

# LM-79

## Test Report

### LM79-REVO-COMPACT-TRACK-amber-DEG30

#### General Discription

Item number	RC-X-X-31-3
Date and time	5-8-2016 12:17:54
CCT (Kelvin)	1825 K
Beam angle	28,9°
Luminous flux	468 lm
Efficiency	44 lm/watt
Weighted energy	10,7 kWh/1000h
Power factor	0,96
CRI (RA)	37,8
Fidelity index Rf	Rf 37,2
Gammut index Rg	Rg 42,4



**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-REVO-COMPACT-TRACK-amber-DEG30

Beam details	1m	2m	3m	4m	5m																			
Lux*	1562 lx	391 lx	174 lx	98 lx	62 lx																			
*measured at center of beam																								
Footcandles*	145,2 fcd	36,3 fcd	16,1 fcd	9,1 fcd	5,8 fcd																			
Beam width (meter)	0,5 m	1 m	1,5 m	2,1 m	2,6 m																			
Beam width (Feet)	1,7 ft	3,4 ft	5,1 ft	6,8 ft	8,4 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					
1562lx	391lx	174lx	98lx	62lx	43lx	32lx	24lx	19lx	16lx	13lx	11lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx					
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					
145,2fcd	36,3fcd	16,1fcd	9,1fcd	5,8fcd	4fcd	3fcd	2,3fcd	1,8fcd	1,5fcd	1,2fcd	1fcd	0,9fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,4fcd					
<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°					
1562	1517	1471	1371	1225	1081	951	822	694	567	443	340	236	171	122	81	62	42	32	24					
100%	97%	94%	88%	78%	69%	61%	53%	44%	36%	28%	22%	15%	11%	8%	5%	4%	3%	2%	2%					
<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°					
1562	1526	1483	1382	1232	1082	939	796	659	523	393	299	206	149	107	72	55	38	30	23					
100%	98%	95%	88%	79%	69%	60%	51%	42%	33%	25%	19%	13%	10%	7%	5%	4%	2%	2%	1%					
<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°					
1562	1517	1471	1371	1225	1081	951	822	694	567	443	340	236	171	122	81	62	42	32	24					
100%	97%	94%	88%	78%	69%	61%	53%	44%	36%	28%	22%	15%	11%	8%	5%	4%	3%	2%	2%					
<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°					
1562	1526	1483	1382	1232	1082	939	796	659	523	393	299	206	149	107	72	55	38	30	23					
100%	98%	95%	88%	79%	69%	60%	51%	42%	33%	25%	19%	13%	10%	7%	5%	4%	2%	2%	1%					
<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>				
28,9°					52,3°					{C_ANG}°					97,7%					95,8%				



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

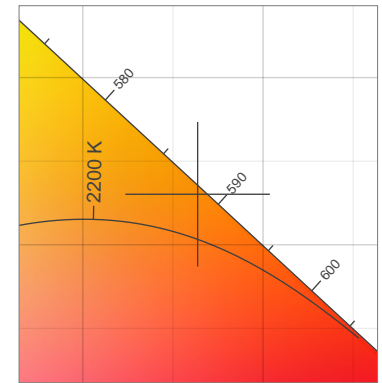
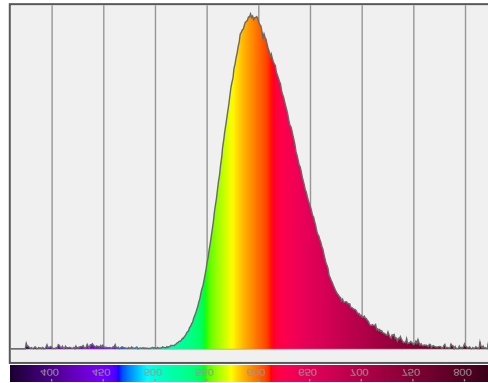
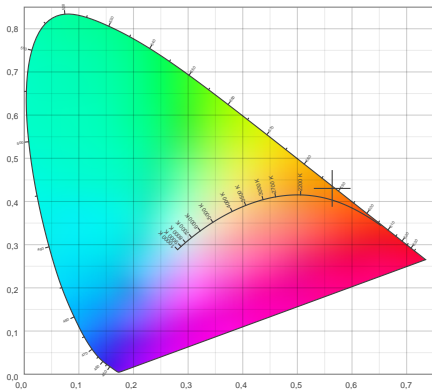
2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information 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-REVO-COMPACT-TRACK-amber-DEG30

