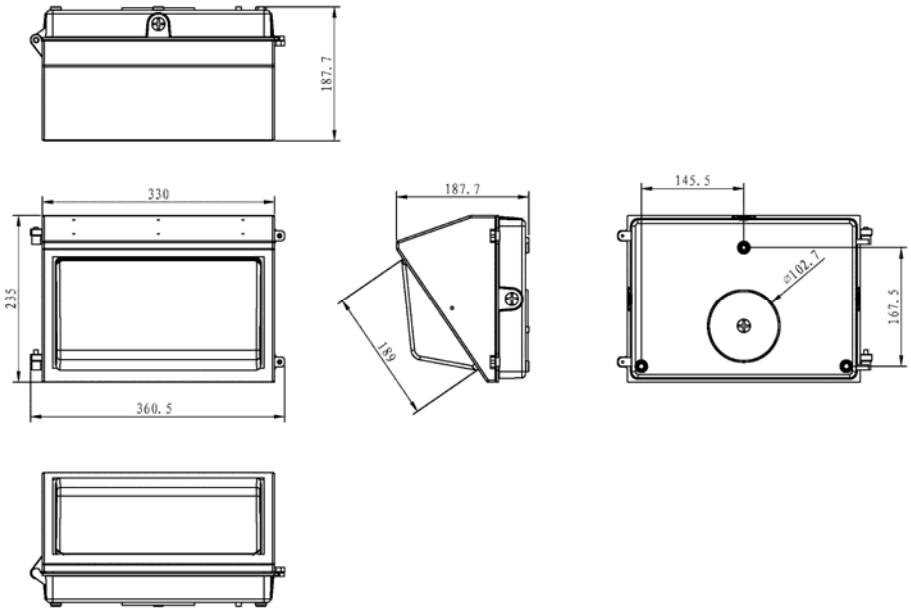
Cat# 71426A
LED Wall-PACK

QPL ID #
PLO3JLI4OV69

Model :		71426A
OVERALL LAMP PARAMETERS	Input Voltage	100-277VAC
	Input Current	0.85A Max.
	Input Power	80W
	Power Factor	PF≥0.9
	Luminance	8100LM
	Luminous Efficiency	110LM/W
	CRI	83
	Beam Angle	120°
	Main Structure	Alluminium + Tempered Glass
	Surface	Baking Varnish
LED DRIVER	Output Voltage	25.2-42VDC
	Output Current	1.95A
	Driver Efficiency	91%
LED	LED Type	Cree
	LED Quantity	96 PCS
	LED Manufacturer	philips
	LED Efficacy	140 lm/W
	Color Temperature	5091K
LIFESPAN & ENVIRONMENT	Lifespan	50000 Hrs.
	Warranty	5 Years
	IP Rating	IP65
	Operating Temperature	-40F—+131F
	Storage Temperature.Humidity	-40℃—+80℃ , 10—90% RH
SAFETY&EMC	Safety Norms	EN60598, EN61347-2-13, EN62031, EN62471, UL1598, UL8750
	Withstand Voltage	I/P-FG: 2121VDC
	Grounding Resistance	25A 100mΩ
	Electromagnetic Compatibility	EN55015, EN61000-2-3, EN61000-3-3, EN61547
OTHERS	Dimension	Pls refer to attached dimension drawing
	Net Weight(Kg)	4.3
	Gross Weight(Kg)	5.2
	Box Size	--
	Carton Size	390*230*315
	Q'ty / Carton	1

Dimension:



NVLAP LAB CODE 201011-0

LM-79-08 Test Report

For

Morris Products Inc.

(Brand Name: Morris)

53 Carey Rd
Queensbury, NY 12804

LED Luminaires

Model name(s): 71426A

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

Test & Report By:

Garman Mo

Engineer: Garman Mo
Update: Sept.05,2016

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	71426A	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	LED Luminaires	
Rated Voltage / Frequency	100 -277Vac, 50/60 Hz	
Nominal Power	80W	
Rated Initial Lamp Lumen	--	
Declared CCT	5000K	
LED Manufacturer	N/A	
LED Model	N/A	
Sample Number	GZE160901-E1(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	: Aug.31,2016
Date of Test	: Sept.01,2016
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 25º C ± 1º 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 25º C ± 1º 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	2016-09-01	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	71426A		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE160901-C1	120.0	60	0.6469	75.86	0.9773	14.81
	277.0	60	0.2922	76.19	0.9414	19.28

Photometric Measurement – Goniophotometer Method :

