



Test Datasheet

Test Location:	[]	1. B802, No.11 Caipin Road, Guangzhou Science City, Guangzhou,							
		Guangdong, China							
	[√]	2. R108, 1 st Floor No.69 GuangPu West Road, Guangzhou Science City,							
		Guangzhou, Guangdong, China							
	[]	3. Other:							
Project No.:	GZO1	30803-07B	Test by:	Mountain Ye					
Applicant:	Light E	Light Efficient Design, LLC							
Applicant Address	188 S	3 S. Northwest Highway, Cary, IL 60013, USA							
Standard/Method	IES LI	IES LM-79 2008							

Test & Report By:

Mountain Ye

Review By:

Tommy Liang

Tommy Liang

Mountain Ye Date: 2013-09-02

Test	Done	
No.	+++	Test Name
1	Х	Electrical and Photometric Measurements:

		Sample acceptance	
Model No.	Sample No.	Y/N	Product Identification and Ratings
LED-8028E42	1309024-2	Y	LED Lamp, 120-277 Vac, 60Hz employed LED of SAMSUNG LED, TYPE 5630

Model name(s):	LED-8028E42,	Representative	LED-8028E42	All construction are
	LED-8028E42C	(Tested) Model:		the same, except
				model name





TEST METHODS

1. Seasoning in Sample Orientation:

See IES LM-80 report (LED products) or Energy Star Report for CFL/ILL.

2. Photometric and Electrical measurements – Light Distribution Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at 25° C \pm 1° C, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1° vertical intervals and 22.5° horizontal intervals.

3. Photometric and Electrical Measurements – Integrating Sphere Method:

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25° C \pm 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 120 Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at least 5 nm intervals over the range of 380 to 780 nm.



NVLAP LAB CODE 201011-0

1.1 Electrical and Photometric Measurements	IES LM-79 2008
(Refer to Work Instruction QD25)	

Electrical Measurement

Test date	2013	3-09-02	Test Ambier	nt:	25.2 º C			
Sample No.	Voltage (V AC)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD		
1200024.2	120.1	60	0.1721	20.6	0.9936	15.12%		
1309024-2	277.1	60	0.1030	20.7	0.9108	18.51%		

Photometric and Chromaticity Measurements

Test date		2013-09-02	Test Ambi	oient: 25.2 ° C			
Sample No.		Voltage (V AC)		Frequency (Hz)			
1309024-2		120.1		60			
Lumen Flux	(Im)	Efficacy (Im/w)	CR	l	CCT (K)		
1820		88.29	82.4	32.4 25 4243			
	Chromaticity Coordinate Duv						
x=0.3697 y=0	0.3676	u'=0.2217 v'=0.4959 -0.0011					

Color Data:



Color Parameters:

chromaticity Coordinate:x=0.3697 y=0.3676/u'=0.2217 v'=0.4959 Tc=4243K(Duv=-0.0011) Dominant WL:Ld =578.8nm Purity=21.2% Peak WL:Lp=450.6nm HWL:Lhd=21.1nm Render Index:Ra=82.4 CRI=75.6 R1 =82 R2 =87 R3 =88 R4 =82 R5 = 80R6 = 79R7 =89 R8 =72 R9 =25 R10=66 R11=79 R12=53 R13=82 R14=93 R15=79



Zonal Lumen Summary

Zone	%Lamp / Luminaire
0 - 60	16.9 %
60 - 90	33.4 %
0 - 90	50.3 %
90 - 180	49.7 %
0 - 180	100.0 %

Illuminance Plots







Candela Plots







Standard-Tech Co. Ltd Testing Center

STD/QR4909-A/2

NVLAP LAB CODE 201011-0





Candela Tabulation

Table1																UNI	T: cd	
C (DEG)																		
Y (DEG)	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338		
0	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25		
5	2.53	2.31	2.40	2.57	2.83	3.16	3.70	4.72	4.81	5.14	5.74	5.20	4.70	3.98	3.71	3.53		
10	6.21	6.38	7.08	7.19	7.06	7.61	9.25	11.8	10.6	10.7	12.3	11.3	10.5	9.14	8.86	8.24		
15	15.5	16.4	19.2	17.8	15.6	16.3	18.7	23.6	20.7	21.9	23.6	23.5	19.7	19.7	17.4	18.7		
20	23.0	28.0	28.7	29.6	24.8	30.3	30.4	38.6	33.2	35.6	38.5	37.8	31.9	32.9	27.0	34.9		
25	42.8	48.4	52.6	51.1	40.9	51.0	50.7	61.2	49.4	57.5	58.5	60.7	52.1	54.3	44.2	58.8		
30	55.3	67.7	69.6	72.2	55.3	68.7	65.4	79.5	61.4	73.9	74.7	79.5	64.7	69.6	58.7	79.8		
35	68.9	82.1	85.1	89.0	67.2	82.6	77.1	98.1	74.5	89.5	88.5	95.1	75.1	84.6	70.2	96.8		
40	80.0	98.6	98.0	104	78.8	95.3	87.1	114	85.9	105	104	111	87.8	98.5	80.8	113		
45	90.8	113	114	123	93.7	113	104	136	101	122	118	126	99.8	113	92.9	126		
50	105	133	137	148	118	138	128	163	123	146	138	145	116	128	108	147		
55	124	158	156	171	132	160	142	188	139	170	162	169	134	151	125	175		
60	139	178	170	187	142	172	152	204	149	186	176	191	151	173	144	202		
65	150	189	181	201	153	185	161	215	157	195	184	203	161	188	155	216		
70	158	200	191	214	162	191	167	224	164	204	193	214	167	195	158	224		
75	165	206	196	220	168	199	174	233	168	213	200	223	174	202	166	234		
80	169	212	202	226	171	201	176	237	174	219	207	227	181	207	172	238		
85	171	216	203	230	174	206	180	240	175	219	212	229	182	209	174	244		
90	172	218	206	233	174	208	181	243	173	218	208	228	180	209	173	245		
95	169	218	205	231	173	205	178	237	172	217	207	225	179	205	172	241		
100	170	215	203	228	170	201	175	234	170	216	203	225	176	203	170	237		
105	165	211	199	224	166	197	170	231	166	211	199	222	174	202	169	234		
110	161	207	195	219	163	193	166	225	161	202	191	214	167	193	162	228		
115	155	197	186	208	156	183	159	214	153	192	179	200	160	183	154	218		
120	144	187	177	198	146	174	149	202	143	180	171	188	151	175	145	205		
125	134	173	167	183	135	159	138	178	130	158	154	167	137	159	135	192		
130	121	149	149	154	117	132	119	147	110	132	132	139	117	133	119	160		
135	100	122	123	128	96.0	112	96.9	124	91.9	114	110	119	94.9	111	94.7	135		
140	84.5	104	104	110	81.3	96.7	83.0	109	80.8	99.0	94.9	102	80.9	95.0	79.7	116		
145	71.3	88.8	88.5	92.7	68.8	81.0	70.2	93.6	67.1	83.2	79.5	86.2	69.9	81.2	67.7	98.3		
150	57.9	71.4	73.2	77.0	55.9	62.4	56.9	67.6	55.9	60.1	63.7	61.5	58.1	61.9	55.4	77.1		
155	42.2	48.5	54.9	53.0	38.8	43.6	34.7	44.0	34.7	37.0	38.2	38.2	34.4	40.2	35.9	50.7		
160	23.4	28.8	30.4	33.8	22.1	25.2	23.3	24.8	22.1	22.9	24.1	21.0	21.0	21.0	21.2	26.7		
165	12.6	15.2	18.0	15.6	10.3	12.1	10.4	9.42	8.84	9.20	7.93	7.65	7.35	7.83	9.09	11.2		
170	3.23	2.82	4.11	3.11	2.86	2.04	1.84	1.95	0.69	0.82	0.53	0.37	0.88	1.18	1.45	2.10		
175	0.26	0.31	0.07	0.22	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		





Annex (Photo of Products):













Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-336	2 meter Integrating Sphere	2013-07-08	2014-07-07
ST-R-331	Spectral analysis system HAAS-2000	2013-06-21	2014-06-20
D204	Standard Lamp	2013-06-28	2014-06-27
PF2010	Power Meter for Integrating Sphere	2013-06-20	2014-06-19
EE-09	Goniophotometer system	2013-06-21	2014-06-20
D908S	Standard Lamp	2013-07-05	2014-07-04
PF210	Power Meter for Goniophotometer	2013-06-20	2014-06-19
ST-R-181A	Temperature Tester	2013-08-14	2014-08-13

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