

0hr HOUR RESULTS

	Lp. #	Volts	Amps	Watts	pf (≥.7)	0hr Hr. Lumens	CCT	CRI (≥80)	R9 (>0)	Sph Temp	x Value	y Value	u' Value	v' Value	Duv	7-Step Color Compliance	LPW (>45)
Base Up	P-50352-1	120.0	0.127	11.5	0.751	892	3054	83.7	22.3	25.3	0.4314	0.3990	0.2492	0.5185	-0.0013	PASS	77.7
	P-50352-2	120.0	0.127	11.4	0.748	890	3064	83.7	22.3	25.0	0.4303	0.3981	0.2489	0.5180	-0.0015	PASS	78.3
	P-50352-3	120.0	0.127	11.5	0.753	909	3079	83.7	22.0	24.9	0.4294	0.3977	0.2484	0.5177	-0.0015	PASS	79.3
	P-50352-4	120.0	0.129	11.6	0.756	909	3043	83.5	21.4	24.8	0.4324	0.3998	0.2495	0.5190	-0.0011	PASS	78.3
	P-50352-5	120.0	0.128	11.5	0.745	935	3069	83.2	19.9	24.8	0.4308	0.3996	0.2485	0.5187	-0.0009	PASS	81.7

	Lp. #	Volts	Amps	Watts	pf (≥.7)	0hr Hr. Lumens	CCT	CRI (≥80)	R9 (>0)	Sph Temp	x Value	y Value	u' Value	v' Value	Duv	7-Step Color Compliance	LPW (>45)
Base Down	P-50352-6	120.0	0.128	11.5	0.748	910	3064	83.2	20.0	24.7	0.4307	0.3988	0.2488	0.5184	-0.0012	PASS	78.9
	P-50352-7	120.0	0.129	11.6	0.747	882	3081	83.6	21.7	24.7	0.4294	0.3981	0.2483	0.5179	-0.0013	PASS	76.4
	P-50352-8	120.0	0.128	11.5	0.747	908	3052	83.2	20.1	24.8	0.4318	0.3996	0.2492	0.5188	-0.0011	PASS	79.3
	P-50352-9	120.0	0.128	11.5	0.751	897	3080	83.3	20.3	24.8	0.4299	0.3990	0.2482	0.5183	-0.0010	PASS	77.7
	P-50352-10	120.0	0.126	11.4	0.754	899	3036	83.0	19.2	24.7	0.4333	0.4009	0.2496	0.5196	-0.0008	PASS	78.8
Grand AVG.		120.00	0.1276	11.48	0.750	903	3062	83	21	24.9	0.4309	0.3991	0.2489	0.5185	-0.0012		78.6
Compliance					Complies	TBD	Complies	Complies	Complies						Complies	Complies	Complies

LUMEN & COLOR MAINTENANCE

LIFE TESTING

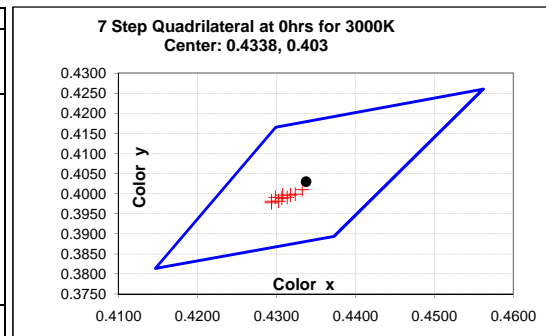
	Date:	N-N													N-N		
	Lp. #	1000 Hr. Lumens	1000 Hr. Lumen Maint.	1000 Hr. u' Color Maint.	1000 Hr. v' Color Maint.	3000 Hr. Lumens	3000 Hr. Lumen Maint.	3000 Hr. u' Color Maint.	3000 Hr. v' Color Maint.	6000 Hr. Lumens	6000 Hr. Lumen Maint.	6000 Hr. u' Color Maint.	6000 Hr. v' Color Maint.	N-N	N-N	Failure before 6000hours	Failure before Rated Life
Base Up	P-50352-1																
	P-50352-2																
	P-50352-3																
	P-50352-4																
	P-50352-5																
Base Down	P-50352-6																
	P-50352-7																
	P-50352-8																
	P-50352-9																
	P-50352-10																
Grand AVG.																	
Compliance		TBD	TBD	TBD		TBD	TBD	TBD		TBD	TBD	TBD		TBD			

Date:	
Lp. #	* Transient Protection PASS/FAIL
T-50352-1	
T-50352-2	
T-50352-3	
T-50352-4	
T-50352-5	
Compliance	TBD

Date:	
Lp. #	* Ballast Freq (≥120 Hz)
N-N	
Compliance	

Date:	
Lp. #	* Noise (dbA)
N-N	

Date:	
Lp. #	Rapid Cycles Endured
R-50352-1	
R-50352-2	
R-50352-3	
R-50352-4	
R-50352-5	
R-50352-6	
R-50352-7	
R-50352-8	
R-50352-9	
R-50352-10	
Compliance	TBD



Technician: Xu Hui
Date: 2013/07/27
Reviewed by: Liao Bingjing
Date: 2013/07/29

* THIS REPORT CONTAINS DATA THAT IS NOT COVERED BY THE NVLAP ACCREDITATION

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TEST REPORT

PO Number:LED0352

Model Number:LED12BR3030K

Light Intensity & Color Distribution Tests

Electrical Characteristics:

LP#	Volt	Ampere	pf	Watts
D-50352-01	120.0	0.1329	0.730	11.7

Zonal Lumen Flux:

γ angle (°)	Φ zonal(lm)	Φ Cumulative(lm)	% Cumulative Lumen
0-5	7	7.0	0.7%
5-10	21	27.7	2.9%
10-15	34	61.4	6.4%
15-20	46	107.0	11.1%
20-25	56	162.9	16.9%
25-30	64	227.0	23.6%
30-35	70	297.4	30.9%
35-40	74	371.5	38.6%
40-45	76	447.0	46.5%
45-50	75	521.7	54.3%
50-55	72	593.5	61.7%
55-60	67	660.4	68.7%
60-65	61	721.1	75.0%
65-70	53	774.4	80.5%
70-75	45	819.6	85.2%
75-80	37	856.6	89.1%
80-85	29	885.6	92.1%
85-90	22	907.4	94.4%
90-95	16	923.2	96.0%
95-100	11	934.2	97.2%
100-105	8	941.9	98.0%
105-110	6	947.4	98.5%
110-115	4	951.6	99.0%
115-120	3	954.7	99.3%
120-125	2	957.0	99.5%
125-130	2	958.7	99.7%
130-135	1	959.8	99.8%
135-140	1	960.6	99.9%
140-145	0	961.0	100.0%
145-150	0	961.3	100.0%
150-155	0	961.4	100.0%
155-160	0	961.5	100.0%
160-165	0	961.5	100.0%
165-170	0	961.5	100.0%
170-175	0	961.5	100.0%
175-180	0	961.5	100.0%

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TEST REPORT

PO Number:LED0352

Model Number:LED12BR3030K

Light Intensity & Color Distribution Tests

Light Intensity Distribution Data Table (Type C)

LP#:D-50352-01

y Angle (°)	C Planes																																							
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350				
0	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293			
5	290	291	291	291	291	292	292	292	292	292	292	293	293	293	293	293	293	293	293	292	292	292	292	291	291	291	291	291	291	291	290	290	290	290	290	290	290			
10	286	286	286	287	287	288	288	288	289	289	289	290	290	290	290	290	290	290	290	289	289	288	288	288	287	287	286	286	286	285	285	285	285	285	285	285	285	285	285	
15	278	279	279	280	280	281	282	282	283	284	284	284	284	285	284	285	284	284	284	283	283	282	282	281	281	280	280	279	278	278	277	277	277	277	277	278	278	278		
20	268	269	270	270	271	272	273	274	274	275	275	276	276	276	277	276	276	276	275	275	274	273	272	271	271	270	269	269	268	268	267	267	267	267	267	267	267	267		
25	256	257	258	259	259	261	261	263	263	264	264	266	266	266	266	265	266	265	265	264	264	262	262	261	260	259	258	257	257	256	255	255	255	255	255	255	255	255		
30	241	243	243	245	245	247	247	249	250	251	251	252	252	253	252	253	252	252	252	251	250	249	249	247	246	245	244	243	242	241	240	240	240	240	241	241	241	241		
35	225	227	227	229	229	231	232	233	234	235	236	237	237	238	237	238	237	237	237	236	235	233	233	231	230	229	228	227	226	225	225	224	224	224	224	225	224	224		
40	207	209	209	211	212	213	214	216	216	218	218	220	220	220	220	221	220	220	220	218	218	216	215	214	213	211	211	209	208	207	207	206	206	206	206	207	207	207		
45	188	190	190	192	193	195	195	197	198	199	200	201	201	202	202	202	201	202	201	200	199	198	197	195	194	192	192	190	190	188	188	187	188	187	188	187	188	188		
50	169	170	171	172	173	175	175	177	178	180	180	181	181	182	182	183	182	182	182	180	180	178	177	176	175	173	172	171	170	169	169	168	168	168	168	168	168	168		
55	149	150	151	152	153	155	155	157	158	159	160	161	161	162	162	162	162	162	160	160	158	157	156	155	153	153	151	150	149	149	148	148	148	148	148	148	148			
60	129	130	130	132	132	134	135	137	137	139	139	141	141	142	141	142	141	141	140	140	138	137	136	135	133	133	131	130	129	129	128	128	128	128	129	128	128			
65	109	110	111	112	112	114	115	117	117	119	119	120	120	121	121	122	121	121	120	119	118	117	116	115	114	113	111	111	110	109	108	109	108	109	108	109	109	109		
70	90	91	91	93	93	95	95	97	98	99	101	100	101	101	102	101	101	101	100	100	98	98	97	96	95	94	93	92	91	91	90	90	90	90	90	90	90	90		
75	72	73	74	75	75	77	77	79	79	80	81	82	82	82	82	83	82	82	83	81	81	80	80	78	78	77	76	75	74	73	73	72	73	72	73	72	73	72		
80	56	57	57	58	59	60	60	62	62	63	63	64	64	65	65	65	65	65	64	64	63	63	62	62	60	60	59	58	57	57	57	57	57	57	56	57	57	57		
85	42	43	43	44	44	45	46	47	47	48	48	49	49	50	49	50	49	50	49	49	48	48	47	46	46	45	44	43	43	43	43	43	43	43	43	43	43	43		
90	31	32	31	32	32	33	33	34	34	35	35	36	36	37	36	37	36	37	36	36	35	35	34	34	33	32	32	32	31	31	31	31	31	31	31	31	31	31		
95	22	22	22	23	23	24	24	24	24	25	25	26	26	26	26	26	26	26	27	26	26	25	25	25	24	24	23	23	22	23	22	22	22	22	22	22	22	22		
100	15	16	16	16	16	17	17	17	17	18	17	18	18	18	18	19	18	18	19	18	18	18	17	17	17	16	16	16	16	16	16	16	16	16	16	16	15	16	15	
105	11	11	11	12	12	12	12	12	12	13	13	13	13	13	13	13	13	13	13	13	13	13	12	12	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11	
110	9	9	9	9	9	9	9	9	9	9	10	10	10	10	10	10	10	10	10	10	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
115	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
120	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
125	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
130	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
135	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
140	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
145	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
150	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	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	0	0	0	0	0	0	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	0	0	0	0	0	0	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	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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TEST REPORT

PO Number:LED0352

Model Number:LED12BR3030K

Light Intensity & Color Distribution Tests

Weighted average u':	0.2494
Weighted average v':	0.5185
Rated Beam angle(°):	N/A
Actual Beam Angle Tested(°):	114.2

Spatial non-uniformity of chromaticity: 0.0008 (Within actual beam angle tested)

Color Distribution Data Table:

LP#:D-50001-01

γ angle (°)	C0 plane		C90 plane		γ (°)	C0 plane		C90 plane	
	u'	v'	u'	v'		u'	v'	u'	v'
0	0.2491	0.5179	0.2491	0.5179	0	0.2491	0.5179	0.2491	0.5179
-1	0.2491	0.5178	0.2492	0.5179	1	0.2492	0.5179	0.2491	0.5178
-2	0.2492	0.5178	0.2491	0.5178	2	0.2492	0.5179	0.2491	0.5178
-3	0.2491	0.5178	0.2491	0.5179	3	0.2492	0.5179	0.2492	0.5178
-4	0.2491	0.5178	0.2491	0.5179	4	0.2492	0.5179	0.2491	0.5178
-5	0.2491	0.5178	0.2492	0.5179	5	0.2492	0.5179	0.2492	0.5178
-6	0.2492	0.5179	0.2492	0.5179	6	0.2492	0.5179	0.2491	0.5179
-7	0.2492	0.5179	0.2492	0.5179	7	0.2492	0.5179	0.2492	0.5179
-8	0.2491	0.5179	0.2492	0.5179	8	0.2492	0.5179	0.2492	0.5179
-9	0.2492	0.5179	0.2492	0.5180	9	0.2492	0.5179	0.2492	0.5179
-10	0.2492	0.5179	0.2492	0.5180	10	0.2492	0.5179	0.2492	0.5179
-11	0.2492	0.5179	0.2492	0.5180	11	0.2492	0.5180	0.2492	0.5179
-12	0.2492	0.5179	0.2492	0.5180	12	0.2492	0.5180	0.2492	0.5179
-13	0.2492	0.5179	0.2492	0.5181	13	0.2493	0.5180	0.2492	0.5179
-14	0.2492	0.5180	0.2492	0.5181	14	0.2493	0.5180	0.2492	0.5179
-15	0.2492	0.5180	0.2493	0.5181	15	0.2493	0.5180	0.2492	0.5179
-16	0.2492	0.5180	0.2493	0.5181	16	0.2493	0.5181	0.2493	0.5179
-17	0.2492	0.5180	0.2493	0.5182	17	0.2493	0.5181	0.2493	0.5180
-18	0.2492	0.5180	0.2493	0.5182	18	0.2493	0.5181	0.2492	0.5180
-19	0.2493	0.5181	0.2493	0.5182	19	0.2493	0.5181	0.2493	0.5180
-20	0.2493	0.5181	0.2493	0.5182	20	0.2493	0.5181	0.2493	0.5180
-21	0.2492	0.5181	0.2493	0.5183	21	0.2493	0.5182	0.2493	0.5181
-22	0.2493	0.5182	0.2494	0.5183	22	0.2493	0.5182	0.2493	0.5181
-23	0.2493	0.5182	0.2494	0.5183	23	0.2494	0.5182	0.2493	0.5181
-24	0.2493	0.5182	0.2494	0.5184	24	0.2494	0.5183	0.2493	0.5181
-25	0.2493	0.5182	0.2494	0.5184	25	0.2494	0.5183	0.2493	0.5181
-26	0.2493	0.5182	0.2494	0.5184	26	0.2494	0.5183	0.2493	0.5182
-27	0.2493	0.5182	0.2494	0.5185	27	0.2494	0.5184	0.2494	0.5182
-28	0.2493	0.5183	0.2494	0.5185	28	0.2494	0.5184	0.2494	0.5182
-29	0.2493	0.5183	0.2494	0.5185	29	0.2494	0.5184	0.2494	0.5182
-30	0.2494	0.5183	0.2495	0.5185	30	0.2495	0.5185	0.2494	0.5182
-31	0.2494	0.5184	0.2495	0.5186	31	0.2495	0.5185	0.2494	0.5183
-32	0.2494	0.5184	0.2495	0.5186	32	0.2495	0.5185	0.2494	0.5183
-33	0.2494	0.5184	0.2495	0.5187	33	0.2495	0.5185	0.2494	0.5183
-34	0.2494	0.5185	0.2495	0.5187	34	0.2495	0.5186	0.2494	0.5184
-35	0.2494	0.5185	0.2495	0.5187	35	0.2495	0.5186	0.2494	0.5184
-36	0.2494	0.5185	0.2495	0.5188	36	0.2495	0.5186	0.2494	0.5184
-37	0.2494	0.5185	0.2495	0.5187	37	0.2495	0.5186	0.2494	0.5184
-38	0.2494	0.5185	0.2495	0.5188	38	0.2496	0.5187	0.2494	0.5185
-39	0.2494	0.5186	0.2495	0.5188	39	0.2495	0.5187	0.2494	0.5185
-40	0.2494	0.5186	0.2495	0.5188	40	0.2496	0.5187	0.2495	0.5185
-41	0.2494	0.5186	0.2495	0.5189	41	0.2496	0.5187	0.2494	0.5185
-42	0.2494	0.5186	0.2495	0.5189	42	0.2495	0.5188	0.2494	0.5185
-43	0.2494	0.5186	0.2495	0.5189	43	0.2495	0.5187	0.2494	0.5186
-44	0.2494	0.5187	0.2495	0.5189	44	0.2496	0.5188	0.2494	0.5186
-45	0.2494	0.5187	0.2495	0.5189	45	0.2496	0.5188	0.2494	0.5186
-46	0.2494	0.5187	0.2495	0.5189	46	0.2495	0.5188	0.2494	0.5186
-47	0.2494	0.5187	0.2495	0.5190	47	0.2495	0.5188	0.2494	0.5186
-48	0.2493	0.5187	0.2495	0.5190	48	0.2495	0.5189	0.2494	0.5186
-49	0.2494	0.5187	0.2494	0.5190	49	0.2495	0.5188	0.2494	0.5186
-50	0.2493	0.5187	0.2494	0.5190	50	0.2495	0.5189	0.2494	0.5187
-51	0.2493	0.5187	0.2494	0.5190	51	0.2495	0.5189	0.2494	0.5187
-52	0.2493	0.5187	0.2494	0.5190	52	0.2495	0.5189	0.2494	0.5187
-53	0.2493	0.5188	0.2493	0.5190	53	0.2495	0.5189	0.2489	0.5185
-54	0.2493	0.5188	0.2493	0.5190	54	0.2494	0.5189	0.2489	0.5185
-55	0.2492	0.5188	0.2493	0.5190	55	0.2494	0.5189	0.2489	0.5185
-56	0.2492	0.5188	0.2493	0.5191	56	0.2494	0.5189	0.2489	0.5185
-57	0.2492	0.5188	0.2493	0.5191	57	0.2494	0.5189	0.2489	0.5185
-58	0.2491	0.5188	0.2493	0.5190	58	0.2494	0.5189	0.2489	0.5186
-59	0.2491	0.5188	0.2492	0.5190	59	0.2493	0.5189	0.2489	0.5186
-60	0.2491	0.5188	0.2492	0.5190	60	0.2493	0.5189	0.2489	0.5186

