

Report No.:

Test Time: 27.01.2022 16:36

## Luminaire Property

Luminaire Manufacturer: FAROS LED

Luminaire Category: FD 111 220W 5000K PI90

Luminous Length (mm): 400

Luminous Width (mm): 400

Luminous Height (mm): 215

Voltage: 220.9 V

Current: 1.015 A

Power: 220.90 W

Power Factor: 0.984

## Photometric Results

CIE Class: Direct

Measurement Flux: 27087.5 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 27087.5 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 130.2, 128.8, 132.2, 130.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 80.2, 80.7, 81.5, 80.5

Luminaire Efficacy Rating (LER): 122.67

Central Intensity: 12961.99 cd

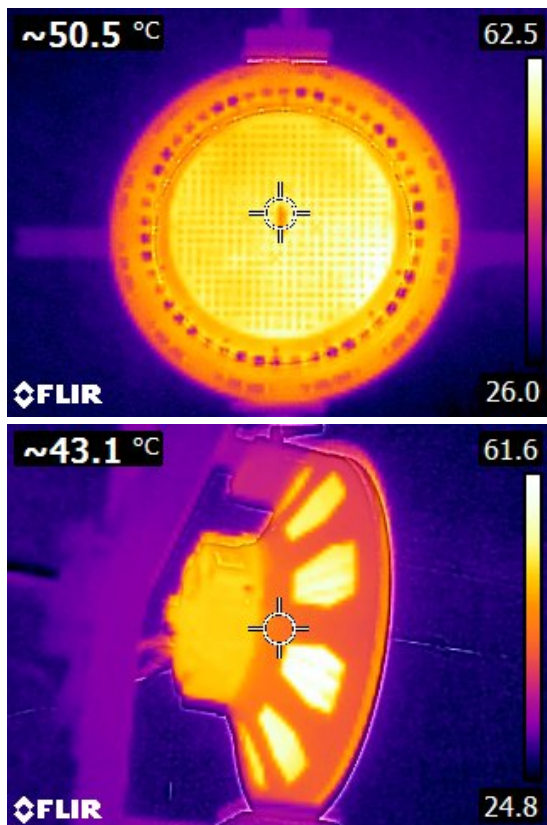
Max. Intensity: 15012.21 cd

Pos of Max. Intensity: H90 V22

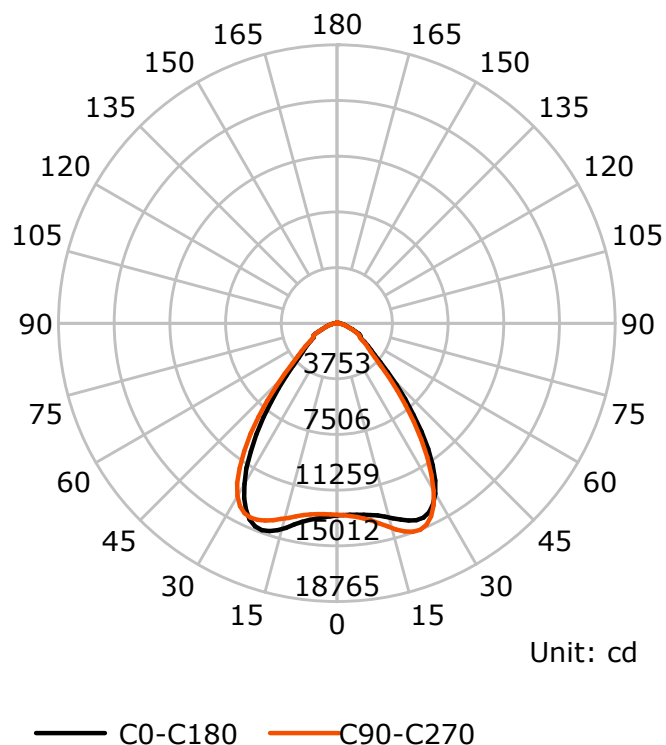
S/MH(C0/C180): 1.33

S/MH(C90/C270): 1.35

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab: FAROS LED Lab

Test Type: TYPE C

Temperature:

Operator: Lab

Gamma Plane (°):0.0-180.0:2.0

Test Device: LSG-1800B

Distance: 12.735 m

Humidity:

Inspector:

## Lightsource Test Report

### Product Information

Product Type: FD 111 220W 5000K PI90

Manufacturer: FAROS LED

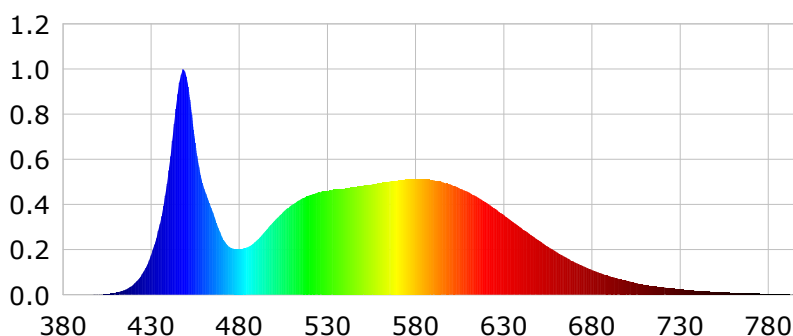
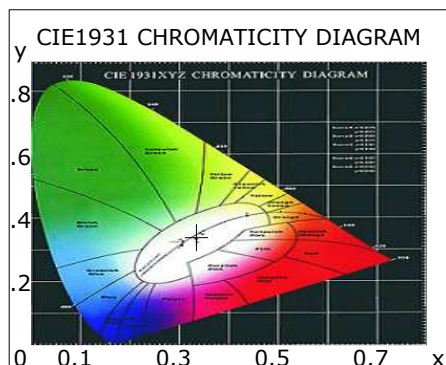
### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.3345$   $y=0.3416$   $u(u')=0.2080$   $v=0.3188$   $v'=0.4781$   
 CCT:  $T_c=5412K$  ( $duv=-0.00060$ ) Color Ratio:  $R=0.153$   $G=0.801$   $B=0.046$   
 Peak Wavelength: 448.2nm Half Bandwidth: 19.8nm  
 Dominant Wavelength: 560.0nm Color Purity: 0.029  
 CRI:  $R_a=83.9$ ,  $avgR(1\sim14)=77.5$ ,  $avgR(1\sim15)=77.6$  TM30:  $R_f=83$ ,  $R_g=98$   
 GAI:  $GAI\_BB\_8=96.8$ ,  $GAI\_BB\_15=100.8$ ,  $GAI\_EES=88.4$   

R1 =83	R2 =87	R3 =90	R4 =85	R5 =84	R6 =83	R7 =87	R8 =71
R9 =16	R10=70	R11=86	R12=65	R13=84	R14=94	R15=79	

Color Quality Scale:  $Q_a=81.7$ ,  $Q_f=81.1$ ,  $Q_p=83.6$ ,  $Q_g=95.1$   

Q1 =85	Q2 =96	Q3 =75	Q4 =74	Q5 =82	Q6 =85	Q7 =87	Q8 =91
Q9 =95	Q10=84	Q11=80	Q12=80	Q13=81	Q14=73	Q15=78	



### Photometric Parameters

Luminous Flux:  
EEI: 0.00

Efficiency: 0.00 lm/W

Radiant Power: 76.095 W

Energy Efficiency Class: A++ (EU 874-2012)

### Electric Parameters

Voltage: 0.0000V  
Power Factor: 0.0000

Current: 0.0000A  
Frequency: 0.00Hz

Power: 0.00W

### Test Information

Scan Range: 380~800:1nm  
 Stabilization Time: 0 ms ALC.: 1.0000  
 Max of Signal: 55420 (2855)

Photometric Method: sphere-spectroradiometer  
 Photometric Condition: Sphere diameter: 1.00m, 4PI  
 CCD Integration Time: 23.81 ms

## Lightsource Test Report

### Product Information

Product Type: FD 111 220W 5000K PI90

Manufacturer: FAROS LED

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0005	0.3401	525	0.4539	328.5651	670	0.1456	105.3754
385	0.0007	0.4802	530	0.4609	333.6164	675	0.1264	91.4822
390	0.0007	0.4828	535	0.4672	338.1631	680	0.1104	79.9327
395	0.0011	0.7779	540	0.4719	341.5419	685	0.0959	69.3848
400	0.0023	1.6350	545	0.4768	345.1018	690	0.0831	60.1860
405	0.0048	3.4759	550	0.4826	349.3412	695	0.0709	51.3391
410	0.0101	7.3170	555	0.4893	354.1462	700	0.0621	44.9186
415	0.0219	15.8806	560	0.4954	358.5985	705	0.0525	37.9936
420	0.0455	32.9660	565	0.5019	363.3105	710	0.0449	32.5165
425	0.0926	67.0244	570	0.5071	367.0808	715	0.0389	28.1473
430	0.1761	127.4998	575	0.5114	370.1324	720	0.0332	24.0570
435	0.3163	228.9357	580	0.5130	371.3238	725	0.0285	20.6501
440	0.5528	400.1186	585	0.5128	371.1738	730	0.0246	17.7954
445	0.8894	643.7660	590	0.5082	367.8233	735	0.0199	14.4056
450	0.9669	699.8891	595	0.5000	361.9506	740	0.0177	12.8037
455	0.6739	487.8227	600	0.4885	353.5592	745	0.0152	10.9799
460	0.4720	341.6285	605	0.4719	341.5856	750	0.0126	9.1321
465	0.3654	264.4955	610	0.4546	329.0321	755	0.0109	7.9164
470	0.2601	188.2388	615	0.4333	313.6013	760	0.0093	6.7113
475	0.2098	151.8747	620	0.4091	296.1049	765	0.0078	5.6333
480	0.2025	146.5542	625	0.3818	276.3743	770	0.0068	4.8885
485	0.2122	153.6304	630	0.3535	255.8625	775	0.0062	4.4828
490	0.2422	175.2950	635	0.3247	235.0135	780	0.0053	3.8617
495	0.2838	205.4188	640	0.2958	214.0744	785	0.0037	2.6698
500	0.3278	237.2489	645	0.2677	193.7539	790	0.0034	2.4422
505	0.3681	266.4527	650	0.2404	173.9810	795	0.0030	2.1404
510	0.3988	288.6285	655	0.2136	154.6078	800	0.0028	2.0008
515	0.4241	306.9567	660	0.1891	136.8857			
520	0.4421	320.0049	665	0.1660	120.1663			

Condition: Tx:22.2'C, Ti:0.0'C, R.H.:60%  
Test Lab: FAROS LED Lab  
Operator: Lab

