



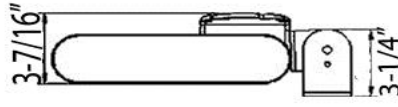
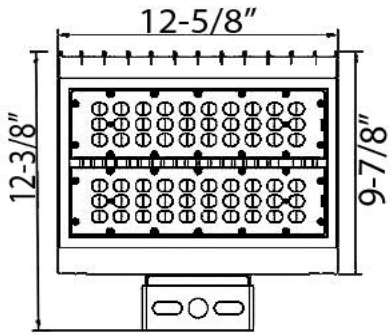
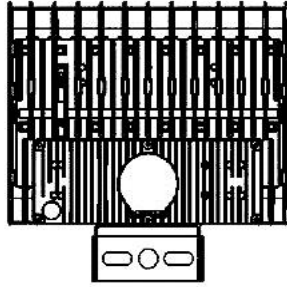
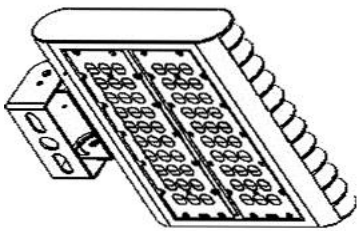
Cat# 71541
80 Watts
Trunion Mount



Model: 71541		
OVERALL LAMP PARAMETERS	Input Voltage	100-277VAC 50/60HZ
	Input Current	0.38A Max
	Input Power	80 W
	Power Factor	PF ≥0.98
	Luminance	9064 LM
	Luminous Efficiency	121 LM/W
	CRI	>84
	Beam Angle	Type III 90° X 120°
Main Structure	Aluminium + Tempered Glass	
LED DRIVER	Output Voltage	24-45VDC
	Output Current	0.7A
	Driver Efficiency	89%
LED	LED Manufacturer	Phillips LUMILED
	LED Type	LUXEON 3030
	LED Quantity	2PCS
	LED Efficacy	130 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	-20°C—+55°C
	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	≤0.5 Ω, 0K
	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: L 238*W 212*H 145 master carton: 490*440*300
	Q'ty / Carton	1 PCS
	Volume	2.28Cbm/carton
EPA Rating	1.16 ft²	

The above info is for reference only.

Dimension:



LM-79-08 Test Report

For

Morris Products Inc.

53 Carey Rd. Queensbury, NY 12804

Architectural Flood and Spot Luminaires

Model name(s): 71541, 71831,

Representative (Tested) Model: 71541

Model Different: All construction and rating are the same, except CCT

Test & Report By:

Johnson Sun

Engineer: Johnson Sun

Update: Nov.03, 2016

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: Standard-Tech Building, No.6 Guanhong Road, Guangzhou Science City, Guangzhou 510663, China

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

1.1 Product Information:

Organization Name	Morris Products Inc.	
Brand Name	MORRIS	
Model Number	71541	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Architectural Flood and Spot Luminaires	
Rated Voltage / Frequency	100 -277Vac, 50/60 Hz	
Nominal Power	80W	
Rated Initial Lamp Lumen	--	
Declared CCT	3000K,4000K,5000K	
LED Manufacturer	Philips Lumileds	
LED Model	L130-2780003000W21	
Sample Number	GZE161105-AD1(3000K),AD2(5000K)	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

Photo



1.2 Test Specifications:

Date of Receipt	: Oct.31,2016
Date of Test	: Nov.01,2016
Test item	<ol style="list-style-type: none"> 1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Electrical Parameters
Reference Standard	<ol style="list-style-type: none"> 1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products 2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products 3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 4. CIE 15-2004 Technical Report Colorimetry 5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source 6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	QD25

1.3 Test Methods

1) Photometric and Light Distribution Measurement – Goniophotometer Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at 25 °C ± 1 °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 or rated 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) Chromaticity Measurement – Sphere-Spectroradiometer Method:

Chromaticity parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25 °C ± 1 °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 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral power distribution taken at 5 nm intervals over the range of 380 to 780 nm.