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TEST REPORT

PO Number:LED0352

Model Number:LED12BR3030K

Light Intensity & Color Distribution Tests

Directional Lamps

Test Results:

Average Beam Angle(50%):

Directional Lamps - Definition:

The luminous flux within a solid angle of π sr- Φ 1(lumens):

The total luminous flux- Φ (lumens):

Φ 1/ Φ (%):

Energy Star Integral LED lamps Specification V1.4:**Directional lamp means a lamp having at least 80% light output within a solid angle of π sr (corresponding to a cone with angle of 120°)**

Complies / Does not comply:

Minimum Center Beam Intensity - PAR/MR16 Lamps:

Minimum Center Beam Intensity (cd):

Center Beam Intensity tested (cd):

Complies / Does not comply:

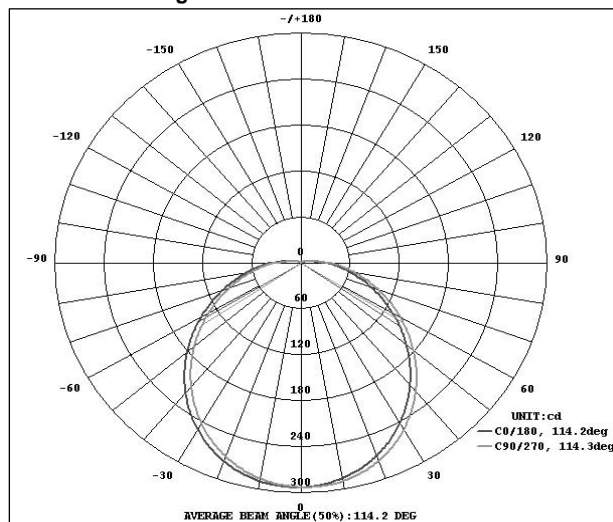
Color Spatial Uniformity:

Spatial non-uniformity of chromaticity:

Energy Star Integral LED lamps Specification V1.4:**The variation of chromaticity within the beam angle shall be within 0.006 from the weighted average point on the CIE 1976 (u',v') diagram**

Complies/ Does not Comply:

Light Distribution Polar Diagram:



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