



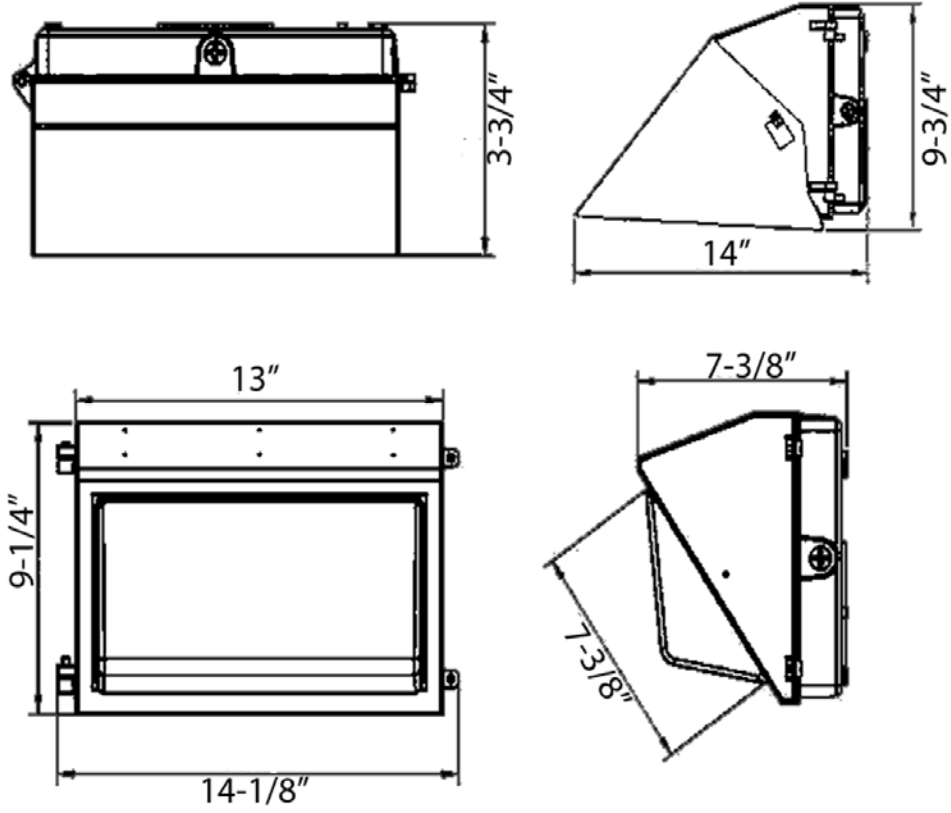
Cat# 71428A
LED Classic Medium Wall-Pack



QPL ID #
PL8QGV73KT90

Model :		71428A
OVERALL LAMP PARAMETERS	Input Voltage	100-277VAC
	Input Current	0.8A Max
	Input Power	60W
	Power Factor	PF≥0.9
	Luminance	5500 LM
	Luminous Efficiency	90LM/W
	CRI	83
	Beam Angle	120°
	Main Structure	Aluminium + Tempered Glass
	Surface	Baking Varnish
LED DRIVER	Output Voltage	25.2-42VDC
	Output Current	1.43A
	Driver Efficiency	91%
LED	LED Type	Cree
	LED Quantity	66 PCS
	LED Manufacturer	Phillips
	LED Efficacy	140 lm/W
	Color Temperature	5098K
LIFESPAN & ENVIRONMENT	Lifespan	50000 Hrs.
	Warranty	5 Years
	IP Rating	IP65
	Operating Temperature	-40°F—+131°F
	Storage Temperature.Humidity	-40°F—+176°F , 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

Report No.: GZE160901-B

LM-79-08 Test Report

For

Morris Products Inc.

(Brand Name: Morris)

53 Carey Rd
Queensbury, NY 12804

LED Luminaires

Model name(s): 71428A

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.

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

Tel: 8620-3229 0320

Fax: 8620-32290422

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

1.1 Product Information:

Organization Name	Morris Products Inc.		
Brand Name	Morris		
Model Number	71428A		
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	60W		
Rated Initial Lamp Lumen	--		
Declared CCT	5000K		
LED Manufacturer	N/A		
LED Model	N/A		
Sample Number	GZE160901-B1(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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, 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 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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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 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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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	71428A		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE160901-	120.0	60	0.4883	58.11	0.9917	4.90
B1	277.0	60	0.2343	57.03	0.8786	16.38

Photometric Measurement – Goniophotometer Method :

Parameter	Result	
Test Voltage (V)	120.0	277.0
Frequency (Hz)	60	60
Total Luminous (lm)	6462.5	6460.1
Luminous Efficacy (lm/W)	111.21	113.28
Total Luminous (lm) (0°-90° zone)	5033.6	5035.6
Luminous Efficacy (lm/W) (0°-90° zone)	86.62	88.30
Zonal lumens in the 80-90° zone (%) (0-90° zone)	13.4	--
Beam Angle (°)	101.8	--
Center Beam Candle Power (cd)	1225	--

Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	873.5	13.5%
0-40	1,456.4	22.6%
0-60	2,876.1	44.6%
60-90	2,157.4	33.4%
70-100	1,964.7	30.4%
90-120	1,157.0	17.9%
0-90	5,033.6	78%
90-180	1,421.6	22%
0-180	6,455.2	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	113.0	1.8%	90-100	540.1	8.4%
10-20	308.5	4.8%	100-110	385.8	6%
20-30	451.9	7.0%	110-120	231.1	3.6%
30-40	582.9	9.0%	120-130	137.4	2.1%
40-50	674.4	10.4%	130-140	74.8	1.2%
50-60	745.3	11.5%	140-150	37.2	0.6%
60-70	732.8	11.4%	150-160	13.2	0.2%
70-80	750.4	11.6%	160-170	1.7	0%
80-90	674.3	10.4%	170-180	0.2	0%

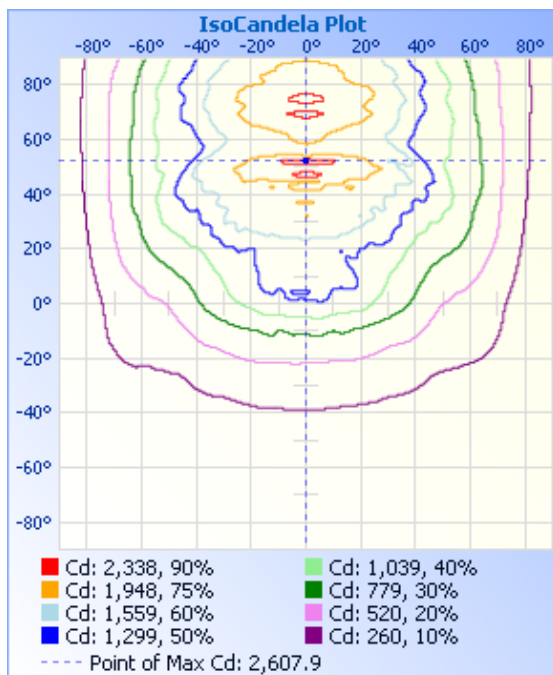
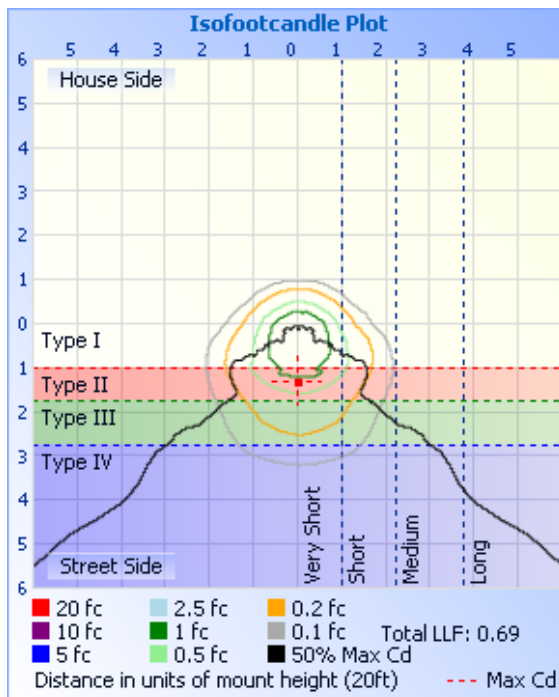
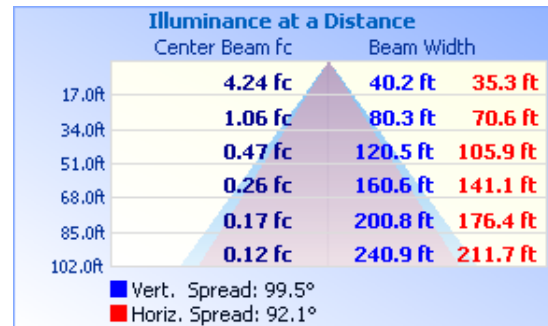
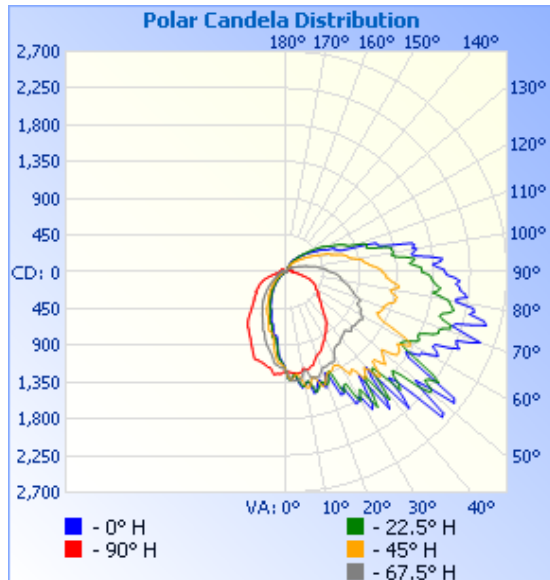
Laboratory: Standard-Tech Co. Ltd Testing Center
 NVLAP CODE: 201011-0