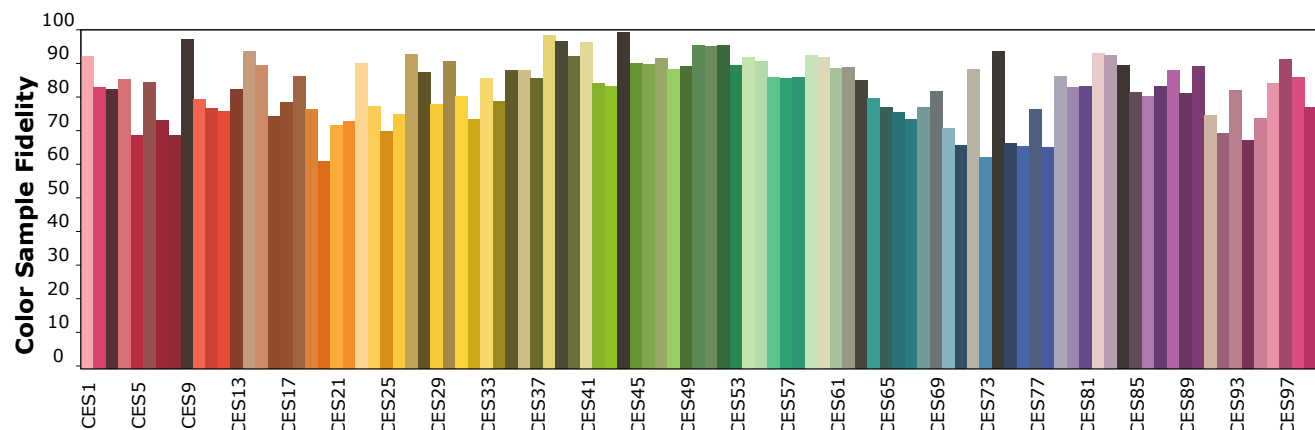
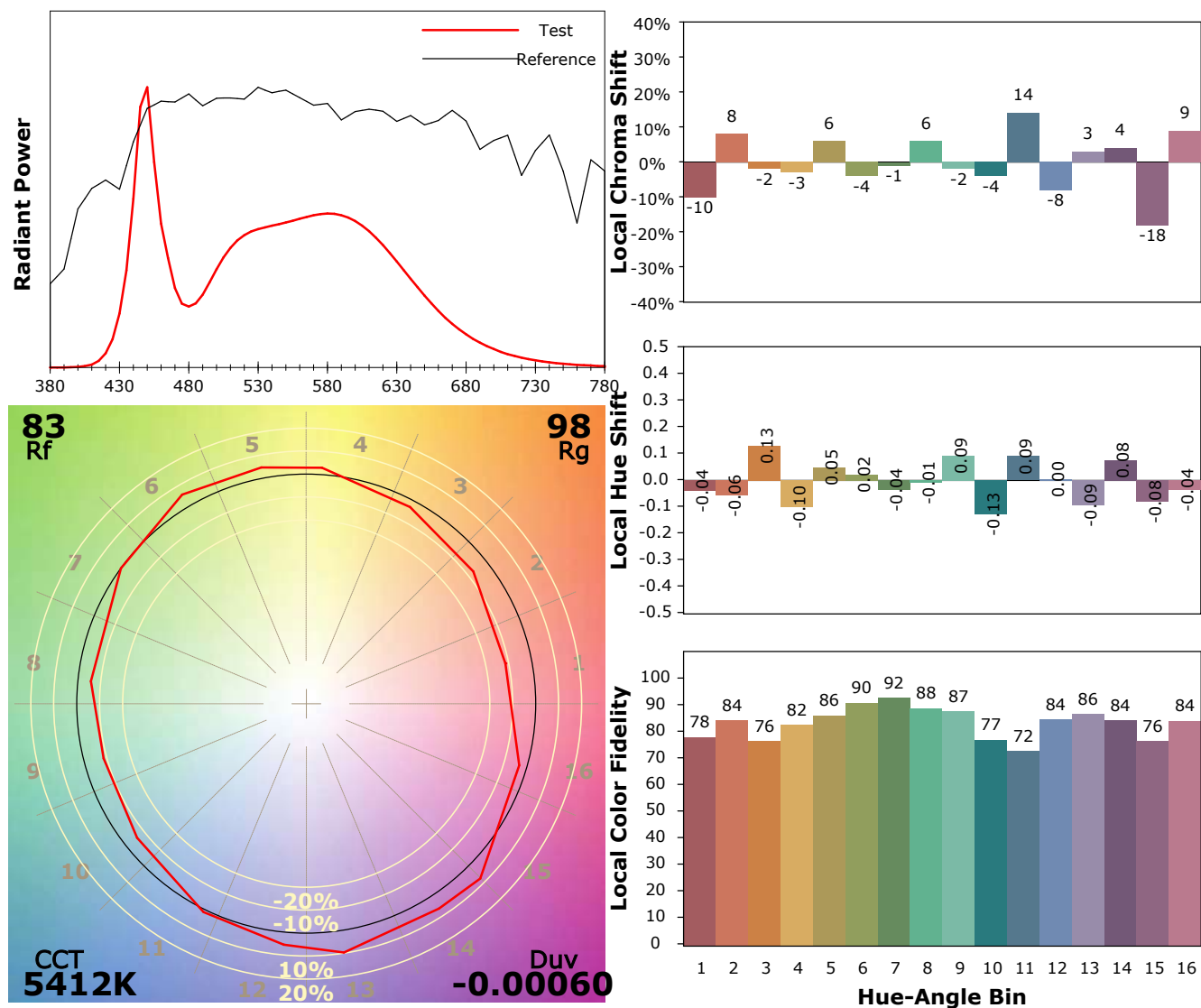
Test Device: Lisun LMS-9000A(Plus)  
Test Time: 2022-01-27 17:02:33  
Inspector:

## IES TM-30-18 Color Rendition Report

### Product Information

Product Type: FD 111 220W 5000K PI90

Manufacturer: FAROS LED



Condition: Tx:22.2°C, Ti:0.0°C, R.H.:60%

Test Lab: FAROS LED Lab

Operator: Lab

Test Device: Lisun LMS-9000A(Plus)

Test Time: 2022-01-27 17:02:33

Inspector: