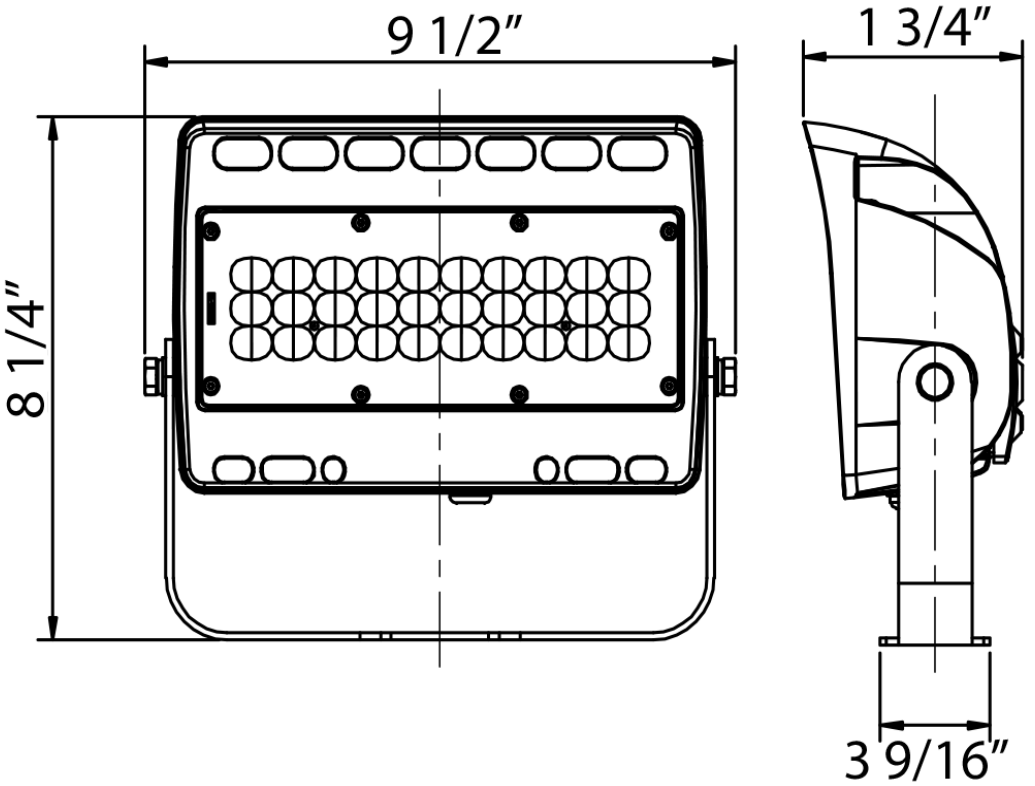
71142A
50W LED Floodlight
Yoke(Bracket) Mount

RoHS

QPL ID #
PLDUWHES4P5Q

		Model:	71142A
OVERALL LAMP PARAMETERS		Input Voltage	100-277VAC 50/60HZ
		Input Current	0.38A Max
		Input Power	50 W
		Power Factor	PF≥0.90
		Luminance	6103 LM
		Luminous Efficiency	122 LM/W
		CRI	>80
		Beam Angle	190 x 20°
		Main Structure	Aluminium + Tempered Glass
LED DRIVER		Output Voltage	23-42VDC
		Output Current	1.2A
		Driver Efficiency	89%
LED		LED Manufacturer	Phillips
		LED Type	LumiLED 3030
		LED Quantity	18 PCS
		LED Efficacy	150 LM/W
		Color Temperature	5000K
Photocell		-	Not Included
LIFESPAN & ENVIRONMENT		Lifespan	50,000 Hrs.
		Warranty	5 Years
		IP Rating	IP65 Wet Locations
		Operating Temperature	-40F - +131F
		Storage Temperature.Humidity	-40℃—+80℃ , 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 diamension drawing
		Net Weight	7.81 lbs
		Packing Size	inner box: L273*W240*H165mm master carton: L549*W485*H175mm
		Q'ty / Carton	4 PCS
		Volume	1.65Cbm/carton

Dimension: 71142A



www.morrisproducts.com

LM-79-08 Test Report

For

Morris Products Inc.

