Certificate#4810.01

LM-79-19 Test Report

For

RAB LIGHTING INC

(Brand Name: RAB)

408 W 14th St,New York,NY,US,10014

Omnidirectional/Directional Medium Screw-Base

Replacement for HID Lamps

Model name(s): HIDFA-50S-E26-8CCT-BYP

Representative (Tested) Model:
HIDFA-50S-E26-8CCT-BYP(Setting at 3000K 50W)
HIDFA-50S-E26-8CCT-BYP(Setting at 4000K 50W)
HIDFA-50S-E26-8CCT-BYP(Setting at 5000K 50W)
HIDFA-50S-E26-8CCT-BYP(Setting at 3000K 38W)
HIDFA-50S-E26-8CCT-BYP(Setting at 4000K 38W)
HIDFA-50S-E26-8CCT-BYP(Setting at 5000K 38W)
HIDFA-50S-E26-8CCT-BYP(Setting at 3000K 25W)
HIDFA-50S-E26-8CCT-BYP(Setting at 4000K 25W)
HIDFA-50S-E26-8CCT-BYP(Setting at 5000K 25W)

Model Different: All construction and rating are the same, except CCT

Test & Report By:

Winny Wu

Engineer: Winny Wu

Date: 2026-03-16

Review By:

Jason Luo

Manager: Jason Luo

1.1 Product Information:

Organization Name	RAB LIGHTING INC	
Brand Name	RAB	
Model Number	HIDFA-50S-E26-8CCT-BYP	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Omnidirectional/Directional Medium Screw-Base Replacement for HID Lamps	
Rated Voltage / Frequency	120-277Vac, 50/60 Hz	
Nominal Power	50/38/25W	
Rated Initial Lamp Lumen	--	
Declared CCT	3000K,4000K, 5000K (Color tunable)	
LED Manufacturer	Lumileds Holding B.V.	
LED Model	L128-3080RC35003P1 L128-5080RC35003P1	
Sample Number	UTU2603010E-D 1	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s
Photo		

1.2 Test Specifications:

Date of Receipt	2026-03-11
Date of Test	2026-03-13
Test item	1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Electrical Parameters
Reference Standard	1. IES LM-79-2019 Electrical and Photometric Measurements of Solid-State Lighting Products 2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products 3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 4. CIE 15-2004 Technical Report Colorimetry 5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source 6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	BL-QP-033

1.3 Test Methods

1) Photometric and Light Distribution Measurement – Goniophotometer Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at 25° C ± 1° C, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1° vertical intervals and 22.5° horizontal intervals.
Goniophotometer far field detector f1'=1.42%, Test distance: 14.14m

2) Chromaticity Measurement – Sphere-Spectroradiometer Method:

Chromaticity parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25º C ± 1º C. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral power distribution taken at 5 nm intervals over the range of 380 to 780 nm.Use 2m diameter integrated sphere (94-98% coating reflectance) and 4π geometry.
Self-absorption:
HIDFA-50S-E26-8CCT-BYP:1.112

3) Electrical Measurements:

Electrical parameters were measured using power meters incorporated in goniophotometer or sphere-spectroradiometer system. The ambient temperature surrounding the sample was maintained at 25º C ± 1º C. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Voltage, frequency, current, power, power factor and total harmonic distortion were measured by and read from the power meter.

2.1 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 3000K 50W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301 0E-D 1	120.0	60	0.412	49.07	0.993	8.78
	277.0	60	0.194	49.83	0.928	9.24
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

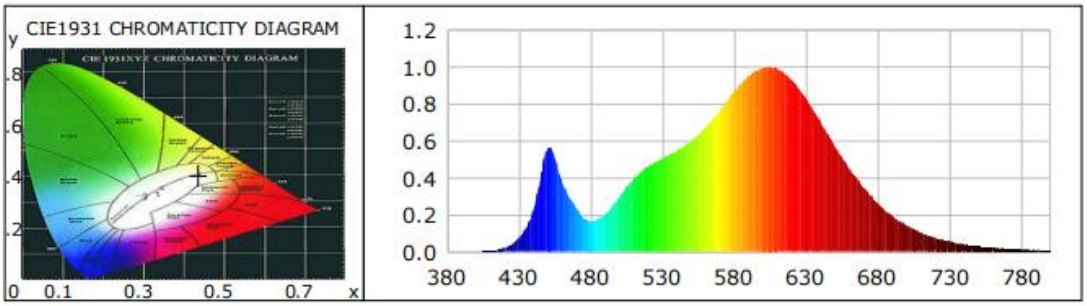
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	2994
Duv	-0.0009
Chromaticity (x, y)	x=0.436 y=0.4014
Chromaticity (u', v')	u'=0.2511 v'=0.5202
Color Rendering Index CRI(Ra)	82
R9	5
Rf	84
Rg	97
Rcs,h1(%)	-12

Special Color Rendering Indices			
R1	81	R9	5
R2	91	R10	78
R3	96	R11	80
R4	80	R12	69
R5	81	R13	83
R6	88	R14	99
R7	82	R15	73
R8	58	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	7213.4	7271.6	>=2000(-10%)
Luminous Efficacy (lm/W)	147.0	145.9	Standard>=130(-3%)
Most worst Luminous/Highest	144.76		
Beam Angle	282.1	--	>=75°
Center Beam Candle Power (cd)	302	--	--

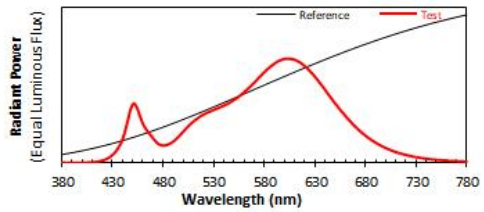
Spectral Power Distribution & Chromaticity Diagram

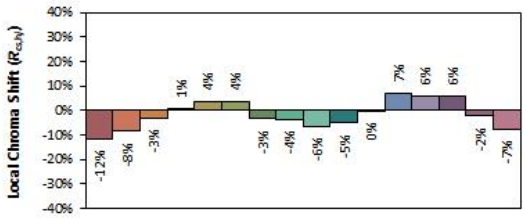


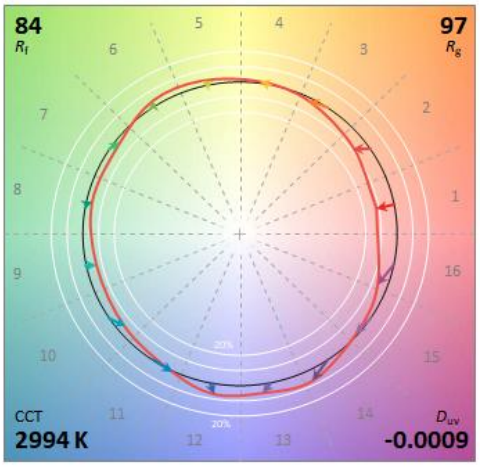
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0001	0.0102	535	0.4866	71.5150	690	0.3459	50.8247
385	0.0007	0.0980	540	0.5060	74.3544	695	0.3014	44.2862
390	0.0003	0.0485	545	0.5265	77.3764	700	0.2605	38.2794
395	0.0006	0.0868	550	0.5484	80.5834	705	0.2248	33.0375
400	0.0011	0.1591	555	0.5719	84.0461	710	0.1929	28.3523
405	0.0019	0.2744	560	0.6028	88.5827	715	0.1659	24.3772
410	0.0043	0.6328	565	0.6365	93.5327	720	0.1413	20.7700
415	0.0096	1.4084	570	0.6762	99.3780	725	0.1203	17.6731
420	0.0206	3.0291	575	0.7200	105.8127	730	0.1029	15.1211
425	0.0401	5.8905	580	0.7664	112.6219	735	0.0872	12.8127
430	0.0740	10.8763	585	0.8191	120.3694	740	0.0752	11.0475
435	0.1298	19.0684	590	0.8690	127.7014	745	0.0633	9.3029
440	0.2244	32.9729	595	0.9122	134.0511	750	0.0541	7.9471
445	0.3990	58.6418	600	0.9519	139.8813	755	0.0453	6.6620
450	0.5607	82.4016	605	0.9804	144.0689	760	0.0392	5.7671
455	0.5100	74.9410	610	0.9970	146.5220	765	0.0342	5.0292
460	0.3776	55.4870	615	0.9976	146.6087	770	0.0284	4.1717
465	0.2983	43.8404	620	0.9907	145.5956	775	0.0252	3.7010
470	0.2364	34.7358	625	0.9658	141.9327	780	0.0211	3.0990
475	0.1836	26.9766	630	0.9290	136.5204	785	0.0169	2.4786
480	0.1658	24.3657	635	0.8829	129.7529	790	0.0147	2.1620
485	0.1753	25.7646	640	0.8269	121.5136	795	0.0129	1.9028
490	0.2024	29.7379	645	0.7649	112.4010	800	0.0104	1.5342
495	0.2458	36.1267	650	0.7025	103.2421			
500	0.2992	43.9706	655	0.6355	93.3896			
505	0.3500	51.4307	660	0.5703	83.8053			
510	0.3958	58.1604	665	0.5092	74.8248			
515	0.4322	63.5083	670	0.4500	66.1308			
520	0.4618	67.8655	675	0.3962	58.2307			
525	0.4866	71.5150	680	0.3459	50.8247			
530	0.5060	74.3544	685	0.3014	44.2862			

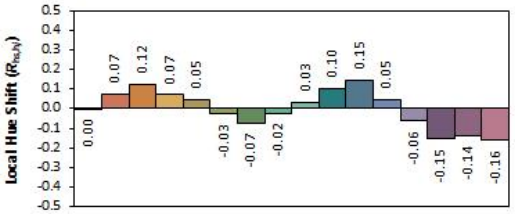
TM30

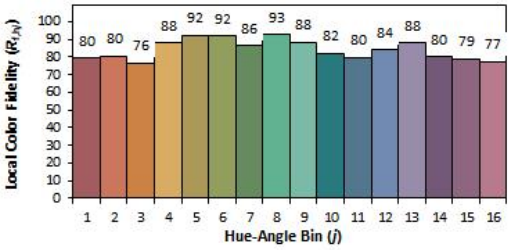
ANSI/IES TM-30-18 Color Rendition Report

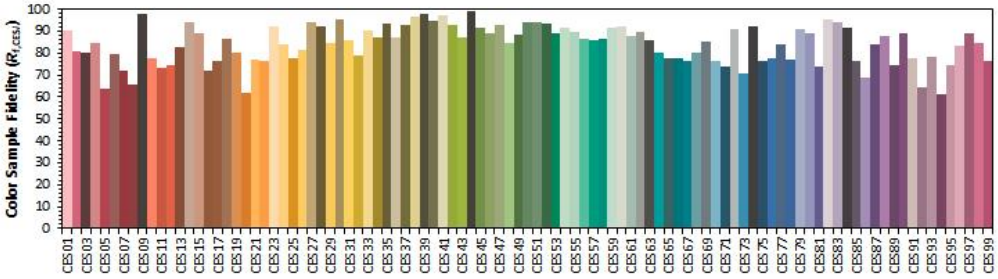












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.4360
y	0.4014
u'	0.2511
v'	0.5202

CIE 13.3-1995 (CRI)

R_a	82
R_g	5

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

Zonal Lumen Tabulation

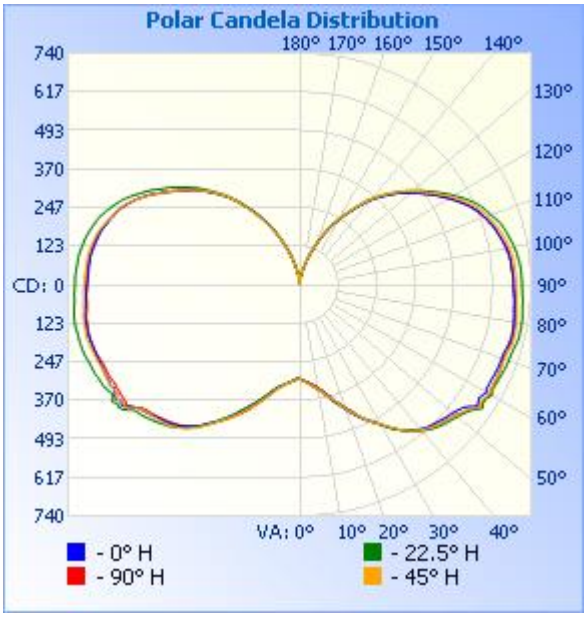
Zonal Lumen Summary

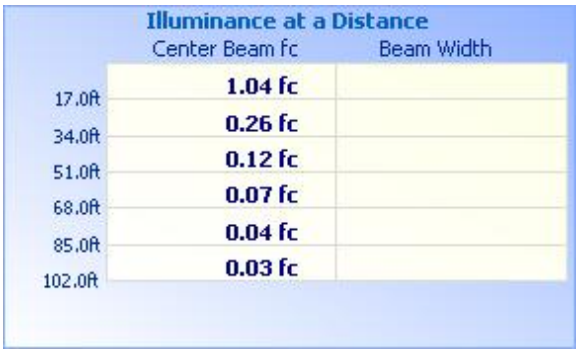
Zone	Lumens	% Lamp	% Luminaire
0-30	351.3	4.9%	4.9%
0-40	704.9	9.8%	9.8%
0-60	1,803.5	25%	25%
60-90	2,221.2	30.8%	30.8%
70-100	2,288.3	31.7%	31.7%
90-120	2,085.7	28.9%	28.9%
0-90	4,024.6	55.8%	55.8%
90-180	3,189.3	44.2%	44.2%
0-180	7,213.9	100%	100%

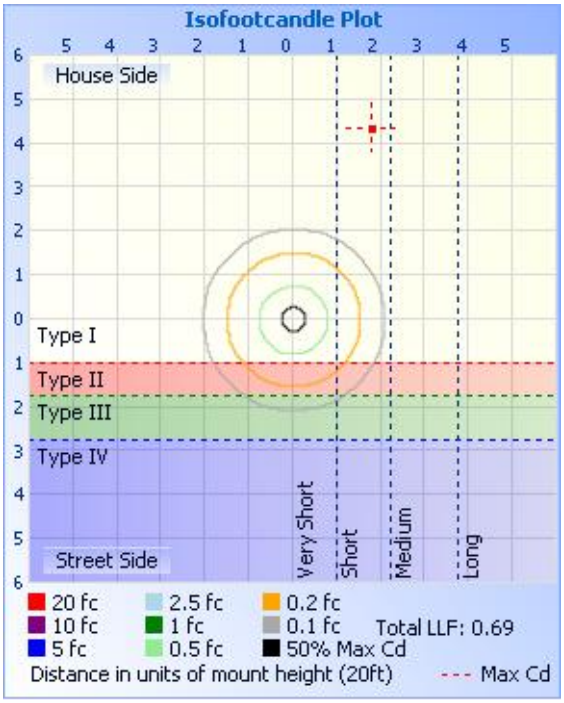
Lumens Per Zone

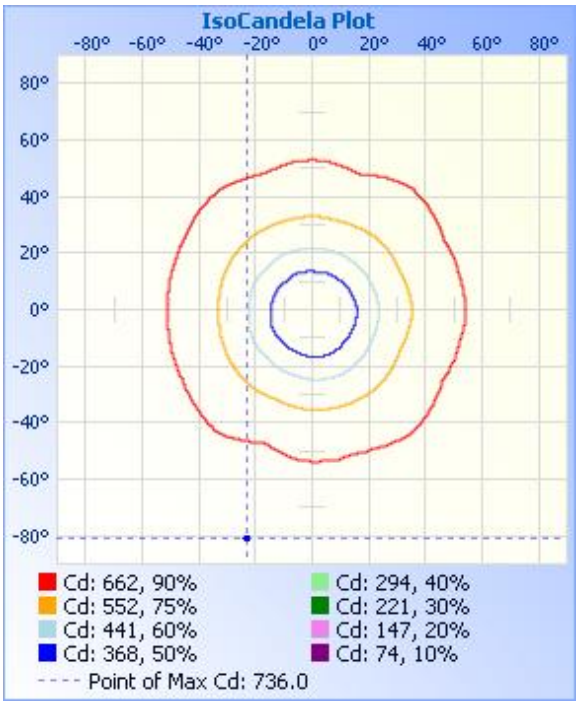
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	30.5	0.4%	90-100	762.3	10.6%
10-20	105.7	1.5%	100-110	712.4	9.9%
20-30	215.0	3.0%	110-120	611.0	8.5%
30-40	353.6	4.9%	120-130	470.1	6.5%
40-50	487.0	6.8%	130-140	328.1	4.5%
50-60	611.6	8.5%	140-150	193.1	2.7%
60-70	695.2	9.6%	150-160	86.5	1.2%
70-80	753.1	10.4%	160-170	23.5	0.3%
80-90	772.9	10.7%	170-180	2.3	0%

Photometric Data









Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302
1	305	304	304	302	304	302	302	300	300	301	303	304	302	303	304	305	305
2	307	307	308	305	306	305	304	302	301	303	305	305	304	306	307	308	307
3	309	310	312	309	309	308	307	306	304	306	309	308	307	308	309	310	309
4	313	313	314	313	311	311	311	309	308	309	311	312	309	310	311	312	313
5	316	317	318	315	314	313	314	312	311	312	313	313	311	312	313	315	316
6	320	321	322	317	316	314	316	315	314	315	315	315	314	316	317	319	320
7	325	325	326	321	320	317	318	318	317	318	318	318	317	319	320	323	325
8	330	329	330	326	324	321	321	321	320	321	322	321	321	322	325	328	330
9	336	334	334	331	328	325	325	324	323	324	325	325	326	327	331	334	336
10	341	340	340	336	335	329	329	328	327	328	329	331	330	332	337	339	341
11	347	345	346	341	340	334	334	333	331	332	335	337	335	338	344	345	347
12	353	349	352	347	346	342	340	339	335	336	341	343	341	346	351	353	353
13	361	357	359	354	353	348	348	346	341	341	347	349	348	353	358	359	361
14	368	364	367	361	361	355	354	352	349	348	355	356	357	360	366	366	368
15	377	371	374	368	369	361	363	362	357	356	363	365	364	369	374	376	377
16	386	382	381	375	379	369	371	369	365	364	372	374	371	377	383	383	386
17	395	390	389	383	388	379	379	377	374	372	380	383	381	386	393	392	395
18	403	398	401	390	397	389	388	386	383	380	389	393	390	396	401	401	403
19	412	408	411	401	406	397	398	393	390	388	397	403	399	407	409	411	412
20	423	419	420	412	416	406	409	404	399	398	408	411	409	415	418	420	423
21	433	428	430	421	425	415	418	416	409	407	416	419	421	424	428	432	433
22	443	439	439	431	434	425	428	426	417	415	424	428	430	435	440	441	443
23	453	448	450	442	445	437	438	435	426	425	434	441	439	446	450	453	453
24	462	458	459	453	458	447	448	445	437	435	445	454	448	457	460	462	462
25	472	469	470	463	469	457	459	456	447	444	454	465	457	467	470	473	472
26	481	478	480	471	480	469	469	468	457	457	465	477	466	478	480	483	481
27	490	487	489	481	489	480	479	479	468	468	474	487	476	487	489	491	490

28	498	495	498	492	498	489	489	489	478	478	484	497	484	496	497	500	498
29	506	504	506	501	507	498	498	498	489	488	493	506	493	505	506	509	506
30	515	515	514	512	517	508	509	508	499	497	503	515	502	515	515	518	515
31	526	527	523	522	526	518	519	520	509	508	512	525	511	526	524	529	526
32	537	540	534	533	537	531	529	531	518	519	523	537	522	536	535	541	537
33	548	550	546	545	547	543	540	542	527	531	533	549	532	547	545	554	548
34	558	559	557	556	557	554	551	554	538	542	544	561	540	559	555	565	558
35	567	568	567	566	567	565	562	566	550	553	555	571	550	570	564	574	567
36	576	576	577	575	578	575	574	578	559	563	565	581	561	580	573	583	576
37	584	584	586	583	587	585	583	587	567	572	575	589	570	587	580	591	584
38	591	592	593	591	594	593	592	595	574	581	584	599	577	594	587	599	591
39	598	600	600	599	601	601	600	603	582	589	591	605	583	600	593	605	598
40	602	608	606	606	607	609	606	612	589	596	598	612	588	606	598	612	602
41	608	616	612	613	612	615	612	619	596	604	604	617	593	611	603	619	608
42	612	623	618	619	618	620	619	625	602	611	610	623	597	616	608	625	612
43	616	628	623	626	623	625	623	632	607	618	615	628	603	620	613	631	616
44	619	633	627	632	627	629	626	637	612	622	618	632	607	625	617	635	619
45	622	638	631	636	630	634	630	643	615	628	621	637	611	631	621	640	622
46	625	642	634	640	634	640	633	647	618	633	624	641	615	637	624	644	625
47	629	645	638	644	638	644	636	651	622	638	627	645	620	642	626	648	629
48	632	649	642	649	641	648	641	655	628	643	630	650	623	646	629	653	632
49	635	653	646	653	645	651	645	660	633	648	633	654	627	650	632	656	635
50	638	657	650	658	649	656	650	665	638	653	637	658	630	654	635	660	638
51	642	662	657	663	656	661	654	670	642	657	641	663	634	659	639	664	642
52	649	668	661	669	664	668	658	675	647	660	646	672	641	668	645	673	649
53	653	674	667	675	672	678	663	681	653	666	657	687	653	679	655	681	653
54	664	682	674	683	677	688	674	692	665	681	675	707	667	695	674	689	664
55	680	694	689	695	690	697	692	712	681	694	681	702	673	709	681	701	680
56	687	705	698	708	703	707	697	720	687	699	679	701	671	707	682	716	687
57	681	698	692	704	696	711	698	715	681	697	682	711	671	697	674	699	681
58	679	698	690	701	694	709	696	720	693	706	689	708	671	698	678	697	679
59	684	701	696	705	699	707	700	721	689	697	679	704	671	705	683	702	684

60	689	709	698	717	703	707	696	712	681	694	680	706	670	699	679	709	689
61	684	704	701	716	697	712	697	712	680	699	683	711	671	699	682	707	684
62	685	703	696	714	697	712	697	714	686	704	684	713	670	701	682	707	685
63	684	704	696	713	698	713	698	716	683	707	685	713	673	702	680	710	684
64	685	704	696	715	698	714	698	716	684	708	687	715	675	705	681	710	685
65	686	705	698	715	699	715	700	717	684	709	686	715	676	705	682	709	686
66	687	707	698	715	697	714	696	718	684	713	687	716	676	707	683	712	687
67	688	708	697	717	697	715	696	720	685	714	687	716	677	708	684	714	688
68	688	710	697	717	696	717	697	722	686	715	688	718	678	711	687	716	688
69	688	711	696	719	694	718	699	723	686	716	691	720	680	714	689	719	688
70	689	711	697	720	694	719	698	725	686	718	692	722	682	718	691	719	689
71	689	711	698	720	694	719	698	726	687	721	693	726	685	721	692	721	689
72	690	712	698	721	695	720	699	727	688	723	695	728	688	723	695	721	690
73	692	714	701	722	698	722	701	727	689	724	698	730	690	725	697	723	692
74	695	716	705	724	700	726	702	728	690	725	700	732	691	725	698	724	695
75	696	719	707	726	702	729	703	731	692	726	701	732	691	726	700	727	696
76	698	721	706	728	702	730	704	733	694	727	702	733	692	727	701	730	698
77	698	722	707	728	701	730	706	735	694	727	702	733	692	728	703	732	698
78	697	721	706	729	701	730	706	**736**	695	728	701	733	692	730	703	733	697
79	696	721	706	729	701	729	705	**736**	695	729	700	734	691	731	702	733	696
80	695	721	704	729	700	728	705	**736**	694	729	700	734	690	731	699	731	695
81	693	721	704	729	698	728	705	**736**	694	729	700	734	690	731	698	731	693
82	693	719	702	727	696	727	704	**736**	694	728	699	731	688	730	697	730	693
83	690	718	699	725	694	725	701	735	691	727	696	729	686	727	695	728	690
84	689	716	698	724	693	723	699	733	688	725	695	727	684	724	694	725	689
85	689	716	697	724	692	721	697	731	686	723	694	726	684	723	693	725	689
86	688	715	696	723	691	719	696	729	684	722	692	726	683	723	693	724	688
87	686	714	695	722	690	719	695	729	683	722	692	725	683	722	692	723	686
88	685	713	694	720	689	718	693	728	683	721	692	725	682	721	691	722	685
89	684	712	693	719	687	716	692	727	682	720	691	723	681	720	689	723	684
90	684	711	692	718	685	714	690	726	680	719	689	722	681	721	689	723	684
91	684	711	692	717	684	713	689	725	678	718	688	722	681	719	689	723	684

92	684	710	692	718	683	713	688	724	678	718	688	721	681	719	688	721	684
93	682	710	692	718	682	712	688	724	677	717	687	721	681	718	688	720	682
94	681	709	691	716	681	710	687	723	677	716	686	720	680	717	687	720	681
95	680	708	690	716	680	709	686	722	677	715	685	718	679	716	687	718	680
96	680	706	689	714	680	708	686	720	676	714	685	718	679	715	686	716	680
97	678	704	688	713	679	707	685	720	675	713	684	717	679	714	685	714	678
98	677	702	686	711	678	706	683	720	675	711	684	714	677	712	683	712	677
99	673	699	684	710	676	703	682	717	673	709	681	711	675	709	681	710	673
100	670	697	681	706	674	702	679	714	671	707	679	708	673	707	677	706	670
101	668	693	678	703	670	699	676	712	668	704	676	705	671	704	675	703	668
102	664	690	675	700	666	695	672	709	665	702	674	702	669	700	673	699	664
103	660	686	671	696	661	692	668	705	663	698	672	698	666	696	670	696	660
104	657	683	668	694	657	688	665	701	661	695	668	694	663	694	667	693	657
105	654	680	664	691	654	685	662	697	659	691	665	690	659	689	663	690	654
106	649	676	660	687	652	681	659	694	655	687	660	686	655	685	658	685	649
107	644	671	655	682	648	678	656	691	651	683	655	682	650	680	653	681	644
108	639	666	650	677	643	674	651	686	646	679	649	677	647	674	649	675	639
109	635	658	645	671	637	668	645	681	640	674	644	671	643	669	644	668	635
110	630	652	640	664	629	661	639	675	636	667	638	665	638	662	640	660	630
111	625	646	635	658	623	654	634	667	632	661	634	658	634	657	634	654	625
112	620	640	629	652	617	647	629	660	629	654	629	650	628	652	628	648	620
113	612	634	622	644	611	639	625	654	624	647	624	643	622	645	621	641	612
114	605	628	615	638	605	632	619	647	617	640	619	635	616	637	614	634	605
115	597	619	606	631	599	625	612	640	610	632	611	629	609	629	607	625	597
116	588	610	597	622	591	616	602	631	602	625	603	621	602	619	598	616	588
117	579	600	588	613	581	607	594	622	594	615	594	613	594	611	590	605	579
118	571	591	580	604	571	597	585	613	586	606	585	604	585	602	581	595	571
119	562	580	571	595	561	587	576	603	577	596	576	594	576	594	571	586	562
120	553	570	562	586	552	577	568	592	568	586	566	584	567	586	562	575	553
121	543	560	552	576	542	567	558	583	559	577	557	575	558	577	552	567	543
122	533	550	541	566	533	556	548	574	549	568	548	564	547	566	542	557	533
123	524	540	532	556	524	546	537	563	539	558	538	554	536	557	532	547	524

124	515	529	521	546	514	537	528	553	530	546	528	544	526	547	521	537	515
125	504	519	511	536	504	527	518	542	520	535	519	533	516	537	511	526	504
126	495	508	503	526	495	517	508	532	509	526	509	522	507	528	502	517	495
127	485	499	493	515	485	507	497	522	500	517	500	513	497	518	493	508	485
128	476	488	483	505	475	498	488	513	490	507	489	504	488	508	484	497	476
129	467	479	474	494	467	488	478	503	480	497	480	494	479	497	476	488	467
130	457	469	465	483	458	478	468	494	471	485	471	485	469	488	466	478	457
131	448	458	455	473	449	469	459	483	462	475	462	475	460	477	457	468	448
132	439	448	446	462	439	459	451	473	453	464	452	465	451	467	447	458	439
133	429	436	436	451	429	448	442	463	443	454	443	454	442	456	437	447	429
134	417	426	426	440	419	438	432	452	433	443	432	443	432	445	427	436	417
135	407	414	414	429	409	427	424	441	422	430	423	430	422	431	417	425	407
136	396	404	403	417	399	415	413	430	412	419	413	419	411	419	405	412	396
137	385	393	392	406	389	404	403	419	401	408	403	407	401	406	395	400	385
138	376	382	382	396	379	394	393	408	390	397	393	396	391	393	385	388	376
139	364	370	371	386	367	382	383	397	380	386	382	384	382	382	374	377	364
140	353	359	359	374	356	371	372	387	369	375	372	374	371	369	363	364	353
141	341	346	347	363	345	360	361	374	359	363	360	363	358	358	349	353	341
142	327	333	334	350	333	346	349	362	347	350	349	349	346	345	336	339	327
143	315	319	320	338	320	334	337	350	336	338	336	337	334	332	323	326	315
144	302	306	306	324	307	321	324	338	324	327	323	324	320	320	310	314	302
145	288	292	294	310	295	308	311	325	311	313	307	311	306	307	297	300	288
146	275	277	281	295	282	293	298	312	298	300	294	296	295	294	285	287	275
147	264	265	270	281	270	280	285	299	287	286	281	283	282	279	271	275	264
148	252	252	258	269	259	268	273	285	275	273	267	271	270	266	258	259	252
149	241	241	247	257	247	255	261	271	263	260	256	259	259	254	248	247	241
150	231	230	236	246	235	242	250	259	252	247	245	247	247	243	236	236	231
151	220	218	225	234	223	231	238	247	240	236	235	235	236	232	224	224	220
152	207	206	213	224	212	220	227	234	229	223	223	224	224	218	213	211	207
153	195	193	201	210	200	209	216	223	218	212	213	212	212	206	201	200	195
154	182	181	188	198	189	197	203	211	206	200	201	200	198	192	189	186	182
155	171	169	176	185	178	185	191	199	194	188	190	189	185	179	175	174	171

156	159	157	162	172	166	173	181	186	182	175	176	176	173	167	164	161	159
157	146	145	152	160	153	160	170	175	169	164	164	162	162	156	152	149	146
158	135	135	142	148	142	149	158	164	156	153	153	150	150	145	141	138	135
159	124	124	130	137	133	137	147	151	146	141	142	139	140	133	130	127	124
160	114	114	120	126	122	127	137	140	137	130	131	128	128	122	117	116	114
161	103	103	109	115	112	116	124	128	126	120	120	118	116	111	108	106	103
162	93	92	99	104	103	107	115	117	116	109	110	109	105	100	98	94	93
163	85	84	89	93	93	97	104	108	106	101	99	98	95	90	88	86	85
164	74	76	80	85	83	87	94	96	96	90	90	87	87	82	78	76	74
165	66	67	71	76	74	78	85	87	86	80	81	79	77	74	70	68	66
166	58	59	63	67	65	70	77	79	77	72	73	71	67	63	62	58	58
167	50	52	54	59	58	61	67	69	69	66	64	62	59	55	54	52	50
168	44	45	48	51	52	55	59	61	62	57	57	55	52	49	46	45	44
169	38	39	42	45	44	46	53	54	53	50	50	48	45	42	40	39	38
170	33	35	36	39	38	41	46	47	46	44	44	42	39	37	35	34	33
171	29	30	31	34	33	36	40	40	41	39	38	36	33	31	30	29	29
172	25	26	26	29	28	31	34	35	35	34	32	31	28	27	25	25	25
173	20	22	22	24	24	27	29	30	30	29	29	26	25	22	21	21	20
174	17	18	19	21	20	23	25	26	26	25	24	23	20	19	18	18	17
175	14	15	16	17	17	19	21	22	22	22	19	19	17	16	14	14	14
176	10	12	12	13	13	15	17	17	19	17	16	14	11	12	9	10	10
177	6	7	8	8	9	12	12	14	14	14	12	11	7	8	8	6	6
178	3	3	4	3	3	4	8	8	9	9	9	7	4	5	3	4	3
179	3	4	4	4	2	3	4	4	4	4	3	3	3	4	3	4	3
180	4	4	3	4	2	3	3	4	4	4	4	4	3	4	4	4	4

2.2 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 4000K 50W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301 0E-D 1	120.0	60	0.397	47.24	0.992	8.92
	277.0	60	0.186	47.84	0.929	9.35
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

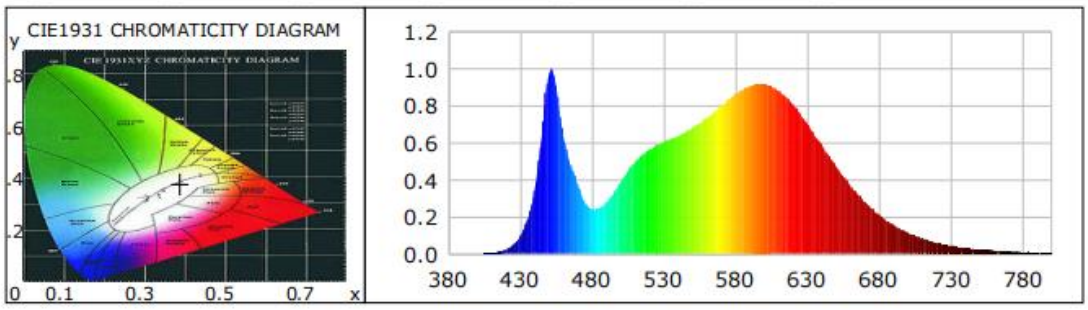
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	3793
Duv	-0.0020
Chromaticity (x, y)	x=0.3884 y=0.3771
Chromaticity (u', v')	u'=0.2302 v'=0.5029
Color Rendering Index CRI(Ra)	84
R9	10
Rf	84
Rg	96
Rcs,h1(%)	-12

Special Color Rendering Indices			
R1	83	R9	10
R2	91	R10	78
R3	96	R11	81
R4	82	R12	63
R5	83	R13	85
R6	87	R14	98
R7	85	R15	77
R8	64	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	7601.4	7648.2	>=2000(-10%)
Luminous Efficacy (lm/W)	160.9	159.9	Standard>=130(-3%)
Most worst Luminous/Highest Watts	158.89		

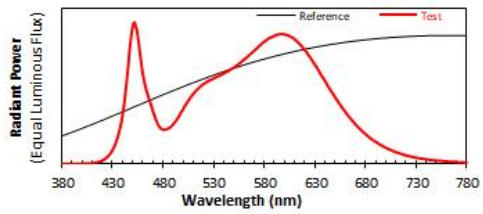
Spectral Power Distribution & Chromaticity Diagram

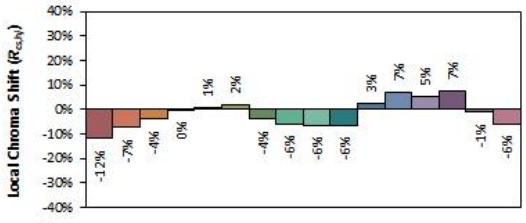


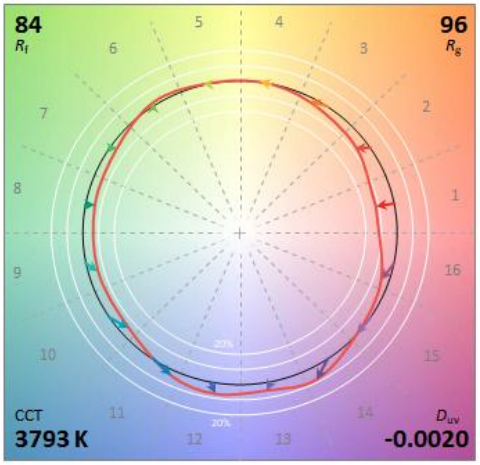
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0004	0.0555	535	0.5875	88.3683	690	0.2804	42.1738
385	0.0005	0.0798	540	0.6023	90.5905	695	0.2433	36.5977
390	0.0008	0.1177	545	0.6201	93.2779	700	0.2102	31.6106
395	0.0002	0.0320	550	0.6393	96.1659	705	0.1808	27.1901
400	0.0013	0.1949	555	0.6581	98.9920	710	0.1564	23.5283
405	0.0022	0.3373	560	0.6813	102.4758	715	0.1330	20.0103
410	0.0042	0.6279	565	0.7071	106.3535	720	0.1135	17.0761
415	0.0101	1.5223	570	0.7373	110.8984	725	0.0969	14.5762
420	0.0229	3.4394	575	0.7683	115.5713	730	0.0823	12.3764
425	0.0481	7.2382	580	0.7987	120.1445	735	0.0699	10.5169
430	0.0958	14.4059	585	0.8342	125.4738	740	0.0598	8.9942
435	0.1840	27.6753	590	0.8644	130.0284	745	0.0510	7.6745
440	0.3419	51.4328	595	0.8880	133.5699	750	0.0437	6.5767
445	0.6507	97.8808	600	0.9067	136.3857	755	0.0350	5.2615
450	0.9730	146.3526	605	0.9174	137.9994	760	0.0317	4.7650
455	0.9055	136.1998	610	0.9169	137.9246	765	0.0285	4.2838
460	0.6381	95.9818	615	0.9040	135.9765	770	0.0226	3.3928
465	0.4854	73.0090	620	0.8822	132.6931	775	0.0202	3.0418
470	0.3739	56.2461	625	0.8475	127.4814	780	0.0159	2.3978
475	0.2778	41.7798	630	0.8044	120.9980	785	0.0138	2.0704
480	0.2414	36.3095	635	0.7573	113.9159	790	0.0118	1.7814
485	0.2489	37.4456	640	0.7010	105.4472	795	0.0095	1.4349
490	0.2784	41.8771	645	0.6437	96.8214	800	0.0075	1.1295
495	0.3285	49.4194	650	0.5851	88.0133			
500	0.3895	58.5896	655	0.5271	79.2780			
505	0.4459	67.0710	660	0.4698	70.6702			
510	0.4961	74.6270	665	0.4171	62.7368			
515	0.5339	80.3110	670	0.3677	55.3113			
520	0.5641	84.8484	675	0.3215	48.3632			
525	0.5875	88.3683	680	0.2804	42.1738			
530	0.6023	90.5905	685	0.2433	36.5977			

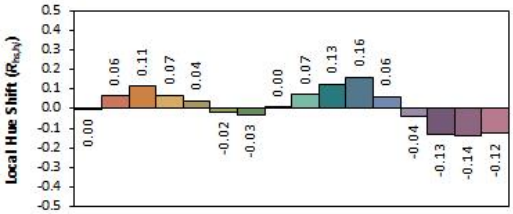
TM30

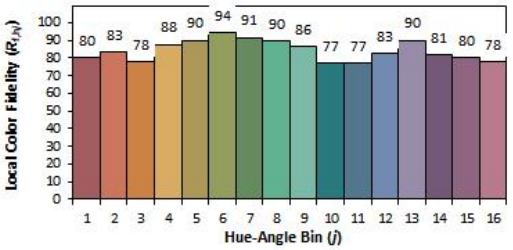
ANSI/IES TM-30-18 Color Rendition Report

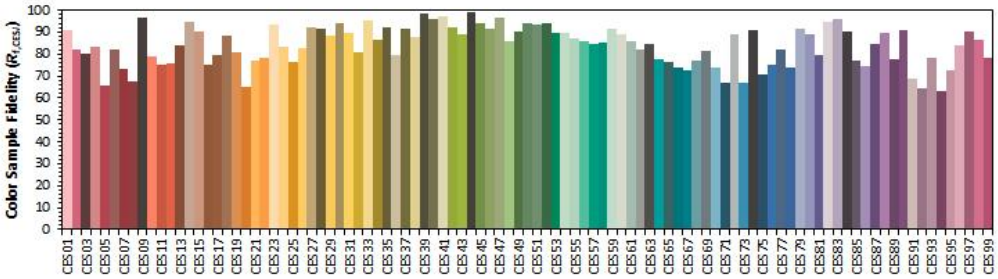












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3884
y	0.3771
u'	0.2302
v'	0.5029

CIE 13.3-1995 (CRI)

R_a	84
R_9	10

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.3 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 5000K 50W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301	120.0	60	0.411	48.95	0.993	8.81
0E-D 1	277.0	60	0.193	49.66	0.928	9.08
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

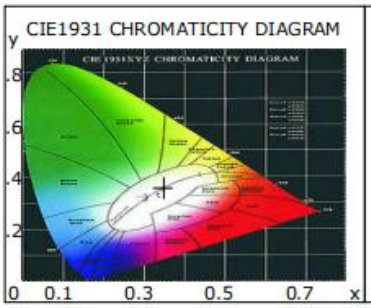
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	4924
Duv	0.0018
Chromaticity (x, y)	x=0.3477 y=0.3572
Chromaticity (u', v')	u'=0.211 v'=0.4878
Color Rendering Index CRI(Ra)	81
R9	-1
Rf	82
Rg	95
Rcs,h1(%)	-14

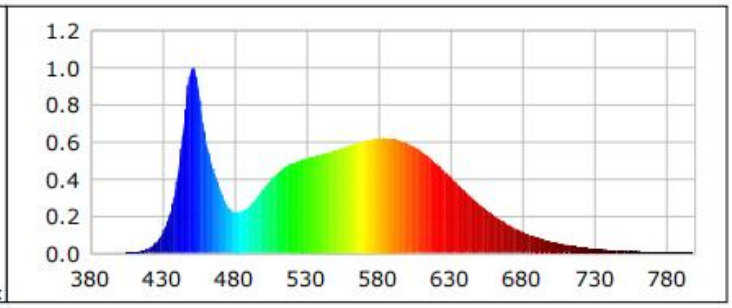
Special Color Rendering Indices			
R1	79	R9	-1
R2	88	R10	70
R3	93	R11	79
R4	80	R12	54
R5	79	R13	82
R6	82	R14	96
R7	86	R15	73
R8	64	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	7662.1	7717.2	>=2000(-10%)
Luminous Efficacy (lm/W)	156.5	155.4	Standard>=130(-3%)
Most worst Luminous/Highest Watts	154.29		

Spectral Power Distribution & Chromaticity Diagram

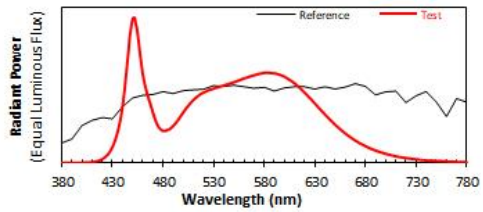


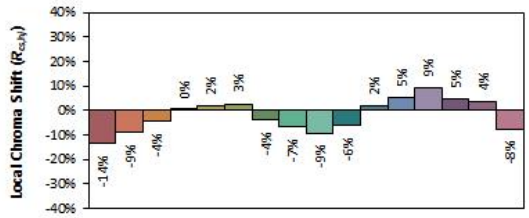


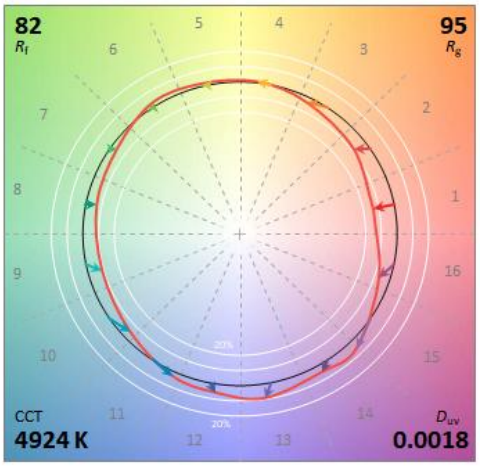
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0005	0.0900	535	0.5003	99.5422	690	0.1535	30.5454
385	0.0008	0.1576	540	0.5098	101.4385	695	0.1322	26.3021
390	0.0006	0.1217	545	0.5207	103.6005	700	0.1139	22.6697
395	0.0004	0.0888	550	0.5321	105.8754	705	0.0982	19.5409
400	0.0012	0.2379	555	0.5419	107.8265	710	0.0841	16.7274
405	0.0027	0.5319	560	0.5550	110.4194	715	0.0731	14.5372
410	0.0048	0.9631	565	0.5680	113.0142	720	0.0612	12.1849
415	0.0112	2.2315	570	0.5821	115.8196	725	0.0522	10.3881
420	0.0248	4.9315	575	0.5929	117.9659	730	0.0449	8.9268
425	0.0534	10.6324	580	0.6025	119.8768	735	0.0381	7.5767
430	0.1077	21.4271	585	0.6136	122.0919	740	0.0321	6.3964
435	0.2084	41.4641	590	0.6200	123.3571	745	0.0275	5.4811
440	0.3875	77.0971	595	0.6195	123.2596	750	0.0239	4.7629
445	0.7114	141.5453	600	0.6159	122.5317	755	0.0199	3.9627
450	0.9920	197.3618	605	0.6081	120.9798	760	0.0164	3.2566
455	0.8825	175.5839	610	0.5929	117.9676	765	0.0161	3.2115
460	0.6110	121.5765	615	0.5721	113.8347	770	0.0130	2.5813
465	0.4598	91.4848	620	0.5475	108.9253	775	0.0115	2.2799
470	0.3452	68.6755	625	0.5167	102.8122	780	0.0088	1.7581
475	0.2538	50.4935	630	0.4823	95.9517	785	0.0071	1.4101
480	0.2201	43.7958	635	0.4469	88.9085	790	0.0068	1.3556
485	0.2276	45.2864	640	0.4092	81.4109	795	0.0059	1.1659
490	0.2524	50.2133	645	0.3703	73.6801	800	0.0052	1.0249
495	0.2964	58.9771	650	0.3321	66.0836			
500	0.3467	68.9882	655	0.2961	58.9154			
505	0.3930	78.1921	660	0.2619	52.1126			
510	0.4326	86.0719	665	0.2315	46.0561			
515	0.4617	91.8605	670	0.2026	40.3181			
520	0.4831	96.1161	675	0.1767	35.1530			
525	0.5003	99.5422	680	0.1535	30.5454			
530	0.5098	101.4385	685	0.1322	26.3021			

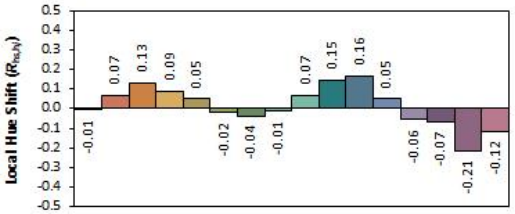
TM30

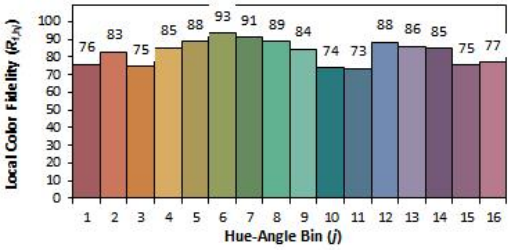
ANSI/IES TM-30-18 Color Rendition Report

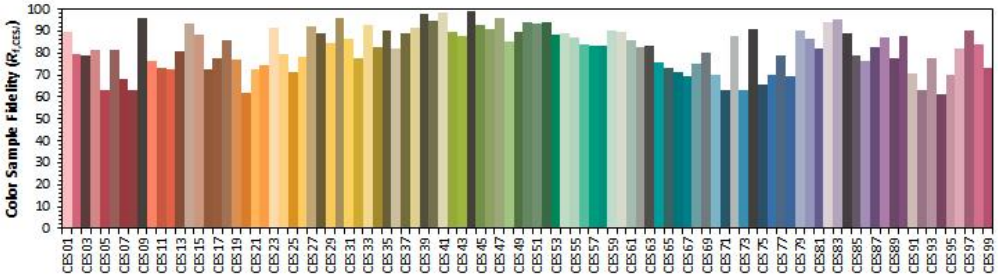












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3477
y	0.3572
u'	0.2110
v'	0.4878

CIE 13.3-1995 (CRI)

R_a	81
R_9	-1

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.4 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 3000K 38W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301	120.0	60	0.320	38.04	0.991	7.9
0E-D 1	277.0	60	0.154	38.57	0.904	12
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

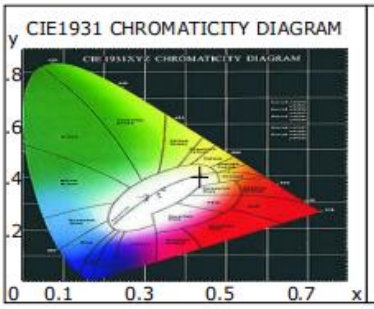
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	2987
Duv	-0.0006
Chromaticity (x, y)	x=0.4369 y=0.4025
Chromaticity (u', v')	u'=0.2512 v'=0.5208
Color Rendering Index CRI(Ra)	82
R9	6
Rf	84
Rg	97
Rcs,h1(%)	-11

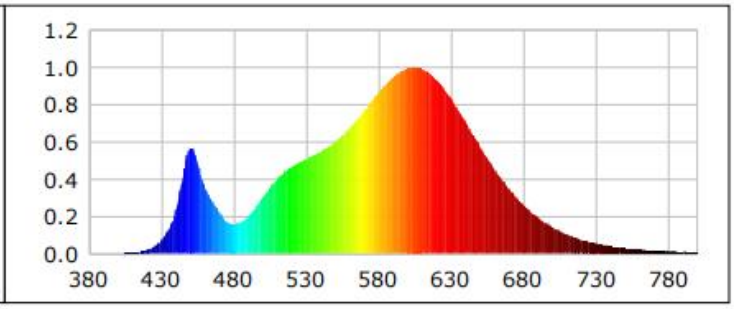
Special Color Rendering Indices			
R1	81	R9	6
R2	90	R10	78
R3	97	R11	80
R4	81	R12	69
R5	81	R13	83
R6	88	R14	99
R7	83	R15	73
R8	59	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	5937.5	5981.6	>=2000(-10%)
Luminous Efficacy (lm/W)	156.09	155.08	Standard>=130(-3%)
Most worst Luminous/Highest	153.94		
Beam Angle	282.5	--	>=75°
Center Beam Candle Power (cd)	249	--	--

Spectral Power Distribution & Chromaticity Diagram

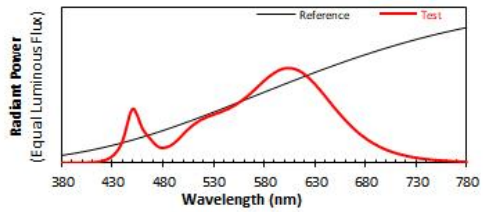


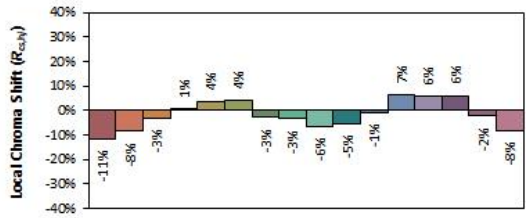


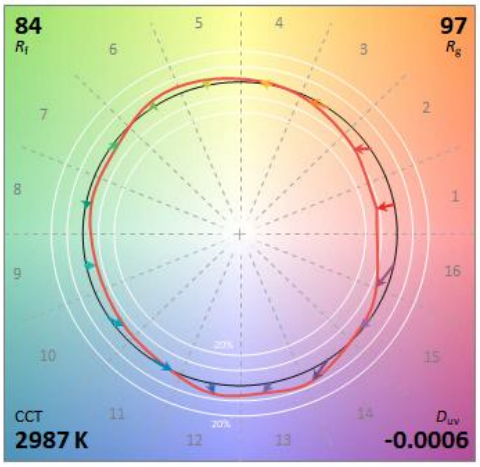
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0003	0.0404	535	0.4892	59.1231	690	0.3448	41.6798
385	0.0004	0.0506	540	0.5071	61.2901	695	0.2998	36.2392
390	0.0006	0.0683	545	0.5266	63.6455	700	0.2590	31.3017
395	0.0003	0.0327	550	0.5484	66.2789	705	0.2233	26.9855
400	0.0008	0.0934	555	0.5707	68.9783	710	0.1925	23.2683
405	0.0015	0.1844	560	0.6005	72.5821	715	0.1640	19.8165
410	0.0041	0.4903	565	0.6349	76.7332	720	0.1394	16.8475
415	0.0085	1.0279	570	0.6747	81.5481	725	0.1189	14.3651
420	0.0187	2.2572	575	0.7185	86.8425	730	0.1009	12.1899
425	0.0370	4.4709	580	0.7643	92.3797	735	0.0860	10.3907
430	0.0709	8.5751	585	0.8176	98.8151	740	0.0731	8.8342
435	0.1284	15.5197	590	0.8664	104.7180	745	0.0620	7.4901
440	0.2306	27.8713	595	0.9084	109.7947	750	0.0527	6.3730
445	0.4209	50.8717	600	0.9493	114.7388	755	0.0442	5.3478
450	0.5686	68.7273	605	0.9783	118.2465	760	0.0383	4.6242
455	0.4885	59.0428	610	0.9952	120.2884	765	0.0330	3.9928
460	0.3544	42.8319	615	0.9978	120.6041	770	0.0276	3.3309
465	0.2823	34.1227	620	0.9906	119.7282	775	0.0237	2.8641
470	0.2198	26.5619	625	0.9684	117.0490	780	0.0206	2.4897
475	0.1707	20.6316	630	0.9308	112.4974	785	0.0161	1.9479
480	0.1576	19.0534	635	0.8863	107.1285	790	0.0140	1.6912
485	0.1695	20.4889	640	0.8312	100.4672	795	0.0115	1.3910
490	0.1994	24.0991	645	0.7693	92.9877	800	0.0098	1.1796
495	0.2466	29.8058	650	0.7043	85.1210			
500	0.3016	36.4539	655	0.6377	77.0801			
505	0.3541	42.8024	660	0.5726	69.2129			
510	0.3997	48.3061	665	0.5100	61.6366			
515	0.4369	52.8075	670	0.4510	54.5095			
520	0.4653	56.2440	675	0.3954	47.7948			
525	0.4892	59.1231	680	0.3448	41.6798			
530	0.5071	61.2901	685	0.2998	36.2392			

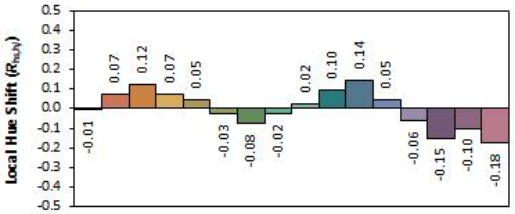
TM30

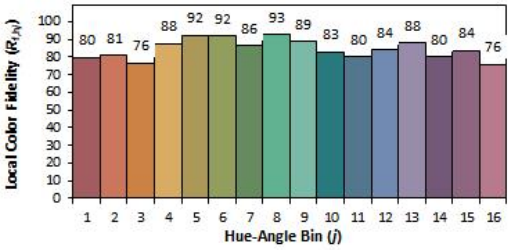
ANSI/IES TM-30-18 Color Rendition Report

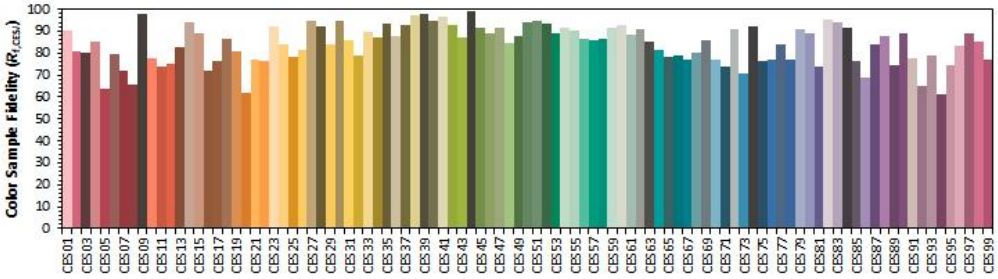












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.4369
y	0.4025
u'	0.2512
v'	0.5208

CIE 13.3-1995 (CRI)

R_a	82
R_9	6

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

Zonal Lumen Tabulation

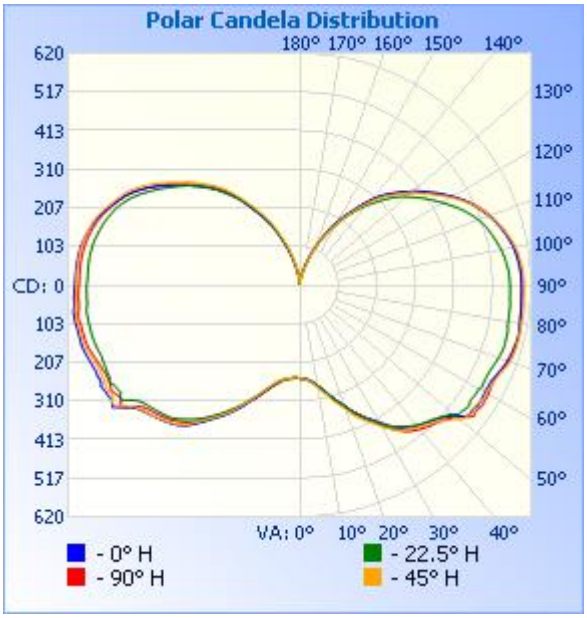
Zonal Lumen Summary

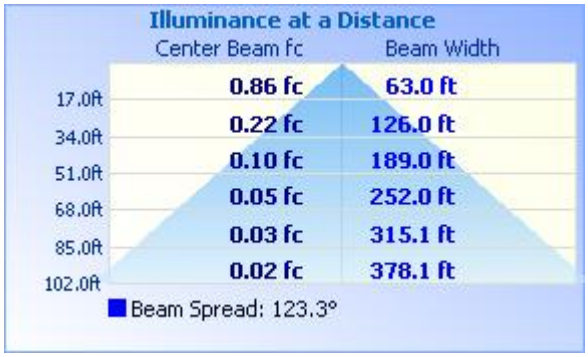
Zone	Lumens	% Lamp	% Luminaire
0-30	280.7	4.7%	4.7%
0-40	565.0	9.5%	9.5%
0-60	1,459.0	24.6%	24.6%
60-90	1,823.2	30.7%	30.7%
70-100	1,885.9	31.8%	31.8%
90-120	1,729.0	29.1%	29.1%
0-90	3,282.1	55.3%	55.3%
90-180	2,655.8	44.7%	44.7%
0-180	5,937.9	100%	100%

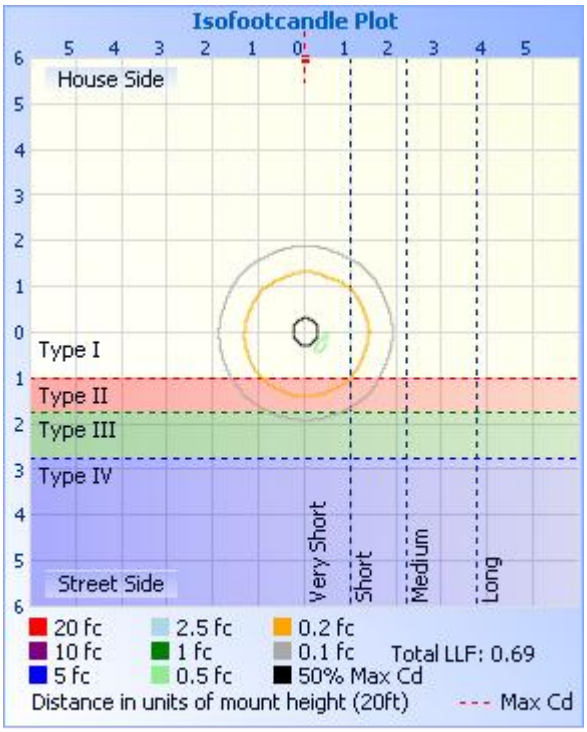
Lumens Per Zone

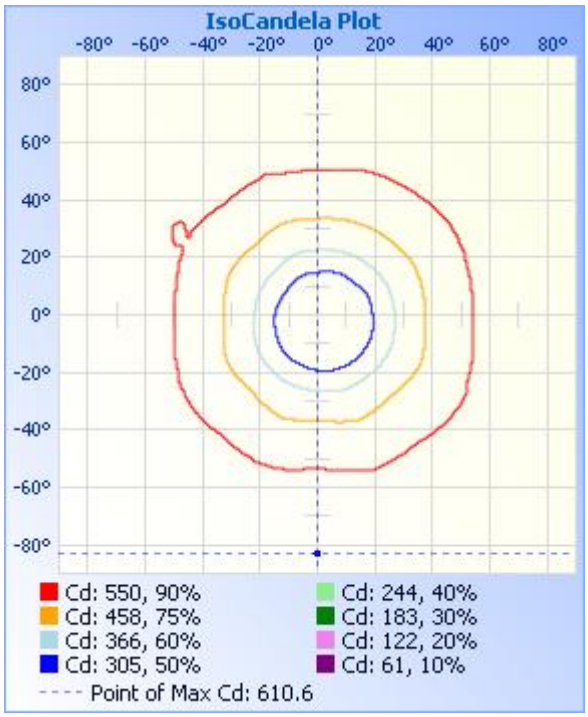
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	24.5	0.4%	90-100	630.9	10.6%
10-20	84.0	1.4%	100-110	590.4	9.9%
20-30	172.2	2.9%	110-120	507.7	8.6%
30-40	284.3	4.8%	120-130	392.8	6.6%
40-50	393.5	6.6%	130-140	275.5	4.6%
50-60	500.5	8.4%	140-150	163.4	2.8%
60-70	568.1	9.6%	150-160	73.4	1.2%
70-80	617.8	10.4%	160-170	19.7	0.3%
80-90	637.2	10.7%	170-180	2.0	0%

Photometric Data









Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	249	249	249	249	249	249	249	249	249	249	249	249	249	249	249	249	249
1	250	251	251	250	250	249	249	249	248	248	248	247	248	248	249	250	250
2	250	251	251	252	252	250	250	249	248	247	245	245	248	249	250	250	250
3	251	253	253	253	252	250	250	250	248	247	245	245	249	249	251	251	251
4	252	254	255	255	253	252	251	250	249	248	247	247	250	250	251	252	252
5	254	255	257	256	254	253	252	251	250	250	249	249	251	251	252	254	254
6	257	258	260	260	257	255	253	252	251	251	250	251	251	253	253	255	257
7	260	260	263	263	259	258	254	253	252	252	251	252	252	254	256	258	260
8	264	264	268	268	263	261	257	256	253	254	252	253	254	255	259	261	264
9	268	268	272	272	268	265	260	258	255	255	254	255	256	257	262	264	268
10	274	273	278	277	272	268	263	262	258	257	256	256	260	260	266	267	274
11	279	278	284	282	277	274	266	266	260	260	258	259	263	263	271	271	279
12	285	284	291	289	282	279	271	270	264	263	261	262	267	267	276	278	285
13	290	289	298	295	290	285	276	275	268	267	265	266	272	272	281	282	290
14	296	295	303	301	296	291	282	280	274	271	270	271	276	277	288	290	296
15	304	303	311	309	303	298	287	286	278	277	274	275	280	283	293	295	304
16	311	310	320	317	311	306	294	292	285	281	280	281	287	289	300	303	311
17	319	317	328	324	320	313	301	299	291	289	286	288	293	294	308	310	319
18	327	325	335	331	328	320	309	306	298	294	294	293	300	302	314	317	327
19	332	333	342	339	335	326	316	314	305	302	300	299	307	309	322	325	332
20	340	341	350	349	343	335	325	321	313	309	308	307	314	316	330	334	340
21	350	351	360	358	352	344	332	328	321	317	316	315	322	324	337	341	350
22	359	361	370	367	363	353	341	335	330	324	325	322	329	332	343	350	359
23	367	368	379	374	374	360	351	343	337	331	334	329	336	341	352	359	367
24	375	376	387	382	382	368	361	353	346	340	342	337	344	350	361	369	375
25	384	383	395	389	389	376	370	361	356	348	350	346	353	358	371	377	384
26	393	392	403	398	397	385	379	369	365	357	359	355	363	366	379	386	393
27	400	400	411	407	406	393	388	377	375	365	370	363	372	374	387	393	400
28	406	409	418	416	415	402	397	386	385	373	381	372	379	382	393	401	406
29	414	419	426	425	423	410	406	394	393	381	389	379	387	390	400	410	414

30	422	427	435	433	432	420	414	402	402	390	397	387	395	399	407	420	422
31	432	436	444	440	441	427	423	409	410	399	405	396	402	408	415	429	432
32	441	443	453	447	450	436	433	417	418	407	413	404	410	417	423	438	441
33	451	450	461	452	460	444	442	425	426	414	422	413	417	426	434	446	451
34	460	456	468	457	468	450	453	434	435	423	430	422	428	435	444	454	460
35	467	462	473	462	476	456	463	441	445	432	440	430	437	443	454	461	467
36	473	467	478	468	483	463	472	449	455	440	450	439	447	450	462	467	473
37	478	473	482	473	489	470	481	456	465	448	460	447	456	456	469	473	478
38	483	479	487	478	494	477	488	463	474	454	469	453	465	463	474	479	483
39	487	484	492	482	499	482	494	470	483	461	478	459	472	470	479	485	487
40	491	489	496	486	503	488	500	476	490	468	486	465	478	477	484	490	491
41	494	493	500	489	507	491	504	482	496	475	493	472	484	484	489	495	494
42	498	497	504	492	510	495	509	486	501	482	499	479	490	490	493	499	498
43	501	500	508	495	514	497	513	490	506	488	504	486	495	495	497	503	501
44	506	504	512	500	517	501	516	494	510	494	508	492	500	501	500	505	506
45	510	508	517	503	520	504	519	497	514	498	513	498	504	504	503	509	510
46	515	512	523	508	524	509	523	500	517	501	516	501	508	507	507	512	515
47	520	517	531	512	529	511	527	504	521	504	520	505	511	510	510	515	520
48	526	523	540	520	533	515	531	507	525	507	525	507	514	513	514	518	526
49	534	528	545	526	541	518	535	510	529	510	529	509	517	516	518	523	534
50	544	537	558	538	548	522	541	513	533	513	532	512	521	519	526	528	544
51	558	550	568	549	559	527	546	517	537	517	535	515	525	523	534	535	558
52	568	550	567	547	573	542	554	521	542	520	540	518	531	530	547	545	568
53	572	553	574	548	583	561	565	530	548	523	545	522	539	538	562	555	572
54	571	556	577	545	581	563	578	543	556	528	551	528	553	551	565	562	571
55	572	556	570	544	581	554	592	560	569	538	563	536	569	563	565	562	572
56	576	552	572	545	584	554	593	559	584	551	578	550	581	560	564	560	576
57	575	553	575	548	587	558	587	555	598	565	590	556	571	551	567	564	575
58	575	555	577	552	583	560	590	555	593	568	594	559	565	553	570	562	575
59	574	555	579	550	584	563	598	564	588	559	583	555	570	557	571	562	574
60	573	555	577	549	584	562	598	567	592	561	579	551	575	556	574	563	573
61	572	560	578	550	582	561	599	566	593	563	586	552	577	558	570	562	572

62	574	558	580	552	580	563	593	565	595	566	586	556	574	560	572	564	574
63	573	558	580	552	580	562	593	563	597	572	585	557	571	557	573	564	573
64	575	558	581	552	580	561	595	566	592	566	582	553	572	556	573	563	575
65	578	558	583	552	581	560	594	564	593	565	583	555	571	558	574	563	578
66	581	559	586	553	583	560	594	563	594	565	582	555	572	556	577	565	581
67	584	561	589	554	585	559	595	564	593	565	583	555	574	557	579	564	584
68	588	563	594	555	587	561	596	563	594	564	583	556	576	558	584	567	588
69	592	565	597	557	590	561	598	565	596	565	585	557	579	559	587	568	592
70	595	567	599	559	592	562	600	566	598	564	587	557	580	561	590	570	595
71	597	569	601	561	594	563	601	567	600	565	590	558	584	563	593	571	597
72	599	571	602	561	595	564	603	569	602	567	593	560	586	565	596	573	599
73	600	572	602	563	597	565	604	570	603	568	595	561	589	567	598	574	600
74	601	572	604	563	598	566	604	570	605	570	597	562	591	568	600	574	601
75	602	571	603	562	600	567	605	570	606	571	598	563	592	568	600	574	602
76	602	571	604	562	600	568	605	571	606	572	600	565	593	568	600	576	602
77	603	571	604	563	601	568	606	572	606	573	601	567	594	569	600	577	603
78	602	570	604	562	601	569	607	574	607	573	601	568	595	570	602	575	602
79	601	568	603	560	600	568	608	575	607	574	602	568	595	569	606	575	601
80	600	567	603	560	600	568	608	576	609	574	603	568	596	570	604	575	600
81	598	567	603	560	599	569	609	576	609	574	605	568	599	571	603	573	598
82	597	567	604	559	598	567	609	577	610	575	604	568	599	568	601	571	597
83	597	566	604	560	598	565	607	575	**611**	576	604	569	597	566	601	571	597
84	597	567	604	559	597	565	606	574	609	573	604	568	595	564	601	570	597
85	596	566	603	559	598	565	605	573	606	571	603	566	594	563	600	569	596
86	596	565	602	558	597	565	603	573	606	571	601	565	593	563	600	569	596
87	595	564	602	558	597	565	604	572	606	570	600	564	594	563	600	568	595
88	595	564	602	558	596	564	602	571	605	571	600	565	592	562	598	568	595
89	595	564	602	558	596	564	602	570	604	571	600	564	593	561	598	567	595
90	595	564	602	557	596	564	601	570	602	571	600	563	591	560	598	567	595
91	594	563	601	558	596	565	601	570	602	569	599	563	591	560	599	567	594
92	594	563	601	557	595	564	601	570	601	569	598	562	590	560	598	566	594
93	593	562	600	556	595	564	601	569	601	569	598	562	591	559	598	566	593

94	592	561	599	555	594	564	600	570	601	569	597	562	590	559	597	564	592
95	591	559	597	554	593	564	599	569	601	569	597	562	590	558	597	564	591
96	590	557	595	552	592	562	597	569	599	568	597	561	590	557	596	563	590
97	588	555	594	550	590	562	597	567	599	568	596	561	589	556	595	562	588
98	586	553	592	548	588	560	595	567	598	568	595	560	588	554	593	560	586
99	584	551	590	546	586	559	593	565	597	567	595	560	588	553	592	559	584
100	582	548	587	543	583	557	591	564	595	566	593	558	586	551	590	556	582
101	579	545	584	541	581	555	589	563	594	565	592	558	585	549	588	555	579
102	575	542	580	537	578	553	586	561	591	564	590	556	582	547	585	552	575
103	572	538	576	534	575	551	583	559	588	561	589	554	581	544	583	549	572
104	568	535	571	531	571	548	580	557	585	559	586	552	578	542	580	545	568
105	564	531	568	528	567	545	577	554	582	557	583	549	576	540	576	542	564
106	560	528	563	524	563	542	573	552	579	554	581	547	573	537	572	539	560
107	555	525	558	521	558	539	569	549	576	552	579	545	571	533	568	535	555
108	550	520	553	516	554	535	564	546	572	549	575	541	566	530	564	532	550
109	545	515	548	512	549	532	560	542	568	546	571	539	563	527	559	529	545
110	540	510	542	506	544	528	554	539	563	542	567	536	558	523	554	525	540
111	534	504	537	501	538	524	549	535	558	539	562	532	554	519	549	520	534
112	528	498	531	494	533	518	543	531	552	535	557	528	549	515	544	514	528
113	523	492	524	488	526	513	539	526	547	532	552	524	545	510	538	508	523
114	517	485	517	481	520	507	533	520	541	527	547	519	540	505	533	502	517
115	510	479	510	475	513	501	527	514	536	522	542	515	536	499	526	495	510
116	504	471	502	467	505	494	520	508	531	516	537	509	530	494	520	488	504
117	497	464	494	459	497	487	513	502	525	510	533	504	525	487	513	480	497
118	489	456	486	452	490	478	505	494	519	503	527	497	518	481	506	472	489
119	481	449	478	444	481	471	497	487	512	497	521	491	512	474	498	464	481
120	474	441	469	437	473	463	489	479	504	489	514	484	504	467	490	456	474
121	466	434	460	429	464	455	481	471	496	481	506	477	497	460	482	448	466
122	458	427	451	422	455	447	471	463	488	474	498	469	489	453	474	440	458
123	450	419	442	415	445	440	463	456	480	466	491	461	481	445	466	432	450
124	441	412	434	407	437	432	454	448	470	458	482	453	472	438	457	425	441
125	432	405	425	400	428	425	445	441	461	451	473	446	465	430	448	417	432

126	424	397	417	392	419	418	435	433	452	443	463	438	456	423	439	410	424
127	416	390	408	384	411	410	426	426	443	436	455	431	448	415	431	403	416
128	408	383	401	377	404	403	417	418	434	428	446	423	439	408	422	395	408
129	399	375	393	370	395	395	408	411	425	420	437	416	430	400	414	388	399
130	390	368	385	362	387	388	400	403	415	413	428	408	421	392	406	381	390
131	382	361	376	355	378	380	392	395	407	405	419	400	413	384	398	374	382
132	374	353	366	347	369	372	384	387	398	397	411	393	403	377	390	366	374
133	365	345	357	339	361	365	375	380	389	390	403	385	395	369	381	358	365
134	356	335	348	331	351	356	367	372	381	382	395	378	387	362	373	350	356
135	348	325	339	322	342	346	358	364	373	374	387	371	378	354	364	343	348
136	339	315	331	312	334	337	349	355	365	366	377	363	370	346	355	334	339
137	330	305	322	303	325	327	341	347	356	358	369	355	362	337	346	324	330
138	321	296	312	293	316	317	332	338	347	349	361	347	354	328	337	314	321
139	310	286	300	284	307	307	323	328	338	339	352	339	345	318	328	303	310
140	298	278	288	275	297	298	314	318	329	329	344	329	336	308	318	294	298
141	286	268	277	266	286	289	305	309	320	318	334	320	327	298	308	285	286
142	274	259	266	256	275	279	295	300	311	309	325	310	317	289	297	275	274
143	262	249	254	246	263	269	285	291	301	299	315	300	306	280	286	265	262
144	251	238	243	235	251	259	274	282	291	289	304	290	293	271	275	255	251
145	240	229	232	226	239	248	262	272	279	281	293	281	281	262	263	245	240
146	229	219	222	216	228	237	251	261	267	271	281	271	269	252	252	235	229
147	219	209	212	206	218	226	239	251	255	260	270	261	258	242	241	225	219
148	209	198	202	195	209	214	229	241	243	250	258	250	248	233	229	216	209
149	199	186	193	185	199	203	219	229	232	240	247	240	237	223	219	206	199
150	189	176	184	175	189	194	210	218	221	229	236	231	226	213	208	196	189
151	179	168	174	166	180	185	200	208	212	218	226	221	216	203	197	186	179
152	168	159	161	156	169	175	191	199	203	207	216	210	207	192	187	176	168
153	155	149	149	147	159	165	181	189	193	196	207	199	197	181	176	166	155
154	143	139	138	137	148	155	171	180	183	186	198	189	187	172	165	156	143
155	132	128	129	126	137	144	161	170	174	176	188	180	177	163	154	146	132
156	123	118	119	116	126	133	150	160	164	166	178	171	165	155	144	135	123
157	114	110	110	107	117	123	139	150	154	157	166	161	153	145	134	126	114

158	105	101	100	98	109	113	129	138	142	146	154	150	142	134	123	116	105
159	94	93	90	91	101	104	120	128	131	135	143	138	132	124	112	107	94
160	84	83	80	81	91	95	112	119	121	124	133	128	123	114	103	98	84
161	76	74	72	72	82	87	103	109	113	115	124	120	114	106	94	88	76
162	68	67	64	65	74	79	94	100	105	106	116	110	104	98	85	80	68
163	60	60	56	58	66	70	84	91	96	96	106	101	93	89	76	72	60
164	53	52	49	50	59	62	76	82	86	88	96	92	83	79	68	64	53
165	47	45	42	44	52	56	68	73	78	79	87	82	75	71	60	56	47
166	40	39	36	38	45	49	61	66	71	70	79	75	67	64	53	50	40
167	36	34	31	33	40	44	53	58	63	63	71	66	59	56	46	42	36
168	30	29	26	28	34	38	46	51	55	56	62	59	51	49	41	37	30
169	27	25	23	24	30	33	41	44	49	49	55	51	45	43	36	32	27
170	23	22	20	20	25	29	35	38	44	44	48	46	39	37	31	27	23
171	20	19	17	18	21	25	30	33	37	37	42	39	33	32	27	24	20
172	17	17	15	16	18	22	26	28	31	33	36	34	29	27	23	20	17
173	14	14	14	14	16	20	22	24	28	29	31	29	24	23	19	17	14
174	12	12	11	12	14	16	19	21	23	25	26	24	21	19	16	13	12
175	10	10	9	10	12	13	16	17	20	20	22	20	17	15	12	11	10
176	8	7	7	7	9	11	13	15	16	17	19	17	13	12	10	9	8
177	5	5	5	5	7	8	10	12	13	15	15	15	11	9	7	6	5
178	5	5	5	5	5	6	8	8	11	11	12	12	6	6	5	5	5
179	5	5	5	5	5	5	5	6	7	8	8	7	5	5	5	5	5
180	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

2.5 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 4000K 38W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301 0E-D 1	120.0	60	0.313	37.23	0.992	7.81
	277.0	60	0.149	37.2	0.903	11.87
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

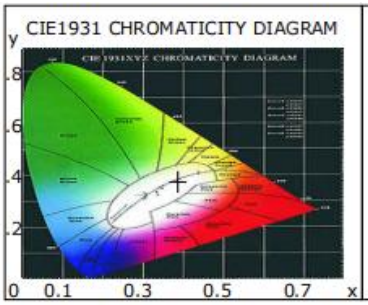
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	3785
Duv	-0.0019
Chromaticity (x, y)	x=0.3889 y=0.3778
Chromaticity (u', v')	u'=0.2303 v'=0.5033
Color Rendering Index CRI(Ra)	84
R9	10
Rf	84
Rg	96
Rcs,h1(%)	-12

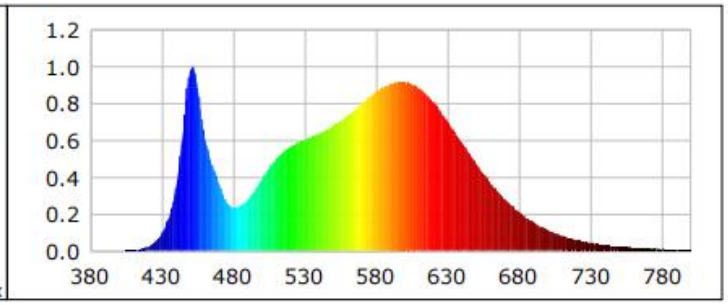
Special Color Rendering Indices			
R1	82	R9	10
R2	91	R10	77
R3	95	R11	81
R4	82	R12	63
R5	82	R13	85
R6	87	R14	98
R7	85	R15	76
R8	64	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	6243.9	6279.0	>=2000(-10%)
Luminous Efficacy (lm/W)	167.71	168.79	Standard>=130(-3%)
Most worst Luminous/Highest Watts	167.71		

Spectral Power Distribution & Chromaticity Diagram

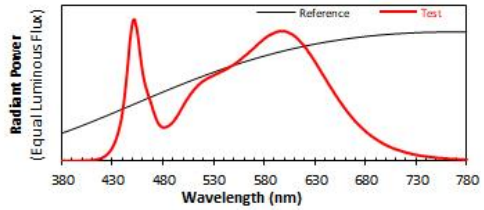


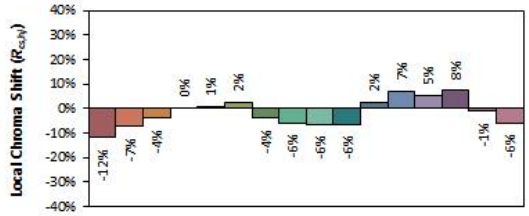


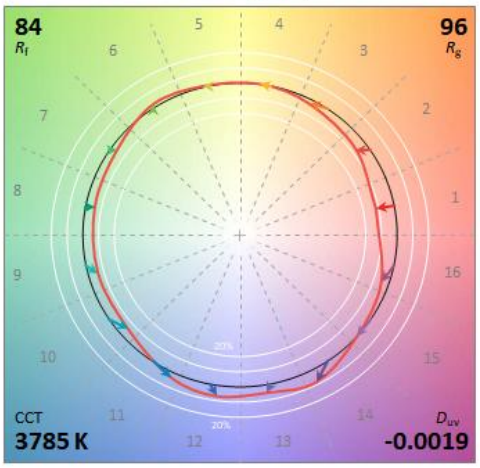
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0000	0.0033	535	0.5870	72.2539	690	0.2785	34.2768
385	0.0001	0.0130	540	0.6029	74.2150	695	0.2431	29.9257
390	0.0005	0.0561	545	0.6205	76.3769	700	0.2085	25.6653
395	0.0007	0.0915	550	0.6384	78.5874	705	0.1801	22.1653
400	0.0012	0.1526	555	0.6578	80.9754	710	0.1551	19.0896
405	0.0019	0.2338	560	0.6809	83.8195	715	0.1321	16.2595
410	0.0037	0.4602	565	0.7074	87.0821	720	0.1128	13.8884
415	0.0093	1.1388	570	0.7367	90.6884	725	0.0960	11.8154
420	0.0217	2.6766	575	0.7688	94.6321	730	0.0813	10.0059
425	0.0461	5.6690	580	0.7980	98.2368	735	0.0700	8.6221
430	0.0935	11.5103	585	0.8331	102.5484	740	0.0594	7.3097
435	0.1821	22.4181	590	0.8633	106.2707	745	0.0503	6.1899
440	0.3448	42.4449	595	0.8865	109.1270	750	0.0421	5.1834
445	0.6636	81.6827	600	0.9064	111.5809	755	0.0355	4.3692
450	0.9822	120.9010	605	0.9165	112.8211	760	0.0308	3.7949
455	0.8909	109.6722	610	0.9170	112.8764	765	0.0280	3.4504
460	0.6201	76.3271	615	0.9031	111.1694	770	0.0221	2.7209
465	0.4748	58.4439	620	0.8826	108.6439	775	0.0199	2.4546
470	0.3630	44.6853	625	0.8486	104.4598	780	0.0167	2.0586
475	0.2683	33.0233	630	0.8064	99.2694	785	0.0128	1.5815
480	0.2360	29.0528	635	0.7574	93.2326	790	0.0115	1.4117
485	0.2447	30.1160	640	0.7017	86.3733	795	0.0100	1.2267
490	0.2762	34.0001	645	0.6450	79.4039	800	0.0088	1.0840
495	0.3279	40.3630	650	0.5854	72.0664			
500	0.3900	48.0046	655	0.5267	64.8328			
505	0.4476	55.0973	660	0.4710	57.9779			
510	0.4973	61.2128	665	0.4166	51.2825			
515	0.5365	66.0375	670	0.3671	45.1871			
520	0.5646	69.5009	675	0.3209	39.4984			
525	0.5870	72.2539	680	0.2785	34.2768			
530	0.6029	74.2150	685	0.2431	29.9257			

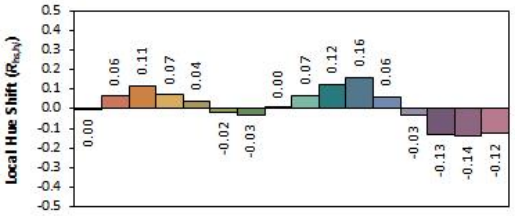
TM30

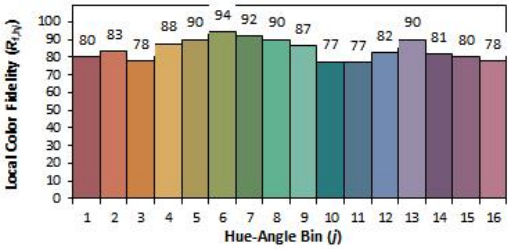
ANSI/IES TM-30-18 Color Rendition Report

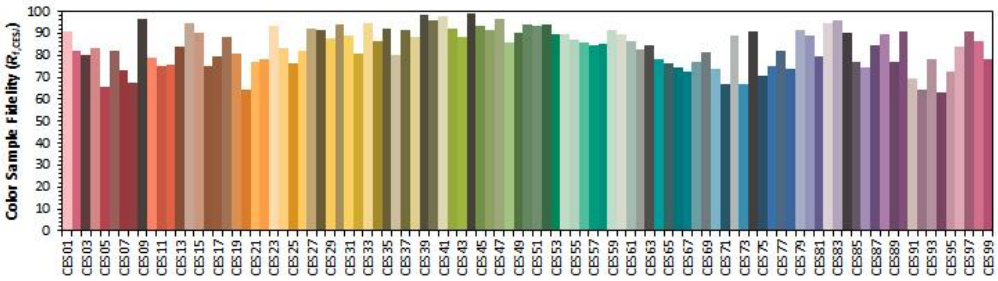












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3889
y	0.3778
u'	0.2303
v'	0.5033

CIE 13.3-1995 (CRI)

R_a	84
R_9	10

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.6 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 5000K 38W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301 0E-D 1	120.0	60	0.320	38.1	0.991	7.84
	277.0	60	0.154	38.63	0.903	12.04
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

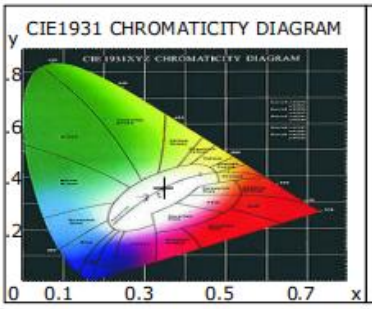
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	4912
Duv	0.0019
Chromaticity (x, y)	x=0.3481 y=0.3577
Chromaticity (u', v')	u'=0.211 v'=0.4881
Color Rendering Index CRI(Ra)	81
R9	-1
Rf	82
Rg	95
Rcs,h1(%)	-14

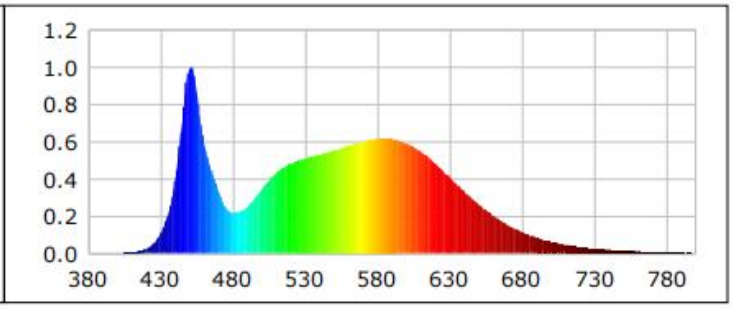
Special Color Rendering Indices			
R1	79	R9	-1
R2	87	R10	70
R3	93	R11	79
R4	80	R12	54
R5	79	R13	81
R6	82	R14	96
R7	86	R15	73
R8	64	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	6204.0	6358.9	>=2000(-10%)
Luminous Efficacy (lm/W)	162.83	164.61	Standard>=130(-3%)
Most worst Luminous/Highest Watts	160.60		

Spectral Power Distribution & Chromaticity Diagram

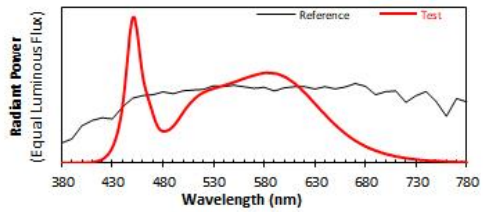


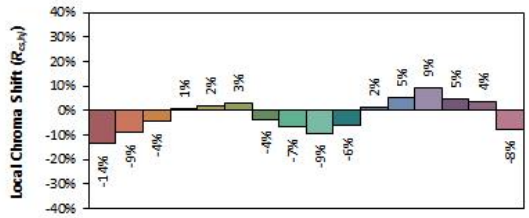


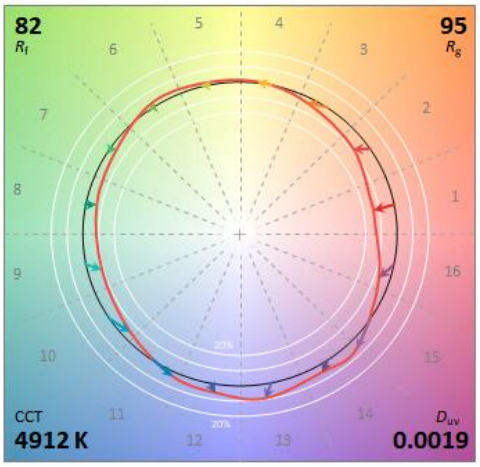
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0005	0.0758	535	0.4988	81.5639	690	0.1517	24.8071
385	0.0004	0.0726	540	0.5083	83.1267	695	0.1315	21.5090
390	0.0008	0.1242	545	0.5189	84.8621	700	0.1125	18.4009
395	0.0007	0.1066	550	0.5310	86.8282	705	0.0968	15.8378
400	0.0011	0.1810	555	0.5400	88.3066	710	0.0836	13.6721
405	0.0023	0.3697	560	0.5531	90.4456	715	0.0709	11.5973
410	0.0044	0.7165	565	0.5654	92.4543	720	0.0609	9.9618
415	0.0103	1.6871	570	0.5788	94.6463	725	0.0515	8.4274
420	0.0241	3.9340	575	0.5896	96.4209	730	0.0443	7.2393
425	0.0520	8.4963	580	0.5994	98.0221	735	0.0379	6.1905
430	0.1058	17.3029	585	0.6098	99.7263	740	0.0318	5.2034
435	0.2067	33.7943	590	0.6168	100.8651	745	0.0275	4.4942
440	0.3892	63.6541	595	0.6162	100.7751	750	0.0234	3.8346
445	0.7204	117.8095	600	0.6131	100.2619	755	0.0195	3.1922
450	0.9948	162.6812	605	0.6056	99.0347	760	0.0170	2.7860
455	0.8670	141.7909	610	0.5904	96.5510	765	0.0153	2.4974
460	0.5946	97.2305	615	0.5696	93.1407	770	0.0122	1.9934
465	0.4504	73.6531	620	0.5465	89.3658	775	0.0105	1.7131
470	0.3357	54.8974	625	0.5150	84.2258	780	0.0099	1.6137
475	0.2454	40.1371	630	0.4811	78.6816	785	0.0079	1.2868
480	0.2161	35.3439	635	0.4448	72.7432	790	0.0062	1.0185
485	0.2243	36.6837	640	0.4066	66.4967	795	0.0065	1.0643
490	0.2502	40.9182	645	0.3687	60.2866	800	0.0045	0.7368
495	0.2952	48.2728	650	0.3316	54.2288			
500	0.3468	56.7208	655	0.2953	48.2958			
505	0.3928	64.2389	660	0.2613	42.7308			
510	0.4319	70.6349	665	0.2305	37.6968			
515	0.4613	75.4296	670	0.2018	32.9941			
520	0.4820	78.8191	675	0.1752	28.6472			
525	0.4988	81.5639	680	0.1517	24.8071			
530	0.5083	83.1267	685	0.1315	21.5090			

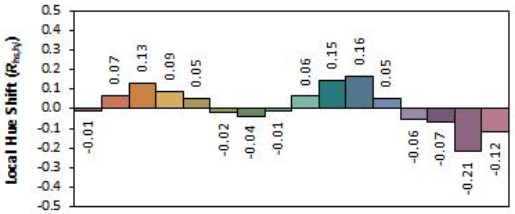
TM30

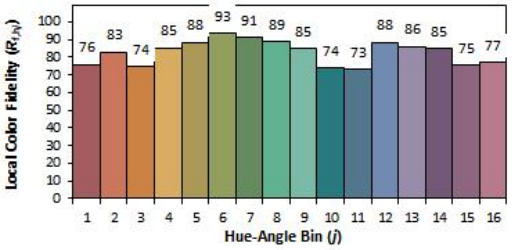
ANSI/IES TM-30-18 Color Rendition Report

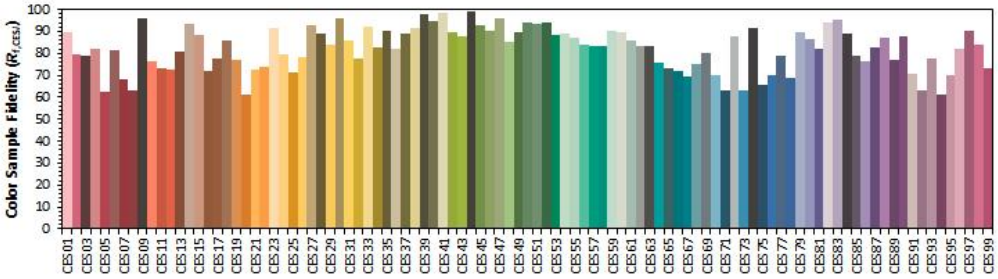












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3481
y	0.3577
u'	0.2110
v'	0.4881

CIE 13.3-1995 (CRI)

R_a	81
R_9	-1

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.7 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 3000K 25W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301	120.0	60	0.216	25.54	0.986	6.7
0E-D 1	277.0	60	0.108	26.25	0.881	18.7
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

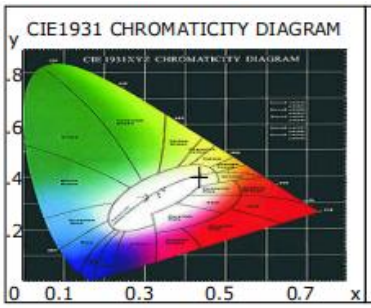
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	2991
Duv	-0.0008
Chromaticity (x, y)	x=0.4364 y=0.4019
Chromaticity (u', v')	u'=0.2512 v'=0.5205
Color Rendering Index CRI(Ra)	82
R9	6
Rf	84
Rg	97
Rcs,h1(%)	-11

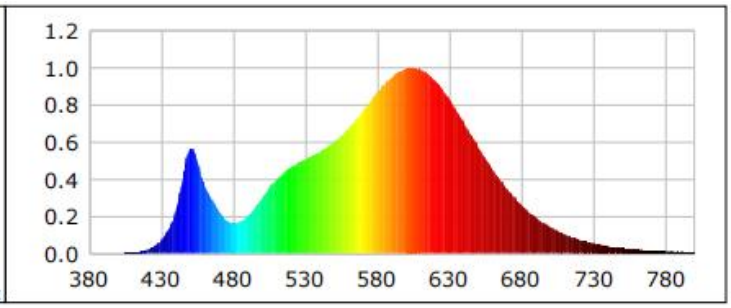
Special Color Rendering Indices			
R1	81	R9	6
R2	91	R10	78
R3	96	R11	80
R4	80	R12	69
R5	81	R13	83
R6	88	R14	99
R7	82	R15	73
R8	58	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	3682.4	3763.2	>=2000(-10%)
Luminous Efficacy (lm/W)	144.18	143.36	Standard>=130(-3%)
Most worst Luminous/Highest	140.28		
Beam Angle	282.2	--	>=75°
Center Beam Candle Power (cd)	155	--	--

Spectral Power Distribution & Chromaticity Diagram



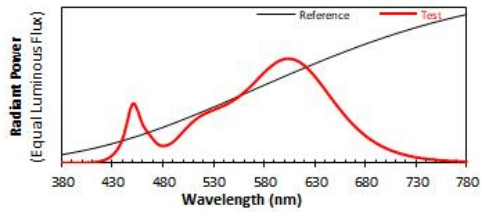


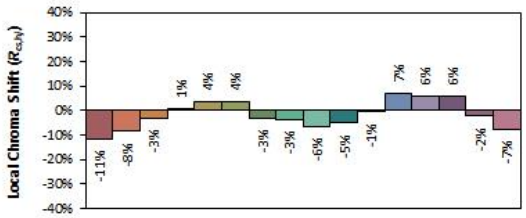
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0002	0.0177	535	0.4881	36.1147	690	0.3461	25.6121
385	0.0007	0.0513	540	0.5069	37.5031	695	0.3014	22.2992
390	0.0003	0.0244	545	0.5264	38.9470	700	0.2588	19.1510
395	0.0005	0.0365	550	0.5485	40.5878	705	0.2234	16.5272
400	0.0010	0.0771	555	0.5728	42.3826	710	0.1919	14.2019
405	0.0017	0.1285	560	0.6019	44.5383	715	0.1651	12.2125
410	0.0038	0.2823	565	0.6357	47.0373	720	0.1404	10.3889
415	0.0091	0.6703	570	0.6761	50.0244	725	0.1202	8.8938
420	0.0196	1.4514	575	0.7189	53.1956	730	0.1019	7.5404
425	0.0389	2.8782	580	0.7655	56.6380	735	0.0873	6.4614
430	0.0723	5.3488	585	0.8184	60.5584	740	0.0740	5.4786
435	0.1291	9.5512	590	0.8686	64.2659	745	0.0632	4.6785
440	0.2275	16.8302	595	0.9119	67.4729	750	0.0534	3.9546
445	0.4090	30.2592	600	0.9497	70.2738	755	0.0442	3.2679
450	0.5647	41.7853	605	0.9798	72.4994	760	0.0390	2.8844
455	0.5002	37.0117	610	0.9974	73.7992	765	0.0343	2.5394
460	0.3669	27.1461	615	0.9976	73.8117	770	0.0284	2.1024
465	0.2912	21.5441	620	0.9915	73.3647	775	0.0236	1.7474
470	0.2287	16.9221	625	0.9677	71.6003	780	0.0204	1.5098
475	0.1774	13.1288	630	0.9305	68.8523	785	0.0170	1.2582
480	0.1616	11.9563	635	0.8848	65.4653	790	0.0145	1.0709
485	0.1726	12.7700	640	0.8293	61.3611	795	0.0113	0.8329
490	0.2010	14.8714	645	0.7670	56.7515	800	0.0100	0.7420
495	0.2462	18.2174	650	0.7022	51.9609			
500	0.3001	22.2015	655	0.6369	47.1242			
505	0.3513	25.9960	660	0.5726	42.3671			
510	0.3978	29.4331	665	0.5097	37.7144			
515	0.4340	32.1162	670	0.4508	33.3536			
520	0.4637	34.3086	675	0.3957	29.2789			
525	0.4881	36.1147	680	0.3461	25.6121			
530	0.5069	37.5031	685	0.3014	22.2992			

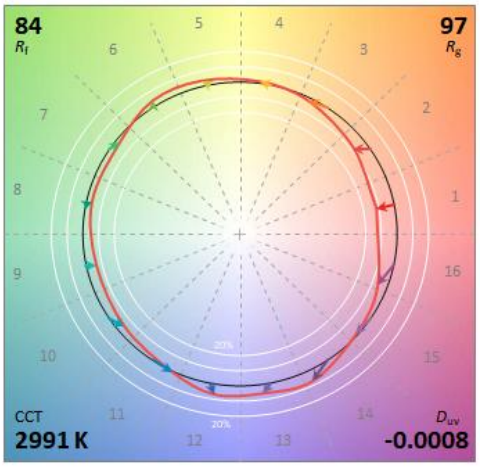
Certificate#4810.01

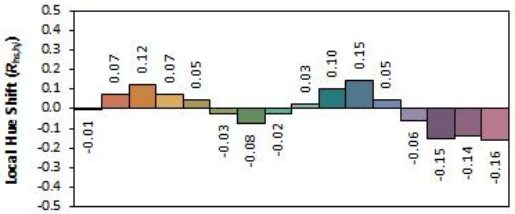
TM30

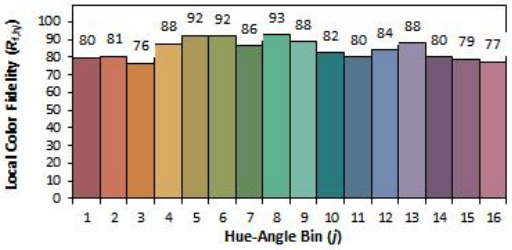
ANSI/IES TM-30-18 Color Rendition Report

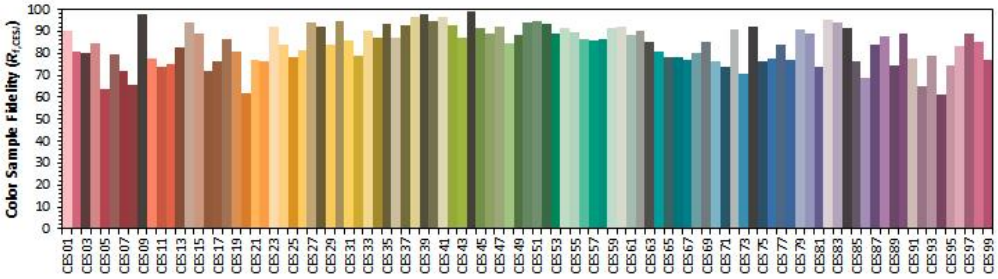












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.4364
y	0.4019
u'	0.2512
v'	0.5205

CIE 13.3-1995 (CRI)

R_a	82
R_9	6

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

Zonal Lumen Tabulation

Zonal Lumen Summary

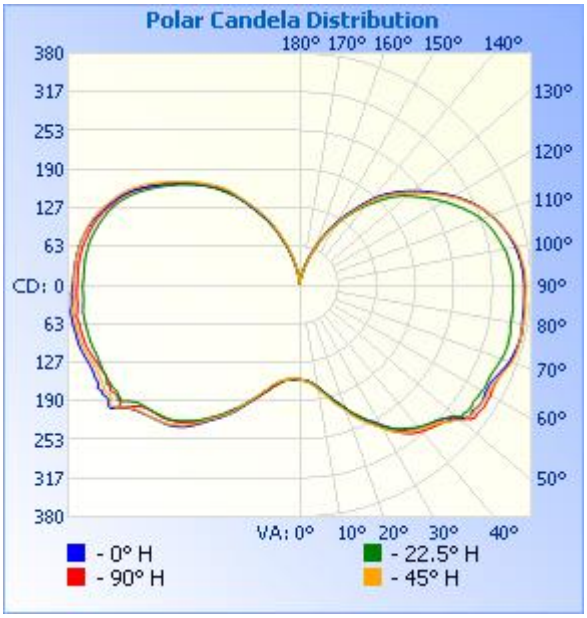
Zone	Lumens	% Lamp	% Luminaire
0-30	174.3	4.7%	4.7%
0-40	350.6	9.5%	9.5%
0-60	904.9	24.6%	24.6%
60-90	1,131.1	30.7%	30.7%
70-100	1,170.2	31.8%	31.8%
90-120	1,072.2	29.1%	29.1%
0-90	2,036.0	55.3%	55.3%
90-180	1,646.6	44.7%	44.7%
0-180	3,682.6	100%	100%

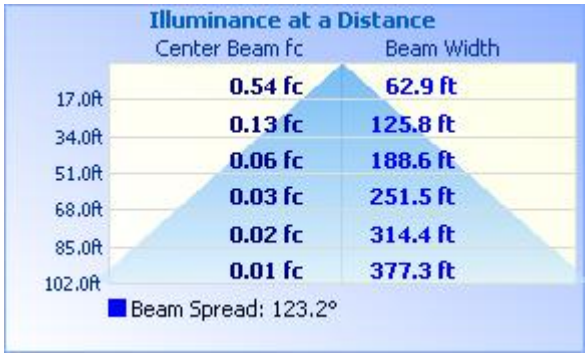
Lumens Per Zone

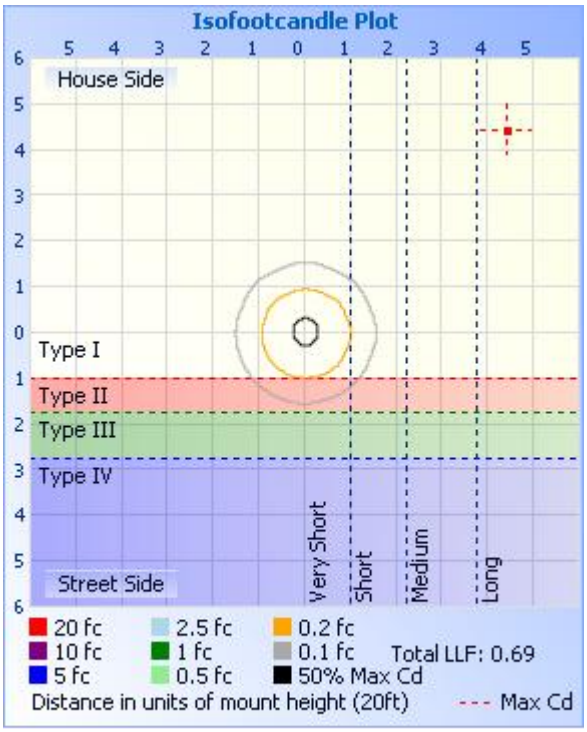
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	15.2	0.4%	90-100	391.5	10.6%
10-20	52.2	1.4%	100-110	366.1	9.9%
20-30	106.8	2.9%	110-120	314.7	8.5%
30-40	176.4	4.8%	120-130	243.3	6.6%
40-50	244.1	6.6%	130-140	170.8	4.6%
50-60	310.2	8.4%	140-150	101.2	2.7%
60-70	352.4	9.6%	150-160	45.6	1.2%
70-80	383.3	10.4%	160-170	12.3	0.3%
80-90	395.5	10.7%	170-180	1.2	0%

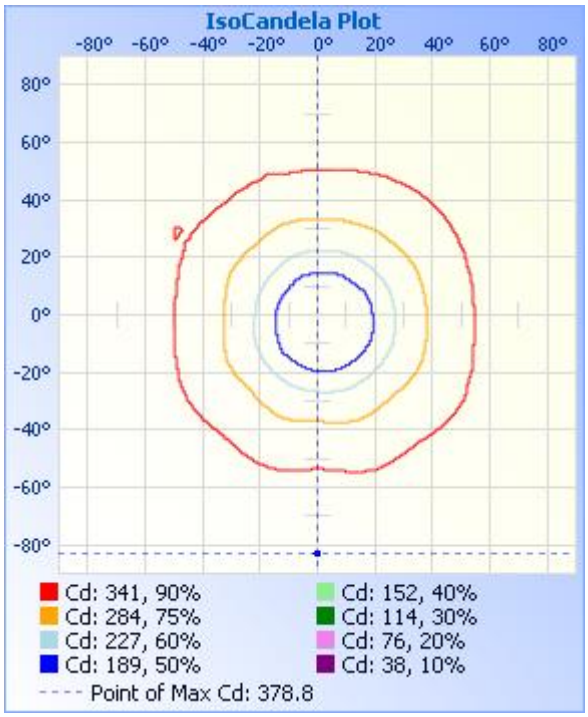
Certificate#4810.01

Photometric Data









Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155
1	155	156	155	156	156	155	155	155	154	154	154	153	154	155	155	155	155
2	155	156	156	156	156	156	155	155	154	153	153	152	154	155	155	155	155
3	156	157	157	157	156	156	156	155	154	153	152	152	155	155	156	156	156
4	157	158	158	158	157	157	156	155	155	154	153	153	155	155	156	157	157
5	158	159	159	159	158	158	156	156	155	155	154	154	156	156	157	158	158
6	160	160	162	161	160	159	157	156	156	156	155	155	156	157	158	159	160
7	162	162	163	163	162	160	158	157	156	157	156	156	157	158	159	161	162
8	164	164	166	166	164	162	160	158	157	157	157	157	157	159	161	162	164
9	167	167	169	169	166	164	161	160	158	158	157	158	159	160	164	165	167
10	170	170	173	172	170	167	163	162	160	159	159	159	161	162	166	167	170
11	174	173	177	175	172	170	165	164	161	161	160	160	163	164	169	170	174
12	178	177	181	179	176	173	168	167	163	163	162	163	165	166	172	173	178
13	181	180	185	183	180	177	171	170	166	165	164	165	168	169	176	177	181
14	186	184	189	187	184	181	175	173	169	168	167	167	171	172	180	181	186
15	190	189	193	193	189	185	178	177	172	171	169	171	174	176	183	184	190
16	194	193	200	197	194	190	182	181	176	174	174	174	178	180	188	189	194
17	200	198	204	202	199	194	186	185	179	179	177	178	182	184	192	194	200
18	204	202	208	206	204	199	191	189	184	182	182	182	186	188	196	198	204
19	208	208	212	211	208	203	196	194	188	186	186	185	190	192	201	203	208
20	213	213	218	217	214	209	201	198	193	191	190	190	194	196	206	208	213
21	219	219	224	223	220	214	206	202	198	196	195	195	199	201	210	213	219
22	225	224	230	228	226	219	211	207	203	200	202	199	203	206	215	218	225
23	230	229	235	233	232	224	217	212	208	205	206	203	208	212	220	224	230
24	235	234	241	238	237	228	223	218	213	210	212	208	213	217	225	230	235
25	240	239	245	243	242	234	229	223	219	215	216	214	218	223	231	235	240
26	245	244	251	248	247	239	234	228	225	221	222	220	224	227	236	240	245
27	249	249	255	253	253	245	240	233	231	226	228	225	230	233	240	245	249
28	254	255	260	259	258	250	246	238	237	230	235	230	234	237	244	250	254
29	258	260	264	264	263	255	251	243	242	235	240	235	239	242	249	255	258

30	264	266	271	269	268	260	257	248	248	241	246	240	244	247	253	262	264
31	269	271	276	274	274	266	262	253	253	247	250	245	248	253	258	267	269
32	275	276	281	278	280	271	268	258	258	252	255	250	253	259	264	273	275
33	281	280	286	281	286	276	274	263	263	257	260	255	258	265	270	278	281
34	286	284	290	284	291	280	280	268	269	262	265	261	264	270	276	282	286
35	291	288	293	288	296	284	287	273	275	268	271	266	269	275	282	287	291
36	294	291	297	291	300	288	293	278	281	272	278	271	275	279	287	291	294
37	297	294	300	294	304	292	298	282	287	278	283	276	281	283	291	294	297
38	300	297	303	297	307	296	303	286	293	282	289	281	286	288	295	298	300
39	303	301	305	300	310	300	306	291	299	286	295	284	290	292	298	302	303
40	305	304	308	303	313	303	310	295	303	290	300	289	294	296	301	305	305
41	307	307	310	305	315	305	312	298	307	295	304	293	298	300	303	308	307
42	309	309	312	307	317	308	315	302	310	299	309	297	301	304	306	311	309
43	311	311	314	309	319	309	318	304	314	303	312	301	304	307	308	313	311
44	314	313	317	311	321	311	321	307	316	306	315	306	308	310	310	314	314
45	316	316	319	314	323	314	322	309	319	309	318	309	310	313	312	316	316
46	318	319	324	316	325	316	324	311	320	310	320	312	312	314	314	318	318
47	321	322	329	319	328	318	327	312	323	313	323	314	314	316	316	320	321
48	326	325	335	324	331	320	329	314	325	315	325	315	316	318	319	322	326
49	331	329	337	329	336	322	332	316	328	317	327	316	318	320	320	326	331
50	337	335	346	336	341	324	336	319	330	319	330	318	320	322	323	329	337
51	346	343	351	342	347	328	340	321	333	321	332	320	322	325	328	334	346
52	351	342	350	341	357	336	346	324	336	323	335	322	325	329	333	340	351
53	352	344	354	342	361	349	354	327	340	326	338	324	330	335	341	346	352
54	350	345	356	340	360	350	362	334	344	328	342	327	338	343	351	350	350
55	352	345	352	339	361	345	366	345	352	333	349	332	348	350	351	347	352
56	355	343	353	340	362	344	364	350	360	340	358	340	357	349	351	347	355
57	355	344	355	341	363	346	363	346	370	349	365	345	352	343	350	351	355
58	355	345	356	343	362	348	367	345	371	353	368	348	347	344	353	350	355
59	354	345	357	342	362	350	369	349	366	348	361	346	350	346	355	350	354
60	352	346	356	342	362	350	370	354	366	347	359	342	353	347	357	349	352
61	352	348	356	342	360	349	369	352	370	349	363	343	356	349	355	349	352

62	352	347	358	344	360	350	366	352	369	350	364	345	353	349	356	351	352
63	352	347	357	344	359	350	366	352	372	355	362	348	350	347	356	350	352
64	354	347	359	344	360	349	367	353	368	352	362	344	352	346	354	350	354
65	356	347	360	344	360	349	367	353	368	351	361	345	351	348	355	351	356
66	358	348	362	344	362	348	367	352	369	352	361	345	352	347	356	351	358
67	360	349	364	345	363	348	368	352	368	352	361	344	353	348	357	352	360
68	362	351	367	346	365	349	369	351	368	352	362	345	355	348	359	353	362
69	365	352	369	347	366	349	371	352	368	352	362	346	356	349	361	354	365
70	367	353	371	348	368	350	372	352	370	352	364	346	358	350	362	354	367
71	368	354	372	349	369	351	373	353	371	352	365	347	359	351	364	355	368
72	369	355	373	350	370	351	374	354	372	353	367	347	361	353	366	356	369
73	370	355	373	350	371	352	375	355	373	354	368	349	363	354	367	356	370
74	371	356	373	350	372	353	375	355	375	355	370	349	364	355	368	356	371
75	372	355	373	350	373	354	375	355	375	356	370	350	365	355	369	357	372
76	373	355	374	350	373	354	376	356	376	356	372	350	366	355	370	357	373
77	373	355	373	350	373	354	376	356	376	357	372	352	366	355	370	358	373
78	373	354	373	349	374	355	377	357	376	357	372	352	367	355	370	357	373
79	372	353	373	349	373	355	378	358	377	357	373	353	367	355	371	357	372
80	372	353	373	348	373	355	378	358	378	357	374	353	367	356	372	357	372
81	370	352	372	348	372	355	378	358	378	358	374	353	368	356	371	356	370
82	370	353	373	348	371	354	378	359	378	358	374	353	370	355	371	354	370
83	370	352	373	348	371	353	377	358	**379**	359	374	353	368	354	370	354	370
84	370	352	373	348	371	353	376	357	378	358	374	353	367	352	370	354	370
85	370	352	372	348	371	353	375	357	376	357	373	352	366	352	370	354	370
86	370	351	372	347	370	353	374	357	375	356	372	351	366	352	370	353	370
87	370	351	371	347	370	353	374	356	375	356	371	351	366	351	369	353	370
88	370	351	372	347	369	352	374	356	375	356	372	351	366	351	369	352	370
89	369	351	372	347	369	352	373	355	374	357	371	350	366	350	369	352	369
90	370	350	372	347	369	353	373	355	373	356	371	350	365	349	369	352	370
91	369	350	371	347	369	353	372	355	372	356	370	349	365	349	370	352	369
92	369	350	371	346	368	353	372	355	372	355	370	349	365	349	370	352	369
93	368	350	371	346	368	353	372	355	371	355	370	349	365	349	370	351	368

94	367	349	370	345	367	352	371	355	371	355	370	349	365	348	370	350	367
95	366	348	369	345	366	352	370	355	371	355	370	349	365	348	369	350	366
96	366	347	368	343	365	352	370	354	370	355	370	349	364	347	369	349	366
97	364	346	367	342	364	351	369	354	369	355	369	349	364	346	368	348	364
98	363	345	366	341	363	350	368	353	369	354	369	348	363	345	367	347	363
99	362	344	365	340	362	349	367	352	368	354	368	347	362	344	366	346	362
100	360	342	362	338	360	348	366	352	368	353	367	347	362	343	365	345	360
101	358	340	360	336	358	347	364	351	367	353	367	346	360	342	364	344	358
102	356	338	358	334	356	346	363	350	365	352	365	346	359	340	363	342	356
103	354	336	355	332	354	344	361	349	363	351	364	344	358	339	361	340	354
104	352	333	352	330	351	342	359	347	362	349	363	343	357	337	359	338	352
105	349	332	350	328	349	340	357	346	360	348	361	341	355	336	356	336	349
106	346	329	347	326	346	338	354	344	358	346	360	340	353	334	354	334	346
107	344	327	344	324	343	336	352	342	356	344	358	338	351	332	351	332	344
108	341	324	341	321	340	334	349	340	354	342	357	337	350	329	348	329	341
109	338	321	338	318	337	332	346	338	351	341	354	335	347	327	346	327	338
110	334	317	334	315	334	330	343	336	348	338	352	333	344	325	343	324	334
111	331	314	331	311	330	326	340	334	345	336	348	330	341	323	339	321	331
112	327	310	327	307	327	323	337	331	342	334	346	328	339	320	336	317	327
113	324	306	323	304	324	320	333	328	339	331	342	325	336	317	332	314	324
114	319	301	318	299	320	316	330	325	336	328	339	323	333	313	329	310	319
115	315	297	314	295	316	312	326	321	332	325	336	320	330	310	325	306	315
116	310	292	309	290	311	308	322	318	329	322	333	317	327	306	322	302	310
117	306	288	305	286	306	304	318	313	326	318	330	313	323	302	317	297	306
118	301	283	299	281	301	299	313	309	322	314	326	309	320	298	313	292	301
119	297	278	294	277	296	294	308	305	317	310	321	305	316	294	308	287	297
120	291	274	289	272	291	289	303	300	313	305	318	301	311	289	303	282	291
121	287	269	284	267	285	284	298	295	307	300	312	296	307	284	298	277	287
122	281	264	278	263	280	279	292	291	302	296	308	292	302	280	292	272	281
123	276	260	273	258	274	274	286	286	296	291	302	287	297	276	287	267	276
124	271	255	267	254	269	270	281	281	291	286	297	282	292	272	281	262	271
125	266	251	262	249	263	265	275	276	285	281	292	278	287	267	276	258	266

126	260	246	256	244	258	260	269	272	280	276	286	273	282	263	270	253	260
127	255	241	252	239	252	255	264	267	274	272	280	269	276	258	265	248	255
128	250	237	246	234	248	251	259	262	268	267	275	264	272	253	260	244	250
129	245	232	241	230	242	246	254	258	263	262	270	259	266	248	254	240	245
130	240	228	236	225	238	241	249	253	258	258	264	254	261	243	250	235	240
131	235	223	231	221	232	237	243	248	252	253	259	249	255	239	245	231	235
132	230	218	226	216	227	232	239	243	247	248	254	245	250	234	240	226	230
133	224	213	220	211	222	227	233	238	242	243	249	240	245	229	235	221	224
134	219	207	215	205	217	222	228	234	237	238	244	235	240	225	230	217	219
135	214	201	209	200	211	216	223	229	232	233	239	231	234	220	225	212	214
136	208	195	204	193	206	210	218	224	227	228	234	226	229	214	219	206	208
137	203	189	198	187	200	203	212	218	222	223	228	221	224	209	214	200	203
138	197	182	192	181	194	197	207	213	216	218	223	216	219	203	208	193	197
139	190	176	185	176	188	191	202	207	211	212	218	210	214	197	202	187	190
140	183	171	178	170	182	185	196	201	206	205	212	205	209	191	196	180	183
141	175	165	171	164	175	180	190	195	200	199	207	199	203	185	190	174	175
142	168	159	163	158	168	174	184	189	194	193	202	193	197	179	183	168	168
143	161	153	156	152	161	167	177	183	188	187	196	187	190	173	176	162	161
144	154	146	149	146	153	161	170	178	181	181	189	181	182	168	169	156	154
145	147	140	142	139	146	154	163	172	174	175	181	175	175	162	162	150	147
146	141	134	137	133	140	147	156	165	167	169	173	169	167	156	155	144	141
147	135	128	131	127	133	140	149	159	159	163	166	162	161	150	148	138	135
148	128	121	125	121	128	133	142	152	152	156	159	156	154	144	141	132	128
149	122	115	119	115	122	127	136	145	145	150	152	149	148	138	135	126	122
150	116	108	113	109	116	121	131	138	139	143	145	143	141	132	128	120	116
151	109	103	107	103	110	115	125	131	133	136	140	137	135	126	122	114	109
152	102	98	99	97	104	109	119	126	127	129	134	131	129	119	115	108	102
153	94	91	91	91	98	103	113	120	121	123	128	124	123	112	109	101	94
154	87	85	84	84	91	96	107	114	115	116	123	118	117	107	102	95	87
155	80	78	79	78	84	90	101	108	109	110	117	112	110	101	95	89	80
156	75	72	73	71	78	83	94	102	104	104	111	106	103	96	88	82	75
157	69	67	68	66	72	77	88	95	98	98	103	100	96	90	82	77	69

158	63	62	62	61	67	71	82	88	91	91	96	93	88	83	75	71	63
159	56	57	55	56	62	65	76	81	83	84	89	86	82	77	69	65	56
160	51	50	49	50	56	59	71	76	77	78	83	80	77	71	63	59	51
161	46	45	45	44	51	55	65	69	72	72	77	74	71	66	57	53	46
162	41	41	40	40	46	50	59	64	67	66	72	69	65	61	52	48	41
163	36	36	35	35	40	44	54	58	61	61	66	63	58	56	46	43	36
164	32	31	30	31	37	40	48	53	56	56	60	57	52	49	41	38	32
165	28	27	26	27	32	36	43	47	50	50	54	51	47	44	37	34	28
166	24	24	22	23	28	32	39	42	46	45	49	47	42	40	33	30	24
167	21	21	19	20	24	28	34	37	41	40	44	41	37	35	29	25	21
168	18	18	16	17	21	25	30	33	36	36	39	37	33	30	25	22	18
169	16	15	14	15	18	21	26	28	32	31	35	32	29	27	22	19	16
170	14	13	12	12	16	19	23	25	28	28	30	29	25	23	19	16	14
171	12	11	10	11	13	16	20	22	24	24	26	24	21	20	17	15	12
172	10	10	9	9	11	14	17	19	21	21	23	21	18	17	14	12	10
173	9	8	8	8	10	13	14	16	18	19	19	18	15	15	12	10	9
174	7	7	7	7	9	10	12	14	15	16	16	15	13	11	10	8	7
175	6	6	5	6	7	8	10	11	13	13	14	13	11	9	7	7	6
176	4	4	4	4	6	7	8	9	11	11	12	11	8	8	6	5	4
177	3	3	3	3	4	5	6	8	8	9	9	9	7	5	4	4	3
178	3	3	3	3	3	4	5	5	7	7	7	7	4	3	3	3	3
179	3	3	3	3	3	3	3	4	5	5	5	4	3	3	3	3	3
180	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

2.8 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 4000K 25W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301 0E-D 1	120.0	60	0.210	24.95	0.991	6.63
	277.0	60	0.105	25.55	0.88	18.88
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

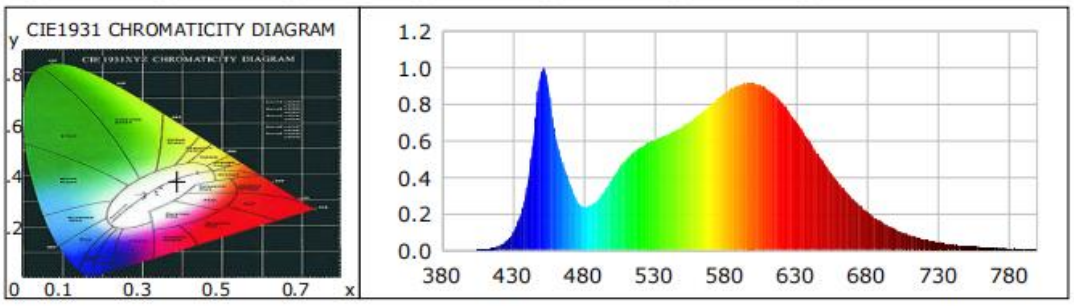
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	3788
Duv	-0.0020
Chromaticity (x, y)	x=0.3886 y=0.3774
Chromaticity (u', v')	u'=0.2302 v'=0.5031
Color Rendering Index CRI(Ra)	84
R9	10
Rf	84
Rg	96
Rcs,h1(%)	-12

Special Color Rendering Indices			
R1	83	R9	10
R2	91	R10	78
R3	95	R11	81
R4	82	R12	63
R5	83	R13	85
R6	87	R14	98
R7	85	R15	76
R8	64	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	3933.2	4006.5	>=2000(-10%)
Luminous Efficacy (lm/W)	157.64	156.81	Standard>=130(-3%)
Most worst Luminous/Highest Watts	153.94		

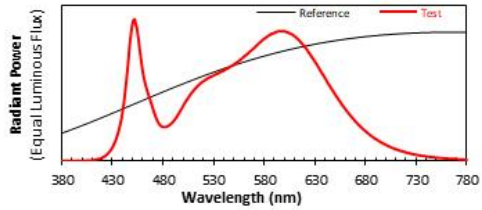
Spectral Power Distribution & Chromaticity Diagram

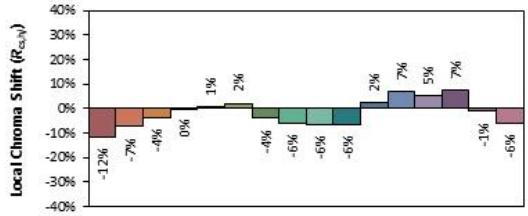


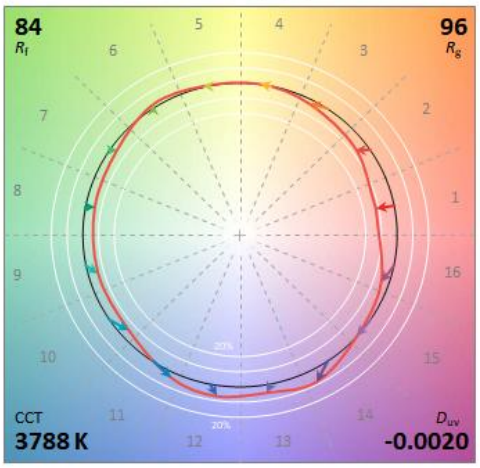
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0003	0.0213	535	0.5875	45.5662	690	0.2800	21.7163
385	0.0012	0.0925	540	0.6024	46.7190	695	0.2426	18.8184
390	0.0004	0.0286	545	0.6203	48.1065	700	0.2106	16.3357
395	0.0009	0.0708	550	0.6381	49.4922	705	0.1801	13.9655
400	0.0008	0.0652	555	0.6578	51.0194	710	0.1549	12.0158
405	0.0017	0.1345	560	0.6804	52.7685	715	0.1327	10.2909
410	0.0042	0.3268	565	0.7068	54.8151	720	0.1133	8.7908
415	0.0104	0.8080	570	0.7375	57.2010	725	0.0970	7.5245
420	0.0223	1.7274	575	0.7676	59.5328	730	0.0821	6.3687
425	0.0475	3.6825	580	0.7976	61.8576	735	0.0690	5.3539
430	0.0948	7.3522	585	0.8327	64.5803	740	0.0597	4.6313
435	0.1834	14.2268	590	0.8638	66.9902	745	0.0509	3.9507
440	0.3426	26.5699	595	0.8867	68.7692	750	0.0432	3.3523
445	0.6544	50.7535	600	0.9061	70.2716	755	0.0353	2.7392
450	0.9754	75.6503	605	0.9165	71.0828	760	0.0309	2.3991
455	0.8986	69.6964	610	0.9166	71.0856	765	0.0273	2.1162
460	0.6304	48.8920	615	0.9034	70.0656	770	0.0236	1.8315
465	0.4813	37.3266	620	0.8806	68.2996	775	0.0201	1.5621
470	0.3694	28.6522	625	0.8479	65.7599	780	0.0161	1.2505
475	0.2739	21.2434	630	0.8062	62.5253	785	0.0146	1.1299
480	0.2390	18.5345	635	0.7566	58.6783	790	0.0128	0.9927
485	0.2470	19.1594	640	0.7018	54.4271	795	0.0097	0.7540
490	0.2776	21.5291	645	0.6443	49.9739	800	0.0069	0.5371
495	0.3285	25.4782	650	0.5859	45.4372			
500	0.3893	30.1919	655	0.5271	40.8790			
505	0.4469	34.6636	660	0.4701	36.4578			
510	0.4961	38.4757	665	0.4175	32.3811			
515	0.5345	41.4505	670	0.3671	28.4741			
520	0.5631	43.6762	675	0.3209	24.8909			
525	0.5875	45.5662	680	0.2800	21.7163			
530	0.6024	46.7190	685	0.2426	18.8184			

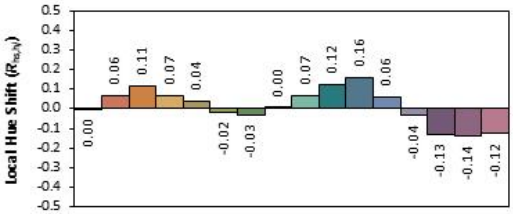
TM30

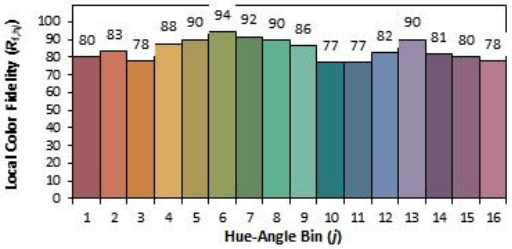
ANSI/IES TM-30-18 Color Rendition Report

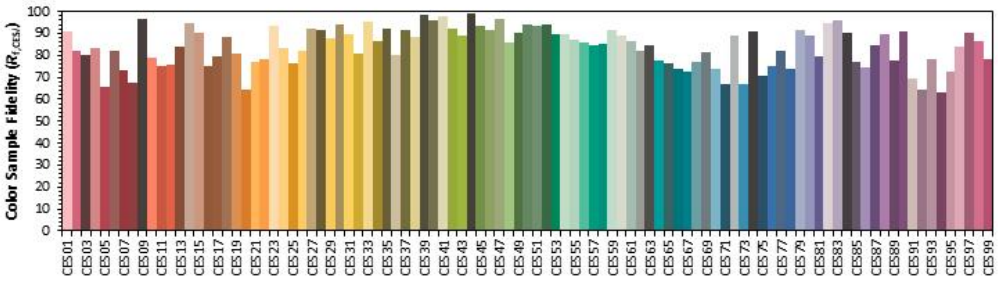












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3886
y	0.3774
u'	0.2302
v'	0.5031

CIE 13.3-1995 (CRI)

R_a	84
R_9	10

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.9 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2026-03-13	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	HIDFA-50S-E26-8CCT-BYP(Setting at 5000K 25W)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU260301	120.0	60	0.215	25.54	0.992	6.65
0E-D 1	277.0	60	0.108	26.28	0.88	18.61
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

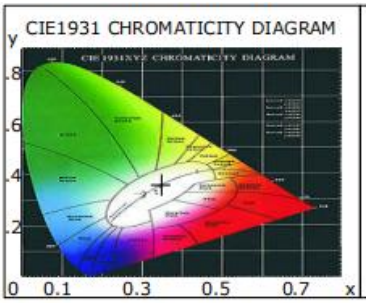
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	4920
Duv	0.0018
Chromaticity (x, y)	x=0.3478 y=0.3575
Chromaticity (u', v')	u'=0.211 v'=0.4879
Color Rendering Index CRI(Ra)	81
R9	-1
Rf	82
Rg	95
Rcs,h1(%)	-14

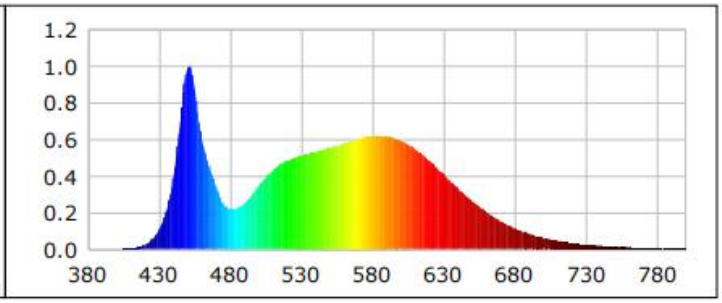
Special Color Rendering Indices			
R1	79	R9	-1
R2	88	R10	70
R3	93	R11	79
R4	80	R12	54
R5	79	R13	81
R6	82	R14	96
R7	86	R15	73
R8	64	--	--
--	--	--	--
--	--	--	--

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V6.0 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	3976.4	4061.3	>=2000(-10%)
Luminous Efficacy (lm/W)	155.69	154.54	Standard>=130(-3%)
Most worst Luminous/Highest Watts	151.31		

Spectral Power Distribution & Chromaticity Diagram

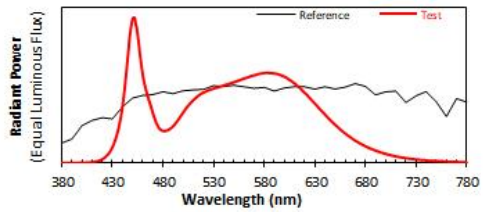


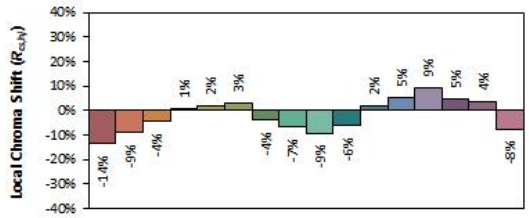


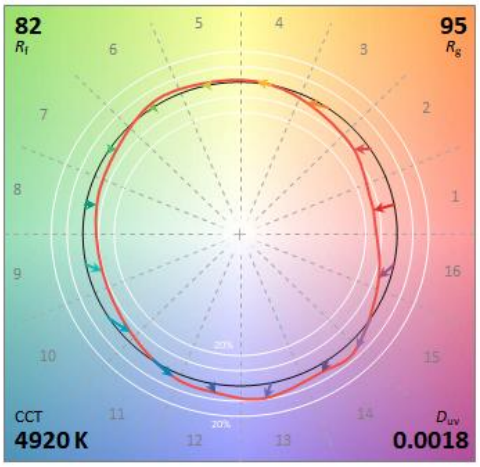
WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0007	0.0710	535	0.4997	52.2110	690	0.1528	15.9623
385	0.0008	0.0855	540	0.5102	53.3022	695	0.1321	13.8039
390	0.0004	0.0385	545	0.5210	54.4394	700	0.1144	11.9500
395	0.0010	0.1083	550	0.5318	55.5664	705	0.0978	10.2208
400	0.0011	0.1140	555	0.5424	56.6714	710	0.0847	8.8443
405	0.0024	0.2491	560	0.5546	57.9426	715	0.0715	7.4691
410	0.0047	0.4912	565	0.5666	59.2003	720	0.0617	6.4415
415	0.0112	1.1708	570	0.5810	60.7082	725	0.0522	5.4529
420	0.0252	2.6365	575	0.5922	61.8785	730	0.0451	4.7106
425	0.0526	5.4956	580	0.6019	62.8830	735	0.0377	3.9389
430	0.1074	11.2258	585	0.6129	64.0335	740	0.0325	3.3981
435	0.2084	21.7753	590	0.6184	64.6097	745	0.0278	2.9012
440	0.3886	40.6039	595	0.6182	64.5945	750	0.0232	2.4212
445	0.7160	74.8044	600	0.6161	64.3719	755	0.0194	2.0219
450	0.9927	103.7159	605	0.6070	63.4225	760	0.0171	1.7864
455	0.8773	91.6558	610	0.5929	61.9432	765	0.0153	1.5996
460	0.6056	63.2703	615	0.5703	59.5869	770	0.0127	1.3252
465	0.4561	47.6523	620	0.5471	57.1598	775	0.0118	1.2314
470	0.3420	35.7313	625	0.5169	54.0108	780	0.0086	0.9027
475	0.2501	26.1303	630	0.4823	50.3882	785	0.0077	0.7994
480	0.2190	22.8806	635	0.4462	46.6213	790	0.0063	0.6580
485	0.2259	23.6010	640	0.4079	42.6151	795	0.0049	0.5124
490	0.2516	26.2917	645	0.3694	38.5988	800	0.0040	0.4168
495	0.2964	30.9667	650	0.3331	34.8070			
500	0.3480	36.3567	655	0.2959	30.9158			
505	0.3932	41.0793	660	0.2621	27.3833			
510	0.4326	45.1997	665	0.2303	24.0640			
515	0.4626	48.3313	670	0.2022	21.1262			
520	0.4834	50.5081	675	0.1770	18.4979			
525	0.4997	52.2110	680	0.1528	15.9623			
530	0.5102	53.3022	685	0.1321	13.8039			

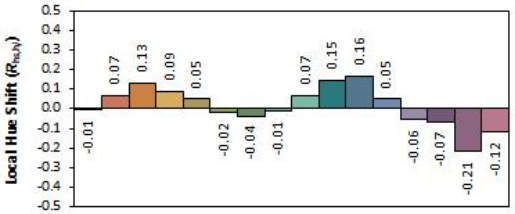
TM30

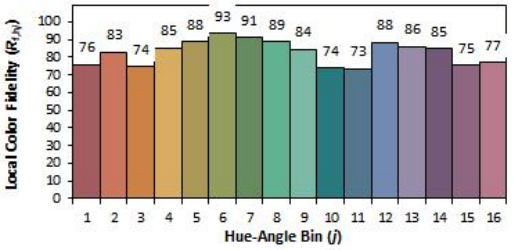
ANSI/IES TM-30-18 Color Rendition Report

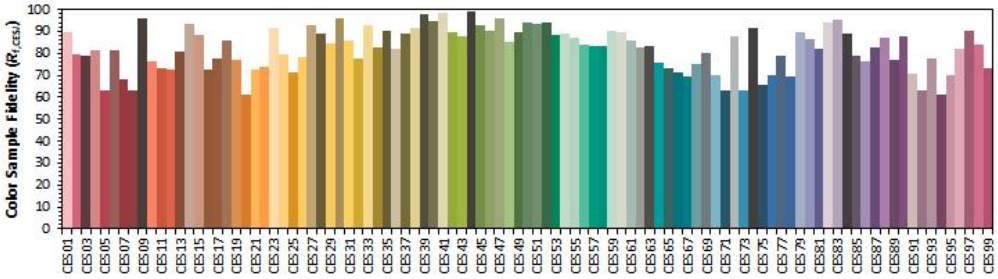












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3478
y	0.3575
u'	0.2110
v'	0.4879

CIE 13.3-1995 (CRI)

R_a	81
R_9	-1

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

3. Test Equipment

Equipment Name	Model No.	Serial No.	Calibration Date
Goniophotometeric System	GPM-3000	DYHXF120001	2025-10-23
AC Power Source	CHP-500C	DYBWD010159	2025-10-13
Standard Lamp*	24V/150W	DYJYR040040	2025-12-30
Standard Lamp**	24V/100W	DYBWR030014	2025-12-30
Digital Power Meter	WT500	DYDWQ20010	2025-10-13
Integral Sphere (2M)	2M	DYJCE120067	2025-10-23
Digital Power Meter	WT500	DYDWQ200006	2025-10-13
Optical Color and Electrical Measurement System	CMS-3000S	DYJCE120067	2025-10-23

* Reference standard lamp (150W incandescent directional lamp) calibrated by Guangzhou Institute of Measurement and Testing Technology.

** Reference standard lamp (100W incandescent omni-directional lamp) calibrated by Guangzhou Institute of Measurement and Testing Technology.

Expand Uncertainty:

Photometric Measurement (Sphere): 2.02%, k=2

Chromaticity Measurement(Sphere):24.8K, k=2

Photometric Measurement(Goniophotometer):2.88%, k=2

****** END OF REPORT ******