



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MSTG-24-L210-840-CS-SSYM-DIM-120\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19835.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 18-FEB-2020

[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 6-42 LED 22" ARRAYS 2x4' RECESSED WHITE REFLECTOR LUMINAIRE

[MORE] PAT12 ACRYLIC LENS w/CLEAR ACRYLIC LENS IN DOOR

[LUMCAT] MSTG-24-L210-840-CS-SSYM-DIM-120

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	21154
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	166.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.57 ft
Luminous Width (90-270)	1.57 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	14313	14236	13848
55	11832	11599	10948
65	8579	8478	7866
75	5108	5258	5213
85	1115	1539	1584

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	9215.501	9215.501	9215.501	9215.501	9215.501
<b>5</b>	9261.223	9203.308	9149.458	9128.121	9130.153
<b>10</b>	9123.041	9060.046	9024.485	9001.116	9005.180
<b>15</b>	8898.496	8840.581	8824.325	8774.539	8799.940
<b>20</b>	8573.362	8526.624	8528.656	8458.550	8488.015
<b>25</b>	8129.352	8101.919	8087.694	8017.587	8056.197
<b>30</b>	7596.946	7582.721	7534.967	7445.556	7489.246
<b>35</b>	6933.471	6947.695	6859.300	6717.054	6798.337
<b>40</b>	6142.990	6211.065	6068.819	5910.316	6007.856
<b>45</b>	5289.515	5366.734	5261.065	5069.034	5117.804
<b>50</b>	4423.847	4384.221	4397.430	4184.061	4177.965
<b>55</b>	3547.003	3461.655	3476.896	3279.784	3281.816
<b>60</b>	2678.287	2618.340	2602.084	2423.260	2454.757
<b>65</b>	1894.918	1857.325	1872.565	1736.416	1737.432
<b>70</b>	1239.571	1202.994	1246.684	1191.817	1164.384
<b>75</b>	690.909	683.796	711.229	736.630	705.133
<b>80</b>	292.620	282.460	320.053	365.775	327.166
<b>85</b>	50.802	56.898	70.107	103.636	72.139
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	3359.02	N.A.	15.90
0-30	7072.99	N.A.	33.40
0-40	11344.26	N.A.	53.60
0-60	18420.47	N.A.	87.10
0-80	21027.39	N.A.	99.40
0-90	21154.06	N.A.	100.00
10-90	20282.97	N.A.	95.90
20-40	7985.24	N.A.	37.70
20-50	12004.01	N.A.	56.70
40-70	8906.94	N.A.	42.10
60-80	2606.92	N.A.	12.30
70-80	776.20	N.A.	3.70
80-90	126.67	N.A.	0.60
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	21154.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	871.09
10-20	2487.93
20-30	3713.97
30-40	4271.27
40-50	4018.77
50-60	3057.45
60-70	1830.72
70-80	776.20
80-90	126.67
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	52	61	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	37	33	31
10	56	43	36	31	55	43	36	31	42	35	31	41	35	30	40	34	30	29