53 Carey Rd. Queensbury, NY 12804

Architectural Flood and Spot Luminaires

Model name(s): 71345A, 71142A, 71143A

Representative (Tested) Model: 71345A

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

Test & Report By:

Johnson Sun

Engineer: Johnson Sun

Update: Nov.16, 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.

1.1 Product Information:

Organization Name	Morris Products Inc.	
Brand Name	MORRIS	
Model Number	71345A	
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	50W	
Rated Initial Lamp Lumen	--	
Declared CCT	5000K	
LED Manufacturer	Philips Lumileds	
LED Model	L130-2780003000W21	
Sample Number	GZE161105-(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	: Nov.11,2016
Date of Test	: Nov.12,2016
Test item	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	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 ºC ±1 ºC. 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 ºC ±1 ºC. 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	2016-11-12	Test Ambient:	25.2 ℃
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	71345A		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE161105-BS1	120.0	60	0.4309	50.97	0.9858	12.58
	277.0	60	0.1973	49.21	0.9002	16.04
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method :

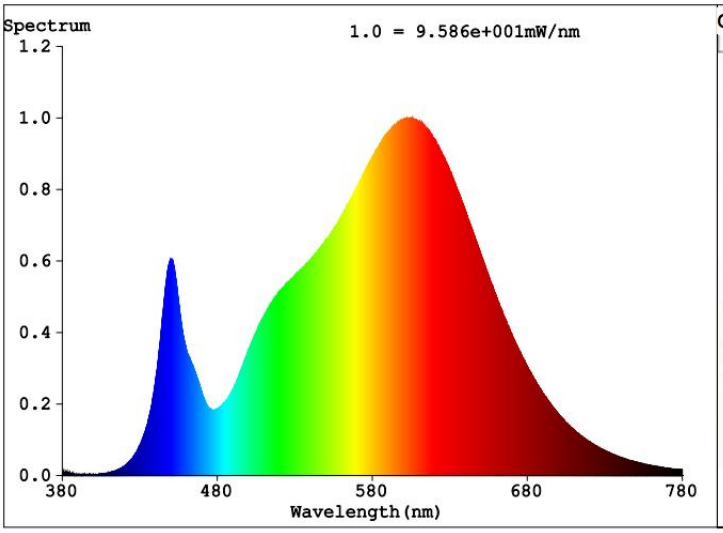
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	3120
Duv	0.0013
Chromaticity (x, y)	x=0.4304 y=0.4050
Chromaticity (u', v')	u'=0.2460 v'=0.5208
Color Rendering Index (CRI)	83.8
R9	14

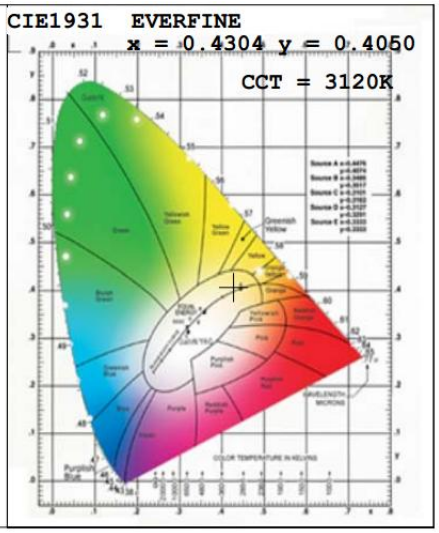
Special Color Rendering Indices			
R1	82	R9	14
R2	90	R10	77
R3	97	R11	82
R4	83	R12	69
R5	82	R13	84
R6	88	R14	98
R7	85	R15	75
R8	63	--	--

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)	5638.4	5411.2	>=1000 (-10%)	
Luminous Efficacy (lm/W)	110.62	109.96	Standard: >= 95(-3%)	Premium: >= 115(-3%)
Zonal lumens in the 0-90 °zone (%)	99.9	--	>=85(-3)	
Beam Angle ( )	101.0	--	--	
Center Beam Candle Power (cd)	2161	--	--	

Spectral Power Distribution & Chromaticity Diagram

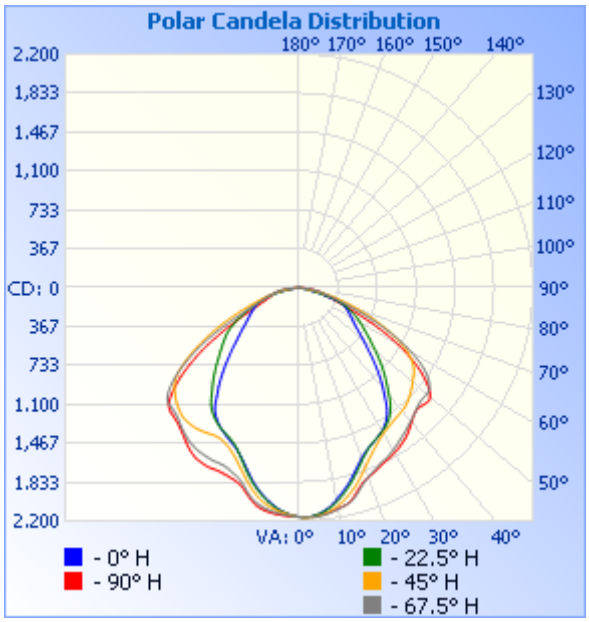


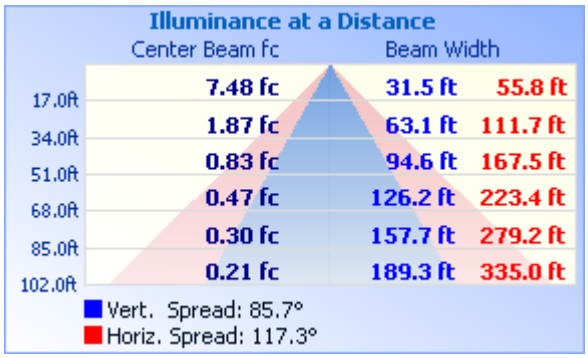


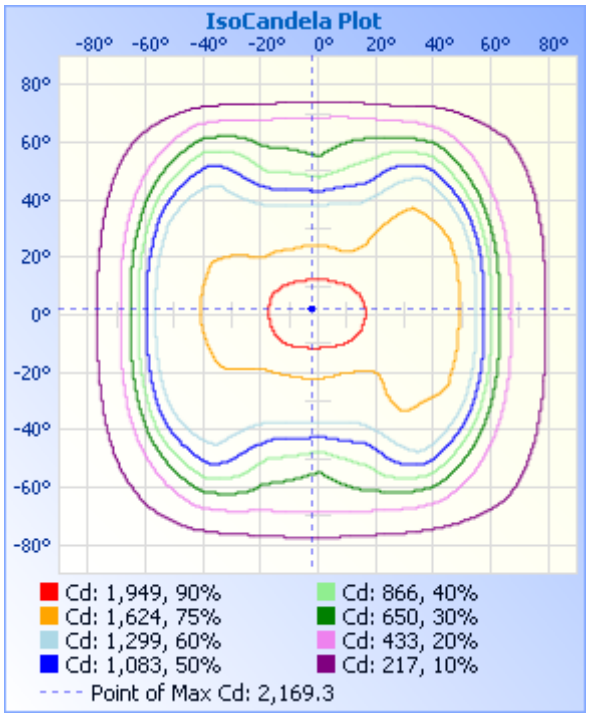
Zonal Lumen Tabulation

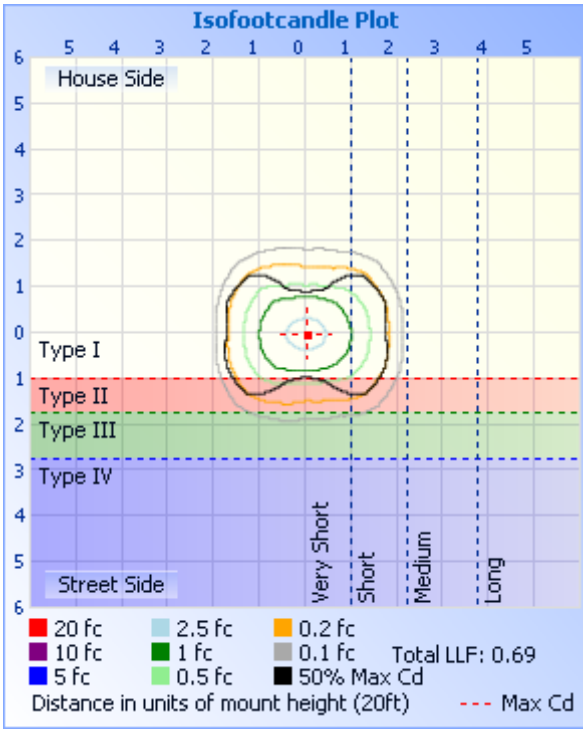
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1,531.8	27.2%
0-40	2,529.9	44.9%
0-60	4,634.0	82.2%
60-90	995.8	17.7%
70-100	329.5	5.8%
90-120	1.2	0%
0-90	5,629.8	99.9%
90-180	8.1	0.1%
0-180	5,637.9	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	201.5	3.6%	90-100	0.0	0%
10-20	541.5	9.6%	100-110	0.2	0%
20-30	788.7	14.0%	110-120	0.9	0%
30-40	998.1	17.7%	120-130	1.5	0%
40-50	1,084.3	19.2%	130-140	1.6	0%
50-60	1,019.8	18.1%	140-150	1.4	0%
60-70	666.3	11.8%	150-160	1.2	0%
70-80	289.2	5.1%	160-170	0.8	0%
80-90	40.3	0.7%	170-180	0.3	0%


Polar Candela Distribution
180° 170° 160° 150° 140°
2,200
1,833
1,467
1,100
733
367
CD: 0
367
733
1,100
