

## Spectroradiometer Lightsource Test

**Report No:** 1096**Test Time:** 2025-10-29 14:46:36

Category: Indoor

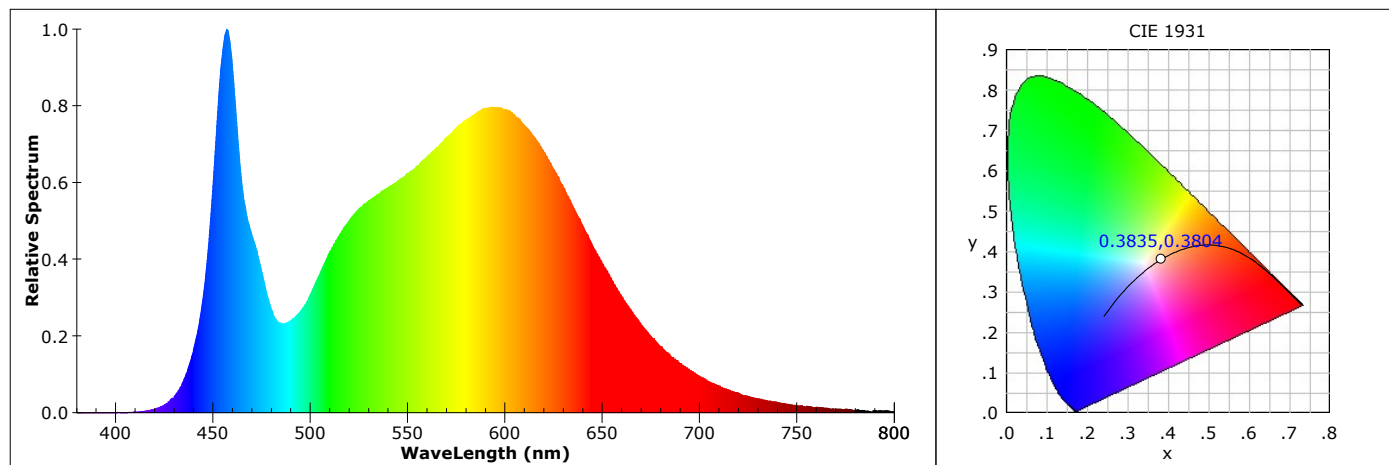
Type: LED

Spec: Eridan ALU60W240-230 Polycarbonate

Number: 1096

Manufacturer: Industrial Lighting Ltd

Submitter:



### CIE Colorimetric Parameters

CIE(x,y): 0.3835,0.3804

CIE(u,v): 0.2257,0.3358

CIE(u',v'): 0.2257,0.5037

CCT: 3944 K (Duv=0.000819)

Dominant Wavelength: 578.8 nm

Color Purity: 0.293

Peak Wavelength: 457.1 nm

Half Width: 19.3 nm

Color Ratio: R:0.184, G:0.778, B:0.038

Color Render Index: Ra:82.1, avgR(1~14):75.1, avgR(1~15):75.1

R1: 81

R2: 91

R3: 96

R4: 78

R5: 80

R6: 86

R7: 84

R8: 62

R9: 5

R10: 77

R11: 76

R12: 55

R13: 84

R14: 98

R15: 75

Color Quality Scale: Qa:80.9, Qf:81.4, Qp:79.7, Qg:90.1,

Q1: 79

Q2: 96

Q3: 80

Q4: 72

Q5: 76

Q6: 78

Q7: 83

Q8: 88

Q9: 97

Q10: 90

Q11: 86

Q12: 84

Q13: 83

Q14: 72

Q15: 75

TM-30-18: Rf:81, Rg:92

Gamut Area Index (GAI): GAI\_EES:69.2, GAI\_BB\_8:88.8, GAI\_BB\_15:98.0

### Photometric Parameters

Luminous Flux: 8187.43 lm

Radiant Power: 24.504 W

Efficiency: 168.33 lm/W

Energy Efficiency Class:C (EU 2019/2015  $\eta_{TM}$ :168.33lm/W)

S/P: 1.687

Pupil Flux: 12313.27 Plm (Kp=1.504)

Pupil Lumens per Watt: 253.15 Plm/W

Cirtopic Flux: 26855.47 lm

Mesopic Flux (CIE R.): 9330.28 lm (Lp=0.300)

Mesopic Flux (USP): 9457.03 lm (Lp=0.300)

Mesopic Flux (MOVE): 9597.88 lm (Lp=0.300)

### Electric Parameters

Voltage: 230.200 V

Current: 0.2180 A

Power: 48.640 W

Power Factor: 0.9650

Frequency: 49.99 Hz

Geometry: 4n, m

Self-absorption Factor: 1.372

Photometric Method: sphere-spectroradiometer

Warmup Time: 30 Minutes 43 Seconds

Integration Time: 42 ms

Peak of Signal: 46120

Spectroradiometer: LMS-9000A

Digital Power Meter: LS2010

Power Source: LSP Series

Test Lab: Lighting Lab TU-Gabrovo

Testing Environment: Ts:22.8°C, Ta:23.9°C,45%

Operator: Ivaylo Stoyanov

Approver:



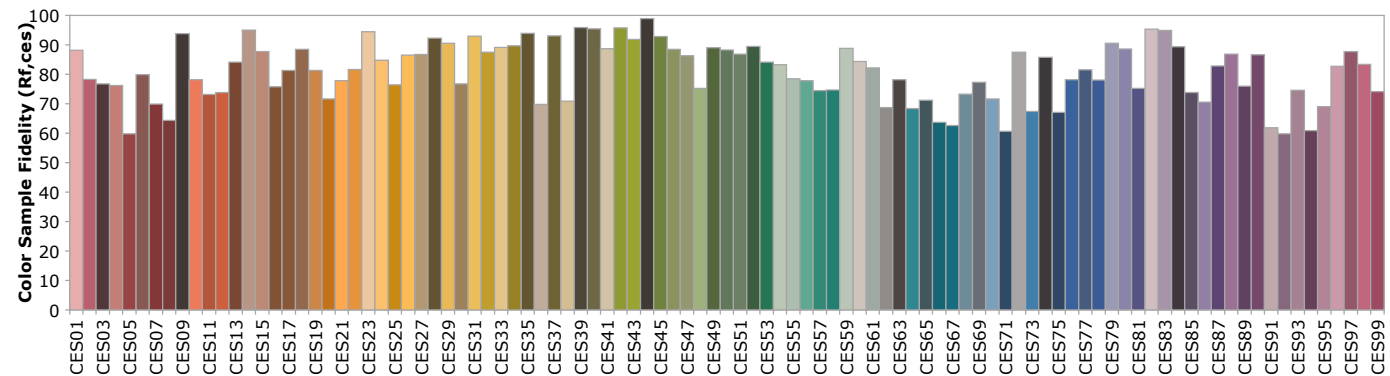
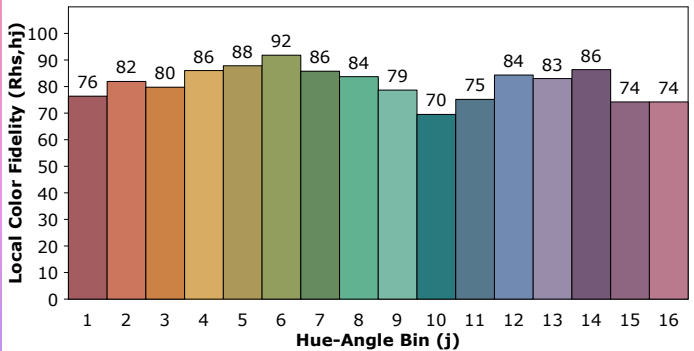
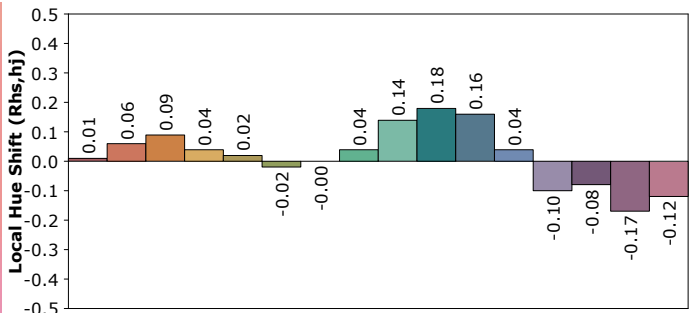
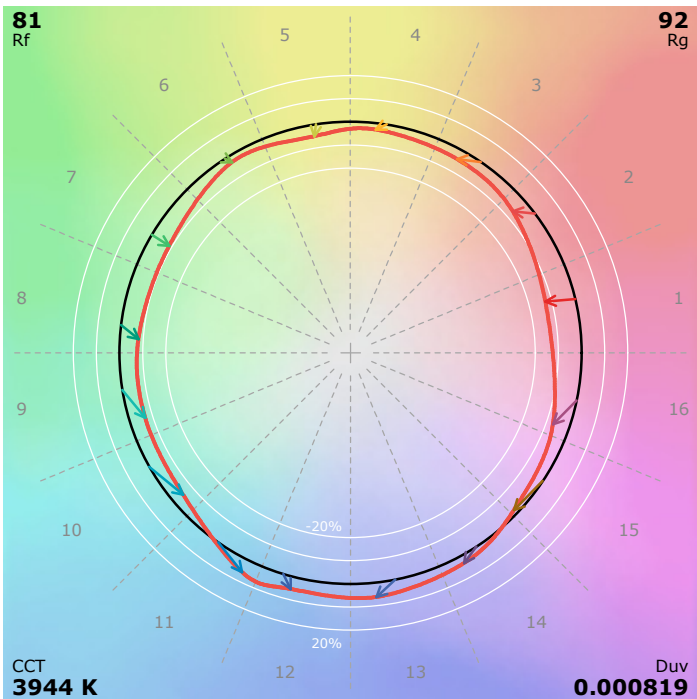
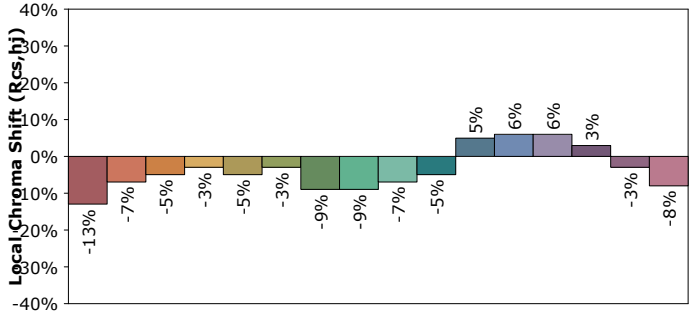
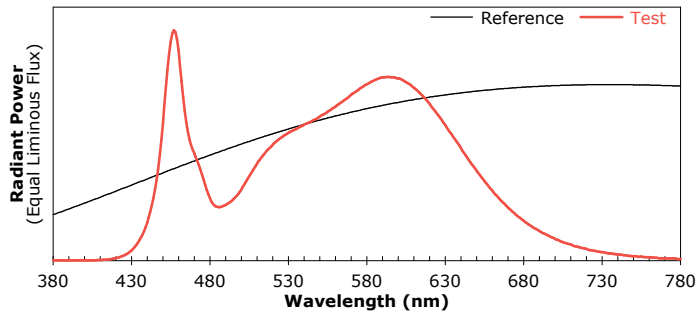
## IES TM-30-18 Color Rendition Report

**Report No:** 1096

**Test Time:** 2025-10-29 14:46:36

Category: Indoor  
Spec: Eridan ALU60W240-230 Polycarbonate  
Manufacturer: Industrial Lighting Ltd

