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): DLC0047(C8R82850UNVW)

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

- **Type of Luminaire:** Downlights
- **Report Date:** 2020-09-07

Prepared By:

Test & Report By:

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Review By:

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1.1 Rated Values:	
Rated Voltage / Frequency	120V-277Vac, 50/60 Hz
Nominal Power	82.0W
Rated Initial Lamp Lumen	8000 lm
Declared CCT	5000K

1.2 Test Specifications:

	Total Luminous Flux						
	Luminous Distribution Intensity						
	-						
	Luminous Efficacy						
Test item	Correlated Color Temperature						
	Color Rendering Index						
	Chromaticity Coordinate						
	Electrical Parameters						
	IES LM-79-2008 Electrical and Photometric Measurement	ents of					
	Solid-State Lighting Products						
	ANSI C78.377-2015 Specifications for the Chromaticity	y of Solid					
	State Lighting Products						
	CIE 13.3-1995 Method of Measuring and Specifying Co	olour					
Reference Standard	Rendering Properties of Light Sources						
	CIE 15-2004 Technical Report Colorimetry						
	IESNA LM-16-93 Practical Guide to Colorimetry of Lig	ght Source					
	IESNA TM-16-05 Technical Memorandum on Light En	nitting					
	Diode (LED) Sources and Systems						
Reference Work Instruction	025						

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 $25^{\circ}C \pm 1^{\circ}C$, 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 $25^{\circ}C \pm 1^{\circ}C$. 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 spherespectroradiometer system. The ambient temperature surrounding the sample was maintained at 25°C \pm 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.

2.1.1 Electrical, Photometric and Chromaticity Measurements

Test date	2020-09-07	Test Ambient:	25.3 ℃
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	DLC0047(C8R82850UNVW)	5000K	

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
202008280025	120.0	60	0.638	76.20	0.995

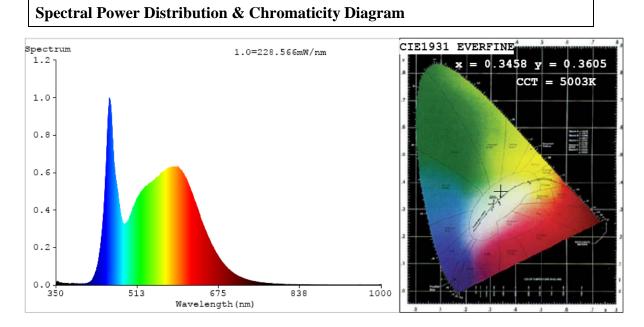
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices						
Test Voltage (V)	120	R1	82	R9	6			
Frequency (Hz)	60	R2	93	R10	82			
CCT (K)	5003	R3	95	R11	78			
Duv	0.0041	R4	79	R12	63			
Chromaticity (x, y)	x=0.3458 y=0.3605	R5	82	R13	86			
Chromaticity (u', v')	u'=0.2085 v'=0.4891	R6	89	R14	98			
Color Rendering Index (CRI)	83.4	R7	84	R15	76			
R9	6	R8	64					

Photometric Measurement – Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	8971.3
Luminous Efficacy (lm/W)	117.73
Beam Angle (°)	82.7
Center Beam Candle Power (cd)	4795

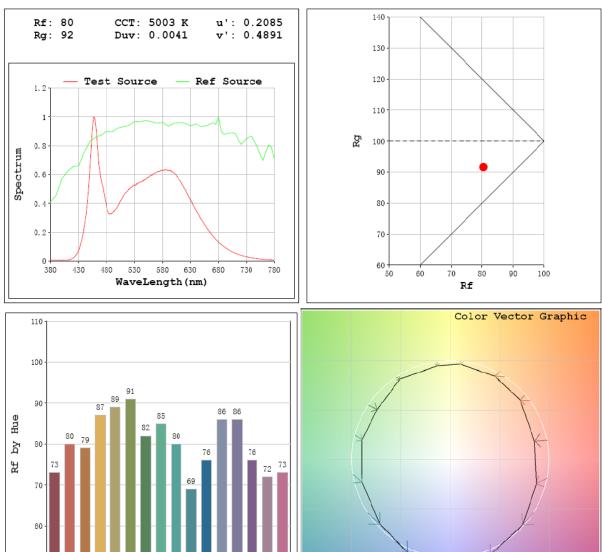
Parameter	Result
Test Voltage (V)	277.0
Frequency (Hz)	60
Total Luminous (lm)	8950.0
Luminous Efficacy (lm/W)	118.89



T30

50

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Hue Bin



Report No: 20200907004

Zonal Lumen Tabulation

Zonal Lur	nen Summ	nary
Zone	Lumens	% Luminaire
0-30	3525.0	39.3%
0-40	5453.4	60.8%
0-60	7916.9	88.2%
60-90	1054.4	11.8%
70-100	478.4	5.3%
90-120	0.0	0.0%
0-90	8971.3	100.0%
90-180	0.0	0.0%
0-180	8971.3	100.0%

Lumens Per Zone											
Zone	Lumens	% Total	Zone	Lumens	% Total						
0-10	449.5	5.0%	90-100	0.0	0.0%						
10-20	1254.9	14.0%	100-110	0.0	0.0%						
20-30	1820.6	20.3%	110-120	0.0	0.0%						
30-40	1928.4	21.5%	120-130	0.0	0.0%						
40-50	1523.1	17.0%	130-140	0.0	0.0%						
50-60	940.4	10.5%	140-150	0.0	0.0%						
60-70	576.1	6.4%	150-160	0.0	0.0%						
70-80	346.9	3.9%	160-170	0.0	0.0%						
80-90	131.5	1.5%	170-180	0.0	0.0%						

Photometric Data

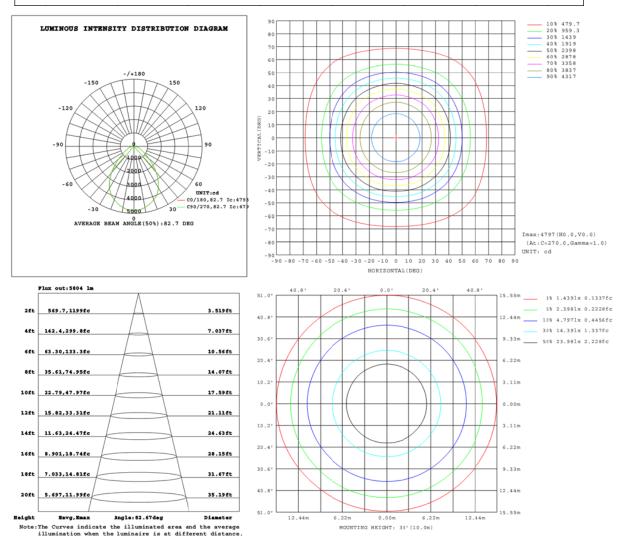
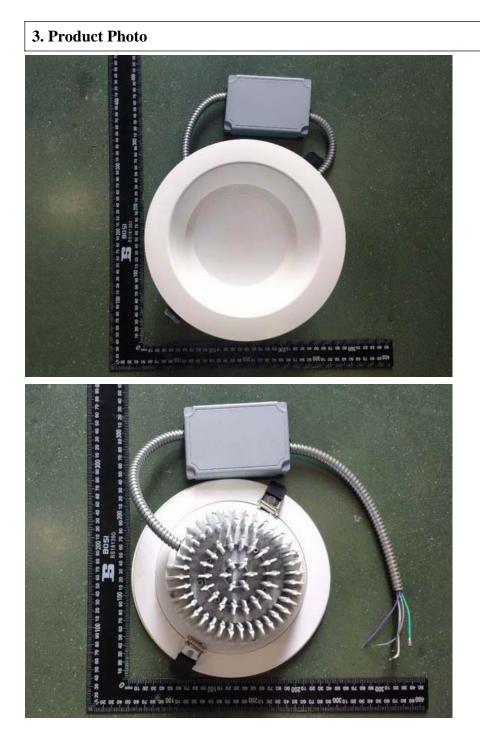


Table1																UNI	T: cd	
C (DEG)																		
Y (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5		
0	4793	4793	4793	4793	4793	4793	4793	4793	4793	4793	4793	4793	4793	4793	4793	4793		
5	4750	4750	4744	4747	4749	4747	4746	4748	4751	4748	4752	4750	4755	4749	4756	4748		
10	4633	4633	4627	4626	4624	4625	4622	4632	4632	4628	4634	4630	4639	4631	4637	4630		
15	4457	4459	4450	4453	4451	4452	4448	4455	4454	4449	4455	4454	4464	4455	4462	4452		
20	4245	4251	4239	4244	4239	4243	4236	4245	4240	4234	4240	4237	4249	4238	4246	4237		
25	3979	3987	3972	3980	3971	3979	3971	3983	3976	3969	3982	3975	3990	3976	3985	3974		
30	3577	3606	3567	3599	3566	3601	3569	3605	3604	3572	3614	3584	3621	3583	3614	3576		
35	3085	3113	3074	3104	3072	3107	3076	3116	3115	3086	3127	3100	3137	3099	3128	3088		
40	2535	2561	2520	2549	2517	2550	2524	2565	2567	2542	2581	2557	2589	2554	2580	2538		
45	1962	1979	1943	1965	1938	1967	1949	1986	1989	1970	2007	1985	2014	1981	2002	1966		
50				-	1415		1425	1448	1452	1446	1467	1458	1472	1455	1463	1441		
55	1027	1032	1015	1020	1010	1022	1017	1035	1035	1031	1044	1037	1048	1036	1042	1027		
60	759	761	749	753	746	755	752	764	762	759	768	763	771	762	766	757		
65	571	571	563	565	561	567	566	574	574	571	578	576	581	574	577	569		
70	450	451	445	447	444	448	447	453	453	452	457	455	458	454	455	451		
75	324	320	319	317	318	318	322	323	330	331	334	334	336	333	333	329		
80	209	207	205	204	204	205	207	209	215	218	219	220	219	219	217	216		
85	112	112	109	110	108	111	110	114	122	121	124	123	125	122	123	119		
90	49.1	49.0	49.0	48.9	48.9	48.9	49.0	49.1	55.3	55.3	55.3	55.4	55.4	55.3	55.3	55.2		



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