



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39W-4-L52-835-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19087.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 12-NOV-2019

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED 22" ARRAYS 4' SURFACE MOUNT LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED LENS

[LUMCAT] 39W-4-L52-835-A-DIM-UNV

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Commercial, Direct, Linear

[_SEARCH_MOUNTING] SURFACE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5206
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	37
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.01 ft
Luminous Width (90-270)	0.79 ft
Luminous Height	0.18 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5161	4669	4613
55	4306	3837	3857
65	3562	3141	3350
75	2598	2490	2891
85	1532	2075	2693

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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	1989.790	1989.790	1989.790	1989.790	1989.790
5	2000.838	1999.834	1998.830	1998.830	1999.834
10	1956.643	1955.639	1955.639	1956.643	1958.652
15	1887.337	1889.346	1892.359	1894.368	1896.377
20	1830.084	1831.089	1837.115	1838.120	1838.120
25	1676.405	1680.423	1685.445	1688.459	1688.459
30	1548.842	1553.864	1560.895	1564.913	1565.917
35	1441.367	1449.403	1460.451	1465.474	1468.487
40	1264.586	1274.631	1289.697	1298.737	1302.755
45	1123.965	1138.027	1158.116	1172.178	1177.200
50	939.149	953.211	980.330	1001.424	1009.459
55	774.421	791.496	824.643	849.754	860.802
60	617.729	635.809	670.964	708.128	723.195
65	486.147	505.232	550.431	601.658	617.729
70	353.562	376.664	435.926	491.170	513.267
75	231.021	259.145	324.433	383.695	404.788
80	135.599	171.759	243.074	303.340	324.433
85	59.262	98.435	168.745	225.998	246.087
90	0.000	43.191	100.444	146.648	164.728
95	0.000	18.080	64.284	105.466	121.537
100	0.000	0.000	39.173	71.315	82.364
105	0.000	0.000	25.111	47.209	57.253
110	0.000	0.000	0.000	32.142	39.173
115	0.000	0.000	0.000	24.106	29.129
120	0.000	0.000	0.000	20.089	22.098
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	724.65	N.A.	13.90
0-30	1504.22	N.A.	28.90
0-40	2406.33	N.A.	46.20
0-60	4025.09	N.A.	77.30
0-80	4919.28	N.A.	94.50
0-90	5097.28	N.A.	97.90
10-90	4908.08	N.A.	94.30
20-40	1681.68	N.A.	32.30
20-50	2564.53	N.A.	49.30
40-70	2166.05	N.A.	41.60
60-80	894.18	N.A.	17.20
70-80	346.90	N.A.	6.70
80-90	178.00	N.A.	3.40
90-110	96.59	N.A.	1.90
90-120	106.56	N.A.	2.00
90-130	108.36	N.A.	2.10
90-150	108.36	N.A.	2.10
90-180	108.36	N.A.	2.10
110-180	11.76	N.A.	0.20
0-180	5205.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	189.20
10-20	535.45
20-30	779.57
30-40	902.11
40-50	882.86
50-60	735.91
60-70	547.29
70-80	346.90
80-90	178.00
90-100	69.72
100-110	26.87
110-120	9.97
120-130	1.80
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	110	110	110	105	105	105	101	101	101	98
1	108	103	99	95	105	101	97	93	96	93	90	92	89	87	88	86	84	82
2	99	90	84	78	96	88	82	77	84	79	75	81	76	73	78	74	71	68
3	90	80	72	65	88	78	70	64	75	68	63	72	66	62	69	64	60	58
4	83	71	62	56	80	69	61	55	67	60	54	64	58	53	62	56	52	50
5	76	64	55	48	74	62	54	48	60	53	47	58	51	46	56	50	46	43
6	71	57	49	42	69	56	48	42	54	47	41	52	46	41	51	45	40	38
7	66	52	44	37	64	51	43	37	50	42	37	48	41	36	46	41	36	34
8	61	48	39	34	60	47	39	33	46	38	33	44	38	33	43	37	32	30
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	54	41	33	28	52	40	33	27	39	32	27	38	31	27	37	31	27	25

