

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 (>40)
Base Up	P-50355-1	120.0	0.091	9.5	0.872	750	3033	83.5	22.6	25.4	0.4312	0.3962	0.2503	0.5174	-0.0024	PASS	78.8
	P-50355-2	120.0	0.091	9.6	0.875	746	3029	83.2	21.2	25.3	0.4326	0.3987	0.2501	0.5186	-0.0016	PASS	78.1
	P-50355-3	120.0	0.091	9.6	0.873	752	3043	83.2	21.4	25.3	0.4317	0.3984	0.2496	0.5183	-0.0015	PASS	78.6
	P-50355-4	120.0	0.093	9.7	0.875	762	3024	83.2	21.5	25.3	0.4326	0.3979	0.2504	0.5183	-0.0019	PASS	78.5
	P-50355-5	120.0	0.091	9.5	0.872	760	3024	83.1	21.1	25.2	0.4329	0.3986	0.2503	0.5186	-0.0016	PASS	80.0

	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 (>40)
Base Down	P-50355-6	120.0	0.094	9.9	0.874	747	3034	83.1	21.2	25.3	0.4317	0.3974	0.2501	0.5180	-0.0020	PASS	75.9
	P-50355-7	120.0	0.095	10.0	0.873	763	3039	83.1	21.2	25.2	0.4315	0.3975	0.2499	0.5180	-0.0019	PASS	76.3
	P-50355-8	120.0	0.091	9.5	0.872	736	3029	83.2	21.7	25.2	0.4322	0.3977	0.2503	0.5182	-0.0019	PASS	77.5
	P-50355-9	120.0	0.092	9.6	0.872	741	3022	83.5	22.4	25.2	0.4322	0.3970	0.2506	0.5178	-0.0022	PASS	77.3
	P-50355-10	120.0	0.091	9.5	0.871	734	3030	83.1	21.1	25.2	0.4326	0.3986	0.2501	0.5186	-0.0016	PASS	77.3
Grand AVG.		119.98	0.0919	9.63	0.873	749	3031	83	22	25.3	0.4321	0.3978	0.2502	0.5182	-0.0019		77.8
Compliance					Complies	TBD	Complies	Complies	Complies						Complies	Complies	Complies

LUMEN & COLOR MAINTENANCE

LIFE TESTING

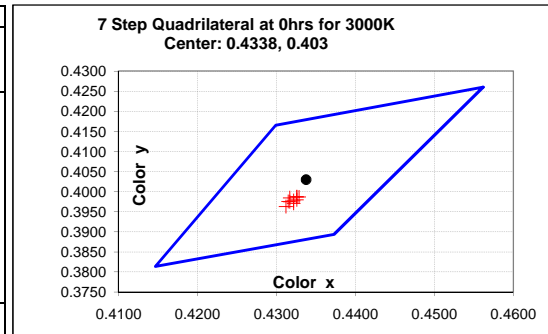
	Date:	N-N													N-N		
	Lp. #	1000 Hr. Lumens	1000 Hr. Lumen Maint.	1000 Hr. u' Color Maint.	1000 Hr. v' Color Maint.	3000 Hr. Lumens	3000 Hr. Lumen Maint.	3000 Hr. u' Color Maint.	3000 Hr. v' Color Maint.	6000 Hr. Lumens	6000 Hr. Lumen Maint.	6000 Hr. u' Color Maint.	6000 Hr. v' Color Maint.	N-N	N-N	Failure before 6000hours	Failure before Rated Life
Base Up	P-50355-1																
	P-50355-2																
	P-50355-3																
	P-50355-4																
	P-50355-5																
Base Down	P-50355-6																
	P-50355-7																
	P-50355-8																
	P-50355-9																
	P-50355-10																
Grand AVG.																	
Compliance		TBD	TBD	TBD		TBD	TBD	TBD		TBD	TBD	TBD		TBD			

Date:	
Lp. #	* Transient Protection PASS/FAIL
T-50355-1	
T-50355-2	
T-50355-3	
T-50355-4	
T-50355-5	
Compliance	TBD

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

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

Date:	
Lp. #	Rapid Cycles Endured
R-50355-1	
R-50355-2	
R-50355-3	
R-50355-4	
R-50355-5	
R-50355-6	
R-50355-7	
R-50355-8	
R-50355-9	
R-50355-10	
Compliance	TBD



Technician: Sun Zhengqi

Date: 2013-07-31

Reviewed by: Liao Bingjing

Date: 2013-08-12

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

No.61, Kaijiang Road(E) Sijing Songjiang Shanghai Tel: (86-21) 57613930 Fax: (86-21) 57619961

TEST REPORT

PO Number:LED0355

Model Number:LED10BR30D30K

Light Intensity & Color Distribution Tests

Electrical Characteristics:

LP#	Volt	Ampere	pf	Watts
D-50355-01	120.0	0.0911	0.873	9.5

Zonal Lumen Flux:

γ angle (°)	Φ zonal(lm)	Φ Cumulative(lm)	% Cumulative Lumen
0-5	6	5.7	0.8%
5-10	17	22.6	3.0%
10-15	28	50.1	6.6%
15-20	37	87.3	11.5%
20-25	45	132.6	17.5%
25-30	52	184.7	24.4%
30-35	57	241.5	31.9%
35-40	60	301.3	39.8%
40-45	61	361.9	47.8%
45-50	60	421.5	55.7%
50-55	57	478.5	63.2%
55-60	53	531.3	70.2%
60-65	47	578.7	76.5%
65-70	41	619.8	81.9%
70-75	34	654.3	86.5%
75-80	28	682.0	90.1%
80-85	21	703.4	93.0%
85-90	16	719.3	95.1%
90-95	11	730.6	96.6%
95-100	8	738.4	97.6%
100-105	5	743.7	98.3%
105-110	4	747.5	98.8%
110-115	3	750.3	99.2%
115-120	2	752.3	99.4%
120-125	1	753.8	99.6%
125-130	1	754.9	99.8%
130-135	1	755.6	99.9%
135-140	0	756.0	99.9%
140-145	0	756.3	100.0%
145-150	0	756.5	100.0%
150-155	0	756.6	100.0%
155-160	0	756.6	100.0%
160-165	0	756.6	100.0%
165-170	0	756.6	100.0%
170-175	0	756.6	100.0%
175-180	0	756.6	100.0%

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TEST REPORT

PO Number:LED0355

Model Number:LED10BR30D30K

Light Intensity & Color Distribution Tests

Light Intensity Distribution Data Table (Type C)

LP#:D-50355-01

γ 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	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239
5	238	238	238	239	239	239	239	239	239	239	239	239	239	239	239	239	239	238	238	238	238	237	237	237	237	237	237	237	237	237	237	237	237	237	237	238	238
10	234	235	235	236	236	236	236	237	237	237	237	237	237	236	236	236	236	235	235	234	234	234	233	233	233	232	232	232	232	233	233	233	233	234	234	234	
15	229	229	230	231	231	231	232	232	232	232	232	232	232	231	231	231	230	230	229	229	228	228	227	227	226	226	226	226	226	226	226	226	227	227	228	228	228
20	221	222	222	223	223	224	224	225	225	225	225	225	225	224	224	223	223	222	221	221	220	219	218	218	217	217	217	217	217	217	217	217	218	218	219	220	
25	211	212	213	214	214	215	215	216	216	216	216	216	216	215	214	214	213	212	211	210	209	208	208	207	207	206	206	206	207	207	208	208	209	210			
30	199	200	201	202	202	204	204	205	205	205	205	205	205	204	204	203	202	201	200	199	198	197	196	196	195	194	194	194	194	194	195	196	197	198			
35	185	187	187	189	189	190	190	192	191	192	192	192	192	191	191	190	189	188	187	186	185	184	183	182	181	181	180	180	180	180	180	182	182	184	184		
40	170	172	173	174	174	176	176	177	177	178	177	178	177	177	176	176	175	175	174	172	171	170	169	168	167	166	166	165	165	165	165	165	167	167	169	169	
45	154	156	156	158	158	160	160	161	161	162	162	162	162	161	161	159	159	158	156	155	154	154	152	152	150	150	149	149	149	150	149	151	151	153	153		
50	138	139	140	141	142	143	143	145	145	146	145	146	145	144	144	143	142	142	140	140	138	137	136	135	134	134	133	133	133	133	133	134	135	136	137		
55	121	122	123	124	125	126	126	128	128	129	128	129	128	128	127	127	126	126	125	123	123	121	121	119	119	118	118	117	117	116	117	117	118	118	119	120	
60	104	105	106	107	107	109	109	110	110	111	111	112	111	111	110	109	109	108	107	106	105	104	103	103	101	101	100	101	100	100	101	101	103	103			
65	87	88	89	90	91	92	92	93	93	94	94	95	94	94	93	92	92	92	90	90	88	88	87	87	85	85	85	85	84	85	84	85	85	86	87		
70	71	72	73	74	74	75	76	77	77	78	78	78	78	78	77	77	76	76	76	74	74	73	72	71	71	70	70	69	69	69	69	70	70	71	71		
75	57	58	58	59	59	60	60	61	61	62	62	63	62	62	62	62	61	61	61	60	59	58	58	57	57	56	56	55	55	55	55	55	55	56	56		
80	43	44	44	45	45	46	46	47	47	48	48	49	48	48	48	47	47	47	46	46	45	44	44	44	43	43	42	43	42	43	42	43	43	43	43		
85	32	33	33	34	34	35	35	36	35	36	36	37	36	36	36	35	36	36	35	35	34	34	33	33	32	32	32	32	31	32	31	32	32	32	32		
90	23	24	24	24	24	25	25	26	25	26	26	26	26	26	26	26	26	26	25	25	25	24	24	23	23	23	23	23	23	23	23	23	23	23	23		
95	16	16	16	17	17	17	17	18	18	18	18	18	18	19	18	18	18	18	18	18	17	17	17	17	16	16	16	16	16	16	16	16	16	16	16		
100	11	11	11	12	12	12	12	12	12	13	13	13	13	13	13	13	13	13	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11	11	11		
105	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8		
110	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	6	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
115	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
120	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		
125	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	
130	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	
135	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	
140	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	
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	
150	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	
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	
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	
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	
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	
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	
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	

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TEST REPORT
PO Number:LED0355
Model Number:LED10BR30D30K
Light Intensity & Color Distribution Tests

Weighted average u':

0.2509

Weighted average v':

0.5182

Rated Beam angle(°):

N/A

Actual Beam Angle Tested(°):

111.8
Spatial non-uniformity of chromaticity:
0.0007

(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	0.2508	0.5175	0.2508	0.5175	0	0.2508	0.5175	0.2508	0.5175
-1	0.2507	0.5175	0.2508	0.5175	1	0.2507	0.5175	0.2507	0.5175
-2	0.2508	0.5175	0.2508	0.5175	2	0.2507	0.5175	0.2507	0.5175
-3	0.2507	0.5175	0.2507	0.5175	3	0.2507	0.5175	0.2508	0.5175
-4	0.2508	0.5175	0.2507	0.5175	4	0.2508	0.5175	0.2508	0.5175
-5	0.2508	0.5175	0.2508	0.5175	5	0.2508	0.5175	0.2507	0.5175
-6	0.2508	0.5175	0.2508	0.5175	6	0.2508	0.5176	0.2508	0.5175
-7	0.2508	0.5176	0.2508	0.5175	7	0.2508	0.5176	0.2508	0.5175
-8	0.2508	0.5176	0.2508	0.5175	8	0.2508	0.5175	0.2508	0.5175
-9	0.2508	0.5176	0.2508	0.5176	9	0.2508	0.5176	0.2508	0.5175
-10	0.2508	0.5176	0.2508	0.5176	10	0.2508	0.5176	0.2508	0.5176
-11	0.2508	0.5176	0.2508	0.5175	11	0.2508	0.5176	0.2508	0.5176
-12	0.2508	0.5176	0.2508	0.5176	12	0.2508	0.5176	0.2508	0.5176
-13	0.2508	0.5176	0.2508	0.5176	13	0.2508	0.5176	0.2508	0.5176
-14	0.2508	0.5177	0.2508	0.5176	14	0.2508	0.5177	0.2508	0.5176
-15	0.2508	0.5177	0.2508	0.5177	15	0.2509	0.5177	0.2508	0.5177
-16	0.2508	0.5177	0.2508	0.5177	16	0.2509	0.5177	0.2508	0.5177
-17	0.2508	0.5177	0.2508	0.5177	17	0.2508	0.5178	0.2509	0.5177
-18	0.2508	0.5178	0.2508	0.5177	18	0.2509	0.5178	0.2509	0.5178
-19	0.2509	0.5178	0.2509	0.5178	19	0.2509	0.5178	0.2509	0.5178
-20	0.2509	0.5178	0.2509	0.5178	20	0.2509	0.5178	0.2509	0.5178
-21	0.2509	0.5178	0.2509	0.5178	21	0.2509	0.5179	0.2509	0.5178
-22	0.2509	0.5179	0.2509	0.5178	22	0.2509	0.5179	0.2509	0.5179
-23	0.2509	0.5179	0.2509	0.5179	23	0.2509	0.5179	0.2509	0.5179
-24	0.2509	0.5179	0.2509	0.5179	24	0.2509	0.5179	0.2509	0.5179
-25	0.2509	0.5180	0.2509	0.5179	25	0.2510	0.5180	0.2509	0.5179
-26	0.2509	0.5180	0.2509	0.5179	26	0.2509	0.5180	0.2510	0.5180
-27	0.2509	0.5180	0.2509	0.5180	27	0.2510	0.5180	0.2509	0.5180
-28	0.2509	0.5180	0.2509	0.5180	28	0.2510	0.5181	0.2510	0.5181
