



LED
Wall-PACK/FloodLight

DataSheet
Cat# 71393



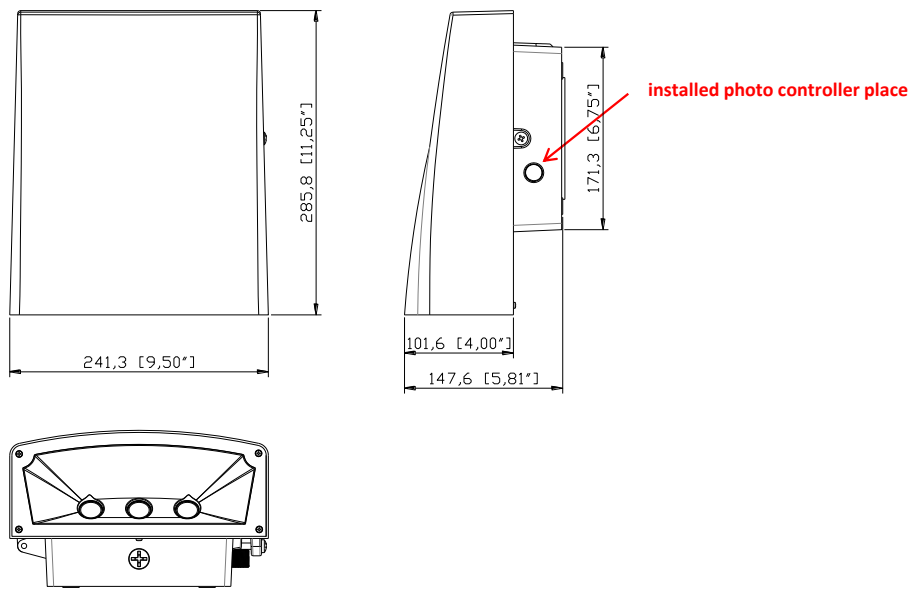
Wet Locations Use



Model :		71393
OVERALL LAMP PARAMETERS	Input Voltage	100-277VAC
	Input Current	0.69A @120V / 0.31A @277V
	Input Power	79 W
	Power Factor	PF≥0.95
	Luminance	7371 LM
	Luminous Efficiency	92 LM/W
	CRI	82
	Beam Angle	140°
	Main Structure	Alluminium + Tempered Glass
LED DRIVER	Output Voltage	25-42VDC
	Output Current	1.95A
	Driver Efficiency	88%
LED	LED Brand	CXA2520
	LED Quantity	3 PCS
	LED Manufacturer	Cree
	LED Efficacy	120LM/W
	Color Temperature	WW/NW/PW/CW (5098K)
LIFESPAN & ENVIRONMENT	Lifespan	50000 Hrs.
	Warranty	5 Years
	IP Rating	IP54 Wet Locations
	Operating Temperature	-40F - +104F
	Storage Temperature.Humidity	-40F - +176F , 10—90% RH
SAFETY&EMC	Safety Norms	UL1598,UL8750, EN60598, EN61347-2-13, EN62031, EN62471
	Withstand Voltage	I/P-FG: 2121VDC
	Grounding Resistance	25A 100mΩ
	Electromagnetic Compatibility	EN55015, EN61000-2-3, EN61000-3-3, EN61547

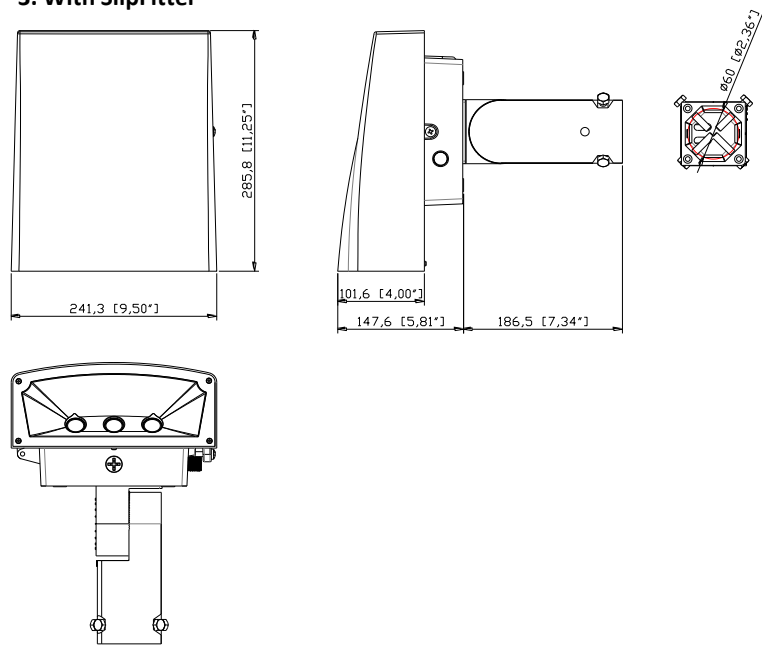
Dimension :

