

**LIGHTING COMPLIANCE CERTIFICATE ADMINISTRATIVE BUILDING**

MSA ENGINEERING CONSULTANTS  
370 Windmill, Ste. 100  
Las Vegas, NV 89123  
(702) 896-1100  
www.msa-nv.com

Project Name: ADMINISTRATIVE BLDG MSA Project Number: L08165  
Address: \_\_\_\_\_ Date: 7/3/2008  
Designer: MSA

NOTE: THESE CALCULATIONS ARE BASED ON THE SOUTHERN NEVADA AMENDMENTS TO THE 2006 INTERNATIONAL ENERGY CONSERVATION CODE, PUBLISHED OCTOBER 12, 2006. THE AREA ALLOWANCE CALCULATIONS ARE BASED ON "TABLE 508.5.2 / INTERIOR LIGHTING POWER ALLOWANCES".

**SECTION 1: ALLOWED LIGHTING POWER CALCULATION**

AREA CATEGORY	ALLOWED MATTS / SF	CEILING HEIGHT	CLG HT ADJUST	FLOOR AREA (SF)	TOTAL MATTS (W)
OFFICE	1.1	12 or less	1.00	1941	2135
CORRIDOR, RESTROOM, SUPPORT	0.9	12 or less	1.00	961	865
RETAIL SALES, SHOW ROOM - (6)	1.7	12 or less	1.00	277	471
<b>TOTAL ALLOWED MATTAGE</b>					<b>3471</b>

**SECTION 2: ACTUAL LIGHTING POWER CALCULATION**

ID	COMPONENT / LAMP SOURCE	FIXTURE DESCRIPTION	LAMP DESCRIPTION	BALLAST TYPE	BF	LAMPS / FIXTURE	No. of FIXTURES	FIXTURE MATTS	TOTAL MATTAGE (W)
F1-F1E	Linear Fluorescent	2X4 FLUORESCENT	48" T8 32W	Electronic	0.95	2	34	64	2172.2
F2-F2E	Linear Fluorescent	1X4 SURFACE	48" T8 32W	Electronic	0.95	2	4	64	243.2
F3-F3E	Linear Fluorescent	4 STRIP	48" T8 32W	Electronic	0.95	2	3	64	192.4
<b>TOTAL ACTUAL MATTAGE</b>									<b>2422.8</b>

**SECTION 3: COMPLIANCE CALCULATION**

TOTAL ALLOWED MATTAGE	3471
TOTAL ACTUAL MATTAGE	2422.8
PROJECT COMPLIANCE	69.8%
LIGHTING DESIGN PASSES (BETTER THAN CODE)	15.5%

**LIGHTING COMPLIANCE CERTIFICATE MULTI-PURPOSE BUILDING**

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Project Name: MULTI-PURPOSE BUILDING MSA Project Number: L08165  
Address: \_\_\_\_\_ Date: 7/3/2008  
Designer: MSA

NOTE: THESE CALCULATIONS ARE BASED ON THE SOUTHERN NEVADA AMENDMENTS TO THE 2006 INTERNATIONAL ENERGY CONSERVATION CODE, PUBLISHED OCTOBER 12, 2006. THE AREA ALLOWANCE CALCULATIONS ARE BASED ON "TABLE 508.5.2 / INTERIOR LIGHTING POWER ALLOWANCES".

**SECTION 1: ALLOWED LIGHTING POWER CALCULATION**

AREA CATEGORY	ALLOWED MATTS / SF	CEILING HEIGHT	CLG HT ADJUST	FLOOR AREA (SF)	TOTAL MATTS (W)
CORRIDOR, RESTROOM, SUPPORT	0.9	12 or less	1.00	1587	1428
SPORTS ARENA - (6)	1.1	20 or more	2.04	2288	2528
LOBBY OTHER - (6)	1.3	12 or less	1.00	412	536
<b>TOTAL ALLOWED MATTAGE</b>					<b>5241.9</b>