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Photometric Data



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Table--1

UNIT: cd

C (DEG) Y (DEG)	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338		
0	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225		
5	1248	1362	1314	1287	1289	1260	1269	1339	1243	1127	1083	1042	1027	1054	1115	1151		
10	1185	1242	1439	1443	1383	1383	1430	1231	1198	1036	888	795	791	815	895	1031		
15	1148	1307	1349	1529	1451	1496	1333	1333	1190	952	740	673	652	682	757	927		
20	1133	1308	1333	1469	1407	1471	1410	1271	1086	820	660	597	532	588	643	784		
25	1002	1205	1316	1467	1649	1571	1324	1235	1024	725	554	475	459	474	552	680		
30	897	1117	1324	1716	1764	1819	1345	1165	934	626	479	389	370	387	455	589		
35	821	1066	1470	1937	1545	1852	1493	1086	848	542	386	312	290	317	371	512		
40	710	1004	1477	1905	1528	1799	1562	1049	747	459	308	261	229	249	309	434		
45	590	949	1506	2026	1877	1945	1519	1014	617	374	240	193	168	187	238	351		
50	511	949	1553	2199	2062	2298	1524	1041	536	282	191	140	111	134	188	279		
55	446	984	1718	2290	1829	2183	1690	1072	478	217	150	108	89.0	110	151	213		
60	406	997	1593	1675	2027	1694	1749	1064	420	162	116	81.6	45.4	72.5	116	162		
65	357	930	1213	1766	2198	1793	1232	966	397	127	93.6	53.4	31.2	44.9	95.2	130		
70	300	905	1213	1953	2523	2031	1261	940	329	110	76.0	20.7	9.49	20.2	70.2	113		
75	212	788	1273	1914	2533	1971	1384	818	250	100	43.5	3.77	3.63	3.41	38.6	103		
80	141	691	1195	1983	2112	2018	1297	722	170	88.6	26.9	3.82	4.26	3.73	24.6	88.0		
85	100	595	1235	1836	2127	1842	1288	658	116	72.5	21.6	4.57	5.12	4.54	19.4	70.0		
90	74.6	541	1078	1642	1944	1662	1175	542	82.5	62.2	16.3	4.72	5.54	4.64	15.8	61.8		
95	66.6	432	965	1479	1911	1556	1017	463	67.7	53.6	13.1	4.77	5.54	4.64	12.5	53.7		
100	65.7	321	841	1247	1619	1319	909	374	64.7	48.5	10.2	4.46	5.49	4.54	10.2	45.2		
105	66.7	243	714	1119	1248	1143	764	268	65.5	42.4	8.30	3.98	5.48	4.47	8.73	38.6		
110	65.1	184	570	993	862	1007	613	199	62.7	33.5	6.87	3.93	5.06	3.95	7.45	31.9		
115	59.5	141	471	778	661	783	520	154	57.4	25.6	5.57	3.66	4.74	3.84	6.60	25.9		
120	49.0	110	370	640	540	638	398	118	48.7	19.0	4.62	3.45	4.53	3.41	5.48	21.0		
125	38.9	91.2	293	532	447	538	314	97.0	39.8	14.8	3.88	3.03	3.78	3.09	4.53	16.0		
130	29.9	79.7	232	400	368	414	254	85.5	29.8	11.0	3.56	3.02	3.36	3.15	3.94	12.4		
135	21.7	62.7	187	303	297	321	203	71.5	21.3	8.35	2.88	2.97	3.20	2.99	3.09	9.38		
140	15.6	44.6	153	231	242	253	166	53.5	14.6	6.52	2.42	2.92	3.14	2.93	2.66	6.59		
145	10.7	26.4	129	178	199	185	137	32.2	9.96	5.09	2.42	2.92	3.14	3.04	2.66	4.70		
150	7.52	13.2	89.1	139	162	143	98.5	16.6	6.71	3.78	2.42	2.87	2.93	3.04	2.55	3.05		
155	4.99	6.65	42.9	90.8	120	93.8	51.6	6.24	3.87	2.52	2.31	2.38	2.56	2.45	2.45	2.47		
160	2.94	3.58	16.8	40.0	57.0	42.9	18.0	3.17	1.84	1.84	2.21	2.28	2.29	2.29	2.40	2.47		
165	2.26	2.05	1.95	12.3	17.5	12.4	1.93	1.93	1.84	1.89	2.26	2.28	2.29	2.29	2.45	2.47		
170	2.46	2.10	2.10	2.07	1.76	1.97	2.02	2.14	2.57	2.79	3.10	3.03	3.04	2.67	2.88	3.11		
175	2.68	2.58	2.47	2.12	1.81	2.08	2.34	2.63	2.47	2.74	3.05	2.92	2.98	2.50	2.82	3.11		
180	2.68	2.89	2.68	2.28	2.13	2.13	2.77	2.84	2.47	2.68	2.89	2.81	2.28	2.13	2.13	2.62		

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 *******