1. Direct to wall

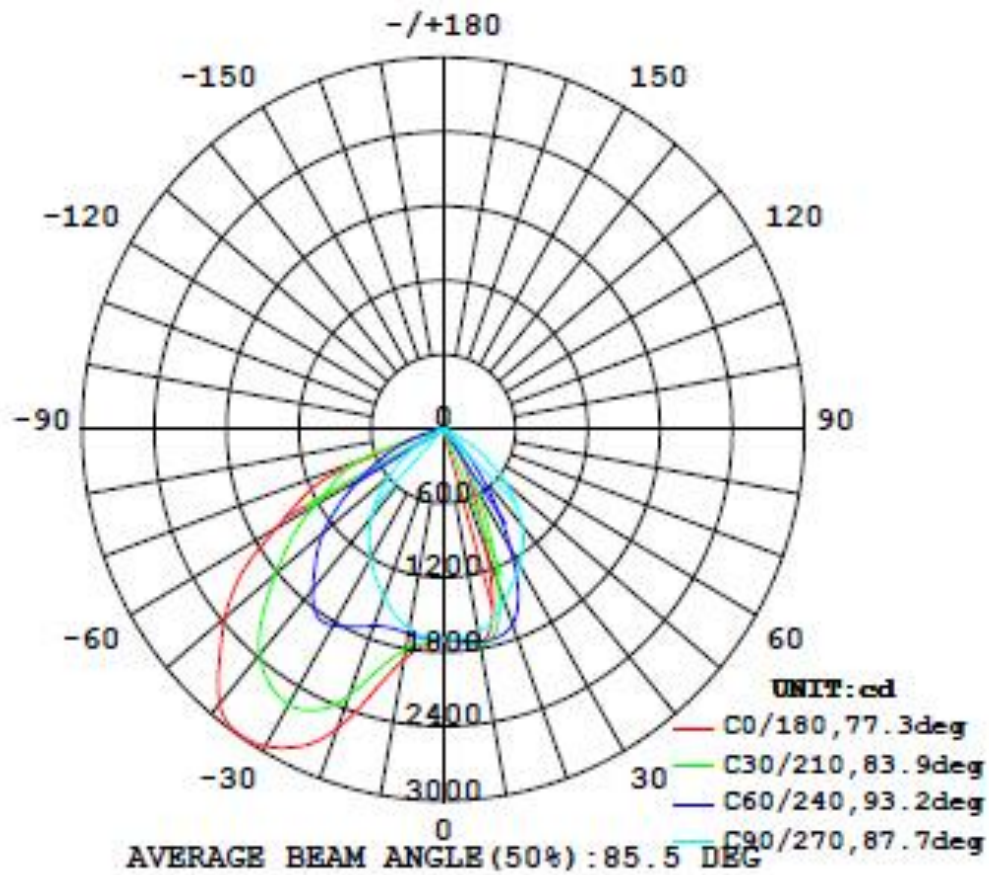


2. With Trunion

3. With SlipFitter



LUMINAIRE PHOTOMETRIC





NVLAP LAB CODE 201011-0

Report No.: GZE140709-I

LM-79-08 Test Report

For

Morris Products Inc.

(Brand Name: Morris)

53 Carey Road
Queensbury, NY 12804

Outdoor Wall-Mounted Area Luminaires

Model name(s): 71393

Representative (Tested) Model: 71393

Test & Report By:

Sean Zhao

Engineer: Sean Zhuo

Date: Jul.15,2014

Review By:

Tommy Liang

Manager: Tommy Liang

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

Laboratory: Standard-Tech Co. Ltd Testing Center

NVLAP CODE: 201011-0

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

Tel: 8620-3229 0320

Fax: 8620-32290422

<http://www.standard-tech.com>

U.S. Department of Energy

Lighting Facts™ Uniform LM-79 Reporting Template

Laboratory Information:

Name of Test Laboratory	Standard-Tech Co. Ltd
Date of Test Report	Jul.15,2014
Test Report No.	GZE140709-I
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	Morris Products		
Brand Name	Morris		
Model Number	71393		
SKU (if available)	N/A		
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Wall-Mounted Area Luminaires		
Luminaire Aperture (for downlights)	--	in. mm mm	
Luminaire Length	--		
Luminaires Width	--		
Number of Units (modular products)	N/A	s	

Integrating Sphere

Goniophotometer

Electrical Measurements:

Output

Output

Input Wattage	--	79.40	W
Input Current	--	0.6663	A
Input Voltage (ac)	--	120.0	V
Power Factor	--	0.9928	
Off-State Power	--	0	W

Photometric Characteristics

Total Initial Lumen Output	--	6918.7	lm
Initial Lumen Efficacy	--	87.14	lm/w
Correlated color temperature / CCT	3080	--	K
Color rendering index / CRI	84.5	--	
R9 Value	19	--	
Duv	0.0002	--	
Luminous Intensity Distribution			
Center beam candlepower (if applicable)	-----	3899	cd
Beam angle (if applicable)		90.8	°
Zonal lumens in the 0°-60° zone		83.2	%
Zonal lumens in the 60°-90° zone		16.6	%
Zonal lumens in the 90°-120° zone		0.1	%
Zonal lumens in the 120°-180° zone		0.1	%

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Date of Test Report	Jul.15,2014
Test Report No.	GZE140709-I
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	Morris Products		
Brand Name	Morris		
Model Number	71393		
SKU (if available)	N/A		
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Wall-Mounted Area Luminaires		
Luminaire Aperture (for downlights)	--	in.	
Luminaire Length	--	mm	
Luminaires Width	--	mm	
Number of Units (modular products)	N/A	s	

Integrating Sphere

Goniophotometer

Electrical Measurements:

Output

Output

Input Wattage	79.75	--	W
Input Current	0.6703	--	A
Input Voltage (ac)	120.1	--	V
Power Factor	0.9906	--	
Off-State Power	0	--	W

Photometric Characteristics

Total Initial Lumen Output	7371.2	--	lm
Initial Lumen Efficacy	92.43	--	lm/w
Correlated color temperature / CCT	5098	--	K
Color rendering index / CRI	82.8	--	
R9 Value	22	--	
Duv	-0.0001	--	
Luminous Intensity Distribution			
Center beam candlepower (if applicable)	-----	--	
Beam angle (if applicable)		--	
Zonal lumens in the 0°-60° zone		--	
Zonal lumens in the 60°-90° zone		--	
Zonal lumens in the 90°-120° zone		--	
Zonal lumens in the 120°-180° zone		--	

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Test Specifications:	
Date of Receipt	: Jul.14,2014
Date of Test	: Jul.11,2014
Test item	: Total Luminous Flux, Luminous Distribution Intensity, Luminous Efficacy, Correlated Color Temperature, Color Rendering Index, Chromaticity Coordinate, Electrical parameters
Reference Standard	IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources CIE 15-2004 Technical Report Colorimetry IESNA LM-16-93 Practical Guide to Colorimetry of Light Source IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	QD25

Test Methods

1. Photometric and Electrical measurements – Light Distribution Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, 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.

2. 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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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.

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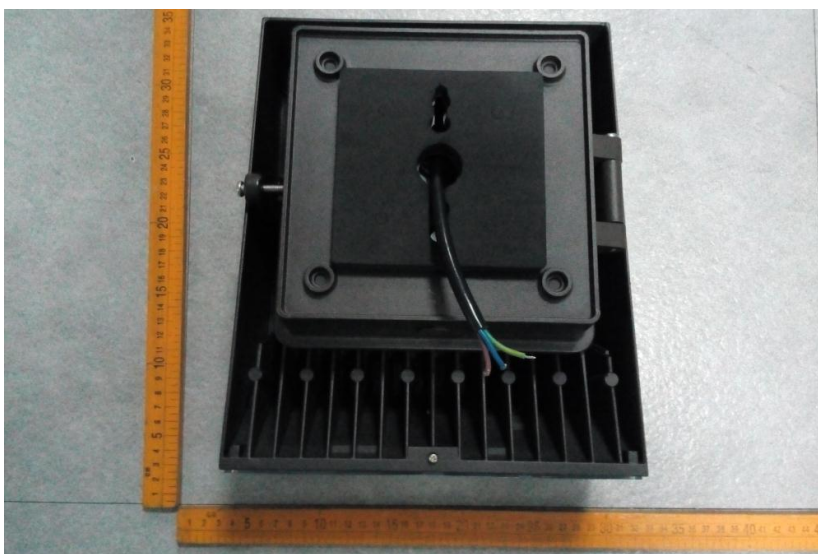
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1. Product Information:

Brand Name	Morris
Model Number	71393
Luminaire Type	Outdoor Wall-Mounted Area Luminaires
Rated Voltage / Frequency	100 ~ 277 Vac, 50/60 Hz
Nominal Power	80W
Rated Initial Lamp Lumen	--
Declared CCT	3000K,3500K,4000K,4500K,5000K
LED Manufacturer	CREE
LED Model	CXA2520
Sample Receipt Date	Jul.11,2014
Sample Number	140709-25(3000K),26(5000K)

Photo



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

Test date	2014-07-14	Test Ambient:	25.2 ° C
Test Orientation	Wall mounted	Stabilization Time (min)	90
Model Number	71393		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
140709-25	120.0	60	0.6663	79.40	0.9928	8.74
	277.2	60	0.3015	79.84	0.9553	13.08

Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	84.5
R9	19
CCT (K)	3080
Chromaticity (x, y)	x=0.4317 y=0.4028
Chromaticity (u', v')	u'=0.2477 v'=0.5201
Duv	0.0002

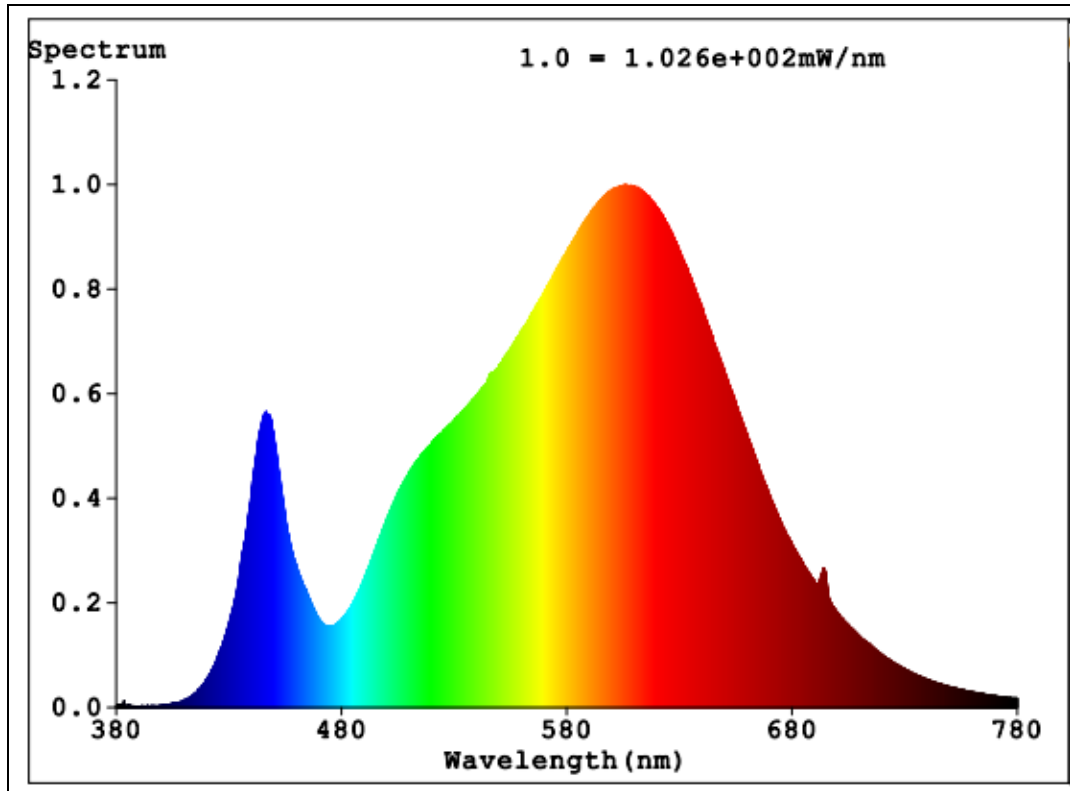
Special Color Rendering Indices			
R1	83	R9	19
R2	90	R10	77
R3	96	R11	84
R4	84	R12	74
R5	83	R13	84
R6	88	R14	98
R7	86	R15	77
R8	65	--	--

Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	6918.7
Luminous Efficacy (lm/W)	87.14
Beam Angle°	90.8
Center Beam Candle Power (cd)	3899
S/MH(C0/180)	1.19
S/MH(C90/270)	0.74

Spectral Power Distribution

Spectral Power Distribution:



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NVLAP CODE: 201011-0

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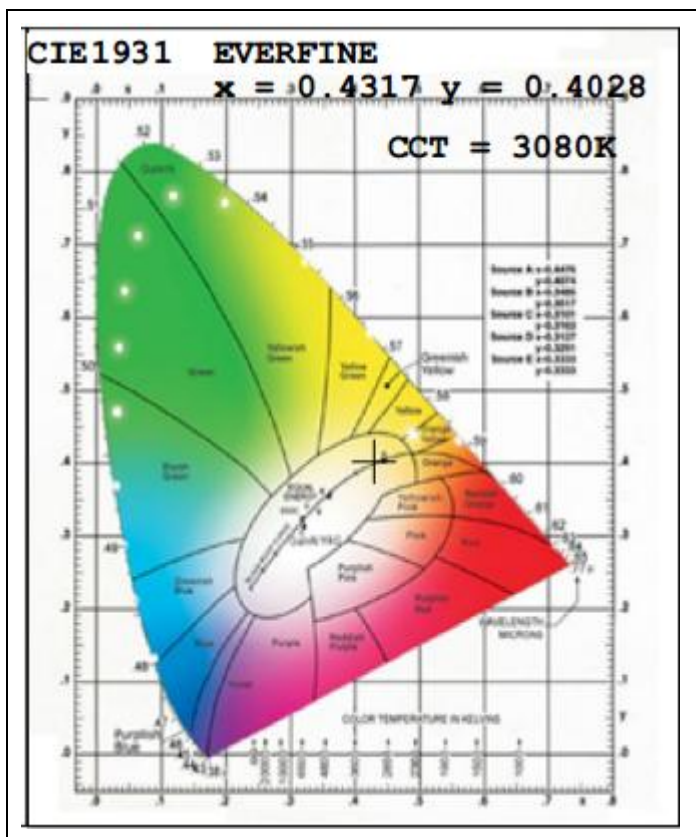
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Chromaticity Diagram



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Zonal Lumen Tabulation

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Luminaire
0-30	1,983.6	28.7%	28.7%
0-40	3,283.4	47.5%	47.5%
0-60	5,752.7	83.1%	83.2%
60-90	1,147.7	16.6%	16.6%
70-100	349.0	5%	5%
90-120	4.5	0.1%	0.1%
0-90	6,900.4	99.7%	99.8%
90-180	17.1	0.2%	0.2%
0-180	6,917.5	100%	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	229.5	3.3%	90-100	1.1	0%
10-20	682.1	9.9%	100-110	1.5	0%
20-30	1,072.1	15.5%	110-120	2.0	0%
30-40	1,299.8	18.8%	120-130	2.4	0%
40-50	1,322.6	19.1%	130-140	2.8	0%
50-60	1,146.7	16.6%	140-150	2.8	0%
60-70	799.8	11.6%	150-160	2.4	0%
70-80	324.5	4.7%	160-170	1.5	0%
80-90	23.4	0.3%	170-180	0.6	0%

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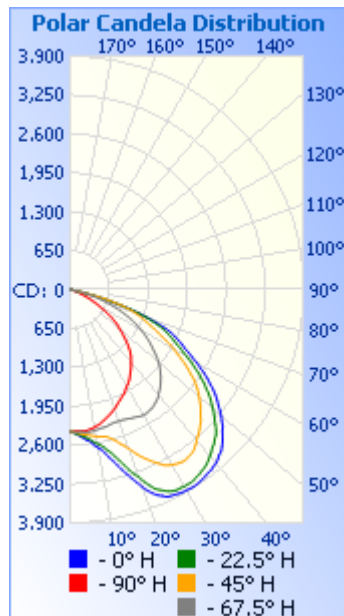
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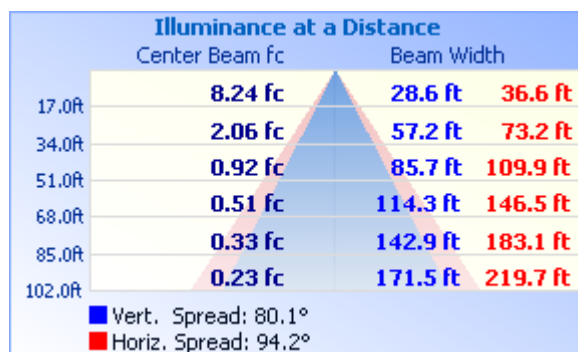
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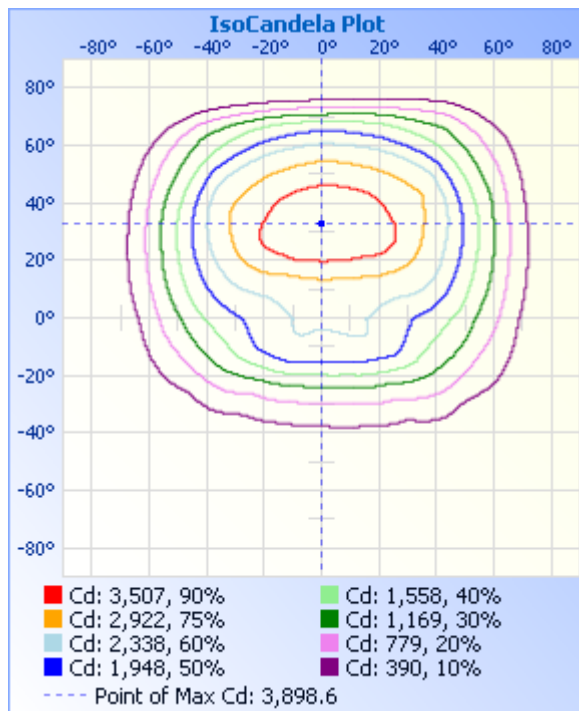
Photometric Data



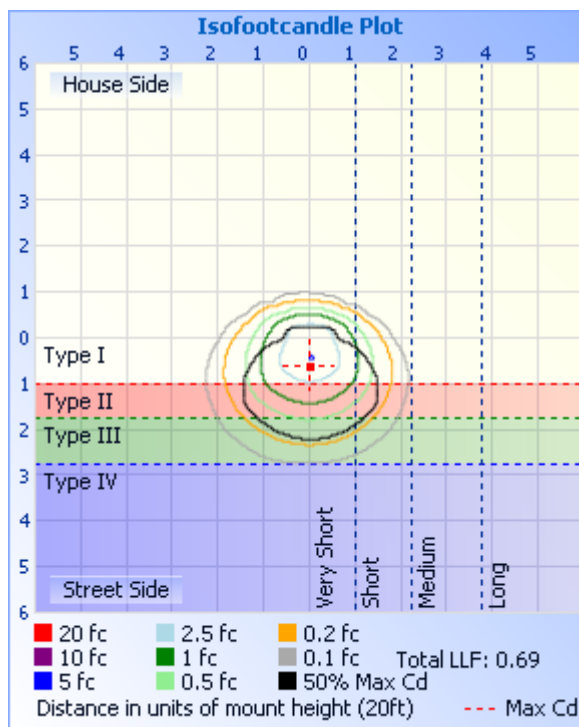
Illuminance Plots



ISOCANDELA DIAGRAM



ISOLUX DIAGRAM



Laboratory: Standard-Tech Co. Ltd Testing Center

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Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	2381	2381	2381	2381	2381	2381	2381	2381	2381	2381	2381	2381	2381	2381	2381	2381	2381
1	2398	2397	2381	2381	2379	2362	2368	2368	2363	2372	2369	2387	2385	2382	2389	2396	2398
2	2411	2416	2396	2393	2374	2368	2358	2355	2355	2365	2358	2380	2381	2385	2403	2414	2411
3	2439	2428	2411	2393	2378	2368	2352	2340	2347	2353	2341	2383	2383	2400	2418	2432	2439
4	2468	2448	2420	2388	2379	2361	2345	2336	2330	2345	2339	2385	2390	2406	2444	2455	2468
5	2494	2473	2440	2400	2380	2354	2335	2331	2324	2337	2336	2376	2390	2413	2457	2483	2494
6	2532	2495	2444	2409	2382	2352	2336	2327	2318	2333	2336	2378	2388	2424	2472	2513	2532
7	2554	2518	2458	2406	2377	2350	2337	2318	2300	2319	2333	2377	2387	2436	2486	2533	2554
8	2602	2556	2471	2410	2365	2352	2337	2301	2287	2314	2318	2372	2383	2436	2507	2565	2602
9	2652	2596	2487	2404	2355	2351	2336	2276	2262	2294	2315	2368	2372	2449	2527	2601	2652
10	2694	2623	2502	2401	2344	2347	2332	2251	2221	2270	2306	2366	2375	2451	2547	2646	2694
11	2736	2659	2514	2388	2329	2342	2321	2219	2175	2242	2305	2365	2368	2462	2560	2690	2736
12	2808	2704	2521	2385	2312	2329	2307	2175	2125	2203	2289	2361	2371	2452	2587	2741	2808
13	2886	2763	2531	2378	2297	2316	2293	2124	2067	2142	2265	2358	2362	2456	2610	2790	2886
14	2961	2819	2546	2377	2271	2309	2269	2069	1993	2086	2235	2361	2353	2446	2641	2851	2961
15	3052	2897	2581	2377	2254	2292	2233	1997	1918	2020	2212	2358	2340	2451	2661	2916	3052
16	3144	2980	2616	2360	2230	2280	2187	1920	1836	1954	2180	2348	2329	2445	2700	2989	3144
17	3235	3078	2658	2353	2209	2257	2143	1846	1754	1879	2137	2339	2316	2445	2745	3081	3235
18	3328	3176	2718	2346	2184	2239	2079	1761	1668	1791	2088	2327	2294	2438	2794	3173	3328
19	3422	3273	2771	2349	2165	2207	2015	1668	1573	1699	2034	2312	2279	2424	2853	3265	3422
20	3523	3345	2832	2352	2136	2176	1943	1576	1481	1609	1971	2293	2259	2422	2908	3359	3523
21	3611	3453	2900	2351	2117	2146	1865	1485	1392	1522	1911	2267	2231	2418	2974	3444	3611
22	3684	3543	2974	2355	2088	2104	1785	1394	1305	1427	1843	2241	2204	2422	3038	3529	3684
23	3748	3631	3046	2364	2059	2058	1698	1306	1219	1345	1772	2211	2174	2438	3112	3593	3748
24	3785	3677	3105	2371	2035	2013	1603	1221	1141	1259	1696	2183	2146	2438	3186	3670	3785
25	3837	3722	3164	2384	2011	1962	1511	1143	1066	1179	1616	2147	2115	2452	3259	3723	3837
26	3850	3766	3223	2393	1987	1911	1423	1064	995	1101	1534	2106	2087	2465	3326	3764	3850
27	3860	3791	3274	2399	1969	1854	1338	994	927	1033	1451	2060	2060	2478	3384	3792	3860
28	3875	3807	3334	2412	1943	1795	1247	928	862	965	1376	2003	2033	2485	3424	3817	3875
29	3886	3805	3370	2427	1911	1736	1172	863	801	903	1298	1945	2007	2527	3478	3834	3886

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33	3894	3804	3444	2423	1810	1496	886	643	579	687	1010	1700	1903	2611	3544	3850	3894
34	3884	3788	3449	2416	1779	1433	823	595	531	638	946	1632	1883	2623	3561	3845	3884
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55	2926	2736	2467	1673	890	242	100	118	129	133	116	392	1065	1916	2802	2884	2926
56	2824	2644	2379	1617	834	206	95	113	126	128	111	343	1016	1865	2724	2787	2824
57	2742	2560	2293	1564	773	172	90	108	121	123	107	299	973	1810	2635	2701	2742
58	2644	2455	2195	1506	709	141	84	102	117	117	102	258	932	1762	2533	2604	2644
59	2542	2371	2102	1450	644	113	79	97	112	112	98	221	889	1703	2429	2513	2542
60	2441	2265	2011	1390	585	92	75	92	107	106	93	187	844	1646	2332	2423	2441
61	2333	2169	1919	1328	530	79	70	86	101	100	88	154	793	1586	2228	2326	2333

