



Spectroradiometer Lightsource Test

Report No: 10**Test Time:** 2024-05-29 13:00:01

Category: Industrial

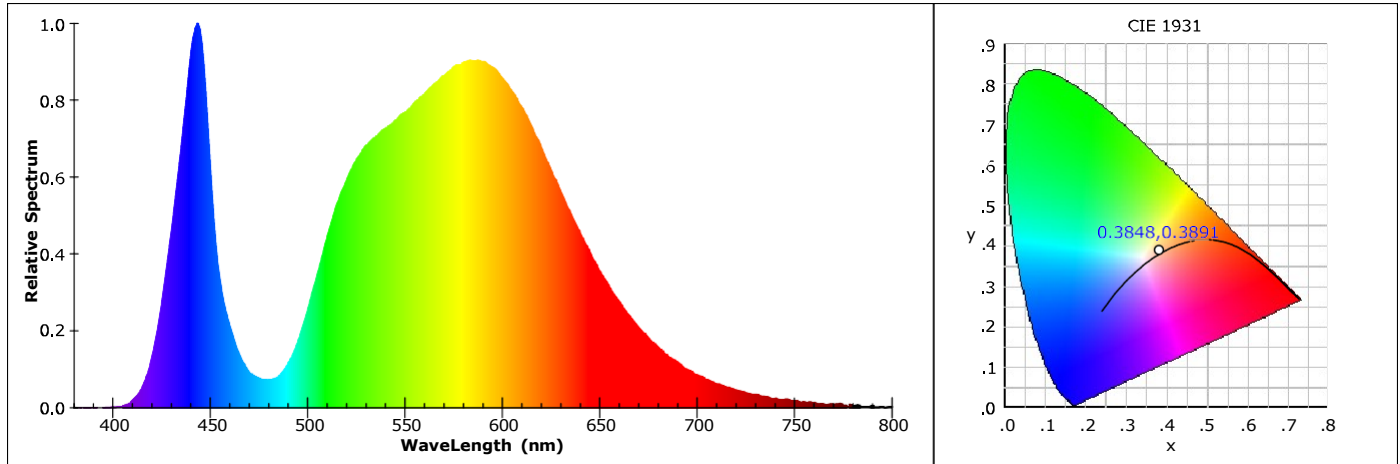
Type: Hydra Alphard 600W 272 -230

Spec: 604W

Number: 10

Manufacturer: Industrial Lighting Ltd.

Submitter:



CIE Colorimetric Parameters

CIE(x,y): 0.3848,0.3891

CIE(u,v): 0.2231,0.3384

CIE(u',v'): 0.2231,0.5076

CCT: 3974 K (Duv=0.004423)

Dominant Wavelength: 577.1 nm

Color Purity: 0.323

Peak Wavelength: 443.3 nm

Half Width: 21.1 nm

Color Ratio: R:0.165, G:0.817, B:0.018

Color Render Index: Ra:69.8 , avgR(1~14):59.4 , avgR(1~15):59.4

R1: 67

R2: 75

R3: 82

R4: 71

R5: 67

R6: 66

R7: 78

R8: 51

R9: -37

R10: 42

R11: 69

R12: 42

R13: 68

R14: 90

R15: 59

Color Quality Scale: Qa:72.3 , Qf:72.0 , Qp:73.9 , Qg:90.4 ,

Q1: 71

Q2: 95

Q3: 69

Q4: 67

Q5: 71

Q6: 70

Q7: 73

Q8: 83

Q9: 93

Q10: 77

Q11: 74

Q12: 74

Q13: 75

Q14: 58

Q15: 63

Photometric Parameters

Luminous Flux: 100188.70 lm

Radiant Power: 282.884 W

Efficiency: 165.88 lm/W

Energy Efficiency Class:G (EU 2019/2015 η_{TM} :165.88lm/W)

S/P: 1.455

Pupil Flux: 134252.72 Plm (Kp=1.340)

Pupil Lumens per Watt: 0.00 Plm/W

Cirtopic Flux: 256912.55 lm

Mesopic Flux (CIE R.): 109631.41 lm (Lp=0.300)

Mesopic Flux (USP): 111227.43 lm (Lp=0.300)

Mesopic Flux (MOVE): 111845.05 lm (Lp=0.300)

Electric Parameters

Voltage: 230.500 V

Current: 2.7711 A

Power: 604.00 W

Power Factor: 0.9560

Frequency: 49.99 Hz

Geometry: 4n, m

Self-absorption Factor: 1.445

Photometric Method: sphere-spectroradiometer

Warmup Time: 29 Minutes 30 Seconds

Integration Time: 5 ms

Peak of Signal: 54926

Spectroradiometer: LMS-9000A

Digital Power Meter: LS2010

Power Source: LSP Series

Test Lab:

Testing Environment: Ts:25.6°C, Ta:23.9°C,

Operator:

Approver:



IES TM-30-18 Color Rendition Report

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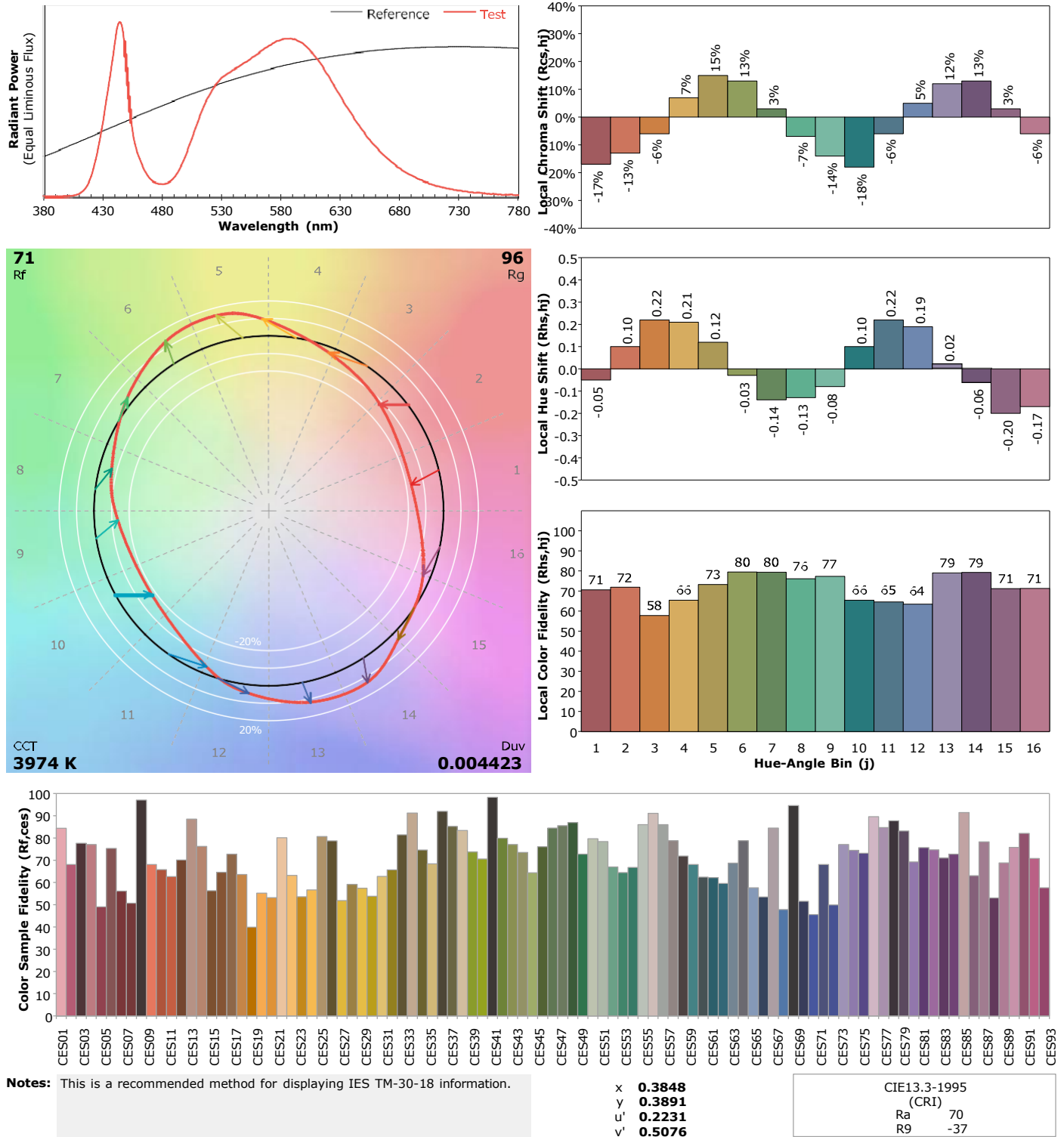
Type: Hydra Alphard 500W 272 -230

Spec: 604W

Number: 10

Manufacturer: Industrial Lighting Ltd.

Submitter:



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Spectral Power Distribution Data

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0018	3.4539	525	0.6616	1268.2324	670	0.2150	412.1218
385	0.0009	1.6591	530	0.6991	1340.1865	675	0.1873	358.9698
390	0.0009	1.8064	535	0.7230	1385.9863	680	0.1625	311.5613
395	0.0014	2.6305	540	0.7454	1428.8702	685	0.1390	266.4295
400	0.0029	5.5167	545	0.7664	1469.1185	690	0.1197	229.4571
405	0.0065	12.4459	550	0.7877	1509.9559	695	0.1015	194.6569
410	0.0205	39.3615	555	0.8156	1563.3597	700	0.0873	167.3067
415	0.0557	106.7487	560	0.8367	1603.9266	705	0.0755	144.7941
420	0.1386	265.6557	565	0.8637	1655.6501	710	0.0639	122.4697
425	0.2801	536.9348	570	0.8837	1693.9077	715	0.0554	106.1297
430	0.4760	912.3478	575	0.9085	1741.4097	720	0.0471	90.2565
435	0.6980	1338.0269	580	0.9209	1765.3213	725	0.0396	75.9359
440	0.9457	1812.8209	585	0.9233	1769.8727	730	0.0366	70.1974
445	1.0000	1916.8801	590	0.9217	1766.6941	735	0.0305	58.4467
450	0.6594	1263.9061	595	0.9056	1735.8395	740	0.0259	49.6104
455	0.3423	656.1310	600	0.8783	1683.5249	745	0.0237	45.4212
460	0.2206	422.7994	605	0.8419	1613.9170	750	0.0192	36.8765
465	0.1438	275.7037	610	0.8005	1534.5247	755	0.0154	29.5267
470	0.0953	182.6929	615	0.7497	1436.9976	760	0.0148	28.3203
475	0.0787	150.8568	620	0.6939	1330.0685	765	0.0097	18.6267
480	0.0752	144.1220	625	0.6349	1216.9497	770	0.0098	18.8342
485	0.0858	164.5040	630	0.5759	1103.9443	775	0.0074	14.2668
490	0.1207	231.3973	635	0.5203	997.3830	780	0.0066	12.6938
495	0.1808	346.5563	640	0.4649	891.0706	785	0.0052	9.8973
500	0.2634	504.9539	645	0.4150	795.5297	790	0.0062	11.8959
505	0.3596	689.2784	650	0.3652	700.1086	795	0.0050	9.5544
510	0.4580	877.8464	655	0.3210	615.2523	800	0.0043	8.1996
515	0.5429	1040.6594	660	0.2837	543.7434			
520	0.6089	1167.1268	665	0.2468	473.1245			

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Warmup Curve

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