H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MSTG-24-L210-940-CS-SSYM-ASY-DIM1-120_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 20165.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 11-06-2023
[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 6-42 LED 22" ARRAYS 2x4' RECESSED ASYMMETRIC LUMINAIRE
[MORE] WHITE ASYMMETRIC REFL w/AF12125 LENS IN DOOR
[LUMCAT] MSTG-24-L210-940-CS-SSYM-ASY-DIM-120

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17049
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	154
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.38
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.24
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	16268	14820	11447
55	13425	12210	9317
65	10305	9535	7410
75	6755	6090	4968
85	3496	3166	2453

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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	7746.211	7746.211	7746.211	7746.211	7746.211	7746.211	7746.211	7746.211	7746.211
5	7876.273	7832.919	7738.707	7619.483	7503.595	7416.886	7305.166	7229.296	7196.781
10	8005.502	7940.470	7792.900	7586.968	7337.682	7102.569	6882.464	6730.724	6669.028
15	8178.918	8107.217	7922.962	7651.999	7323.508	6972.507	6676.532	6467.265	6391.395
20	7876.273	7746.211	7456.905	7026.699	6513.954	5947.016	5470.120	5148.300	5047.418
25	7670.341	7554.452	7250.974	6803.259	6264.668	5657.710	5159.138	4837.317	4739.771
30	7557.787	7406.048	7066.719	6546.469	5928.673	5209.996	4646.392	4302.895	4197.844
35	6719.886	6575.650	6239.656	5708.568	5086.603	4382.099	3844.342	3533.359	3446.651
40	6383.891	6232.152	5877.816	5318.381	4657.231	3883.527	3349.104	3074.806	3013.110
45	6012.047	5852.804	5476.790	4909.852	4230.360	3414.136	2912.228	2673.781	2633.762
50	5090.772	4971.548	4631.385	4161.994	3562.540	2843.029	2438.668	2236.071	2214.394
55	4024.428	3916.043	3660.087	3276.570	2793.005	2203.556	1878.400	1737.499	1730.829
60	3096.483	3013.110	2847.197	2543.719	2189.382	1719.991	1484.878	1394.835	1394.835
65	2276.090	2232.736	2106.009	1889.238	1636.617	1278.946	1102.195	1062.175	1065.510
70	1535.736	1503.220	1409.008	1260.604	1116.368	874.586	766.200	755.362	766.200
75	913.771	892.094	823.728	744.523	671.989	520.249	469.392	476.895	491.069
80	473.560	469.392	415.199	386.852	343.498	252.621	238.448	245.951	260.125
85	159.243	159.243	144.236	122.559	111.720	75.870	75.870	90.043	90.043
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	2717.64	N.A.	15.90
0-30	5578.33	N.A.	32.70
0-40	8805.05	N.A.	51.60
0-60	14550.22	N.A.	85.30
0-80	16895.17	N.A.	99.10
0-90	17049.17	N.A.	100.00
10-90	16334.98	N.A.	95.80
20-40	6087.41	N.A.	35.70
20-50	9301.36	N.A.	54.60
40-70	7359.96	N.A.	43.20
60-80	2344.94	N.A.	13.80
70-80	730.16	N.A.	4.30
80-90	154.00	N.A.	0.90
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	17049.17	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	714.19
10-20	2003.45
20-30	2860.69
30-40	3226.72
40-50	3213.95
50-60	2531.23
60-70	1614.78
70-80	730.16
80-90	154.00
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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	93	83	75	69	90	81	74	69	78	72	68	76	71	66	73	69	65	63
4	85	74	66	60	83	73	65	59	70	64	58	68	62	58	66	61	57	55
5	79	67	58	52	77	65	58	52	63	56	51	61	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	46	41	53	45	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	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	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	21.8	23.3	22.2	23.7	24.0	19.4	21.0	19.8	21.3	21.6
	3H	23.0	24.4	23.4	24.8	25.1	20.7	22.1	21.1	22.4	22.8
	4H	23.4	24.7	23.8	25.0	25.4	21.1	22.4	21.5	22.7	23.1
	6H	23.6	24.8	24.0	25.2	25.6	21.3	22.5	21.7	22.8	23.2
	8H	23.6	24.8	24.1	25.2	25.6	21.3	22.5	21.7	22.9	23.3
	12H	23.7	24.8	24.1	25.1	25.6	21.3	22.4	21.8	22.8	23.2
4H	2H	22.2	23.5	22.6	23.8	24.2	20.0	21.3	20.4	21.6	22.0
	3H	23.6	24.7	24.0	25.1	25.5	21.4	22.5	21.8	22.9	23.3
	4H	24.1	25.0	24.5	25.4	25.9	21.8	22.8	22.3	23.2	23.7
	6H	24.3	25.2	24.8	25.6	26.1	22.1	23.0	22.6	23.4	23.9
	8H	24.4	25.2	24.9	25.7	26.1	22.2	23.0	22.6	23.4	23.9
	12H	24.5	25.2	24.9	25.6	26.1	22.2	22.9	22.7	23.4	23.9
8H	4H	24.2	24.9	24.6	25.4	25.9	22.0	22.8	22.5	23.2	23.7
	6H	24.5	25.2	25.0	25.7	26.1	22.4	23.0	22.9	23.5	24.0
	8H	24.6	25.2	25.2	25.7	26.2	22.5	23.0	23.0	23.5	24.0
	12H	24.7	25.2	25.2	25.7	26.3	22.5	23.0	23.0	23.5	24.1
12H	4H	24.1	24.8	24.6	25.3	25.8	22.0	22.7	22.5	23.2	23.6
	6H	24.5	25.1	25.1	25.6	26.1	22.4	22.9	22.9	23.4	23.9
	8H	24.7	25.2	25.2	25.7	26.2	22.5	23.0	23.0	23.5	24.1

