



Report No.: UTU2502037E-E

## LM-79-08 Test Report

For

## RAB Lighting Inc.

(Brand Name:RAB Lighting)

408 W 14th St, New York, NY 10014 United States  
Xiao Xiang,15921313292,Gary.Xiao@rablighting.com

## Outdoor Full-Cutoff Wall-Mounted Area Luminaires

Model name(s): SLIM17FAFC150[blank,/PIR,/MVS,/LCB,/LCBS,  
/LCBS/MVS]

Test & Report By:

*Winnie Wu*

Engineer: Winnie Wu

Date: 2024-02-12

Review By:

*Jason Luo*

Manager: Jason Luo

Laboratory: UTEST TECHNICAL LABORATORY CO.LTD A2LA Certificate# 4810.01  
Unit 401, No. 309 Xinxin Seven Road, Zengcheng District,  
Guangzhou, People' s Republic of China engineer@etk-utest.com

Report Format Number BL-FM-SA-012

### 1.1 Product Information:

Organization Name	RAB Lighting Inc.	
Brand Name	RAB Lighting	
Model Number	SLIM17FAFC150[blank,/PIR,/MVS,/LCB,/LCBS, /LCBS/MVS]	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Full-Cutoff Wall-Mounted Area Luminaires	
Rated Voltage / Frequency	120-277Vac, 50/60 Hz	
Nominal Power	150W	
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	UTU2502037E-E1	
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	2025-02-20
Date of Test	2025-02-22
Test item	<ol style="list-style-type: none"> <li>1. Total Luminous Flux</li> <li>2. Luminous Distribution Intensity</li> <li>3. Luminous Efficacy</li> <li>4. Correlated Color Temperature</li> <li>5. Color Rendering Index</li> <li>6. Chromaticity Coordinate</li> <li>7. Electrical Parameters</li> </ol>
Reference Standard	<ol style="list-style-type: none"> <li>1. IES LM-79-2019 Electrical and Photometric Measurements of Solid-State Lighting Products</li> <li>2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products</li> <li>3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources</li> <li>4. CIE 15-2004 Technical Report Colorimetry</li> <li>5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source</li> <li>6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems</li> </ol>
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  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ , 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  $1^{\circ}$  vertical intervals and  $22.5^{\circ}$  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  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ . 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  $4\pi$  geometry.

Self-absorption:

AST-FWP01C-150WBT3DA1-abce :1.025

### 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  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ . 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.

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## 2.1 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

<b>Test date</b>	2025-02-22	<b>Test Ambient:</b>	25.2 ° C
<b>Test Orientation</b>	Horizontal	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	SLIM17FAFC150 at 3000K	<b>Operation time(min)</b>	110

### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU250203	120.0	60	1.281	153.54	0.999	4.33
7E-E1	277.0	60	0.561	148.18	0.954	5.25
<b>DLC Pass Criteria</b>					>= 0.9(-3%)	<= 20(+5)

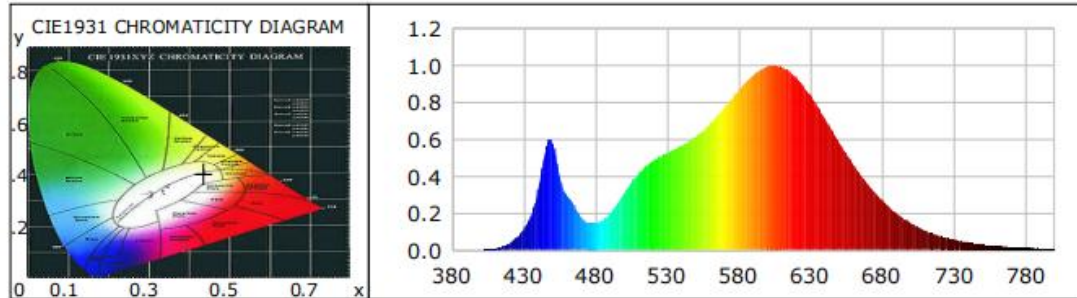
### Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	7
Frequency (Hz)	60	R2	89	R10	76
CCT (K)	3021	R3	96	R11	82
Duv	-0.0007	R4	82	R12	70
Chromaticity (x, y)	x=0.4345 y=0.4015	R5	81	R13	83
Chromaticity (u', v')	u'=0.2501 v'=0.52	R6	87	R14	98
Color Rendering Index (CRI)	83	R7	83	R15	74
R9	7	R8	60	--	--
Rf	84	--	--	--	--
Rg	98	--	--	--	--
Rcs,h1(%)	-11				

### Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	22199.6	21697.6	>=300(-10%)
Luminous Efficacy (lm/W)	144.59	146.43	Premium: >= 120(-3%)
Most worst Luminous/Highest	141.32		
Zonal lumens in the 0-90° zone (%)	100	--	>=100(-3%)
Zonal lumens in the 80-90°zone (%)	0.8	--	<=10(+3%)
Beam Angle (°)	109.3	--	--
Center Beam Candle Power (cd)	7778	--	--

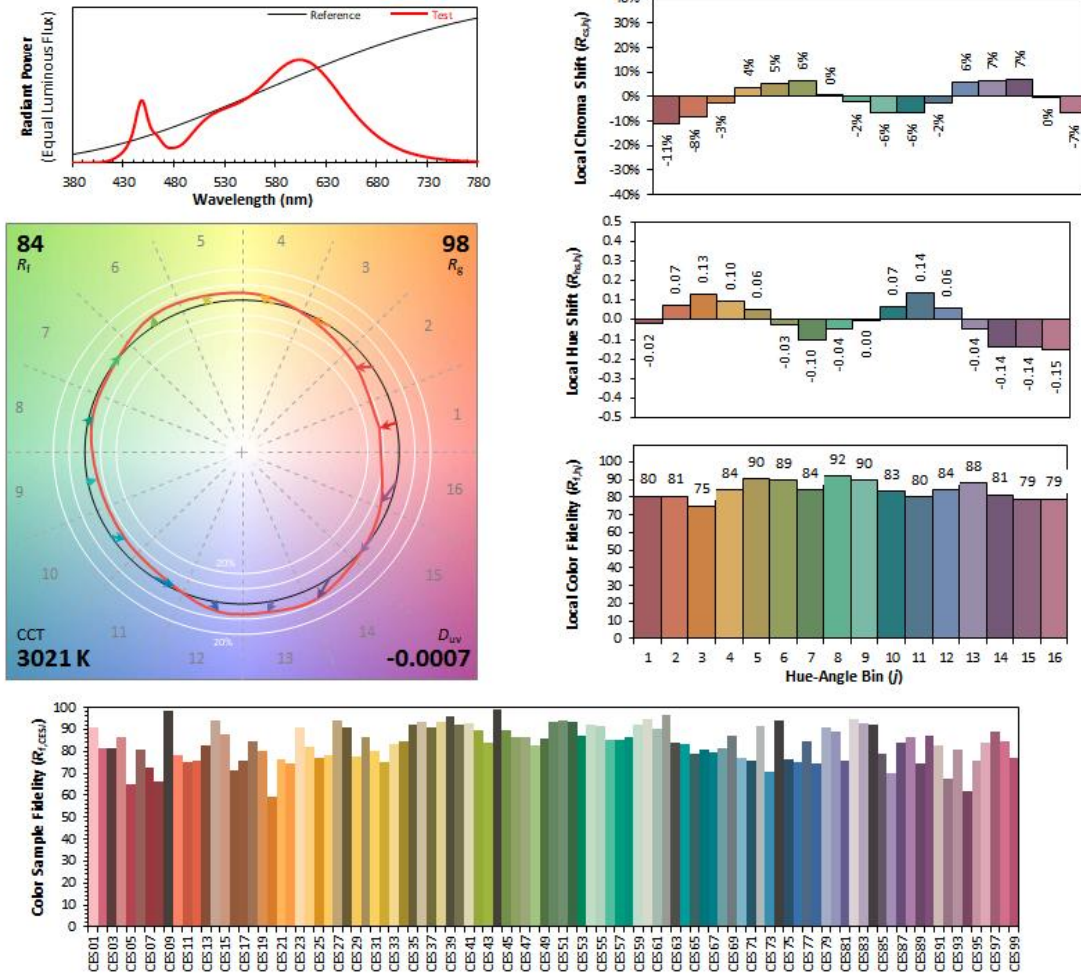
**Spectral Power Distribution & Chromaticity Diagram**



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0010	0.4097	535	0.5061	217.3079	690	0.3529	151.4999
385	0.0004	0.1525	540	0.5255	225.6102	695	0.3064	131.5346
390	0.0001	0.0363	545	0.5455	234.2102	700	0.2663	114.3546
395	0.0005	0.2071	550	0.5654	242.7599	705	0.2301	98.7759
400	0.0010	0.4368	555	0.5878	252.3456	710	0.1972	84.6780
405	0.0030	1.2796	560	0.6145	263.8332	715	0.1699	72.9505
410	0.0080	3.4330	565	0.6453	277.0336	720	0.1456	62.4917
415	0.0188	8.0628	570	0.6839	293.6223	725	0.1236	53.0453
420	0.0369	15.8251	575	0.7281	312.5929	730	0.1050	45.0877
425	0.0663	28.4756	580	0.7715	331.2257	735	0.0900	38.6290
430	0.1120	48.0920	585	0.8210	352.4814	740	0.0764	32.7916
435	0.1858	79.7769	590	0.8673	372.3656	745	0.0649	27.8653
440	0.3251	139.5636	595	0.9093	390.4016	750	0.0555	23.8378
445	0.5385	231.2146	600	0.9479	406.9775	755	0.0473	20.3143
450	0.5830	250.3206	605	0.9766	419.3017	760	0.0399	17.1461
455	0.4003	171.8605	610	0.9956	427.4658	765	0.0332	14.2695
460	0.2964	127.2487	615	1.0000	429.3400	770	0.0291	12.4854
465	0.2438	104.6582	620	0.9914	425.6290	775	0.0246	10.5444
470	0.1767	75.8750	625	0.9691	416.0830	780	0.0208	8.9389
475	0.1454	62.4327	630	0.9340	401.0249	785	0.0179	7.6882
480	0.1465	62.8961	635	0.8881	381.2847	790	0.0150	6.4238
485	0.1616	69.3640	640	0.8344	358.2444	795	0.0140	6.0052
490	0.1965	84.3658	645	0.7746	332.5833	800	0.0109	4.6607
495	0.2503	107.4653	650	0.7108	305.1688			
500	0.3086	132.5041	655	0.6444	276.6592			
505	0.3651	156.7481	660	0.5794	248.7738			
510	0.4140	177.7621	665	0.5175	222.1711			
515	0.4520	194.0732	670	0.4593	197.1907			
520	0.4814	206.6655	675	0.4037	173.3415			
525	0.5061	217.3079	680	0.3529	151.4999			
530	0.5255	225.6102	685	0.3064	131.5346			

TM30

ANSI/IES TM-30-18 Color Rendition Report



Notes:

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

$x$  0.4345  
 $y$  0.4015  
 $z'$  0.2501  
 $v'$  0.5200

CIE 13.3-1995  
(CRI)

$R_a$  83  
 $R_g$  7

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

## Zonal Lumen Tabulation

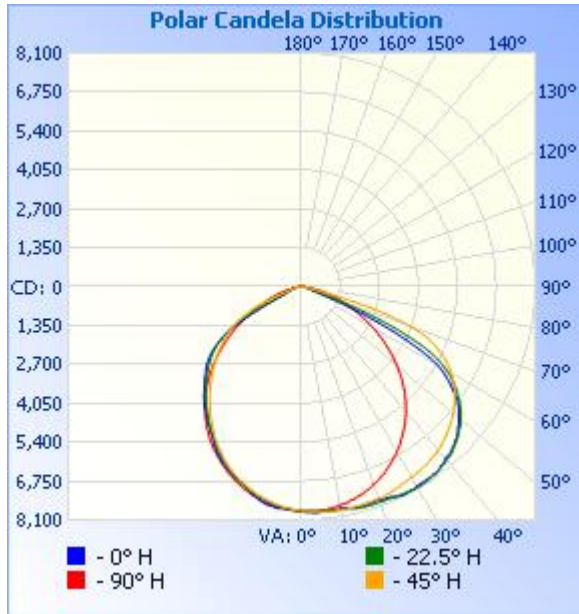
### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	6,126.8	27.6%	27.6%
0-40	10,153.5	45.7%	45.7%
0-60	18,480.1	83.2%	83.3%
60-90	3,717.0	16.7%	16.7%
70-100	1,085.5	4.9%	4.9%
90-120	0	0%	0%
0-90	22,197.1	100%	100%
90-180	0	0%	0%
0-180	22,197.1	100%	100%

### Lumens Per Zone

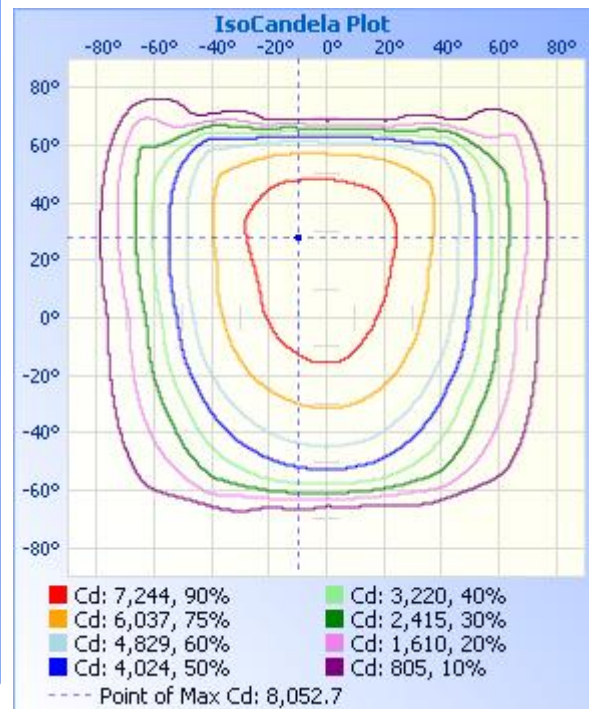
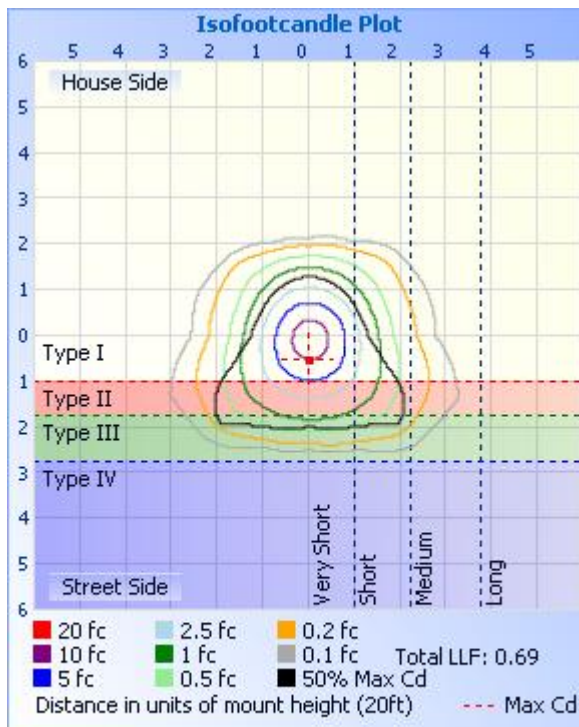
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	737.5	3.3%	90-100	0	0%
10-20	2,124.1	9.6%	100-110	0	0%
20-30	3,265.2	14.7%	110-120	0	0%
30-40	4,026.7	18.1%	120-130	0	0%
40-50	4,314.1	19.4%	130-140	0	0%
50-60	4,012.5	18.1%	140-150	0	0%
60-70	2,631.4	11.9%	150-160	0	0%
70-80	917.0	4.1%	160-170	0	0%
80-90	168.6	0.8%	170-180	0	0%

**Photometric Data**



	Illuminance at a Distance	
	Center Beam fc	Beam Width
17.0ft	26.9 fc	53.4 ft 45.7 ft
34.0ft	6.73 fc	106.9 ft 91.4 ft
51.0ft	2.99 fc	160.3 ft 137.1 ft
68.0ft	1.68 fc	213.7 ft 182.7 ft
85.0ft	1.08 fc	267.2 ft 228.4 ft
102.0ft	0.75 fc	320.6 ft 274.1 ft

■ Vert. Spread: 115.1°  
■ Horiz. Spread: 106.7°



**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	7778	7778	7778	7778	7778	7778	7778	7778	7778	7778	7778	7778	7778	7778	7778	7778	7778
1	7836	7801	7788	7764	7806	7798	7793	7804	7775	7770	7741	7758	7792	7799	7802	7804	7836
2	7834	7783	7790	7795	7801	7784	7767	7778	7751	7762	7742	7733	7763	7783	7803	7795	7834
3	7853	7805	7815	7788	7791	7771	7758	7757	7733	7726	7709	7732	7756	7779	7798	7786	7853
4	7857	7800	7801	7801	7810	7771	7743	7740	7738	7727	7685	7681	7739	7790	7820	7797	7857
5	7848	7803	7832	7803	7780	7734	7701	7697	7711	7689	7669	7682	7705	7756	7804	7786	7848
6	7863	7843	7839	7783	7788	7739	7697	7679	7736	7655	7618	7649	7697	7772	7825	7819	7863
7	7820	7837	7845	7800	7769	7701	7648	7625	7712	7629	7603	7606	7664	7745	7824	7826	7820
8	7815	7861	7867	7782	7740	7678	7617	7579	7670	7568	7549	7586	7637	7727	7820	7829	7815
9	7827	7860	7856	7770	7733	7663	7581	7550	7660	7554	7507	7518	7618	7720	7834	7849	7827
10	7809	7851	7871	7773	7695	7612	7516	7496	7609	7506	7470	7504	7564	7679	7806	7830	7809
11	7830	7875	7872	7736	7683	7599	7495	7471	7555	7460	7400	7450	7545	7678	7807	7840	7830
12	7839	7857	7863	7741	7662	7552	7439	7424	7487	7424	7378	7397	7490	7648	7794	7836	7839
13	7890	7889	7867	7713	7607	7496	7388	7382	7406	7352	7316	7352	7446	7614	7772	7832	7890
14	7928	7902	7843	7696	7596	7468	7350	7341	7357	7325	7259	7274	7402	7595	7775	7850	7928
15	7907	7907	7850	7688	7538	7398	7277	7270	7255	7258	7212	7235	7333	7537	7740	7835	7907
16	7929	7949	7842	7638	7510	7373	7248	7232	7189	7201	7132	7173	7298	7517	7740	7857	7929
17	7907	7937	7825	7626	7472	7304	7182	7165	7114	7158	7100	7095	7224	7475	7736	7866	7907
18	7876	7957	7845	7588	7407	7235	7121	7100	7061	7080	7024	7051	7161	7431	7700	7844	7876
19	7864	7958	7819	7550	7372	7189	7067	7053	7026	7031	6955	6964	7108	7397	7709	7854	7864
20	7852	7943	7828	7531	7300	7106	6984	6951	6958	6958	6889	6905	7028	7330	7677	7828	7852
21	7908	7964	7826	7472	7258	7063	6939	6898	6907	6874	6798	6828	6980	7301	7674	7838	7908
22	7907	7951	7793	7443	7207	6990	6859	6814	6839	6810	6743	6736	6897	7243	7654	7830	7907
23	7927	7975	7795	7388	7120	6902	6783	6728	6759	6714	6655	6675	6824	7175	7608	7816	7927
24	7990	7992	7757	7331	7081	6840	6723	6657	6719	6653	6567	6582	6754	7134	7597	7851	7990
25	8013	7987	7747	7298	6986	6745	6618	6560	6624	6552	6486	6511	6667	7051	7547	7838	8013
26	8044	8015	7726	7220	6920	6695	6557	6497	6542	6456	6381	6419	6604	6998	7526	7864	8044
27	8052	8007	7677	7171	6856	6608	6464	6402	6448	6383	6314	6320	6514	6937	7500	7878	8052
28	8019	8032	7682	7109	6762	6513	6377	6308	6345	6275	6221	6244	6429	6856	7446	7859	8019