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62	2248	2087	1818	1262	478	72	66	81	96	94	83	125	737	1520	2122	2220	2248
63	2142	1999	1720	1199	432	64	61	75	90	88	78	101	674	1458	2014	2122	2142
64	2074	1923	1632	1130	391	53	58	70	85	82	73	84	607	1393	1926	2035	2074
65	1996	1850	1545	1060	348	37	54	65	79	76	68	74	552	1328	1810	1946	1996
66	1914	1773	1457	991	308	31	50	60	73	71	64	66	500	1268	1715	1857	1914
67	1828	1700	1396	919	269	28	47	55	67	65	60	57	451	1201	1628	1789	1828
68	1706	1589	1321	844	231	26	44	50	62	60	55	44	405	1131	1541	1713	1706
69	1545	1478	1249	770	196	24	40	46	57	54	51	34	362	1058	1454	1610	1545
70	1382	1367	1184	698	163	22	37	42	52	49	48	30	322	987	1375	1507	1382
71	1220	1209	1100	622	132	20	34	38	47	45	44	28	281	908	1294	1403	1220
72	1039	1044	1007	554	107	19	31	35	43	41	40	26	242	840	1219	1248	1039
73	864	876	896	483	83	18	28	31	39	36	37	24	206	766	1147	1088	864
74	696	711	770	420	64	16	25	28	35	33	34	22	174	687	1065	924	696
75	536	559	634	361	48	15	23	26	31	30	31	20	143	610	965	760	536
76	398	416	498	310	36	13	20	23	28	26	28	19	115	534	844	610	398
77	277	292	366	258	28	12	18	21	25	24	25	17	90	467	713	462	277
78	170	185	249	205	23	11	16	18	22	21	22	16	69	403	582	335	170
79	99	108	157	147	19	10	14	16	19	19	20	15	52	348	450	223	99
80	68	68	94	96	15	9	12	14	16	16	17	13	38	293	329	134	68
81	55	51	55	55	12	7	10	12	14	14	15	12	28	235	225	80	55
82	45	40	35	28	9	6	9	10	11	13	13	11	22	174	140	56	45
83	37	33	25	16	7	5	7	8	9	10	11	9	17	120	82	44	37
84	30	25	19	11	5	4	5	6	7	8	10	8	13	74	48	35	30
85	22	18	13	8	4	3	4	5	6	7	8	7	10	41	32	27	22
86	16	12	8	5	2	2	3	3	4	5	6	6	8	23	23	21	16
87	10	7	4	2	1	1	2	2	3	4	5	5	6	14	17	15	10
88	6	4	2	1	0	1	1	2	2	3	3	4	5	10	12	9	6
89	3	2	1	1	0	1	1	1	1	2	2	3	3	6	7	5	3
90	2	2	1	1	0	1	2	2	2	1	2	2	2	4	4	2	2
91	1	1	1	1	0	1	2	2	1	1	1	1	1	1	1	1	1
92	1	1	1	1	0	1	2	2	2	1	1	1	0	1	1	1	1
93	1	1	1	1	0	1	2	2	2	1	1	1	0	0	1	1	1

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94	1	1	1	1	0	1	2	2	2	1	2	1	0	0	1	1	1
95	2	1	1	0	0	1	2	1	2	1	2	1	0	0	1	1	2
96	0	0	1	0	0	1	2	1	1	1	2	1	0	0	1	0	0
97	0	0	1	0	0	1	2	1	1	1	2	1	0	0	1	0	0
98	0	0	1	0	0	2	2	1	1	1	2	1	0	0	1	0	0
99	0	0	1	0	0	1	2	3	1	2	2	1	0	0	0	0	0
100	1	1	0	0	0	1	2	3	3	2	2	1	0	0	0	0	1
101	1	1	0	0	0	2	2	3	3	3	2	1	0	0	0	1	1
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104	1	1	0	0	1	2	3	3	3	3	2	1	0	0	0	1	1
105	1	1	0	0	1	2	3	3	4	3	3	1	0	0	0	0	1
106	1	1	0	0	1	2	3	4	4	3	3	2	0	0	0	0	1
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109	0	0	0	0	1	3	4	4	4	4	3	2	0	0	0	0	0
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111	0	0	0	0	1	3	4	4	4	4	3	2	0	0	0	0	0
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116	0	0	0	0	2	4	5	5	5	5	4	3	1	0	0	0	0
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124	0	0	0	0	3	4	5	6	7	6	5	3	2	0	0	0	0
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126	0	0	0	1	3	5	6	6	7	6	5	4	2	1	0	0	0
127	0	0	0	1	3	5	6	6	7	6	5	4	2	1	0	0	0
128	0	0	0	1	3	6	6	7	7	7	5	4	2	1	0	0	0
129	0	0	0	1	3	6	6	7	7	7	5	4	2	1	0	0	0
130	0	0	0	1	3	5	7	7	8	7	5	4	2	1	0	0	0
131	0	0	0	1	3	5	7	7	8	7	6	4	2	1	0	0	0
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158	3	3	4	4	5	6	7	8	8	8	7	6	4	4	4	3	3
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164	4	4	4	4	6	6	7	7	7	7	6	6	4	4	4	4	4
165	4	4	4	4	6	6	7	7	7	7	6	6	5	4	4	4	4
166	4	4	5	4	6	6	7	7	7	7	6	6	5	4	4	4	4
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168	5	5	5	5	6	6	7	7	7	7	7	7	5	4	5	4	5
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176	7	6	6	6	6	6	7	7	7	8	7	7	5	6	6	6	7
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178	7	6	6	6	6	6	7	7	7	8	7	7	5	6	7	6	7
179	7	6	7	6	6	6	6	7	7	7	7	7	5	6	7	6	7
180	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

2.2 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction QD25)

IES LM-79 2008

Test date	2014-07-14	Test Ambient:	25.2 ° C
Test Orientation	Wall mounted	Stabilization Time (min)	90
Model Number	71393		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
140709-26	120.1	60	0.6703	79.75	0.9906	8.57
	277.0	60	0.3021	80.37	0.9608	12.91