Maximum UGR = 26.3

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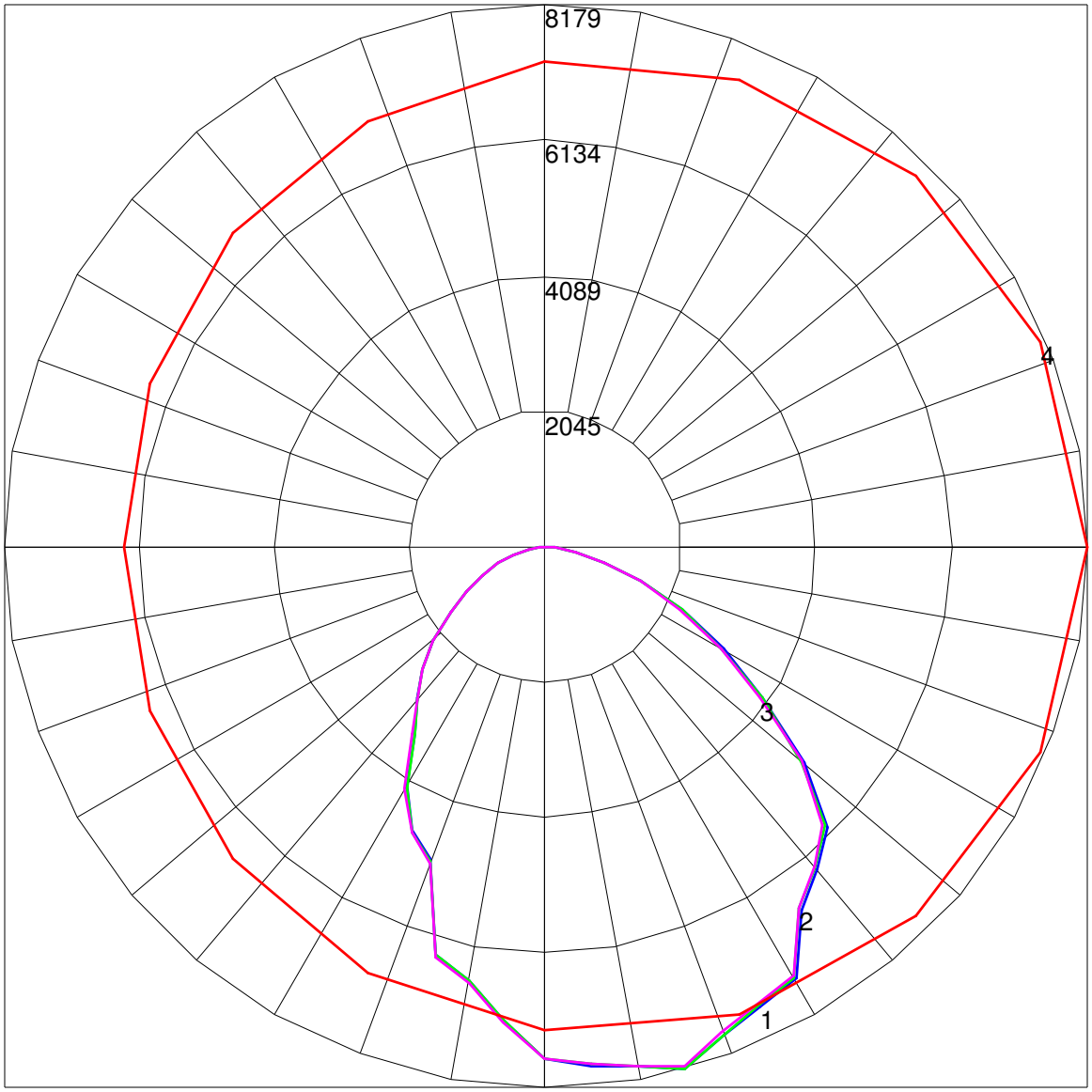
POLAR GRAPH



Maximum Candela = 8178.918 Located At Horizontal Angle = 0, Vertical Angle = 15
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 (15) (Through Max. Cd.)

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