

**LM-79-08 Test Report**  
For  
**RAB LIGHTING INC**

**(Brand Name: N/A)**

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

**Model name(s):**  
**PUCK34**

**Report Type:** Testing and Report According to IES LM-79-2008

**Type of  
Luminaire:** Downlights

**Report Date:** 2026-01-17

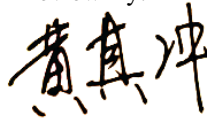
**Prepared By:**

Test & Report By:



Engineer: Sun Fangfang

Review By:



Manager: Huang Qichong

<b>1.1 Rated Values:</b>	
Rated Voltage / Frequency	120Vac, 60 Hz
Nominal Power	10.0W
Rated Initial Lamp Lumen	820lm (mode5000K)
Declared CCT	2700K/3000K/3500K/4000K/5000K

### 1.2 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. ANSI C78.377-2015 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	QD25

### 1.3 Test Methods

<p><b>1) Photometric and Light Distribution Measurement – Goniophotometer Method:</b> Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at 25°C ±1°C, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1°vertical intervals and 22.5°horizontal intervals.</p>
<p><b>2) Chromaticity Measurement – Sphere-Spectroradiometer Method:</b> Chromaticity parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25°C ±1°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</p>
<p><b>3) Electrical Measurements:</b> Electrical parameters were measured using power meters incorporated in goniophotometer or sphere-spectroradiometer system. The ambient temperature surrounding the sample was maintained at 25°C ±1°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.</p>

**2.1.1 Electrical, Photometric and Chromaticity Measurements**

<b>Test date</b>	2026-01-16	<b>Test Ambient:</b>	25.1 °C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	PUCK34	5000K	

**Electrical Measurement:**

Sample No.	Voltage (Vac)	Frequency (Hz )	Current (A)	Power (W)	Power Factor
202601090011	120.0	60	0.090	9.83	0.912

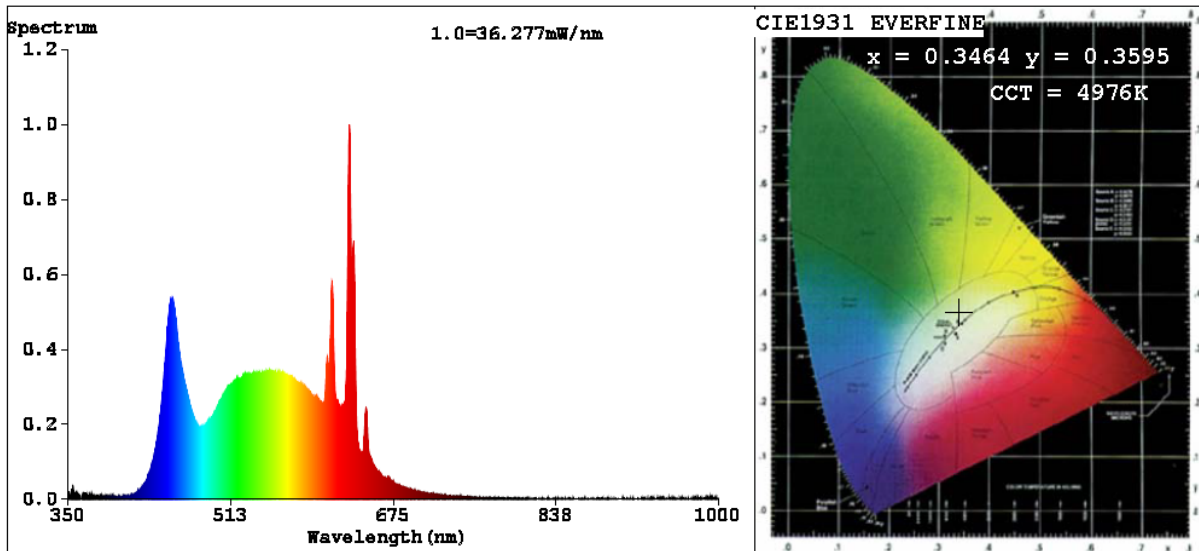
**Chromaticity Measurement - Sphere-Spectroradiometer Method:**

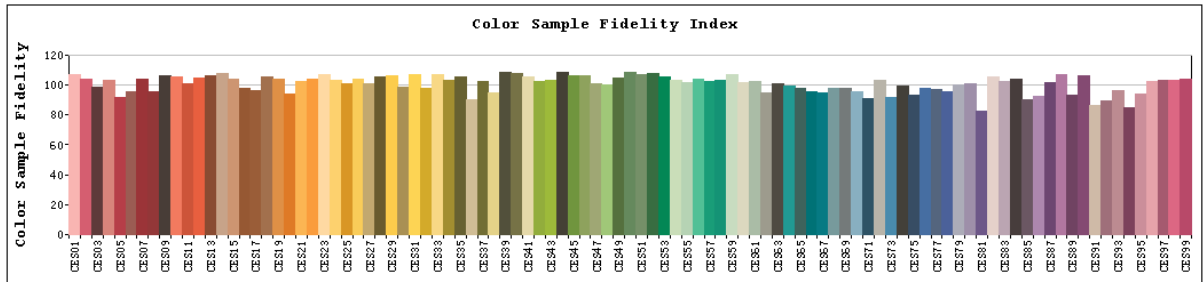
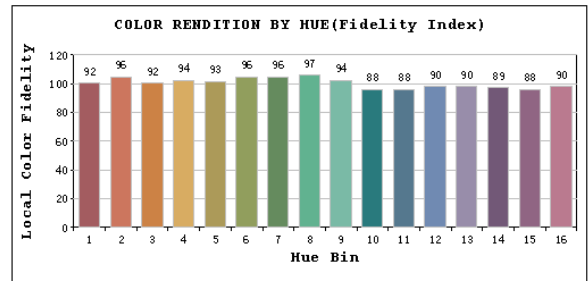
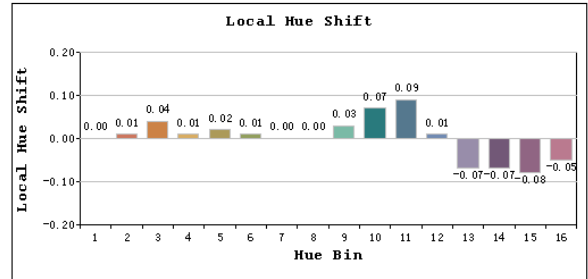
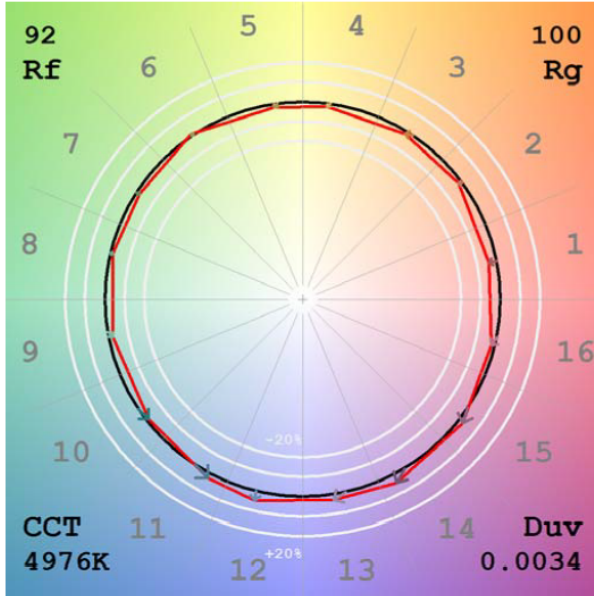
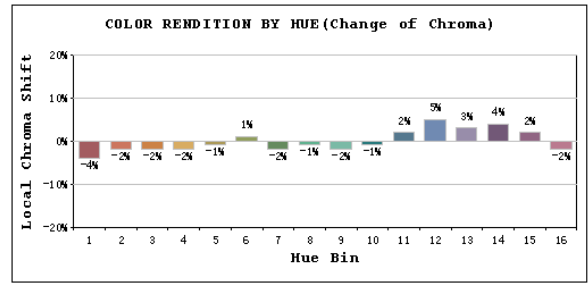
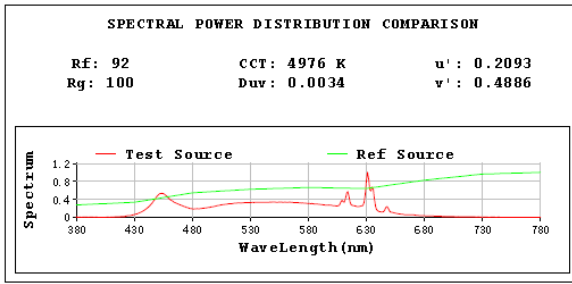
Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120	R1	96	R9	82
Frequency (Hz)	60	R2	96	R10	89
CCT (K)	4976	R3	95	R11	94
Duv	0.0034	R4	94	R12	66
Chromaticity (x, y)	x=0.3464 y=0.3595	R5	93	R13	96
Chromaticity (u', v')	u'=0.2093 v'=0.4886	R6	93	R14	96
Color Rendering Index (CRI)	94.7	R7	97	R15	94
R9	82	R8	93	--	--
Rg	100				
Rf	92				
Rcs,h1%	-4				

**Photometric Measurement – Goniophotometer Method:**

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	828.8
Luminous Efficacy (lm/W)	84.31
Beam Angle (°)	100.8
Center Beam Candle Power (cd)	331.1

# Spectral Power Distribution & Chromaticity Diagram



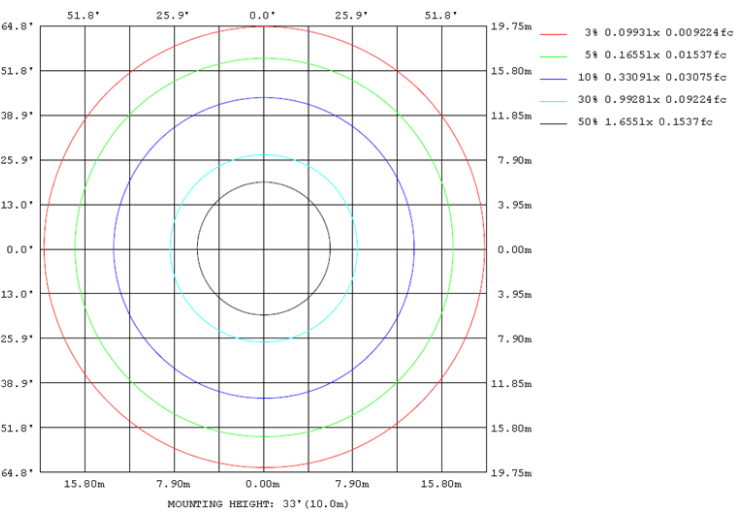
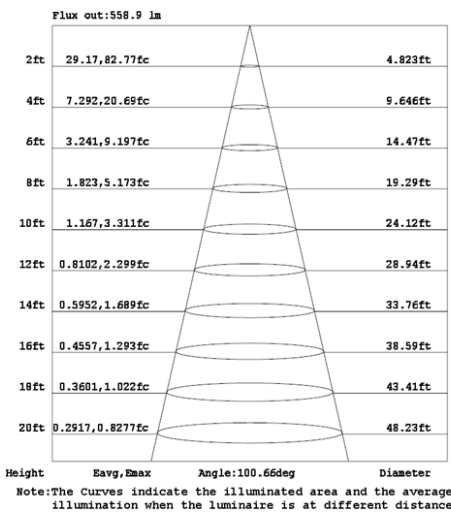
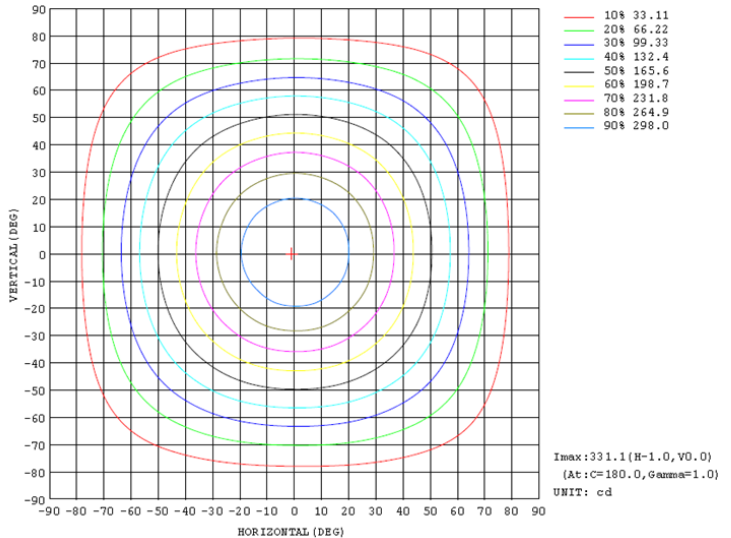
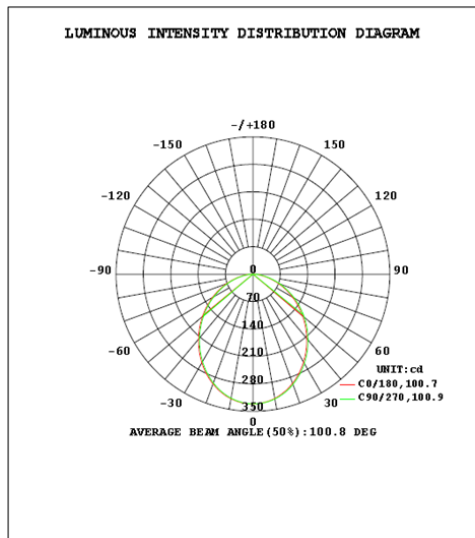


# Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	247.9	29.9%
0-40	397.0	47.9%
0-60	672.8	81.2%
60-90	156.0	18.8%
70-100	62.8	7.6%
90-120	0.0	0.0%
0-90	828.8	100.0%
90-180	0.0	0.0%
0-180	828.8	100.0%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	31.2	3.8%	90-100	0.0	0.0%
10-20	87.8	10.6%	100-110	0.0	0.0%
20-30	128.9	15.6%	110-120	0.0	0.0%
30-40	149.2	18.0%	120-130	0.0	0.0%
40-50	147.9	17.8%	130-140	0.0	0.0%
50-60	127.8	15.4%	140-150	0.0	0.0%
60-70	93.2	11.2%	150-160	0.0	0.0%
70-80	50.8	6.1%	160-170	0.0	0.0%
80-90	12.0	1.4%	170-180	0.0	0.0%

## Photometric Data





## 2.1.2 Electrical, Photometric and Chromaticity Measurements

Test date	2026-01-16	Test Ambient:	25.1 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	PUCK34	2700K	

### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz )	Current (A)	Power (W)	Power Factor
202601090011	120.0	60	0.089	9.78	0.907

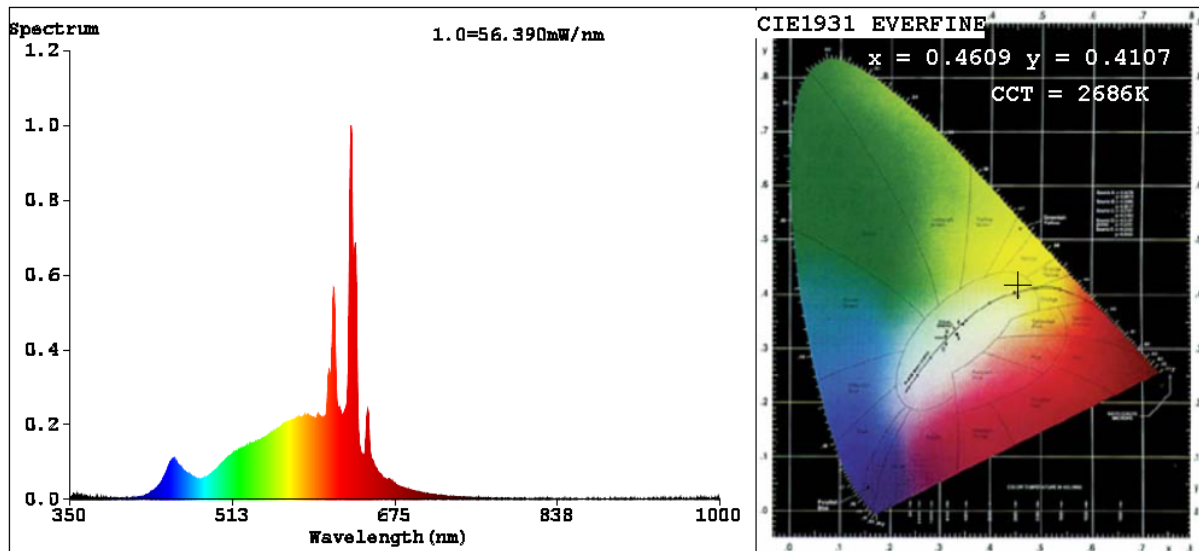
### Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120	R1	97	R9	67
Frequency (Hz)	60	R2	98	R10	92
CCT (K)	2686	R3	96	R11	98
Duv	-0.0001	R4	97	R12	87
Chromaticity (x, y)	x=0.4609 y=0.4107	R5	96	R13	97
Chromaticity (u', v')	u'=0.2631 v'=0.5275	R6	97	R14	96
Color Rendering Index (CRI)	95.0	R7	93	R15	93
R9	67	R8	86	--	--
Rg	100				
Rf	92				
Rcs,h1%	-5				

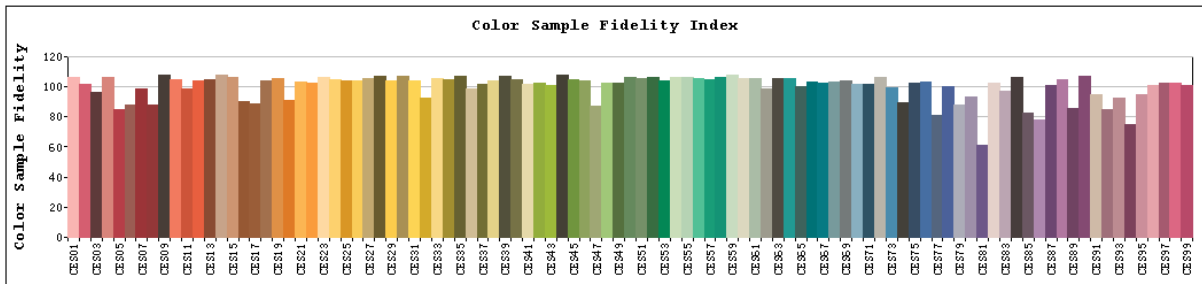
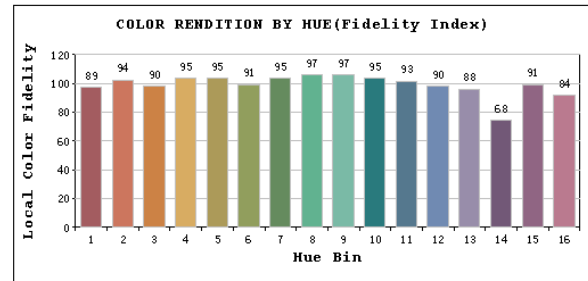
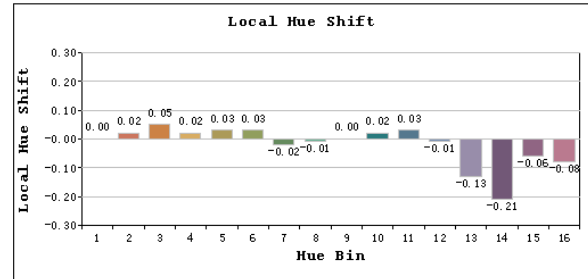
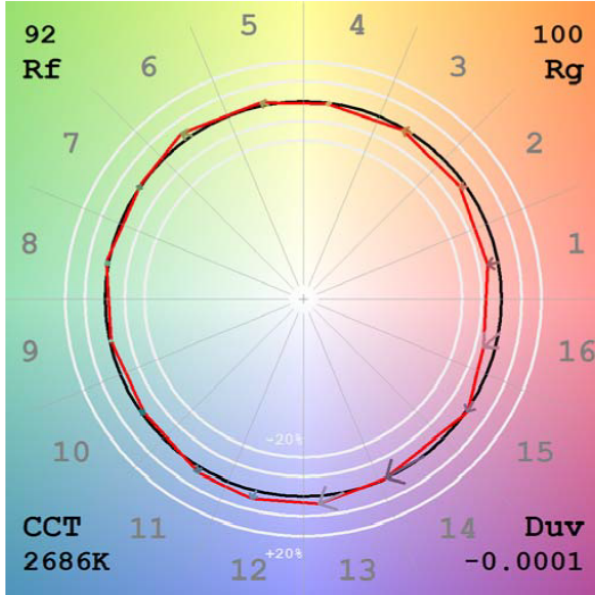
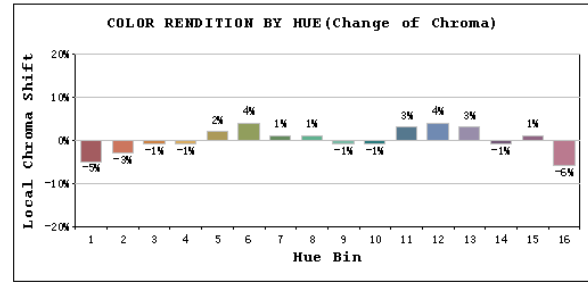
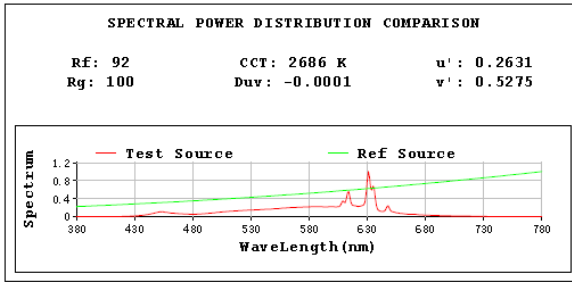
### Photometric Measurement – Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	784.1
Luminous Efficacy (lm/W)	80.18

# Spectral Power Distribution & Chromaticity Diagram



# TM30



### 2.1.3 Electrical, Photometric and Chromaticity Measurements

<b>Test date</b>	2026-01-16	<b>Test Ambient:</b>	25.1 °C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	PUCK34	3000K	

#### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz )	Current (A)	Power (W)	Power Factor
202601090011	120.0	60	0.089	9.73	0.912

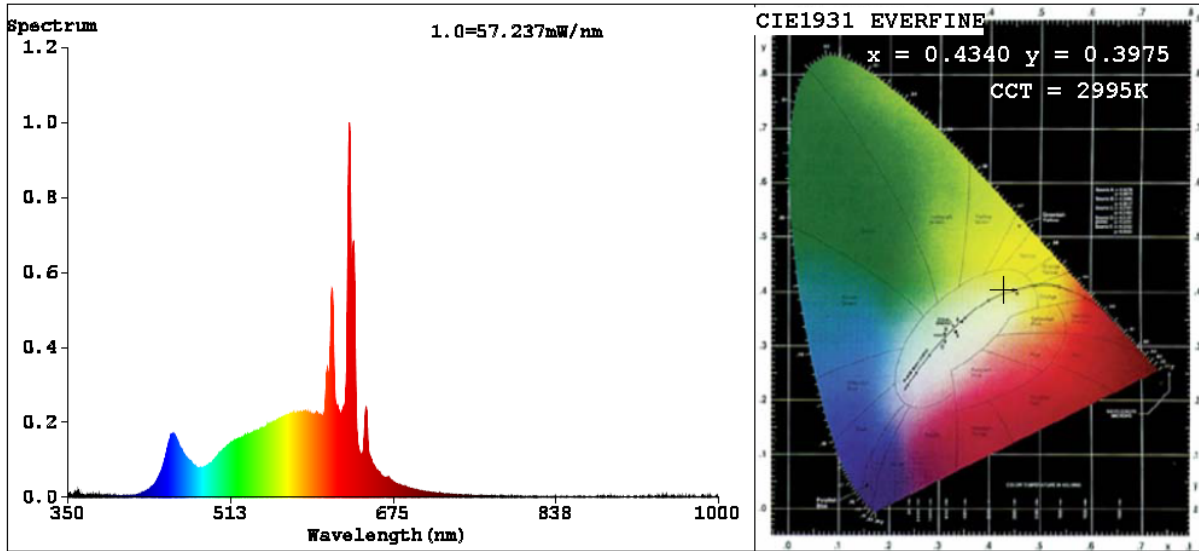
#### Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120	R1	99	R9	79
Frequency (Hz)	60	R2	99	R10	97
CCT (K)	2995	R3	97	R11	97
Duv	-0.0023	R4	99	R12	84
Chromaticity (x, y)	x=0.4340 y=0.3975	R5	99	R13	100
Chromaticity (u', v')	u'=0.2515 v'=0.5183	R6	95	R14	97
Color Rendering Index (CRI)	96.6	R7	94	R15	97
R9	79	R8	91	--	--
Rg	101				
Rf	92				
Rcs,h1%	-4				

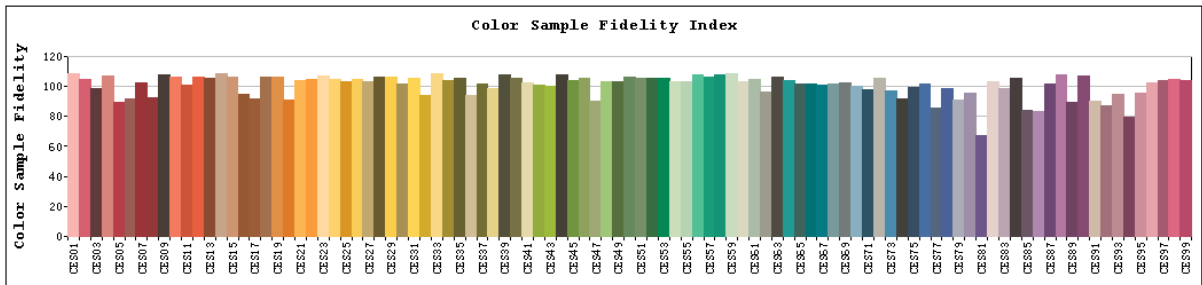
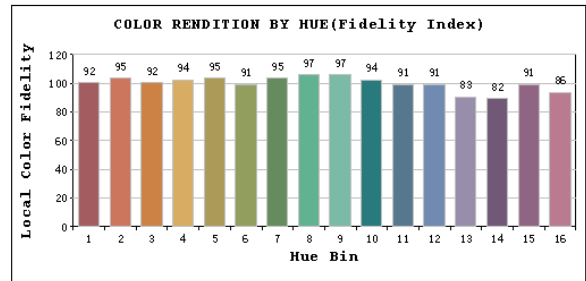
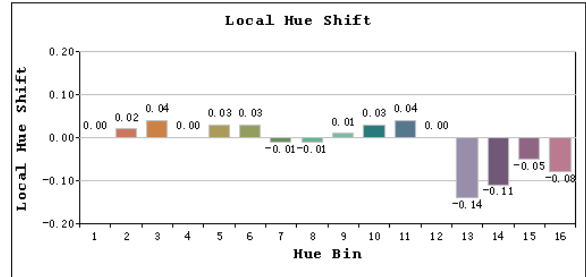
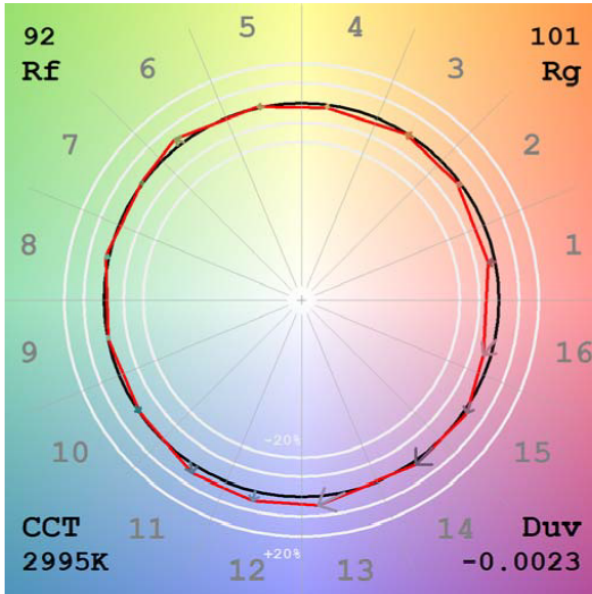
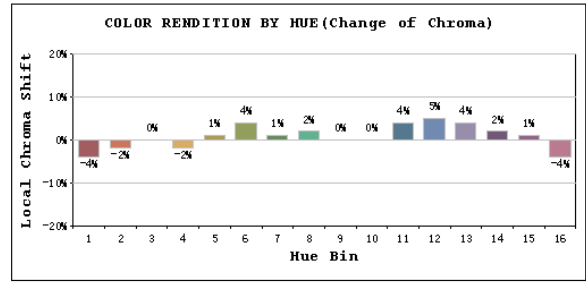
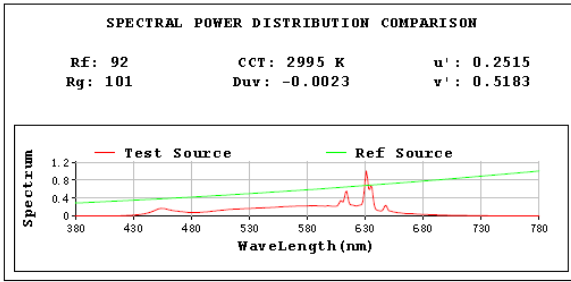
#### Photometric Measurement – Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	842.8
Luminous Efficacy (lm/W)	86.61

# Spectral Power Distribution & Chromaticity Diagram



# TM30



## 2.1.4 Electrical, Photometric and Chromaticity Measurements

Test date	2026-01-16	Test Ambient:	25.1 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	PUCK34	3500K	

### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
202601090011	120.0	60	0.088	9.76	0.921

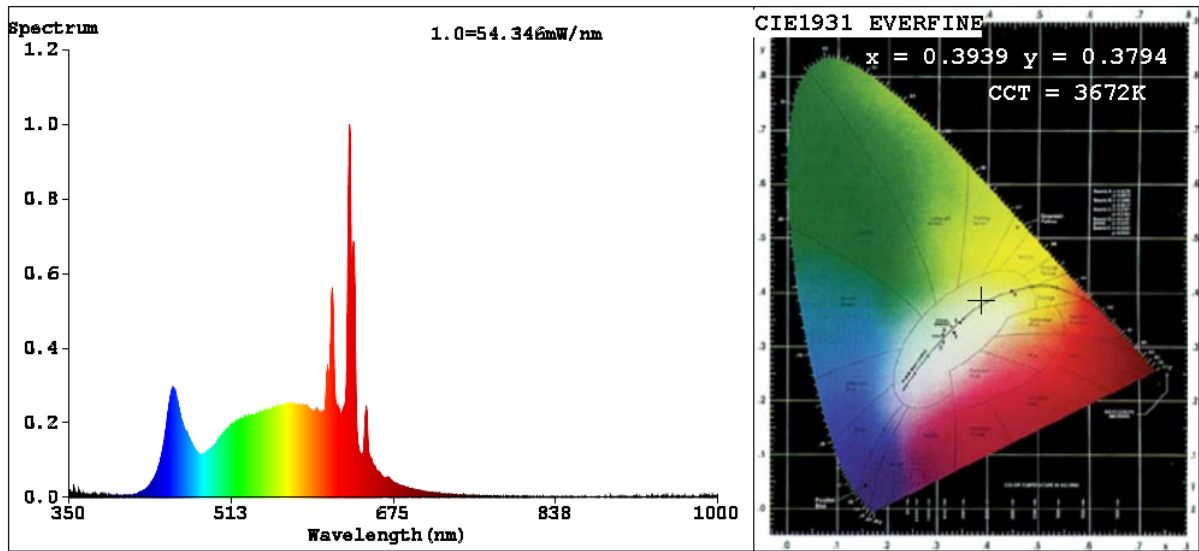
### Chromaticity Measurement - Sphere-Spectroradiometer Method:

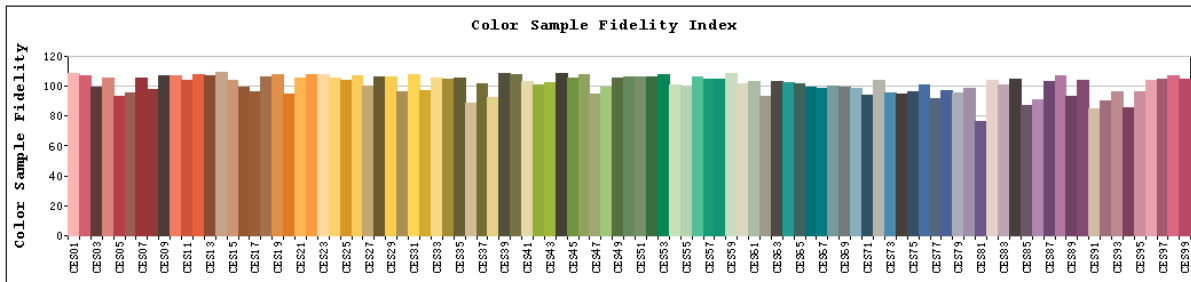
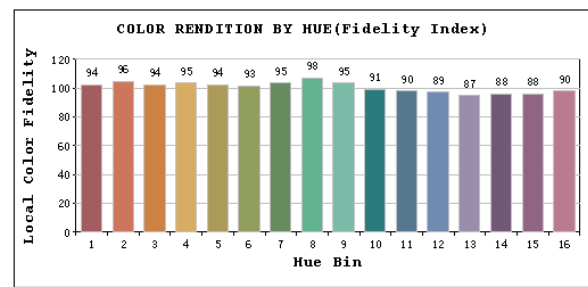
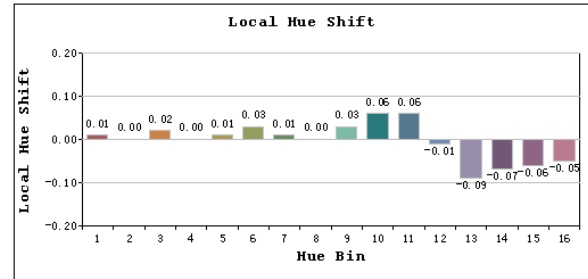
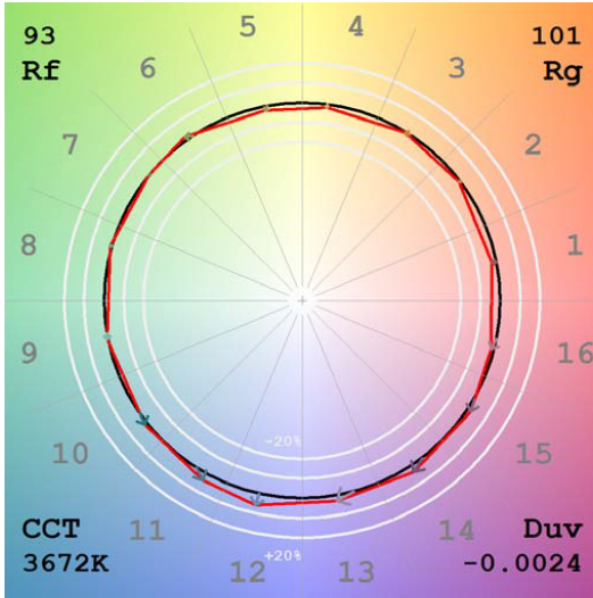
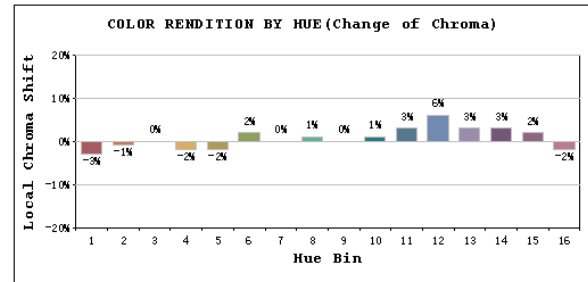
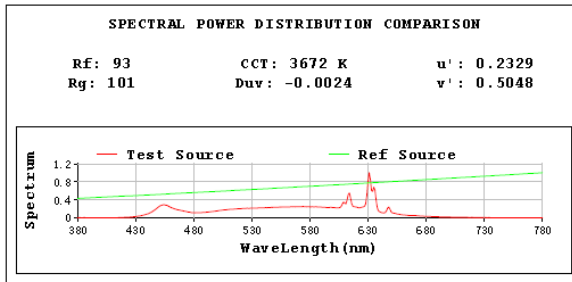
Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120	R1	98	R9	91
Frequency (Hz)	60	R2	99	R10	98
CCT (K)	3672	R3	96	R11	97
Duv	-0.0024	R4	100	R12	78
Chromaticity (x, y)	x=0.3939 y=0.3794	R5	98	R13	98
Chromaticity (u', v')	u'=0.2329 v'=0.5048	R6	95	R14	96
Color Rendering Index (CRI)	97.3	R7	96	R15	98
R9	91	R8	96	--	--
Rg	101				
Rf	93				
Rcs,h1%	-3				

### Photometric Measurement – Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	874.8
Luminous Efficacy (lm/W)	89.63

# Spectral Power Distribution & Chromaticity Diagram





## 2.1.5 Electrical, Photometric and Chromaticity Measurements

Test date	2026-01-16	Test Ambient:	25.1 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	PUCK34	4000K	

### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
202601090011	120.0	60	0.089	9.75	0.917

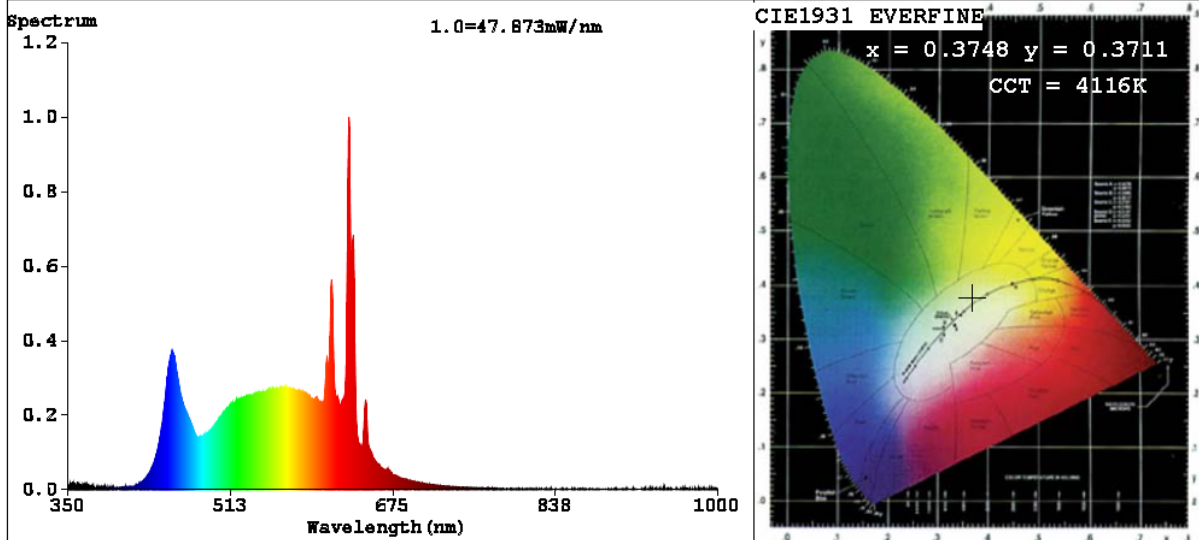
### Chromaticity Measurement - Sphere-Spectroradiometer Method:

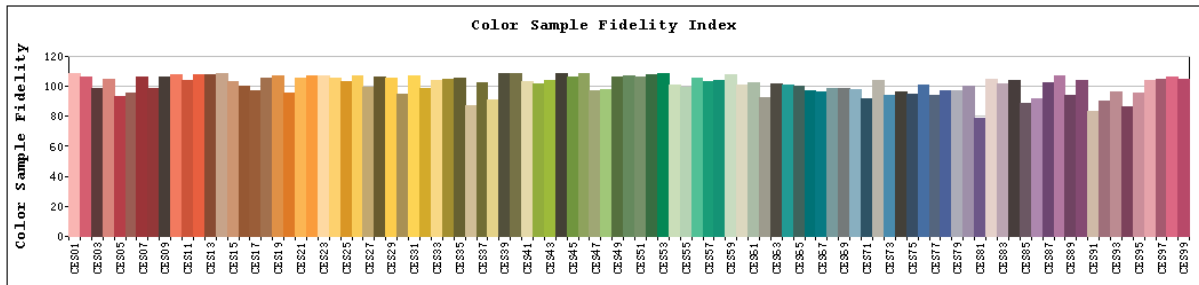
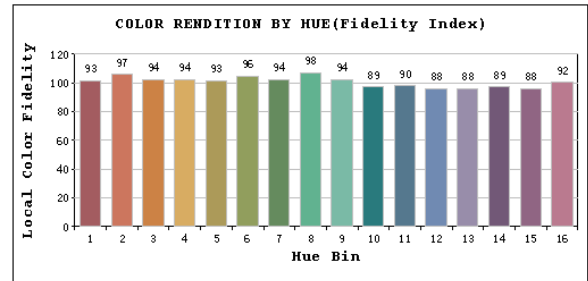
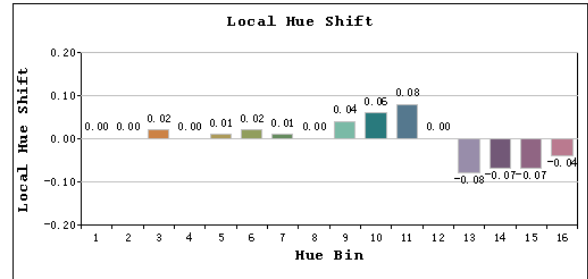
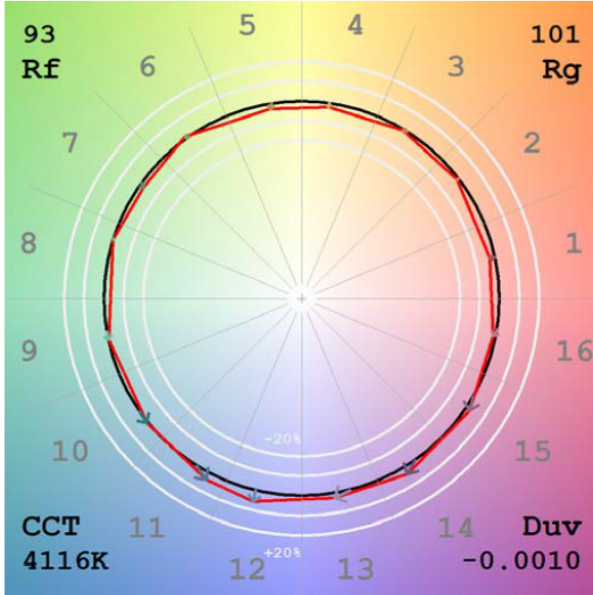
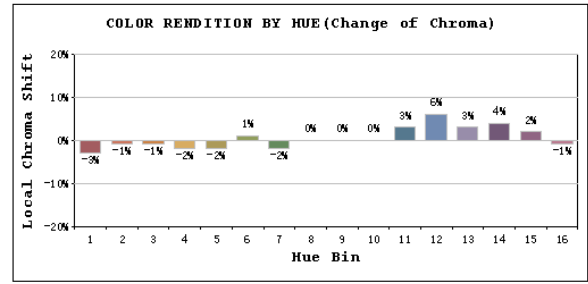
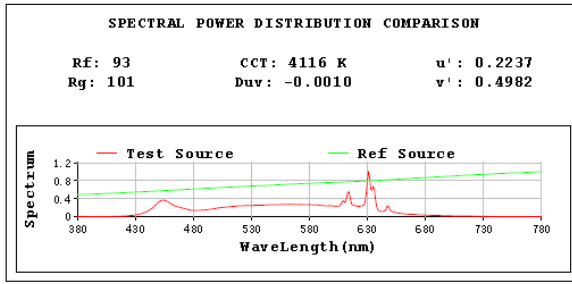
Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120	R1	98	R9	92
Frequency (Hz)	60	R2	99	R10	96
CCT (K)	4116	R3	95	R11	98
Duv	-0.0010	R4	99	R12	74
Chromaticity (x, y)	x=0.3748 y=0.3711	R5	97	R13	99
Chromaticity (u', v')	u'=0.2237 v'=0.4982	R6	96	R14	96
Color Rendering Index (CRI)	97.3	R7	97	R15	97
R9	92	R8	96	--	--
Rg	101				
Rf	93				
Rcs,h1%	-3				

### Photometric Measurement – Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	857.8
Luminous Efficacy (lm/W)	87.98

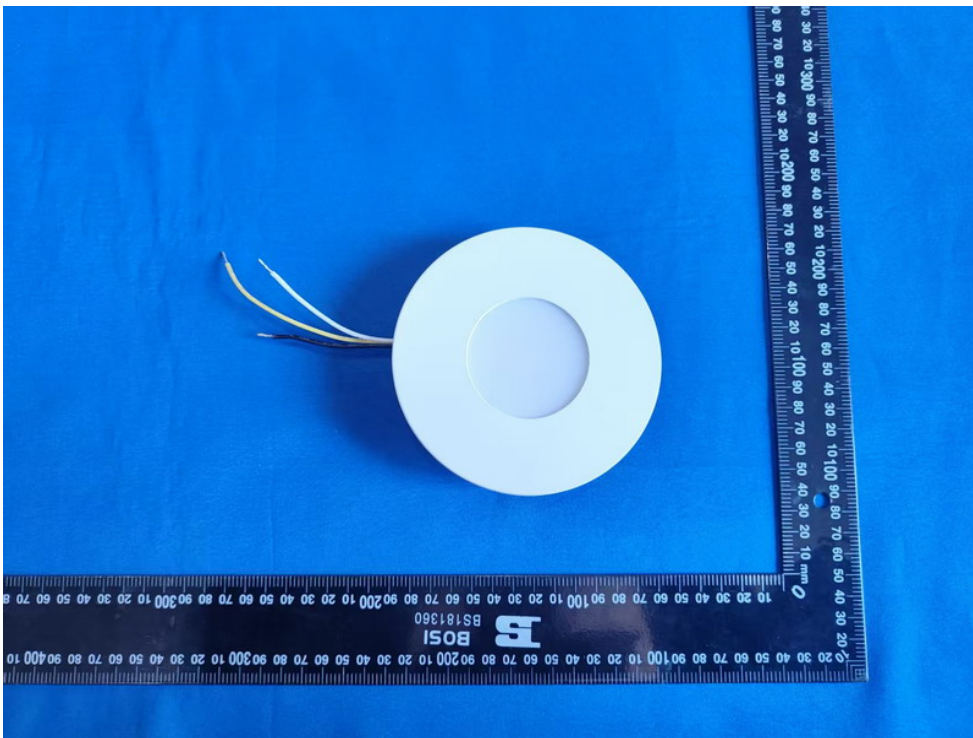
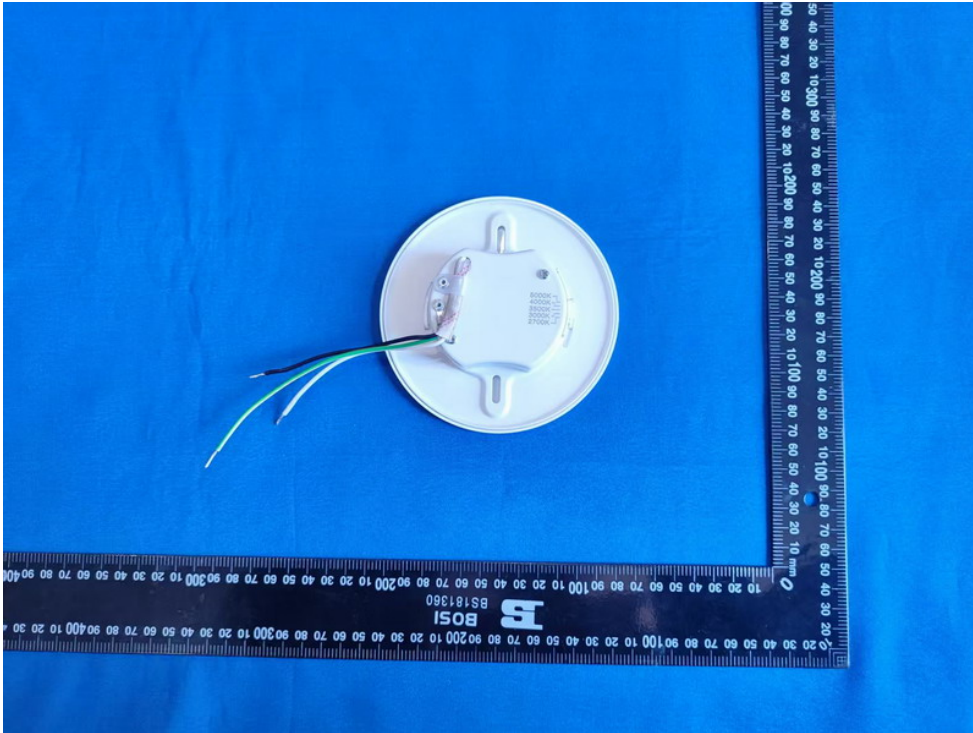
# Spectral Power Distribution & Chromaticity Diagram





Sample No.	Wattage and CCT setting	Test Voltage(V)	Flux(lm)	P(W)	Luminous Efficacy lm/W
PUCK34	2700K setting	120	784.1	9.78	80.18
	3000K setting	120	842.8	9.73	86.61
	3500K setting	120	874.8	9.76	89.63
	4000K setting	120	857.8	9.75	87.98
	5000K setting	120	828.8	9.83	84.31

### 3. Product Photo



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