### Color details



CIE 1931

x: 0,564



Spectra

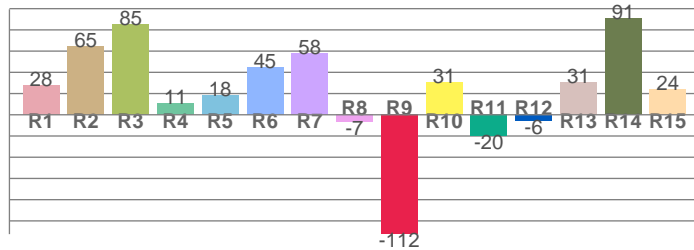
CIE 1931 ZOOM

1825 K

y: 0,430

$\Delta uv$ : 0,0068

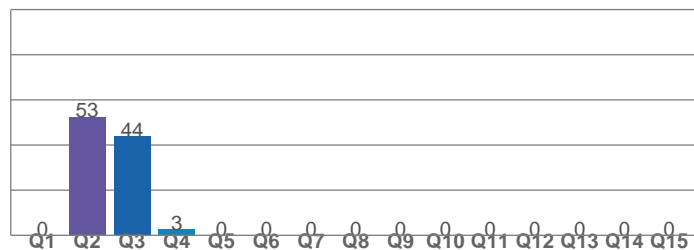
CRI: 37,8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
27,9	64,7	84,9	11,1	18,1	45,1	57,5	-6,8
R9	R10	R11	R12	R13	R14	R15	
-112,5	30,8	-20,1	-5,7	30,9	90,8	24,0	

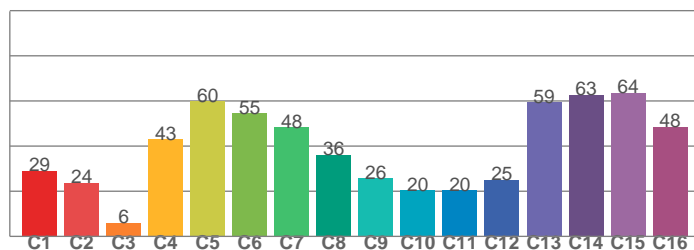
CQS: 0,0



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
0,0	52,5	44,0	2,7	0,1	0,0	0,0	0,0
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
0,0	0,0	0,0	0,0	0,0	0,0	0,0	

TM30: 37,2



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

C1	C2	C3	C4	C5	C6	C7	C8
28,9	23,6	5,9	42,9	59,8	54,5	48,3	36,0
C9	C10	C11	C12	C13	C14	C15	
25,6	20,3	20,4	24,9	59,4	62,7	63,6	

### 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	$\Delta uv$
1825 K	37,8	-112,5	37,2	42,4	0,0	0,564	0,430	0,321	0,367	0,0068



**CLSL 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-REVO-COMPACT-TRACK-amber-DEG30

### TM30 details

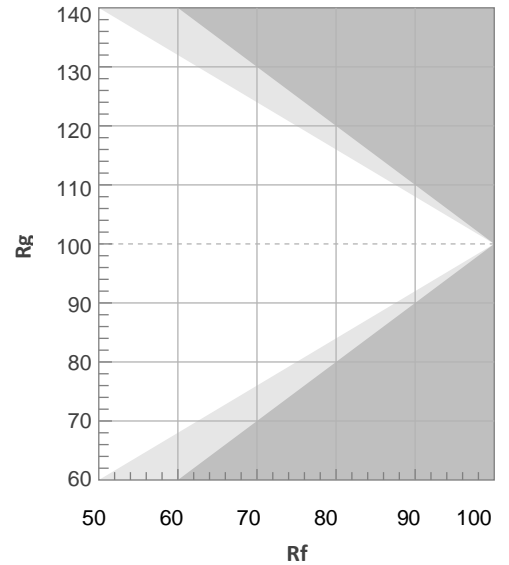
Rf 37,2

#### Fidelity index Rf

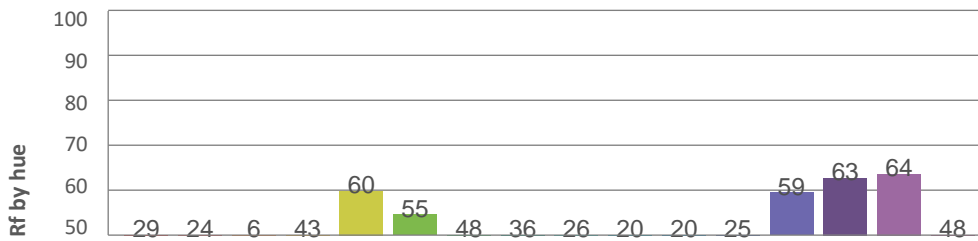
Rg 42,4

#### Gamut index Rg

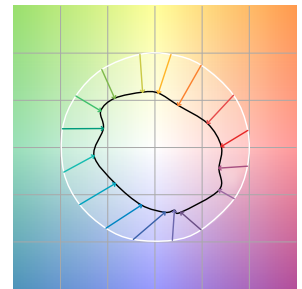
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	29	-31%	-11%
2	24	-40%	-9%
3	6	-49%	-3%
4	43	-43%	5%
5	60	-40%	5%
6	55	-33%	6%
7	48	-31%	-2%
8	36	-42%	-9%
9	26	-35%	-11%
10	20	-44%	2%
11	20	-41%	18%
12	25	-35%	27%
13	59	-31%	8%
14	63	-27%	-7%
15	64	-19%	-1%
16	48	-29%	-8%