**SECTION 2: ACTUAL LIGHTING POWER CALCULATION**

ID	COMPONENT / LAMP SOURCE	FIXTURE DESCRIPTION	LAMP DESCRIPTION	BALLAST TYPE	BF	LAMPS / FIXTURE	No. of FIXTURES	FIXTURE MATTS	TOTAL MATTAGE (W)
B2	HID	HIGHBAY	1000W	Electronic	0.95	1	28	1022	2842
F1-F1E	Compact Fluorescent	LCM BAY	Triple 4 Pin 42W	Electronic	0.95	4	32	42	1177
F3-F3E	Linear Fluorescent	4 STRIP	48" T8 32W	Electronic	0.95	2	6	64	384.8
F4-F4E	Compact Fluorescent	DOWNLIGHT	Triple 4 Pin 42W	Electronic	0.95	2	10	42	391
F2-F2E	Linear Fluorescent	4 SURFACE	48" T8 32W	Electronic	0.95	2	23	64	1398.4
<b>TOTAL ACTUAL MATTAGE</b>									<b>2999.2</b>

**SECTION 3: COMPLIANCE CALCULATION**

TOTAL ALLOWED MATTAGE	5241.9
TOTAL ACTUAL MATTAGE	2999.2
PROJECT COMPLIANCE	57.2%
LIGHTING DESIGN PASSES (BETTER THAN CODE)	42.8%

**LIGHTING COMPLIANCE CERTIFICATE STADIUM CLUBS 1 AND 2**

MSA ENGINEERING CONSULTANTS  
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Project Name: STADIUM CLUBS 1 AND 2 MSA Project Number: L08165  
Address: \_\_\_\_\_ Date: 7/3/2008  
Designer: MSA

NOTE: THESE CALCULATIONS ARE BASED ON THE SOUTHERN NEVADA AMENDMENTS TO THE 2006 INTERNATIONAL ENERGY CONSERVATION CODE, PUBLISHED OCTOBER 12, 2006. THE AREA ALLOWANCE CALCULATIONS ARE BASED ON "TABLE 508.5.2 / INTERIOR LIGHTING POWER ALLOWANCES".

**SECTION 1: ALLOWED LIGHTING POWER CALCULATION**

AREA CATEGORY	ALLOWED MATTS / SF	CEILING HEIGHT	CLG HT ADJUST	FLOOR AREA (SF)	TOTAL MATTS (W)
CORRIDOR, RESTROOM, SUPPORT	0.9	12 or less	1.00	922	830
KITCHEN	1.2	12 or less	1.00	1242	1490
RESTAURANT	1.6	12 or less	1.00	3236	5178
<b>TOTAL ALLOWED MATTAGE</b>					<b>8456</b>

**SECTION 2: ACTUAL LIGHTING POWER CALCULATION**

ID	COMPONENT / LAMP SOURCE	FIXTURE DESCRIPTION	LAMP DESCRIPTION	BALLAST TYPE	BF	LAMPS / FIXTURE	No. of FIXTURES	FIXTURE MATTS	TOTAL MATTAGE (W)
F1-F1E	Linear Fluorescent	2X4 FLUORESCENT	48" T8 32W	Electronic	0.95	3	12	96	1044.4
A1	Incandescent	PENDANT	75W	None	1.00	1	7	75	525
F1-F1E	Linear Fluorescent	4 STRIP	48" T8 32W	Electronic	0.95	2	6	64	384.8
F1-F1E	Linear Fluorescent	4 STRIP	48" T8 32W	Electronic	0.95	2	4	64	243.2
F1-F1E	Linear Fluorescent	2X4 FLUORESCENT	48" T8 32W	Electronic	0.95	2	11	64	668.8
F1-F1E	Linear Fluorescent	4 SURFACE	48" T8 32W	Electronic	0.95	2	11	64	668.8
F1-F1E	Linear Fluorescent	4 STAGGERED	48" T8 32W	Electronic	0.95	1	12	32	384.8
F4-F4E	Compact Fluorescent	DOWNLIGHT	Triple 4 Pin 42W	Electronic	0.95	1	36	42	1486.4
<b>TOTAL ACTUAL MATTAGE</b>									<b>4727.8</b>

**SECTION 3: COMPLIANCE CALCULATION**

TOTAL ALLOWED MATTAGE	8456
TOTAL ACTUAL MATTAGE	4727.8
PROJECT COMPLIANCE	55.9%
LIGHTING DESIGN PASSES (BETTER THAN CODE)	44.1%

