



Report No.: UTU2502037E-C-

## 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): SLIM17FAFC100[blank,/PIR,/MVS,/LCB,/LCBS,  
/LCBS/MVS]

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

Test & Report By:

*Winnie Wu*

Engineer: Winnie Wu

Date: 2024-02-12

Review By:

*Jason Luo*

Manager: Jason Luo

### 1.1 Product Information:

Organization Name	RAB Lighting Inc.	
Brand Name	RAB Lighting	
Model Number	SLIM17FAFC100[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	100W	
Rated Initial Lamp Lumen	--	
Declared CCT	3000K,4000K, 5000K (Color tunable)	
LED Manufacturer	Lumileds Holding B.V.	
LED Model	L128-3080RC35000E1 L128-5080RC35000E1	
Sample Number	UTU2502037E-C1	
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-100WBT3DA1-abce :1.028

### 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.

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

## 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>	SLIM17FAFC100 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	0.853	101.89	0.995	9.33
7E-C1	277.0	60	0.373	99.03	0.959	6.23
<b>DLC Pass Criteria</b>					$\geq 0.9(-3\%)$	$\leq 20(+5)$

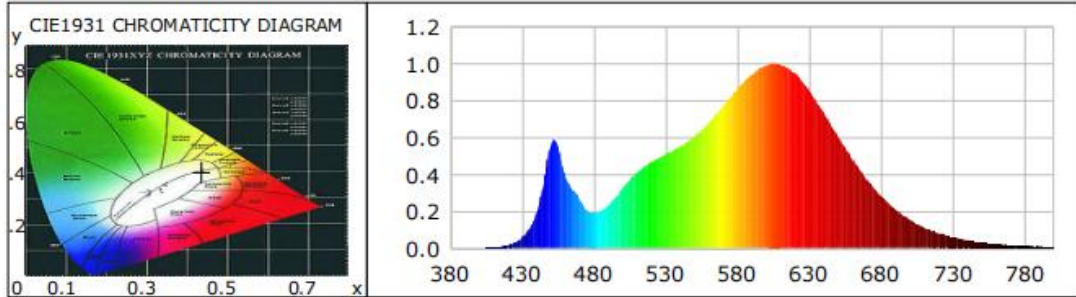
### Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	83	R9	13
Frequency (Hz)	60	R2	92	R10	82
CCT (K)	3006	R3	96	R11	82
Duv	-0.0007	R4	82	R12	72
Chromaticity (x, y)	x=0.4355 y=0.4018	R5	83	R13	85
Chromaticity (u', v')	u'=0.2506 v'=0.5203	R6	90	R14	99
Color Rendering Index (CRI)	84	R7	83	R15	75
R9	13	R8	61	--	--
Rf	85	--	--	--	--
Rg	96	--	--	--	--
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)	13780.2	13560.7	$\geq 300(-10\%)$
Luminous Efficacy (lm/W)	135.25	136.94	Premium: $\geq 120(-3\%)$
Most worst Luminous/Highest	133.09		
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 (°)	109.1	--	--
Center Beam Candle Power (cd)	4883	--	--

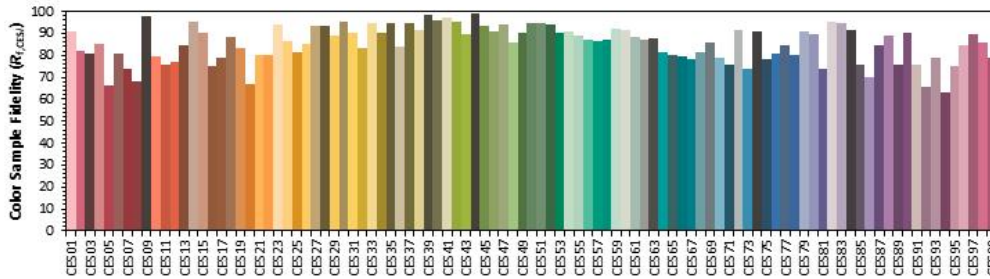
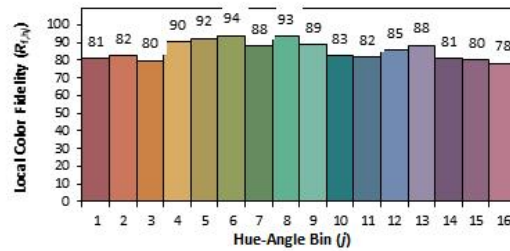
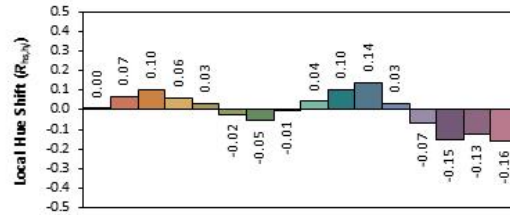
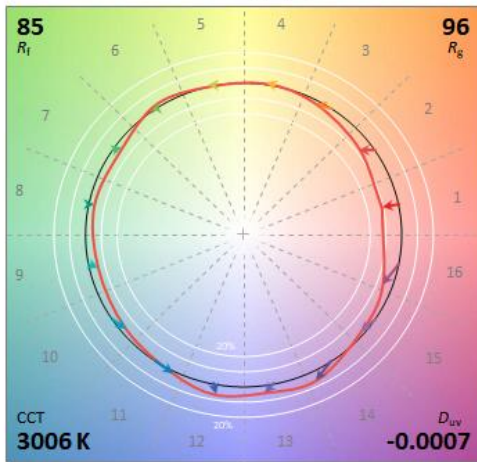
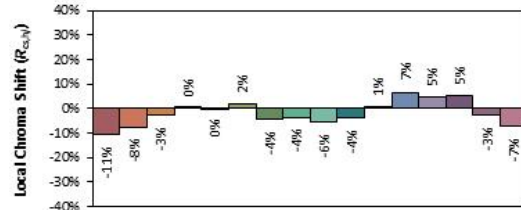
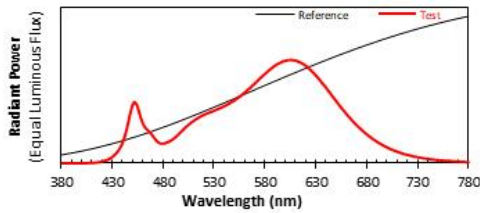
**Spectral Power Distribution & Chromaticity Diagram**



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0002	0.0600	535	0.4884	124.5894	690	0.3703	94.4516
385	0.0008	0.2040	540	0.5079	129.5533	695	0.3242	82.7054
390	0.0006	0.1450	545	0.5289	134.9070	700	0.2818	71.8740
395	0.0008	0.2125	550	0.5519	140.7903	705	0.2429	61.9681
400	0.0006	0.1453	555	0.5764	147.0296	710	0.2091	53.3408
405	0.0016	0.4170	560	0.6080	155.0822	715	0.1800	45.9077
410	0.0034	0.8600	565	0.6427	163.9378	720	0.1540	39.2933
415	0.0076	1.9336	570	0.6828	174.1553	725	0.1316	33.5685
420	0.0159	4.0639	575	0.7264	185.2947	730	0.1117	28.4943
425	0.0316	8.0716	580	0.7707	196.5893	735	0.0962	24.5339
430	0.0599	15.2703	585	0.8193	208.9849	740	0.0815	20.7996
435	0.1073	27.3744	590	0.8647	220.5707	745	0.0697	17.7749
440	0.1913	48.7899	595	0.9065	231.2273	750	0.0591	15.0801
445	0.3556	90.7169	600	0.9446	240.9550	755	0.0505	12.8746
450	0.5611	143.1255	605	0.9734	248.2959	760	0.0432	11.0079
455	0.5490	140.0451	610	0.9924	253.1309	765	0.0363	9.2688
460	0.3903	99.5508	615	1.0000	255.0783	770	0.0315	8.0227
465	0.3206	81.7674	620	0.9966	254.2080	775	0.0265	6.7526
470	0.2640	67.3533	625	0.9750	248.7046	780	0.0225	5.7360
475	0.2054	52.4006	630	0.9452	241.0949	785	0.0183	4.6579
480	0.1903	48.5290	635	0.9027	230.2703	790	0.0164	4.1768
485	0.2053	52.3716	640	0.8501	216.8494	795	0.0136	3.4637
490	0.2343	59.7650	645	0.7946	202.6875	800	0.0115	2.9230
495	0.2766	70.5565	650	0.7327	186.8949			
500	0.3260	83.1611	655	0.6673	170.2123			
505	0.3716	94.7755	660	0.6033	153.8894			
510	0.4108	104.7737	665	0.5393	137.5587			
515	0.4424	112.8404	670	0.4793	122.2565			
520	0.4674	119.2221	675	0.4232	107.9528			
525	0.4884	124.5894	680	0.3703	94.4516			
530	0.5079	129.5533	685	0.3242	82.7054			

**TM30**

**ANSI/IES TM-30-18 Color Rendition Report**



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

$x$  0.4355  
 $y$  0.4018  
 $z'$  0.2506  
 $v'$  0.5203

CIE 13.3-1995 (CRI)	
$R_a$	84
$R_g$	13

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

## Zonal Lumen Tabulation

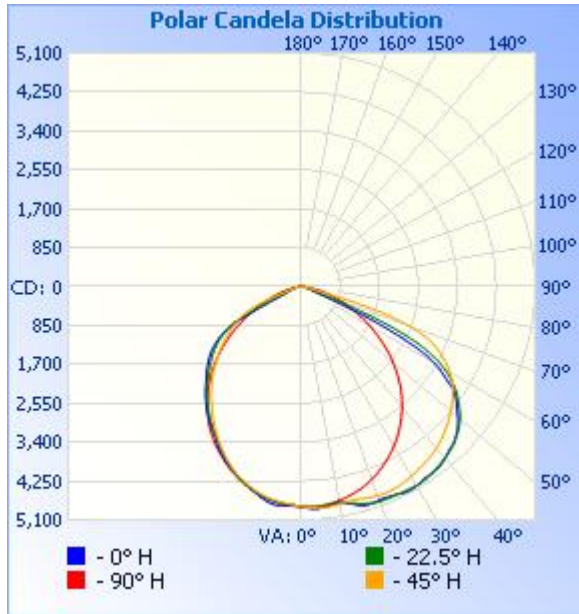
### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	3,790.6	27.5%	27.5%
0-40	6,282.9	45.6%	45.6%
0-60	11,459.5	83.2%	83.2%
60-90	2,319.1	16.8%	16.8%
70-100	664.6	4.8%	4.8%
90-120	0	0%	0%
0-90	13,778.6	100%	100%
90-180	0	0%	0%
0-180	13,778.6	100%	100%

### Lumens Per Zone

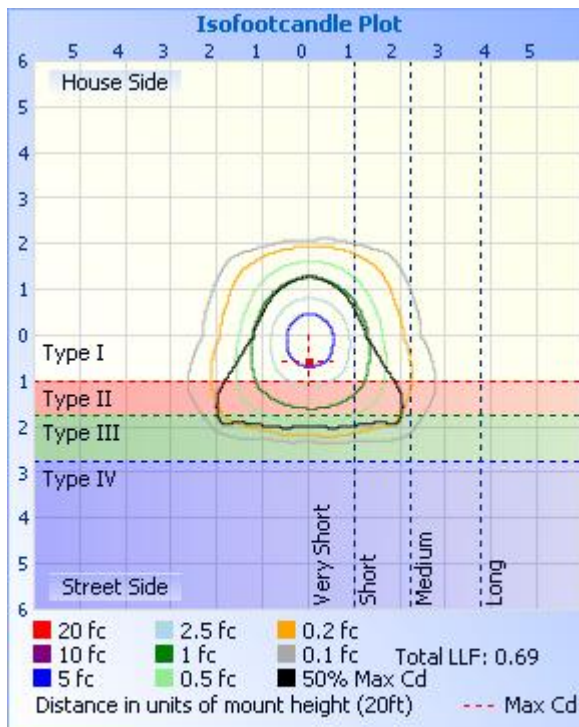
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	455.2	3.3%	90-100	0	0%
10-20	1,313.9	9.5%	100-110	0	0%
20-30	2,021.4	14.7%	110-120	0	0%
30-40	2,492.4	18.1%	120-130	0	0%
40-50	2,672.8	19.4%	130-140	0	0%
50-60	2,503.8	18.2%	140-150	0	0%
60-70	1,654.5	12.0%	150-160	0	0%
70-80	560.2	4.1%	160-170	0	0%
80-90	104.4	0.8%	170-180	0	0%

**Photometric Data**



	Center Beam fc	Beam Width	
17.0ft	16.6 fc	54.0 ft	45.1 ft
34.0ft	4.15 fc	108.1 ft	90.2 ft
51.0ft	1.85 fc	162.1 ft	135.4 ft
68.0ft	1.04 fc	216.2 ft	180.5 ft
85.0ft	0.66 fc	270.2 ft	225.6 ft
102.0ft	0.46 fc	324.3 ft	270.7 ft

■ Vert. Spread: 115.7°  
■ Horiz. Spread: 106.0°



**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	4803	4803	4803	4803	4803	4803	4803	4803	4803	4803	4803	4803	4803	4803	4803	4803	4803
1	4823	4810	4823	4811	4816	4799	4784	4787	4800	4786	4794	4787	4809	4815	4809	4807	4823
2	4847	4824	4837	4818	4816	4790	4783	4772	4780	4782	4773	4784	4795	4810	4820	4819	4847
3	4863	4835	4837	4833	4813	4782	4766	4770	4784	4767	4764	4766	4786	4816	4830	4819	4863
4	4869	4827	4853	4827	4820	4780	4755	4749	4798	4761	4749	4752	4779	4813	4827	4818	4869
5	4851	4831	4852	4830	4802	4757	4747	4742	4795	4753	4732	4737	4755	4811	4832	4812	4851
6	4850	4816	4855	4830	4799	4749	4724	4724	4809	4736	4724	4714	4753	4811	4828	4791	4850
7	4825	4810	4853	4824	4787	4740	4717	4704	4800	4733	4699	4707	4729	4797	4819	4789	4825
8	4807	4805	4840	4827	4772	4718	4696	4699	4779	4714	4689	4678	4713	4791	4811	4774	4807
9	4789	4792	4835	4809	4765	4707	4679	4668	4760	4696	4669	4657	4697	4775	4791	4773	4789
10	4787	4801	4819	4807	4739	4685	4661	4655	4722	4672	4643	4639	4670	4755	4787	4777	4787
11	4818	4808	4814	4790	4727	4664	4630	4637	4688	4638	4620	4611	4657	4744	4773	4779	4818
12	4840	4827	4814	4776	4706	4645	4610	4608	4640	4618	4588	4590	4626	4716	4763	4802	4840
13	4868	4854	4798	4760	4679	4620	4579	4578	4599	4586	4561	4557	4592	4700	4761	4818	4868
14	4911	4874	4807	4733	4662	4597	4549	4540	4557	4548	4529	4526	4572	4673	4747	4847	4911
15	4945	4912	4807	4717	4632	4565	4523	4511	4500	4521	4493	4498	4523	4642	4749	4872	4945
16	4976	4931	4817	4696	4609	4535	4482	4477	4468	4478	4463	4455	4500	4620	4749	4882	4976
17	4981	4951	4833	4663	4582	4505	4451	4436	4430	4451	4416	4424	4456	4581	4757	4907	4981
18	4973	4978	4834	4643	4547	4464	4407	4393	4396	4403	4381	4379	4421	4558	4774	4915	4973
19	4981	4978	4854	4606	4519	4437	4370	4339	4360	4357	4337	4340	4382	4527	4775	4927	4981
20	4959	4997	4857	4582	4473	4389	4331	4300	4308	4308	4287	4297	4330	4490	4791	4933	4959
21	4959	4996	4867	4552	4444	4351	4284	4242	4274	4248	4250	4244	4298	4460	4786	4921	4959
22	4965	4996	4875	4517	4407	4308	4246	4186	4228	4202	4185	4209	4250	4413	4786	4923	4965
23	4977	5001	4861	4494	4360	4262	4191	4137	4188	4151	4138	4158	4203	4385	4789	4915	4977
24	4991	4989	4866	4453	4322	4218	4140	4074	4136	4092	4080	4101	4163	4346	4772	4911	4991
25	4994	5003	4855	4427	4271	4167	4088	4029	4077	4035	4019	4053	4105	4307	4765	4918	4994
26	5024	5005	4845	4394	4230	4116	4021	3977	4031	3975	3963	3991	4063	4273	4752	4906	5024
27	5038	5004	4837	4355	4180	4066	3971	3918	3976	3929	3899	3947	4010	4229	4724	4922	5038
28	5040	5012	4809	4327	4127	4012	3907	3869	3912	3868	3843	3880	3960	4196	4712	4923	5040



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29	5039	5011	4803	4288	4083	3958	3851	3801	3843	3813	3782	3817	3912	4159	4684	4926	5039
30	5024	5019	4782	4258	4026	3899	3794	3749	3775	3763	3713	3757	3847	4117	4673	4931	5024
31	5015	5020	4768	4223	3977	3838	3729	3696	3730	3697	3658	3687	3803	4087	4656	4905	5015
32	4991	5007	4755	4178	3921	3779	3667	3640	3680	3656	3583	3633	3741	4042	4634	4901	4991
33	4973	5005	4732	4143	3859	3714	3601	3592	3631	3601	3523	3549	3680	4001	4618	4887	4973
34	4977	4986	4717	4097	3803	3654	3539	3531	3583	3548	3463	3480	3625	3962	4588	4870	4977
35	4967	4980	4693	4064	3738	3583	3478	3484	3522	3501	3397	3405	3548	3906	4569	4859	4967
36	4964	4959	4681	4022	3680	3504	3412	3431	3482	3438	3337	3330	3491	3870	4553	4832	4964
37	4961	4935	4663	3975	3616	3438	3352	3375	3423	3385	3261	3263	3422	3817	4525	4822	4961
38	4942	4923	4633	3940	3546	3363	3287	3320	3373	3327	3207	3179	3351	3776	4512	4798	4942
39	4916	4895	4618	3886	3491	3295	3224	3256	3316	3269	3143	3100	3285	3726	4476	4777	4916
40	4881	4875	4593	3844	3418	3218	3165	3202	3250	3215	3074	3027	3204	3676	4456	4766	4881
41	4856	4855	4562	3793	3341	3144	3094	3142	3202	3144	3017	2942	3139	3628	4423	4733	4856
42	4815	4827	4538	3742	3275	3060	3040	3077	3137	3092	2950	2867	3062	3572	4389	4704	4815
43	4792	4807	4502	3694	3196	2979	2967	3026	3079	3031	2882	2781	2989	3518	4366	4677	4792
44	4780	4770	4473	3633	3125	2910	2906	2961	3014	2972	2816	2702	2904	3459	4327	4651	4780
45	4735	4740	4435	3576	3042	2818	2841	2903	2953	2906	2746	2626	2825	3399	4290	4626	4735
46	4691	4703	4400	3521	2962	2738	2772	2841	2901	2843	2682	2540	2749	3337	4255	4581	4691
47	4648	4659	4371	3451	2886	2660	2703	2778	2843	2788	2603	2464	2668	3275	4211	4545	4648
48	4590	4621	4319	3390	2790	2574	2630	2724	2792	2724	2540	2382	2582	3217	4182	4496	4590
49	4530	4565	4290	3324	2713	2499	2564	2654	2738	2668	2473	2294	2496	3155	4137	4445	4530
50	4460	4512	4248	3261	2621	2409	2497	2601	2682	2607	2403	2218	2395	3082	4098	4399	4460
51	4380	4454	4206	3205	2539	2332	2423	2544	2630	2543	2333	2138	2316	3021	4063	4324	4380
52	4301	4377	4169	3133	2456	2250	2356	2480	2573	2490	2263	2060	2225	2945	4016	4267	4301
53	4240	4309	4122	3071	2363	2169	2286	2418	2513	2428	2197	1975	2133	2878	3981	4198	4240
54	4169	4226	4081	2998	2269	2094	2220	2357	2447	2365	2129	1896	2044	2811	3936	4124	4169
55	4090	4151	4037	2933	2178	2004	2150	2300	2370	2298	2061	1824	1944	2735	3889	4038	4090
56	3985	4066	3986	2871	2090	1926	2078	2235	2306	2222	1991	1737	1859	2670	3841	3951	3985
57	3823	3965	3942	2795	2004	1845	2013	2156	2215	2156	1923	1655	1766	2591	3782	3857	3823
58	3671	3863	3870	2725	1901	1760	1949	2090	2130	2077	1861	1580	1669	2521	3728	3752	3671
59	3529	3742	3811	2650	1818	1683	1884	2007	2036	1986	1797	1499	1577	2450	3649	3631	3529

60	3359	3612	3741	2588	1727	1594	1819	1930	1913	1894	1725	1425	1483	2376	3583	3496	3359
61	3153	3468	3662	2518	1639	1515	1745	1838	1749	1789	1656	1348	1406	2307	3502	3308	3153
62	2847	3275	3586	2443	1554	1445	1680	1718	1478	1659	1583	1268	1318	2230	3411	3129	2847
63	2469	3081	3488	2376	1455	1354	1608	1578	1163	1447	1508	1198	1229	2169	3321	2902	2469
64	2017	2825	3401	2306	1379	1281	1534	1370	855	1164	1434	1132	1149	2099	3208	2586	2017
65	1553	2501	3302	2245	1298	1207	1449	1099	630	873	1341	1066	1078	2036	3101	2203	1553
66	1024	2095	3190	2185	1214	1140	1368	813	495	636	1250	996	1002	1970	2978	1762	1024
67	644	1631	3067	2118	1138	1070	1285	584	414	484	1146	936	933	1901	2824	1286	644
68	437	1079	2897	2057	1052	1002	1189	459	375	401	1003	875	855	1840	2627	813	437
69	332	687	2722	1988	991	943	1061	381	345	351	794	817	788	1779	2397	506	332
70	275	450	2481	1927	914	885	893	339	318	321	592	749	725	1711	2120	368	275
71	251	331	2204	1862	844	823	700	306	295	289	438	689	661	1657	1717	292	251
72	225	279	1856	1801	778	753	516	285	275	265	341	633	595	1596	1319	253	225
73	205	247	1416	1747	711	693	396	258	257	238	283	579	540	1541	820	226	205
74	181	222	930	1690	648	640	307	238	235	221	250	515	478	1486	518	202	181
75	161	193	561	1630	583	583	270	216	219	204	218	460	414	1429	358	183	161
76	145	178	385	1573	524	526	232	191	201	182	196	405	366	1363	259	161	145
77	128	157	280	1508	467	465	210	178	186	168	173	339	314	1288	212	144	128
78	107	135	220	1451	406	410	183	166	169	150	149	266	266	1213	178	119	107
79	89	116	187	1365	356	353	160	149	155	144	130	197	225	1112	155	102	89
80	76	98	160	1273	306	280	143	132	139	125	117	152	174	965	126	83	76
81	63	83	135	1143	249	204	122	124	127	114	98	119	142	784	107	72	63
82	53	64	113	971	206	158	104	107	111	97	87	93	111	538	83	55	53
83	36	52	92	740	167	128	92	92	98	83	73	63	76	347	55	36	36
84	20	37	72	499	130	98	78	79	87	73	59	55	51	178	49	30	20
85	19	30	52	306	100	77	65	71	53	48	43	38	31	87	30	18	19
86	16	22	37	156	73	44	52	49	40	32	30	27	24	39	22	17	16
87	15	16	22	86	51	45	32	34	25	24	20	15	9	16	14	15	15
88	13	16	17	27	28	31	28	25	14	14	13	14	14	9	17	16	13
89	11	15	16	18	22	18	18	15	19	9	14	11	9	17	15	13	11
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Report No.: UTU2502037E-C-

91	0	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	0
93	0	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	0
95	0	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	0
97	0	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	0
99	0	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	0
101	0	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	0
103	0	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	0
105	0	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	0
107	0	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	0
109	0	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	0
111	0	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	0
113	0	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	0
115	0	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	0
117	0	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	0
119	0	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	0
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Report No.: UTU2502037E-C-

122	0	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	0
124	0	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	0
126	0	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	0
128	0	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	0
130	0	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	0
132	0	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	0
134	0	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	0
136	0	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	0
138	0	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	0
140	0	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	0
142	0	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	0
144	0	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	0
146	0	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	0
148	0	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	0
150	0	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	0
152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Report No.: UTU2502037E-C-

153	0	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	0
155	0	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	0
157	0	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	0
159	0	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	0
161	0	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	0
163	0	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	0
165	0	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	0
167	0	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	0
169	0	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	0
171	0	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	0
173	0	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	0
175	0	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	0
177	0	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	0
179	0	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	0

## BUG Rating

### Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	1987.6	14.4	14.4
FM (30-60)	4528.8	32.9	32.9
FH (60-80)	1466.5	10.6	10.6
FVH (80-90)	68.0	0.5	0.5
BL (0-30)	1803.0	13.1	13.1
BM (30-60)	3141.7	22.8	22.8
BH (60-80)	748.3	5.4	5.4
BVH (80-90)	36.3	0.3	0.3
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	13780.2	100.0	100.0
<b>BUG Rating</b>	<b>B3-U0-G2</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>	SLIM17FAFC100 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	0.824	98.4	0.995	9.53
7E-C1	277.0	60	0.363	96.11	0.956	6.12
<b>DLC Pass Criteria</b>					>= 0.9(-3%)	<= 20(+5)

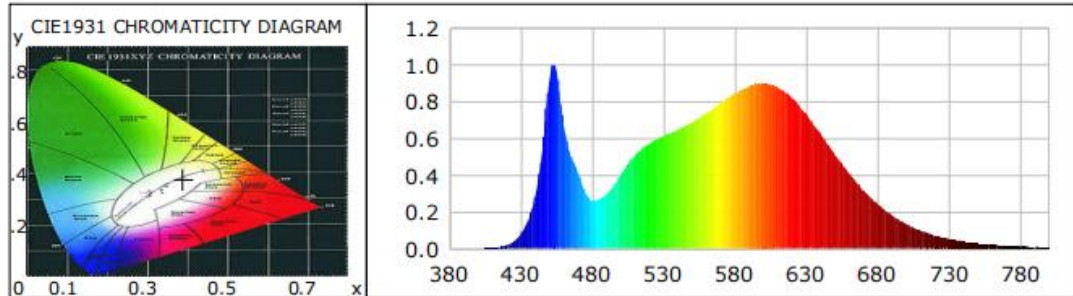
**Chromaticity Measurement - Sphere-Spectroradiometer Method:**

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	85	R9	21
Frequency (Hz)	60	R2	92	R10	80
CCT (K)	3797	R3	96	R11	83
Duv	-0.0010	R4	84	R12	64
Chromaticity (x, y)	x=0.389 y=0.3797	R5	84	R13	87
Chromaticity (u', v')	u'=0.2295 v'=0.5042	R6	88	R14	98
Color Rendering Index (CRI)	86	R7	87	R15	79
R9	21	R8	68	--	--
Rf	85	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-10				

**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)	15088.0	14967.5	>=300(-10%)
Luminous Efficacy (lm/W)	153.33	155.73	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	152.11		
Zonal lumens in the 0-90° zone (%)	100	--	>=100(-3%)
Zonal lumens in the 80-90°zone (%)	0.8	--	<=10(+3%)
Beam Angle (°)	109.1	--	--
Center Beam Candle Power (cd)	5222	--	--

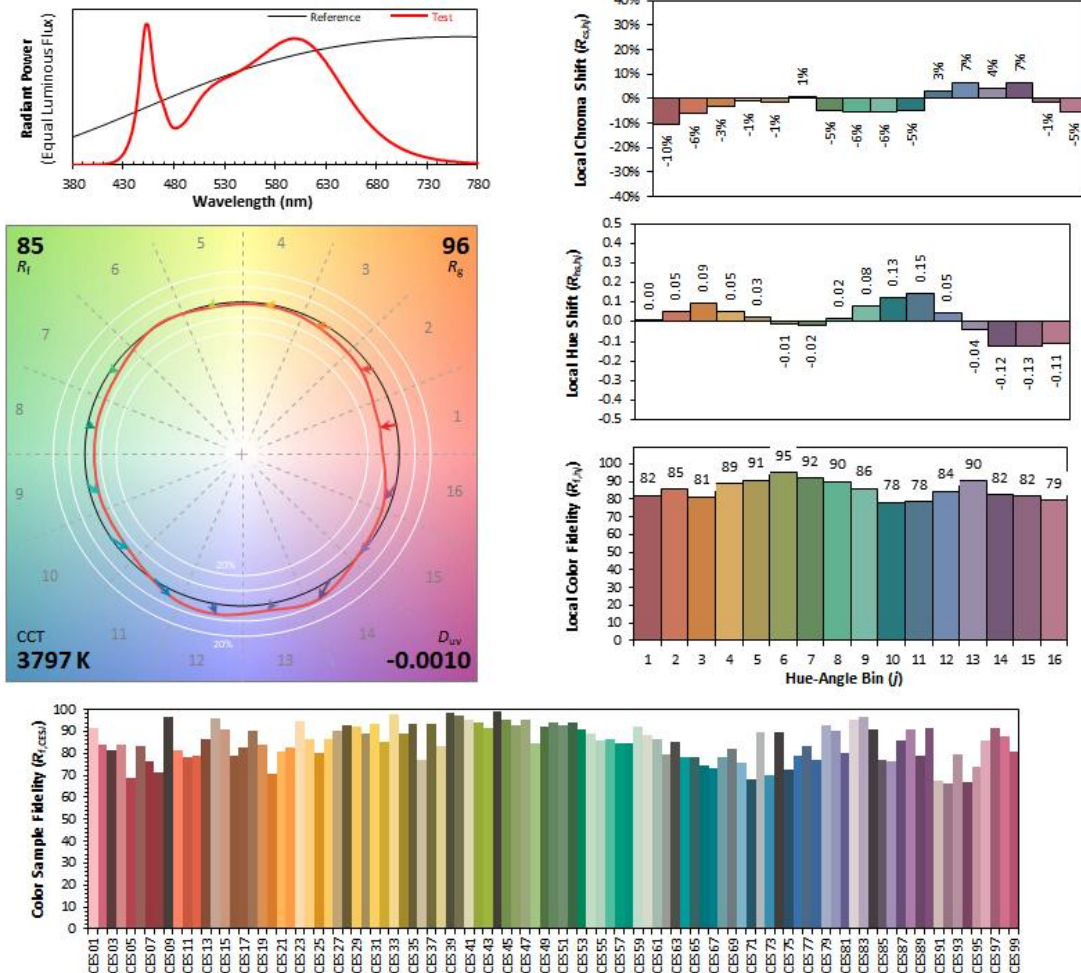
**Spectral Power Distribution & Chromaticity Diagram**



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0006	0.1712	535	0.5957	159.8078	690	0.3164	84.8734
385	0.0006	0.1709	540	0.6133	164.5391	695	0.2764	74.1466
390	0.0005	0.1379	545	0.6304	169.1239	700	0.2414	64.7580
395	0.0008	0.2203	550	0.6492	174.1624	705	0.2085	55.9340
400	0.0004	0.1201	555	0.6668	178.8880	710	0.1803	48.3718
405	0.0014	0.3814	560	0.6884	184.6710	715	0.1556	41.7317
410	0.0036	0.9788	565	0.7133	191.3585	720	0.1343	36.0346
415	0.0083	2.2325	570	0.7389	198.2090	725	0.1153	30.9398
420	0.0183	4.8980	575	0.7667	205.6860	730	0.0974	26.1224
425	0.0392	10.5223	580	0.7932	212.7995	735	0.0838	22.4769
430	0.0782	20.9761	585	0.8214	220.3585	740	0.0707	18.9625
435	0.1518	40.7201	590	0.8456	226.8347	745	0.0621	16.6526
440	0.2817	75.5719	595	0.8674	232.7034	750	0.0513	13.7621
445	0.5408	145.0717	600	0.8849	237.3762	755	0.0444	11.9064
450	0.9151	245.4976	605	0.8945	239.9669	760	0.0371	9.9411
455	0.9698	260.1649	610	0.8990	241.1638	765	0.0316	8.4773
460	0.6744	180.9213	615	0.8924	239.4027	770	0.0281	7.5249
465	0.5105	136.9447	620	0.8787	235.7221	775	0.0233	6.2449
470	0.4127	110.7050	625	0.8532	228.8857	780	0.0197	5.2806
475	0.3081	82.6646	630	0.8198	219.9149	785	0.0167	4.4841
480	0.2622	70.3329	635	0.7766	208.3260	790	0.0144	3.8582
485	0.2691	72.1885	640	0.7302	195.8786	795	0.0118	3.1578
490	0.2977	79.8597	645	0.6775	181.7431	800	0.0097	2.5980
495	0.3452	92.6044	650	0.6215	166.7374			
500	0.4030	108.1004	655	0.5663	151.9163			
505	0.4602	123.4597	660	0.5111	137.1217			
510	0.5071	136.0483	665	0.4585	123.0096			
515	0.5443	146.0191	670	0.4081	109.4818			
520	0.5727	153.6373	675	0.3599	96.5358			
525	0.5957	159.8078	680	0.3164	84.8734			
530	0.6133	164.5391	685	0.2764	74.1466			

TM30

ANSI/IES TM-30-18 Color Rendition Report



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

$x$	<b>0.3890</b>	CIE 13.3-1995 (CRI)
$y$	<b>0.3797</b>	
$u'$	<b>0.2295</b>	
$v'$	<b>0.5042</b>	
		$R_a$ 86
		$R_g$ 21

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

## Zonal Lumen Tabulation

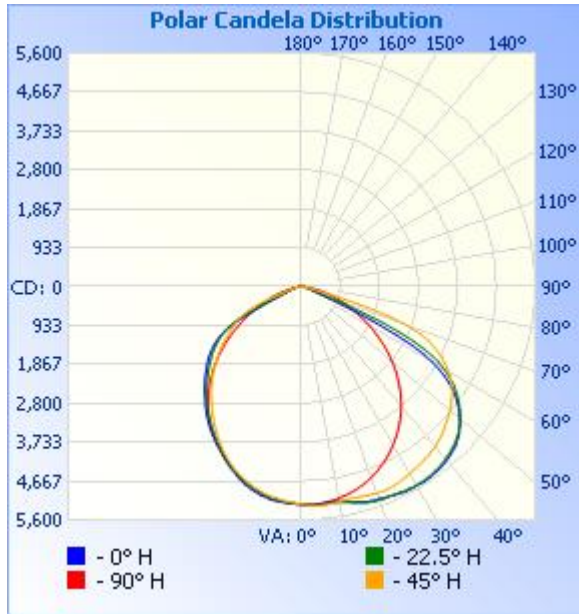
### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	4,131.3	27.4%	27.4%
0-40	6,862.2	45.5%	45.5%
0-60	12,543.3	83.1%	83.1%
60-90	2,542.9	16.9%	16.9%
70-100	735.9	4.9%	4.9%
90-120	0	0%	0%
0-90	15,086.3	100%	100%
90-180	0	0%	0%
0-180	15,086.3	100%	100%

### Lumens Per Zone

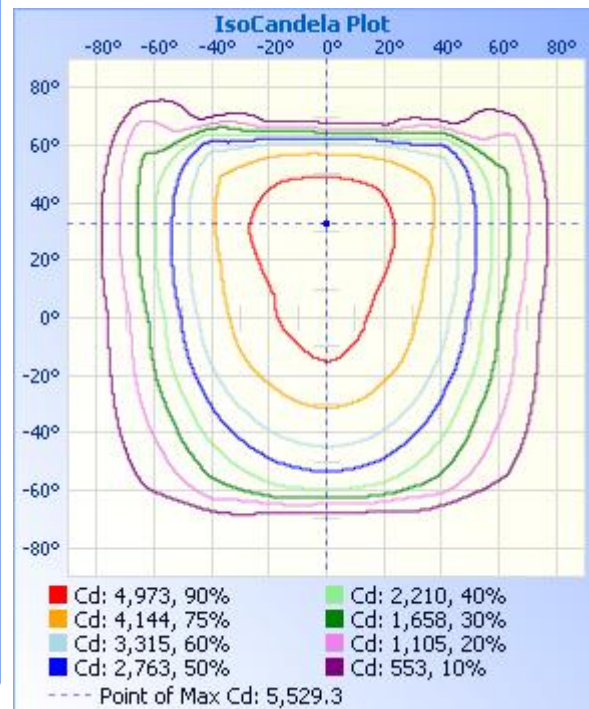
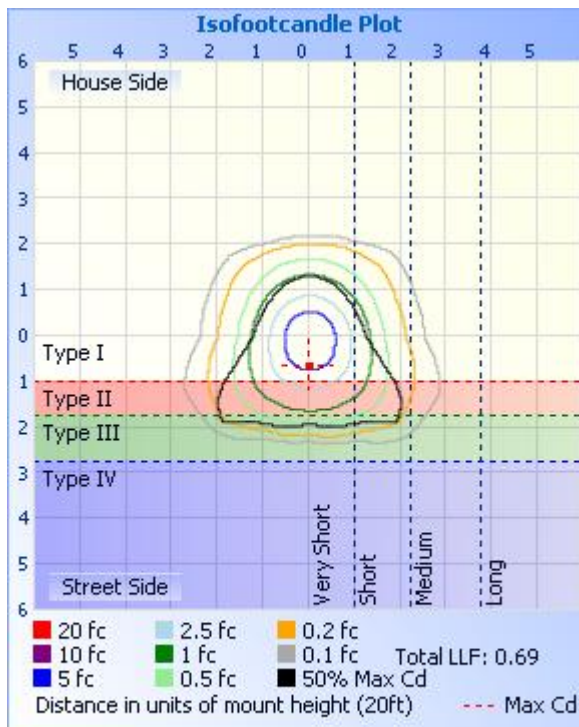
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	494.8	3.3%	90-100	0	0%
10-20	1,430.6	9.5%	100-110	0	0%
20-30	2,205.9	14.6%	110-120	0	0%
30-40	2,730.9	18.1%	120-130	0	0%
40-50	2,934.3	19.5%	130-140	0	0%
50-60	2,746.9	18.2%	140-150	0	0%
60-70	1,807.1	12.0%	150-160	0	0%
70-80	618.3	4.1%	160-170	0	0%
80-90	117.6	0.8%	170-180	0	0%

**Photometric Data**



	Illuminance at a Distance	
	Center Beam fc	Beam Width
17.0ft	18.1 fc	54.1 ft 44.7 ft
34.0ft	4.52 fc	108.2 ft 89.4 ft
51.0ft	2.01 fc	162.3 ft 134.1 ft
68.0ft	1.13 fc	216.4 ft 178.8 ft
85.0ft	0.72 fc	270.5 ft 223.5 ft
102.0ft	0.50 fc	324.6 ft 268.2 ft

■ Vert. Spread: 115.7°  
■ Horiz. Spread: 105.5°



**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	5222	5222	5222	5222	5222	5222	5222	5222	5222	5222	5222	5222	5222	5222	5222	5222	5222
1	5242	5235	5234	5223	5220	5215	5206	5218	5224	5213	5204	5208	5216	5222	5237	5235	5242
2	5248	5248	5252	5238	5228	5215	5200	5209	5210	5195	5187	5194	5206	5233	5240	5238	5248
3	5248	5247	5256	5239	5225	5205	5177	5192	5202	5195	5178	5186	5197	5237	5253	5251	5248
4	5250	5260	5264	5243	5219	5186	5171	5193	5203	5179	5156	5159	5177	5228	5247	5256	5250
5	5235	5255	5271	5251	5221	5182	5151	5177	5188	5171	5148	5155	5173	5235	5253	5242	5235
6	5230	5250	5263	5237	5204	5160	5136	5173	5188	5162	5127	5132	5149	5220	5250	5245	5230
7	5222	5250	5264	5243	5200	5155	5126	5160	5170	5139	5106	5113	5133	5221	5234	5223	5222
8	5213	5240	5247	5228	5185	5133	5098	5140	5164	5133	5098	5095	5115	5203	5228	5225	5213
9	5217	5244	5247	5220	5168	5111	5088	5127	5146	5110	5069	5068	5091	5183	5206	5222	5217
10	5220	5251	5240	5211	5159	5095	5061	5095	5113	5078	5048	5051	5079	5173	5199	5220	5220
11	5246	5269	5223	5186	5129	5067	5034	5072	5104	5055	5022	5022	5043	5147	5195	5238	5246
12	5272	5291	5230	5177	5118	5051	5014	5041	5064	5016	4984	4989	5016	5127	5177	5245	5272
13	5304	5305	5220	5150	5089	5022	4969	5002	5036	4998	4960	4966	4990	5100	5182	5270	5304
14	5323	5344	5229	5134	5067	4992	4946	4977	5005	4962	4919	4924	4945	5065	5171	5293	5323
15	5340	5363	5234	5115	5046	4971	4905	4938	4967	4922	4884	4899	4920	5044	5178	5310	5340
16	5375	5392	5239	5077	5008	4926	4864	4904	4938	4887	4846	4858	4872	5006	5179	5340	5375
17	5396	5418	5252	5058	4981	4899	4828	4864	4891	4838	4799	4818	4838	4983	5174	5348	5396
18	5407	5420	5252	5028	4950	4859	4781	4812	4842	4804	4763	4780	4794	4952	5188	5368	5407
19	5425	5444	5267	4996	4911	4819	4744	4772	4790	4756	4714	4724	4748	4908	5185	5372	5425
20	5418	5446	5273	4974	4878	4781	4701	4719	4734	4705	4672	4688	4706	4883	5188	5369	5418
21	5432	5456	5274	4933	4828	4729	4649	4674	4690	4668	4621	4635	4658	4837	5190	5379	5432
22	5444	5462	5286	4911	4797	4694	4607	4625	4633	4601	4564	4584	4612	4805	5182	5371	5444
23	5455	5450	5276	4868	4749	4642	4541	4566	4580	4557	4510	4537	4563	4768	5181	5375	5455
24	5475	5464	5276	4837	4700	4585	4497	4520	4528	4498	4447	4473	4507	4723	5160	5374	5475
25	5478	5467	5263	4806	4659	4540	4439	4457	4459	4441	4393	4422	4468	4693	5151	5376	5478
26	5502	5478	5246	4761	4603	4477	4380	4407	4404	4384	4334	4359	4409	4649	5132	5389	5502
27	5510	5495	5238	4732	4555	4432	4318	4348	4348	4321	4265	4299	4355	4612	5110	5386	5510
28	5512	5489	5213	4696	4500	4370	4254	4285	4306	4271	4203	4243	4300	4574	5097	5394	5512



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29	5521	5503	5201	4660	4444	4308	4201	4227	4253	4210	4132	4164	4238	4525	5066	5401	5521
30	5511	5503	5188	4623	4389	4255	4136	4161	4198	4150	4074	4106	4189	4492	5047	5391	5511
31	5518	5498	5160	4578	4324	4184	4067	4108	4148	4098	4004	4033	4122	4445	5027	5400	5518
32	5529	5503	5154	4543	4268	4120	4004	4050	4091	4027	3935	3961	4062	4395	5001	5385	5529
33	5522	5490	5131	4500	4199	4051	3929	3988	4038	3978	3867	3891	3999	4354	4993	5381	5522
34	5519	5490	5114	4459	4138	3980	3872	3935	3976	3913	3792	3813	3930	4301	4969	5377	5519
35	5500	5474	5099	4421	4080	3912	3802	3866	3915	3855	3730	3737	3868	4262	4951	5356	5500
36	5493	5458	5074	4367	4003	3831	3732	3813	3858	3800	3661	3652	3785	4213	4934	5353	5493
37	5485	5451	5061	4329	3939	3761	3669	3749	3796	3730	3586	3578	3718	4164	4905	5329	5485
38	5463	5426	5036	4279	3868	3681	3588	3685	3729	3677	3517	3500	3647	4115	4890	5314	5463
39	5452	5413	5019	4232	3790	3600	3527	3620	3666	3608	3444	3405	3566	4053	4860	5292	5452
40	5423	5382	4996	4185	3720	3520	3458	3550	3597	3542	3380	3330	3497	4003	4835	5259	5423
41	5400	5355	4961	4123	3640	3434	3389	3490	3530	3483	3309	3241	3416	3941	4810	5247	5400
42	5369	5332	4938	4079	3560	3357	3319	3420	3467	3406	3234	3156	3329	3887	4770	5206	5369
43	5340	5294	4900	4020	3479	3263	3238	3350	3408	3342	3162	3074	3248	3823	4743	5180	5340
44	5317	5270	4874	3960	3390	3182	3179	3283	3346	3269	3084	2975	3163	3760	4703	5149	5317
45	5258	5232	4836	3901	3311	3089	3105	3210	3280	3205	3014	2894	3073	3699	4666	5110	5258
46	5218	5186	4786	3833	3214	2998	3031	3154	3222	3142	2938	2802	2981	3624	4633	5084	5218
47	5166	5146	4760	3772	3135	2919	2951	3086	3156	3065	2861	2713	2897	3560	4586	5032	5166
48	5092	5081	4716	3707	3048	2827	2872	3020	3093	3010	2788	2623	2802	3499	4563	4989	5092
49	5040	5033	4679	3638	2943	2737	2805	2954	3036	2942	2702	2523	2705	3421	4516	4930	5040
50	4952	4967	4641	3572	2861	2644	2730	2887	2965	2881	2636	2442	2607	3353	4477	4867	4952
51	4873	4892	4588	3497	2755	2552	2655	2828	2907	2811	2560	2351	2504	3279	4438	4794	4873
52	4789	4822	4553	3433	2666	2474	2574	2763	2845	2743	2483	2271	2413	3201	4383	4711	4789
53	4693	4733	4503	3367	2570	2379	2497	2697	2783	2684	2404	2182	2316	3129	4347	4636	4693
54	4591	4660	4459	3283	2472	2290	2427	2622	2711	2614	2327	2084	2216	3049	4291	4558	4591
55	4477	4556	4413	3217	2371	2197	2352	2550	2629	2543	2265	2002	2118	2980	4241	4456	4477
56	4348	4460	4341	3138	2270	2106	2274	2485	2553	2464	2188	1915	2015	2904	4184	4361	4348
57	4209	4357	4286	3073	2178	2023	2205	2405	2465	2385	2109	1828	1918	2821	4113	4246	4209
58	4033	4222	4217	2986	2078	1934	2129	2323	2373	2305	2038	1743	1817	2746	4050	4120	4033
59	3852	4095	4148	2914	1985	1845	2064	2244	2262	2215	1968	1647	1709	2664	3968	3980	3852

60	3626	3941	4074	2847	1889	1757	1992	2147	2135	2112	1899	1563	1614	2591	3887	3813	3626
61	3361	3773	3972	2767	1781	1659	1916	2052	1974	1992	1824	1477	1517	2513	3791	3613	3361
62	3020	3575	3889	2698	1688	1579	1845	1927	1741	1851	1739	1397	1433	2437	3684	3387	3020
63	2525	3300	3785	2616	1598	1488	1765	1785	1408	1672	1662	1318	1334	2364	3584	3103	2525
64	2000	2991	3678	2544	1500	1403	1687	1585	1090	1402	1574	1236	1249	2291	3470	2741	2000
65	1495	2592	3559	2481	1415	1325	1601	1316	852	1080	1487	1169	1170	2217	3334	2240	1495
66	1038	2112	3428	2398	1328	1248	1505	1029	678	827	1382	1097	1092	2148	3199	1744	1038
67	702	1557	3288	2331	1246	1177	1415	771	564	651	1270	1029	1010	2081	3020	1245	702
68	478	1097	3108	2260	1161	1102	1314	615	488	536	1127	959	933	2008	2805	825	478
69	374	714	2885	2192	1075	1028	1189	510	418	455	930	887	856	1940	2512	547	374
70	324	505	2624	2131	998	970	1025	441	377	395	709	828	789	1877	2174	410	324
71	290	382	2292	2052	916	897	822	374	341	349	550	759	719	1812	1759	336	290
72	262	320	1897	1991	851	837	635	337	317	314	434	694	648	1751	1289	289	262
73	238	281	1419	1925	780	767	493	302	289	286	359	633	579	1683	871	261	238
74	218	258	932	1858	710	703	389	276	267	257	299	576	516	1621	556	235	218
75	193	230	627	1790	644	644	331	250	245	235	253	508	458	1555	398	213	193
76	176	207	423	1723	573	581	276	229	229	216	227	446	387	1479	303	186	176
77	154	189	322	1657	509	522	241	209	209	198	192	379	333	1393	246	164	154
78	129	162	260	1576	443	454	206	196	197	178	171	300	282	1297	206	149	129
79	115	143	214	1484	384	399	185	173	178	165	148	237	235	1166	180	128	115
80	91	119	189	1363	329	325	163	158	162	150	131	173	186	1016	151	105	91
81	78	103	161	1206	270	248	140	146	147	131	118	128	146	805	125	83	78
82	61	80	131	1016	221	191	120	130	133	117	95	98	112	565	97	64	61
83	53	70	105	758	178	147	107	109	114	99	78	77	85	379	76	56	53
84	37	45	87	530	142	117	90	91	101	79	65	54	61	210	52	38	37
85	30	37	57	337	110	91	74	74	72	63	47	41	35	112	40	28	30
86	25	24	48	196	76	64	56	64	54	50	36	27	17	44	28	22	25
87	17	19	30	104	49	50	42	46	39	35	24	18	12	27	23	20	17
88	20	22	23	36	33	39	37	35	30	23	18	16	0	20	25	25	20
89	28	21	17	16	19	30	21	24	16	22	17	16	0	20	21	19	28
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	0
92	0	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	0
94	0	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	0
96	0	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	0
98	0	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	0
100	0	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	0
102	0	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	0
104	0	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	0
106	0	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	0
108	0	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	0
110	0	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	0
112	0	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	0
114	0	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	0
116	0	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	0
118	0	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	0
120	0	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	0



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122	0	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	0
124	0	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	0
126	0	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	0
128	0	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	0
130	0	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	0
132	0	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	0
134	0	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	0
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137	0	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	0
139	0	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	0
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143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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145	0	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	0
147	0	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	0
149	0	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	0
151	0	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	0



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153	0	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	0
155	0	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	0
157	0	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	0
159	0	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	0
161	0	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	0
163	0	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	0
165	0	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	0
167	0	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	0
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171	0	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	0
173	0	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	0
175	0	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	0
177	0	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	0
179	0	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	0

## BUG Rating

### Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	2163.2	14.3	14.3
FM (30-60)	4959.1	32.9	32.9
FH (60-80)	1578.9	10.5	10.5
FVH (80-90)	75.2	0.5	0.5
BL (0-30)	1968.2	13.0	13.0
BM (30-60)	3454.6	22.9	22.9
BH (60-80)	846.5	5.6	5.6
BVH (80-90)	42.3	0.3	0.3
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	15088.0	100.0	100.0
<b>BUG Rating</b>	<b>B3-U0-G2</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>	SLIM17FAFC100 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	0.850	101.51	0.995	9.41
7E-C1	277.0	60	0.374	99.37	0.96	6.34
<b>DLC Pass Criteria</b>					>= 0.9(-3%)	<= 20(+5)

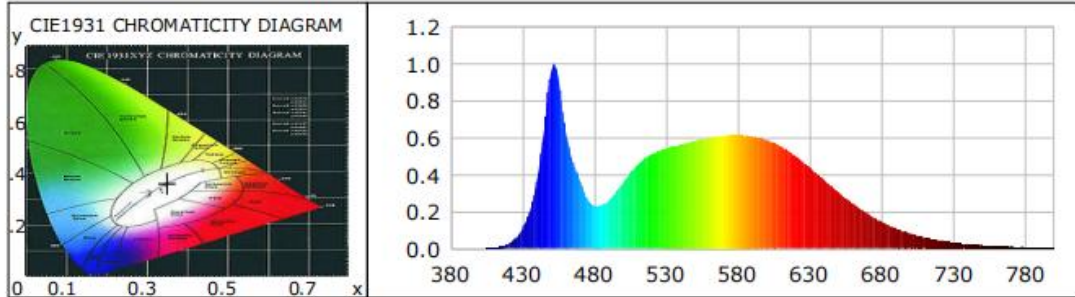
#### Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	11
Frequency (Hz)	60	R2	88	R10	71
CCT (K)	4923	R3	93	R11	80
Duv	0.0037	R4	81	R12	53
Chromaticity (x, y)	x=0.3481 y=0.3614	R5	80	R13	83
Chromaticity (u', v')	u'=0.2097 v'=0.4898	R6	82	R14	96
Color Rendering Index (CRI)	83	R7	89	R15	76
R9	11	R8	69	--	--
Rf	84	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-12				

#### 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)	14505.0	14577.6	>=300(-10%)
Luminous Efficacy (lm/W)	142.89	146.70	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	142.89		
Zonal lumens in the 0-90° zone (%)	100	--	>=100(-3%)
Zonal lumens in the 80-90°zone (%)	0.8	--	<=10(+3%)
Beam Angle (°)	109.2	--	--
Center Beam Candle Power (cd)	4986	--	--

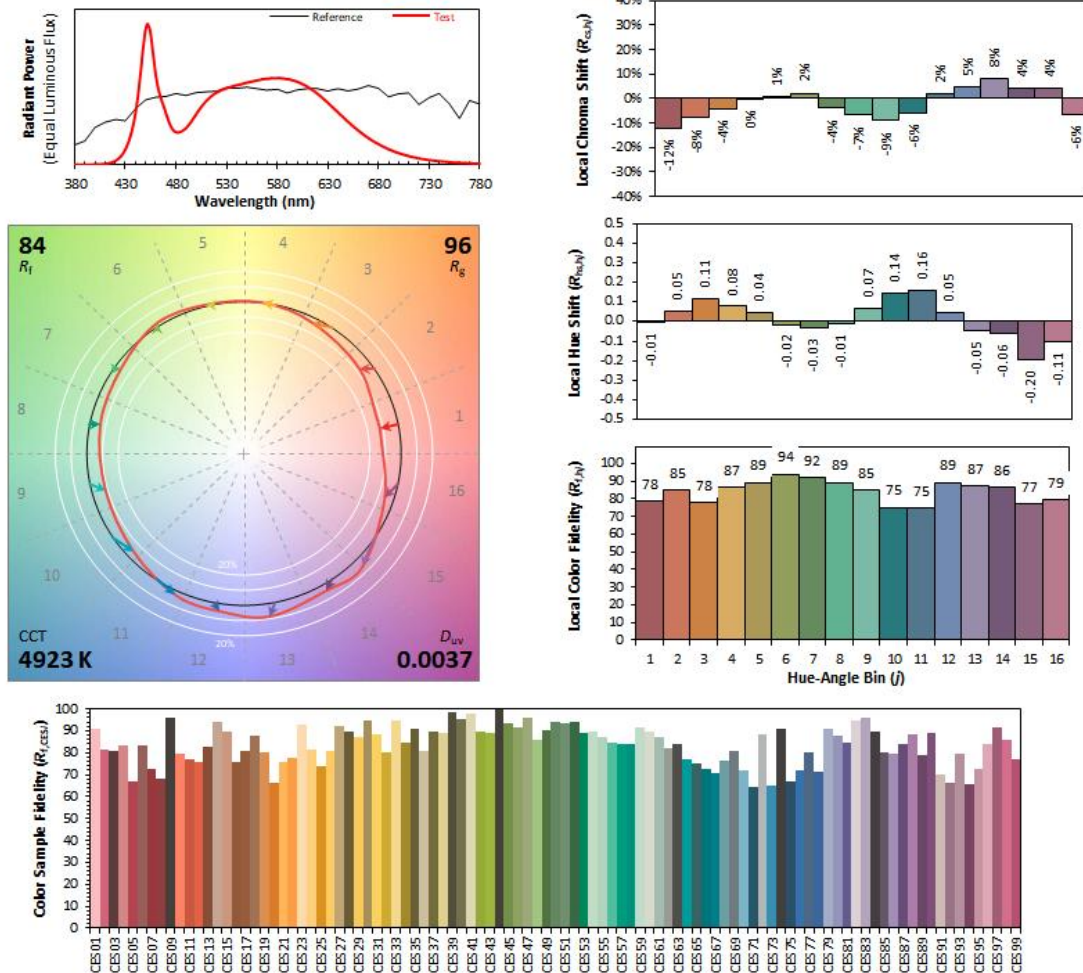
**Spectral Power Distribution & Chromaticity Diagram**



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0004	0.1517	535	0.5305	181.3693	690	0.1891	64.6631
385	0.0002	0.0535	540	0.5417	185.2100	695	0.1660	56.7514
390	0.0003	0.0999	545	0.5544	189.5529	700	0.1466	50.1116
395	0.0004	0.1245	550	0.5639	192.7957	705	0.1273	43.5215
400	0.0011	0.3905	555	0.5720	195.5637	710	0.1093	37.3659
405	0.0019	0.6524	560	0.5813	198.7577	715	0.0950	32.4695
410	0.0051	1.7332	565	0.5894	201.5146	720	0.0815	27.8799
415	0.0124	4.2275	570	0.5986	204.6745	725	0.0702	23.9928
420	0.0260	8.9047	575	0.6061	207.2179	730	0.0602	20.5939
425	0.0549	18.7637	580	0.6099	208.5379	735	0.0514	17.5579
430	0.1089	37.2302	585	0.6135	209.7687	740	0.0450	15.3947
435	0.2042	69.8329	590	0.6133	209.6993	745	0.0384	13.1223
440	0.3669	125.4487	595	0.6119	209.2165	750	0.0325	11.1199
445	0.6530	223.2788	600	0.6078	207.8111	755	0.0279	9.5553
450	0.9628	329.1911	605	0.5986	204.6712	760	0.0248	8.4810
455	0.9238	315.8420	610	0.5869	200.6851	765	0.0212	7.2646
460	0.6366	217.6495	615	0.5713	195.3364	770	0.0179	6.1145
465	0.4741	162.0983	620	0.5529	189.0516	775	0.0151	5.1783
470	0.3656	125.0087	625	0.5284	180.6670	780	0.0126	4.3236
475	0.2708	92.5862	630	0.5020	171.6258	785	0.0113	3.8649
480	0.2309	78.9641	635	0.4715	161.1962	790	0.0103	3.5286
485	0.2352	80.4243	640	0.4391	150.1493	795	0.0078	2.6558
490	0.2604	89.0404	645	0.4059	138.7985	800	0.0068	2.3256
495	0.3054	104.4152	650	0.3711	126.8917			
500	0.3585	122.5884	655	0.3377	115.4729			
505	0.4108	140.4608	660	0.3043	104.0374			
510	0.4532	154.9579	665	0.2727	93.2387			
515	0.4867	166.4072	670	0.2428	83.0091			
520	0.5112	174.7905	675	0.2145	73.3514			
525	0.5305	181.3693	680	0.1891	64.6631			
530	0.5417	185.2100	685	0.1660	56.7514			

**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  
 $y$  0.3614  
 $u'$  0.2097  
 $v'$  0.4898

CIE 13.3-1995 (CRI)  
 $R_a$  83  
 $R_g$  11

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

## Zonal Lumen Tabulation

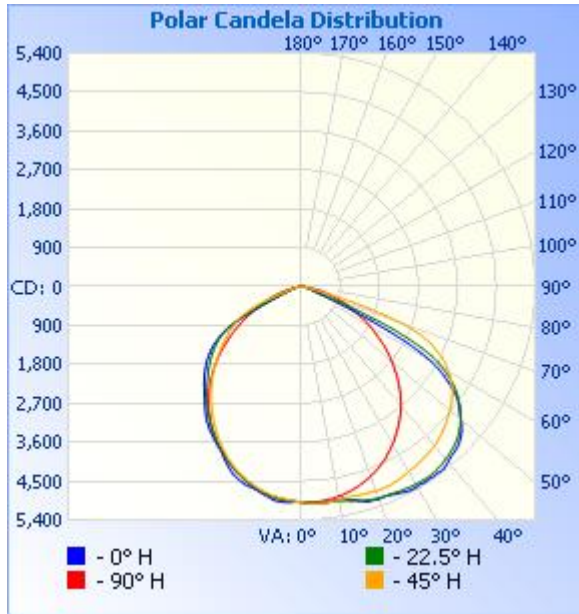
### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	3,956.8	27.3%	27.3%
0-40	6,584.1	45.4%	45.4%
0-60	12,063.3	83.2%	83.2%
60-90	2,440.1	16.8%	16.8%
70-100	710.1	4.9%	4.9%
90-120	0	0%	0%
0-90	14,503.4	100%	100%
90-180	0	0%	0%
0-180	14,503.4	100%	100%

### Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	473.2	3.3%	90-100	0	0%
10-20	1,368.9	9.4%	100-110	0	0%
20-30	2,114.8	14.6%	110-120	0	0%
30-40	2,627.3	18.1%	120-130	0	0%
40-50	2,829.6	19.5%	130-140	0	0%
50-60	2,649.5	18.3%	140-150	0	0%
60-70	1,730.0	11.9%	150-160	0	0%
70-80	597.5	4.1%	160-170	0	0%
80-90	112.6	0.8%	170-180	0	0%

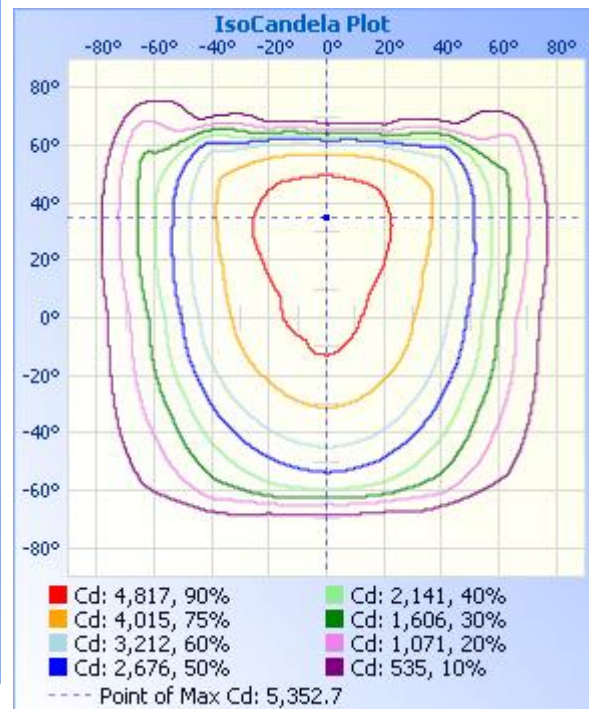
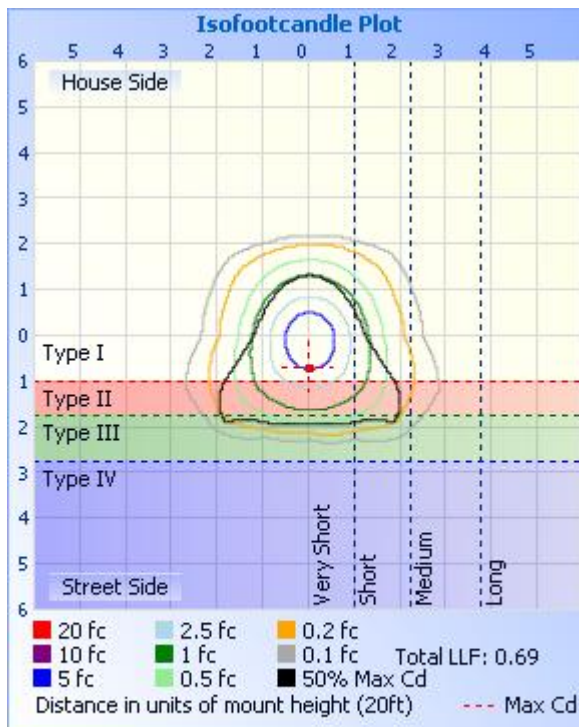
**Photometric Data**



**Illuminance at a Distance**

	Center Beam fc	Beam Width	
17.0ft	17.3 fc	53.9 ft	44.4 ft
34.0ft	4.31 fc	107.9 ft	88.8 ft
51.0ft	1.92 fc	161.8 ft	133.2 ft
68.0ft	1.08 fc	215.7 ft	177.6 ft
85.0ft	0.69 fc	269.6 ft	222.1 ft
102.0ft	0.48 fc	323.6 ft	266.5 ft

■ Vert. Spread: 115.5°  
■ Horiz. Spread: 105.1°



**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	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986	4986
1	4991	5003	5000	4988	4995	4978	4971	4984	4974	4973	4976	4972	4981	4987	4998	5002	4991
2	5006	5003	5020	5000	4989	4968	4964	4968	4983	4967	4956	4968	4976	4997	4998	5015	5006
3	5019	5017	5017	5004	4995	4968	4945	4961	4997	4954	4950	4951	4960	4990	5011	5014	5019
4	5030	5021	5032	5005	4987	4946	4935	4952	4996	4955	4931	4935	4955	4990	5007	5024	5030
5	5047	5022	5031	5013	4985	4945	4919	4942	5002	4941	4917	4925	4937	4993	5009	5015	5047
6	5025	5032	5029	5002	4981	4931	4905	4944	4991	4937	4910	4904	4917	4977	5005	5009	5025
7	5026	5018	5032	5003	4961	4913	4894	4926	4988	4927	4887	4893	4907	4976	4991	5001	5026
8	5016	5023	5017	4996	4960	4906	4871	4924	4964	4904	4879	4878	4883	4959	4990	4990	5016
9	5003	5023	5017	4982	4942	4880	4861	4907	4922	4896	4852	4853	4876	4950	4974	4998	5003
10	5003	5030	5004	4976	4924	4871	4834	4884	4895	4862	4827	4837	4850	4932	4969	4994	5003
11	5002	5048	5000	4952	4916	4848	4806	4864	4863	4828	4806	4808	4822	4907	4959	5009	5002
12	5042	5055	4997	4947	4885	4827	4787	4824	4833	4805	4770	4787	4803	4893	4948	5023	5042
13	5071	5082	4988	4919	4873	4806	4749	4802	4803	4768	4748	4762	4765	4863	4951	5032	5071
14	5079	5104	4997	4901	4846	4771	4724	4772	4782	4744	4706	4726	4737	4840	4939	5058	5079
15	5126	5126	4998	4882	4824	4753	4685	4736	4778	4703	4670	4698	4702	4814	4941	5069	5126
16	5160	5153	5006	4853	4798	4721	4648	4701	4756	4676	4638	4662	4665	4783	4939	5096	5160
17	5204	5163	5015	4832	4760	4679	4615	4648	4729	4638	4595	4625	4630	4762	4931	5112	5204
18	5209	5184	5012	4809	4735	4655	4570	4613	4696	4595	4564	4579	4584	4723	4943	5116	5209
19	5213	5194	5029	4779	4701	4605	4539	4572	4658	4561	4517	4541	4551	4693	4939	5133	5213
20	5233	5204	5027	4754	4665	4575	4491	4522	4624	4516	4473	4501	4505	4663	4937	5132	5233
21	5216	5220	5035	4717	4635	4533	4446	4486	4561	4472	4429	4444	4462	4623	4937	5135	5216
22	5224	5215	5039	4691	4590	4485	4404	4441	4506	4428	4374	4398	4420	4593	4924	5135	5224
23	5234	5227	5028	4661	4558	4442	4345	4397	4445	4371	4330	4347	4369	4549	4927	5132	5234
24	5255	5231	5032	4624	4507	4389	4304	4350	4375	4330	4273	4292	4327	4524	4910	5139	5255
25	5277	5240	5015	4595	4463	4343	4248	4301	4311	4270	4215	4245	4270	4489	4902	5140	5277
26	5294	5255	5004	4557	4423	4288	4189	4255	4240	4223	4159	4177	4225	4447	4888	5155	5294
27	5328	5254	4996	4529	4363	4237	4136	4188	4192	4173	4100	4129	4176	4416	4863	5166	5328
28	5341	5272	4971	4491	4314	4187	4075	4143	4149	4114	4049	4065	4118	4374	4848	5168	5341

29	5343	5274	4961	4455	4258	4122	4029	4081	4098	4066	3982	4003	4067	4333	4824	5182	5343
30	5346	5279	4941	4423	4207	4063	3968	4023	4061	3999	3917	3944	4010	4292	4809	5186	5346
31	5332	5287	4931	4382	4154	4000	3907	3971	4006	3950	3861	3873	3956	4243	4792	5191	5332
32	5348	5281	4921	4348	4087	3938	3842	3904	3965	3892	3788	3807	3898	4209	4764	5189	5348
33	5347	5292	4899	4312	4034	3880	3775	3856	3921	3831	3732	3737	3835	4160	4757	5179	5347
34	5340	5292	4893	4262	3968	3810	3722	3797	3861	3784	3663	3668	3778	4118	4738	5184	5340
35	5353	5279	4874	4228	3906	3748	3657	3740	3814	3719	3599	3597	3701	4071	4722	5163	5353
36	5337	5275	4862	4184	3848	3668	3592	3689	3751	3669	3535	3520	3636	4020	4709	5157	5337
37	5347	5252	4852	4146	3777	3600	3528	3625	3697	3610	3459	3444	3571	3979	4684	5154	5347
38	5343	5246	4825	4103	3717	3532	3454	3568	3622	3547	3399	3368	3498	3927	4673	5129	5343
39	5309	5222	4816	4051	3646	3452	3396	3499	3554	3494	3329	3286	3428	3878	4647	5118	5309
40	5286	5189	4790	4014	3571	3383	3330	3437	3492	3418	3261	3214	3346	3826	4624	5090	5286
41	5243	5175	4764	3959	3496	3293	3262	3375	3416	3361	3198	3133	3276	3765	4603	5070	5243
42	5219	5144	4743	3907	3416	3213	3198	3302	3366	3292	3118	3052	3201	3711	4558	5040	5219
43	5203	5125	4708	3853	3343	3139	3118	3237	3305	3224	3055	2963	3115	3652	4543	5004	5203
44	5178	5097	4684	3792	3259	3059	3058	3173	3244	3158	2982	2879	3038	3592	4506	4984	5178
45	5147	5058	4645	3737	3175	2975	2989	3107	3194	3088	2906	2802	2950	3532	4476	4956	5147
46	5093	5023	4616	3676	3093	2890	2910	3047	3130	3027	2835	2709	2867	3460	4448	4919	5093
47	5044	4968	4587	3621	3006	2808	2839	2978	3078	2966	2757	2625	2781	3402	4409	4886	5044
48	4984	4919	4538	3564	2920	2722	2763	2919	3022	2906	2688	2531	2687	3329	4380	4830	4984
49	4905	4865	4514	3487	2831	2634	2697	2858	2956	2843	2613	2447	2595	3263	4341	4782	4905
50	4817	4800	4472	3435	2738	2547	2615	2796	2901	2780	2534	2368	2500	3196	4304	4723	4817
51	4713	4739	4435	3360	2654	2457	2546	2738	2835	2721	2467	2277	2413	3123	4268	4647	4713
52	4640	4662	4400	3297	2559	2374	2479	2668	2780	2661	2394	2193	2317	3063	4222	4578	4640
53	4562	4587	4346	3233	2474	2291	2403	2607	2708	2596	2326	2103	2211	2989	4187	4491	4562
54	4470	4496	4309	3160	2383	2203	2336	2539	2637	2528	2252	2020	2123	2920	4134	4416	4470
55	4361	4401	4252	3094	2285	2113	2258	2475	2561	2459	2179	1939	2029	2847	4082	4319	4361
56	4202	4307	4199	3021	2189	2031	2188	2402	2480	2388	2115	1847	1938	2774	4030	4214	4202
57	4043	4194	4142	2957	2091	1946	2123	2329	2389	2312	2042	1763	1836	2707	3962	4101	4043
58	3882	4072	4070	2888	2002	1860	2052	2253	2287	2229	1979	1679	1738	2628	3889	3968	3882
59	3696	3937	4003	2817	1904	1766	1980	2171	2187	2131	1906	1594	1649	2556	3809	3829	3696

60	3468	3780	3917	2756	1811	1684	1914	2082	2061	2023	1838	1514	1550	2481	3726	3659	3468
61	3168	3615	3837	2673	1723	1602	1847	1969	1895	1915	1764	1426	1466	2408	3639	3452	3168
62	2782	3402	3750	2605	1628	1517	1778	1854	1652	1760	1686	1356	1368	2342	3537	3220	2782
63	2280	3114	3649	2540	1540	1436	1694	1720	1382	1573	1606	1279	1283	2272	3430	2914	2280
64	1774	2769	3537	2467	1446	1353	1619	1523	1118	1327	1518	1205	1206	2199	3311	2533	1774
65	1288	2341	3412	2405	1363	1280	1537	1262	908	1072	1428	1127	1125	2137	3190	2004	1288
66	921	1848	3290	2335	1283	1203	1456	1012	744	861	1328	1058	1049	2068	3053	1523	921
67	652	1373	3129	2271	1199	1132	1359	817	616	698	1209	993	972	2007	2878	1102	652
68	473	946	2962	2202	1120	1059	1254	668	536	573	1059	925	901	1939	2649	782	473
69	371	681	2724	2133	1036	991	1140	551	443	493	874	856	832	1874	2342	543	371
70	325	491	2449	2069	965	927	989	469	381	411	697	796	764	1817	2009	410	325
71	292	377	2067	2004	899	860	813	389	334	338	557	731	692	1755	1567	336	292
72	267	319	1659	1945	825	794	622	327	307	304	449	674	628	1695	1157	298	267
73	243	286	1234	1882	752	731	500	295	282	277	372	613	563	1632	811	270	243
74	223	260	854	1822	690	674	414	268	263	251	300	556	500	1568	556	239	223
75	197	237	605	1755	622	613	346	246	240	229	248	494	434	1500	399	222	197
76	177	206	414	1688	554	562	277	226	222	209	216	433	382	1420	296	195	177
77	153	191	316	1610	491	496	236	202	209	190	189	368	326	1341	249	171	153
78	136	164	259	1534	430	443	203	188	186	168	162	286	278	1239	212	152	136
79	116	143	221	1432	376	383	179	172	167	157	150	229	229	1103	179	130	116
80	94	122	189	1295	322	312	157	152	157	140	128	181	179	937	152	103	94
81	71	99	162	1144	265	242	135	138	137	125	102	133	148	746	127	90	71
82	63	76	138	932	217	191	120	119	123	106	87	99	110	543	99	66	63
83	40	60	111	721	177	145	105	106	105	91	71	73	82	367	78	53	40
84	36	47	84	507	133	109	88	88	78	73	61	58	55	234	61	42	36
85	25	35	62	347	102	84	73	68	68	59	46	42	39	114	39	25	25
86	20	23	45	219	72	63	58	58	47	40	31	26	22	42	26	22	20
87	18	19	26	99	46	51	42	42	24	27	23	18	16	23	20	9	18
88	17	21	17	33	31	31	20	26	22	13	15	15	10	22	26	20	17
89	18	20	20	21	18	26	21	20	17	17	15	12	11	21	18	19	18
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Report No.: UTU2502037E-C-

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



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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)	2069.0	14.3	14.3
FM (30-60)	4775.4	32.9	32.9
FH (60-80)	1504.1	10.4	10.4
FVH (80-90)	72.6	0.5	0.5
BL (0-30)	1887.9	13.0	13.0
BM (30-60)	3332.6	23.0	23.0
BH (60-80)	823.4	5.7	5.7
BVH (80-90)	40.0	0.3	0.3
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	14505.0	100.1	100.0
<b>BUG Rating</b>	<b>B3-U0-G2</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 \*\*\*\*\*