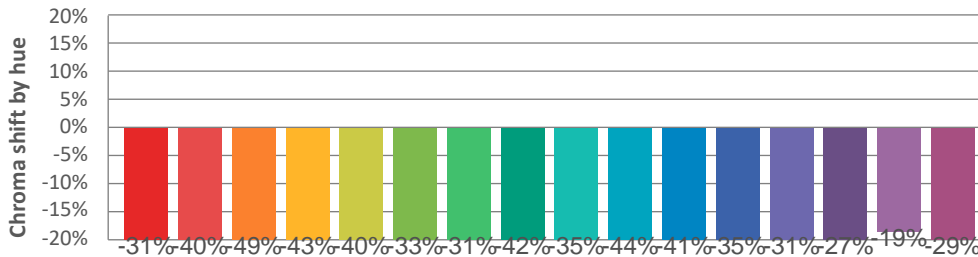
#### Hue binH



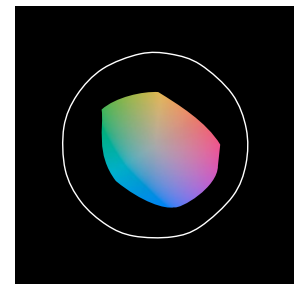
#### Color vector graphics



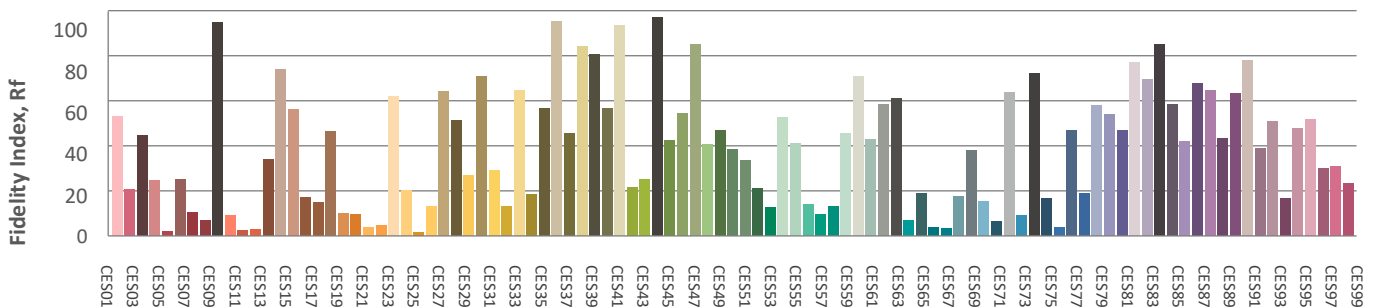
#### Hue bin



#### 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)

### 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					
2H	2H	11,1	11,8	11,4	12,0	12,2	10,9	11,6	11,2	11,8	12,0
	3H	11,5	12,1	11,8	12,4	12,6	11,4	12,0	11,7	12,3	12,5
	4H	11,7	12,2	12,0	12,5	12,8	11,6	12,2	11,9	12,4	12,7
	6H	11,7	12,3	12,1	12,6	12,9	11,7	12,2	12,0	12,5	12,8
	8H	11,8	12,3	12,1	12,6	12,9	11,8	12,3	12,1	12,6	12,9
	12H	11,9	12,3	12,2	12,7	13,0	11,8	12,3	12,2	12,7	13,0
4H	2H	11,3	11,9	11,6	12,1	12,4	11,1	11,7	11,4	12,0	12,2
	3H	11,8	12,3	12,2	12,6	13,0	11,7	12,2	12,1	12,5	12,9
	4H	12,0	12,5	12,4	12,8	13,2	12,0	12,4	12,4	12,8	13,1
	6H	12,2	12,6	12,6	12,9	13,3	12,2	12,5	12,6	12,9	13,3
	8H	12,3	12,6	12,7	13,0	13,4	12,3	12,6	12,7	13,0	13,4
	12H	12,4	12,7	12,9	13,1	13,5	12,5	12,7	12,9	13,2	13,6
8H	4H	12,1	12,4	12,5	12,8	13,2	12,0	12,4	12,5	12,8	13,2
	6H	12,3	12,6	12,8	13,0	13,5	12,3	12,5	12,8	13,0	13,4
	8H	12,5	12,7	13,0	13,1	13,6	12,5	12,7	13,0	13,2	13,6
	12H	12,7	12,9	13,2	13,3	13,8	12,8	12,9	13,3	13,4	13,9
12H	4H	12,1	12,3	12,5	12,8	13,2	12,0	12,3	12,5	12,7	13,2
	6H	12,3	12,5	12,8	13,0	13,5	12,3	12,5	12,8	13,0	13,5
	8H	12,5	12,7	13,0	13,2	13,7	12,5	12,7	13,0	13,2	13,7
Variation of the observer position for the luminaire distance S											
S = 1,0H	+2,3 / -1,3					+2,0 / -1,0					
S = 1,5H	+4,3 / -1,6					+3,8 / -1,5					
S = 2,0H	+6,0 / -2,4					+5,5 / -2,2					
Standard table	BK02					BK03					
Correction summand	-5,5					-5,2					
Corrected glare indices referring to 468lm total luminous flux											