1,467
1,833
2,200
130°
120°
110°
100°
90°
80°
70°
60°
50°
VA: 0° 10° 20° 30° 40°
- 0° H
- 90° H
- 22.5° H
- 45° H
- 67.5° H


Illuminance at a Distance
Center Beam fc
Beam Width
17.0ft
34.0ft
51.0ft
68.0ft
85.0ft
102.0ft
7.48 fc 31.5 ft 55.8 ft
1.87 fc 63.1 ft 111.7 ft
0.83 fc 94.6 ft 167.5 ft
0.47 fc 126.2 ft 223.4 ft
0.30 fc 157.7 ft 279.2 ft
0.21 fc 189.3 ft 335.0 ft
Vert. Spread: 85.7°
Horiz. Spread: 117.3°


IsoCandela Plot
-80° -60° -40° -20° 0° 20° 40° 60° 80°
80°
60°
40°
20°
0°
-20°
-40°
-60°
-80°
Cd: 1,949, 90%
Cd: 1,624, 75%
Cd: 1,299, 60%
Cd: 1,083, 50%
Cd: 866, 40%
Cd: 650, 30%
Cd: 433, 20%
Cd: 217, 10%
Point of Max Cd: 2,169.3


Isofootcandle Plot
5 4 3 2 1 0 1 2 3 4 5
House Side
Type I
Type II
Type III
Type IV
Street Side
Very Short
Short
Medium
Long
20 fc
10 fc
5 fc
2.5 fc
1 fc
0.5 fc
0.2 fc
0.1 fc
50% Max Cd
Total LLF: 0.69
Distance in units of mount height (20ft)
Max Cd