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29	8035	8053	7650	7041	6699	6429	6297	6228	6260	6192	6117	6134	6356	6806	7443	7873	8035
30	7994	8035	7640	6993	6612	6327	6181	6117	6131	6092	6033	6044	6254	6723	7398	7846	7994
31	7988	8052	7630	6912	6529	6254	6106	6044	6039	5993	5906	5945	6187	6659	7374	7849	7988
32	7991	8032	7590	6857	6451	6158	6007	5935	5947	5915	5825	5820	6077	6577	7359	7841	7991
33	7975	8025	7587	6798	6332	6046	5903	5836	5843	5808	5715	5724	5976	6479	7303	7798	7975
34	7990	8013	7554	6707	6253	5962	5812	5760	5773	5736	5602	5602	5885	6418	7293	7800	7990
35	7982	7962	7533	6652	6153	5830	5695	5650	5677	5630	5512	5500	5765	6324	7256	7775	7982
36	7978	7962	7517	6563	6053	5737	5594	5577	5592	5531	5379	5392	5674	6245	7225	7751	7978
37	7946	7926	7469	6495	5967	5631	5484	5472	5516	5446	5290	5253	5554	6172	7203	7736	7946
38	7871	7899	7460	6420	5845	5511	5381	5379	5417	5344	5179	5153	5441	6067	7143	7688	7871
39	7858	7887	7416	6325	5745	5403	5285	5301	5348	5262	5065	5025	5337	5997	7128	7679	7858
40	7780	7835	7380	6262	5638	5271	5168	5194	5250	5172	4971	4907	5208	5894	7083	7633	7780
41	7753	7819	7355	6172	5511	5166	5063	5115	5161	5069	4842	4791	5101	5810	7045	7584	7753
42	7740	7765	7289	6087	5404	5047	4952	5018	5076	4992	4748	4650	4977	5717	7012	7555	7740
43	7670	7709	7263	5999	5272	4918	4841	4909	4955	4886	4640	4531	4840	5603	6945	7497	7670
44	7622	7660	7204	5894	5159	4800	4749	4826	4871	4799	4530	4396	4724	5515	6904	7453	7622
45	7552	7575	7150	5810	5033	4661	4620	4711	4762	4696	4421	4258	4579	5400	6848	7384	7552
46	7498	7527	7110	5713	4889	4549	4529	4627	4672	4588	4302	4124	4462	5302	6781	7305	7498
47	7415	7457	7036	5606	4772	4417	4416	4525	4575	4500	4205	3986	4309	5207	6733	7245	7415
48	7301	7368	6989	5522	4630	4275	4303	4417	4475	4385	4095	3861	4162	5089	6662	7168	7301
49	7227	7309	6924	5406	4488	4140	4203	4330	4401	4292	3983	3724	4028	4987	6610	7099	7227
50	7120	7203	6859	5320	4351	3996	4075	4209	4303	4189	3874	3585	3873	4869	6544	7015	7120
51	7028	7118	6805	5220	4197	3874	3978	4124	4210	4085	3756	3454	3727	4768	6466	6918	7028
52	6934	7019	6720	5108	4067	3742	3864	4021	4104	3995	3657	3318	3574	4656	6407	6831	6934
53	6802	6888	6663	5016	3915	3583	3751	3908	3977	3867	3540	3195	3419	4536	6324	6704	6802
54	6680	6780	6585	4905	3774	3460	3649	3813	3852	3763	3412	3059	3281	4442	6262	6587	6680
55	6481	6618	6486	4814	3620	3316	3515	3689	3691	3637	3307	2918	3125	4311	6178	6461	6481
56	6300	6501	6415	4694	3460	3187	3413	3561	3504	3488	3190	2790	2974	4209	6082	6305	6300
57	6131	6359	6303	4583	3322	3036	3301	3415	3308	3319	3088	2654	2816	4094	5991	6168	6131
58	5924	6186	6218	4493	3172	2896	3184	3243	3079	3120	2975	2532	2662	3969	5873	5972	5924
59	5728	6026	6106	4380	3028	2773	3072	3069	2848	2922	2847	2394	2519	3863	5781	5797	5728

60	5467	5823	5985	4284	2867	2632	2944	2859	2535	2693	2732	2267	2365	3742	5666	5588	5467
61	5081	5597	5881	4178	2708	2508	2840	2628	2123	2438	2596	2151	2215	3630	5526	5353	5081
62	4620	5350	5735	4056	2572	2368	2715	2374	1717	2078	2465	2028	2080	3518	5386	5104	4620
63	4084	5011	5604	3957	2425	2239	2563	2017	1338	1693	2300	1911	1944	3402	5215	4695	4084
64	3499	4575	5440	3850	2275	2119	2421	1678	1018	1321	2125	1800	1817	3302	5057	4248	3499
65	2923	4080	5261	3756	2141	1996	2255	1278	803	1003	1953	1696	1679	3180	4890	3745	2923
66	2339	3562	5100	3644	2003	1881	2087	974	662	772	1745	1590	1564	3078	4670	3203	2339
67	1699	2999	4895	3542	1875	1760	1902	760	597	643	1503	1486	1448	2981	4464	2645	1699
68	1121	2354	4675	3449	1742	1649	1683	620	560	557	1184	1372	1336	2868	4189	1938	1121
69	699	1658	4374	3346	1610	1557	1447	552	518	508	904	1271	1221	2777	3867	1364	699
70	522	1123	4020	3248	1499	1448	1157	504	487	468	688	1171	1115	2675	3410	884	522
71	441	708	3567	3150	1382	1339	897	465	452	428	544	1075	1019	2587	2942	574	441
72	400	513	3078	3050	1278	1233	664	430	419	397	447	962	919	2497	2434	457	400
73	361	429	2533	2963	1168	1127	532	394	390	368	398	863	823	2398	1833	400	361
74	325	385	1880	2862	1053	1028	448	362	367	340	357	766	729	2317	1275	358	325
75	298	342	1290	2760	955	917	394	333	341	311	311	666	640	2208	795	316	298
76	266	308	846	2658	854	821	352	308	320	283	275	557	555	2107	523	283	266
77	235	277	537	2543	753	727	309	285	299	273	247	422	476	1986	386	257	235
78	204	244	405	2427	661	623	277	259	263	248	223	327	399	1846	321	222	204
79	172	214	332	2268	572	519	245	241	250	216	194	251	331	1689	272	192	172
80	147	179	280	2085	486	391	214	216	227	196	173	197	269	1461	223	159	147
81	120	152	239	1855	400	301	192	195	205	172	146	154	209	1206	183	135	120
82	103	127	204	1527	331	237	163	173	180	150	125	121	159	898	150	109	103
83	81	103	165	1191	266	185	143	146	149	124	99	95	115	614	119	82	81
84	58	82	134	862	209	141	120	119	108	95	80	73	79	388	87	58	58
85	45	57	107	576	155	108	93	90	79	61	55	51	45	189	59	40	45
86	33	38	72	333	106	85	74	68	58	46	35	31	35	80	32	23	33
87	31	23	42	169	74	59	39	41	29	28	18	18	16	32	28	19	31
88	22	23	19	78	38	30	35	24	23	17	17	14	15	25	24	18	22
89	24	20	19	28	25	21	22	21	13	18	14	16	16	18	23	17	24
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Report No.: UTU2502037E-E

91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## BUG Rating

### Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	3209.1	14.5	14.5
FM (30-60)	7274.9	32.8	32.8
FH (60-80)	2439.5	11.0	11.0
FVH (80-90)	115.6	0.5	0.5
BL (0-30)	2917.8	13.1	13.1
BM (30-60)	5080.8	22.9	22.9
BH (60-80)	1108.9	5.0	5.0
BVH (80-90)	52.9	0.2	0.2
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	22199.5	100.0	100.0
<b>BUG Rating</b>	<b>B4-U0-G3</b>		

**2.2 Electrical, Photometric and Chromaticity Measurements**  
(Refer to Work Instruction BL-QP-033)

<b>Test date</b>	2025-02-22	<b>Test Ambient:</b>	25.2 ° C
<b>Test Orientation</b>	Horizontal	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	SLIM17FAFC150 at 4000K	<b>Operation time(min)</b>	110

**Electrical Measurement:**

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU250203	120.0	60	1.223	146.58	0.999	4.56
7E-E1	277.0	60	0.541	142.3	0.95	5.96
<b>DLC Pass Criteria</b>					$\geq 0.9(-3\%)$	$\leq 20(+5)$

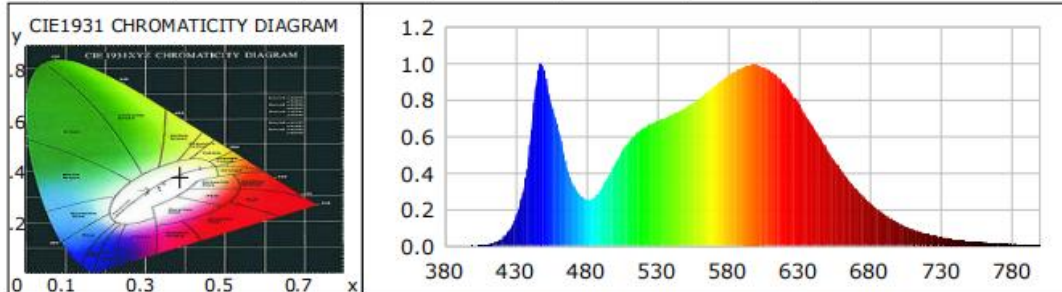
**Chromaticity Measurement - Sphere-Spectroradiometer Method:**

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	83	R9	14
Frequency (Hz)	60	R2	90	R10	76
CCT (K)	3852	R3	95	R11	84
Duv	-0.0013	R4	84	R12	66
Chromaticity (x, y)	x=0.3862 y=0.3776	R5	83	R13	85
Chromaticity (u', v')	u'=0.2286 v'=0.5028	R6	86	R14	97
Color Rendering Index (CRI)	84	R7	86	R15	77
R9	14	R8	66	--	--
Rf	85	--	--	--	--
Rg	97	--	--	--	--
Rcs,h1(%)	-11				

