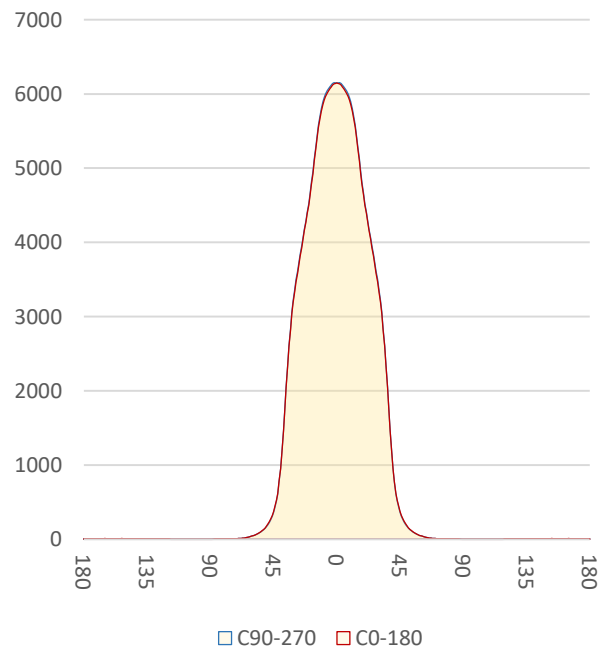
Item number	RU-38-X-X-03-3-X
Date and time	10-6-2020 14:20:12
CCT (Kelvin)	3960 K
Beam angle	63,9°
Luminous flux	5696 lm
Efficiency	101 lm/watt
Weighted energy	56,3 kWh/1000h
Power factor	0,97
CRI (RA)	83,3
Fidelity index Rf	Rf 84,4
Gammut index Rg	Rg 94,1
Peak	6160 cd



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](http://www.cls-led.com/voorwaarden.pdf)

# LM-79

## Test Report

# LM79-RUBY-8-4000K-CRI80-FLOOD

Beam details	1m	2m	3m	4m	5m																			
<b>Lux*</b>	6148 lx	1537 lx	683 lx	384 lx	246 lx																			
<i>*measured at center of beam</i>																								
<b>Footcandles*</b>	571,2 fcd	142,8 fcd	63,5 fcd	35,7 fcd	22,8 fcd																			
<b>Beam width (meter)</b>	1,2 m	2,5 m	3,7 m	5 m	6,2 m																			
<b>Beam width (Feet)</b>	4,1 ft	8,2 ft	12,3 ft	16,3 ft	20,4 ft																			
<b>Beam intensities</b>																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
6148lx	1537lx	683lx	384lx	246lx	171lx	125lx	96lx	76lx	61lx	51lx	43lx	36lx	31lx	27lx	24lx	21lx	19lx	17lx	15lx					
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					
571,2fcd	142,8fcd	63,5fcd	35,7fcd	22,8fcd	15,9fcd	11,7fcd	8,9fcd	7,1fcd	5,7fcd	4,7fcd	4fcd	3,4fcd	2,9fcd	2,5fcd	2,2fcd	2fcd	1,8fcd	1,6fcd	1,4fcd					
<b>Intensities in 0° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
6148	6136	6095	6040	5966	5858	5676	5413	5094	4776	4503	4274	4045	3814	3582	3337	3045	2602	2044	1459					
100%	100%	99%	98%	97%	95%	92%	88%	83%	78%	73%	70%	66%	62%	58%	54%	50%	42%	33%	24%					
<b>Intensities in 90° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
6148	6160	6120	6070	6002	5895	5716	5445	5122	4804	4524	4291	4068	3844	3618	3372	3071	2627	2051	1456					
100%	100%	100%	99%	98%	96%	93%	89%	83%	78%	74%	70%	66%	63%	59%	55%	50%	43%	33%	24%					
<b>Intensities in 180° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
6148	6136	6095	6040	5966	5858	5676	5413	5094	4776	4503	4274	4045	3814	3582	3337	3045	2602	2044	1459					
100%	100%	99%	98%	97%	95%	92%	88%	83%	78%	73%	70%	66%	62%	58%	54%	50%	42%	33%	24%					
<b>Intensities in 270° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
6148	6160	6120	6070	6002	5895	5716	5445	5122	4804	4524	4291	4068	3844	3618	3372	3071	2627	2051	1456					
100%	100%	100%	99%	98%	96%	93%	89%	83%	78%	74%	70%	66%	63%	59%	55%	50%	43%	33%	24%					
<b>Beam angle 50%</b>					<b>Field angle 10%</b>					<b>Cutoff angle 2,5%</b>					<b>Intensity ratio in 120° cone</b>					<b>Intensity ratio in 90° cone</b>				
63,8°					84°					101,8°					99,0%					95,7%				