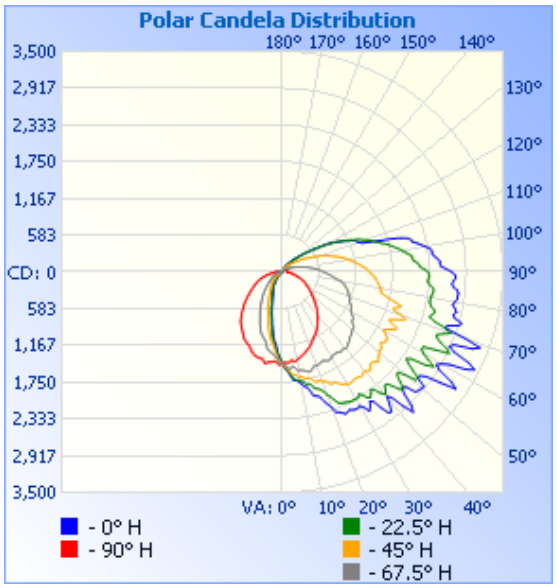
Parameter	Result	
Test Voltage (V)	120.0	277.0
Frequency (Hz)	60	60
Total Luminous (lm)	8588.4	8444.1
Luminous Efficacy (lm/W)	113.21	110.83
Total Luminous (lm) (0°-90° zone)	6627.7	6518.4
Luminous Efficacy (lm/W) (0°-90° zone)	87.37	85.55
Zonal lumens in the 80-90° zone (%) (0-90° zone)	13.4	--
Beam Angle (°)	99.7	--
Center Beam Candle Power (cd)	1444	--

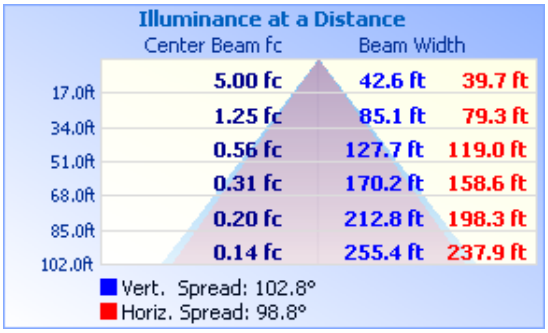
Zonal Lumen Tabulation

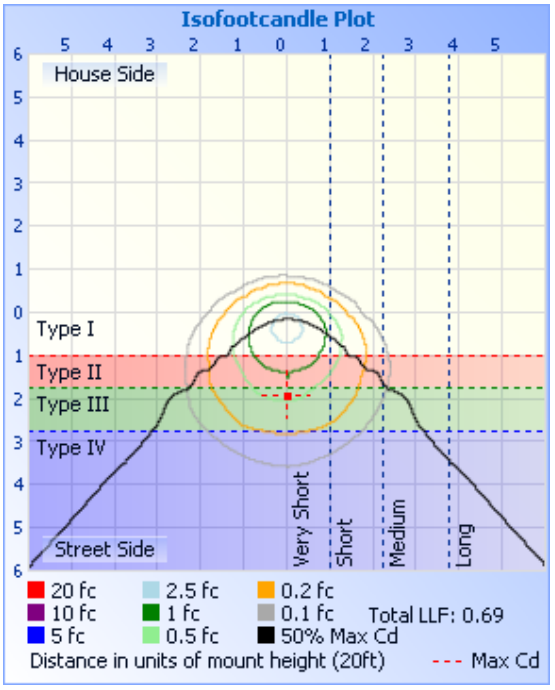
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1,100.0	12.8%
0-40	1,859.8	21.7%
0-60	3,726.8	43.4%
60-90	2,901.0	33.8%
70-100	2,611.7	30.4%
90-120	1,661.0	19.3%
0-90	6,627.7	77.2%
90-180	1,961.8	22.8%
0-180	8,589.6	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	135.1	1.6%	90-100	752.1	8.8%
10-20	375.8	4.4%	100-110	560.8	6.5%
20-30	589.1	6.9%	110-120	348.1	4.1%
30-40	759.9	8.8%	120-130	179.6	2.1%
40-50	891.3	10.4%	130-140	77.1	0.9%
50-60	975.7	11.4%	140-150	31.4	0.4%
60-70	1,041.4	12.1%	150-160	10.3	0.1%
70-80	973.0	11.3%	160-170	2.2	0%
80-90	886.6	10.3%	170-180	0.3	0%

