



## Energy Star Test Report

For

**RAB LIGHTING INC**

**(Brand Name: RAB)**

170 Ludlow Ave, PO BOX 970, Northvale, NJ 07647-2305, USA

**Model name(s):**

**CD1008(CD34FA6W-36-708-WC)**

**CD34FA6W-36-708-WC**

**Report Type:** Testing and Report According to ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2

**Type of Luminaire:** Outdoor Lighting-Wall Mount Luminaires

**Test Date:** 2021-12-30

**Report Date:** 2022-07-05

Ningbo TengLi Testing Co., Ltd

**Prepared By:** 2nd floor, Block B, Ningbo Testing and Certification Base, No. 66 Qingyi Road, Ningbo National Hi-Tech Zone, Ningbo, Zhejiang

Test & Report By:

*Nick Song*

Engineer: Nick Song

Review By:

*Garman Mo*

Manager: Garman Mo

- Note: 1. The results contained in this report pertain only to the tested samples.  
2. This report does not imply product certification, approval, or endorsement by A2LA, or any agency of the Federal Government.  
3. This report contains data that are not covered by the A2LA accreditation.



<b>1.1 Product Information:</b>		
Model Number	CD1008(CD34FA6W-36-708-WC) CD34FA6W-36-708-WC	
Remark	The default CCT setting is 3000K The most consumptive CCT setting is 3000K. The most ineffective CCT setting is 3000K. Where * represent the color of the lamp. "*" can be K=Black,Z=Bronze,W=White The model name is different and everything else is the same. This is a multiple listed report, the Project Number of the original report is STD211212NB-F-R	
Representative (Tested) Model	CD1008(CD34FA6W-36-708-WC) CD34FA6W-36-708-WC	
Model Difference	Different color of lamp enclosure.N/A	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Lighting-Wall Mount Luminaires	
Mounting Type	Recessed	
Indoor/Outdoor	Outdoor	
LED Manufacturer	Bridgelux,Inc.	
LED Model	BXEM-XXE-12H-6C	
Dimming	Non-dimmable	
Sample Number	STD211212NB-F1	
Date of Receipt	Dec.27,2021	
Luminaire Aperture (for Downlight retrofits)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

<b>1.2 Rated Values:</b>	
Rated Voltage / Frequency	120-277Vac,50/60 Hz
Nominal Power	36W
Rated Initial Lamp Lumen	--
Declared CCT	3000K/4000K/5000K(Color tunable)



**1.4 Test Specifications:**

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-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products</li> <li>2. ANSIC78.377-2015 Specifications for the Chromaticity of Solid State Lighting Products</li> <li>3. CIE 13.3-1995 Method of Measuring andSpecifying Colour RenderingProperties 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 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems</li> <li>7. ANSI/UL 1598:2008,Luminaire</li> <li>8. IEC 62301:2011 Household Electrical Appliances – Measurement of Standby Power</li> <li>9. NEMA 77-2017 Standard for Temporal Light Artifacts: Test Methods and Guidance for Acceptance Criteria</li> </ol>
Remark	<p>Below test and data are not covered by A2LA accreditation:</p> <ul style="list-style-type: none"> <li>- Operating Frequency</li> <li>- Flicker</li> <li>- Noise</li> </ul>



## 1.5 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.

### 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.

### 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.



**2.1 Summary of Test Result**

Criteria Item	The Type of Luminaires	Requirement (ES for Luminaires V2.2)	Measured Value	Status
Input Wattage	All	≤ Rated Wattage	34.69W	Pass
Luminous Efficacy	Outdoor Lighting-Wall Mount Luminaires	≥ 60 lm/W	102.64lm/W	Pass
Luminaire Minimum Light Output	Outdoor Lighting-Wall Mount Luminaires	≥ 300lm	3663.2lm	Pass
Correlated Color Temperature(CCT)	Solid State Indoor Luminaires	Shall be capable of providing at least one of the following nominal correlated color temperatures (CCTs): <ul style="list-style-type: none"> <li>• 2700 Kelvin</li> <li>• 3000 Kelvin</li> <li>• 3500 Kelvin</li> <li>• 4000 Kelvin</li> <li>• 5000 Kelvin</li> </ul>	3159K Duv=-0.0010	Pass
Color Rendering Index (CRI)	Solid State Indoor Luminaires	Ra ≥ 80 R9 >0	Ra =82.5 R9 =3	Pass
Lumen Maintenance	Solid State Option 1:	L70 lumen maintenance: ≥ 25,000 hours for indoor ≥ 35,000 hours for outdoor ≥50,000 hours for inseparable luminaires		Pass
Light Source Life	Solid State	L70 lumen maintenance: ≥ 25,000 hours for indoor ≥ 35,000 hours for outdoor ≥50,000 hours for inseparable luminaires		Pass
Color Maintenance	Solid State Indoor Luminaires	Δu'v' ≤ 0.007	Max.0.0035 in LM-80 report*	Pass



Source Start Time	Solid State Indoor Luminaires	<750 ms	420ms	Pass
Power Factor	Solid State	Total luminaire input power $\leq 5$ watts: PF $\geq 0.5$ Total luminaire input power $> 5$ watts: PF $\geq 0.7$	0.9755	Pass
Transient Protection	Solid State	The line transient shall consist of seven strikes of a 100 kHz ring wave, 2.5 kV level, for both common mode and differential mode.	Survival	Pass
Standby Power Consumption	All Luminaires	Luminaires shall not draw power in the off state.	0W	Pass
Operating Frequency	Solid State	Frequency $\geq 120$ Hz	120.000Hz	Pass
Maximum Measured Driver Case Temperature	Solid State	shall not exceed the driver manufacturer's maximum recommended temperature during in situ operation. $\leq 105$ °C	61.5°C	Pass
Maximum In-Situ Source Temperature	Solid State	Maximum permitted Ts temperature for L70 $\geq$ 50,000 hrs $\leq 105$ °C	65.0°C	Pass
Dimming	Solid State	The luminaire and its components shall provide continuous dimming from 100% to 20% of total light output. Luminaire shall not emit noise above 24dBA at 1 meter or less at the minimum output.	Validated	Pass
Warranty Requirements	Solid State	incorporating replaceable drivers: $\geq 3$ years incorporating non-replaceable drivers: $\geq 5$ years	5 years	Pass



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CCT	Solid State	Packaging shall clearly describe the nominal color designation in units of Kelvin (e.g. 2700K,3000K).	3000K 4000K 5000K	Pass
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Note: The information or data with an “\*” are provided by the manufacturer.

Our laboratory has no responsibility for the decision of compliance with specification that based on the data or information with the “\*”.



<b>2.2.1 Electrical, Photometric and Chromaticity Measurements</b>	<b>IES LM-79 2008</b>
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<b>Test date</b>	2021-12-30	<b>Test Ambient:</b>	25±1 ° C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	45
<b>Model Number</b>	CD1008(CD34FA6W-36-708-WC) CD34FA6W-36-708-WC / 3000K setting	<b>Total Operating Time(min)</b>	55

**Electrical Measurement:**

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
STD211212 NB-F1	120.0	60.01	0.3049	34.69	0.9755

**Sphere-Spectroradiometer Method: (Self-absorption: 1.1829) (4π geometry):**

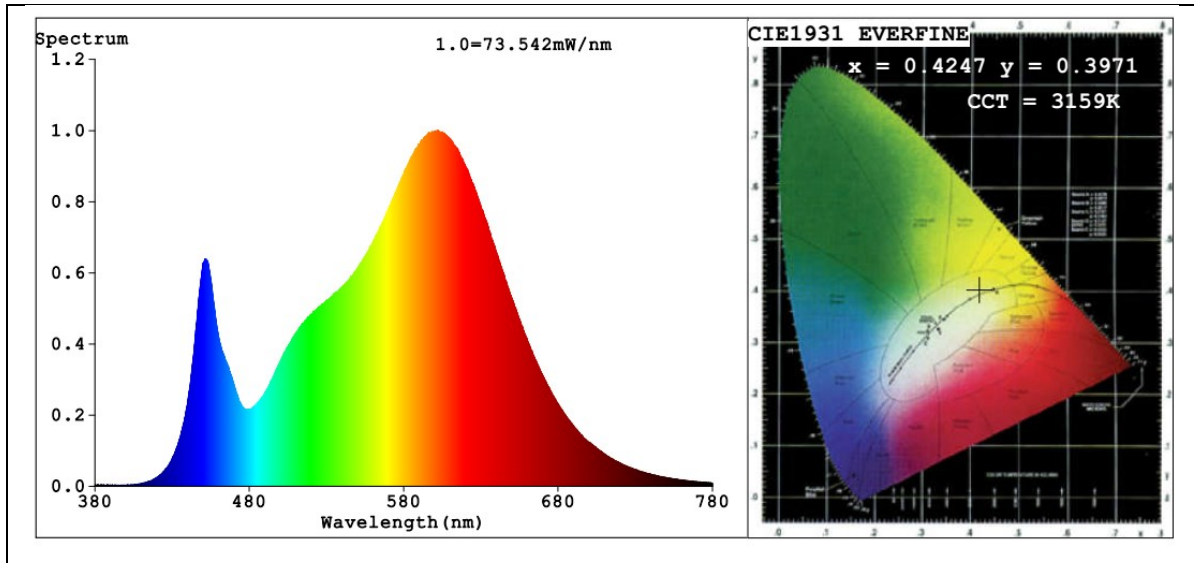
Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
Color Rendering Index (CRI)	82.5
R9	3
CCT (K)	3159
Duv	-0.0010

**Goniophotometer Method:**

Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
Total Luminous (lm)	3663.2
Luminous Efficacy (lm/W)	102.64
Beam Angle°	360.0
Center Beam Candle Power (cd)	1702



**Spectral Power Distribution and Chromaticity Diagram**



**Colorimetric Parameters**

**Color Parameters:**

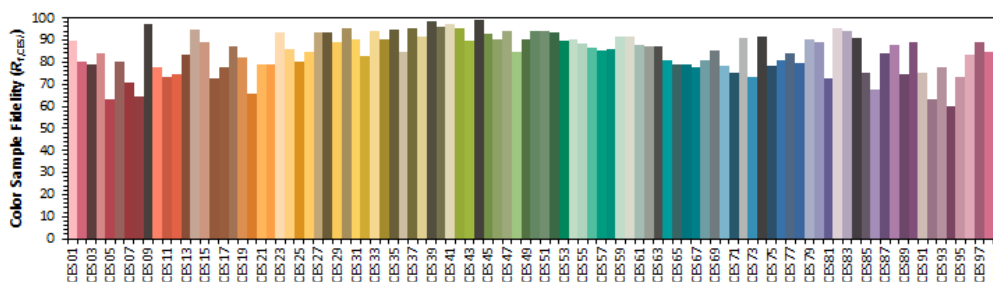
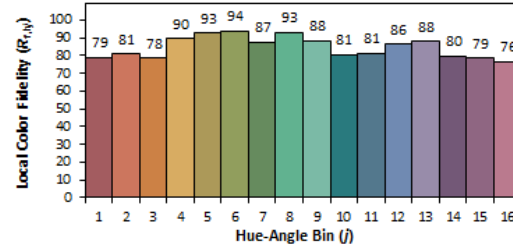
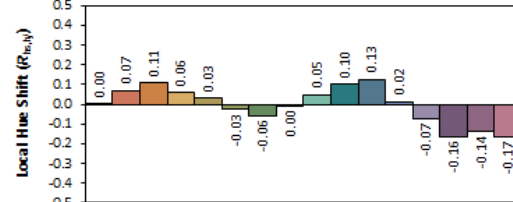
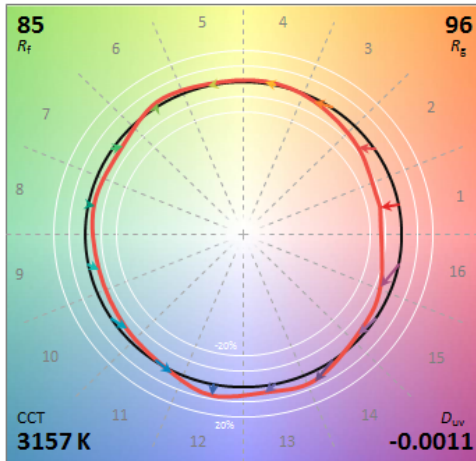
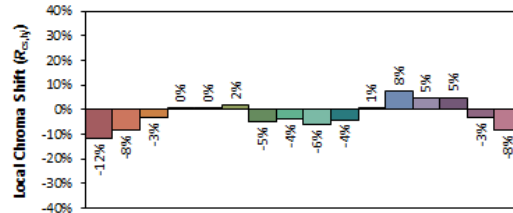
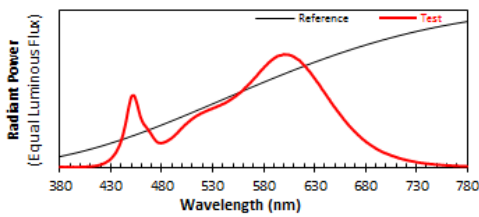
Chromaticity Coordinate:  $x=0.4247$   $y=0.3971$  /  $u'=0.2457$   $v'=0.5168$   
 CCT=3159K (Duv=-0.0010) Dominant WL:Ld =582.6nm WL:Lc = --nm Purity=46.7%  
 Ratio:R=22.0% G=75.1% B=2.9% Peak WL:Lp=601.6nm FWHM=128.3nm  
 Render Index:Ra=82.5 AvgR=76.8 TM30:Rf=84 Rg=95

R1 =81	R2 =92	R3 =95	R4 =81	R5 =82	R6 =90	R7 =82	
R8 =58	R9 =3	R10=81	R11=80	R12=72	R13=84	R14=98	R15=73

TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	BXEM-XXE-12H-6C	Manufacturer:	RAB LIGHTING INC
Date:	2021-12-31	Model:	CD1008 (CD34FA6W-36-708-WC) CD34FA6W-36-708-WC / 3000K setting

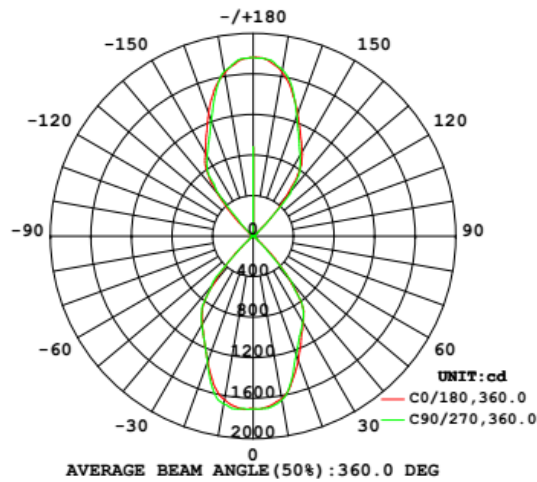


Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.	$x$	0.4248	CIE 13.3-1995 (CRI) R <sub>a</sub> 82 R <sub>g</sub> 3
	$y$	0.3969	
	$u'$	0.2457	
	$v'$	0.5167	

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

**Zonal Lumen Tabulation**

**LUMINOUS INTENSITY DISTRIBUTION DIAGRAM**



Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1,098.1	30%
0-40	1,617.8	44.2%
0-60	1,858.0	50.7%
60-90	25.0	0.7%
70-100	9.7	0.3%
90-120	21.8	0.6%
0-90	1,883.1	51.4%
90-180	1,778.4	48.6%
0-180	3,661.5	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	160.3	4.4%	90-100	1.2	0%
10-20	417.6	11.4%	100-110	6.3	0.2%
20-30	520.2	14.2%	110-120	14.3	0.4%
30-40	519.7	14.2%	120-130	30.4	0.8%
40-50	205.0	5.6%	130-140	174.1	4.8%
50-60	35.2	1.0%	140-150	478.3	13.1%
60-70	16.5	0.5%	150-160	499.4	13.6%
70-80	7.1	0.2%	160-170	411.7	11.2%
80-90	1.4	0.0%	170-180	162.8	4.4%



Table--1

UNIT: cd

C (DEG) □ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5		
0	1703	1703	1703	1703	1703	1703	1703	1703	1703	1703	1703	1703	1703	1703	1703	1703		
5	1689	1669	1675	1693	1705	1701	1688	1688	1700	1699	1707	1708	1712	1711	1702	1694		
10	1630	1612	1607	1620	1643	1637	1625	1614	1639	1656	1671	1672	1680	1672	1667	1653		
15	1487	1444	1460	1476	1466	1479	1465	1456	1511	1533	1540	1559	1554	1557	1531	1533		
20	1304	1269	1272	1251	1246	1251	1258	1263	1318	1342	1350	1345	1325	1327	1334	1342		
25	1122	1107	1100	1084	1086	1091	1101	1109	1142	1167	1157	1152	1141	1129	1131	1145		
30	990	984	985	982	980	981	994	989	1005	1017	1025	1017	1014	1006	991	1004		
35	859	844	846	853	852	836	842	844	877	891	900	888	885	887	879	884		
40	564	507	518	525	589	518	516	520	577	666	658	650	641	640	628	636		
45	256	196	195	167	189	160	184	200	265	327	327	282	224	274	306	297		
50	66.2	58.2	55.7	54.3	52.7	51.0	53.0	55.3	69.8	101	75.6	71.5	69.8	71.3	72.6	76.2		
55	38.1	34.7	33.9	33.4	33.0	32.3	33.0	33.3	39.4	43.1	41.5	39.7	39.1	39.5	39.4	40.8		
60	24.6	22.5	22.3	22.3	22.0	22.0	22.3	22.2	25.6	28.0	27.1	26.2	25.8	26.0	25.8	26.4		
65	16.2	14.9	14.9	15.0	15.0	14.9	14.9	14.8	16.8	18.5	18.0	17.6	17.1	17.3	17.1	17.4		
70	10.6	9.75	9.85	9.92	9.92	9.91	9.89	9.80	11.1	12.1	11.8	11.5	11.1	11.5	11.3	11.5		
75	6.63	5.99	6.09	5.90	5.77	5.98	6.22	6.12	6.97	7.74	7.40	6.99	6.59	7.04	7.13	7.23		
80	3.64	3.16	3.02	2.61	2.47	2.68	3.20	3.33	3.91	4.44	4.12	3.48	3.23	3.55	3.93	4.13		
85	1.39	0.96	0.57	0.41	0.38	0.45	0.66	1.11	1.61	1.94	1.45	1.02	0.89	0.98	1.34	1.74		
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
95	1.14	1.89	1.12	0.84	0.77	0.86	1.21	1.63	1.35	0.63	0.58	0.40	0.32	0.36	0.49	0.78		
100	3.05	4.14	3.57	3.28	3.12	3.32	3.69	3.83	3.38	2.55	2.78	2.29	2.05	2.16	2.49	2.60		
105	5.57	7.01	6.54	6.52	6.38	6.54	6.71	6.71	6.08	5.04	5.47	5.10	4.77	4.85	4.99	4.95		
110	8.84	10.9	10.3	10.5	10.5	10.6	10.6	10.7	9.74	8.24	8.74	8.41	8.14	8.01	7.96	7.93		
115	13.2	16.2	15.4	15.7	16.0	16.1	16.1	16.1	14.7	12.5	13.1	12.5	12.2	11.9	11.8	11.9		
120	19.7	24.2	22.8	23.4	24.3	24.7	24.8	24.6	22.2	18.6	19.3	18.4	17.9	17.5	17.4	17.5		
125	29.6	37.0	34.4	35.9	37.9	39.1	39.5	39.1	34.5	27.8	28.3	26.8	26.0	25.6	25.6	26.1		
130	49.9	90.9	59.3	62.0	66.1	69.2	72.4	74.0	62.8	44.8	46.8	43.1	41.2	40.4	40.7	41.9		
135	208	320	242	231	204	248	279	282	251	130	151	135	162	124	124	147		
140	518	637	555	559	584	571	581	602	536	402	467	465	495	461	442	431		
145	804	882	828	814	804	811	812	837	802	695	775	778	791	781	779	746		
150	966	1021	967	938	927	927	938	965	946	894	916	910	910	921	941	945		
155	1106	1171	1120	1081	1067	1073	1102	1126	1097	1032	1051	1035	1038	1047	1080	1082		
160	1287	1358	1308	1281	1262	1279	1311	1317	1289	1204	1241	1221	1214	1226	1254	1247		
165	1479	1559	1501	1515	1504	1513	1510	1515	1490	1409	1451	1464	1448	1465	1460	1441		
170	1644	1699	1669	1661	1667	1658	1656	1662	1632	1597	1627	1637	1651	1640	1622	1624		
175	1741	1758	1754	1753	1750	1742	1743	1742	1730	1704	1727	1736	1742	1734	1732	1721		
180	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764		



<b>2.2.2 Electrical, Photometric and Chromaticity Measurements</b>	<b>IES LM-79 2008</b>
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<b>Test date</b>	2021-12-30	<b>Test Ambient:</b>	25±1 ° C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	45
<b>Model Number</b>	CD1008(CD34FA6W-36-708-WC) CD34FA6W-36-708-WC / 4000K setting	<b>Total Operating Time(min)</b>	55

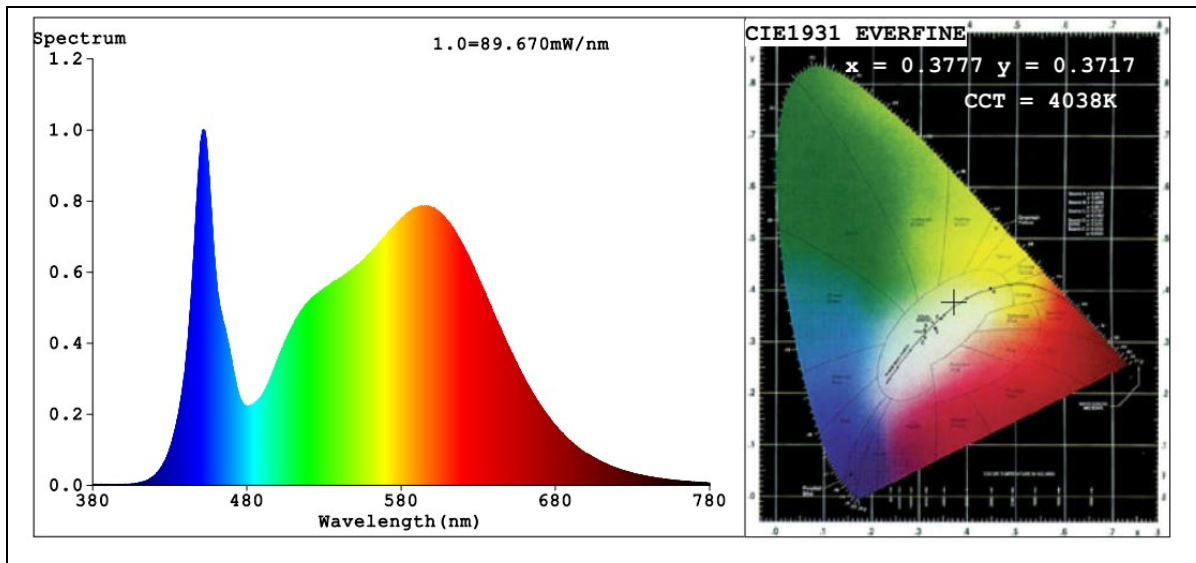
**Electrical Measurement:**

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
STD211212 NB-F1	120.0	60	0.2901	33.46	0.9612

**Sphere-Spectroradiometer Method: (Self-absorption: 1.1830) (4π geometry):**

Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
Color Rendering Index (CRI)	83.5
R9	10
CCT (K)	4038
Duv	-0.0016
Total Luminous (lm)	4026
Luminous Efficacy (lm/W)	120.32

### Spectral Power Distribution and Chromaticity Diagram



### Colorimetric Parameters

#### Color Parameters:

Chromaticity Coordinate:  $x=0.3777$   $y=0.3717$  /  $u'=0.2254$   $v'=0.4989$   
 CCT=4038K (Duv=-0.0016) Dominant WL:Ld = 579.9nm WL:Lc = --nm Purity=24.9%  
 Ratio: R=18.4% G=77.9% B=3.7% Peak WL:Lp=451.8nm FWHM=19.2nm  
 Render Index: Ra=83.5 AvgR=77.0 TM30:Rf=83 Rg=96

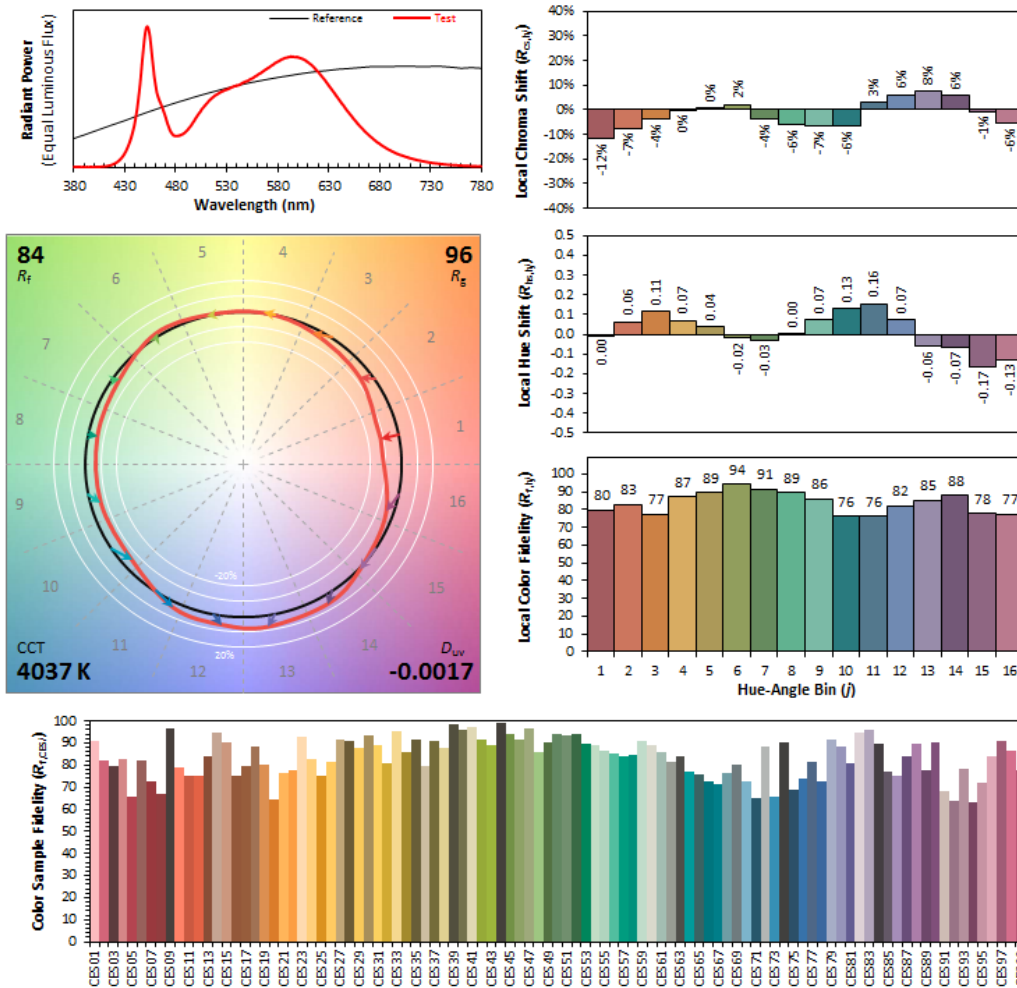
R1 =82	R2 =90	R3 =95	R4 =82	R5 =82	R6 =86	R7 =86	
R8 =65	R9 =10	R10=76	R11=81	R12=61	R13=85	R14=97	R15=77



TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	BXEM-XXE-12H-6C	Manufacturer:	RAB LIGHTING INC
Date:	2021-12-31	Model:	CD1008 (CD34FA6W-36-708-WC) CD34FA6W-36-708-WC / 4000K setting



<b>Notes:</b> This is a recommended method for displaying ANSI/IES TM-30-18 information.	$x$	0.3777	CIE 13.3-1995 (CRI) $R_a$ 83 $R_g$ 10
	$y$	0.3715	
	$u'$	0.2254	
	$v'$	0.4988	

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



<b>2.2.3 Electrical, Photometric and Chromaticity Measurements</b>	<b>IES LM-79 2008</b>
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<b>Test date</b>	2021-12-30	<b>Test Ambient:</b>	25±1 ° C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	45
<b>Model Number</b>	CD1008(CD34FA6W-36-708-WC) CD34FA6W-36-708-WC /5000K setting	<b>Total Operating Time(min)</b>	55

**Electrical Measurement:**

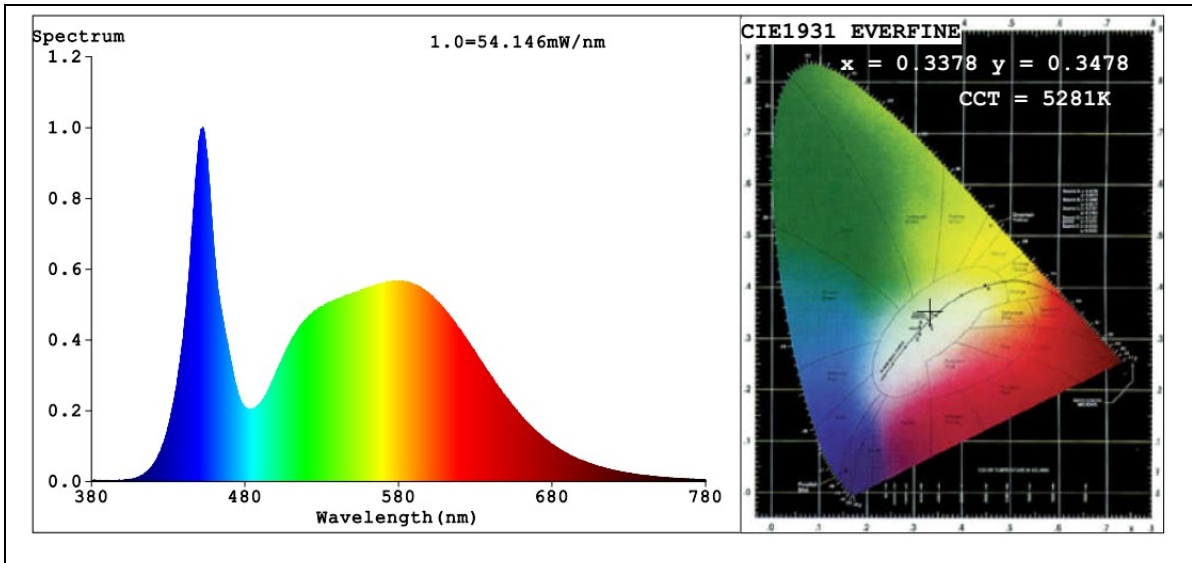
Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
STD211212 NB-F1	120.0	60	0.3036	35.13	0.9643

**Sphere-Spectroradiometer Method: (Self-absorption: 1.1829) (4π geometry):**

Parameter	Result
Test Voltage (V)	120
Frequency (Hz)	60
Color Rendering Index (CRI)	81.2
R9	1
CCT (K)	5281
Duv	0.0011
Total Luminous (lm)	3894
Luminous Efficacy (lm/W)	110.85



**Spectral Power Distribution and Chromaticity Diagram**



**Colorimetric Parameters**

**Color Parameters:**

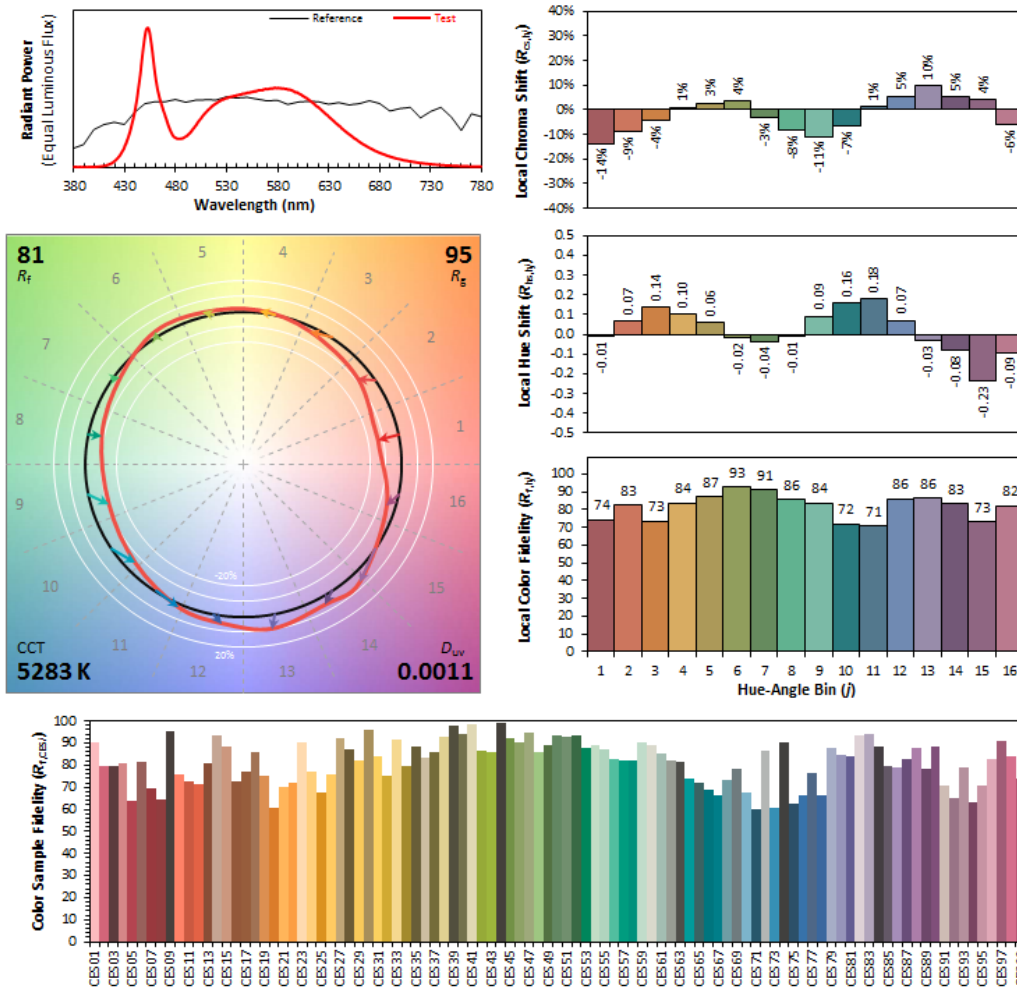
Chromaticity Coordinate:  $x=0.3378$   $y=0.3478$  /  $u'=0.2079$   $v'=0.4817$   
 CCT=5281K (Duv=0.0011) Dominant WL:Ld =565.4nm WL:Lc = --nm Purity=5.7%  
 Ratio:R=15.0% G=80.6% B=4.5% Peak WL:Lp=452.5nm FWHM=22.0nm  
 Render Index:Ra=81.2 AvgR=73.6 TM30:Rf=81 Rg=95

R1 =79	R2 =86	R3 =90	R4 =81	R5 =80	R6 =81	R7 =86	
R8 =66	R9 =1	R10=67	R11=80	R12=57	R13=81	R14=95	R15=75

TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	BXEM-XXE-12H-6C	Manufacturer:	RAB LIGHTING INC
Date:	2021-12-31	Model:	CD1008 (CD34FA6W-36-708-WC) CD34FA6W-36-708-WC / 5000K setting



<b>Notes:</b> This is a recommended method for displaying ANSI/IES TM-30-18 information.	$x$	0.3377	CIE 13.3-1995 (CRI) $R_a$ 81 $R_g$ 1
	$y$	0.3476	
	$u'$	0.2079	
	$v'$	0.4816	

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



<b>2.3 Electrical and Photometric Measurements, with dimming</b>	<b>IES LM-79 2008 ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2</b>
--	---

<b>Test date</b>	2021-12-30		<b>Test Ambient:</b>	25±1 ° C
<b>Dimmer Technology</b>			--	
<b>Sample No.</b>		<b>Maximum Level</b>	<b>Minimum Level</b>	
STD211212NB-F1	Input: 120.0 V / 60 Hz	Light outout (Lumen)	--	--
		Percentage	--	--

The luminaires ~~can~~ [can not] provide less than 20% of total light output with continuous dimmer.

Dimmer	Peak Noise Reading (dBA)	Test Condition	Distance between the microphone and the UUT
--	--	Dimmer adjusted to lowest light output	< 1 m



<b>2.4 Flicker</b>	<b>NEMA 77-2017 ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2</b>
<b>Noted: This test and data are not covered by A2LA accreditation</b>	

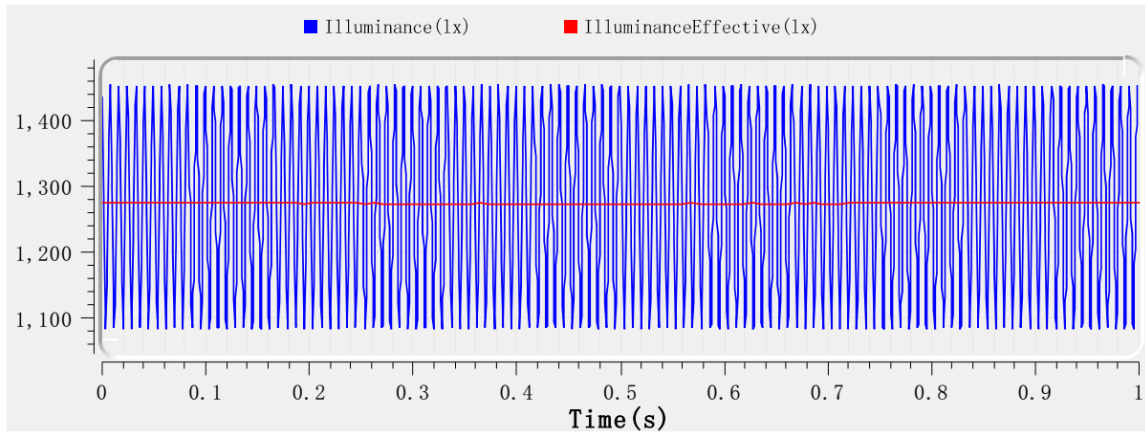
<b>Dimming Technology</b>	--
<b>Dimmer</b>	--
<b>Sample Number</b>	STD211212NB-F1

Item	Short Term Flicker Indicator (Pst)	Stroboscopic Visibility Measure (SVM)
Full light output	0.091	0.535
--	--	--
--	--	--



<b>2.5 Operating Frequency</b>	<b>ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2</b>
<b>Noted: This test and data are not covered by A2LA accreditation</b>	

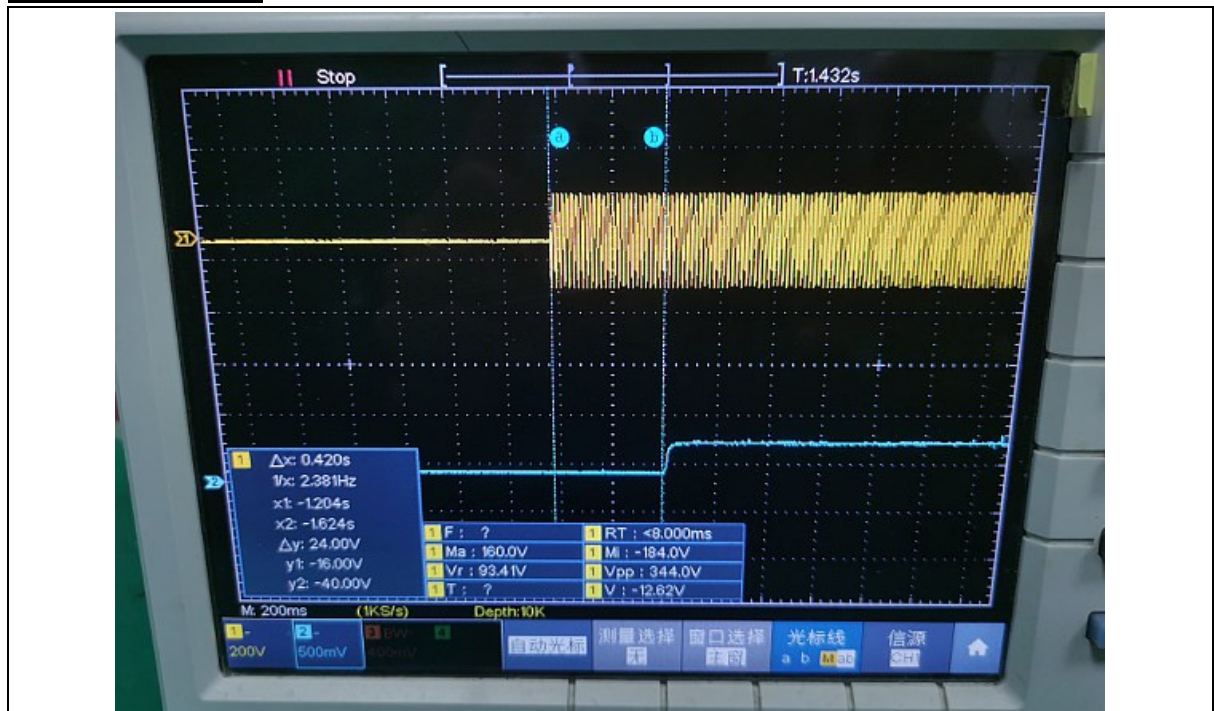
<b>Test date</b>	2021-12-30	<b>Test Ambient:</b>	25±1 °C
<b>Sample No.</b>		<b>Operating Frequency (Hz)</b>	
STD211212NB-F1		120.000	



<b>2.6 Starting Time</b>	<b>ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2</b>
--------------------------	--

Test date	2021-12-30	Test Ambient:	25±1 °C
Sample No.	Start Time (ms)		
STD211212NB-F1	420		

**Graph (Start Time):**





<b>2.7 Transient Protection Test</b>	<b>ANSI/IEEE C62.41 ENERGY STAR® Program Requirements for Luminaires – Version 2.2</b>
--------------------------------------	--

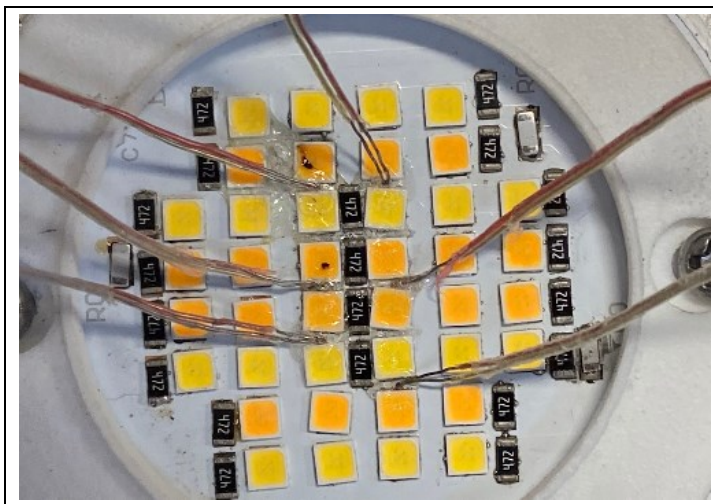
**Test voltage: 120V,60Hz**

<b>Test date</b>	2021-12-30	<b>Test Ambient</b>	25±1 °C
<b>Sample No.</b>		<b>Transient Protection Test - Seven Strikes</b>	
STD211212NB-F1		Survival	

<b>2.8In-Situ Temperature Measurement Test (ISTMT)</b>	<b>ANSI/UL 1598:2008</b>
--	--------------------------

Test date	2021-12-30	Test Ambient	25.1 °C
Input Vol./Frequency	120 V / 60 Hz	Output Current of Single LED (mA)	72
Sample No.	LED Package Model	Maximum Measured LED Ts Point Temperature (°C)	Maximum permitted Ts temperature for L70 ≥ 50,000 hrs (°C)
STD211212NB-F1	BXEM-XXE-12H-6C	65.0	105

**In-Situ Picture - Ts:**







<b>2.9 Maximum Measured Ballast or Driver Case Temperature</b>	<b>ANSI/UL 1598:2008</b>
--	--------------------------

<b>Test date</b>	<b>2021-12-30</b>	<b>Test Ambient</b>	<b>25.1 °C</b>
<b>Sample No.</b>	<b>Maximum Measured Driver Case Temperature (°C)</b>	<b>Maximum Driver Case Temperature Limited (°C)</b>	
STD211212NB-F1	61.5	105	

**In-Situ Picture - Ts:**





<b>2.10 Off-State Power Consumption:</b>	<b>ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2</b>
--	--

<b>Test date</b>	2021-12-30	<b>Test Ambient:</b>	25±1 °C
<b>Model Number</b>	CD1008(CD34FA6W-36-708-WC) CD34FA6W-36-708-WC	<b>Stabilization Time (min)</b>	90

**Electrical Measurement – when the luminaires turned off:**

Sample No.	Power (W)
STD211212NB-F1	0



**3. Test Equipment**

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-702	2 meter Integrating Sphere	Verified by D204 standard lamp	
ST-R-701	Spectral analysis system HAAS-1200	Verified by D204 standard lamp	
ST-R-703	Standard Lamp D204	2021-02-21	2022-02-20
ST-R-704	Power Meter for Integrating Sphere	2021-01-04	2022-01-03
ST-R-714	Goniophotometer system	Verified by D908S standard lamp	
ST-R-710	Standard Lamp D908S	2021-02-21	2022-02-20
ST-R-711	Power Meter for Goniophotometer	2021-01-04	2022-01-03
ST-R-720	Digital Luxmeter	2021-01-04	2022-01-03
ST-R-622	Oscillograph	2021-01-04	2022-01-03
ST-R-721	EMS61000-12C	2021-01-04	2022-01-03
ST-R-725	LFA-3000	2021-01-04	2022-01-03
ST-R-607	Temperature Tester	2021-01-04	2022-01-03
Uncertainty(K=2): Photometric Measurement (Sphere):3.94% Chromaticity Measurement(Sphere):48.2K Photometric Measurement(Goniophotometer):3.96%			

**\*\*\*\*\* END OF DATASHEET PACKAGE \*\*\*\*\***

## Appendix I

### INSTRUCTIONS CYLINDER INSTALLATION



RAB Lighting is committed to creating high-quality, affordable, well-designed and energy-efficient LED lighting and controls that make it easy for electricians to install and end users to save energy. We'd love to hear your comments. Please call the Marketing Department at 888-RAB-1000 or email: [marketing@rablighting.com](mailto:marketing@rablighting.com)



#### IMPORTANT

**READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.**

RAB fixtures must be wired in accordance with the National Electrical Code and all applicable local codes. Proper grounding is required for safety. THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

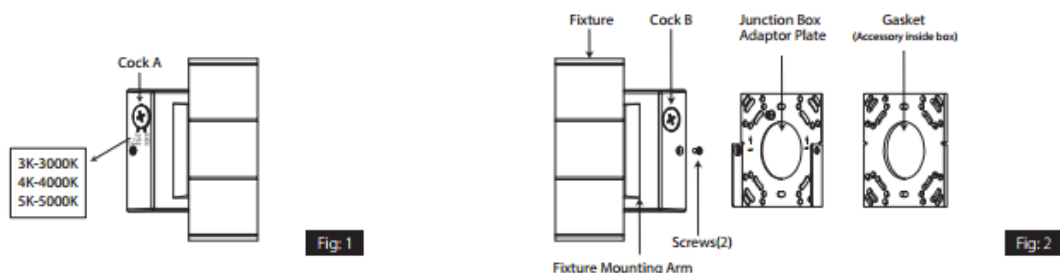
**WARNING:**

- Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside.
- Fixture is suitable for wet location.
- Fixture must be mounted a minimum of 4 feet above ground level.

#### WALL MOUNT

(Important: For wet locations, Gasket must be used.)

1. Remove Screws(2) on two sides from the Fixture Mounting Arm as show in (Fig. 2).
2. Stick Gasket and fix Junction Box Adaptor Plate with screws on the wall. (Warning: The mark "UP" direction must be installed upside.)
3. Connect the wires according to Wiring Diagram as shown in (Fig. 8).
4. Mount back the Fixture on Junction Box Adaptor Plate with Screws(2) tightly.
5. Unscrew Cock A to adjust the watts and CCT as shown in (Fig. 1) and Cock B to turn ON/OFF Photocell as shown in (Fig. 2) (Default: Watts-Full; CCT-3000K; Photocell-OFF). When set down, screw back Cock A & B.



## INSTRUCTIONS CYLINDER INSTALLATION

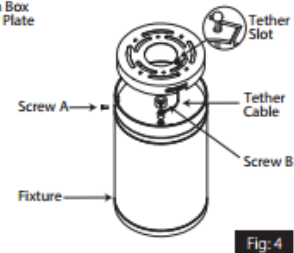
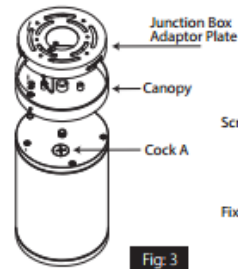


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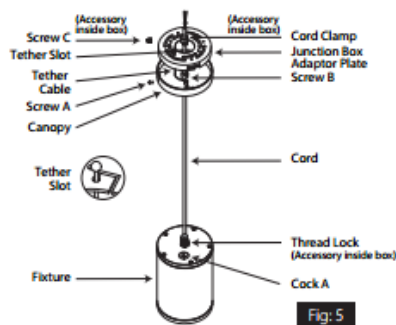
### CEILING MOUNT

(Important: For wet locations, caulk the seam between the fixture and ceiling.)

1. Unscrew Junction Box Adaptor Plate and Canopy off the Fixture counterclockwise as shown in (Fig. 3).
2. Unscrew Cock A to adjust the CCT (Default-3000K). When set down, screw back Cock A.
3. Fix Canopy back to the Fixture as shown in (Fig. 4).
4. Remove Screw A from Canopy and fix Junction Box Adaptor Plate with screws onto the ceiling.
5. Suspend the Fixture with pre-installed Tether Cable and fix it on Canopy with Screw B, using Tether Slot in Junction Box Adaptor Plate.
6. Connect the wires according to Wiring Diagram as shown in (Fig. 9).
7. Fix Canopy back to Junction Box Adaptor Plate and tighten them with Screw A.



### PENDANT CORD/ PENDANT POLE MOUNT



(Important: For wet locations, caulk the seam between the fixture and ceiling. For Cord to Pole conversion, see (Fig. 6 & 7).)

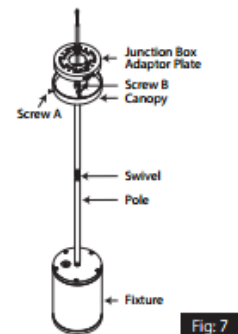
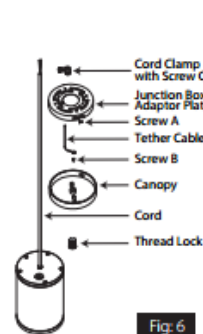
1. Remove Junction Box Adaptor Plate and Canopy from the Fixture as shown in (Fig. 3). Pass Thread Lock through the Cord and tighten it securely.
2. Unscrew Cock A to adjust the CCT (Default-3000K). When set down, screw back Cock A.
3. Remove Screw A from Canopy and fix Junction Box Adaptor Plate with screws onto the ceiling as shown in (Fig. 5).
4. Suspend the Fixture with pre-installed Tether Cable and fix it on Canopy with Screw B, using Tether Slot in Junction Box Adaptor Plate to the Tether cable.
5. Adjust Cord length according to requirement and tighten Cord Clamp with Screw C. A minimum of 6 inches will be needed for connecting to the power supply wires located in the junction box.
6. Connect the wires according to Wiring Diagram as shown in (Fig. 9).
7. Fix Canopy back to Junction Box Adaptor Plate and tighten them with Screw A.

### CORD TO POLE CONVERSION

Note: Please refer to RAB CD34STEM-X. Poles are sold separately.

1. Remove Cord Clamp with Screw C, Canopy, Tether Cable with Screw B, Junction Box Adaptor Plate with Screw A. Discard Thread Lock.
2. Insert Cord through Pole section as shown in (Fig. 7). Screw Pole section to Fixture. Add up to 3 more Pole sections as required. Each pole section is 12" long. A minimum of 6 inches will be needed for connecting to the power supply wires located in the junction box.
3. Thread Cord onto Swivel and tighten them securely.
4. Repeat steps 2-7 from PENDANT CORD/ PENDANT POLE MOUNT.

Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.



## INSTRUCTIONS CYLINDER INSTALLATION



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### WIRING DIAGRAM



Fig. 8

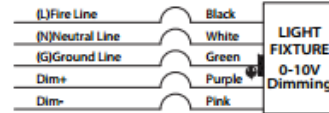


Fig. 9

### CLEANING & MAINTENANCE

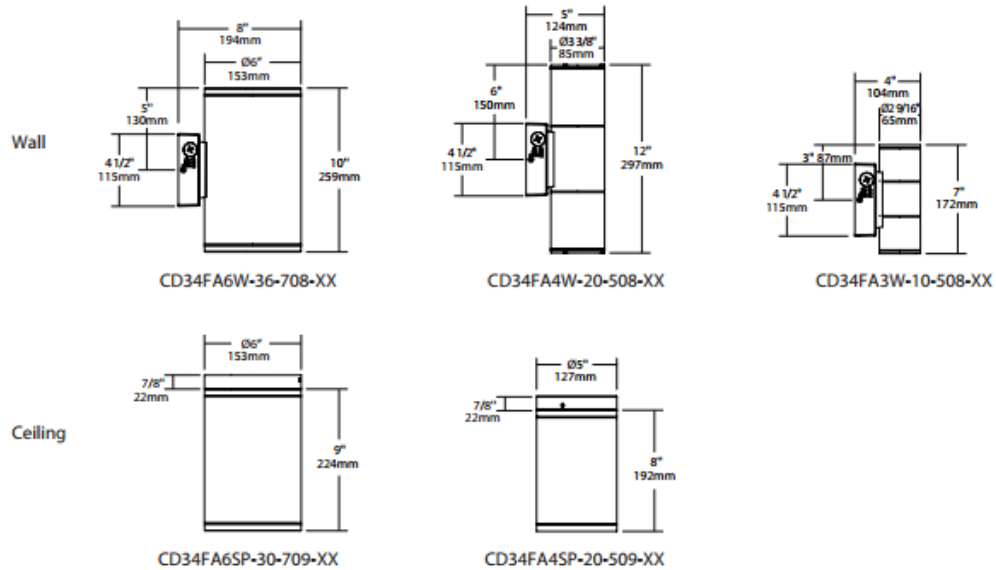
**CAUTION:** Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.

1. Do not open fixture to clean the LED. Do not touch the LED.
2. Do not touch reflector.
3. Do not clean any fixture surface with wood-base cleaning material such as paper towels or tissues.

### TROUBLESHOOTING

1. Check that the line voltage at the fixture is correct. Refer to wiring directions.
2. Is the fixture grounded properly?

### DIMENSIONAL DRAWINGS



#### Easy Answers

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Visit our website for product info

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Call our experts: 888 722-1000

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