



Rotation Luminaire Goniophotometer (LSG-1700)

Brochure

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Leader in Lighting & Electrical Test Instruments

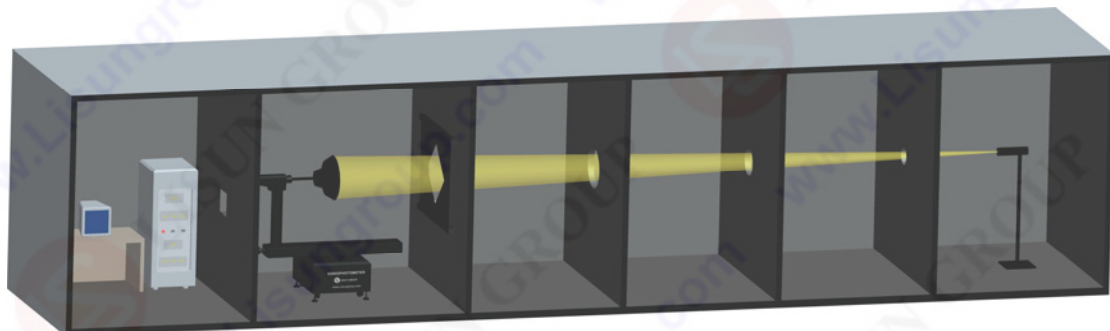
Rev. 4/13/2021

Rotation Luminaire Goniophotometer

1. System Configuration

The quotation includes all the following items:

- A. Goniophotometric System:**
 - Goniometric Rotating Console
 - Class 1 Photo Detector
 - Line Laser System for Calibrating
 - English Measuring Software
- B. SLS-200W AC Standard Light Source**
- C. LS2012 Digital Power Meter:** High Accuracy to measure AC and DC voltage, current, power and PF
- D. AC Power Source to give a stably AC Output for luminaries test**
- E. CASE-19IN 19inch Standard Instruments Cabinet**
- F. Three sets of multi-function luminaries clamps**
- G. Oversea Delivery Packing:** all of the instruments and accessories will be packed to meet long distance sea delivery



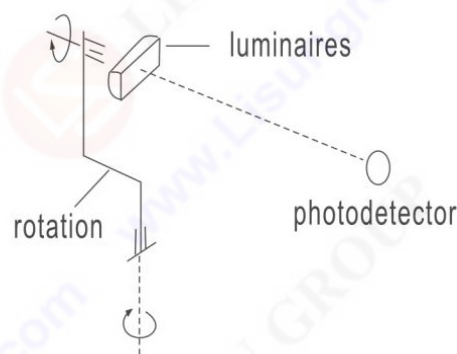
Full View for High Precision Rotation Luminaries Goniophotometer

2. Working Principle

LSG-1700 Goniophotometric System carries out measuring methods of fixed location and rotating luminaires. The measured luminaire is installed on the rotating supporter, the center of which is in line with the rotating supporter center with the help of Laser sight. The fixed photometry detector is testing the luminous intensity in various horizontal directions, while the light source rotating. The mechanical equipment allows turning the tested luminaires around a vertical axis and a horizontal axis. When tested luminaires turn around horizontal axis, the detector which is at the same level with rotating table will measure the intensity of each direction at this surface. When rotating with vertical axis, the detector will measure the intensity at the vertical surface. The vertical and horizontal axis can be rotated continuously at $-180^{\circ} \sim +180^{\circ}$. According to the measurement requirements, the system can be operated C- γ coordinates. When getting intensity distribution data, PC will calculate photometric parameters automatically.

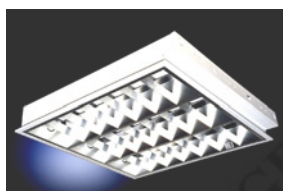
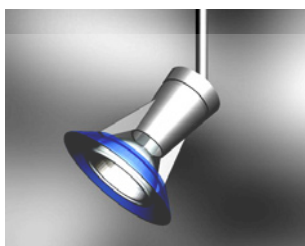
LSG-1700 Single pillar structure (C- γ coordinate and Conic coordinate)

The single column structure will be gotten when the assistant column is taken down from double columns structure. This type is applied to fixed tube lamp, spot lamp etc. The axis radiation of lamp and the horizontal of rotating supporter is coaxial.



System Functions

LSG-1700 Goniophotometer is for luminous intensity distribution measurements with facility for turning the light source. It is for industrial laboratory measurements the photometric data of luminaires. LSG-1700 is used to measure photometric parameters of luminaires for LED road lighting fixture, room lighting fixture and projecting lighting fixture, such as spatial intensity distribution curve, spatial iso-intensity curve, intensity distribution curve on each section (represent by right-angled coordinates or polar coordinates, luminance limitation curve, luminaire efficiency, glare grade, effective beam angle, upward luminous flux ratio, downward luminous flux ratio, total luminous flux, effective luminous flux, utilization factor and electric parameters voltage, current, wattage, power factor and etc. The measured data meets IES standard format and can be applied for lighting design by lighting design software. The measurement system fully satisfies the requirement of lighting design work.



3. Specifications

- Meets the requirements of CIE, IEC, IES LM-79 & GB standards
- Reaching many measurement C-Gamma
- The tested luminaries rotates around an angle of $(\gamma)\pm 180^\circ$ (or 0-360°) and the tested luminaries rotates around itself with an angle of $(C)\pm 180^\circ$ (or 0-360°)
- Luminosity Testing Range: Illuminance 0.001lx~10,000lx; Light Intensity 1.0cd ~ 10⁷cd(detector)
- The accuracy of angle: 0.2°
- Photometry Accuracy: CIE Class 1
- Testing Accuracy: 3%(Under Standard lamp); Stray Light: less than 0.2%
- English version software can run in Win7, Win8 or Win10

Max Size for the Testing Lamp (mm)	The max size for the Testing Lamp		Max Weight
	C-Gamma Test with one Pillar	B-Beta Test with Two Pillars	
LSG-1700	1600*550	N/A	40kg

4. Laboratory Requirements

- The Dimension of Dark Room for Goniometric Rotating Console and Photometric Light Patch: W3.5m*H2.5m*L8m (Other size please check with LISUN engineer)
- Operator Room for controlling cabinet, PC and printer Dimension: W3.0m*L3m
- The wall, ceiling and floor should be all coated with dull black paint or be covered by black cloth and black carpet.
- Air-conditioner should be set in the dark room to control the temperature around lamps to the standard value upon the CIE requirements

- LISUN engineer dept will submit the Lab Design support documents according to the customer's lab size after the formal purchase order was confirmed



5. Typical oversea market customers:

There are many world famous company and lab institute choose Lisun Goniophotometer, Please get the reference customers' information from Lisun Group Oversea Sales Dept.

6. Design Standard of Device

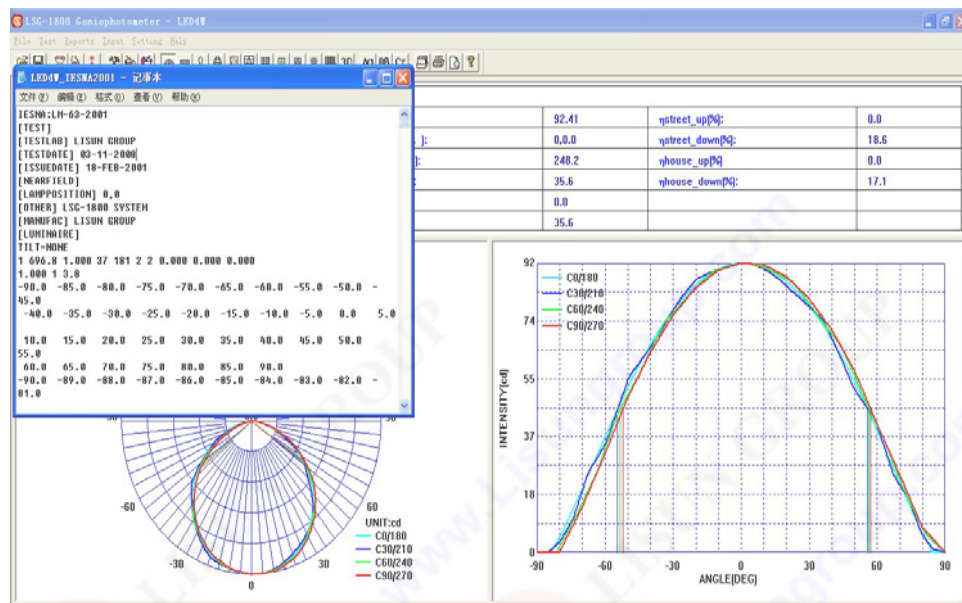
The construction, technical parameter, test & operate steps as well as data processing software of LSG-1700 goniophotometer meet the following requirements:

- 3.1 CIE Pub. NO.70, "The Measurement of Absolute Luminous Intensity Distributions"
- 3.2 CIE DIV. II-TC10, "Photometry of Luminaires"
- 3.3 IES LM-35-1989, "IES Approved Method for Photometric Testing of Floodlights"
- 3.4 IES LM-31, "IES Approved Method for Photometric Testing of Roadway Luminaires"
- 3.5 IES-LM-79, "Electrical and Photometric Measurements of Solid-State Lighting"
- 3.6 GB/T 9467-1988, "Luminosity Test of Indoor Luminaires"
- 3.7 GB/T 9468-1988, "Luminosity Test of Street Luminaires"
- 3.8 IES 61341 "Method of Measurement of Center Beam Intensity Angle of Lamp"
- 3.9 CIE Pub.NO.76, "Photometry-the CIE System of Physical Photometry"

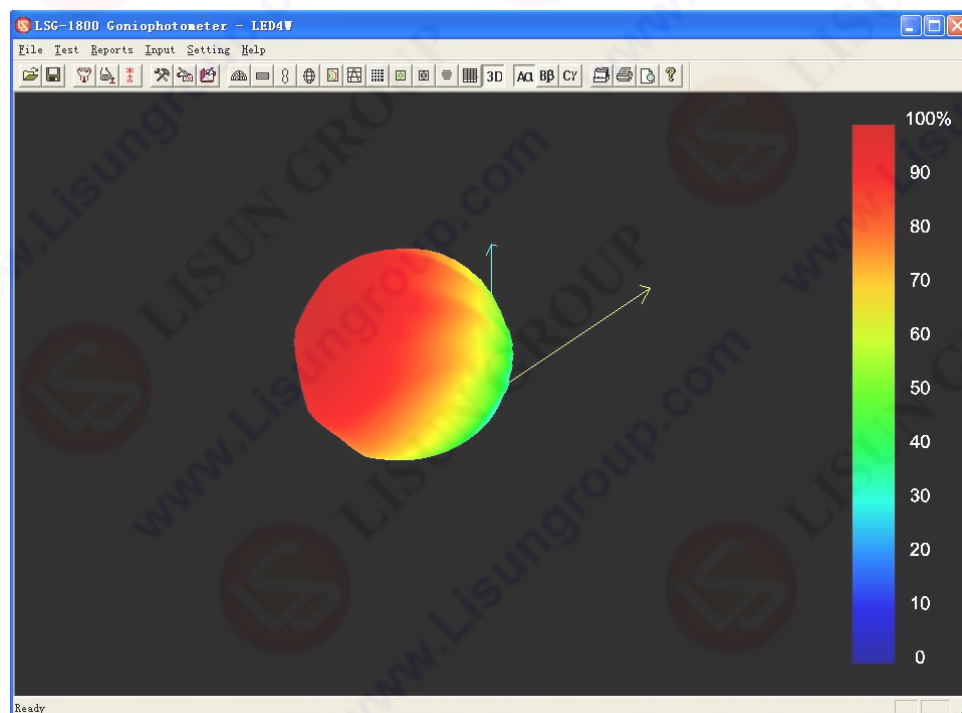
7. Application Software

All control of the LSG-1700 goniophotometer operations can be realized by the software, including gonophotometer movement, data acquisition and processing, real-time display on screen, report print and etc, thus enabling the measurement easy and secure. It can export IES/LDT files for the luminaire design software such as DiaLux

Export the IES standard format document



3D Graph Distribution



The Next Page is the Test Report by the software

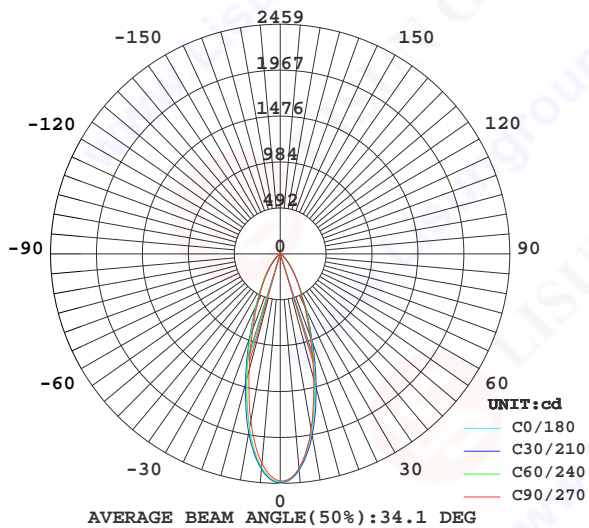
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number: RP2007012212

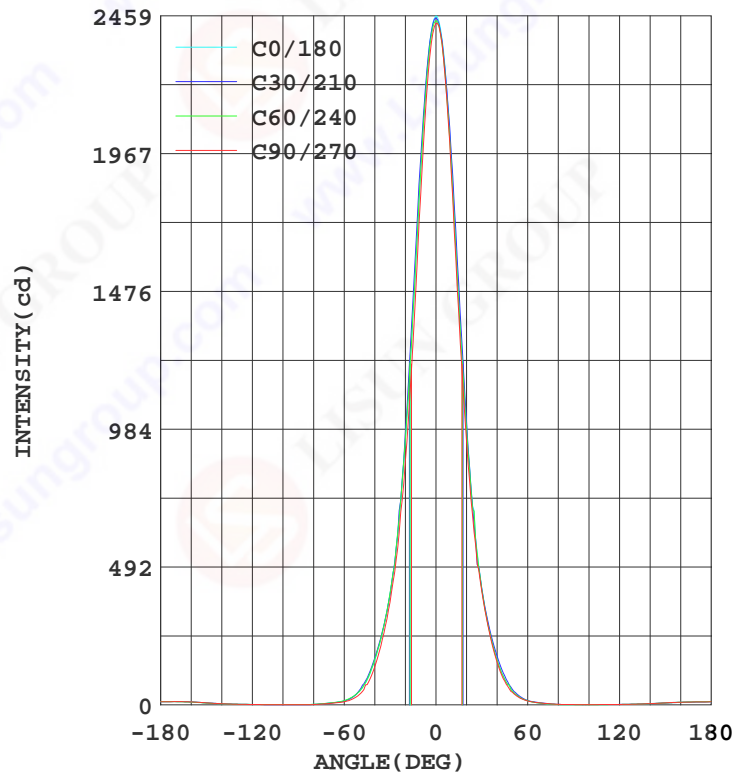
MANUFACTURER: GE Lighting	Address:#9 GARZA LANE DEL RIO, TX 78840 US	
NAME: LED Lamp	TYPE:	WEIGHT:1kg
SPECIFICATION:	DIMENSION:	SERIAL No.:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	LED22W	I _{max} (cd)	2459	S/MH(C0/180)	0.54
NOMINAL POWER(W)	490	EFFICIENCY(%)	100.0	S/MH(C90/270)	0.52
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1106.3	η UP(C0-180)	
NOMINAL FLUX(lm)	1106.4	EFFICIENCY(lm/W)	DIRECT	η DN(C0-180)	
LAMPS QUANTITY	1	η up(%)	1.8	η UP(C180-360)	
TEST VOLTAGE(V)	220.2	η down(%)	98.2	η DN(C180-360)	

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



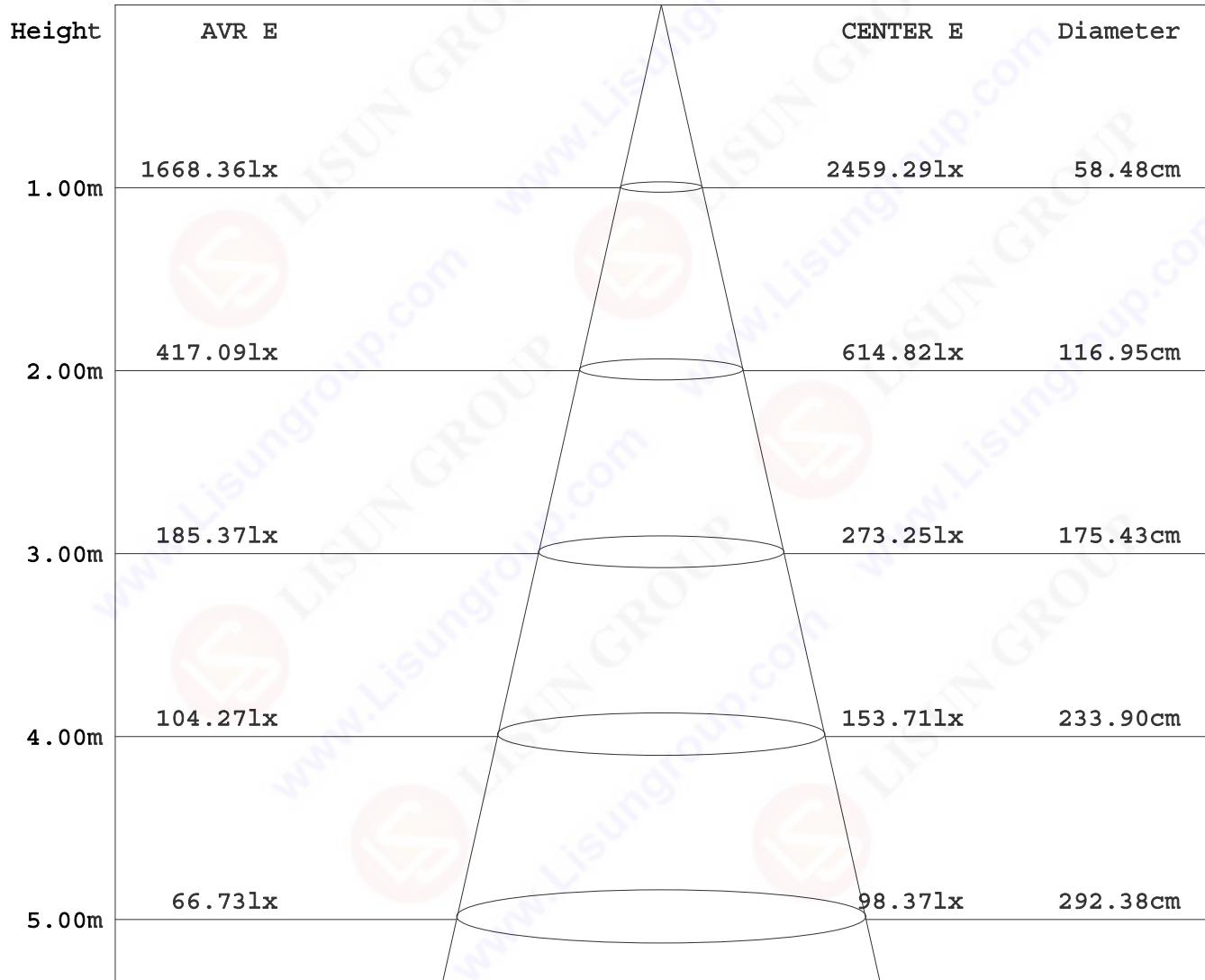
Test System:LSG-1700
 Temperature:25.3DEG
 Operators:Guillermo
 Test Date:01-22-2007

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.050 m
 Remarks:

AVERAGE AND CENTER E Figure

Report number: RP2007012212

MANUFACTURER: GE Lighting	Address:#9 GARZA LANE DEL RIO, TX 78840 US	
NAME: LED Lamp	TYPE:	WEIGHT:1kg
SPECIFICATION:	DIMENSION:	SERIAL No.:



Angle:32.6deg

Test System:LSG-1700
 Temperature:25.3DEG
 Operators:Guillermo
 Test Date:01-22-2007

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.050 m
 Remarks:

ZONAL FLUX DIAGRAM

Report number: RP2007012212

MANUFACTURER: GE Lighting	Address:#9 GARZA LANE DEL RIO, TX 78840 US	
NAME: LED Lamp	TYPE:	WEIGHT:1kg
SPECIFICATION:	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total
5.0	2310	2309	2257	2207	2334	2317	2308	2330	0- 5	56.03	56.03
10.0	1893	1935	1815	1741	1956	1954	1905	1947	5- 10	146.2	202.2
15.0	1387	1432	1286	1208	1446	1466	1392	1414	10- 15	185.7	388.0
20.0	939.5	959.9	865.0	790.1	996.6	1001	940.3	936.7	15- 20	179.5	567.5
25.0	615.7	611.0	560.0	507.3	693.7	666.1	616.5	606.6	20- 25	150.8	718.4
30.0	399.0	395.9	367.2	345.2	417.0	412.6	406.1	404.1	25- 30	117.4	835.8
35.0	257.1	262.7	234.5	218.8	267.0	268.8	257.6	262.6	30- 35	89.45	925.3
40.0	158.8	167.2	135.5	126.5	162.5	168.9	151.9	156.1	35- 40	63.20	988.5
45.0	89.01	95.07	72.47	63.76	91.17	97.98	84.03	83.49	40- 45	40.39	1029
50.0	48.02	51.75	37.15	31.89	49.04	50.38	45.46	41.37	45- 50	23.70	1053
55.0	26.28	26.53	19.58	16.89	25.98	28.22	24.34	21.08	50- 55	13.39	1066
60.0	14.89	14.69	11.23	10.54	14.38	15.51	14.27	12.22	55- 60	7.794	1074
65.0	9.553	9.498	7.540	7.412	8.638	9.351	9.114	8.546	60- 65	5.011	1079
70.0	6.478	6.442	4.977	4.849	5.453	6.112	6.076	5.819	65- 70	3.478	1082
75.0	3.916	3.751	2.854	2.800	3.038	3.495	3.733	3.513	70- 75	2.240	1085
80.0	2.049	1.775	1.317	1.409	1.354	1.665	2.013	1.866	75- 80	1.229	1086
85.0	1.281	1.043	0.769	1.024	0.769	1.006	1.207	0.970	80- 85	0.628	1086
90.0	1.207	1.024	0.805	1.006	0.769	0.970	1.171	0.933	85- 90	0.543	1087
95.0	1.207	1.024	0.842	1.006	0.805	0.970	1.134	0.952	90- 95	0.539	1087
100.0	1.207	1.061	0.878	1.061	0.842	1.006	1.134	0.952	95-100	0.544	1088
105.0	1.244	1.116	0.952	1.079	0.915	1.079	1.134	1.006	100-105	0.555	1089
110.0	1.281	1.207	1.024	1.152	1.061	1.171	1.207	1.098	105-110	0.579	1089
115.0	1.427	1.335	1.171	1.281	1.244	1.372	1.354	1.226	110-115	0.624	1090
120.0	1.647	1.573	1.427	1.500	1.573	1.647	1.610	1.464	115-120	0.701	1090
125.0	2.013	1.921	1.830	1.848	2.013	2.068	2.013	1.830	120-125	0.816	1091
130.0	2.525	2.379	2.379	2.305	2.671	2.617	2.562	2.305	125-130	0.971	1092
135.0	3.294	3.019	3.111	2.928	3.587	3.294	3.404	2.891	130-135	1.162	1093
140.0	4.355	3.879	4.172	3.806	4.721	4.007	4.538	3.605	135-140	1.387	1095
145.0	5.746	5.179	5.600	5.124	6.112	5.197	5.893	4.813	140-145	1.644	1096
150.0	7.503	6.771	7.320	6.753	7.540	6.515	7.357	6.149	145-150	1.874	1098
155.0	9.260	8.583	9.150	8.619	8.747	7.851	8.601	7.558	150-155	2.001	1100
160.0	10.68	10.21	10.61	10.26	9.626	9.077	9.516	8.876	155-160	1.954	1102
165.0	11.52	11.40	11.38	11.43	10.13	10.02	10.10	9.955	160-165	1.706	1104
170.0	11.71	11.98	11.52	11.91	10.35	10.72	10.39	10.68	165-170	1.297	1105
175.0	11.31	12.06	11.16	11.84	10.61	11.23	10.61	11.14	170-175	0.797	1106
180.0	10.98	11.74	10.94	11.52	11.01	11.73	10.90	11.52	175-180	0.267	1106
DBG	LUMINOUS INTENSITY:cd									UNIT:lm	

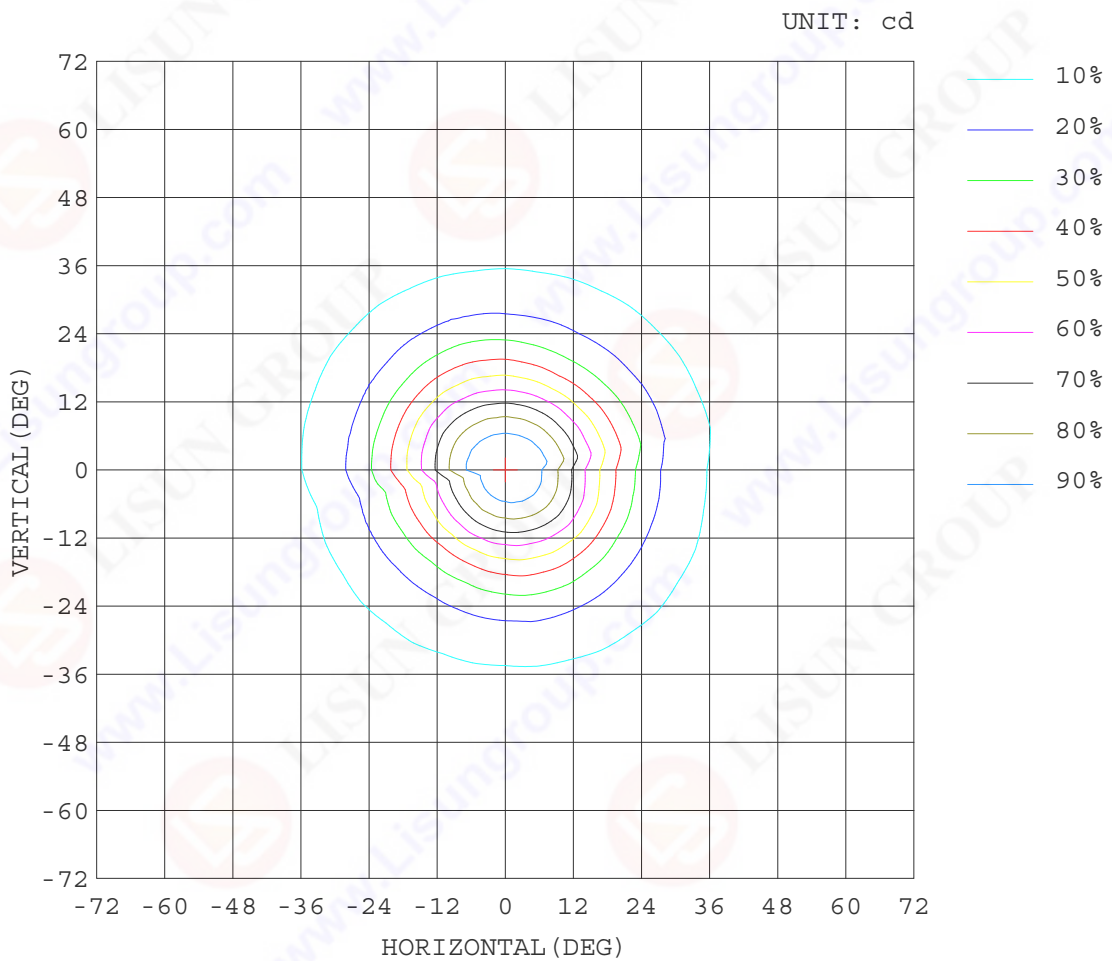
Test System:LSG-1700
 Temperature:25.3DEG
 Operators:Guillermo
 Test Date:01-22-2007

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.050 m
 Remarks:

ISOCANDELA DIAGRAM

Report number: RP2007012212

MANUFACTURER: GE Lighting	Address:#9 GARZA LANE DEL RIO, TX 78840 US	
NAME: LED Lamp	TYPE:	WEIGHT:1kg
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:LSG-1700
 Temperature:25.3DEG
 Operators:Guillermo
 Test Date:01-22-2007

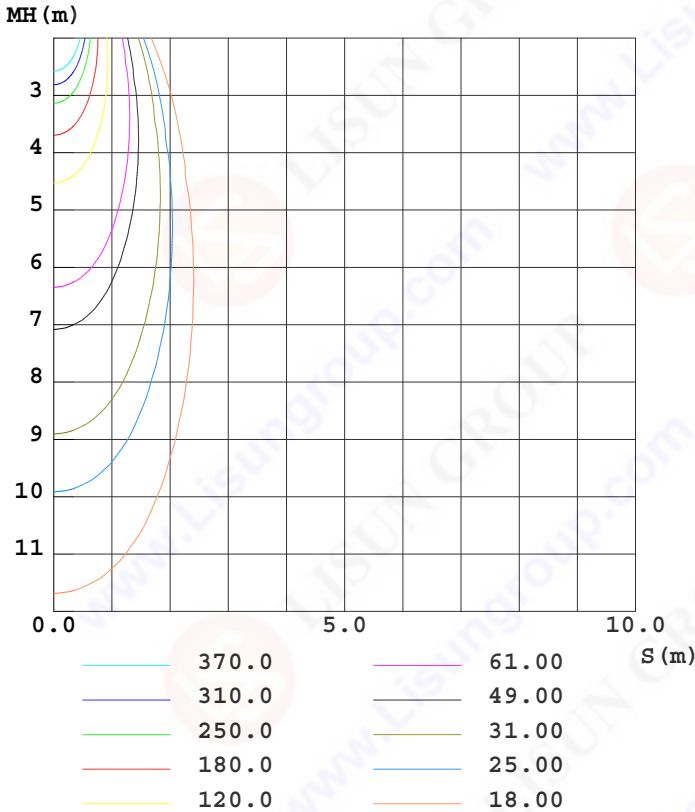
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.050 m
 Remarks:

ISOLUX DIAGRAM

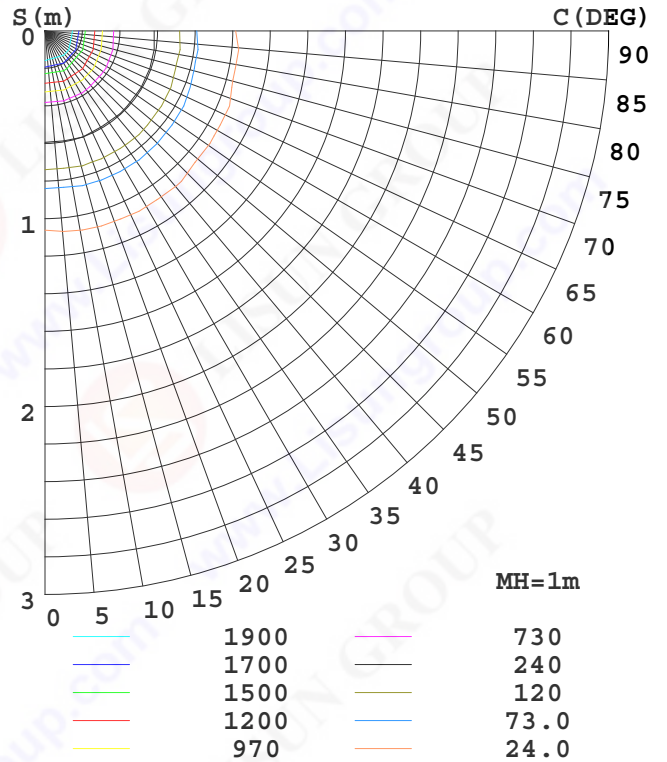
Report number: RP2007012212

MANUFACTURER: GE Lighting	Address:#9 GARZA LANE DEL RIO, TX 78840 US	
NAME: LED Lamp	TYPE:	WEIGHT:1kg
SPECIFICATION:	DIMENSION:	SERIAL No.:

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



PLANAR ISOLUX DIAGRAM(UNIT:lx)



Test System:LSG-1700
 Temperature:25.3DEG
 Operators:Guillermo
 Test Date:01-22-2007

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.050 m
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number: RP2007012212

MANUFACTURER: GE Lighting	Address: #9 GARZA LANE DEL RIO, TX 78840 US	
NAME: LED Lamp	TYPE:	WEIGHT: 1kg
SPECIFICATION:	DIMENSION:	SERIAL No.:

UNIT: cd

C (DEG) \ γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
0.0	2459	2456	2453	2451	2450	2446	2442	2438	2436	2432	2432	2426	2424	2420	2418
5.0	2310	2314	2320	2318	2314	2305	2294	2283	2270	2257	2246	2234	2223	2211	2203
10.0	1893	1913	1938	1946	1946	1923	1898	1867	1842	1815	1798	1777	1765	1746	1736
15.0	1387	1397	1443	1442	1454	1410	1396	1346	1335	1286	1274	1233	1228	1200	1217
20.0	940	954	967	965	965	955	942	921	899	865	835	805	791	784	797
25.0	616	609	619	606	618	605	613	594	591	560	550	523	503	511	504
30.0	399	394	401	393	400	392	398	387	385	367	365	350	351	341	349
35.0	257	259	267	263	266	259	258	249	246	235	232	225	226	218	220
40.0	159	161	171	167	172	162	162	149	147	136	138	129	133	125	129
45.0	89.0	90.4	98.8	95.7	99.0	91.1	90.9	81.1	79.8	72.4	71.7	71.7	67.2	62.1	65.4
50.0	48.0	48.1	47.7	52.0	54.0	49.4	48.2	43.7	43.4	37.1	36.4	31.8	32.5	30.0	33.7
55.0	26.2	24.7	27.5	25.2	27.8	25.2	27.3	23.3	23.7	19.5	19.6	15.8	16.8	15.3	18.4
60.0	14.8	13.9	15.2	13.7	15.3	14.0	15.2	13.1	13.3	11.2	11.7	10.1	11.0	9.88	11.2
65.0	9.55	8.74	9.95	9.00	10.1	8.89	9.66	8.23	8.85	7.54	8.30	7.24	8.08	6.99	7.83
70.0	6.47	5.78	6.95	6.07	6.99	5.89	6.58	5.41	6.07	4.97	5.67	4.68	5.38	4.46	5.23
75.0	3.91	3.33	4.13	3.44	4.17	3.33	3.95	3.11	3.69	2.85	3.40	2.67	3.22	2.48	3.11
80.0	2.04	1.50	2.08	1.50	2.08	1.46	2.01	1.42	1.93	1.31	1.83	1.20	1.72	1.17	1.64
85.0	1.28	0.81	1.28	0.81	1.28	0.81	1.28	0.81	1.24	0.77	1.24	0.77	1.24	0.81	1.24
90.0	1.20	0.81	1.24	0.81	1.24	0.81	1.20	0.81	1.20	0.81	1.20	0.81	1.20	0.81	1.20
95.0	1.20	0.84	1.20	0.84	1.20	0.84	1.20	0.84	1.17	0.84	1.17	0.84	1.17	0.84	1.17
100.0	1.20	0.92	1.20	0.92	1.20	0.92	1.20	0.88	1.17	0.88	1.17	0.88	1.17	0.92	1.20
105.0	1.24	0.99	1.24	0.99	1.24	0.99	1.24	0.95	1.20	0.95	1.20	0.95	1.20	0.95	1.20
110.0	1.28	1.09	1.28	1.09	1.31	1.09	1.28	1.06	1.24	1.02	1.24	1.02	1.24	1.02	1.28
115.0	1.42	1.24	1.42	1.28	1.42	1.24	1.42	1.20	1.39	1.17	1.35	1.17	1.35	1.20	1.35
120.0	1.64	1.50	1.64	1.50	1.64	1.50	1.61	1.46	1.57	1.42	1.57	1.42	1.53	1.42	1.57
125.0	2.01	1.90	2.01	1.86	1.97	1.86	1.93	1.83	1.93	1.83	1.90	1.79	1.86	1.79	1.90
130.0	2.52	2.48	2.48	2.37	2.41	2.34	2.37	2.37	2.41	2.37	2.41	2.30	2.34	2.26	2.34
135.0	3.29	3.25	3.22	3.07	3.03	3.00	3.03	3.03	3.14	3.11	3.14	3.03	2.96	2.89	2.96
140.0	4.35	4.35	4.28	4.09	3.91	3.84	3.87	4.02	4.17	4.17	4.13	4.06	3.91	3.80	3.80
145.0	5.74	5.81	5.63	5.49	5.19	5.16	5.12	5.38	5.49	5.60	5.49	5.45	5.23	5.16	5.08
150.0	7.50	7.54	7.32	7.13	6.80	6.73	6.69	6.99	7.21	7.32	7.24	7.17	6.91	6.80	6.69
155.0	9.26	9.29	9.11	8.93	8.60	8.56	8.49	8.71	8.89	9.15	9.07	9.04	8.78	8.71	8.52
160.0	10.6	10.7	10.5	10.5	10.2	10.2	9.99	10.1	10.3	10.6	10.5	10.6	10.4	10.3	10.1
165.0	11.5	11.5	11.4	11.5	11.4	11.3	10.9	10.9	11.0	11.3	11.4	11.5	11.5	11.5	11.3
170.0	11.7	11.7	11.7	11.9	12.0	11.9	11.4	11.2	11.2	11.5	11.5	11.7	11.8	12.0	11.7
175.0	11.3	11.5	11.6	11.8	12.0	12.0	11.6	11.3	11.1	11.1	11.3	11.4	11.6	11.8	11.7
180.0	10.9	11.0	11.1	11.3	11.6	11.8	11.5	11.0	10.8	10.9	10.9	10.9	11.1	11.4	11.5

Test System:LSG-1700
 Temperature:25.3DEG
 Operators:Guillermo
 Test Date:01-22-2007

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.050 m
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number: RP2007012212

MANUFACTURER: GE Lighting	Address: #9 GARZA LANE DEL RIO, TX 78840 US	
NAME: LED Lamp	TYPE:	WEIGHT: 1kg
SPECIFICATION:	DIMENSION:	SERIAL No.:

UNIT: cd

C (DEG) \ γ (DEG)	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290
0.0	2413	2412	2405	2459	2456	2453	2451	2450	2446	2442	2438	2436	2432	2432	2426
5.0	2191	2187	2178	2334	2331	2325	2322	2319	2315	2310	2310	2307	2308	2309	2312
10.0	1722	1728	1723	1956	1963	1968	1970	1962	1946	1930	1921	1905	1905	1903	1909
15.0	1206	1231	1226	1446	1474	1473	1494	1467	1464	1426	1422	1387	1392	1369	1383
20.0	809	827	834	997	1007	1007	1009	1003	999	985	975	954	940	920	908
25.0	525	502	540	694	649	692	642	690	643	691	641	626	617	596	591
30.0	343	352	349	417	421	410	416	409	417	411	415	403	406	393	396
35.0	214	220	218	267	273	270	273	268	270	263	263	256	258	252	257
40.0	121	128	126	163	171	169	174	169	169	160	160	151	152	147	153
45.0	71.5	69.8	70.3	91.1	99.4	97.1	103	96.6	99.3	90.4	91.2	82.7	84.0	77.9	81.8
50.0	33.0	37.5	36.8	49.0	47.9	52.5	55.7	52.5	48.2	49.2	48.4	45.3	45.4	39.6	40.4
55.0	17.6	20.6	19.6	25.9	28.5	27.1	29.7	27.3	29.0	26.6	27.5	24.1	24.3	20.7	20.9
60.0	10.3	12.2	11.4	14.3	16.3	14.5	15.8	14.5	16.5	14.6	15.8	13.5	14.2	11.8	12.7
65.0	6.84	7.86	7.02	8.63	9.88	8.82	9.95	8.82	9.88	8.63	9.55	8.23	9.11	7.94	8.93
70.0	4.39	5.23	4.46	5.45	6.44	5.67	6.58	5.70	6.51	5.52	6.25	5.30	6.07	5.19	6.03
75.0	2.41	3.07	2.41	3.03	3.87	3.11	3.91	3.11	3.87	3.07	3.80	3.00	3.73	3.00	3.69
80.0	1.06	1.57	1.02	1.35	1.93	1.35	1.93	1.35	1.97	1.39	1.97	1.42	2.01	1.46	2.04
85.0	0.81	1.24	0.77	0.77	1.20	0.73	1.20	0.77	1.24	0.73	1.20	0.73	1.20	0.73	1.20
90.0	0.81	1.20	0.81	0.77	1.17	0.77	1.17	0.77	1.17	0.77	1.17	0.77	1.17	0.73	1.13
95.0	0.84	1.17	0.84	0.81	1.13	0.81	1.17	0.81	1.13	0.77	1.13	0.77	1.13	0.77	1.13
100.0	0.88	1.17	0.88	0.84	1.13	0.84	1.17	0.84	1.17	0.84	1.13	0.84	1.13	0.81	1.09
105.0	0.95	1.20	0.95	0.92	1.20	0.95	1.20	0.95	1.20	0.92	1.17	0.88	1.13	0.88	1.13
110.0	1.06	1.28	1.06	1.06	1.28	1.06	1.28	1.06	1.28	1.06	1.24	1.02	1.20	0.99	1.20
115.0	1.20	1.39	1.24	1.24	1.42	1.28	1.46	1.28	1.46	1.24	1.39	1.20	1.35	1.17	1.35
120.0	1.46	1.61	1.53	1.57	1.72	1.57	1.72	1.57	1.72	1.53	1.64	1.50	1.61	1.46	1.57
125.0	1.83	1.97	1.93	2.01	2.12	2.01	2.12	2.01	2.12	1.97	2.04	1.93	2.01	1.86	1.93
130.0	2.34	2.48	2.52	2.67	2.74	2.67	2.70	2.59	2.63	2.59	2.63	2.56	2.56	2.45	2.45
135.0	3.00	3.18	3.33	3.58	3.62	3.58	3.47	3.29	3.29	3.33	3.44	3.44	3.40	3.33	3.22
140.0	3.87	4.17	4.46	4.72	4.75	4.68	4.39	4.02	3.98	4.35	4.57	4.61	4.53	4.46	4.28
145.0	5.19	5.49	5.92	6.11	6.03	6.00	5.60	5.23	5.16	5.60	5.85	6.00	5.89	5.81	5.56
150.0	6.80	7.10	7.61	7.54	7.43	7.32	6.84	6.55	6.47	6.91	7.21	7.43	7.35	7.24	6.91
155.0	8.56	8.74	9.15	8.74	8.67	8.49	8.08	7.86	7.83	8.19	8.45	8.67	8.60	8.49	8.16
160.0	10.0	10.1	10.5	9.62	9.55	9.40	9.11	9.07	9.07	9.40	9.44	9.62	9.51	9.51	9.18
165.0	10.9	10.9	11.0	10.1	9.99	9.99	9.84	9.99	10.0	10.2	10.1	10.1	10.1	10.0	9.91
170.0	11.4	11.1	11.1	10.3	10.3	10.2	10.2	10.6	10.8	10.8	10.5	10.5	10.3	10.4	10.3
175.0	11.4	11.0	10.9	10.6	10.6	10.6	10.7	11.1	11.3	11.2	10.8	10.7	10.6	10.6	10.6
180.0	11.2	10.7	10.7	11.0	11.0	11.1	11.3	11.7	11.7	11.5	11.0	10.8	10.9	10.9	10.9

Test System:LSG-1700
 Temperature:25.3DEG
 Operators:Guillermo
 Test Date:01-22-2007

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.050 m
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number: RP2007012212

MANUFACTURER: GE Lighting	Address: #9 GARZA LANE DEL RIO, TX 78840 US	
NAME: LED Lamp	TYPE:	WEIGHT: 1kg
SPECIFICATION:	DIMENSION:	SERIAL No.:

UNIT: cd

C (DEG) \ γ (DEG)	300	310	320	330	340	350
0.0	2424	2420	2418	2413	2412	2405
5.0	2318	2326	2333	2339	2346	2354
10.0	1922	1940	1953	1971	1991	2018
15.0	1376	1411	1417	1462	1474	1520
20.0	904	923	951	986	1017	1047
25.0	584	599	614	643	688	690
30.0	390	402	406	426	432	451
35.0	255	262	264	275	278	291
40.0	151	157	155	163	165	178
45.0	77.7	84.6	82.3	90.4	89.6	101
50.0	37.9	41.8	40.9	47.7	48.2	54.3
55.0	18.5	21.0	21.0	24.9	25.4	29.6
60.0	11.0	12.6	11.8	14.2	13.9	16.7
65.0	7.94	9.00	8.08	9.37	8.78	10.3
70.0	5.27	6.18	5.45	6.47	5.81	6.99
75.0	3.00	3.84	3.18	4.09	3.47	4.42
80.0	1.50	2.12	1.61	2.23	1.72	2.41
85.0	0.73	1.20	0.73	1.20	0.73	1.24
90.0	0.77	1.13	0.73	1.17	0.73	1.17
95.0	0.77	1.13	0.77	1.13	0.77	1.13
100.0	0.81	1.09	0.81	1.13	0.81	1.13
105.0	0.88	1.13	0.88	1.13	0.88	1.13
110.0	0.99	1.20	0.99	1.20	0.99	1.20
115.0	1.13	1.31	1.13	1.31	1.13	1.35
120.0	1.42	1.53	1.39	1.53	1.42	1.57
125.0	1.79	1.86	1.79	1.90	1.79	1.93
130.0	2.34	2.34	2.26	2.37	2.34	2.45
135.0	3.03	2.92	2.85	3.00	3.11	3.22
140.0	3.91	3.62	3.58	3.87	4.17	4.28
145.0	5.19	4.79	4.83	5.08	5.45	5.56
150.0	6.55	6.11	6.18	6.40	6.80	6.95
155.0	7.83	7.50	7.61	7.75	8.08	8.23
160.0	9.00	8.78	8.96	9.04	9.29	9.26
165.0	9.88	9.80	10.1	10.0	10.1	9.95
170.0	10.3	10.5	10.8	10.7	10.5	10.3
175.0	10.6	10.9	11.3	11.0	10.6	10.5
180.0	11.1	11.4	11.6	11.2	10.8	10.6

Test System:LSG-1700
 Temperature:25.3DEG
 Operators:Guillermo
 Test Date:01-22-2007

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.050 m
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