Type: LED  
Number: 1096  
Submitter:



**Notes:** This is a recommended method for displaying IES TM-30-18 information.

x **0.3835**  
y **0.3804**  
u' **0.2257**  
v' **0.5037**

CIE13.3-1995  
(CRI)  
Ra **82**  
R9 **5**

Test Lab: Lighting Lab TU-Gabrovo  
Operator: Ivaylo Stoyanov

Testing Environment: Ts:22.8°C, Ta:23.9°C,45%  
Approver:



## Spectral Power Distribution Data

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Submitter:

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0001	0.0098	525	0.5608	96.5653	670	0.2430	41.8334
385	0.0002	0.0349	530	0.5839	100.5401	675	0.2108	36.2919
390	0.0000	0.0032	535	0.6019	103.6430	680	0.1822	31.3663
395	0.0006	0.1035	540	0.6213	106.9794	685	0.1568	26.9967
400	0.0006	0.1099	545	0.6386	109.9481	690	0.1349	23.2313
405	0.0008	0.1404	550	0.6591	113.4913	695	0.1161	19.9963
410	0.0021	0.3651	555	0.6802	117.1120	700	0.0991	17.0653
415	0.0049	0.8486	560	0.7047	121.3426	705	0.0839	14.4422
420	0.0106	1.8311	565	0.7303	125.7444	710	0.0734	12.6298
425	0.0224	3.8570	570	0.7583	130.5739	715	0.0618	10.6338
430	0.0457	7.8616	575	0.7831	134.8420	720	0.0536	9.2245
435	0.0909	15.6484	580	0.8071	138.9683	725	0.0444	7.6451
440	0.1734	29.8582	585	0.8250	142.0549	730	0.0383	6.5967
445	0.3227	55.5619	590	0.8375	144.2032	735	0.0319	5.4896
450	0.6257	107.7395	595	0.8394	144.5227	740	0.0275	4.7294
455	1.0000	172.1821	600	0.8333	143.4720	745	0.0236	4.0643
460	0.9602	165.3335	605	0.8176	140.7697	750	0.0193	3.3246
465	0.6311	108.6585	610	0.7913	136.2392	755	0.0185	3.1835
470	0.4902	84.4106	615	0.7585	130.6007	760	0.0153	2.6414
475	0.3929	67.6473	620	0.7178	123.5904	765	0.0131	2.2630
480	0.2848	49.0397	625	0.6708	115.4968	770	0.0098	1.6877
485	0.2450	42.1825	630	0.6207	106.8788	775	0.0099	1.6992
490	0.2550	43.8985	635	0.5680	97.8047	780	0.0071	1.2172
495	0.2802	48.2533	640	0.5150	88.6750	785	0.0053	0.9054
500	0.3247	55.9128	645	0.4612	79.4154	790	0.0053	0.9165
505	0.3849	66.2789	650	0.4116	70.8736	795	0.0059	1.0109
510	0.4430	76.2729	655	0.3639	62.6602	800	0.0011	0.1928
515	0.4903	84.4156	660	0.3200	55.0966			
520	0.5293	91.1330	665	0.2796	48.1392			



