



Test Center of Foshan Electrical and Lighting Co.,Ltd.

TEST REPORT

IES LM-79 report		
Testing Laboratory Name	Test Center of Foshan Electrical and Lighting Co.,Ltd.	
Address	64 North Fenjiang Road, Foshan, Guangdong, China	
Tested by (printed name and signature) ..:	Liu Min	
Approved by (printed name and signature) ..:	Wu Weihua	
Date of receipt of test item.....:	2021-10-12	
Date of issue	2021-10-13	
Client's Name	Foshan Electrical And Lighting Co., Ltd.	
Address	64 North Fenjiang Road, Foshan, Guangdong. P.R.China.	
Manufacturer.....:	Foshan Electrical And Lighting Co., Ltd.	
Address	64 North Fenjiang Road, Foshan, Guangdong. P.R.China.	
Test specification /Standard(s)..:	IES LM-79-08	
Test procedure.....:	Commission Testing (according to client's requirements)	
Lamp type.....:	LED Lamp	
Model and/or type reference:	CL-20-3CCT/B16I/*51-G	
Rated voltage(V)	AC 120V	
Rated Frequency(Hz)	60Hz	
Rated power(W)	20.5W	
Nominal CCT.....:	3000K	
Rated color temperature (K):	3000K	
Not apply to the test object :	N/A (Not applicable)	
Test item meet the requirement:	P (Pass)	

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Test item description		
Burning time.....:		0h
Stabilization time..... :		0.5h
Total operating time.....:		0.5h
Burning position..... :		Base up
Ambient temperature.....:		25±1℃
Test method(Instrument)..... :		Goniophotometer
Type of reference lamp used.....:		Halogen lamp;D908;590W;Omni-directional; NIM traceable
Correction factors applied.....:		---
Photometric distance.....:		1.9M
Measurement conditions.....:		AC120V; 60Hz
Statement of uncertainties..... :		---
Deviation from standard.....:		---
Disclaimers.....:		The test result presented in this report relates only to the submitted test samples.
Equipment used		
No.	Equipment name	Model No.
1	DIGITAL POWER METER	PF210
2	FULL-FIELD SPEED GONIOPHOTOMETER	GO-R5000
3	CALIBRATED LAMPS STANDARD	D908
4	DPS SERIES PWM AC POWER SUPPLY	DPS1060

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Clause	Test items/ requirements	Result-remark	Verdict
1	Luminous intensity distribution	Refer to Annex 1 , 3 and 4	---
2	Input voltage(V)	Refer to Annex 2	---
3	Current (A)	Refer to Annex 2	---
4	Total luminous flux (lm)	Refer to Annex 2	---
5	Power (W)	Refer to Annex 2	---
6	Power factor	Refer to Annex 2	---
7	Luminous efficacy (lm/W)	Refer to Annex 2	---
8	Chromaticity coordinates	Refer to Annex 2	---
9	Correlated color temperature(K)	Refer to Annex 2	---
10	Color rendering index	Refer to Annex 2	---
11	Spatial non-uniformity of chromaticity	Refer to Annex 2	---

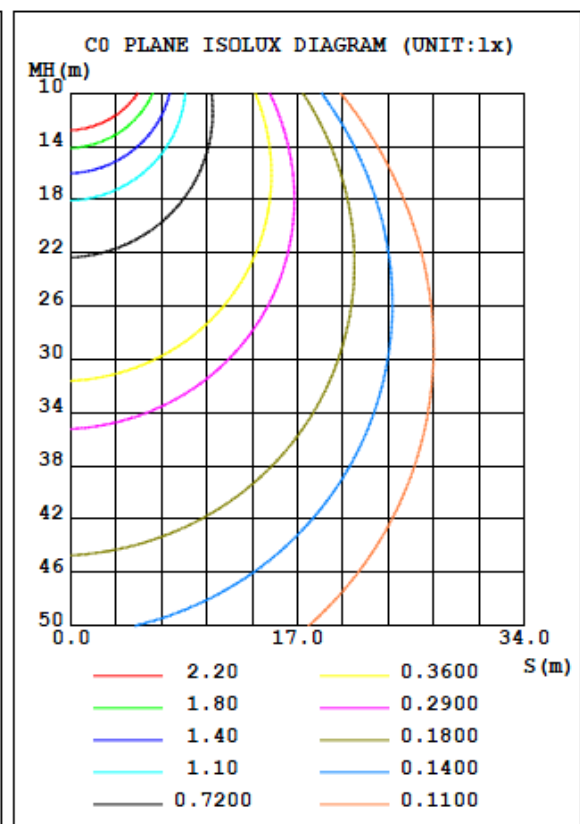
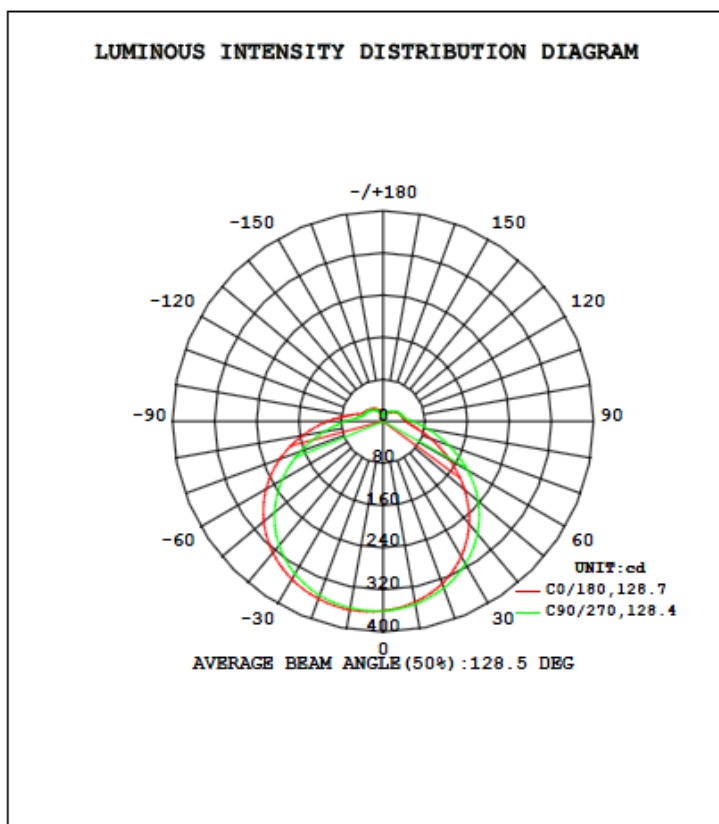
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Annex 1 Luminous Intensity Distribution Diagram

Test:U:120.14V I:0.1724A P:19.012W PF:0.9177 Freq:50.00Hz Lamp Flux:1522.49x1 lm		
NAME: 14INCH 3CCT Ceiling light	TYPE: 出口研发部	WEIGHT:
SPEC.: 120V 20.5W 3000K	DIM.:	SERIAL No.: 2021101202
MFR.: FSL	SUR.:	Shielding Angle:

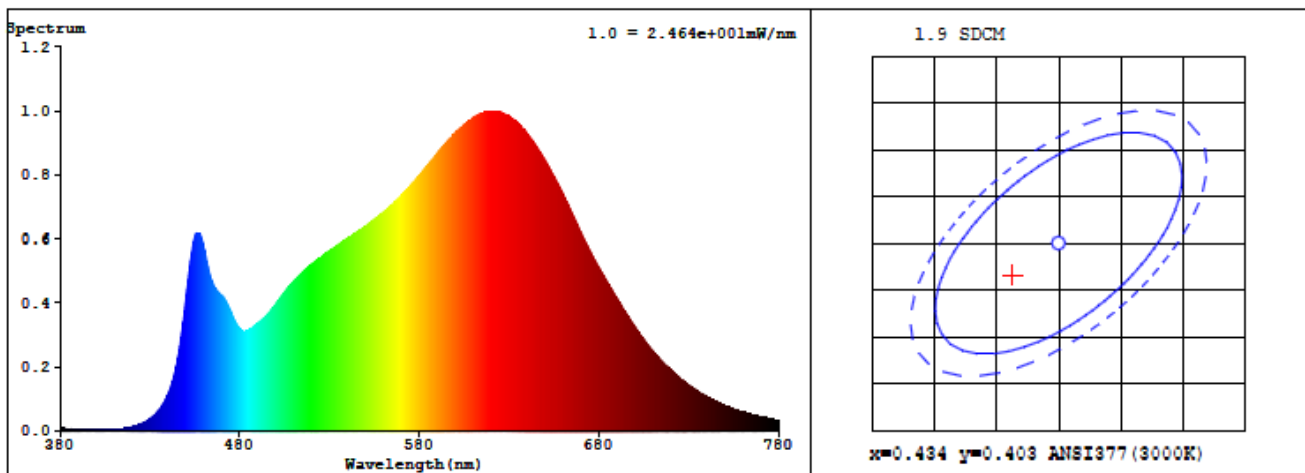
DATA OF LAMP		PHOTOMETRIC DATA				Eff: 80.08 lm/W
MODEL		I _{max} (cd)	364.6	S/MH (C0/180)	1.44	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.38	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1522.5	η UP, DN (C0-180)	7.1, 39.8	
NOMINAL FLUX (lm)	1522.49	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	7.9, 45.3	
LAMPS INSIDE	1	η up (%)	15.0	CIBSE SHR NOM	1.50	
TEST VOLTAGE (V)	120	η down (%)	85.0	CIBSE SHR MAX	1.55	



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Annex 2 Total Luminous Flux And Electrical Power



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4302$ $y = 0.3999$ / $u' = 0.2480$ $v' = 0.5187$ ($duv = -6.98e-04$)CCT= 3083K Prcp WL: $L_d = 582.7\text{nm}$ Purity=49.2%Peak WL: $L_p = 620\text{nm}$ FWHM: $= 164.7\text{nm}$ Ratio: R=24.0% G=72.5% B=3.4%Render Index: $R_a = 93.8$

EEI: 0.16820 A+

R1 =95	R2 =100	R3 =97	R4 =93	R5 =95	R6 =96	R7 =91	
R8 =84	R9 =66	R10=98	R11=94	R12=80	R13=97	R14=99	R15=91

Photometric & Radiometric Parameters

Flux = 1479.5 lm Eff. : 76.29 lm/W $F_e = 5.2889\text{ W}$

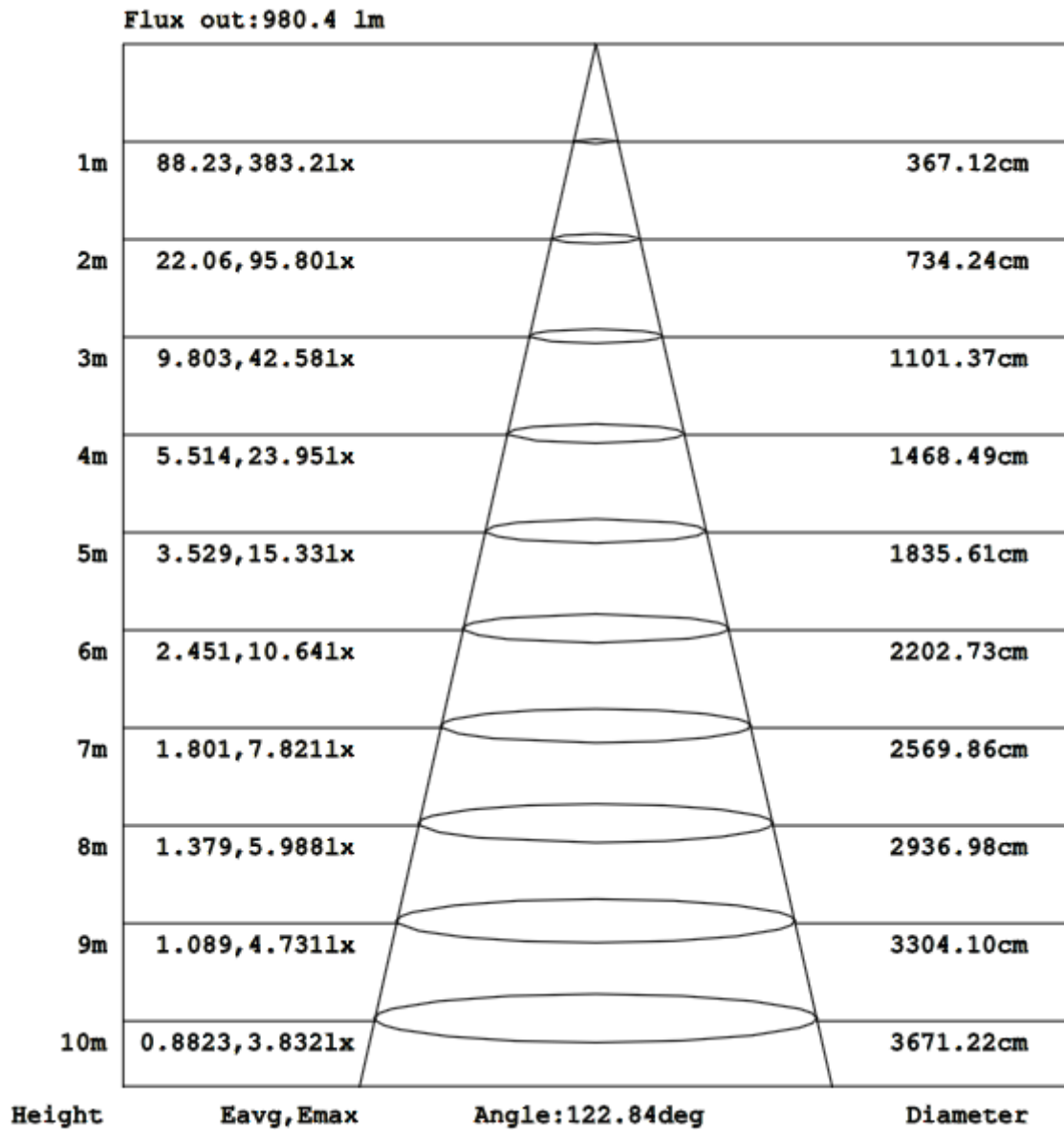
Electrical parameters

 $V = 120.01\text{ V}$ $I = 0.1741\text{ A}$ $P = 19.38\text{ W}$ PF = 0.9275 F=59.98 Hz

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Annex 3 Cone Diagram



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Annex 4 Candela Distribution Table

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	⊙ zone	⊙ total	llum, lamp
10	348.7	348.0	352.6	358.6	363.6	363.9	359.9	352.7	0- 10	34.15	34.15	2.24, 2.24
20	328.1	326.7	337.2	350.7	358.7	359.4	351.8	337.6	10- 20	99.15	133.3	8.76, 8.76
30	296.6	295.1	312.9	335.1	346.5	346.7	334.7	312.5	20- 30	154.2	287.5	18.9, 18.9
40	254.2	253.3	279.1	310.6	325.9	324.8	307.3	276.4	30- 40	192.8	480.3	31.5, 31.5
50	202.3	202.7	236.1	276.7	296.0	293.0	269.3	229.7	40- 50	209.9	690.2	45.3, 45.3
60	146.0	147.7	185.2	233.2	256.5	251.7	221.2	175.2	50- 60	203.0	893.2	58.7, 58.7
70	95.73	98.14	132.5	182.3	208.4	201.8	166.5	120.9	60- 70	174.7	1068	70.1, 70.1
80	60.32	62.32	86.80	129.5	155.2	147.7	113.4	76.52	70- 80	133.8	1202	78.9, 78.9
90	43.58	44.22	55.51	84.38	105.2	98.55	71.18	49.80	80- 90	93.14	1295	85, 85
100	39.36	39.25	41.01	53.63	66.26	61.65	46.40	40.31	90-100	63.01	1358	89.2, 89.2
110	36.14	36.06	37.24	39.40	44.42	42.45	38.13	36.92	100-110	45.55	1403	92.2, 92.2
120	32.19	32.07	34.01	35.83	37.92	37.14	35.35	32.79	110-120	36.29	1440	94.6, 94.6
130	27.63	27.75	29.93	32.40	34.60	34.00	31.46	28.04	120-130	29.39	1469	96.5, 96.5
140	22.69	23.36	25.55	28.48	30.91	30.37	27.22	23.62	130-140	22.19	1491	98, 98
150	19.39	19.57	21.51	25.15	26.69	26.70	23.24	19.70	140-150	15.48	1507	99, 99
160	14.99	15.62	17.96	21.50	22.28	22.19	20.16	16.35	150-160	9.716	1516	99.6, 99.6
170	11.16	12.19	13.95	15.81	17.08	16.82	15.19	13.22	160-170	4.827	1521	99.9, 99.9
180	11.63	10.55	8.004	9.525	10.48	10.55	9.186	9.124	170-180	1.175	1522	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		