3) Electrical Measurements:

Electrical parameters were measured using power meters incorporated in goniophotometer or sphere-spectroradiometer system. The ambient temperature surrounding the sample was maintained at 25 °C ± 1 °C. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Voltage, frequency, current, power, power factor and total harmonic distortion were measured by and read from the power meter.

2.1 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction QD25)

Test date	2016-11-01	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	71541		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE161105-	120.0	60	0.6691	79.88	0.9949	14.86
AD1	277.0	60	0.3041	79.85	0.9480	16.02
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

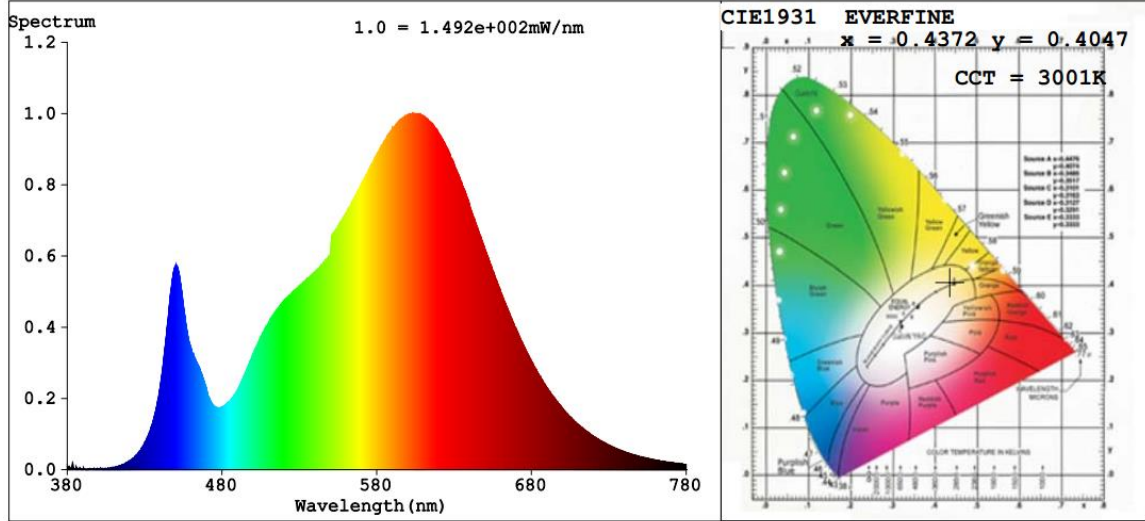
Chromaticity Measurement - Sphere-Spectroradiometer Method :

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	11
Frequency (Hz)	60	R2	90	R10	78
CCT (K)	3001	R3	97	R11	80
Duv	0.0002	R4	81	R12	69
Chromaticity (x, y)	x=0.4372 y=0.4047	R5	81	R13	83
Chromaticity (u', v')	u'=0.2505 v'=0.5216	R6	88	R14	99
Color Rendering Index (CRI)	82.7	R7	84	R15	74
R9	11	R8	61	--	--

Photometric Measurement – Goniophotometer Method :

Parameter	Result		DLC V4.0 Pass Criteria	
Test Voltage (V)	120.0	277.0	--	
Frequency (Hz)	60	60		
Total Luminous (lm)	9724.9	9701.0	>=1000 (-10%)	
Luminous Efficacy (lm/W)	121.74	121.49	Standard: >= 100(-3%)	Premium: >= 120(-3%)
Zonal lumens in the 0-90 °zone (%)	99.8	--	>=85(-3)	
Beam Angle (°)	107.7	--	--	
Center Beam Candle Power (cd)	3179	--	--	