**LIGHTING COMPLIANCE CERTIFICATE MAINTENANCE BUILDING**

MSA ENGINEERING CONSULTANTS  
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Project Name: MAINTENANCE BUILDING MSA Project Number: L08165  
Address: \_\_\_\_\_ Date: 7/3/2008  
Designer: MSA

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**SECTION 1: ALLOWED LIGHTING POWER CALCULATION**

AREA CATEGORY	ALLOWED MATTS / SF	CEILING HEIGHT	CLG HT ADJUST	FLOOR AREA (SF)	TOTAL MATTS (W)
WORKSHOP	1.4	17	1.47	1185	3926
CORRIDOR, RESTROOM, SUPPORT	0.9	12 or less	1.00	62	56
<b>TOTAL ALLOWED MATTAGE</b>					<b>4044</b>

**SECTION 2: ACTUAL LIGHTING POWER CALCULATION**

ID	COMPONENT / LAMP SOURCE	FIXTURE DESCRIPTION	LAMP DESCRIPTION	BALLAST TYPE	BF	LAMPS / FIXTURE	No. of FIXTURES	FIXTURE MATTS	TOTAL MATTAGE (W)
F2-F2E	Linear Fluorescent	4 SURFACE	48" T8 32W	Electronic	0.95	2	2	64	121.6
F3-F3E	Linear Fluorescent	4 STRIP	48" T8 32W	Electronic	0.95	1	17	64	1089.6
<b>TOTAL ACTUAL MATTAGE</b>									<b>1195.2</b>

**SECTION 3: COMPLIANCE CALCULATION**

TOTAL ALLOWED MATTAGE	4044
TOTAL ACTUAL MATTAGE	1195.2
PROJECT COMPLIANCE	29.6%
LIGHTING DESIGN PASSES (BETTER THAN CODE)	71.4%

**LIGHTING COMPLIANCE CERTIFICATE RESTROOM/CONCESSION BUILDING**

MSA ENGINEERING CONSULTANTS  
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(702) 896-1100  
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Project Name: RESTROOM/CONCESSION MSA Project Number: L08165  
Address: \_\_\_\_\_ Date: 7/3/2008  
Designer: MSA

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**SECTION 1: ALLOWED LIGHTING POWER CALCULATION**

AREA CATEGORY	ALLOWED MATTS / SF	CEILING HEIGHT	CLG HT ADJUST	FLOOR AREA (SF)	TOTAL MATTS (W)
CORRIDOR, RESTROOM, SUPPORT	0.9	12 or less	1.00	497	448
KITCHEN	1.2	12 or less	1.00	348	418
<b>TOTAL ALLOWED MATTAGE</b>					<b>1261</b>

**SECTION 2: ACTUAL LIGHTING POWER CALCULATION**

ID	COMPONENT / LAMP SOURCE	FIXTURE DESCRIPTION	LAMP DESCRIPTION	BALLAST TYPE	BF	LAMPS / FIXTURE	No. of FIXTURES	FIXTURE MATTS	TOTAL MATTAGE (W)
F3-F3E	Linear Fluorescent	4 STRIP	48" T8 32W	Electronic	0.95	2	4	64	243.2
F4-F4E	Linear Fluorescent	2X4 SURFACE MNT	48" T8 32W	Electronic	0.95	3	3	96	273.6
F1-F1E	Linear Fluorescent	4 STRIP W/LENS	48" T8 32W	Electronic	0.95	2	11	64	668.8
<b>TOTAL ACTUAL MATTAGE</b>									<b>1185.6</b>

**SECTION 3: COMPLIANCE CALCULATION**

TOTAL ALLOWED MATTAGE	1261
TOTAL ACTUAL MATTAGE	1185.6
PROJECT COMPLIANCE	94.0%
LIGHTING DESIGN PASSES (BETTER THAN CODE)	6.0%

architectural interior planning engineering

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850 NORTH MOJAVE, LAS VEGAS, NEVADA 89101  
LIGHTING COMPLIANCE FORMS

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ELECTRICAL  
JAN 31 2010

**RECORD DRAWINGS**  
01-31-2010

OWNER: CITY OF LAS VEGAS  
DEPARTMENT OF PUBLIC WORKS  
ARCHITECTURAL SERVICES

DATE: JANUARY 31, 2010  
SCALE: AS NOTED  
SHEET NO: 070354  
SHEET NO: 650.22-18

**RECORD DRAWING**

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