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

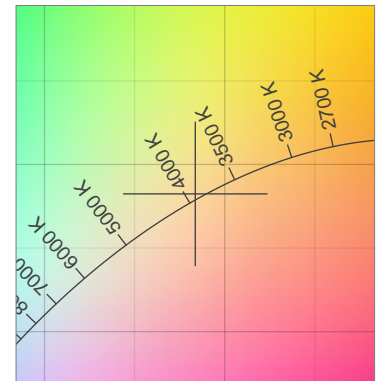
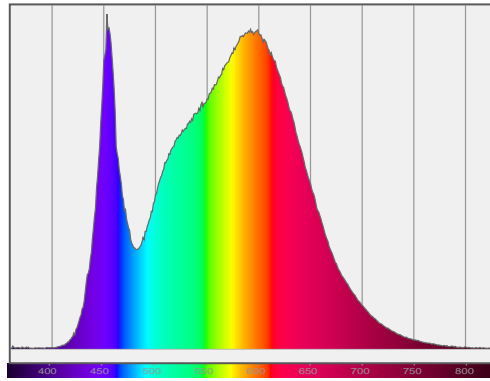
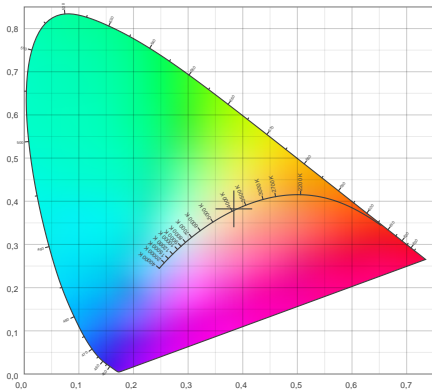
2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information 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](http://www.cls-led.com/voorwaarden.pdf)

# LM-79

## Test Report

# LM79-RUBY-8-4000K-CRI80-FLOOD

### Color details



CIE 1931

x: 0,384



Spectra

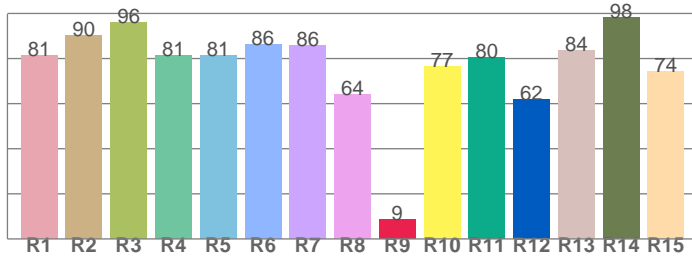
CIE 1931 ZOOM

3960 K

y: 0,382

$\Delta uv$ : 0,0017

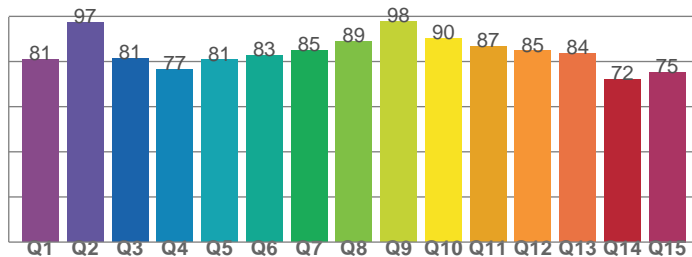
CRI: **83,3** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
81,4	90,2	96,0	81,4	81,3	86,3	85,9	64,2
R9	R10	R11	R12	R13	R14	R15	
8,7	76,6	80,4	62,1	83,8	98,1	74,3	

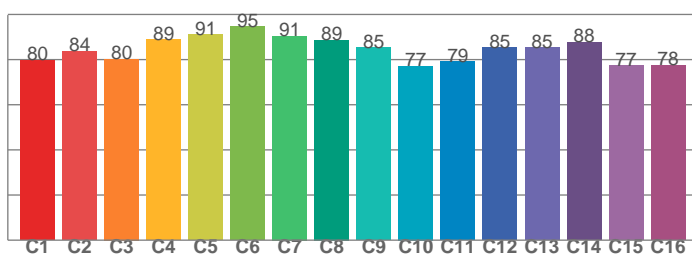
CQS: **82,7**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
80,8	97,5	81,2	76,6	80,7	82,5	84,9	88,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,6	90,4	86,6	84,7	83,7	72,0	75,4	

TM30: **84,4**



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

C1	C2	C3	C4	C5	C6	C7	C8
79,7	83,7	80,3	88,9	91,1	94,7	90,5	88,6
C9	C10	C11	C12	C13	C14	C15	
85,3	77,1	79,1	85,3	85,5	87,7	77,3	

### 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	$\Delta uv$
3960 K	83,3	8,7	84,4	94,1	82,7	0,384	0,382	0,225	0,336	0,0017