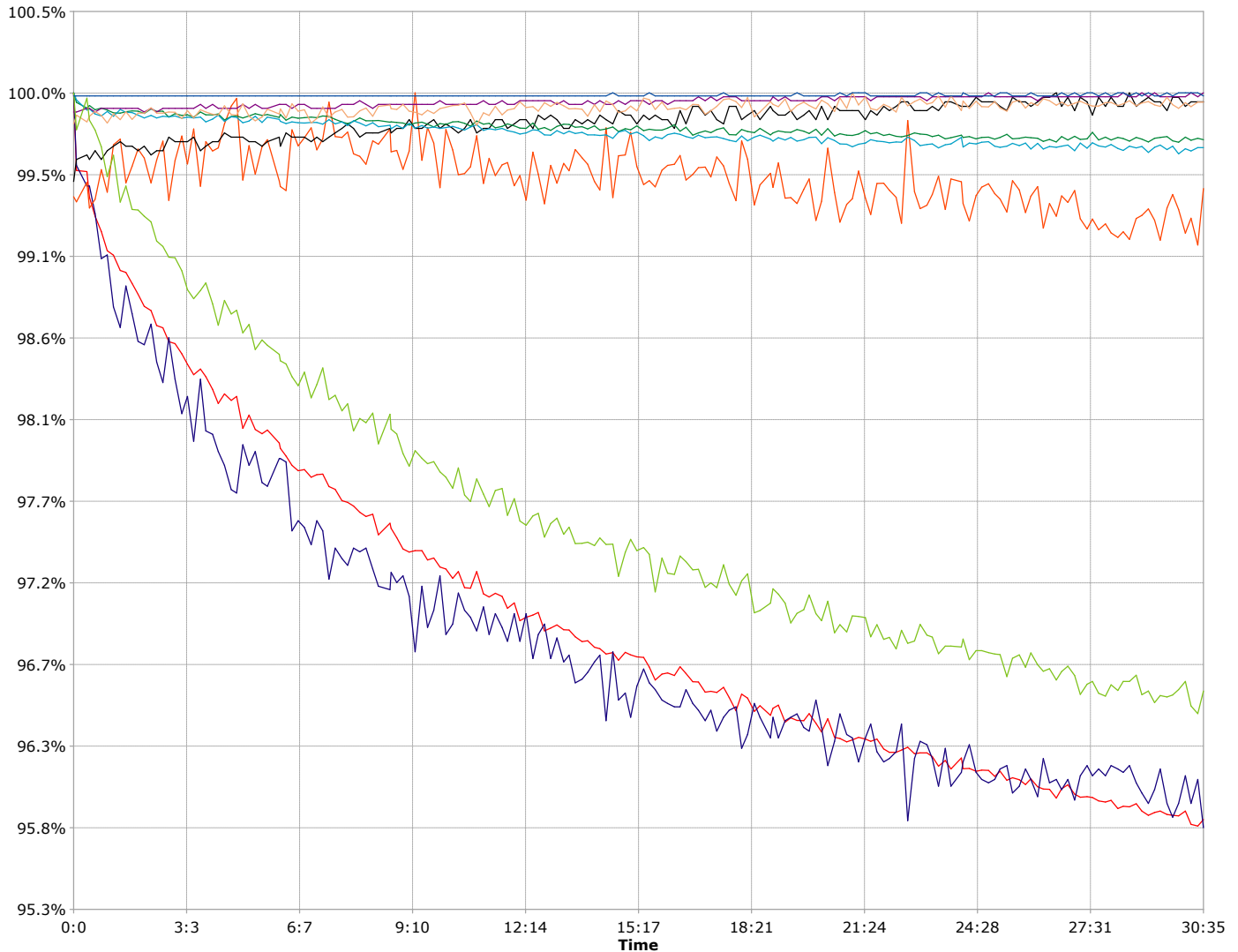
## Warmup Curve

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Stable time: 30:35

Uptime: 0:0

Parameters	Maximum	Minimum	Change
Luminous Flux ,lm	8543.17	8184.96	358.21
Power ,W	50.700	48.570	2.130
Efficiency ,lm/W	169.51	168.03	1.48
CCT ,K	3945	3925	20
CIE x	0.3846	0.3835	0.0011
CIE y	0.3817	0.3804	0.0013
Peak Wavelength ,nm	457.2	456.7	0.5
Ra	82.2	82.0	0.2
Radiant Power ,W	25.385	24.484	0.901
Dominant Wavelength ,nm	578.9	578.8	0.1

Test Lab: Lighting Lab TU-Gabrovo  
Operator: Ivaylo Stoyanov

Testing Environment: Ts:22.8°C, Ta:23.9°C,45%  
Approver: