Photometric Test Report

Relevant Standards

☑IES LM-79-2008

☑ANSI C82.77:2017

Prepared For

LED One Corporation

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LOC-T84FT-9W50KGF B

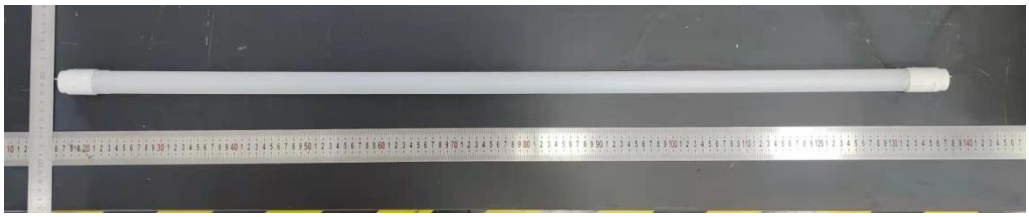
Remark(If any)
1、This report shall not be used by the client to claim product endorsement by NVLAP, NIST or any agency of the US government.
2、The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.

1.0 Production Description

Luminaire Description: LOC-T84FT-9W50KGF B

Electrical Specification: 120-277V,60HZ

Photos of Luminaire Characteristics



NVLAP TESTING
NVLAP LAB CODE 201074-0

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2.0 LM-79 Measurement and Test Results

2.1 Integrating Sphere Test

Model No.	LOC-T84FT-9W50KGF B	Sample ID.	A1
Opreate time (Min.)	90	Stabilization time (Min.)	70
Temperature (°C)	25.1	Humidity (%RH)	52.0

Test Method

The samples were tested according to the IES LM-79-2008.

Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25º C ± 1º 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 voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.

The sample was measured using 4π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
119.99	60	0.079	9.2	0.973

CCT (K)	CRI	R9	Duv	THD
4878	82	0	0.00062	20.52%

Rf	Rg	IES Rcs,h1	Lamp Light Output (lm)	Lamp Efficacy (lm/W)
82	95	-14%	1722	187.17

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2.0 LM-79 Measurement and Test Results

2.2 Goniophotometer Test

Model No.	LOC-T84FT-9W50KGF B	Sample ID.	A1
Opreate time (Min.)	90	Stabilization time (Min.)	70
Temperature (°C)	25.1	Humidity (%RH)	52.0

Test Method
The samples were tested according to the IES LM-79-2008.
Photometric paramters were measured using a type C 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 voltage of an AC power supply (RMS voltage)or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.
The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 0.5° vertical intervals and 10° horizontal intervals.

Test Conditions

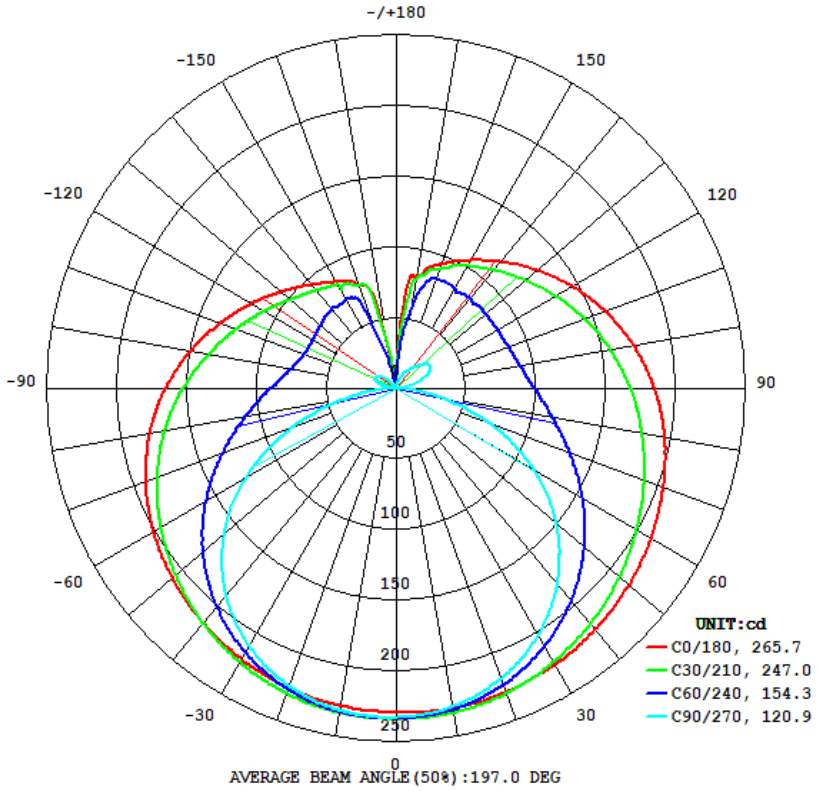
	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
	120.02	60	0.079	9.3	0.979

Test Result

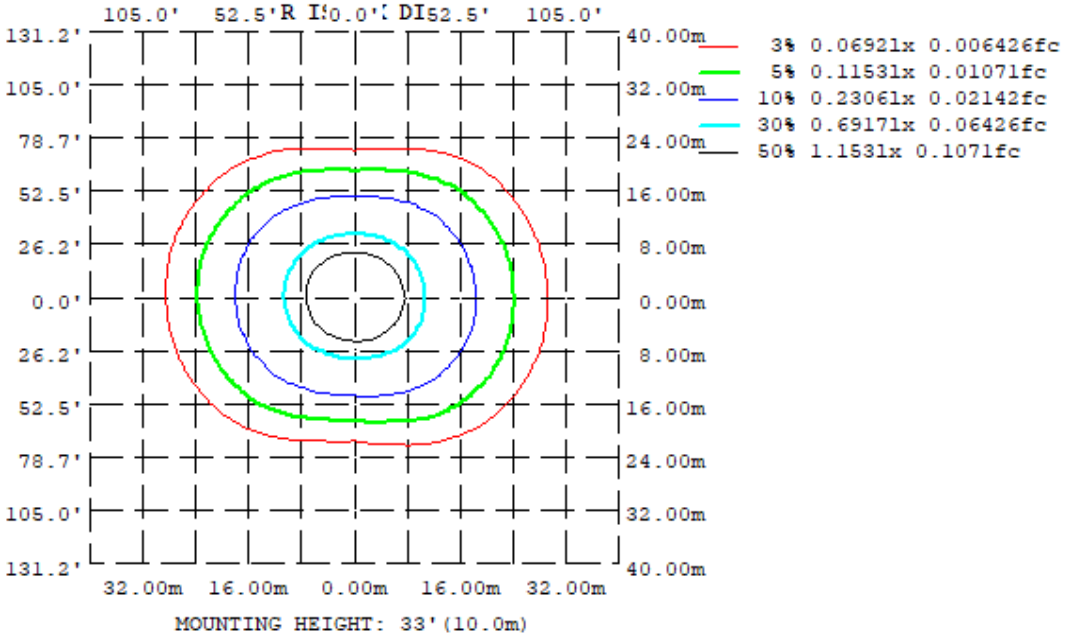
Flux (lm)	Luminous Efficacy (lm/W)	Beam Angle
1729	185.9	265.7

2.2 Goniophotometer Test

Zonal Lumen Summary



Isolux Plot



2.2 Goniophotometer Test

Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	229.7	233.2	228.5	230.8	228.2	234.2	231.4	234.0
20	228.5	228.1	218.7	223.8	225.7	229.8	224.2	230.5
30	226.0	219.1	202.3	213.7	221.6	221.7	210.7	223.3
40	222.2	207.9	179.8	200.7	215.9	210.3	189.8	212.4
50	217.1	195.0	150.2	185.1	209.1	196.3	161.1	199.5
60	211.1	180.7	113.3	168.1	200.9	180.3	123.5	184.4
70	203.5	166.4	69.89	150.4	190.7	163.2	78.33	169.0
80	195.0	153.2	25.76	133.4	179.0	146.1	30.41	154.6
90	185.1	141.3	1.524	117.7	165.5	129.4	0.9440	142.0
100	173.2	130.5	4.831	104.0	150.7	114.4	4.857	130.5
110	159.8	120.5	18.93	92.99	135.1	102.1	15.45	120.5
120	145.6	111.7	29.16	85.35	120.6	92.93	16.67	111.8
130	131.1	104.4	27.05	80.68	107.2	86.71	13.02	104.6
140	117.3	98.45	20.05	78.38	95.95	83.26	6.207	98.54
150	104.8	91.59	13.30	75.58	87.38	81.21	0.9202	87.32
160	93.74	83.11	7.188	66.57	78.42	76.31	0.4163	85.62
170	80.62	63.84	2.601	0.6407	1.449	0.4179	0.4805	45.05
180	0	0	0.4110	0.2296	0.2418	0.2917	0.3984	0.4343
DEG	LUMINOUS INTENSITY:cd							

2.0 LM-79 Measurement and Test Results

2.3 THD and PF Test

Model No.	LOC-T84FT-9W50KGF B	Sample ID.	A1
Temperature (°C)	25.1	Humidity (%RH)	52.0

Test Method
The samples were tested according to the ANSI C82.77:2002. The total harmonic distortion shall be measured to the 40th order. The ambient temperature condition was maintained at 25º C ± 1º C. The sample measurements were made using a digital power meter and power supply. The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion were calculated.

Test Results					
Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD
5000K					
119.99	60	0.079	9.2	0.973	18.10%
276.98	60	0.035	9.3	0.951	20.52%