



Cat# 71557
50 Watts
1/2" Knuckle Mount



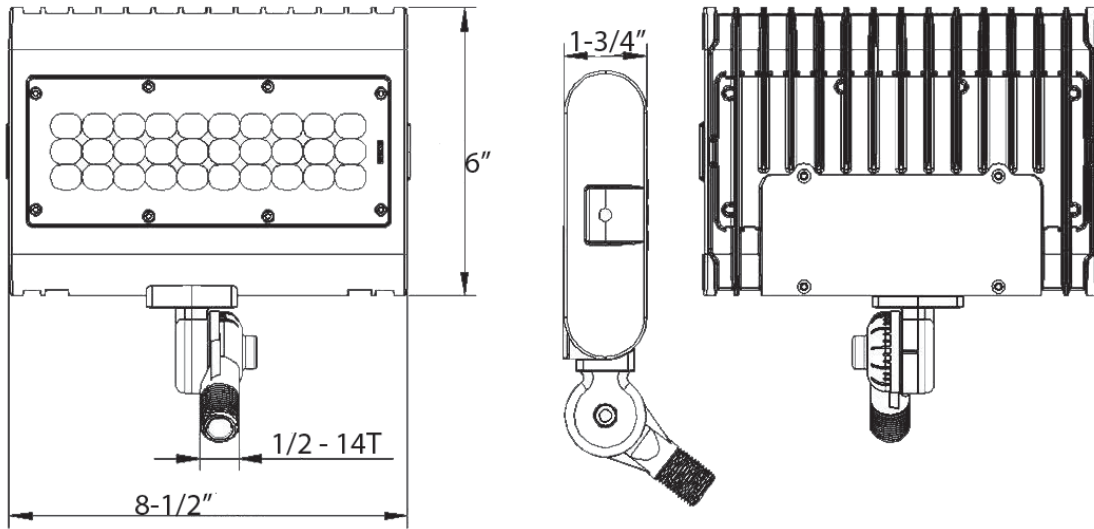
RoHS



Model : 71557		
OVERALL LAMP PARAMETERS	Input Voltage	100-277VAC 50/60HZ
	Input Current	0.38A Max
	Input Power	50 W
	Power Factor	PF ≥0.98
	Luminance	4755 LM
	Luminous Efficiency	102.6 LM/W
	CRI	>85
	Beam Angle	90° X 120°
LED DRIVER	Main Structure	Aluminium + Tempered Glass
	Output Voltage	24-45VDC
	Output Current	0.7A
LED	Driver Efficiency	89%
	LED Manufacturer	Phillips LUMILED
	LED Type	LUXEON 3030
	LED Quantity	2PCS
	LED Efficacy	110 LM/W
Color Temperature	WW/NW/CW (5000K)	
Photocell	-	Not Included
LIFESPAN & ENVIRONMENT	Lifespan	50,000 Hrs.
	Warranty	5 Years
	IP Rating	IP65, Wet Locations
	Operating Temperature	-40F to 131F
Storage Temperature.Humidity	-40°C—+80°C , 10—90% RH	
SAFETY&EMC	Safety Norms	UL1598,UL8750, EN60598, EN61347-2-13, EN62031, EN62471
	Withstand Voltage	I/P-FG: 2121VDC
	Grounding Resistance	≤0.5Ω,OK
	Electromagnetic Compatibility	EN55015, EN61000-2-3, EN61000-3-3, EN61547
OTHERS	Dimension	Pls refer to attached dimensional drawing
	Net Weight	2.3KG
	Gross Weight	2.5KG
	Packing Size	inner box: L238*W212*H145 master carton: 490*440*300
	Q'ty / Carton	6 PCS
	Volume	2.28Cbm/carton

The above info is for reference only.

Dimension :





LM-79-08 Test Report

For

Morris Products Inc.

53 Carey Rd
Queensbury, NY 12804

LED FLOOD LIGHT

Model: 71557

Laboratory: Leading Testing Laboratories

NVLAP CODE: 200960-0
Tel: +86-571-5668.0806
www.ledtestlab.com

Report No.: HZ15110041c

The laboratory that conducted the testing detailed in this report has been accredited for SSL by NVLAP.

Test specifications:

Date of Receipt	: Nov. 27, 2015
Date of Test	: Dec. 02, 2015
Test item	: Total Luminous Flux, Luminous Distribution Intensity, Luminous Efficacy, Correlated Color Temperature, Color Rendering Index, Chromaticity Coordinate, Electrical parameters
Reference Standard	: IESNA LM-79-2008 Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products

Reviewed by:

Engineer: April Zou
Dec. 04, 2015

Approved by



Manager: Jim Zhang
Dec. 04, 2015

Note: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Test Summary

Sample Tested: 71557

Luminous Efficacy (Lumens /Watt)	Total Luminous Flux (Lumens)	Power (Watts)	Power Factor
102.6	4754.9	46.36	0.9748
CCT (K)	CRI	Stabilization Time (Light & Power)	
5144	85.3	60	
IES Classification	Longitudinal Classification	NEMA Type for Flood Fixture	
Type II	Very Short	7 H x 7 V	

Table 1: Executive Data Summary

Sample Photo

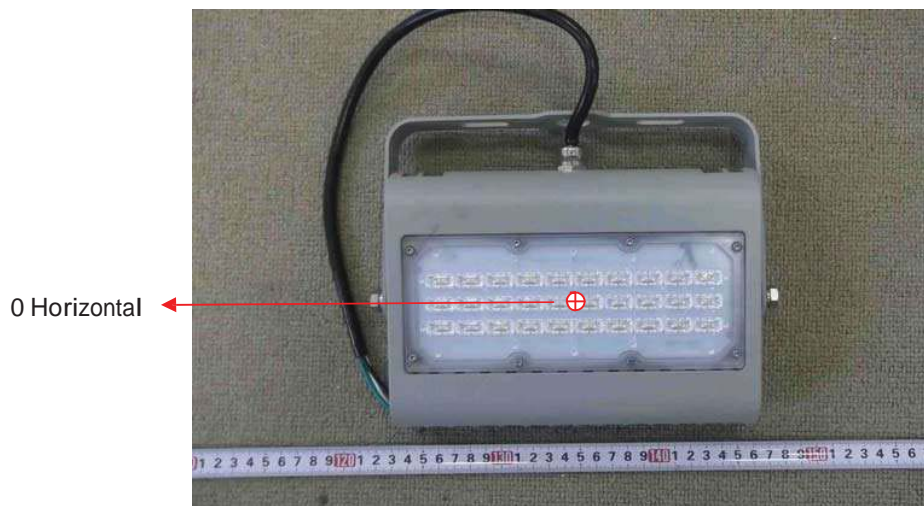


Figure 1- Overview of the sample

Equipment Under Test (EUT)

Name : LED FLOOD LIGHT
 Model : 71557
 Electrical Ratings : 120~277Vac, 50/60Hz, 50W
 Product Description : 5000K, 1 LED bar, Architectural Flood and Spot Luminaires
 Manufacturer : Morris Products Inc.
 Address :53 Carey Rd Queensbury, NY 12804

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TEST RESULTS

Test ambient temperature was 24.4°C.

Sample orientation was light down. Test was conducted without a dimmer in the circuit.

The stabilization time of the sample was 60 minutes, and the total operating time including stabilization was 85 minutes.

Goniophotometer Method

The photometric distance is 30m.

Luminous data was taken at 0.5°vertical intervals and 5°horizontal intervals.

Parameter	Result	
Test Voltage (V)	120.0	277.0
Voltage frequency (Hz)	60	60
Test Current (A)	0.396	0.190
Power Factor	0.9748	0.8958
Test Power (W)	46.36	47.22
THD A%	19.72	18.51
Luminous Efficacy (lm/W)	102.6	
Total Luminous Flux (lm)	4754.9	
Color Rendering Index (CRI)	85.3	
R9	17	
Correlated Color Temperature (CCT) (K)	5144	
Chromaticity (Chroma x, Chroma y)	(0.3414, 0.3515)	
Chromaticity (Chroma u, Chroma v)	(0.2089, 0.3227)	
Chromaticity (Chroma u , Chroma v)	(0.2089, 0.4841)	
Duv	0.0015	
Average Beam Angle (°)	106.7	
Center Beam Candle Power (cd)	1817	
Spacing Criteria	1.02(0°-180°)/ 1.33 (90°-270°)	
Zonal Lumens in the 0°-60°Zone	81.41%	
Zonal Lumens in the 60°-90°Zone	18.45%	
Zonal Lumens in the 90°-120°Zone	0.05%	
Zonal Lumens in the 120°-180°Zone	0.09%	

Special Color Rendering Indices	
R1	84
R2	93
R3	95
R4	83
R5	84
R6	89
R7	86
R8	68
R9	17
R10	82
R11	82
R12	65
R13	87
R14	98

Table 2: Test data per Goniophotometer Method

Note: According to CIE 1976 (u , v) diagram, $u = 4x/(-2x+12y+3)$, $v = 3v/2 = 9y/(-2x+12y+3)$.

Spectral Power Distribution

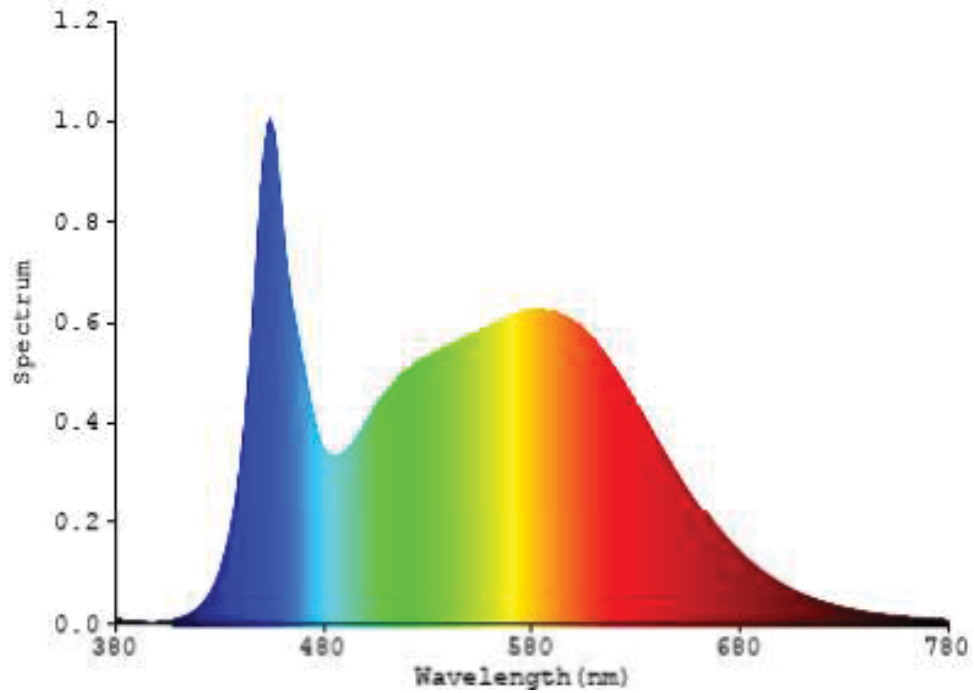


Chart 1: Spectral Power Distribution

IESNA Luminaire Flux Distribution Table

Zone	Lumens	Luminaire %
FL - Front-Low (0-30)	644.8	13.6
FM - Front-Medium (30-60)	1304.6	27.4
FH - Front-High (60-80)	406.5	8.5
FVH - Front-Very High (80-90)	40.6	0.9
Total Forward Light	2396.5	50.4

BL - Back-Low (0-30)	635.9	13.4
BM - Back-Medium (30-60)	1285.7	27.0
BH - Back-High (60-80)	394.1	8.3
BVH - Back-Very High (80-90)	36.2	0.8
Total Back Light	2351.9	49.5

UL - Uplight-Low (90-100)	0.4	0.0
UH - Uplight-High (100-180)	6.1	0.1
Total Up Light	6.5	0.1

BUG (Back, Up, Glare) Rating	B2-U1-G1
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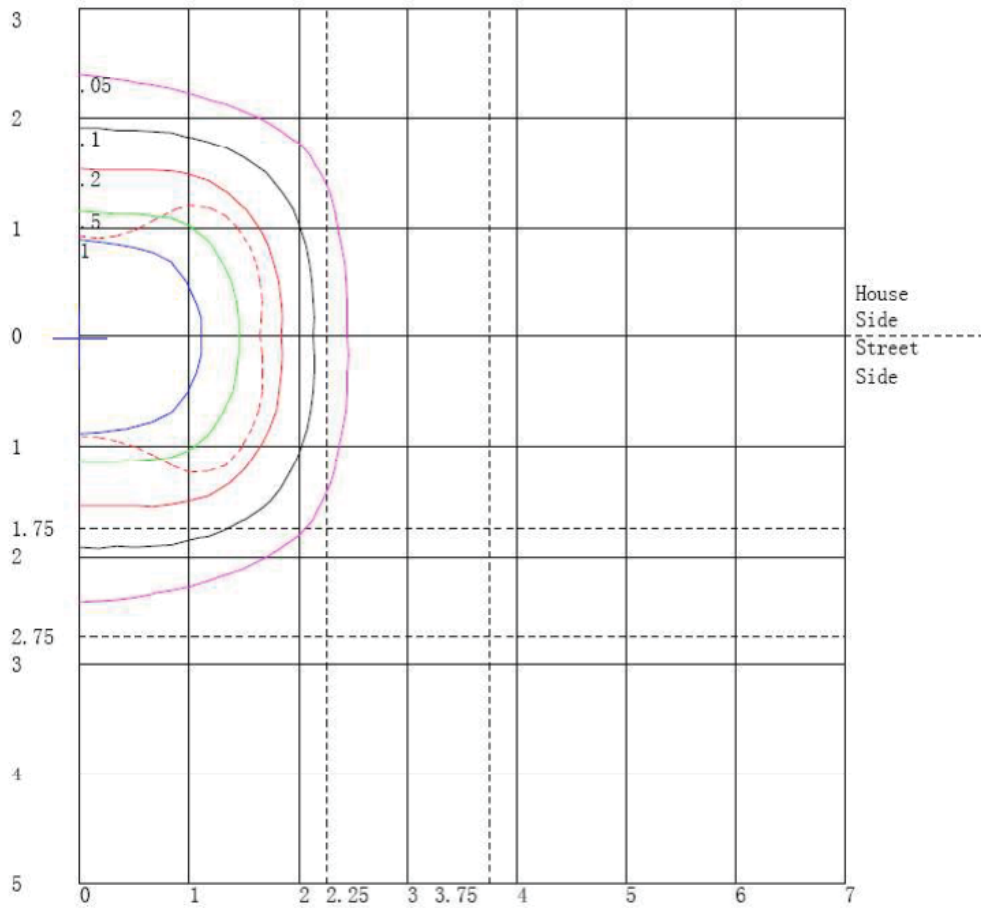
Table 3: Flux Distribution Data

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2351.9	0	2351.9
Street Side	2396.5	0	2396.5

Table 4: Flux Distribution Table

Note: The Flux in this table might be a little different from the total flux in Table 2 due to rounding.

Isoillumiance Plots of Horizontal Illuminance



Distance In Units Of Mounting Height
 Values Based On 20 Foot Mounting Height
 1/2 Maximum Candela Trace Shown As Dashed Curve
 (+) = Maximum Candela Point

Chart 2: Illuminance Plot (Footcandles)

Luminous Intensity Distribution Plots

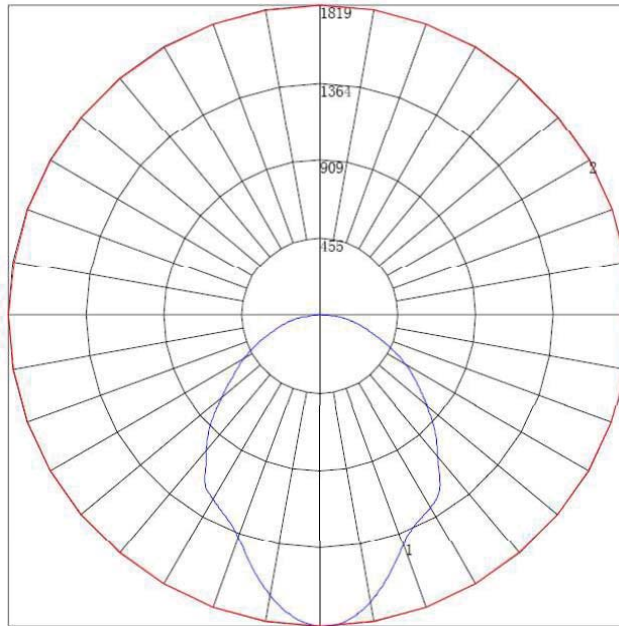


Chart 3: Maximum Plane and Cone Plots of Candela

Maximum Candela = 1818.72 Located At Horizontal Angle = 340, Vertical Angle = 1

1 - Vertical Plane Through Horizontal Angles (340 - 160) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)

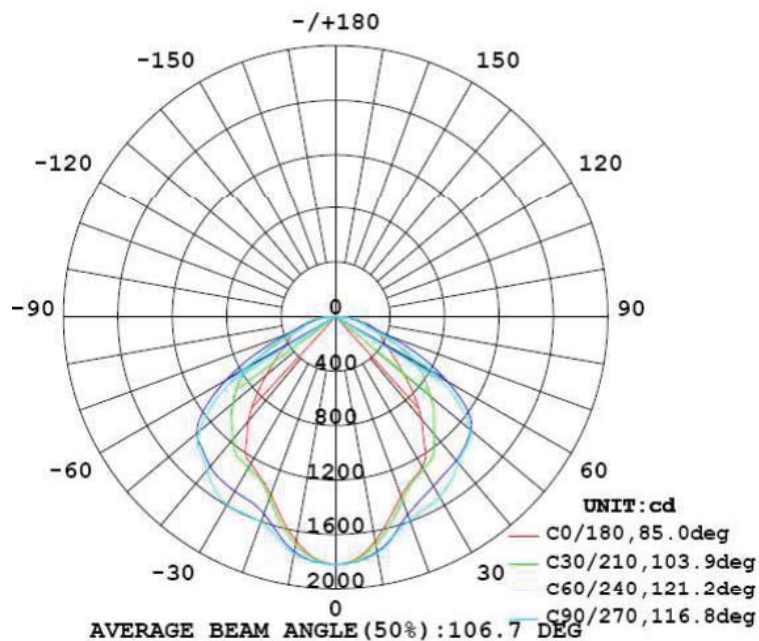


Chart 4: Polar Candela Distribution

Luminous Intensity Data

Table--1

UNIT: cd

C (DEG) y (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817
5	1783	1783	1787	1791	1795	1800	1803	1805	1805	1807	1806	1804	1798	1791	1784	1777	1772	1769	1781
10	1675	1678	1688	1701	1717	1736	1751	1760	1762	1765	1765	1758	1742	1722	1701	1683	1667	1656	1675
15	1533	1537	1551	1570	1596	1628	1659	1673	1668	1668	1669	1658	1635	1605	1576	1551	1529	1515	1534
20	1405	1407	1417	1434	1464	1503	1548	1581	1591	1593	1587	1563	1523	1477	1435	1405	1388	1378	1392
25	1328	1328	1331	1341	1366	1415	1481	1533	1550	1553	1548	1518	1457	1384	1332	1307	1299	1297	1307
30	1273	1276	1283	1293	1316	1362	1437	1503	1524	1526	1525	1493	1413	1329	1281	1256	1243	1238	1247
35	1138	1156	1197	1247	1293	1345	1402	1461	1477	1475	1479	1453	1380	1321	1258	1213	1168	1127	1148
40	982	997	1044	1125	1245	1336	1378	1414	1415	1404	1410	1387	1347	1324	1225	1099	1029	986	1000
45	813	836	912	1023	1164	1298	1344	1363	1370	1358	1361	1331	1303	1292	1147	1005	897	822	831
50	654	677	766	914	1095	1253	1297	1327	1318	1292	1314	1307	1269	1237	1077	897	749	662	666
55	526	548	637	801	1015	1147	1176	1175	1137	1099	1132	1156	1152	1128	992	784	618	532	531
60	435	451	529	673	846	948	946	934	880	834	875	915	930	912	813	654	513	438	436
65	377	383	425	509	624	710	691	636	556	510	552	612	672	676	591	483	406	369	372
70	329	325	325	349	411	473	416	337	304	287	300	333	408	454	390	326	303	307	322
75	270	261	238	225	246	270	239	220	221	220	219	217	239	268	236	212	221	235	254
80	187	184	163	137	135	149	150	175	192	180	189	172	150	148	131	131	150	152	168
85	22.1	28.7	43.6	53.1	53.7	65.0	88.1	103	90.2	75.9	87.4	97.7	86.6	61.1	34.4	19.3	2.74	2.70	25.8
90	0.13	0.13	0.14	0.14	0.15	0.15	0.28	5.18	4.19	1.40	2.25	0.67	0.15	0.17	0.15	0.14	0.14	0.13	0.35
95	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.19	0.24	0.23	0.21	0.18	0.19	0.19	0.18	0.17	0.16	0.16	0.35
100	0.19	0.20	0.24	0.26	0.28	0.29	0.31	0.34	0.33	0.32	0.32	0.31	0.28	0.25	0.24	0.22	0.20	0.19	0.41
105	4.74	1.98	0.76	0.52	0.41	0.39	0.41	0.41	0.40	0.39	0.40	0.39	0.36	0.33	0.31	0.29	0.26	0.26	0.48
110	8.71	3.27	1.18	0.73	0.52	0.48	0.48	0.49	0.48	0.47	0.46	0.46	0.42	0.40	0.38	0.39	0.37	0.43	1.48
115	9.13	3.52	1.40	0.87	0.61	0.56	0.55	0.57	0.56	0.57	0.57	0.57	0.52	0.50	0.50	0.50	0.47	0.57	1.60
120	5.08	0.93	1.40	0.99	0.72	0.66	0.66	0.64	0.67	0.67	0.67	0.66	0.63	0.59	0.59	0.61	0.57	0.60	1.55
125	6.54	4.93	1.25	1.12	0.83	0.77	0.75	0.73	0.76	0.77	0.76	0.75	0.73	0.71	0.70	0.70	0.76	1.15	1.60
130	6.05	5.75	1.38	1.13	0.95	0.86	0.86	0.85	0.84	0.86	0.85	0.83	0.82	0.81	0.80	0.79	0.81	1.05	1.51
135	0.76	0.76	0.85	1.20	1.02	0.96	0.94	0.95	0.93	0.97	0.94	0.92	0.89	0.89	0.86	0.87	0.87	1.17	1.56
140	5.12	4.64	1.63	1.34	1.10	1.03	1.03	1.01	1.00	1.02	0.99	0.97	0.96	0.92	0.94	0.95	1.01	1.25	1.52
145	4.57	4.14	2.33	1.41	1.24	1.12	1.06	1.06	1.10	1.10	1.06	1.02	1.01	1.02	1.01	1.02	1.08	1.38	1.56
150	3.90	3.68	2.81	1.55	1.28	1.09	1.12	1.13	1.09	1.09	1.07	1.08	1.07	1.07	1.09	1.07	1.17	1.36	1.54
155	3.32	3.20	1.52	1.19	1.07	1.22	1.16	1.14	1.12	1.09	1.10	1.11	1.11	1.14	1.12	1.12	1.26	1.40	1.56
160	1.10	1.14	1.59	2.00	1.66	1.36	1.22	1.18	1.15	1.08	1.15	1.18	1.20	1.21	1.25	1.27	1.30	1.33	1.56
165	2.09	2.18	2.04	1.94	1.81	1.62	1.41	1.32	1.28	1.24	1.30	1.32	1.32	1.32	1.35	1.39	1.47	1.52	1.69
170	1.84	1.86	1.84	1.80	1.72	1.49	1.41	1.39	1.43	1.38	1.39	1.40	1.38	1.37	1.34	1.29	1.25	1.22	1.43
175	1.67	1.70	1.71	1.72	1.69	1.59	1.52	1.49	1.47	1.41	1.43	1.44	1.42	1.41	1.40	1.38	1.34	1.34	1.38
180	1.29	1.32	1.32	1.32	1.30	1.28	1.24	1.21	1.19	1.23	1.14	1.17	1.24	1.23	1.26	1.25	1.25	1.26	1.30

Table 5: Luminous Intensity Data

Table--2 UNIT: cd

C (DEG) y (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817	1817		
5	1781	1785	1788	1793	1797	1805	1808	1809	1809	1809	1809	1808	1804	1801	1796	1794	1793		
10	1677	1686	1700	1716	1732	1751	1765	1769	1769	1770	1771	1764	1752	1734	1718	1706	1698		
15	1537	1549	1564	1586	1614	1647	1671	1678	1676	1677	1679	1665	1640	1613	1588	1572	1559		
20	1393	1400	1418	1451	1495	1543	1584	1604	1606	1608	1598	1565	1519	1479	1451	1433	1425		
25	1305	1307	1321	1354	1413	1494	1560	1592	1593	1593	1575	1525	1452	1393	1363	1344	1339		
30	1247	1256	1280	1320	1387	1481	1561	1592	1594	1598	1585	1525	1441	1369	1325	1300	1288		
35	1164	1204	1258	1330	1404	1465	1530	1556	1550	1566	1568	1515	1455	1379	1293	1229	1189		
40	1018	1071	1174	1326	1418	1435	1461	1476	1472	1491	1507	1489	1452	1348	1191	1078	1024		
45	866	951	1083	1260	1390	1383	1392	1413	1407	1426	1435	1429	1402	1259	1088	958	873		
50	705	812	983	1192	1334	1331	1330	1329	1308	1338	1367	1357	1334	1180	985	820	716		
55	570	686	882	1078	1180	1176	1145	1117	1084	1123	1181	1196	1181	1075	879	694	584		
60	471	574	720	858	934	931	885	830	790	843	914	942	947	875	728	582	483		
65	392	442	521	617	689	651	566	499	462	506	584	669	705	638	541	459	406		
70	321	322	350	408	454	389	318	290	279	293	321	397	471	423	366	342	339		
75	251	233	227	249	271	241	224	232	235	236	226	241	278	256	237	250	273		
80	172	163	143	142	154	165	197	215	201	219	196	160	158	144	147	176	199		
85	30.5	38.5	44.1	54.1	69.9	96.4	109	98.5	83.3	102	112	96.3	73.7	66.7	63.4	73.2	69.3		
90	0.34	0.33	0.34	0.36	0.37	0.37	0.36	0.34	0.34	0.34	0.36	0.37	0.36	0.35	0.34	0.34	0.34		
95	0.36	0.38	0.42	0.45	0.48	0.48	0.47	0.46	0.45	0.46	0.47	0.48	0.47	0.45	0.41	0.37	0.35		
100	0.41	0.46	0.51	0.56	0.60	0.63	0.63	0.61	0.60	0.61	0.63	0.63	0.62	0.59	0.54	0.47	0.41		
105	0.50	0.54	0.60	0.66	0.71	0.74	0.74	0.74	0.73	0.74	0.75	0.75	0.73	0.72	0.80	0.85	2.13		
110	1.09	0.62	0.63	0.67	0.73	0.76	0.79	0.78	0.78	0.78	0.79	0.77	0.75	0.76	0.92	1.13	4.56		
115	1.12	0.65	0.63	0.65	0.69	0.73	0.76	0.76	0.77	0.76	0.76	0.74	0.72	0.75	0.97	1.26	5.01		
120	1.17	0.66	0.64	0.63	0.65	0.69	0.70	0.71	0.73	0.72	0.71	0.69	0.68	0.74	1.02	1.28	5.59		
125	0.80	0.71	0.66	0.65	0.67	0.68	0.70	0.71	0.73	0.71	0.71	0.68	0.69	0.76	1.07	1.27	6.12		
130	0.83	0.78	0.76	0.72	0.72	0.75	0.75	0.78	0.80	0.78	0.78	0.76	0.76	0.86	1.07	1.30	5.98		
135	1.32	0.88	0.87	0.86	0.84	0.84	0.86	0.89	0.92	0.89	0.87	0.85	0.89	0.99	1.18	0.72	0.80		
140	1.30	0.99	0.97	0.96	0.97	0.98	0.98	0.99	1.00	0.99	0.97	0.99	1.01	1.12	1.32	1.79	5.02		
145	1.37	1.12	1.09	1.05	1.07	1.09	1.10	1.12	1.15	1.12	1.12	1.12	1.17	1.28	1.43	2.52	4.50		
150	1.46	1.27	1.15	1.17	1.16	1.17	1.20	1.20	1.21	1.18	1.23	1.24	1.24	1.41	1.65	2.98	4.17		
155	1.53	1.42	1.28	1.27	1.27	1.26	1.25	1.25	1.27	1.28	1.31	1.35	1.37	1.24	1.40	3.02	3.47		
160	1.53	1.47	1.43	1.40	1.40	1.37	1.37	1.35	1.31	1.35	1.36	1.44	1.54	1.74	2.10	1.30	1.29		
165	1.69	1.65	1.58	1.53	1.50	1.50	1.50	1.47	1.45	1.44	1.46	1.56	1.71	1.90	2.10	2.28	2.33		
170	1.43	1.44	1.47	1.53	1.59	1.63	1.62	1.60	1.63	1.63	1.62	1.64	1.64	1.84	1.99	2.05	2.05		
175	1.38	1.46	1.50	1.56	1.54	1.56	1.50	1.56	1.60	1.59	1.62	1.59	1.65	1.72	1.75	1.72	1.73		
180	1.29	1.32	1.33	1.34	1.33	1.30	1.26	1.23	1.21	1.24	1.22	1.24	1.28	1.33	1.33	1.31	1.31		

Table 6: Luminous Intensity Data

EQUIPMENT LIST

Test Equipment	Model	Equipment No.	Calibration Date	Calibration Due date
Goniophotometer system	GO-R5000	HZTE011-01	Jul. 17, 2015	Jul. 16, 2016
Digital Power Meter	PF2010A	HZTE028-01	Jul. 17, 2015	Jul. 16, 2016
AC Power Supply	PCR 500L	HZTE001-08	Jul. 17, 2015	Jul. 16, 2016
DC Power Supply	WY12010	HZTE004-03	Jul. 17, 2015	Jul. 16, 2016
Temperature Meter	TES1310	HZTE017-01	Jul. 17, 2015	Jul. 16, 2016
Standard Source	D908	HZTE012-01	Jul. 23, 2015	Jul. 22, 2016
Standard source	SCL-1400	HZTE012-02	Oct. 21, 2015	Oct. 20, 2016

Table 7: Test Equipment List

TEST METHODS

Seasoning of SSL Product

For the purpose of rating new SSL products, SSL products shall be tested with no seasoning. Therefore, no seasoning was performed.

Goniophotometer Method

Photometric and Electrical Measurements

An EVERFINE Type C Model GO-R5000 Goniophotometer was used to measure the intensity at each angle of distribution for each sample. The photometric distance is 2.475m for near-field measurement or 30m for far-field measurement. Bandwidth of spectroradiometer is 380nm-780nm.

Ambient temperature was measured at the same height of the sample mounted on the Goniophotometer equipment. Each SSL unit was operated on the client provided driver at the rated input voltage in its designated orientation.

The stabilization time typically ranges from 30 min (small integrated LED lamps) to 2 or more hours for large SSL luminaires). It can be judged that stability is reached when the variation (maximum - minimum) of at least 3 readings of the light output and electrical power over a period of 30 min, taken 15 minutes apart, is less than 0.5 %.

Electrical measurements including voltage, current, and power were measured using the Everfine Digital Power Meter.

Some graphics were created with Photometric Plus software.

The standard reference of the Goniophotometer system is halogen incandescent lamp, the intensity distribution type is omni-directional, and is traceable to the National Institute of Metrology P.R. China.

The uncertainty of goniophotometer system reported in this document is expanded uncertainty is 1.8% with a coverage factor k=2.

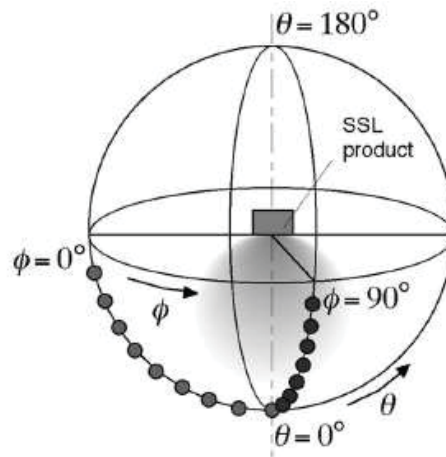
Color Characteristics Measurements

The color characteristics of SSL products include chromaticity coordinates, correlated color temperature, and color rendering index. These characteristics of SSL products may be spatially non-uniform, and thus, in order that they can be specified accurately, the color quantities shall be measured as values that are spatially average, weighted to intensity, over the angular range where light is intentionally emitted from the SSL product. The color characteristics measurements are using gonio-spectroradiometer.

Color Spatial Uniformity

The characteristics of SSL products may be spatially non-uniform, the chromaticity coordinate shall be measured at two vertical planes ($C=0^\circ/180^\circ$ and $C=90^\circ/270^\circ$) and at 10° or less intervals for vertical angle until the light output dropped to below 10% of the peak intensity. The averaged weighted chromaticity coordinate was calculated from these points. The data was then analyzed to check for delta color differences of the u' , v' chromaticity coordinates. The spatial non-uniformity of chromaticity, $\Delta u'v'$, is determined as the maximum deviation (distance on the CIE (u' , v') diagram) among all measured points from the spatially averaged chromaticity coordinate.

The geometry for the chromaticity measurement using gonio-spectroradiometer is shown as following.



*** End of Report ***

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