Photometric Data







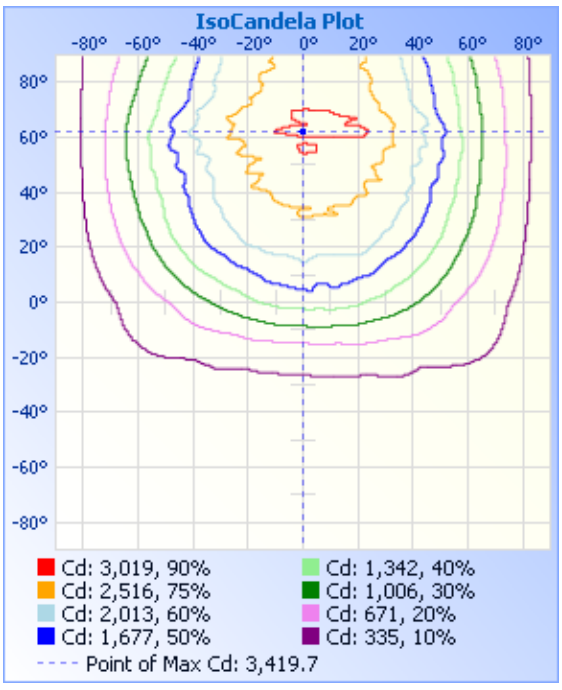


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Table--1 UNIT: cd

γ (DEG) \ C (DEG)	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338		
0	1444	1444	1444	1444	1444	1444	1444	1444	1444	1444	1444	1444	1444	1444	1444	1444		
5	1426	1507	1581	1691	1676	1656	1609	1536	1426	1360	1266	1185	1170	1213	1270	1346		
10	1470	1598	1664	1720	1805	1764	1696	1582	1407	1218	1070	934	892	953	1085	1259		
15	1416	1634	1831	1880	2038	1892	1753	1637	1336	1061	828	675	642	693	876	1103		
20	1364	1663	1890	2067	2296	2074	1846	1581	1264	908	623	496	452	504	669	1003		
25	1274	1686	2042	2304	2452	2288	1927	1550	1164	738	463	372	345	388	526	842		
30	1216	1651	2176	2398	2456	2329	2046	1565	1077	606	360	294	283	309	406	703		
35	1115	1622	2183	2489	2502	2431	2054	1556	971	489	288	232	207	243	320	583		
40	1025	1627	2221	2685	2580	2536	2043	1577	861	394	233	161	145	172	261	478		
45	906	1578	2196	2868	2732	2632	2026	1512	752	316	178	120	107	127	202	383		
50	790	1521	2234	2838	2878	2542	2003	1441	642	252	130	85.6	76.9	91.2	152	297		
55	668	1430	2190	2739	3074	2401	1943	1347	550	205	98.3	57.4	42.1	64.7	119	236		
60	567	1336	2054	2888	2912	2584	1850	1256	461	167	73.1	35.7	27.9	40.4	89.0	189		
65	480	1247	2059	3202	3010	2882	1903	1200	388	139	54.7	23.1	17.6	26.4	65.7	153		
70	407	1142	2046	3073	3088	2845	2014	1122	307	116	38.1	7.16	4.39	9.60	47.1	125		
75	321	1058	1958	2734	2829	2499	1861	1070	222	98.4	22.0	5.23	5.41	4.86	28.7	102		
80	231	980	1803	2568	2772	2386	1586	968	160	83.5	18.6	5.76	6.16	5.24	22.1	86.0		
85	155	851	1712	2532	2722	2349	1494	798	116	71.1	16.5	6.56	7.35	6.09	19.3	72.5		
90	106	723	1608	2491	2692	2315	1381	659	89.0	61.8	14.1	6.78	7.66	6.30	17.0	63.2		
95	83.0	605	1456	2260	2467	2089	1240	544	76.7	52.3	11.9	6.77	7.72	6.41	14.7	52.3		
100	70.6	486	1288	2106	2312	1934	1087	423	69.5	43.0	9.77	6.40	7.72	6.25	12.1	41.9		
105	63.2	384	1107	1873	2065	1716	927	312	59.9	34.8	8.25	6.19	7.72	6.14	10.3	34.4		
110	59.0	289	905	1627	1350	1470	751	229	53.3	27.7	7.14	5.65	7.34	5.61	8.84	28.1		
115	54.0	220	712	1357	1176	1200	581	171	47.6	21.8	6.34	5.60	7.02	5.56	7.35	22.8		
120	43.8	168	526	1053	939	930	439	131	40.7	17.1	5.50	5.55	6.54	5.18	6.39	18.6		
125	33.5	128	380	748	669	664	318	98.9	33.4	13.8	4.71	4.75	5.68	4.65	5.43	15.2		
130	25.6	96.0	285	498	465	456	235	73.9	26.1	10.8	4.33	4.64	4.98	4.54	4.69	12.5		
135	20.2	71.1	210	319	325	300	177	55.5	19.7	8.62	3.97	4.43	4.72	4.54	4.05	10.3		
140	15.7	53.2	154	216	232	202	132	42.2	14.6	7.09	3.91	4.54	4.82	4.49	4.00	7.91		
145	11.9	38.8	106	149	163	141	93.5	29.9	10.7	5.73	3.86	4.59	4.82	4.75	4.05	6.11		
150	8.72	25.6	68.8	92.9	114	94.5	62.5	18.5	7.61	4.89	3.75	4.58	4.72	4.59	4.05	4.67		
155	6.04	14.0	42.8	60.0	72.3	61.2	39.0	9.00	5.03	3.89	3.17	3.73	4.02	4.06	3.78	3.19		
160	4.05	5.00	24.8	36.6	44.5	36.6	21.2	4.05	2.99	2.89	3.17	3.25	3.54	3.63	3.52	3.14		
165	2.83	2.52	8.63	18.4	22.8	18.2	7.51	2.61	2.73	2.73	3.23	3.31	3.38	3.37	3.57	3.19		
170	3.25	3.00	2.80	3.86	5.86	3.48	2.66	3.03	3.73	3.84	4.28	4.43	4.07	3.85	4.16	4.20		
175	3.41	3.62	3.27	2.93	2.62	2.83	3.14	3.35	3.57	3.57	4.28	4.21	3.91	3.79	3.94	3.99		
180	3.41	3.73	3.49	2.99	3.06	3.15	3.30	3.72	3.52	3.42	3.75	3.68	3.05	2.99	3.03	3.35		

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 ******