



NVLAP Lab Code: 200952-0

Verification Services

Project No: 4786842793-15

Report No: 4786842793-15a2

Report Issued Date: 2015-06-04


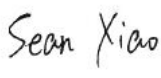
Test Report

Customer Company & Address:			
Company Name: Premium Quality Lighting, Inc.			
ADD: 2285 Ward Avenue / Simi Valley, CA 93065			
Telephone:	18003238107		

Manufacturer:	Premium Quality Lighting, Inc.
Country of Origin:	CHINA
Country of Export:	N/A
Product Description:	Lamp Type: Four-foot Linear Replacement Lamps Total Amount Of Light Source: 96 Manufacturer Of Light Source: Everlight Electronics Co.,Ltd Model Number Of Light Source: 67-21S Series
Model Number:	Model Name: 90524
Electrical Specification:	Rated voltage: 120-277V Frequency: 50/60Hz Wattage: 15W

Test Laboratory & Address:			
UL Verification Services (Guangzhou) Co., Ltd.			
ADD: Building A1, 1F & 2F, Nansha Science and Technology Innovation Center, No. 25, South Huanshi Avenue , Nansha District, Guangzhou 511458, China			
Telephone:	+86 20 28667188	Fax:	+86 20 83486605

Receipt of Test Samples :	2015-04-30	Test Period:	2015-05-23~2015-05-27
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Tested By	Approved By
 / Jackson Zeng	 / Sean Xiao
Test Personnel Name & Signatory	Approval Name & Signatory

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.

Doc No: 10-CT-F0059

Issue No: 1.1



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Test Report

Statement of Results

Test Flow	Test Method	Sample ID (Lab)	Sample Serial No.	Pass/Fail/NA
1.	Integrating Sphere Test	2125889-S3 2125889-S4	N/A	Evaluate by customer
2.	Goniophotometer Test	2125889-S3 2125889-S4	N/A	Evaluate by customer

Deviation from Test Method (if any)

N/A

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.



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Test Report

Test No.1: Integrating Sphere Test

Environmental Conditions

Temperature: 25.1°C

Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
GVS-LE-PE001	Integrating Sphere	Before Use	Before Use
GVS-LE-FS019	Measurement Standard Lamp	8/19/2014	8/18/2015

Test Sample

2125889-S3
2125889-S4

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° C ± 1° 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 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. The troffer model number that was used for testing 4 Feet: Lithonia 2GT8 2 32 A19 MVOL GEB10IS

Test Results

Test Type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Orientation	Operate time (Min.)	Stabilization time (Min.)
Input	119.94	60	0.2888	33.446	0.966	Base up	58	50

Test type	CCT (K)	Luminous Flux (lm)	Color Rendering Index Ra	Luminous Efficacy (lm/W)
Output	3047	3169.806	82.2	94.774



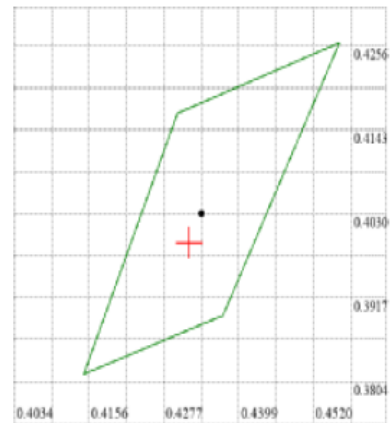
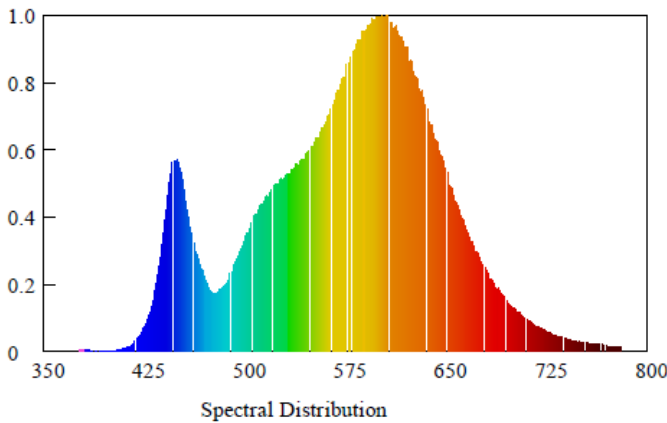
Test Report

Test Condition

Temperature: 25.1°C
Spectrum Range: 380-780 nm

RH: ----%
Scan Step: 1 nm

Spectroradiometric Parameters



Chromaticity Coordinates: $x=0.4318$ $y=0.3991$ $u'=0.2494$ $v'=0.5186$
 Correlated Color Temperature: 3047 K Dominant Wavelength: 582.0 nm(E)
 Luminous Flux: 3169.806 lm Purity: 0.4944
 Chromaticity Difference: -0.0013Duv Peak Wavelength: 605.9 nm
 Color Ratio: $K_r=44.8\%$ $K_g=47.8\%$ $K_b=7.3\%$
 Bandwidth: 124.6nm Radiant Flux: 7.434 W
 Rendering Index: Ra=82.2
 R1=81 R2=91 R3=96 R4=81 R5=81 R6=89 R7=82 R8=58
 R9=4 R10=79 R11=81 R12=71 R13=84 R14=98 R15=73