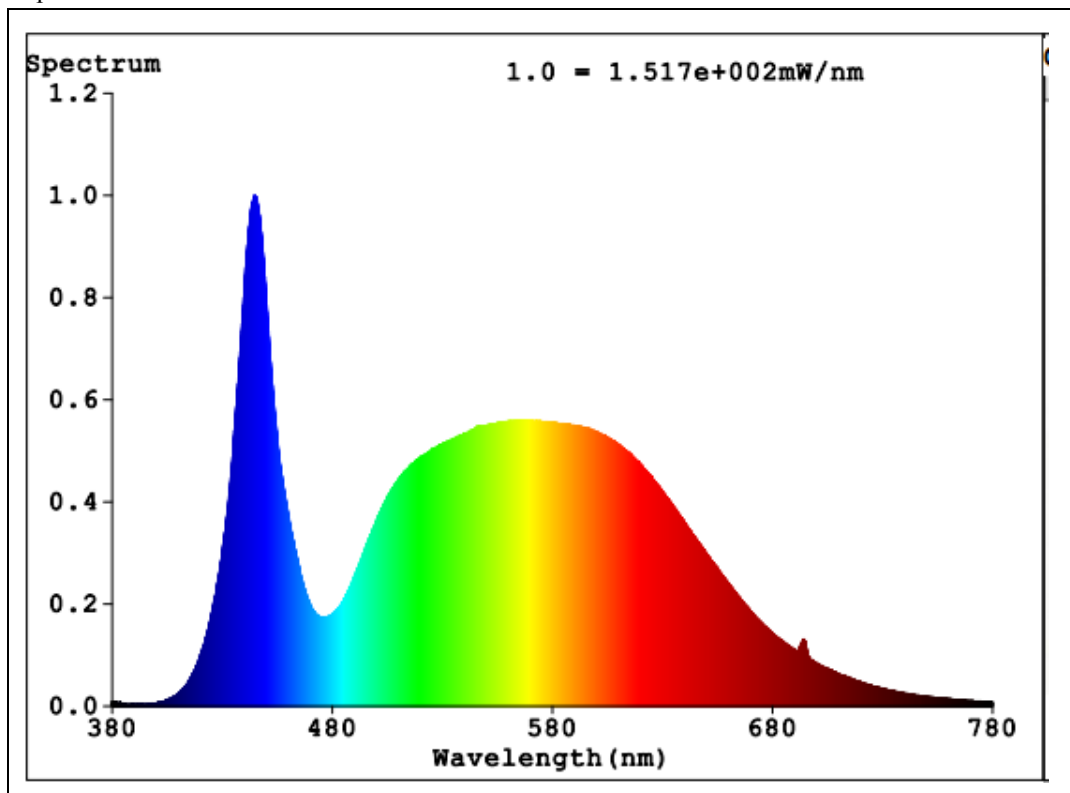
Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	82.8
R9	22
CCT (K)	5098
Chromaticity (x, y)	x=0.3424 y=0.3493
Chromaticity (u', v')	u'=0.2105 v'=0.4832
Duv	-0.0001
Total Luminous (lm)	7371.2
Luminous Efficacy (lm/W)	92.43

Special Color Rendering Indices			
R1	83	R9	22
R2	85	R10	65
R3	86	R11	86
R4	84	R12	67
R5	84	R13	83
R6	81	R14	92
R7	85	R15	79
R8	73	--	--

Spectral Power Distribution

Spectral Power Distribution:



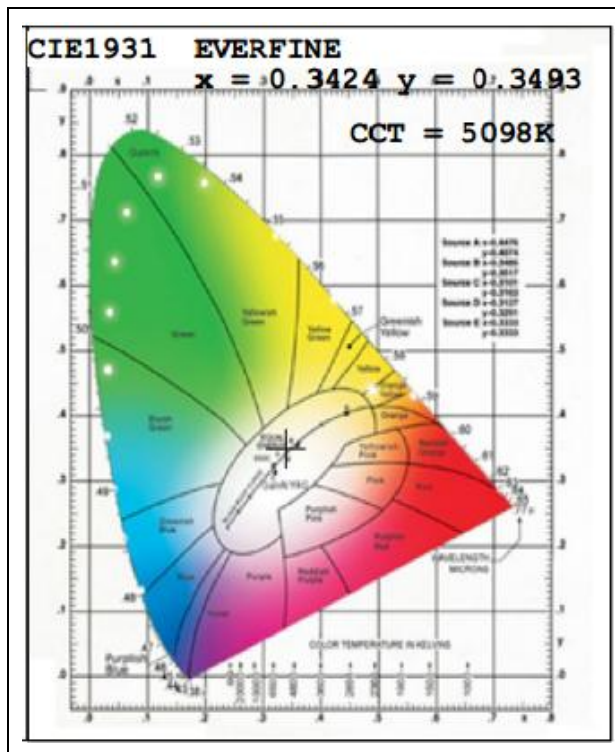
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Chromaticity Diagram



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3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-336	2 meter Integrating Sphere	2014-07-01	2015-06-30
ST-R-331	Spectral analysis system HAAS-2000	2014-07-01	2015-06-30
D204	Standard Lamp	2014-07-01	2015-06-30
PF2010	Power Meter for Integrating Sphere	2014-07-01	2015-06-30
EE-09	Goniophotometer system	2014-07-01	2015-06-30
D908S	Standard Lamp	2014-07-01	2015-06-30
PF210	Power Meter for Goniophotometer	2014-07-01	2015-06-30
ST-R-181A	Temperature Tester	2014-07-01	2015-06-30

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