

Photometric Test Report

Relevant Standards

- IES LM-79-2008
- ANSI C82.77:2014

Prepared For

LED One Corporation

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LOC-T54FT-24W50KGF YM

Integrating Sphere Test

Model No.	LOC-T54FT-24W50KGF YM	Sample ID.	A3
Operate time (Min.)	90	Stabilization time (Min.)	45

Test Method

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

Photometric 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 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 Conditions

Model No.	Temperature ($^{\circ}\text{C}$)	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
LOC-T54FT-24W50KGF YM	25.3	119.97	60	0.208	24.8	0.997

Test Result

Model No.	CCT (K)	CRI (Ra)	Light Output (lm)	Efficacy (lm/W)	Duv
LOC-T54FT-24W50KGF YM	5232	80.7	3654	147.3	3.6E-03

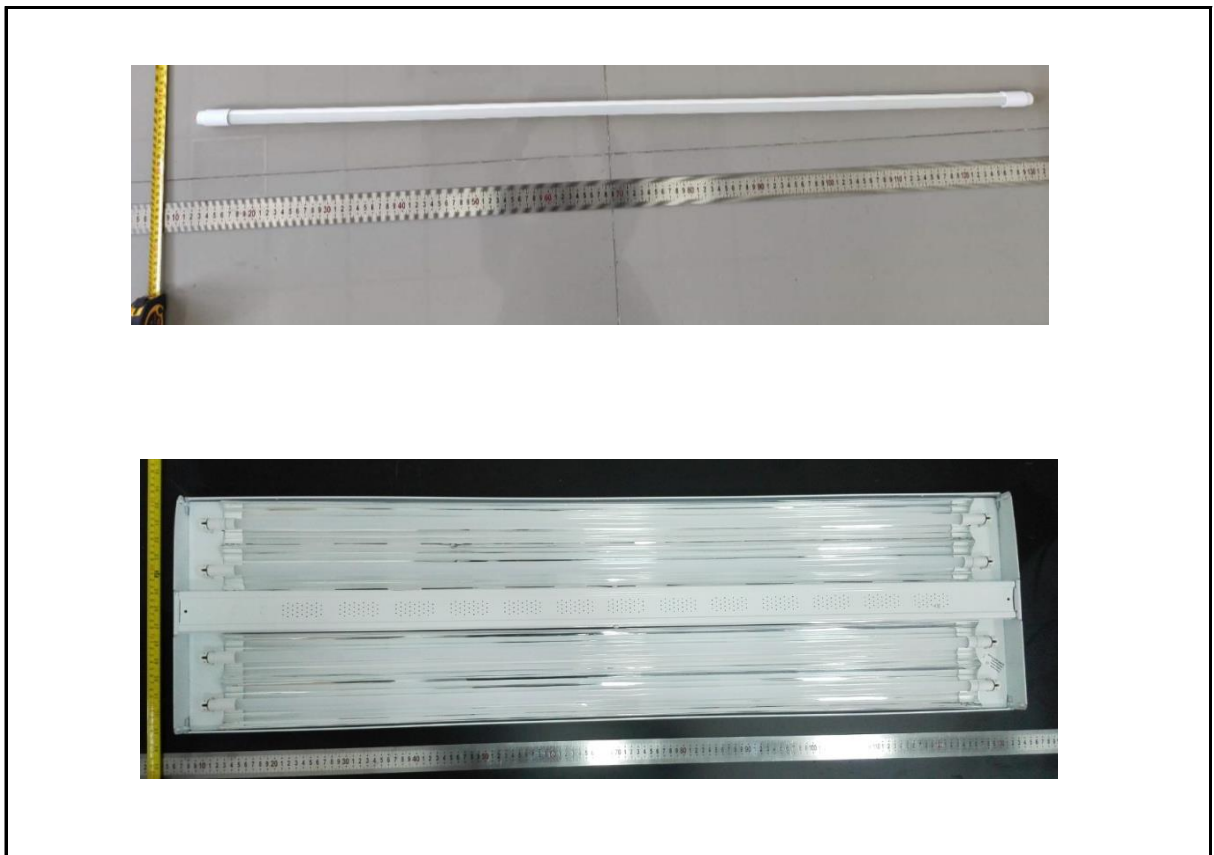
Production Description

Electrical Specification: 120-277V,50/60HZ

Test in fixture: Lithonia IBZT5 4 high bay

Ballast in test : ICN-4S54-90C-2LS-G

Photos of Luminaire Characteristics



Goniophotometer Test

Model No.	LOC-T54FT-24W40KGF YM LOC-T54FT-24W50KGF YM		
Operate time (Min.)	90	Stabilization time (Min.)	45

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 ± 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

Four tubes were placed in a reference housing during testing

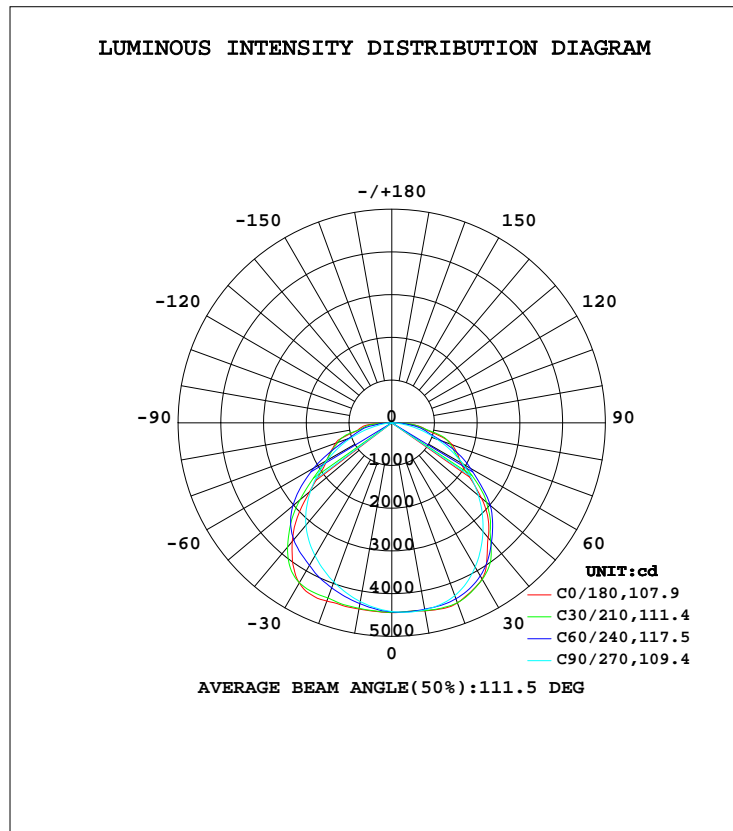
Temperature ($^{\circ}\text{C}$)	Voltage (Vac)	Frequency (Hz)	Power (W)	Orientation
24.9	119.99	60	108.00	Horizontal

Test Result

Flux(lm)	Zonal Lumen Requirement(20°-50°)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
		c0/180	c90/270	c0/180	c90/270	
13710	49.80%	171.7	157.2	107.9	109.4	126.9

LUMINAIRE PHOTOMETRIC TEST REPORT

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		I_{max}(cd)	4552	S/MH(C0/180)	1.40
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)		TOTAL FLUX(lm)	13710	η UP, DN(C0-180)	0.3, 51.5
NOMINAL FLUX(lm)	13709.7	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.3, 47.9
LAMPS INSIDE	1	η up(%)	0.6	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	99.4	CIBSE SHR MAX	1.55

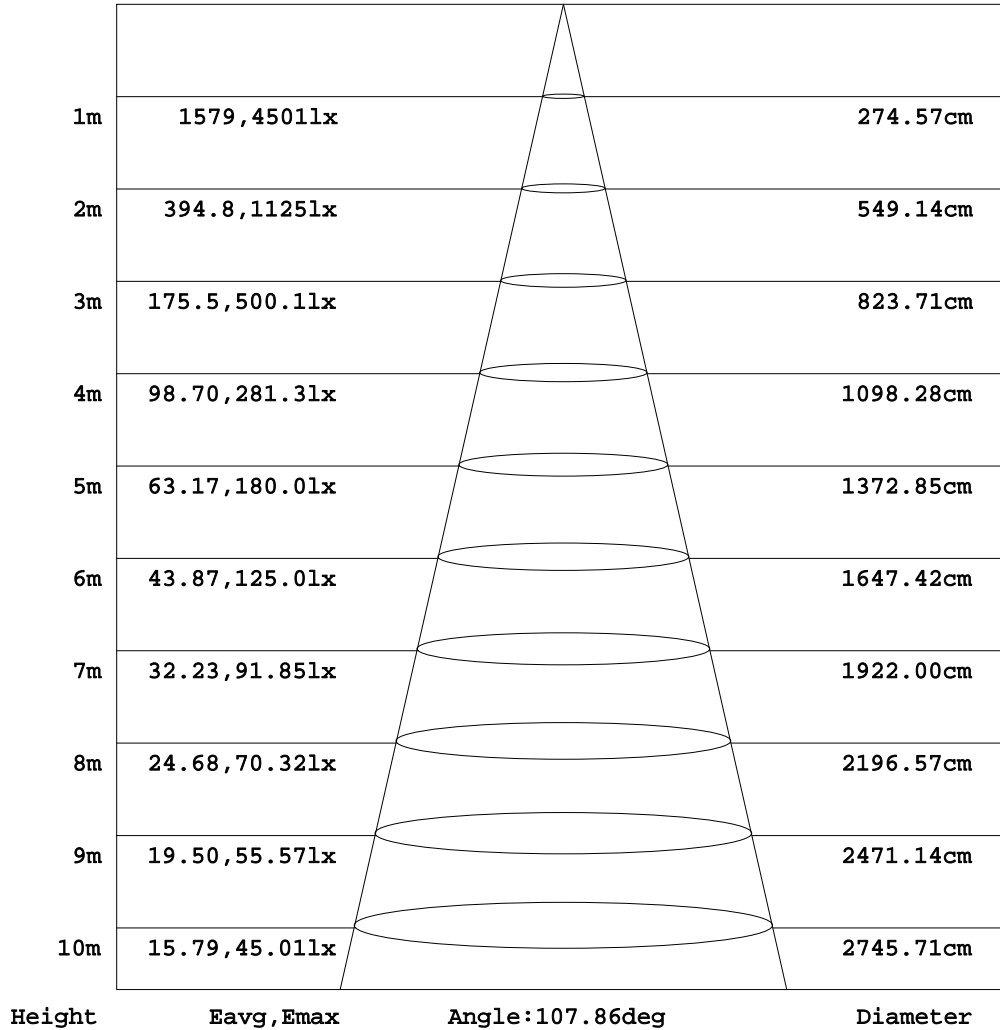


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators: Zhuwz

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity: 0.0%
 Test Distance: 2.000m [K=1.0056]
 Remarks:

AAI Figure

Flux out: 9399 lm



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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UGR(Unified Glare Rating) Table

NAME:		TYPE:					WEIGHT:				
SPEC.:		DIM.:					SERIAL No.:				
MFR.:		SUR.:					Shielding Angle:				
ceiling/cavity		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
x = 2H y = 2H		21.8	23.3	22.1	23.6	23.8	22.1	23.6	22.3	23.8	24.0
	3H	23.8	25.2	24.1	25.4	25.7	23.5	24.9	23.8	25.1	25.4
	4H	24.7	26.0	25.0	26.3	26.6	24.0	25.3	24.3	25.6	25.9
	6H	25.3	26.6	25.7	26.9	27.2	24.3	25.6	24.6	25.8	26.1
	8H	25.7	26.9	26.1	27.2	27.5	24.4	25.6	24.7	25.9	26.2
	12H	26.0	27.2	26.4	27.5	27.8	24.4	25.6	24.7	25.9	26.2
	4H 2H	22.4	23.8	22.8	24.1	24.3	22.6	24.0	23.0	24.2	24.5
	3H	24.6	25.8	25.0	26.1	26.4	24.2	25.4	24.6	25.7	26.0
	4H	25.7	26.8	26.1	27.2	27.5	24.9	26.0	25.3	26.3	26.6
	6H	26.6	27.5	27.0	27.9	28.3	25.3	26.3	25.7	26.7	27.0
	8H	27.0	27.9	27.4	28.3	28.7	25.5	26.4	25.9	26.7	27.1
	12H	27.4	28.3	27.9	28.7	29.1	25.5	26.3	26.0	26.7	27.2
	8H 4H	26.1	27.0	26.5	27.4	27.8	25.3	26.2	25.8	26.6	27.0
	6H	27.1	27.9	27.6	28.3	28.7	26.0	26.8	26.5	27.2	27.6
	8H	27.7	28.4	28.2	28.8	29.3	26.3	26.9	26.7	27.4	27.8
	12H	28.3	28.9	28.8	29.4	29.8	26.4	27.0	26.9	27.4	27.9
	12H 4H	26.1	26.9	26.5	27.3	27.8	25.4	26.2	25.8	26.6	27.0
	6H	27.2	27.9	27.7	28.3	28.8	26.2	26.8	26.6	27.3	27.7
	8H	27.9	28.4	28.4	28.9	29.4	26.5	27.0	27.0	27.5	28.0
Variations with the observer position at spacings:											
S = 1.0H		+ 0.1 / - 0.2					+ 0.2 / - 0.3				
1.5H		+ 0.2 / - 0.3					+ 0.3 / - 0.5				
2.0H		+ 0.2 / - 0.4					+ 0.2 / - 0.6				

CIE Pub.117, 13710 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 9.1)

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