-29	0.2509	0.5181	0.2509	0.5180	29	0.2510	0.5181	0.2510	0.5181
-30	0.2509	0.5181	0.2509	0.5180	30	0.2510	0.5181	0.2510	0.5181
-31	0.2509	0.5181	0.2510	0.5181	31	0.2510	0.5181	0.2510	0.5181
-32	0.2510	0.5182	0.2509	0.5181	32	0.2510	0.5182	0.2510	0.5182
-33	0.2510	0.5182	0.2510	0.5181	33	0.2510	0.5182	0.2510	0.5182
-34	0.2510	0.5182	0.2509	0.5181	34	0.2511	0.5183	0.2510	0.5182
-35	0.2510	0.5182	0.2510	0.5182	35	0.2510	0.5183	0.2510	0.5183
-36	0.2510	0.5183	0.2509	0.5182	36	0.2510	0.5183	0.2510	0.5183
-37	0.2510	0.5183	0.2510	0.5182	37	0.2510	0.5183	0.2510	0.5183
-38	0.2510	0.5183	0.2510	0.5182	38	0.2510	0.5184	0.2510	0.5183
-39	0.2509	0.5183	0.2510	0.5183	39	0.2511	0.5184	0.2510	0.5184
-40	0.2510	0.5184	0.2509	0.5183	40	0.2511	0.5184	0.2510	0.5184
-41	0.2510	0.5184	0.2509	0.5183	41	0.2511	0.5184	0.2511	0.5184
-42	0.2509	0.5184	0.2509	0.5183	42	0.2510	0.5184	0.2510	0.5185
-43	0.2510	0.5184	0.2509	0.5183	43	0.2510	0.5185	0.2506	0.5183
-44	0.2509	0.5184	0.2509	0.5184	44	0.2510	0.5185	0.2506	0.5183
-45	0.2509	0.5184	0.2509	0.5184	45	0.2510	0.5185	0.2506	0.5183
-46	0.2509	0.5185	0.2509	0.5184	46	0.2510	0.5185	0.2506	0.5184
-47	0.2509	0.5185	0.2509	0.5184	47	0.2510	0.5185	0.2506	0.5184
-48	0.2509	0.5185	0.2509	0.5184	48	0.2510	0.5186	0.2506	0.5184
-49	0.2509	0.5185	0.2508	0.5184	49	0.2510	0.5185	0.2507	0.5184
-50	0.2509	0.5185	0.2508	0.5185	50	0.2510	0.5185	0.2507	0.5185
-51	0.2509	0.5185	0.2508	0.5185	51	0.2510	0.5186	0.2507	0.5185
-52	0.2508	0.5186	0.2508	0.5185	52	0.2509	0.5186	0.2507	0.5185
-53	0.2508	0.5185	0.2508	0.5185	53	0.2509	0.5186	0.2507	0.5185
-54	0.2508	0.5185	0.2507	0.5185	54	0.2509	0.5186	0.2507	0.5185
-55	0.2508	0.5185	0.2507	0.5184	55	0.2509	0.5186	0.2507	0.5186
-56	0.2507	0.5185	0.2507	0.5184	56	0.2508	0.5186	0.2506	0.5185
-57	0.2507	0.5185	0.2507	0.5185	57	0.2508	0.5186	0.2506	0.5186
-58	0.2507	0.5185	0.2506	0.5184	58	0.2508	0.5186	0.2506	0.5186
-59	0.2506	0.5185	0.2506	0.5185	59	0.2508	0.5186	0.2506	0.5186
-60	0.2505	0.5185	0.2506	0.5184	60	0.2507	0.5186	0.2506	0.5186

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TEST REPORT

PO Number:LED0355

Model Number:LED10BR30D30K

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:

