H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MSTG-24-L210-840-CS-SASY-DIM-120_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 19832.0
[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 ASYMM WHITE REFL LUMINAIRE
[MORE] FROST ACRYLIC LED LENSES w/KSH-34 ACRYLIC LENS & CLEAR
[LUMCAT] MSTG-24-L210-840-CS-SASY-DIM-120

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16606
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	166.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.88
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.46
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.57 ft
Luminous Width (90-270)	3.57 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	22273	18404	10137
55	13211	14455	7123
65	7006	7539	5673
75	4227	3506	2726
85	1346	552	0

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	6523.824	6523.824	6523.824	6523.824	6523.824	6523.824	6523.824	6523.824	6523.824
5	6865.490	6841.373	6766.005	6691.642	6576.079	6455.490	6337.917	6184.167	6141.961
10	7139.829	7079.535	6918.750	6727.819	6491.667	6270.589	6110.809	5908.824	5833.456
15	7377.991	7279.510	7040.343	6684.608	6337.917	6053.530	5816.373	5587.255	5468.677
20	7607.108	7460.392	7100.638	6566.030	6099.755	5756.079	5427.476	5175.245	4924.020
25	7823.162	7667.402	7117.721	6381.128	5791.250	5358.137	4965.221	4613.505	4471.814
30	7937.721	7781.961	7142.843	6133.922	5456.618	4905.932	4425.588	4103.015	4069.853
35	8054.290	7820.147	7113.701	5829.437	5017.476	4349.216	3938.211	3553.333	3570.417
40	8472.329	8072.378	6999.142	5526.961	4423.579	3738.235	3387.525	3084.044	3157.402
45	8231.152	7728.701	6801.177	5200.368	3746.275	3057.917	2859.951	2729.314	2750.417
50	5776.177	6058.554	5786.226	4698.922	2927.280	2477.083	2431.863	2182.647	2094.216
55	3960.319	4229.633	4333.137	3947.255	2135.417	1960.564	2064.069	1686.226	1568.652
60	2405.735	2662.990	2723.284	2663.995	1562.623	1535.490	1620.907	1242.059	1162.672
65	1547.549	1694.265	1665.123	1607.843	1253.113	1131.520	1248.088	860.196	854.167
70	989.828	1004.902	932.549	923.505	820.000	708.456	885.319	601.936	602.941
75	571.789	590.882	474.314	452.206	368.799	338.652	303.480	339.657	321.569
80	244.191	257.255	181.887	151.740	107.525	103.505	75.368	100.490	100.490
85	61.299	56.275	25.123	12.059	0.000	4.020	0.000	3.015	3.015
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2429.44	N.A.	14.60
0-30	5199.74	N.A.	31.30
0-40	8606.97	N.A.	51.80
0-60	14729.69	N.A.	88.70
0-80	16557.94	N.A.	99.70
0-90	16606.05	N.A.	100.00
10-90	15983.2	N.A.	96.20
20-40	6177.53	N.A.	37.20
20-50	9718.51	N.A.	58.50
40-70	7475.31	N.A.	45.00
60-80	1828.25	N.A.	11.00
70-80	475.66	N.A.	2.90
80-90	48.11	N.A.	0.30
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	16606.05	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	622.85
10-20	1806.59
20-30	2770.3
30-40	3407.24
40-50	3540.98
50-60	2581.73
60-70	1352.59
70-80	475.66
80-90	48.11
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	100	108	104	101	98	100	97	95	96	94	92	93	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	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	44	38	33	43	37	33	42	37	32	31
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29	28

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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	21.7	23.2	22.0	23.5	23.8	19.5	21.1	19.9	21.4	21.7
	3H	22.3	23.7	22.7	24.0	24.4	20.3	21.7	20.7	22.0	22.4
	4H	22.5	23.7	22.9	24.1	24.5	20.4	21.7	20.8	22.1	22.5
	6H	22.5	23.7	22.9	24.1	24.5	20.5	21.6	20.9	22.0	22.4
	8H	22.5	23.6	23.0	24.0	24.4	20.4	21.5	20.9	21.9	22.3
	12H	22.5	23.6	22.9	24.0	24.4	20.4	21.5	20.8	21.8	22.3
4H	2H	21.9	23.2	22.3	23.5	23.9	19.9	21.2	20.3	21.5	21.9
	3H	22.7	23.7	23.1	24.1	24.5	20.8	21.9	21.2	22.3	22.7
	4H	22.9	23.8	23.3	24.2	24.7	21.0	22.0	21.4	22.4	22.8
	6H	23.0	23.8	23.5	24.3	24.7	21.1	21.9	21.5	22.3	22.8
	8H	23.0	23.8	23.5	24.2	24.7	21.0	21.8	21.5	22.2	22.7
	12H	23.0	23.7	23.5	24.1	24.6	21.0	21.7	21.5	22.1	22.6
8H	4H	22.9	23.7	23.4	24.1	24.6	21.1	21.8	21.5	22.3	22.7
	6H	23.0	23.7	23.5	24.1	24.6	21.1	21.7	21.6	22.2	22.7
	8H	23.1	23.6	23.6	24.1	24.6	21.1	21.6	21.6	22.1	22.6
	12H	23.0	23.5	23.6	24.0	24.6	21.0	21.5	21.5	22.0	22.6
12H	4H	22.9	23.5	23.3	24.0	24.5	21.0	21.7	21.5	22.2	22.6
	6H	23.0	23.6	23.5	24.0	24.6	21.1	21.6	21.6	22.1	22.6
	8H	23.0	23.5	23.5	24.0	24.6	21.0	21.5	21.6	22.0	22.6

Maximum UGR = 24.7

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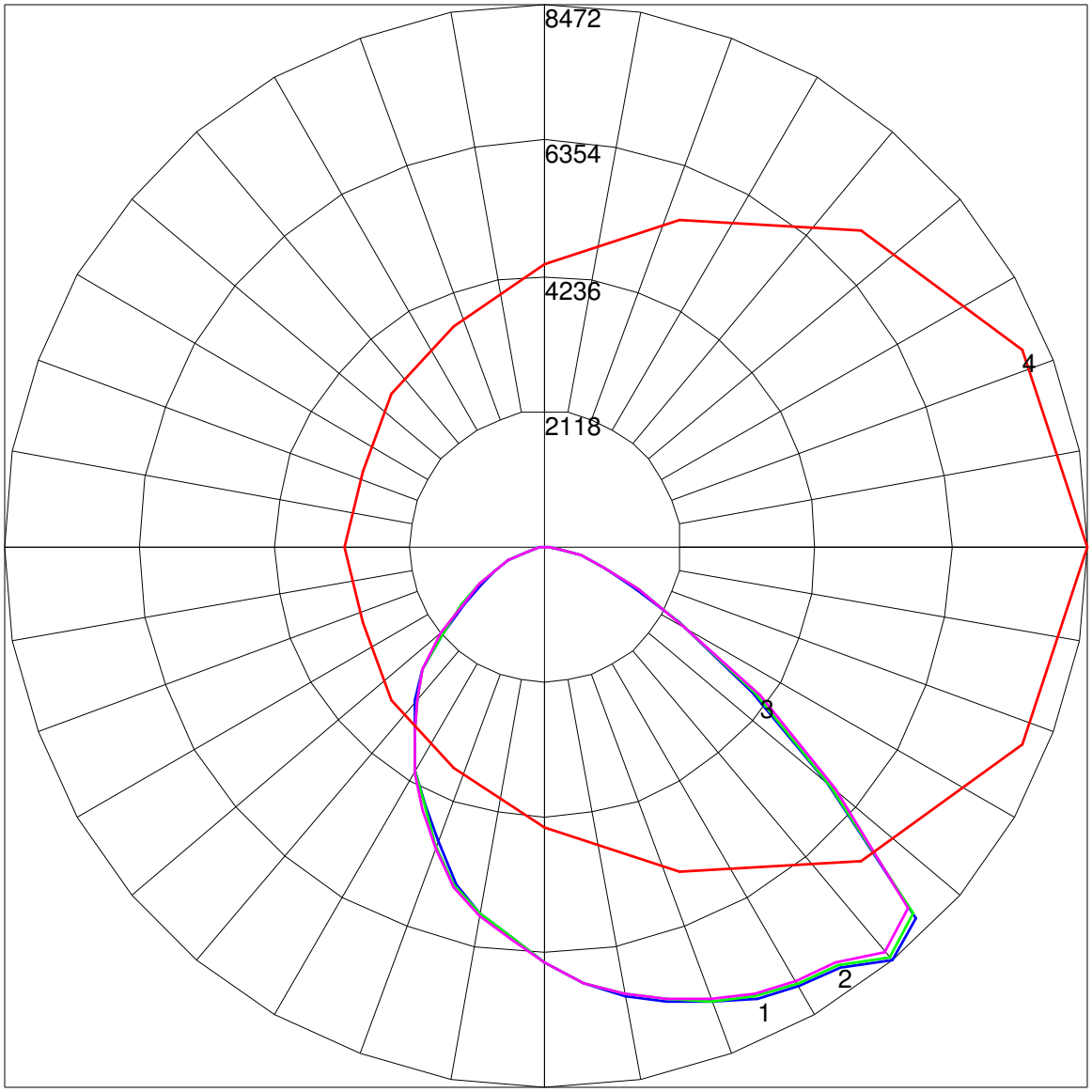
POLAR GRAPH



Maximum Candela = 8472.329 Located At Horizontal Angle = 0, Vertical Angle = 40
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 (40) (Through Max. Cd.)

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