

LM-79-08 Test Report
For
RAB LIGHTING INC

(Brand Name: N/A)

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

Model name(s): DLR0111(R6R8950120WS)

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

**Type of
Luminaire:** Downlights

Report Date: 2020-09-16

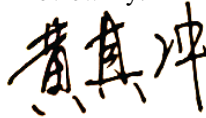
Prepared By:

Test & Report By:



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Review By:



Manager: Huang Qichong

1.1 Rated Values:

Rated Voltage / Frequency	120Vac, 60 Hz
Nominal Power	8.0W
Rated Initial Lamp Lumen	725 lm
Declared CCT	5000K

1.2 Test Specifications:

Test item	<ol style="list-style-type: none">1. Total Luminous Flux2. Luminous Distribution Intensity3. Luminous Efficacy4. Correlated Color Temperature5. Color Rendering Index6. Chromaticity Coordinate7. Electrical Parameters
Reference Standard	<ol style="list-style-type: none">1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products2. ANSI C78.377-2015 Specifications for the Chromaticity of Solid State Lighting Products3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources4. CIE 15-2004 Technical Report Colorimetry5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	QD25

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° vertical intervals and 22.5° 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.

2.1.1 Electrical, Photometric and Chromaticity Measurements

Test date	2020-09-16	Test Ambient:	25.3 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	DLR0111(R6R8950120WS) 5000K		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
202009150020	120.0	60	0.066	7.77	0.975

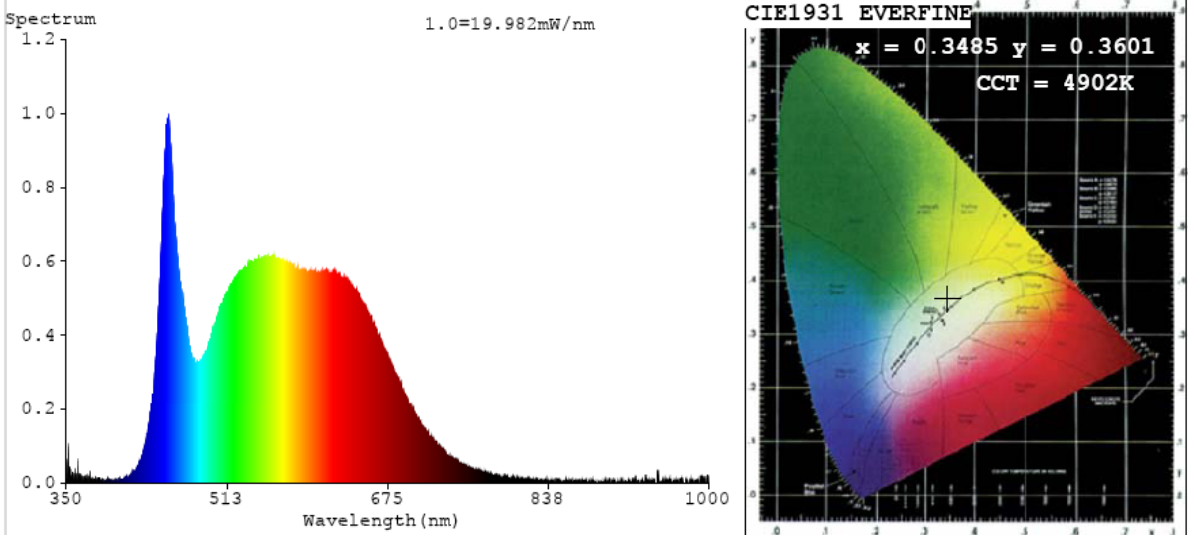
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120	R1	92	R9	70
Frequency (Hz)	60	R2	94	R10	85
CCT (K)	4902	R3	94	R11	90
Duv	0.0029	R4	91	R12	64
Chromaticity (x, y)	$x=0.3485y=0.3601$	R5	90	R13	93
Chromaticity (u', v')	$u'=0.2105 v'=0.4893$	R6	90	R14	97
Color Rendering Index (CRI)	92.0	R7	96	R15	90
R9	70	R8	89	--	--

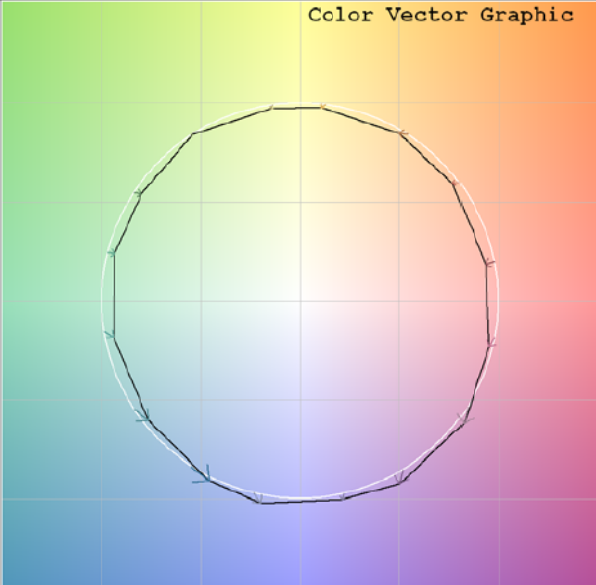
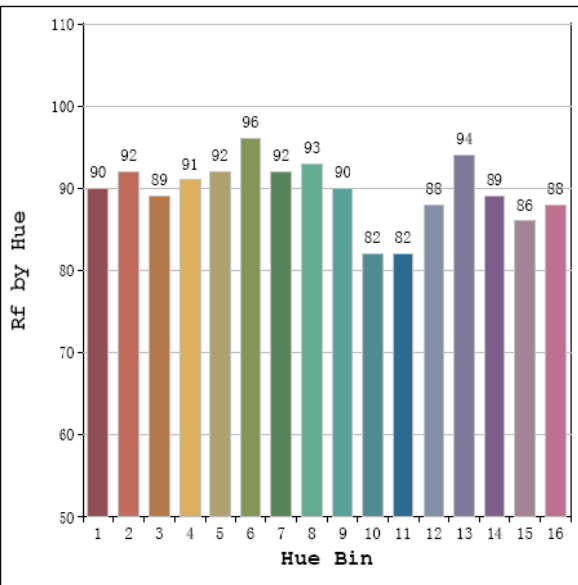
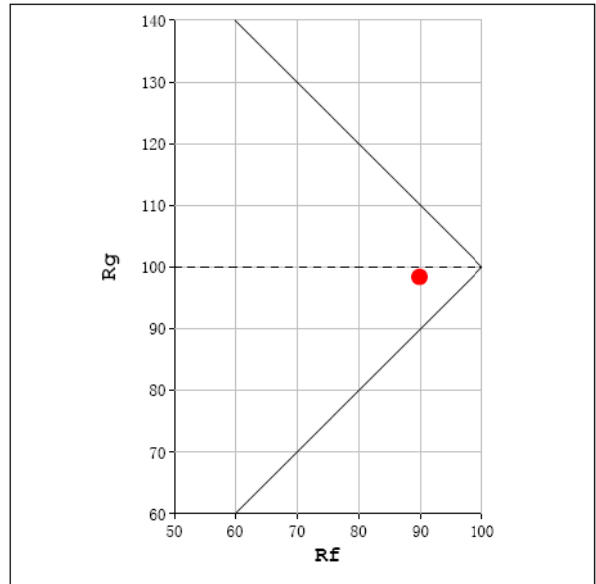
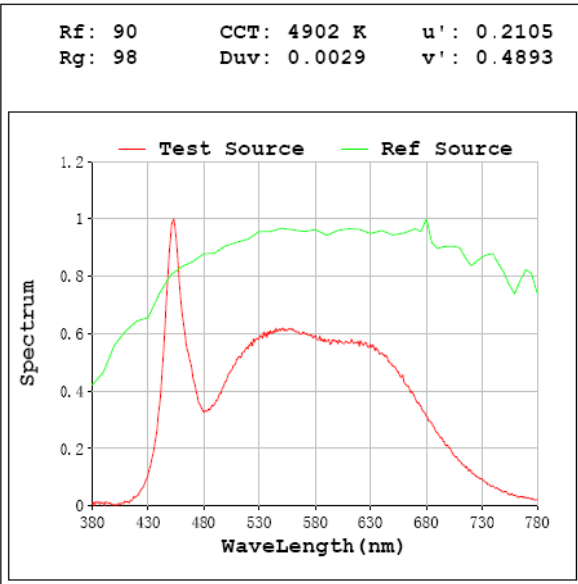
Photometric Measurement – Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	820.23
Luminous Efficacy (lm/W)	105.56
Beam Angle (°)	99.4
Center Beam Candle Power (cd)	351.8

Spectral Power Distribution & Chromaticity Diagram



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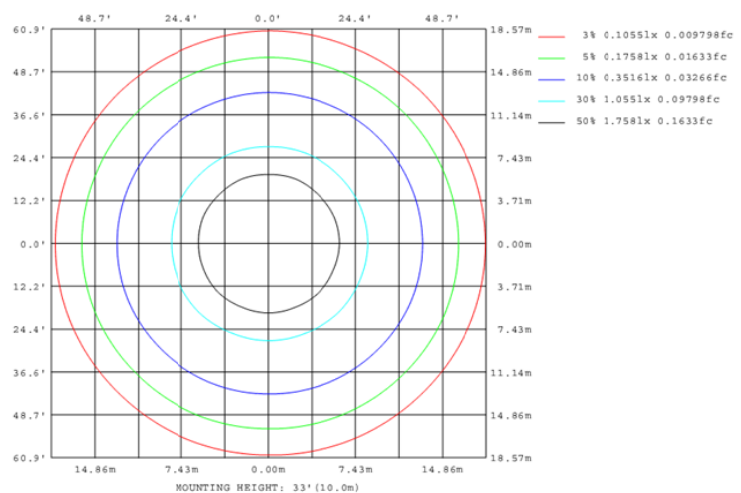
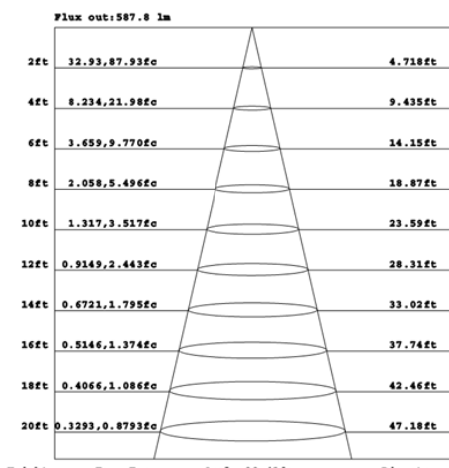
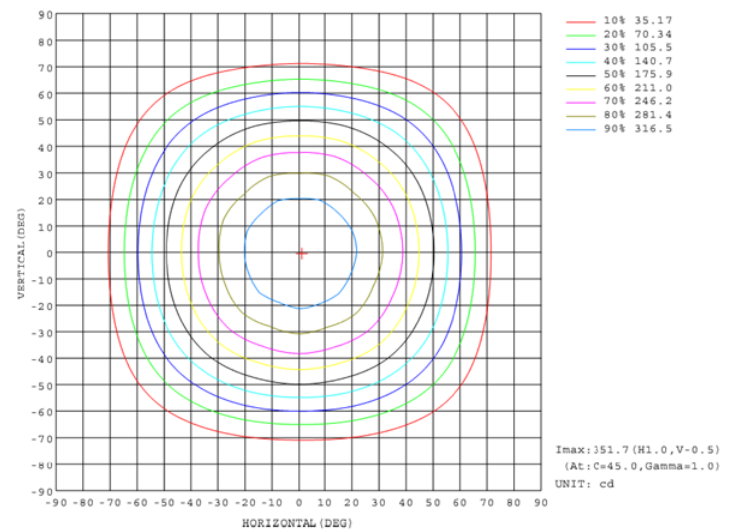
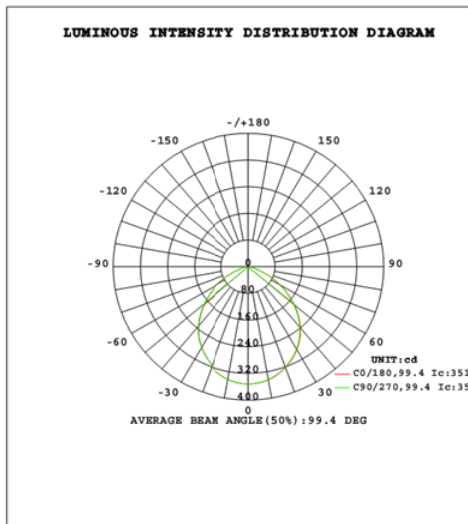


Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	266.4	32.5%
0-40	429.5	52.4%
0-60	713.1	86.9%
60-90	107.2	13.1%
70-100	35.9	4.4%
90-120	0.0	0.0%
0-90	820.2	100.0%
90-180	0.0	0.0%
0-180	820.2	100.0%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	33.2	4.0%	90-100	0.0	0.0%
10-20	94.1	11.5%	100-110	0.0	0.0%
20-30	139.1	17.0%	110-120	0.0	0.0%
30-40	163.1	19.9%	120-130	0.0	0.0%
40-50	158.3	19.3%	130-140	0.0	0.0%
50-60	125.2	15.3%	140-150	0.0	0.0%
60-70	71.3	8.7%	150-160	0.0	0.0%
70-80	25.2	3.1%	160-170	0.0	0.0%
80-90	10.7	1.3%	170-180	0.0	0.0%

Photometric Data



3. Product Photo



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