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## Photometric Test Report

Relevant Standards  
IES LM-79-2008, ANSI C82.77-10-2014, UL 1598-2008

**Prepared For**  
**H E Williams Inc**  
831 W Fairview Ave  
PO Box 837  
Carthage, MO 64836-0837  
United States

**Catalog Number**  
**MX2U-4'00-L8/830-F-AC/Dxx-XX-DIM-UNV**  
Order Number  
13012869  
Test Number  
13012869.07

Test Date

2019-09-05 - 2019-09-11

Prepared By

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Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
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Laboratory results may not be representative of field performance  
Ballast factors have not been applied



**Luminaire Description:** Formed White aluminum housing, lens  
**Lamp:** 144 White LEDs  
**Mounting:** Pendant  
**Ballast/Driver:** One Philips Advance XI040C110V054BST1 Driver

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 47.50 in.  
Luminous Width: 2.000 in.

**Summary of Results**

**Distribution**

Total Luminaire Output: 3302 Lumens  
Luminaire Efficacy: 136.6 lm/w  
Maximum Candela: 1348 Candela

**Electrical Data at 277 VAC**

Test Temperature: 24.2 °C  
Voltage: 277.0 VAC  
Current: 0.09300 A  
Power: 24.58 W  
Power Factor: 0.951  
Frequency: 60 Hz  
Current THD: 11.1 %

**In-Situ**

LED Temperature: 38.3 °C  
Driver Temperature: 39.1 °C  
Measured LED Current: 0.05017 A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.



## Distribution - Goniophotometer

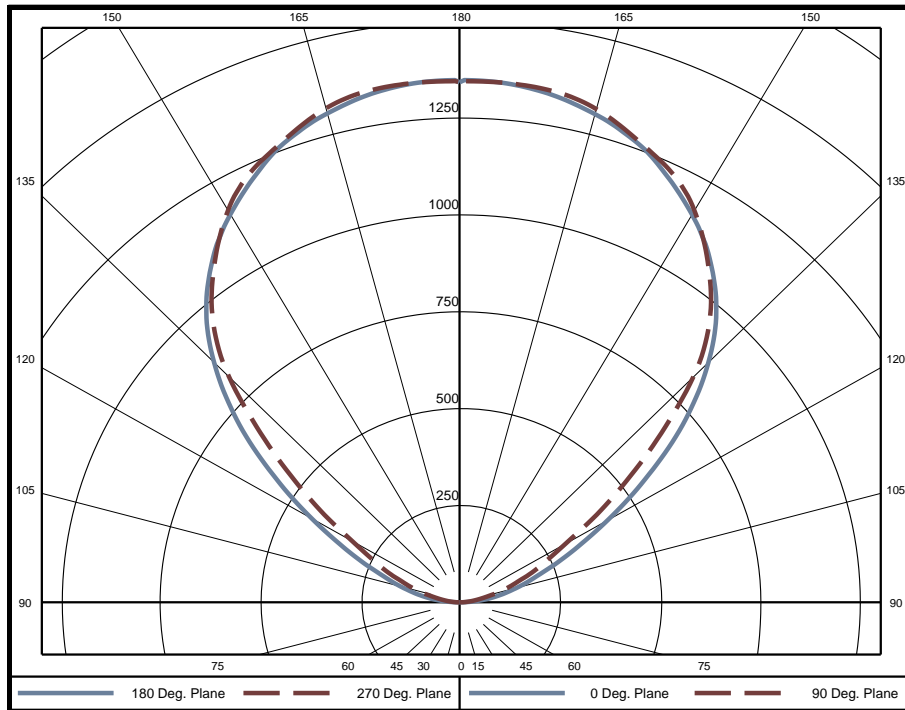
### Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.0 °C	120.1 VAC	0.2029 A	24.17 W	0.992	60 Hz	10.5 %

### Summary of Results

Total Lumen Output:	3302 Lumens
Luminaire Efficacy:	136.6 lm/w
Maximum Candela:	1348 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0	0.0%	60-65	0	0.0%	120-125	207.6	6.3%
5-10	0	0.0%	65-70	0	0.0%	125-130	265.6	8.0%
10-15	0	0.0%	70-75	0	0.0%	130-135	314.4	9.5%
15-20	0	0.0%	75-80	0	0.0%	135-140	342.4	10.4%
20-25	0	0.0%	80-85	0	0.0%	140-145	345.6	10.5%
25-30	0	0.0%	85-90	0	0.0%	145-150	331.1	10.0%
30-35	0	0.0%	90-95	9.5	0.3%	150-155	302.4	9.2%
35-40	0	0.0%	95-100	27.9	0.8%	155-160	261.8	7.9%
40-45	0	0.0%	100-105	51.9	1.6%	160-165	212.7	6.4%
45-50	0	0.0%	105-110	79.2	2.4%	165-170	156.6	4.7%
50-55	0	0.0%	110-115	111.7	3.4%	170-175	95.6	2.9%
55-60	0	0.0%	115-120	153.5	4.6%	175-180	32.1	1.0%

Zone	Lumens	% of Luminaire
0-40	0	0.0%
0-60	0	0.0%
0-90	0	0.0%
90-180	3302	100.0%



**Candela Tabulation**  
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	90	6	7	7	7	7	7	7	6	7	7	7	7	7	7	7
95	49	38	29	26	25	26	29	38	49	38	29	26	25	26	29	38
100	97	87	70	57	53	57	70	87	97	87	70	57	53	57	70	87
105	150	147	116	106	102	106	116	147	150	147	116	106	102	106	116	147
110	213	216	171	159	153	159	171	216	213	216	171	159	153	159	171	216
115	307	305	263	224	223	224	263	305	307	305	263	224	223	224	263	305
120	428	425	384	327	309	327	384	425	428	425	384	327	309	327	384	425
125	575	572	546	478	455	478	546	572	575	572	546	478	455	478	546	572
130	734	732	716	655	629	655	716	732	734	732	716	655	629	655	716	732
135	876	881	865	838	824	838	865	881	876	881	865	838	824	838	865	881
140	994	998	991	972	972	972	991	998	994	998	991	972	972	972	991	998
145	1085	1089	1088	1076	1077	1076	1088	1089	1085	1089	1088	1076	1077	1076	1088	1089
150	1156	1161	1164	1164	1169	1164	1164	1161	1156	1161	1164	1164	1169	1164	1164	1161
155	1217	1224	1222	1226	1234	1226	1222	1224	1217	1224	1222	1226	1234	1226	1222	1224
160	1270	1272	1270	1271	1276	1271	1270	1272	1270	1272	1270	1271	1276	1271	1270	1272
165	1305	1306	1307	1310	1318	1310	1307	1306	1305	1306	1307	1310	1318	1310	1307	1306
170	1330	1330	1328	1331	1340	1331	1328	1330	1330	1330	1328	1331	1340	1331	1328	1330
175	1345	1343	1337	1337	1346	1337	1337	1343	1345	1343	1337	1337	1346	1337	1337	1343
180	1343	1343	1343	1343	1343	1343	1343	1343	1343	1343	1343	1343	1343	1343	1343	1343



### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	57	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

Up Light Beam and Field Information	
CIE Type:	Indirect
Center Beam Intensity:	1343 Candela
Central Cone Intensity:	1342 Candela
Beam Flux:	3301.6 Lumens
Beam Angle (0-180):	104.0 Degrees
Beam Angle (90-270):	97.7 Degrees
Field Angle (0-180):	152.8 Degrees
Field Angle (90-270):	143.5 Degrees



## In-Situ Test

### In-Situ Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
20.8 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

### Summary of Results

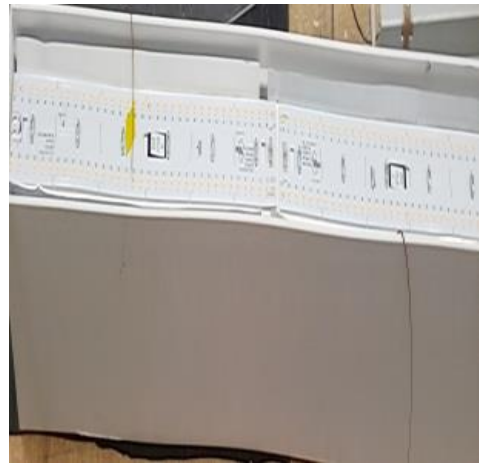
LED Temperature: 38.3 °C  
Driver Temperature: 39.1 °C  
Measured LED Current: 0.05017 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

### LED Temperature Location



### Thermocouple Reference



### Driver Temperature Location

