

# Photometric Test Report

## Relevant Standards

- IES LM-79-2008
- ANSI C82.77:2017

## Prepared For

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**LOC-T84FT-12W40KGF 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-12W40KGF B

**Electrical Specification:** 120-277V,60HZ

**Photos of Luminaire Characteristics**



## 2.0 LM-79 Measurement and Test Results

### 2.1 Integrating Sphere Test

Model No.	LOC-T84FT-12W40KGF B	Sample ID.	A1
Operate time (Min.)	90	Stabilization time (Min.)	70
Temperature (°C)	25.1	Humidity (%RH)	52.0

Test Method
<p>The samples were tested according to the IES LM-79-2008.</p> <p>Photometric 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.</p> <p>The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.</p> <p>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.</p> <p>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.</p>

#### Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
119.99	60	0.104	12.1	0.973

#### Test Result

CCT (K)	CRI	R9	Duv	THD
4007	81	0	0.000012	21.13%

Rf	Rg	IES Rcs,h1	Lamp Light Output (lm)	Lamp Efficacy (lm/W)
84	95	-12%	1965	162.40

## 2.0 LM-79 Measurement and Test Results

### 2.2 Goniophotometer Test

Model No.	LOC-T84FT-12W40KGF B	Sample ID.	A1
Operate 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 parameters were measured using a type C 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 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  $\pm 0.2$  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  $0.5^{\circ}$  vertical intervals and  $10^{\circ}$  horizontal intervals.

#### Test Conditions

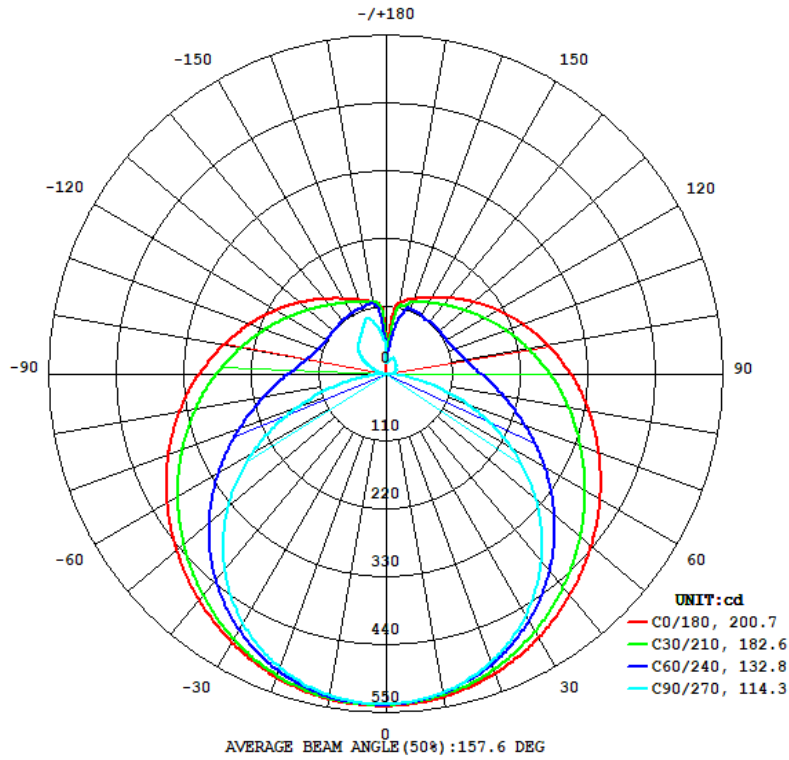
Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WROST CASE	120.03	60	0.104	12.1	0.972

#### Test Result

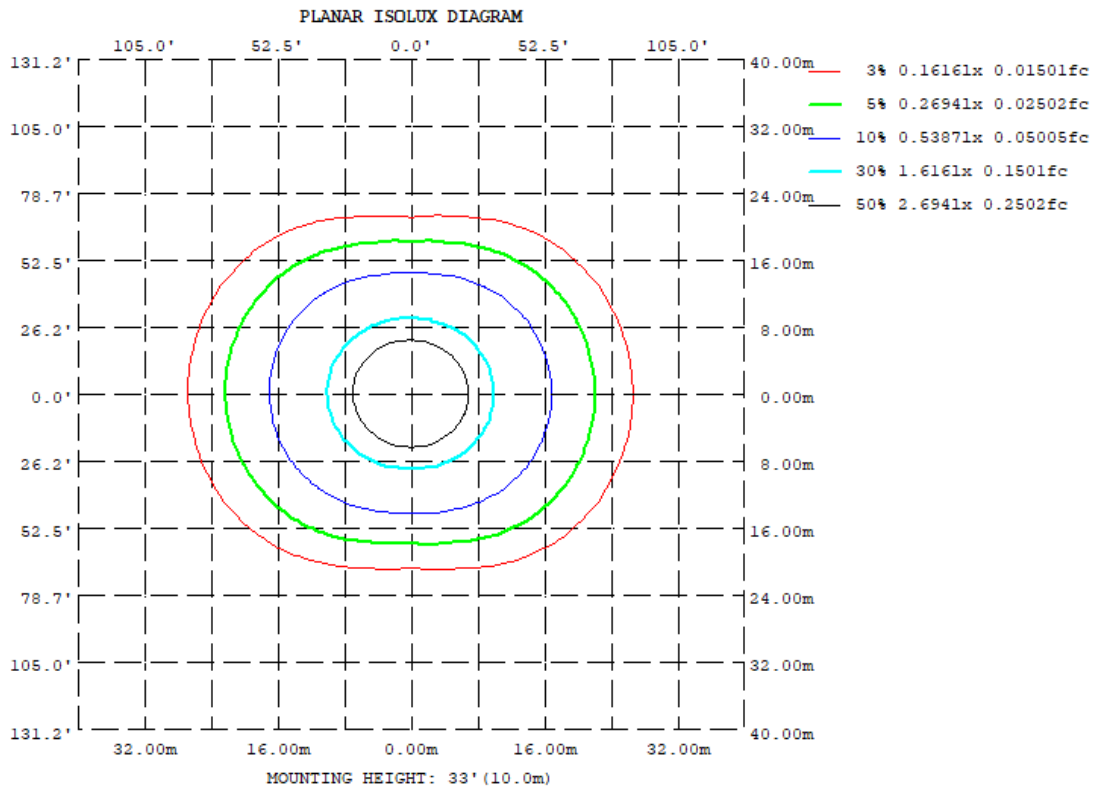
Flux (lm)	Luminous Efficacy (lm/W)	Beam Angle
1991	164.5	200.7

**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	341.6	337.9	331.3	328.0	327.8	328.7	332.0	338.4
20	342.8	331.7	315.9	312.8	314.5	313.5	318.0	333.5
30	340.1	318.8	290.6	291.8	298.0	292.2	294.2	322.8
40	334.0	300.1	255.5	266.0	277.6	266.0	260.3	306.7
50	324.9	276.7	210.6	236.7	255.4	235.4	216.6	286.4
60	311.9	250.2	156.7	205.8	231.4	203.0	163.6	263.1
70	295.0	222.7	95.87	174.9	206.3	170.5	100.4	238.2
80	275.0	196.2	35.36	145.7	181.2	140.0	39.35	213.3
90	251.9	172.5	1.381	119.8	156.8	113.1	2.409	189.5
100	226.2	152.0	2.846	98.54	134.1	91.74	8.238	167.3
110	199.7	134.4	8.510	82.34	114.3	76.27	19.83	147.3
120	173.4	119.2	8.278	71.28	97.31	66.47	31.60	129.3
130	148.4	106.4	4.342	64.65	83.61	61.23	32.44	113.5
140	125.7	96.14	4.532	61.53	73.34	59.52	33.15	100.9
150	106.4	87.92	8.643	60.93	66.85	60.20	16.48	89.87
160	90.67	80.66	15.07	59.50	63.71	60.14	14.18	79.02
170	74.44	56.57	16.90	54.28	60.75	57.83	12.88	52.81
180	10.68	10.43	16.21	12.58	9.324	11.15	15.62	13.35
DEG	LUMINOUS INTENSITY:cd							

## 2.0 LM-79 Measurement and Test Results

### 2.3 THD and PF Test

Model No.	LOC-T84FT-12W40KGF 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 25° C ± 1° 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
<b>4000K</b>					
120.03	60	0.104	12.1	0.973	21.13%
277.02	60	0.044	12.0	0.980	22.65%