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Test Report

Test No. 2: Goniophotometer Test

Environmental Conditions

Temperature: 25.1°C

Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
GVS-LE-GS002	Goniophotometer	Before Use	Before Use
GVS-LE-FS019	Measurement Standard Lamp	8/19/2014	8/18/2015

Test Sample

2125889-S3
2125889-S4

Test Method

The samples (two lamps in fixture) 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° C ± 1° C, measured at a point not more than 1 m from the sample and at the same height as the sample. 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 50 vertical intervals and 10 horizontal interval. The troffer model number that was used for testing 4 Feet: Lithonia 2GT8 2 32 A19 MVOL GEB10IS

Test Result

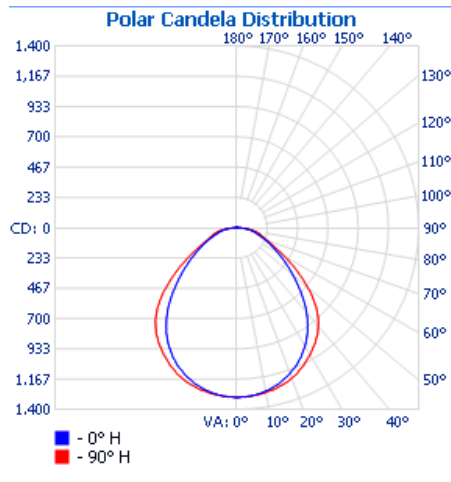
Test Type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Orientation	Operate time (Min.)	Stabilization time (Min.)
Input	119.94	60	0.2888	33.446	0.966	Base up	58	50

Test Type	Flux (lm)	Field angle (10%)		Beam angle (50%)		Zonal Lumen Result	Spacing Criteria		Luminous Efficacy (lm/W)
		Horizontal Spread	Vertical Spread	Horizontal Spread	Vertical Spread		0°-180°	90°-270°	
Output	3153.9	159.5	154.2	103.4	92.9	85%	1.2	1.28	94.28

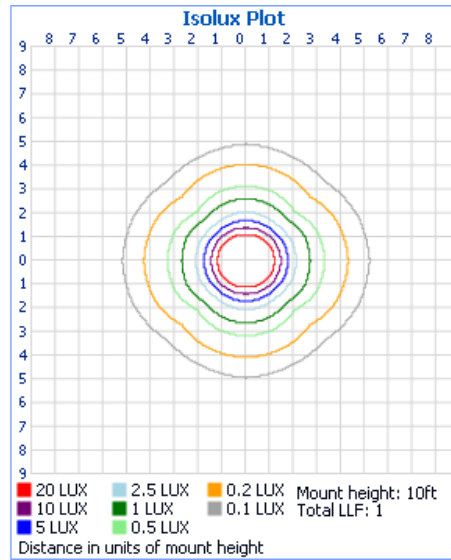


Test Report

Light Distribution Curve



Isolux Plot





Test Report

Zonal Lumen Tabulation

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1,012.3	32.1%
0-40	1,638.7	52%
0-60	2,681.9	85%
60-90	471.3	14.9%
70-100	211.3	6.7%
90-120	0.4	0%
0-90	3,153.2	100%
90-180	0.7	0%
0-180	3,153.9	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	123.6	3.9%	90-100	0.4	0%
10-20	354.5	11.2%	100-110	0	0%
20-30	534.1	16.9%	110-120	0.0	0%
30-40	626.4	19.9%	120-130	0.0	0%
40-50	597.0	18.9%	130-140	0.1	0%
50-60	446.2	14.1%	140-150	0.1	0%
60-70	260.4	8.3%	150-160	0.1	0%
70-80	153.0	4.9%	160-170	0.0	0%
80-90	57.9	1.8%	170-180	0.0	0%



Test Report

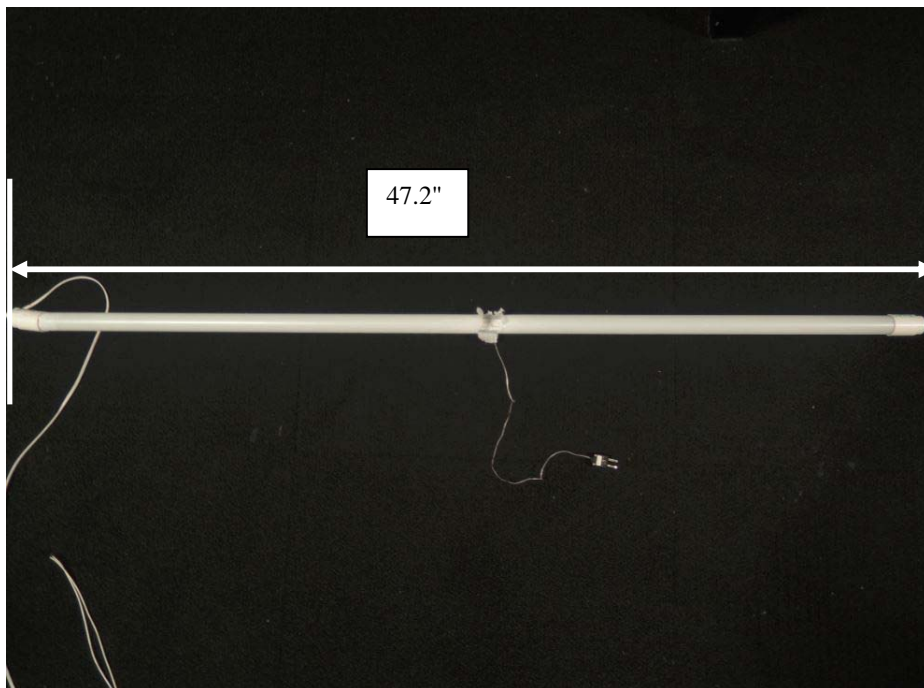
Intensity Data (cd)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	1307	1307	1307	1307	1307	1307	1307	1307	1307	1307	1307	1307	1307	1307	1307	1307	1307
1	1306	1308	1305	1308	1305	1308	1305	1308	1306	1308	1305	1308	1305	1308	1305	1308	1306
2	1303	1305	1303	1307	1303	1307	1303	1305	1303	1305	1303	1307	1303	1307	1303	1305	1303
3	1305	1305	1304	1306	1306	1306	1304	1305	1305	1305	1304	1306	1306	1306	1304	1305	1305
4	1303	1302	1303	1305	1302	1305	1303	1302	1303	1302	1303	1305	1302	1305	1303	1302	1303
5	1298	1301	1300	1305	1302	1305	1300	1301	1298	1301	1300	1305	1302	1305	1300	1301	1298
6	1297	1295	1296	1301	1297	1301	1296	1295	1297	1295	1296	1301	1297	1301	1296	1295	1297
7	1293	1294	1293	1300	1295	1300	1293	1294	1293	1294	1293	1300	1295	1300	1293	1294	1293
8	1290	1289	1289	1297	1295	1297	1289	1289	1290	1289	1289	1297	1295	1297	1289	1289	1290
9	1282	1288	1288	1306	1293	1297	1286	1282	1282	1284	1287	1279	1293	1297	1286	1282	1282
10	1278	1279	1282	1293	1288	1293	1282	1279	1278	1279	1282	1293	1288	1293	1282	1279	1278
11	1274	1273	1275	1290	1282	1290	1275	1273	1274	1273	1275	1290	1282	1290	1275	1273	1274
12	1265	1268	1271	1285	1280	1285	1271	1268	1265	1268	1271	1285	1280	1285	1271	1268	1265
13	1259	1261	1264	1283	1278	1283	1264	1261	1259	1261	1264	1283	1278	1283	1264	1261	1259
14	1250	1254	1259	1278	1272	1278	1259	1254	1250	1254	1259	1278	1272	1278	1259	1254	1250
15	1246	1245	1251	1273	1266	1273	1251	1245	1246	1245	1251	1273	1266	1273	1251	1245	1246
16	1234	1239	1244	1268	1260	1268	1244	1239	1234	1239	1244	1268	1260	1268	1244	1239	1234
17	1225	1228	1237	1263	1255	1263	1237	1228	1225	1228	1237	1263	1255	1263	1237	1228	1225
18	1215	1220	1229	1257	1250	1257	1229	1220	1215	1220	1229	1257	1250	1257	1229	1220	1215
19	1205	1207	1219	1250	1243	1250	1219	1207	1205	1207	1219	1250	1243	1250	1219	1207	1205
20	1195	1199	1210	1243	1233	1243	1210	1199	1195	1199	1210	1243	1233	1243	1210	1199	1195
25	1128	1137	1154	1183	1185	1193	1154	1137	1128	1137	1154	1183	1185	1193	1154	1137	1128
30	1050	1058	1083	1128	1127	1128	1083	1058	1050	1058	1083	1128	1127	1128	1083	1058	1050
35	948	965	992	1054	1059	1054	992	965	948	965	992	1054	1059	1054	992	965	948
40	830	849	885	960	974	960	885	849	830	849	885	960	974	960	885	849	830
50	559	597	640	701	707	701	640	597	559	597	640	701	707	701	640	597	559
55	444	462	499	531	548	531	499	462	444	462	499	531	548	531	499	462	444
60	344	342	352	388	401	388	352	342	344	342	352	388	401	388	352	342	344
65	263	248	228	279	286	279	228	248	263	248	228	279	286	279	228	248	263
70	197	182	147	210	219	210	147	182	197	182	147	210	219	210	147	182	197
75	148	139	115	162	177	162	115	139	148	139	115	162	177	162	115	139	148
80	104	95	93	118	128	118	93	95	104	95	93	118	128	118	93	95	104
85	50	48	50	62	63	62	50	48	50	48	50	62	63	62	50	48	50
90	4	3	4	7	6	7	4	3	4	3	4	7	6	7	4	3	4
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Test Report

Photos of sample





Test Report

Photos of Fixture

47.9"





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