**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](http://www.cls-led.com/voorwaarden.pdf)

# LM-79

## Test Report

# LM79-RUBY-8-4000K-CRI80-FLOOD

### TM30 details

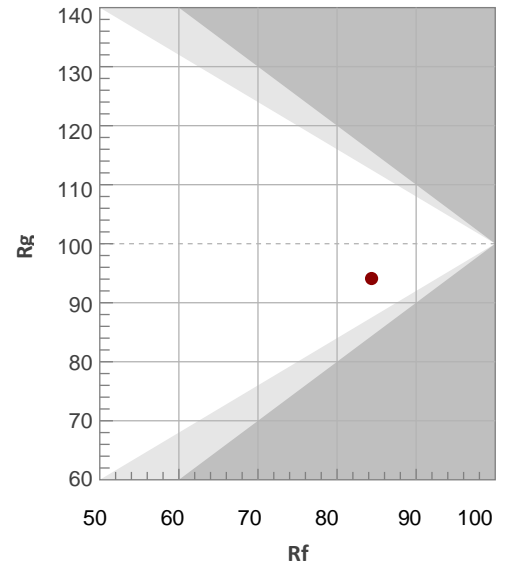
Rf 84,4

Fidelity index Rf

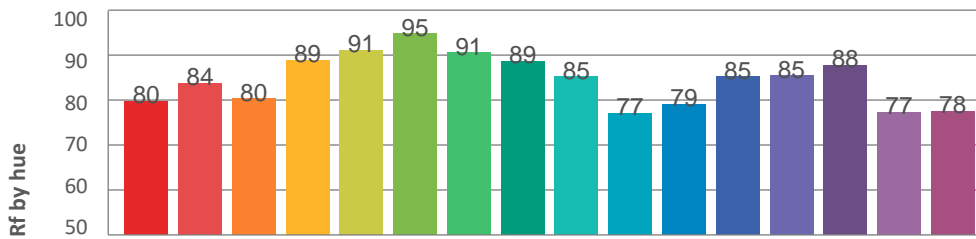
Rg 94,1

Gamut index Rg

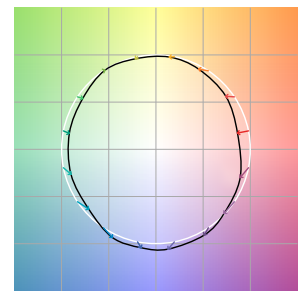
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	80	-12%	0%
2	84	-7%	6%
3	80	-4%	10%
4	89	-1%	5%
5	91	-2%	3%
6	95	0%	-2%
7	91	-6%	-2%
8	89	-7%	1%
9	85	-7%	8%
10	77	-6%	13%
11	79	3%	14%
12	85	5%	5%
13	85	6%	-8%
14	88	4%	-8%
15	77	-2%	-16%
16	78	-7%	-12%



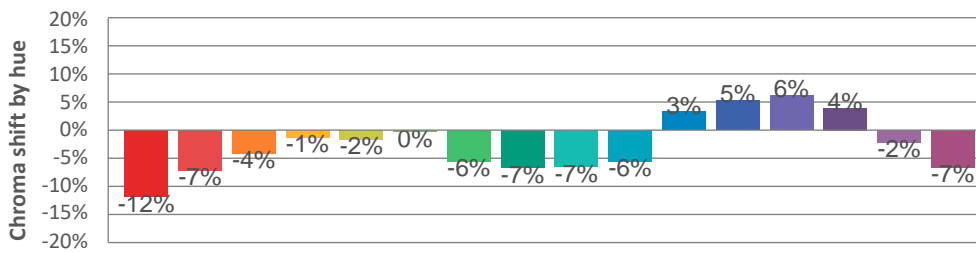
### Hue binH



### Color vector graphics



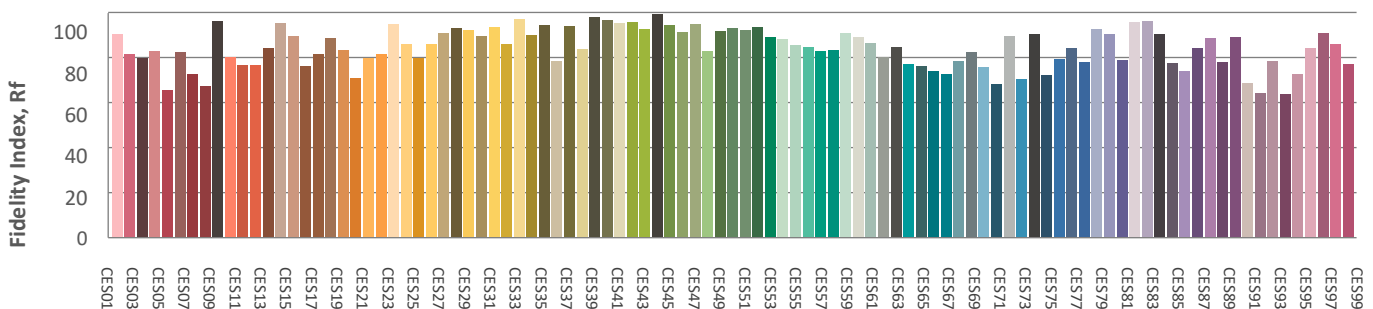
### Hue bin



### 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](http://www.cls-led.com/voorwaarden.pdf)