γ (DEG) \ C (DEG)	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
0	2161	2161	2161	2161	2161	2161	2161	2161	2161	2161	2161	2161	2161	2161	2161	2161
5	2148	2146	2144	2134	2141	2142	2159	2163	2156	2150	2128	2111	2102	2105	2118	2137
10	2110	2103	2076	2035	2029	2046	2089	2119	2114	2105	2052	2002	1982	1991	2038	2088
15	1980	1984	1936	1881	1875	1897	1966	2039	2027	2009	1931	1849	1817	1832	1888	1957
20	1902	1889	1786	1710	1714	1732	1809	1901	1903	1864	1764	1683	1657	1657	1725	1849
25	1889	1870	1700	1604	1623	1621	1675	1823	1842	1791	1632	1577	1570	1558	1627	1818
30	1884	1883	1679	1558	1559	1563	1586	1768	1796	1730	1548	1506	1499	1504	1604	1811
35	1824	1860	1708	1494	1442	1482	1540	1700	1737	1668	1503	1417	1383	1425	1636	1783
40	1737	1791	1714	1347	1225	1314	1511	1637	1647	1598	1480	1256	1161	1276	1645	1719
45	1689	1724	1665	1192	1002	1127	1463	1579	1597	1524	1435	1085	946	1123	1604	1657
50	1572	1668	1582	1042	805	944	1392	1565	1607	1540	1366	916	765	978	1528	1620
55	1251	1416	1423	911	661	789	1317	1482	1411	1455	1290	772	633	862	1387	1390
60	838	1052	1137	772	570	668	1156	1226	1082	1193	1119	658	542	735	1101	1032
65	489	640	813	602	502	553	884	859	679	832	845	537	475	567	776	638
70	330	385	521	429	415	420	585	495	384	477	561	405	403	405	489	389
75	263	266	309	209	189	212	333	282	247	278	336	283	296	275	300	276
80	197	196	86.7	8.48	7.20	8.18	82.5	172	174	180	173	119	75.0	115	166	207
85	65.9	33.1	3.81	3.42	0.89	3.42	3.81	27.4	64.0	92.9	2.20	1.27	1.34	1.33	1.58	98.5
90	0.06	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
105	0.37	0.53	0.47	0.00	0.00	0.00	0.00	0.26	0.26	0.26	0.37	0.00	0.00	0.00	0.32	0.58
110	1.00	1.27	0.79	0.00	0.00	0.00	0.58	0.79	0.63	0.79	0.74	0.32	0.05	0.16	0.53	1.17
115	1.53	1.69	1.16	0.37	0.59	0.47	1.16	1.37	1.11	1.21	1.27	0.43	0.48	0.37	0.90	1.43
120	2.16	2.11	1.53	0.48	0.54	0.53	1.48	1.90	1.64	1.69	1.69	0.91	0.49	0.80	1.16	1.69
125	2.64	2.48	1.69	1.22	1.29	1.32	1.69	2.33	2.11	2.11	1.79	1.33	1.18	1.17	1.27	2.01
130	3.01	2.85	1.69	3.86	1.34	1.44	1.91	2.70	2.43	2.22	1.90	1.60	1.56	1.60	1.43	2.06
135	3.16	2.69	1.69	1.81	1.50	1.64	2.01	2.70	2.38	2.27	1.90	1.86	1.88	1.97	1.43	2.01
140	2.85	2.74	1.69	1.97	1.71	1.91	2.06	2.65	2.59	2.53	1.90	2.23	2.25	2.02	1.43	2.22
145	2.80	2.16	2.00	2.02	1.82	1.92	1.75	2.54	2.64	2.58	2.16	2.40	2.47	2.23	2.07	2.28
150	2.80	2.16	2.48	2.23	2.36	2.13	2.12	2.54	2.68	2.64	2.64	2.71	2.79	2.66	2.81	2.38
155	2.48	2.32	2.90	2.71	2.73	2.23	2.44	2.75	2.16	2.79	2.64	2.87	2.79	2.66	2.80	2.43
160	2.22	2.64	3.01	3.03	2.90	2.39	2.80	2.81	2.27	2.58	2.85	3.09	2.90	2.77	2.80	2.59
165	2.27	2.79	3.01	3.03	3.00	2.66	2.91	2.70	2.69	2.69	2.91	3.25	3.06	3.04	2.97	2.86
170	2.69	3.00	3.69	3.40	3.38	3.29	3.70	3.01	3.06	2.90	3.49	3.94	4.07	4.10	0.08	3.71
175	3.00	3.32	3.85	3.78	4.18	3.61	3.76	3.12	3.11	2.90	3.69	3.83	4.07	4.36	3.76	3.92
180	2.90	3.75	3.85	3.83	4.66	3.72	3.92	3.28	2.90	2.90	3.65	3.83	3.86	4.31	3.71	3.92