**Photometric Measurement – Sphere-Spectroradiometer Method:**

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	24071.4	24002.5	$\geq 300(-10\%)$
Luminous Efficacy (lm/W)	164.22	168.68	Premium: $\geq 120(-3\%)$
Most worst Luminous/Highest Watts	163.75		
Zonal lumens in the 0-90° zone (%)	100	--	$\geq 100(-3\%)$
Zonal lumens in the 80-90°zone (%)	0.8	--	$\leq 10(+3\%)$
Beam Angle (°)	109.3	--	--
Center Beam Candle Power (cd)	8396	--	--

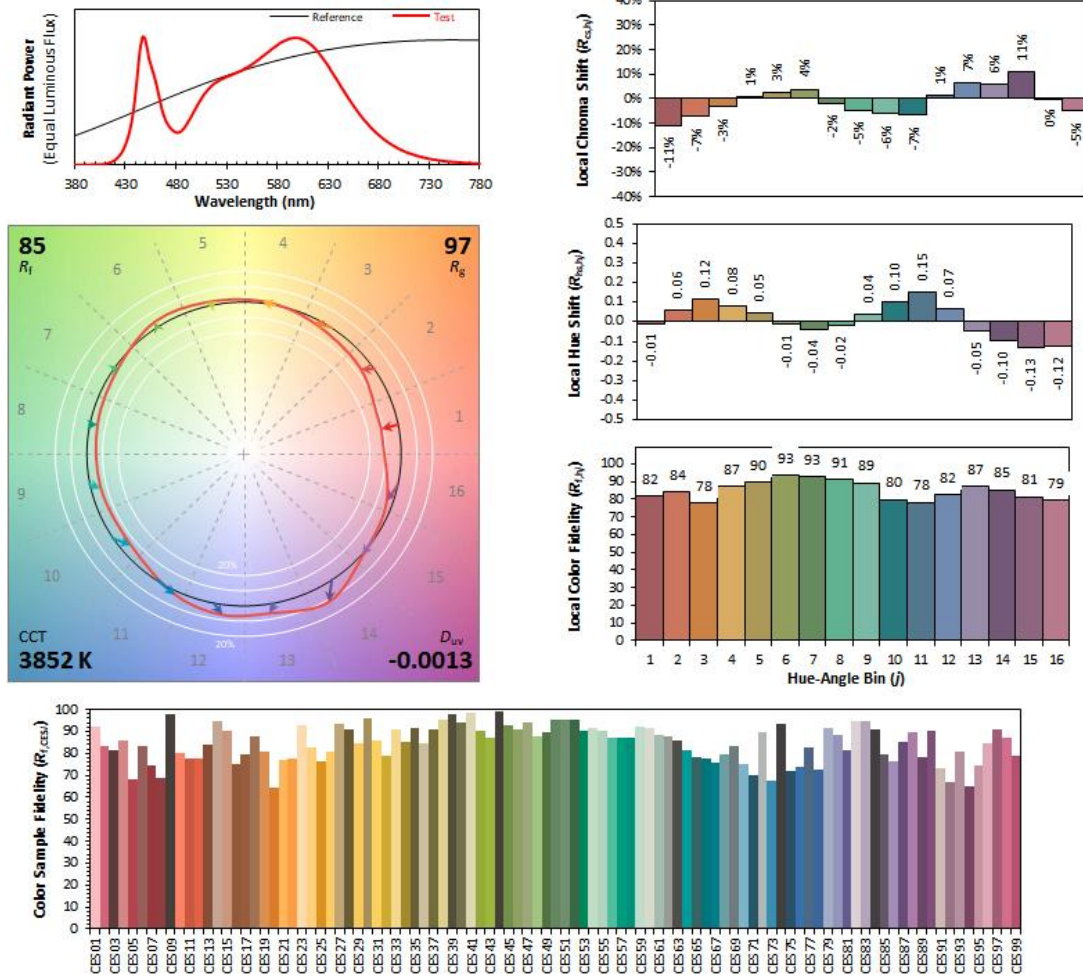
**Spectral Power Distribution & Chromaticity Diagram**



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0006	0.2355	535	0.6679	277.8717	690	0.3141	130.6662
385	0.0007	0.3038	540	0.6851	285.0263	695	0.2722	113.2385
390	0.0009	0.3941	545	0.7021	292.0852	700	0.2345	97.5760
395	0.0008	0.3520	550	0.7189	299.0661	705	0.2013	83.7287
400	0.0015	0.6324	555	0.7380	307.0250	710	0.1734	72.1301
405	0.0029	1.2097	560	0.7591	315.8026	715	0.1482	61.6532
410	0.0073	3.0436	565	0.7848	326.4864	720	0.1256	52.2362
415	0.0177	7.3666	570	0.8129	338.1616	725	0.1074	44.6739
420	0.0389	16.1729	575	0.8452	351.6348	730	0.0912	37.9599
425	0.0803	33.4213	580	0.8749	363.9689	735	0.0778	32.3465
430	0.1559	64.8371	585	0.9070	377.3358	740	0.0663	27.5680
435	0.2911	121.1231	590	0.9356	389.2362	745	0.0564	23.4738
440	0.5584	232.2906	595	0.9597	399.2491	750	0.0479	19.9132
445	0.9279	386.0297	600	0.9795	407.4776	755	0.0402	16.7220
450	0.9655	401.6538	605	0.9888	411.3730	760	0.0340	14.1637
455	0.7844	326.3272	610	0.9915	412.4882	765	0.0292	12.1677
460	0.6451	268.3643	615	0.9800	407.6970	770	0.0250	10.3844
465	0.4706	195.7697	620	0.9601	399.4138	775	0.0214	8.9014
470	0.3427	142.5806	625	0.9274	385.7997	780	0.0177	7.3655
475	0.2824	117.4796	630	0.8838	367.6814	785	0.0154	6.3882
480	0.2536	105.5088	635	0.8322	346.2044	790	0.0143	5.9668
485	0.2625	109.2026	640	0.7748	322.3255	795	0.0108	4.5031
490	0.3092	128.6333	645	0.7135	296.8330	800	0.0084	3.4888
495	0.3766	156.6576	650	0.6509	270.7811			
500	0.4489	186.7471	655	0.5867	244.0755			
505	0.5166	214.9273	660	0.5241	218.0390			
510	0.5717	237.8473	665	0.4660	193.8504			
515	0.6148	255.7634	670	0.4102	170.6656			
520	0.6442	268.0028	675	0.3592	149.4526			
525	0.6679	277.8717	680	0.3141	130.6662			
530	0.6851	285.0263	685	0.2722	113.2385			

TM30

ANSI/IES TM-30-18 Color Rendition Report



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

$x$  0.3862  
 $y$  0.3776  
 $u'$  0.2286  
 $v'$  0.5028

CIE 13.3-1995 (CRI)  
 $R_a$  84  
 $R_g$  14

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

## Zonal Lumen Tabulation

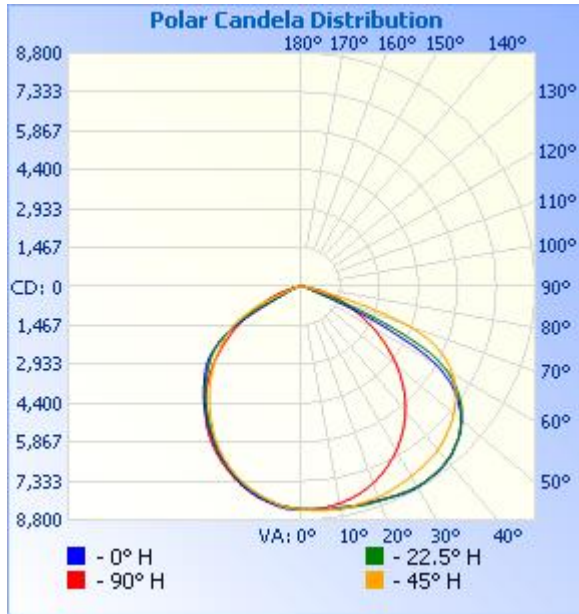
### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	6,619.8	27.5%	27.5%
0-40	10,988.5	45.6%	45.7%
0-60	20,051.9	83.3%	83.3%
60-90	4,016.7	16.7%	16.7%
70-100	1,180.8	4.9%	4.9%
90-120	0	0%	0%
0-90	24,068.7	100%	100%
90-180	0	0%	0%
0-180	24,068.7	100%	100%

### Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	795.7	3.3%	90-100	0	0%
10-20	2,293.5	9.5%	100-110	0	0%
20-30	3,530.6	14.7%	110-120	0	0%
30-40	4,368.7	18.2%	120-130	0	0%
40-50	4,695.0	19.5%	130-140	0	0%
50-60	4,368.4	18.1%	140-150	0	0%
60-70	2,835.9	11.8%	150-160	0	0%
70-80	997.1	4.1%	160-170	0	0%
80-90	183.8	0.8%	170-180	0	0%

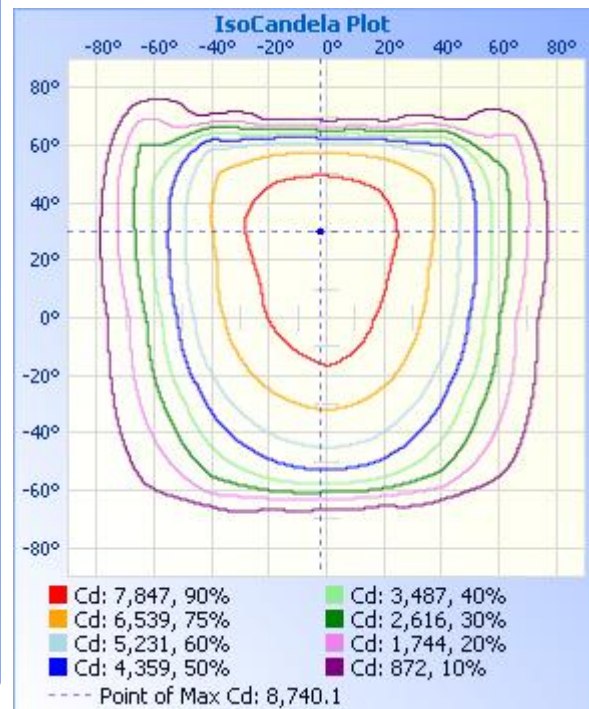
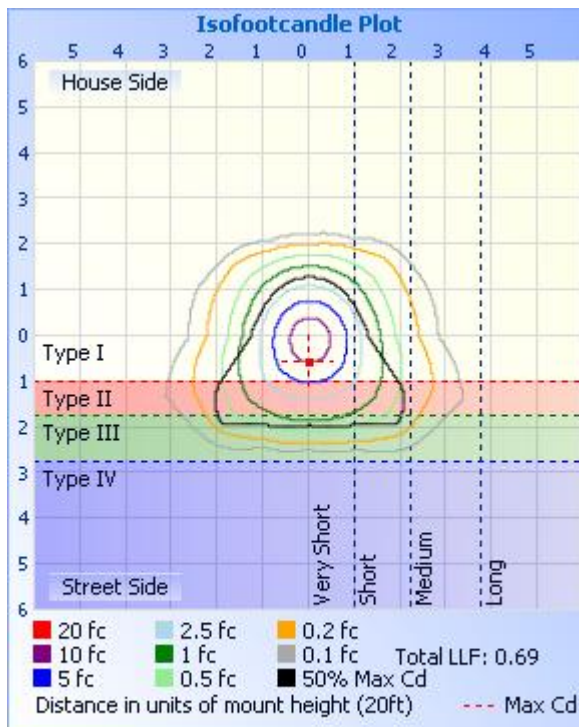
**Photometric Data**



**Illuminance at a Distance**

	Center Beam fc	Beam Width	
17.0ft	29.1 fc	53.8 ft	45.9 ft
34.0ft	7.26 fc	107.6 ft	91.8 ft
51.0ft	3.23 fc	161.4 ft	137.7 ft
68.0ft	1.82 fc	215.2 ft	183.7 ft
85.0ft	1.16 fc	269.0 ft	229.6 ft
102.0ft	0.81 fc	322.8 ft	275.5 ft

■ Vert. Spread: 115.4°  
■ Horiz. Spread: 107.0°



**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	8396	8396	8396	8396	8396	8396	8396	8396	8396	8396	8396	8396	8396	8396	8396	8396	8396
1	8421	8376	8433	8388	8410	8377	8408	8374	8421	8370	8390	8382	8372	8371	8430	8389	8421
2	8407	8405	8420	8415	8387	8369	8384	8378	8396	8358	8374	8350	8379	8390	8421	8407	8407
3	8422	8398	8449	8400	8415	8369	8364	8364	8382	8354	8334	8352	8336	8375	8435	8407	8422
4	8436	8410	8454	8417	8387	8335	8357	8328	8383	8310	8334	8310	8342	8371	8449	8402	8436
5	8426	8438	8453	8419	8394	8341	8306	8327	8333	8307	8291	8300	8314	8380	8425	8430	8426
6	8462	8432	8480	8395	8389	8309	8303	8280	8331	8260	8263	8277	8272	8343	8456	8423	8462
7	8457	8472	8470	8412	8346	8289	8257	8248	8278	8217	8226	8221	8272	8351	8443	8457	8457
8	8470	8476	8503	8385	8354	8274	8209	8209	8230	8187	8161	8208	8213	8319	8452	8462	8470
9	8478	8473	8504	8389	8316	8221	8184	8142	8210	8123	8142	8143	8207	8304	8463	8443	8478
10	8452	8500	8497	8384	8298	8207	8114	8119	8147	8102	8078	8119	8169	8295	8427	8464	8452
11	8474	8479	8518	8339	8282	8159	8089	8060	8132	8044	8028	8068	8113	8247	8442	8441	8474
12	8459	8505	8488	8348	8223	8112	8032	8022	8081	7994	7980	8003	8088	8238	8418	8457	8459
13	8482	8511	8498	8309	8215	8082	7965	7976	8025	7953	7904	7962	8021	8198	8414	8460	8482
14	8509	8526	8488	8299	8167	8010	7930	7901	7984	7883	7875	7885	7984	8162	8406	8453	8509
15	8504	8553	8463	8285	8133	7985	7850	7862	7898	7853	7802	7838	7926	8136	8363	8481	8504
16	8534	8547	8477	8224	8099	7920	7818	7791	7860	7779	7739	7776	7848	8073	8373	8464	8534
17	8508	8578	8452	8219	8029	7848	7752	7737	7791	7721	7680	7687	7807	8059	8343	8483	8508
18	8524	8580	8466	8167	8000	7796	7676	7684	7704	7666	7595	7637	7722	8012	8331	8489	8524
19	8552	8576	8459	8141	7930	7713	7623	7596	7648	7577	7550	7540	7674	7955	8330	8465	8552
20	8552	8598	8436	8111	7880	7668	7533	7549	7547	7523	7457	7480	7599	7916	8284	8483	8552
21	8597	8576	8448	8040	7833	7591	7482	7457	7488	7431	7384	7401	7512	7841	8284	8461	8597
22	8598	8611	8410	8018	7744	7510	7402	7387	7392	7352	7313	7312	7460	7804	8249	8475	8598
23	8618	8621	8408	7945	7702	7439	7313	7312	7296	7283	7200	7249	7365	7740	8224	8485	8618
24	8652	8630	8387	7899	7616	7337	7241	7209	7233	7175	7136	7149	7304	7671	8205	8476	8652
25	8655	8664	8350	7858	7547	7289	7138	7137	7139	7117	7034	7059	7224	7620	8153	8504	8655
26	8700	8648	8350	7771	7479	7183	7077	7035	7068	7003	6945	6975	7123	7536	8142	8489	8700
27	8704	8678	8309	7729	7373	7101	6983	6945	6975	6910	6861	6866	7058	7487	8106	8512	8704
28	8715	8700	8300	7651	7315	7020	6878	6858	6877	6823	6738	6791	6952	7416	8068	8523	8715



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29	8740	8692	8288	7590	7228	6909	6790	6733	6800	6704	6657	6661	6877	7341	8054	8502	8740
30	8718	8719	8243	7540	7132	6837	6679	6652	6678	6629	6545	6564	6787	7277	8004	8525	8718
31	8726	8698	8246	7448	7057	6732	6596	6541	6586	6523	6441	6460	6675	7171	7987	8504	8726
32	8715	8707	8207	7396	6943	6622	6491	6448	6495	6414	6340	6333	6594	7109	7952	8502	8715
33	8696	8705	8194	7322	6860	6528	6379	6359	6392	6330	6206	6238	6474	7022	7916	8502	8696
34	8704	8662	8181	7240	6752	6404	6287	6247	6309	6212	6113	6113	6383	6928	7904	8454	8704
35	8681	8672	8133	7171	6647	6312	6148	6156	6194	6135	5989	5989	6274	6862	7850	8463	8681
36	8683	8636	8132	7074	6550	6193	6058	6044	6105	6029	5875	5869	6134	6757	7838	8428	8683
37	8656	8631	8090	7017	6423	6076	5940	5951	6000	5916	5773	5731	6038	6683	7800	8410	8656
38	8622	8613	8070	6924	6329	5954	5822	5860	5899	5831	5631	5625	5908	6596	7758	8393	8622
39	8607	8557	8049	6835	6206	5816	5708	5734	5823	5718	5534	5471	5797	6487	7740	8336	8607
40	8550	8549	7987	6761	6080	5713	5578	5655	5716	5635	5411	5350	5672	6409	7683	8327	8550
41	8529	8500	7973	6658	5974	5577	5480	5541	5625	5529	5295	5221	5533	6292	7651	8274	8529
42	8488	8461	7917	6575	5837	5444	5362	5442	5524	5419	5186	5078	5405	6204	7603	8237	8488
43	8401	8415	7875	6476	5710	5313	5239	5348	5412	5318	5050	4956	5262	6093	7540	8202	8401
44	8352	8328	7836	6372	5589	5170	5129	5225	5318	5202	4949	4797	5135	5973	7503	8122	8352
45	8277	8290	7758	6282	5439	5054	5000	5138	5191	5118	4830	4663	4984	5879	7429	8074	8277
46	8234	8214	7728	6171	5312	4908	4898	5022	5105	5003	4712	4521	4831	5757	7387	7994	8234
47	8143	8145	7664	6083	5143	4749	4782	4916	5002	4881	4602	4368	4696	5658	7335	7912	8143
48	8040	8076	7606	5984	5015	4609	4653	4813	4886	4784	4460	4232	4532	5540	7251	7863	8040
49	7969	7964	7560	5869	4869	4456	4539	4689	4797	4665	4358	4068	4386	5414	7206	7754	7969
50	7837	7891	7464	5778	4705	4325	4409	4597	4676	4560	4236	3933	4215	5313	7128	7686	7837
51	7738	7763	7421	5648	4570	4176	4306	4481	4577	4444	4116	3789	4051	5183	7063	7583	7738
52	7599	7667	7344	5554	4389	4015	4184	4370	4447	4332	3992	3641	3901	5073	7000	7467	7599
53	7436	7555	7267	5452	4238	3875	4044	4248	4298	4215	3858	3509	3733	4950	6909	7357	7436
54	7299	7402	7199	5333	4085	3717	3934	4117	4147	4070	3750	3344	3576	4823	6851	7207	7299
55	7110	7263	7086	5229	3917	3581	3801	3995	3939	3937	3624	3207	3401	4720	6736	7093	7110
56	6926	7101	7015	5106	3770	3418	3694	3844	3756	3748	3493	3070	3238	4585	6659	6928	6926
57	6730	6943	6912	5003	3584	3274	3555	3669	3534	3553	3377	2923	3083	4469	6563	6736	6730
58	6438	6764	6802	4898	3434	3133	3433	3485	3286	3351	3245	2776	2908	4340	6434	6560	6438
59	6173	6536	6687	4778	3276	2979	3321	3273	3003	3119	3124	2635	2740	4208	6340	6323	6173

60	5825	6320	6548	4669	3106	2844	3185	3056	2666	2880	2978	2500	2573	4097	6198	6094	5825
61	5409	6023	6438	4546	2953	2689	3065	2816	2292	2570	2828	2371	2414	3968	6052	5822	5409
62	4875	5715	6282	4443	2774	2552	2910	2524	1891	2222	2654	2229	2274	3852	5902	5447	4875
63	4191	5324	6128	4330	2620	2419	2761	2186	1482	1802	2475	2110	2107	3738	5717	5021	4191
64	3562	4752	5953	4202	2472	2278	2604	1805	1183	1469	2287	1984	1973	3606	5536	4475	3562
65	2915	4180	5745	4110	2320	2147	2422	1449	975	1146	2082	1872	1840	3496	5329	3892	2915
66	2289	3548	5549	3991	2167	2016	2234	1146	848	930	1840	1752	1701	3370	5125	3205	2289
67	1598	2905	5305	3893	2017	1895	2018	917	752	790	1572	1632	1583	3275	4877	2560	1598
68	1081	2254	5008	3786	1882	1784	1808	782	651	708	1276	1508	1450	3161	4555	1900	1081
69	757	1587	4682	3671	1754	1653	1560	692	584	606	980	1396	1334	3050	4137	1340	757
70	573	1090	4230	3580	1611	1546	1264	604	536	539	777	1285	1218	2950	3641	872	573
71	502	749	3712	3458	1492	1431	980	525	498	487	641	1173	1106	2847	3105	628	502
72	459	573	3077	3368	1376	1317	773	475	455	448	543	1057	994	2754	2524	518	459
73	421	496	2476	3265	1259	1209	635	439	417	408	462	945	893	2656	1895	454	421
74	382	440	1865	3157	1149	1091	537	401	399	376	394	831	796	2551	1295	404	382
75	340	397	1311	3056	1025	987	451	375	371	346	349	718	702	2444	853	364	340
76	308	362	843	2924	923	880	389	338	349	323	312	597	607	2313	584	327	308
77	273	322	586	2809	817	774	340	314	319	292	277	465	514	2180	432	292	273
78	234	285	451	2668	717	664	308	288	294	269	244	372	431	2031	357	261	234
79	199	249	384	2490	619	546	266	262	268	244	215	286	362	1832	311	221	199
80	163	214	326	2252	518	428	235	234	243	216	184	221	295	1590	258	193	163
81	142	182	282	1947	435	328	204	206	225	188	161	172	228	1277	217	154	142
82	116	148	243	1603	357	256	179	185	191	158	133	137	173	983	176	124	116
83	93	118	196	1265	279	202	154	160	156	129	104	102	129	695	141	94	93
84	58	92	161	934	218	152	128	127	118	101	83	76	88	434	103	71	58
85	44	63	117	635	167	116	100	91	88	69	59	50	61	234	66	51	44
86	31	47	84	398	119	85	78	70	60	45	30	33	32	94	27	31	31
87	26	23	54	204	72	54	51	46	35	26	20	20	20	31	24	27	26
88	23	23	33	84	51	37	27	21	22	15	13	19	19	27	22	18	23
89	17	23	22	29	31	26	24	22	16	13	15	9	19	23	21	17	17
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## BUG Rating

### Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	3465.6	14.4	14.4
FM (30-60)	7920.0	32.9	32.9
FH (60-80)	2621.1	10.9	10.9
FVH (80-90)	127.0	0.5	0.5
BL (0-30)	3154.3	13.1	13.1
BM (30-60)	5514.7	22.9	22.9
BH (60-80)	1211.9	5.0	5.0
BVH (80-90)	56.8	0.2	0.2
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	24071.4	99.9	100.0
<b>BUG Rating</b>	<b>B4-U0-G3</b>		

**2.3 Electrical, Photometric and Chromaticity Measurements**  
(Refer to Work Instruction BL-QP-033)

<b>Test date</b>	2025-02-22	<b>Test Ambient:</b>	25.2 °C
<b>Test Orientation</b>	Horizontal	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	SLIM17FAFC150 at 5000K	<b>Operation time(min)</b>	110

**Electrical Measurement:**

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTU250203	120.0	60	1.273	152.62	0.999	4.51
7E-E1	277.0	60	0.560	147.93	0.954	5.56
<b>DLC Pass Criteria</b>					>= 0.9(-3%)	<= 20(+5)

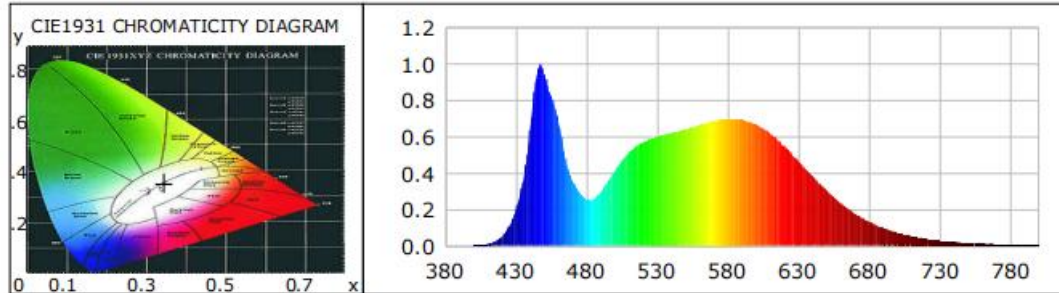
**Chromaticity Measurement - Sphere-Spectroradiometer Method:**

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	79	R9	-1
Frequency (Hz)	60	R2	86	R10	68
CCT (K)	5020	R3	92	R11	81
Duv	0.0025	R4	82	R12	62
Chromaticity (x, y)	x=0.345 y=0.3565	R5	81	R13	81
Chromaticity (u', v')	u'=0.2095 v'=0.487	R6	82	R14	95
Color Rendering Index (CRI)	81	R7	86	R15	74
R9	-1	R8	65	--	--
Rf	83	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-13				

**Photometric Measurement – Sphere-Spectroradiometer Method:**

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	23694.7	23484.7	>=300(-10%)
Luminous Efficacy (lm/W)	155.25	158.76	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	153.88		
Zonal lumens in the 0-90° zone (%)	100	--	>=100(-3%)
Zonal lumens in the 80-90°zone (%)	0.8	--	<=10(+3%)
Beam Angle (°)	109.4	--	--
Center Beam Candle Power (cd)	8216	--	--

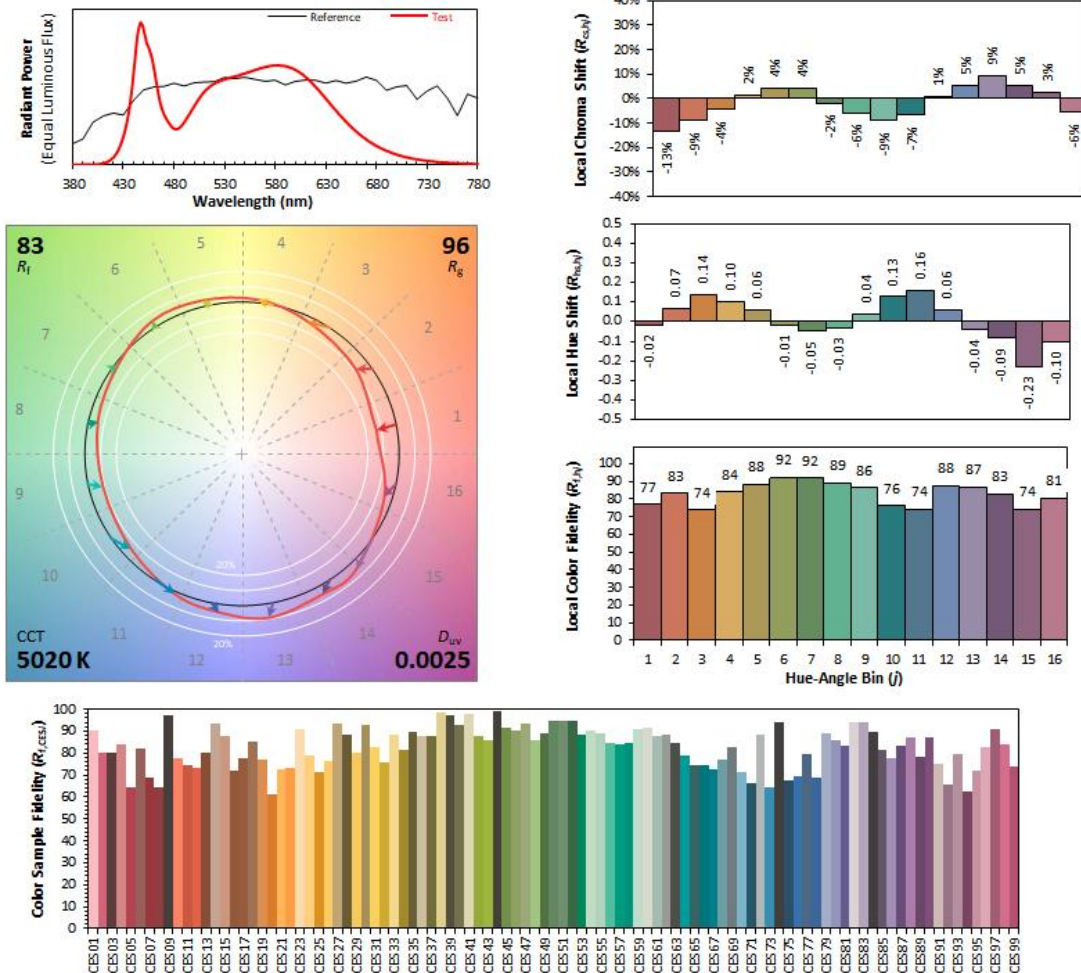
**Spectral Power Distribution & Chromaticity Diagram**



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0007	0.3546	535	0.5870	307.5657	690	0.1775	93.0039
385	0.0005	0.2650	540	0.5987	313.7020	695	0.1532	80.2674
390	0.0005	0.2853	545	0.6096	319.4211	700	0.1319	69.1216
395	0.0008	0.4278	550	0.6208	325.3071	705	0.1136	59.5489
400	0.0016	0.8541	555	0.6299	330.0616	710	0.0975	51.0649
405	0.0039	2.0660	560	0.6405	335.6192	715	0.0841	44.0629
410	0.0095	4.9712	565	0.6536	342.4732	720	0.0709	37.1403
415	0.0231	12.0856	570	0.6660	348.9824	725	0.0617	32.3373
420	0.0505	26.4420	575	0.6784	355.4746	730	0.0515	26.9673
425	0.1029	53.8979	580	0.6857	359.3115	735	0.0442	23.1484
430	0.1970	103.2088	585	0.6946	363.9705	740	0.0386	20.2306
435	0.3571	187.1014	590	0.6981	365.8049	745	0.0323	16.9115
440	0.6382	334.4067	595	0.6963	364.8702	750	0.0270	14.1671
445	0.9535	499.6483	600	0.6941	363.7159	755	0.0231	12.1235
450	0.9496	497.5727	605	0.6828	357.7956	760	0.0195	10.2305
455	0.8228	431.1630	610	0.6670	349.5064	765	0.0162	8.4934
460	0.6840	358.3994	615	0.6445	337.7195	770	0.0142	7.4573
465	0.4818	252.4422	620	0.6160	322.7579	775	0.0112	5.8588
470	0.3568	186.9620	625	0.5842	306.0989	780	0.0107	5.6152
475	0.2929	153.4942	630	0.5468	286.5026	785	0.0086	4.4854
480	0.2540	133.1123	635	0.5054	264.8036	790	0.0072	3.7876
485	0.2576	134.9664	640	0.4635	242.8841	795	0.0061	3.1714
490	0.2969	155.5841	645	0.4214	220.8211	800	0.0061	3.2183
495	0.3528	184.8417	650	0.3807	199.4641			
500	0.4110	215.3548	655	0.3408	178.5570			
505	0.4677	245.0766	660	0.3025	158.5068			
510	0.5140	269.3202	665	0.2666	139.7243			
515	0.5466	286.4305	670	0.2338	122.5170			
520	0.5699	298.6497	675	0.2040	106.9126			
525	0.5870	307.5657	680	0.1775	93.0039			
530	0.5987	313.7020	685	0.1532	80.2674			

TM30

ANSI/IES TM-30-18 Color Rendition Report



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

$x$  0.3450  
 $y$  0.3565  
 $u'$  0.2095  
 $v'$  0.4870

CIE 13.3-1995 (CRI)	
$R_a$	81
$R_g$	-1

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

## Zonal Lumen Tabulation

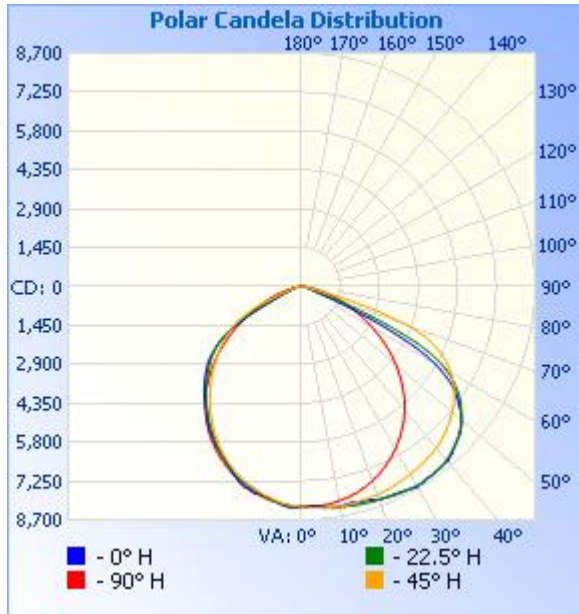
### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	6,491.1	27.4%	27.4%
0-40	10,786.7	45.5%	45.5%
0-60	19,713.4	83.2%	83.2%
60-90	3,978.7	16.8%	16.8%
70-100	1,172.4	4.9%	4.9%
90-120	0	0%	0%
0-90	23,692.1	100%	100%
90-180	0	0%	0%
0-180	23,692.1	100%	100%

### Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	779.0	3.3%	90-100	0	0%
10-20	2,247.7	9.5%	100-110	0	0%
20-30	3,464.4	14.6%	110-120	0	0%
30-40	4,295.6	18.1%	120-130	0	0%
40-50	4,621.3	19.5%	130-140	0	0%
50-60	4,305.3	18.2%	140-150	0	0%
60-70	2,806.2	11.8%	150-160	0	0%
70-80	989.0	4.2%	160-170	0	0%
80-90	183.5	0.8%	170-180	0	0%

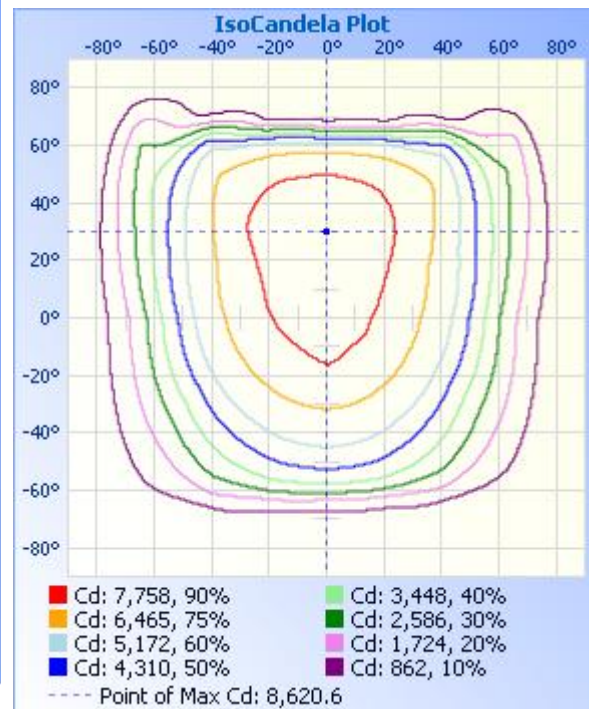
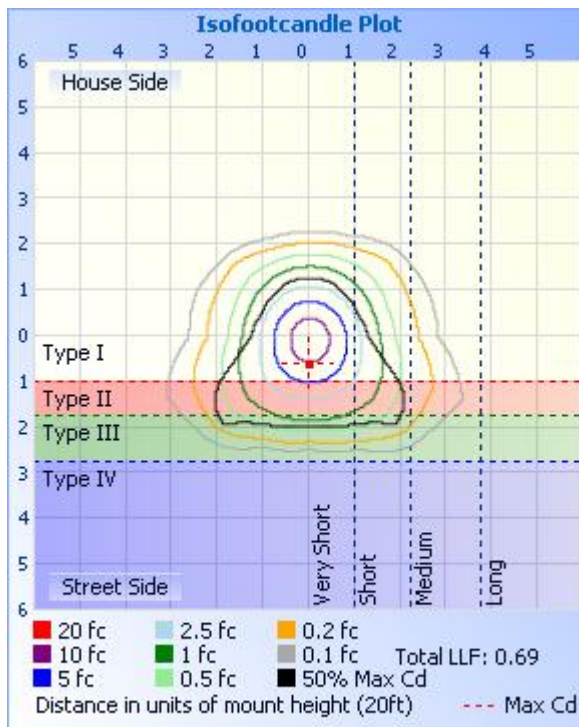
**Photometric Data**



**Illuminance at a Distance**

	Center Beam fc	Beam Width	
17.0ft	28.4 fc	53.3 ft	46.0 ft
34.0ft	7.11 fc	106.6 ft	92.0 ft
51.0ft	3.16 fc	159.9 ft	138.0 ft
68.0ft	1.78 fc	213.2 ft	184.0 ft
85.0ft	1.14 fc	266.5 ft	230.0 ft
102.0ft	0.79 fc	319.8 ft	276.0 ft

■ Vert. Spread: 114.9°  
■ Horiz. Spread: 107.1°



**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	8216	8216	8216	8216	8216	8216	8216	8216	8216	8216	8216	8216	8216	8216	8216	8216	8216
1	8189	8235	8208	8249	8198	8186	8223	8192	8247	8200	8186	8231	8185	8192	8245	8234	8189
2	8193	8216	8240	8237	8222	8197	8194	8203	8220	8200	8164	8207	8188	8212	8257	8231	8193
3	8169	8250	8240	8251	8215	8184	8187	8181	8241	8172	8158	8174	8173	8209	8249	8251	8169
4	8202	8249	8254	8258	8200	8154	8167	8178	8210	8178	8114	8175	8135	8195	8270	8242	8202
5	8218	8269	8276	8233	8210	8159	8124	8166	8173	8141	8109	8130	8137	8205	8251	8275	8218
6	8246	8305	8259	8254	8176	8130	8114	8118	8129	8106	8069	8128	8098	8169	8273	8292	8246
7	8303	8299	8296	8229	8178	8114	8066	8111	8045	8074	8023	8093	8075	8174	8273	8298	8303
8	8303	8337	8297	8234	8154	8089	8039	8057	8017	8004	7987	8049	8056	8159	8261	8312	8303
9	8315	8335	8308	8236	8123	8046	7997	8019	7959	7981	7926	8026	8010	8131	8281	8286	8315
10	8306	8340	8325	8193	8114	8028	7937	7974	7928	7926	7897	7959	7998	8124	8257	8304	8306
11	8292	8363	8299	8206	8072	7984	7907	7905	7907	7878	7841	7935	7947	8072	8268	8302	8292
12	8293	8347	8318	8164	8059	7947	7839	7885	7876	7843	7778	7879	7906	8065	8263	8287	8293
13	8255	8380	8294	8163	8024	7905	7798	7818	7891	7777	7738	7811	7868	8031	8240	8312	8255
14	8277	8391	8288	8148	7982	7840	7747	7759	7838	7750	7661	7777	7792	7988	8242	8303	8277
15	8319	8394	8289	8097	7958	7809	7677	7711	7787	7687	7635	7694	7763	7967	8205	8329	8319
16	8311	8424	8258	8089	7893	7740	7635	7636	7763	7630	7563	7648	7693	7911	8200	8336	8311
17	8324	8412	8281	8045	7867	7682	7565	7594	7695	7587	7498	7569	7640	7896	8184	8315	8324
18	8349	8441	8266	8022	7818	7635	7510	7524	7625	7505	7444	7489	7586	7855	8151	8341	8349
19	8415	8439	8258	7995	7754	7544	7450	7469	7515	7461	7361	7437	7501	7799	8154	8324	8415
20	8453	8435	8268	7930	7710	7497	7361	7420	7431	7377	7300	7348	7455	7762	8120	8342	8453
21	8443	8460	8232	7912	7637	7419	7304	7337	7345	7301	7223	7285	7374	7692	8107	8341	8443
22	8480	8454	8238	7847	7594	7351	7219	7287	7223	7236	7137	7201	7306	7651	8086	8332	8480
23	8462	8491	8210	7812	7533	7283	7146	7187	7140	7144	7068	7109	7246	7599	8044	8359	8462
24	8479	8505	8191	7765	7447	7188	7078	7116	7041	7086	6968	7041	7144	7522	8035	8343	8479
25	8488	8516	8187	7687	7392	7127	6979	7035	6968	6996	6904	6939	7090	7481	7994	8365	8488
26	8502	8540	8145	7647	7301	7034	6908	6928	6908	6897	6799	6869	7002	7404	7984	8367	8502
27	8537	8526	8149	7580	7238	6955	6811	6844	6813	6820	6705	6770	6922	7354	7960	8349	8537
28	8547	8556	8123	7515	7160	6879	6732	6742	6753	6706	6622	6666	6846	7292	7907	8383	8547

29	8587	8569	8098	7465	7060	6771	6647	6647	6653	6628	6509	6589	6738	7206	7899	8370	8587
30	8621	8557	8086	7384	6995	6690	6537	6555	6570	6525	6430	6468	6670	7146	7853	8393	8621
31	8588	8574	8040	7338	6894	6583	6458	6443	6489	6415	6324	6376	6573	7053	7835	8398	8588
32	8594	8545	8039	7264	6812	6491	6336	6358	6389	6335	6206	6263	6483	6986	7817	8369	8594
33	8546	8554	8017	7186	6716	6402	6244	6252	6327	6225	6111	6138	6390	6915	7763	8389	8546
34	8544	8550	7977	7125	6610	6284	6143	6164	6211	6149	5987	6044	6263	6821	7755	8351	8544
35	8546	8514	7976	7039	6518	6198	6026	6073	6098	6036	5896	5910	6172	6753	7710	8342	8546
36	8499	8528	7928	6983	6414	6063	5935	5955	6007	5929	5774	5806	6057	6657	7693	8337	8499
37	8522	8495	7921	6903	6315	5957	5801	5874	5885	5842	5648	5674	5943	6585	7676	8284	8522
38	8502	8482	7898	6816	6211	5848	5700	5756	5799	5731	5543	5538	5830	6500	7618	8283	8502
39	8489	8457	7850	6748	6081	5715	5589	5661	5697	5650	5417	5429	5697	6389	7600	8240	8489
40	8482	8396	7834	6651	5981	5613	5469	5566	5605	5532	5321	5293	5594	6313	7552	8226	8482
41	8416	8385	7785	6575	5856	5465	5368	5450	5526	5431	5200	5177	5460	6212	7513	8196	8416
42	8382	8324	7752	6485	5728	5341	5249	5361	5417	5325	5071	5042	5333	6118	7475	8131	8382
43	8285	8283	7709	6394	5609	5221	5127	5241	5331	5209	4969	4889	5210	6018	7399	8107	8285
44	8218	8239	7649	6308	5462	5068	5019	5147	5209	5114	4843	4768	5050	5905	7377	8044	8218
45	8178	8152	7613	6198	5341	4948	4884	5052	5114	5005	4744	4619	4927	5813	7319	7980	8178
46	8109	8118	7546	6111	5195	4804	4781	4934	5021	4902	4612	4484	4775	5690	7265	7920	8109
47	8065	8026	7496	6014	5061	4669	4660	4833	4904	4800	4495	4327	4637	5584	7216	7830	8065
48	7966	7956	7446	5905	4916	4527	4547	4718	4810	4685	4387	4173	4491	5483	7137	7784	7966
49	7889	7873	7367	5816	4759	4375	4439	4623	4685	4582	4260	4042	4317	5358	7094	7695	7889
50	7788	7753	7322	5694	4622	4229	4305	4518	4586	4471	4158	3893	4175	5255	7025	7612	7788
51	7645	7678	7248	5605	4468	4079	4194	4403	4480	4362	4025	3744	4014	5127	6958	7522	7645
52	7522	7556	7182	5503	4319	3939	4073	4295	4343	4260	3905	3603	3857	5013	6898	7401	7522
53	7350	7444	7120	5390	4174	3798	3959	4169	4199	4129	3792	3456	3687	4905	6808	7308	7350
54	7200	7334	7018	5299	4011	3644	3839	4054	4037	4001	3662	3322	3520	4778	6748	7173	7200
55	7052	7182	6953	5169	3849	3497	3712	3931	3868	3853	3543	3177	3375	4660	6660	7047	7052
56	6856	7037	6845	5072	3691	3349	3595	3764	3693	3694	3423	3033	3210	4542	6566	6898	6856
57	6672	6855	6763	4963	3532	3208	3468	3615	3457	3525	3299	2887	3033	4422	6479	6697	6672
58	6367	6672	6666	4841	3382	3067	3355	3431	3237	3320	3189	2744	2873	4309	6358	6531	6367
59	6076	6478	6533	4740	3200	2906	3239	3243	2981	3093	3054	2618	2707	4178	6261	6303	6076

60	5744	6230	6433	4617	3048	2771	3107	3030	2681	2849	2917	2471	2556	4066	6129	6065	5744
61	5312	5988	6294	4517	2888	2632	2978	2774	2334	2587	2773	2335	2395	3932	5990	5769	5312
62	4792	5636	6150	4407	2735	2498	2837	2527	1930	2241	2613	2209	2236	3815	5831	5401	4792
63	4159	5249	6002	4277	2585	2352	2700	2209	1592	1876	2432	2084	2095	3709	5656	4986	4159
64	3438	4754	5825	4176	2417	2220	2541	1858	1302	1536	2246	1967	1952	3573	5497	4447	3438
65	2797	4087	5659	4061	2278	2101	2352	1499	1093	1257	2058	1835	1825	3470	5276	3775	2797
66	2103	3460	5422	3966	2133	1972	2173	1209	944	1033	1844	1721	1691	3356	5069	3132	2103
67	1535	2796	5199	3857	1996	1853	1977	1011	821	888	1591	1603	1558	3247	4822	2468	1535
68	1048	2135	4930	3735	1859	1728	1784	866	693	766	1287	1489	1442	3146	4494	1830	1048
69	750	1559	4596	3640	1711	1610	1524	754	588	645	1032	1371	1320	3030	4106	1258	750
70	604	1058	4147	3530	1593	1503	1251	630	535	544	840	1256	1211	2938	3553	883	604
71	524	754	3608	3426	1460	1390	1007	536	483	486	693	1154	1092	2838	2996	655	524
72	476	593	3033	3319	1351	1272	812	479	448	442	575	1050	984	2741	2411	535	476
73	437	510	2417	3220	1237	1166	661	441	417	412	474	931	886	2640	1812	469	437
74	396	458	1816	3121	1116	1062	568	401	390	380	399	825	786	2532	1296	428	396
75	355	414	1273	3005	1007	949	465	370	359	344	348	718	688	2438	850	380	355
76	320	373	879	2882	897	842	389	336	339	317	311	605	591	2314	598	347	320
77	287	332	606	2751	791	748	344	309	311	293	273	476	508	2168	455	304	287
78	248	299	466	2605	697	650	301	283	289	266	241	369	432	2010	381	270	248
79	216	262	398	2443	600	542	264	255	260	240	207	296	348	1801	313	238	216
80	186	226	336	2187	507	423	236	232	235	214	178	223	285	1560	274	204	186
81	152	194	295	1903	418	333	199	202	207	185	154	172	225	1255	230	162	152
82	123	158	245	1586	341	264	171	178	175	157	125	134	171	979	184	134	123
83	98	127	203	1256	279	202	145	147	138	127	99	102	124	722	143	106	98
84	76	87	163	918	210	152	118	118	107	95	78	72	74	490	104	69	76
85	53	68	122	643	156	117	101	92	79	69	59	50	54	275	78	54	53
86	31	47	87	424	111	87	68	64	54	33	29	37	26	86	42	33	31
87	28	27	47	254	72	63	48	30	18	28	23	21	21	34	27	25	28
88	19	24	31	82	46	34	32	25	21	20	20	11	17	26	24	20	19
89	19	20	26	26	30	28	25	19	20	17	16	14	17	24	24	19	19
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## BUG Rating

### Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	3398.9	14.3	14.3
FM (30-60)	7806.1	32.9	32.9
FH (60-80)	2586.5	10.9	10.9
FVH (80-90)	128.4	0.5	0.5
BL (0-30)	3092.3	13.1	13.1
BM (30-60)	5418.7	22.9	22.9
BH (60-80)	1208.8	5.1	5.1
BVH (80-90)	55.0	0.2	0.2
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	23694.7	99.9	100.0
<b>BUG Rating</b>	<b>B4-U0-G3</b>		

### 3. Test Equipment

Equipment Name	Model No.	Serial No.	Calibration Date
Goniophotometric System	GPM-3000	DYHXF120001	2024-01-09
AC Power Source	CHP-500C	DYBWD010159	2024-01-08
Standard Lamp*	24V/150W	DYJYR040040	2024-01-17
Standard Lamp**	24V/100W	DYBWR030014	2024-01-17
Digital Power Meter	WT500	DYDWQ20010	2024-01-08
Integral Sphere (2M)	2M	DYJCE120067	2024-01-09
Digital Power Meter	WT500	DYDWQ200006	2024-01-08
Optical Color and Electrical Measurement System	CMS-3000S	DYJCE120067	2024-01-09

\* 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 \*\*\*\*\*