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**UGR TABLE - CORRECTED**

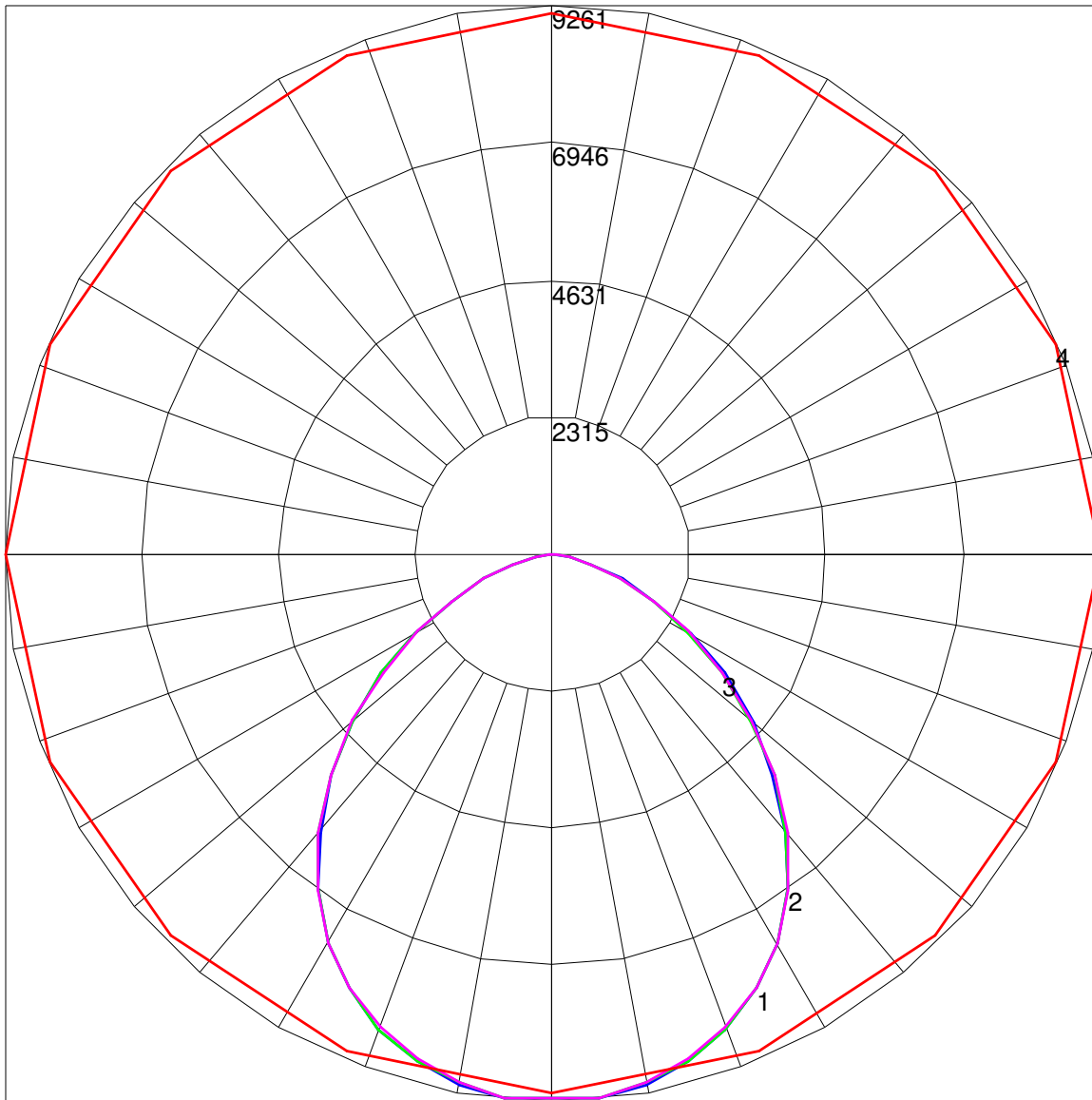
Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	20.1	21.6	20.5	21.9	22.3	19.6	21.2	20.0	21.5	21.8
	3H	21.2	22.6	21.6	22.9	23.2	20.8	22.1	21.1	22.4	22.8
	4H	21.5	22.7	21.9	23.1	23.5	21.1	22.4	21.5	22.7	23.1
	6H	21.6	22.8	22.0	23.1	23.5	21.3	22.4	21.7	22.8	23.2
	8H	21.6	22.7	22.0	23.1	23.5	21.3	22.4	21.7	22.8	23.2
	12H	21.6	22.6	22.0	23.0	23.4	21.3	22.3	21.7	22.7	23.2
4H	2H	20.5	21.8	20.9	22.1	22.5	20.1	21.4	20.5	21.7	22.1
	3H	21.8	22.8	22.2	23.2	23.6	21.4	22.5	21.8	22.9	23.3
	4H	22.1	23.1	22.6	23.5	23.9	21.9	22.8	22.3	23.2	23.6
	6H	22.3	23.1	22.8	23.5	24.0	22.1	22.9	22.6	23.4	23.8
	8H	22.3	23.1	22.8	23.5	24.0	22.1	22.9	22.6	23.3	23.8
	12H	22.3	23.0	22.8	23.4	23.9	22.1	22.8	22.6	23.3	23.8
8H	4H	22.2	23.0	22.7	23.4	23.9	22.0	22.7	22.4	23.2	23.6
	6H	22.4	23.1	22.9	23.5	24.0	22.3	22.9	22.8	23.4	23.9
	8H	22.5	23.0	23.0	23.5	24.0	22.4	22.9	22.9	23.4	23.9
	12H	22.5	22.9	23.0	23.4	24.0	22.4	22.9	22.9	23.4	23.9
12H	4H	22.2	22.9	22.7	23.4	23.8	22.0	22.6	22.4	23.1	23.6
	6H	22.4	23.0	23.0	23.5	24.0	22.3	22.8	22.8	23.3	23.8
	8H	22.5	23.0	23.0	23.5	24.0	22.4	22.9	22.9	23.4	23.9

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 9261.223 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Vertical Plane Through Horizontal Angles (5 - 185)  
# 3 - Vertical Plane Through Horizontal Angles (10 - 190)  
# 4 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)