



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MSTG-22-L96-840-CS-SSYM-DIM-120_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19833.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 18-FEB-2020

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

[LUMINAIRE] 3-42 LED 22" ARRAYS 2x2' RECESSED WHITE REFLECTOR LUMINAIRE

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

[LUMCAT] MSTG-22-L96-840-CS-SSYM-DIM-120

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	9687
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	79.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.57 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	14553	14515	14721
55	11578	11355	11409
65	8572	8113	8102
75	5763	4944	5081
85	1873	1114	1823

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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>
0	4306.911	4306.911	4306.911	4306.911	4306.911
5	4295.743	4294.727	4291.681	4282.544	4282.544
10	4221.625	4233.809	4230.763	4224.671	4219.595
15	4106.896	4124.156	4122.126	4131.264	4124.156
20	3948.509	3968.815	3966.785	4006.381	3980.999
25	3728.189	3756.617	3778.954	3814.489	3775.908
30	3454.057	3505.838	3530.205	3544.419	3513.960
35	3130.176	3196.171	3208.354	3188.048	3176.880
40	2773.805	2803.249	2805.279	2792.080	2811.371
45	2367.684	2366.669	2361.592	2357.531	2395.097
50	1949.380	1919.936	1927.043	1910.798	1942.273
55	1528.029	1506.708	1498.586	1506.708	1505.693
60	1143.230	1120.893	1119.878	1135.108	1132.062
65	833.563	819.349	788.890	817.318	787.874
70	560.447	558.416	507.651	553.340	508.666
75	343.172	329.973	294.438	324.897	302.560
80	155.341	152.295	125.897	139.096	147.219
85	37.566	40.612	22.337	28.428	36.551
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1570.36	N.A.	16.20
0-30	3306.18	N.A.	34.10
0-40	5291.72	N.A.	54.60
0-60	8471.16	N.A.	87.50
0-80	9630.39	N.A.	99.40
0-90	9686.53	N.A.	100.00
10-90	9279.08	N.A.	95.80
20-40	3721.36	N.A.	38.40
20-50	5545.12	N.A.	57.20
40-70	3991.65	N.A.	41.20
60-80	1159.23	N.A.	12.00
70-80	347.02	N.A.	3.60
80-90	56.14	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	9686.53	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	407.45
10-20	1162.91
20-30	1735.83
30-40	1985.53
40-50	1823.76
50-60	1355.69
60-70	812.21
70-80	347.02
80-90	56.14
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	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	51	50
6	74	61	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	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

X=2H	Y=2H	19.9	21.4	20.2	21.7	22.0	19.9	21.4	20.3	21.7	22.0
	3H	21.0	22.4	21.4	22.7	23.1	21.0	22.3	21.3	22.6	23.0
	4H	21.4	22.7	21.8	23.0	23.4	21.3	22.5	21.7	22.9	23.3
	6H	21.6	22.7	22.0	23.1	23.5	21.4	22.6	21.8	22.9	23.3
	8H	21.6	22.7	22.0	23.1	23.5	21.4	22.5	21.8	22.9	23.3
	12H	21.6	22.6	22.0	23.0	23.5	21.4	22.5	21.9	22.9	23.3

UGR Viewed Endwise

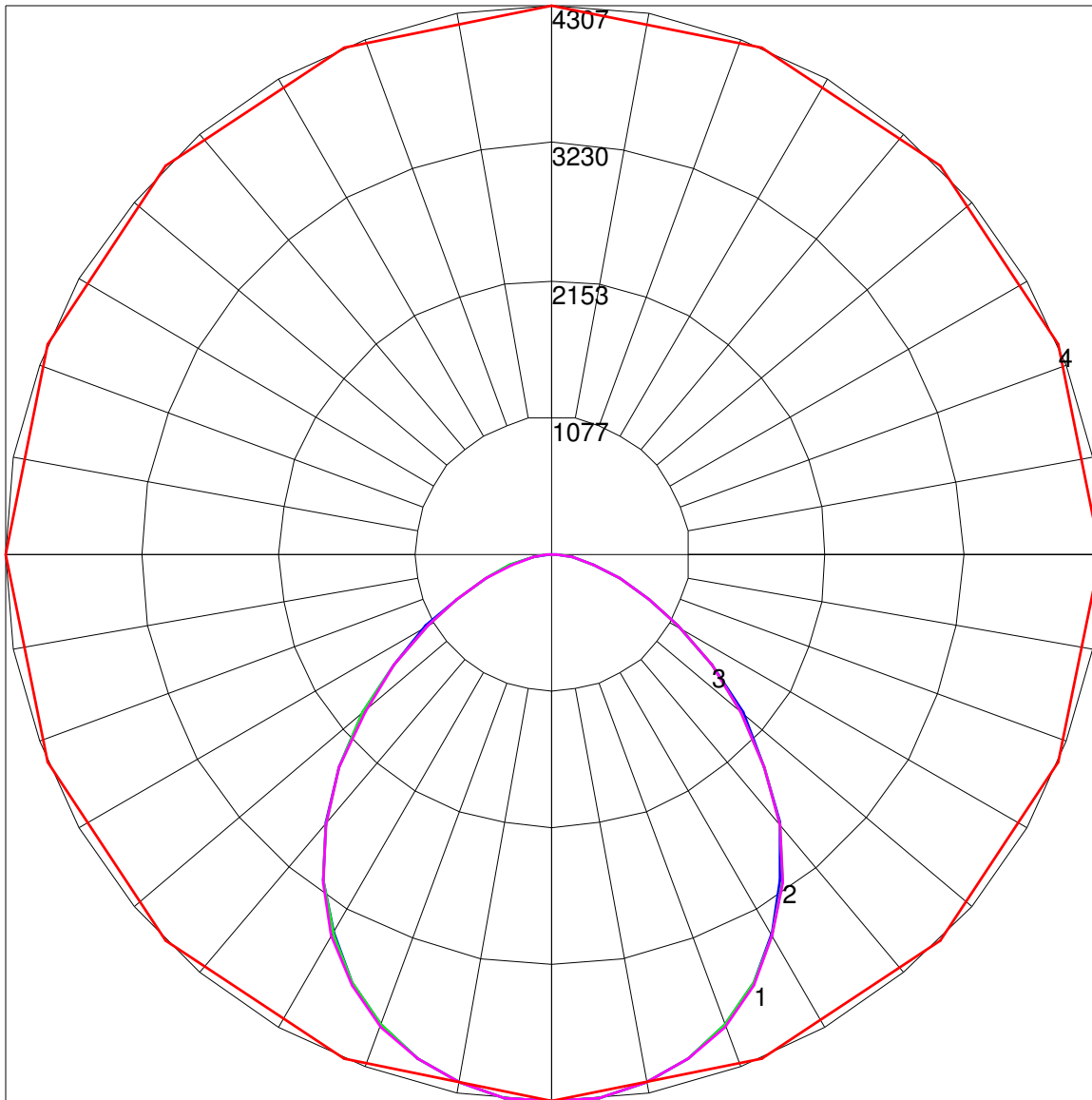
4H	2H	20.2	21.5	20.6	21.9	22.2	20.3	21.5	20.7	21.9	22.2
	3H	21.6	22.6	22.0	23.0	23.4	21.5	22.6	22.0	23.0	23.4
	4H	22.0	23.0	22.5	23.4	23.8	21.9	22.9	22.3	23.3	23.7
	6H	22.3	23.1	22.7	23.5	24.0	22.1	22.9	22.6	23.4	23.8
	8H	22.3	23.1	22.8	23.5	24.0	22.2	22.9	22.6	23.4	23.8
	12H	22.3	23.0	22.8	23.5	23.9	22.2	22.8	22.7	23.3	23.8

8H	4H	22.1	22.9	22.6	23.3	23.8	22.0	22.8	22.5	23.2	23.7
	6H	22.4	23.0	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	22.3	22.9	22.8	23.4	23.9
	12H	22.5	23.0	23.0	23.5	24.1	22.3	22.8	22.8	23.3	23.9

12H	4H	22.1	22.8	22.6	23.3	23.7	22.0	22.7	22.5	23.2	23.6
	6H	22.4	23.0	22.9	23.4	24.0	22.3	22.8	22.8	23.3	23.8
	8H	22.5	23.0	23.0	23.5	24.0	22.3	22.8	22.8	23.3	23.9

Maximum UGR = 24.1

POLAR GRAPH



Maximum Candela = 4306.911 Located At Horizontal Angle = 0, Vertical Angle = 0
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 (0) (Through Max. Cd.)