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UGR TABLE - CORRECTED

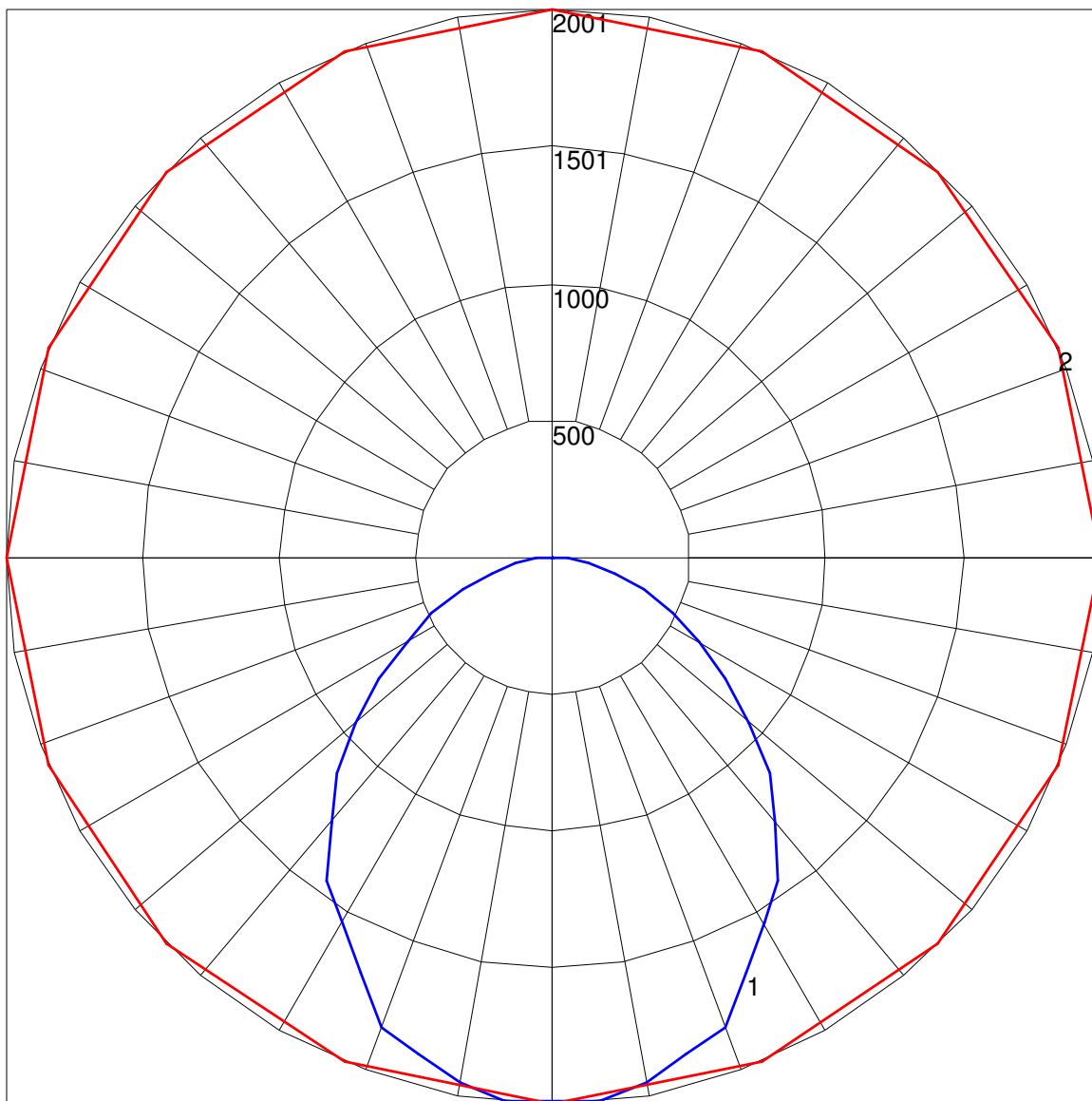
Reflectances

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	16.1	17.6	16.5	18.0	18.4	16.7	18.3	17.1	18.7	19.0
	3H	17.6	19.0	18.0	19.4	19.8	18.8	20.2	19.2	20.6	21.0
	4H	18.1	19.4	18.5	19.8	20.2	19.7	21.0	20.1	21.4	21.8
	6H	18.4	19.7	18.9	20.1	20.5	20.6	21.8	21.0	22.2	22.7
	8H	18.5	19.7	19.0	20.1	20.6	21.0	22.2	21.5	22.6	23.1
	12H	18.6	19.7	19.0	20.2	20.6	21.4	22.6	21.9	23.0	23.5
4H	2H	16.6	18.0	17.1	18.4	18.8	17.2	18.5	17.6	18.9	19.3
	3H	18.3	19.5	18.8	19.9	20.4	19.4	20.6	19.9	21.0	21.4
	4H	19.0	20.0	19.4	20.4	20.9	20.5	21.5	21.0	22.0	22.4
	6H	19.4	20.3	19.9	20.8	21.3	21.6	22.5	22.0	22.9	23.4
	8H	19.6	20.4	20.1	20.9	21.4	22.1	22.9	22.6	23.4	23.9
	12H	19.7	20.4	20.2	21.0	21.5	22.6	23.4	23.2	23.9	24.4
8H	4H	19.3	20.1	19.8	20.6	21.1	20.7	21.5	21.2	22.0	22.5
	6H	19.9	20.6	20.4	21.1	21.7	21.9	22.6	22.4	23.1	23.7
	8H	20.1	20.8	20.7	21.3	21.8	22.5	23.2	23.1	23.7	24.3
	12H	20.3	20.9	20.8	21.4	22.0	23.3	23.8	23.8	24.4	25.0
12H	4H	19.4	20.1	19.9	20.6	21.2	20.7	21.4	21.2	22.0	22.5
	6H	20.0	20.7	20.6	21.2	21.7	21.9	22.6	22.5	23.1	23.7
	8H	20.3	20.9	20.9	21.4	22.0	22.6	23.2	23.2	23.7	24.3

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 2000.838 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)