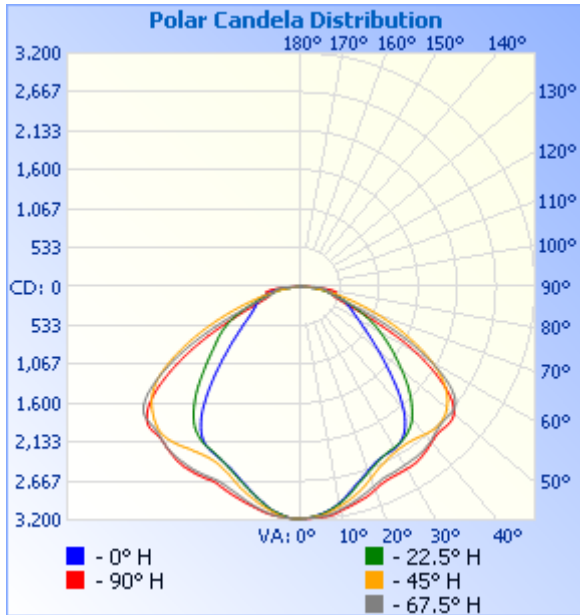
Spectral Power Distribution & Chromaticity Diagram



Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	2,390.6	24.6%
0-40	4,053.4	41.7%
0-60	7,721.5	79.4%
60-90	1,981.5	20.4%
70-100	788.3	8.1%
90-120	5.0	0.1%
0-90	9,703.1	99.8%
90-180	21.4	0.2%
0-180	9,724.4	100%

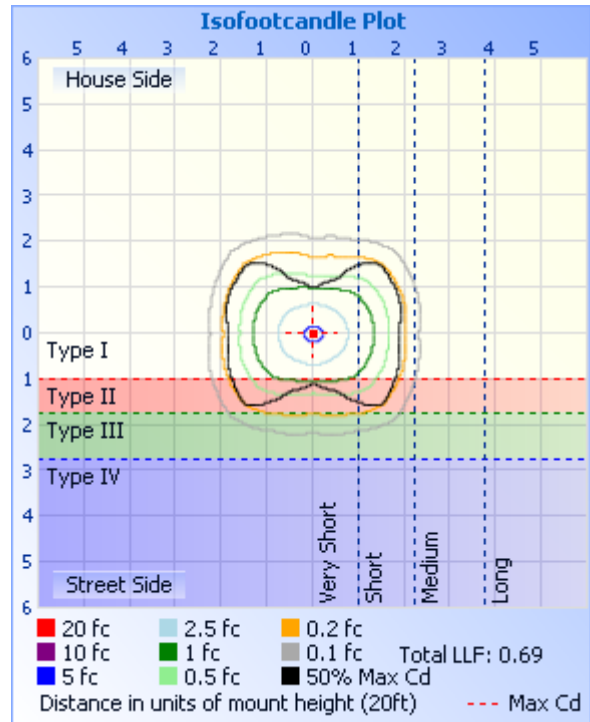
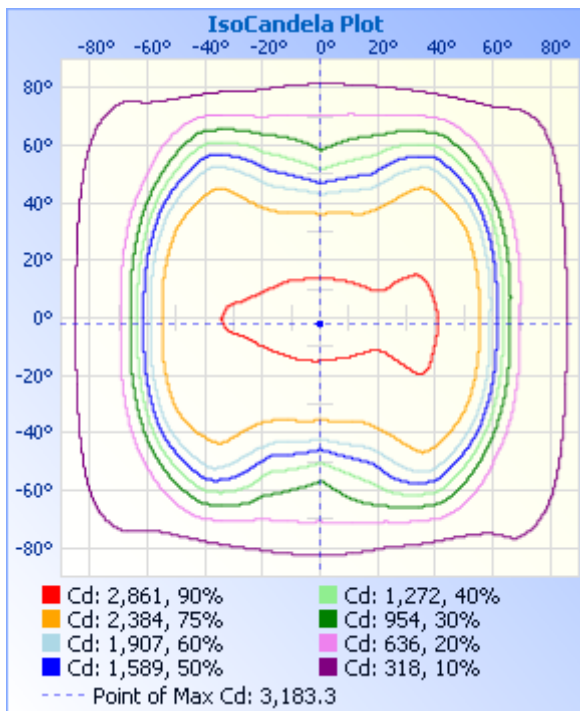
Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	297.8	3.1%	90-100	0.8	0%
10-20	828.1	8.5%	100-110	1.5	0%
20-30	1,264.6	13.0%	110-120	2.7	0%
30-40	1,662.8	17.1%	120-130	4.1	0%
40-50	1,873.9	19.3%	130-140	4.2	0%
50-60	1,794.3	18.5%	140-150	3.5	0%
60-70	1,194.0	12.3%	150-160	2.5	0%
70-80	571.7	5.9%	160-170	1.5	0%
80-90	215.8	2.2%	170-180	0.6	0%



Illuminance at a Distance

Center Beam fc	Beam Width	
17.0ft	11.00 fc	35.7 ft 62.4 ft
34.0ft	2.75 fc	71.4 ft 124.8 ft
51.0ft	1.22 fc	107.1 ft 187.2 ft
68.0ft	0.69 fc	142.7 ft 249.6 ft
85.0ft	0.44 fc	178.4 ft 312.0 ft
102.0ft	0.31 fc	214.1 ft 374.4 ft

■ Vert. Spread: 92.8°
■ Horiz. Spread: 122.8°



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C (DEG) \ γ (DEG)	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
0	3179	3179	3179	3179	3179	3179	3179	3179	3179	3179	3179	3179	3179	3179	3179	3179
5	3162	3163	3143	3127	3131	3135	3150	3165	3173	3172	3159	3147	3138	3137	3158	3169
10	3121	3094	3036	3016	3011	3021	3057	3102	3121	3110	3052	3019	3005	3012	3049	3108
15	3049	3002	2915	2847	2832	2855	2943	3011	3048	3020	2928	2870	2843	2854	2925	3016
20	2978	2906	2775	2688	2681	2703	2793	2910	2962	2915	2794	2734	2699	2714	2784	2928
25	2927	2869	2668	2586	2588	2594	2671	2848	2895	2846	2683	2635	2608	2606	2684	2896
30	2943	2883	2650	2548	2563	2546	2604	2827	2886	2824	2624	2565	2553	2544	2667	2909
35	2932	2864	2689	2496	2456	2497	2594	2813	2859	2802	2618	2462	2392	2470	2705	2898
40	2869	2842	2748	2327	2173	2363	2642	2764	2780	2754	2638	2235	2045	2290	2765	2868
45	2832	2779	2751	2057	1768	2114	2673	2688	2751	2683	2612	1907	1629	2018	2763	2798
50	2758	2730	2653	1746	1397	1812	2602	2690	2729	2673	2499	1575	1273	1715	2656	2784
55	2375	2545	2433	1470	1109	1520	2411	2544	2414	2548	2310	1293	1008	1461	2470	2564
60	1737	2043	2065	1225	904	1257	2073	2052	1833	2096	2007	1072	822	1266	2094	2007
65	1013	1373	1556	984	767	996	1602	1383	1094	1435	1538	883	709	1032	1568	1292
70	569	770	1052	732	652	721	1117	753	599	803	1036	676	644	739	1046	697
75	443	464	643	516	535	490	687	455	451	470	619	486	555	487	616	436
80	484	350	363	354	389	329	377	365	487	352	333	339	408	325	333	371
85	345	289	154	169	160	161	167	313	344	296	137	150	151	140	138	315
90	2.24	2.31	1.36	1.10	1.10	1.09	1.43	3.20	1.69	1.27	0.79	0.48	0.37	0.32	0.64	1.27
95	0.85	1.06	0.95	0.48	0.48	0.37	0.85	0.90	0.58	0.64	0.64	0.32	0.32	0.27	0.58	0.69
100	1.00	1.16	1.22	0.53	0.32	0.37	0.90	0.90	0.85	0.95	1.06	0.69	0.32	0.48	1.11	1.06