BUG Rating: B2-U1-G1

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	774.79	13.7
FM - Front-Medium(30-60)	1573.3	27.9
FH - Front-High(60-80)	469.95	8.3
FVH - Front-Very High(80-90)	15.755	0.3
Total Forward Light	2838	50.3

BL - Back-Low(0-30)	757.05	13.4
BM - Back-Medium(30-60)	1529.4	27.1
BH - Back-High(60-80)	485.48	8.6
BVH - Back-Very High(80-90)	24.523	0.4
Total Back Light	2800.5	49.7

UL - Uplight-Low(90-100)	0.00086012	0.0
UH - Uplight-High(100-180)	8.1114	0.1
Total Up Light	8.1123	0.1

BUG(Back,Up,Glare) Rating	B2-U1-G1

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2796.5	3.9792	2800.5
Street Side	2833.8	4.1331	2838

2.2 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction QD25)

Test date	2016-11-12	**Test Ambient:**	25.2 ºC
Test Orientation	As intended	**Stabilization Time (min)**	90
Model Number	71345A		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE161105-BS2	120.0	60	0.4280	50.63	0.9858	12.64
	277.0	60	0.1960	48.88	0.9002	16.09
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method :

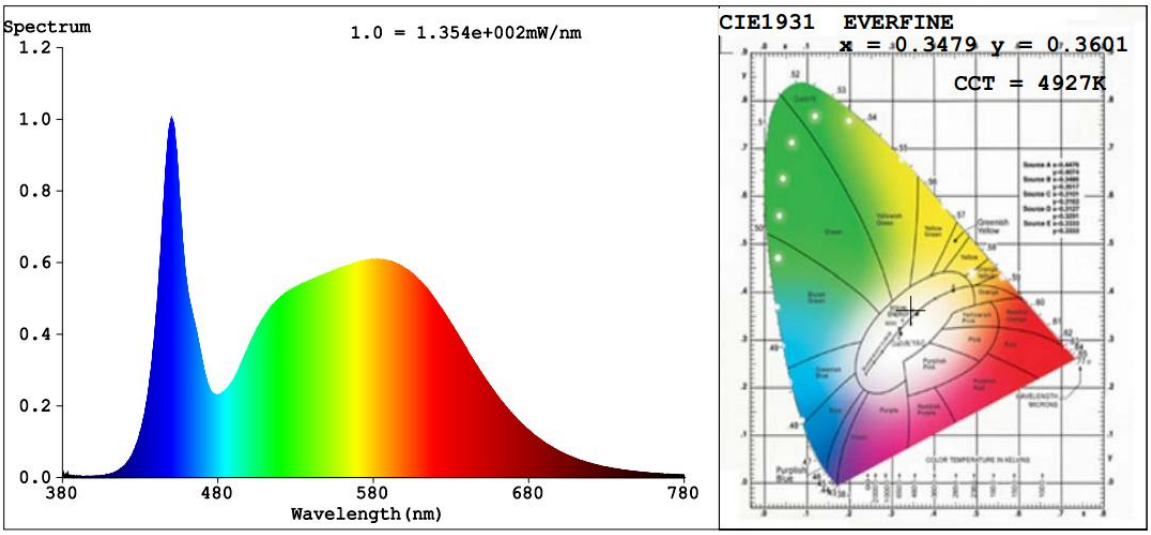
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	4927
Duv	0.0031
Chromaticity (x, y)	x=0.3479 y=0.3601
Chromaticity (u', v')	u'=0.2100 v'=0.4891
Color Rendering Index (CRI)	82.7
R9	8

Special Color Rendering Indices			
R1	81	R9	8
R2	88	R10	70
R3	93	R11	81
R4	82	R12	56
R5	81	R13	82
R6	82	R14	96
R7	88	R15	75
R8	68	--	--

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)	6103	5857	>=1000 (-10%)	
Luminous Efficacy (lm/W)	120.54	119.82	Standard: >= 95(-3%)	Premium: >= 115(-3%)

Spectral Power Distribution & Chromaticity Diagram



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 ********