H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MSTG-22-L58-GRN-CS-SASY-DIM-120-GREEN ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 19831.0
[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 ASYMM WHITE REFL LUMINAIRE
[MORE] FROST ACRYLIC LED LENSES w/KSH-34 ACRYLIC LENS & CLEAR
[MORE] ACRYLIC LENS
[LUMCAT] MSTG-22-L58-GRN-CS-SASY-DIM-120

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4571
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	58
Total Luminaire Watts	79
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.80
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.40
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	13659	10811	6379
55	8315	8464	4274
65	3896	4325	3335
75	2080	1791	1668
85	673	183	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	1865.552	1865.552	1865.552	1865.552	1865.552	1865.552	1865.552	1865.552	1865.552
5	1962.416	1950.154	1930.536	1897.431	1866.165	1828.155	1807.311	1777.883	1772.366
10	2032.918	2012.074	1968.546	1905.401	1833.672	1776.044	1737.421	1698.798	1684.698
15	2096.063	2062.345	1988.777	1888.848	1788.306	1706.155	1646.075	1606.839	1588.447
20	2145.721	2097.289	1991.230	1843.481	1723.934	1603.774	1533.271	1473.191	1470.126
25	2199.058	2131.621	1970.998	1776.044	1635.653	1498.327	1404.528	1313.182	1314.408
30	2209.480	2138.365	1946.476	1700.638	1522.236	1387.362	1255.554	1191.795	1193.634
35	2207.641	2111.390	1913.370	1590.899	1389.814	1251.875	1113.323	1040.368	1039.755
40	2290.404	2123.651	1821.411	1462.156	1237.775	1075.313	952.087	880.359	885.876
45	2222.354	2004.717	1758.879	1319.925	1037.916	886.489	803.113	760.198	776.138
50	1741.713	1725.773	1442.538	1155.011	785.947	728.932	661.495	638.812	656.591
55	1097.383	1147.654	1117.001	1026.881	564.018	570.149	559.727	530.913	532.752
60	660.882	731.384	689.083	695.827	418.109	424.240	449.988	402.170	399.104
65	378.873	434.662	420.561	407.687	324.310	315.115	315.115	273.426	285.074
70	230.512	242.160	229.899	215.185	218.251	196.180	188.210	193.115	203.537
75	123.839	148.974	106.673	97.477	99.316	85.829	102.995	122.000	130.582
80	58.241	59.467	37.397	33.105	25.136	22.070	37.397	48.432	49.045
85	13.487	10.422	3.678	3.065	0.000	0.000	3.065	9.196	6.744
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	689.56	N.A.	15.10
0-30	1467.42	N.A.	32.10
0-40	2408.7	N.A.	52.70
0-60	4071.64	N.A.	89.10
0-80	4557.49	N.A.	99.70
0-90	4570.94	N.A.	100.00
10-90	4393.46	N.A.	96.10
20-40	1719.14	N.A.	37.60
20-50	2675.03	N.A.	58.50
40-70	2023.78	N.A.	44.30
60-80	485.85	N.A.	10.60
70-80	125.01	N.A.	2.70
80-90	13.45	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	4570.94	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	177.48
10-20	512.08
20-30	777.86
30-40	941.28
40-50	955.89
50-60	707.05
60-70	360.84
70-80	125.01
80-90	13.45
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	111	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	94	89	84	99	93	87	83	89	85	81	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	71	65	60	69	64	59	67	62	58	56
5	79	67	59	53	77	66	59	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	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40	39
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	34
9	59	47	39	33	58	46	38	33	45	38	33	44	38	33	43	37	33	31
10	56	43	35	30	54	43	35	30	42	35	30	41	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	20.0	21.5	20.4	21.8	22.1	17.7	19.2	18.0	19.5	19.8
	3H	20.5	21.8	20.9	22.2	22.5	18.4	19.8	18.8	20.1	20.5
	4H	20.6	21.8	21.0	22.2	22.6	18.5	19.8	18.9	20.1	20.5
	6H	20.6	21.8	21.0	22.1	22.5	18.5	19.7	18.9	20.1	20.5
	8H	20.6	21.7	21.0	22.1	22.5	18.5	19.6	18.9	20.0	20.4
	12H	20.6	21.6	21.0	22.0	22.4	18.5	19.5	18.9	19.9	20.3
4H	2H	20.2	21.4	20.6	21.8	22.2	18.0	19.3	18.4	19.6	20.0
	3H	20.8	21.8	21.2	22.2	22.6	18.9	19.9	19.3	20.3	20.7
	4H	20.9	21.9	21.4	22.3	22.7	19.0	19.9	19.4	20.3	20.8
	6H	21.0	21.8	21.5	22.3	22.7	19.0	19.8	19.5	20.3	20.7
	8H	21.0	21.8	21.5	22.2	22.7	19.0	19.7	19.5	20.2	20.7
	12H	21.0	21.7	21.5	22.1	22.6	19.0	19.6	19.4	20.1	20.6
8H	4H	20.9	21.7	21.4	22.1	22.6	19.0	19.8	19.5	20.2	20.7
	6H	21.0	21.6	21.5	22.1	22.6	19.1	19.7	19.6	20.2	20.6
	8H	21.0	21.6	21.5	22.1	22.6	19.0	19.6	19.5	20.1	20.6
	12H	21.0	21.5	21.5	22.0	22.5	19.0	19.5	19.5	20.0	20.5
12H	4H	20.9	21.6	21.4	22.0	22.5	19.0	19.7	19.5	20.2	20.6
	6H	21.0	21.5	21.5	22.0	22.5	19.0	19.6	19.6	20.0	20.6
	8H	21.0	21.5	21.5	22.0	22.5	19.0	19.5	19.5	20.0	20.5

Maximum UGR = 22.7

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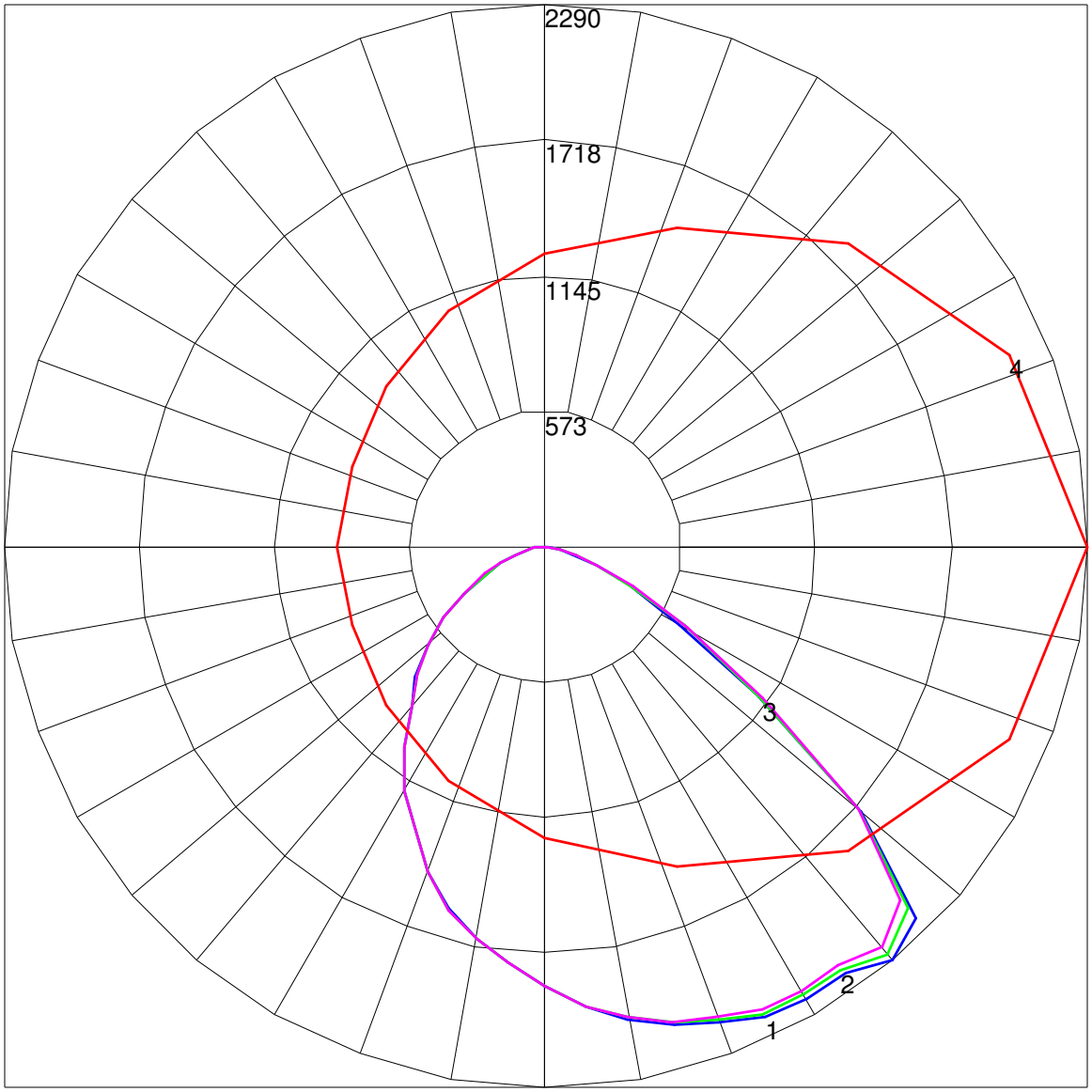
POLAR GRAPH



Maximum Candela = 2290.404 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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