105	1.74	2.27	1.96	0.74	0.37	0.69	1.85	1.80	1.43	1.80	1.70	0.95	0.48	0.80	1.80	1.86
110	3.06	3.34	2.64	1.17	0.95	1.28	2.70	3.07	2.27	2.49	2.02	1.22	1.01	1.06	2.23	2.65
115	3.91	4.18	3.34	1.33	1.85	1.54	3.39	3.97	2.91	3.28	2.75	1.49	1.22	1.44	2.65	3.23
120	4.81	4.66	4.24	3.06	3.50	2.23	4.34	4.72	3.60	3.61	3.34	2.08	1.81	2.08	3.07	3.45
125	5.60	5.56	4.50	5.09	12.9	3.88	4.72	5.51	4.02	3.93	3.49	2.92	2.76	2.72	3.07	3.82
130	5.97	5.88	4.50	6.31	18.6	5.10	4.77	5.94	4.81	4.29	3.50	3.50	3.50	3.30	3.23	4.13
135	5.97	5.56	4.40	7.32	11.4	6.28	4.40	5.46	4.91	4.29	3.39	3.98	3.93	3.88	3.07	4.13
140	5.97	5.56	4.55	6.48	13.9	6.59	4.40	5.51	5.02	4.66	3.34	4.46	4.09	3.78	2.97	4.35
145	5.87	4.61	4.66	7.64	16.0	7.02	3.92	5.09	4.97	4.50	3.82	4.78	4.46	4.42	3.61	4.40
150	5.71	4.55	5.40	7.12	13.8	6.51	4.19	5.14	4.91	4.87	4.71	4.78	5.04	4.73	4.77	4.56
155	5.13	4.66	6.14	6.90	6.75	6.17	4.88	5.14	4.75	4.88	4.66	5.20	4.72	4.73	4.77	4.51
160	4.76	4.71	5.98	6.05	5.89	5.43	5.25	5.35	4.44	4.71	4.71	5.15	5.36	5.27	4.88	4.66
165	4.91	4.98	6.04	5.69	5.42	5.43	5.56	5.19	5.07	4.61	4.93	5.36	5.04	5.05	4.94	5.09
170	5.44	5.62	6.83	6.52	6.31	6.38	6.57	5.30	5.87	5.67	5.99	6.85	6.75	6.50	6.21	6.58
175	5.76	6.20	7.04	6.74	7.11	6.49	7.05	5.46	5.92	6.04	6.41	6.85	6.89	7.18	6.41	6.68
180	5.50	6.15	6.41	6.42	6.68	6.33	6.73	5.14	5.55	5.56	6.09	6.53	6.26	6.81	6.25	6.68

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BUG Rating: B3-U2-G2

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1193.6	12.3
FM - Front-Medium(30-60)	2689.4	27.7
FH - Front-High(60-80)	890.26	9.2
FVH - Front-Very High(80-90)	110.45	1.1
Total Forward Light	4896.2	50.3

BL - Back-Low(0-30)	1197.1	12.3
BM - Back-Medium(30-60)	2642.3	27.2
BH - Back-High(60-80)	875.3	9.0
BVH - Back-Very High(80-90)	105.33	1.1
Total Back Light	4828.8	49.7

UL - Uplight-Low(90-100)	0.87556	0.0
UH - Uplight-High(100-180)	20.586	0.2
Total Up Light	21.462	0.2

BUG(Back,Up,Glare) Rating	B3-U2-G2
----------------------------------	-----------------

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	4820	8.8308	4828.8
Street Side	4883.6	12.631	4896.2

2.2 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction QD25)

Test date	2016-11-01	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	71541		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE161105-AD2	120.0	60	0.6625	79.06	0.9945	14.91
	277.0	60	0.2889	79.03	0.9876	16.07
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

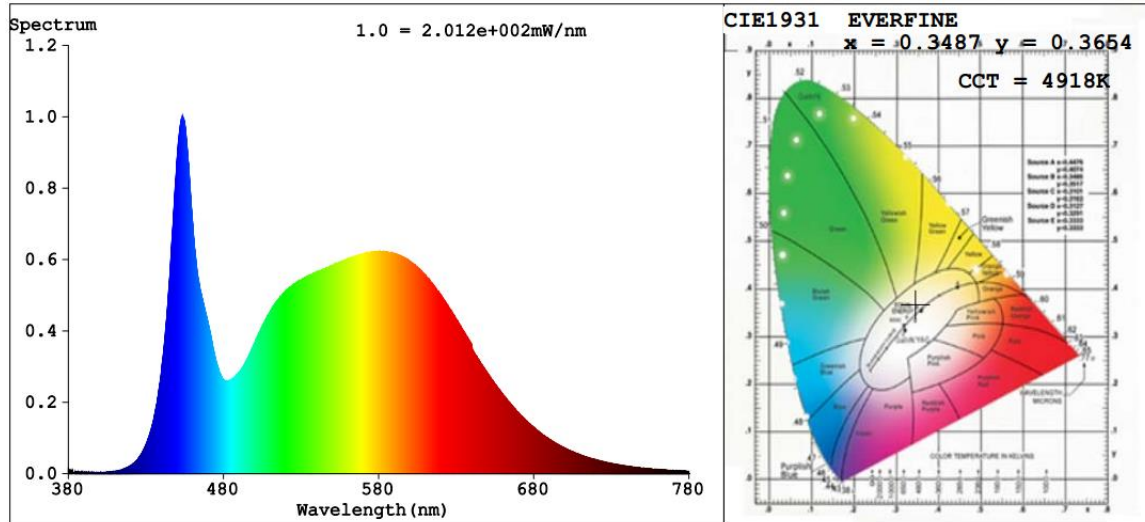
Chromaticity Measurement - Sphere-Spectroradiometer Method :

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	80	R9	4
Frequency (Hz)	60	R2	89	R10	72
CCT (K)	4918	R3	94	R11	78
Duv	0.0054	R4	79	R12	53
Chromaticity (x, y)	x=0.3487 y=0.3654	R5	79	R13	82
Chromaticity (u', v')	u'=0.2085 v'=0.4918	R6	83	R14	97
Color Rendering Index (CRI)	82.2	R7	87	R15	74
R9	4	R8	65	--	--

Photometric Measurement – Sphere-Spectroradiometer Method :

Parameter	Result		DLC V4.0 Pass Criteria	
Test Voltage (V)	120.0	277.0	--	
Frequency (Hz)	60	60		
Total Luminous (lm)	10342	10317	>=2000 (-10%)	
Luminous Efficacy (lm/W)	130.81	130.55	Standard: >= 100(-3%)	Premium: >= 120(-3%)

Spectral Power Distribution & 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	2016-07-01	2017-06-30
ST-R-331	Spectral analysis system HAAS-2000	2016-07-01	2017-06-30
D204	Standard Lamp	2016-07-01	2017-06-30
PF2010	Power Meter for Integrating Sphere	2016-07-01	2017-06-30
EE-09	Goniophotometer system	2016-07-01	2017-06-30
D908S	Standard Lamp	2016-07-01	2017-06-30
PF210	Power Meter for Goniophotometer	2016-07-01	2017-06-30
ST-R-181A	Temperature Tester	2016-07-01	2017-06-30
Uncertainty: Photometric Measurement (Sphere):1.74% Chromaticity Measurement(Sphere):14.3K Photometric Measurement(Goniophotometer):1.62%			

******* END OF REPORT *******

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