



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19011.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 05-10-2022

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 4' SURFACE MOUNT LED LUMINAIRE

[MORE] WITH FROSTED ACRYLIC RIBBED LENS

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

[LAMPCAT]HLM 80 CRI, 3500K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] INDOOR, ARCHITECTURAL, COMMERCIAL, DIRECT, LINEAR

[_SEARCH_MOUNTING]SURFACE, SUSPENDED

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)	140
Total Luminaire Watts	37.2
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	1989.792	1989.792	1989.792	1989.792	1989.792
5	2000.841	1999.836	1998.832	1998.832	1999.836
10	1956.645	1955.641	1955.641	1956.645	1958.654
15	1887.339	1889.348	1892.361	1894.370	1896.379
20	1830.086	1831.091	1837.117	1838.122	1838.122
25	1676.407	1680.425	1685.447	1688.460	1688.460
30	1548.843	1553.866	1560.897	1564.914	1565.919
35	1441.369	1449.404	1460.453	1465.475	1468.488
40	1264.587	1274.632	1289.698	1298.738	1302.756
45	1123.966	1138.028	1158.117	1172.179	1177.201
50	939.150	953.212	980.332	1001.425	1009.460
55	774.422	791.497	824.644	849.755	860.803
60	617.729	635.809	670.965	708.129	723.195
65	486.148	505.232	550.432	601.658	617.729
70	353.562	376.664	435.926	491.170	513.268
75	231.021	259.145	324.433	383.695	404.789
80	135.599	171.759	243.074	303.340	324.433
85	59.262	98.435	168.746	225.999	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	24.107	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	4025.1	N.A.	77.30
0-80	4919.28	N.A.	94.50
0-90	5097.29	N.A.	97.90
10-90	4908.08	N.A.	94.30
20-40	1681.68	N.A.	32.30
20-50	2564.54	N.A.	49.30
40-70	2166.06	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	100	100	100	98
1	108	103	99	95	105	101	97	93	96	93	90	92	89	86	88	86	83	81
2	98	90	83	77	95	88	82	76	84	79	74	80	76	72	77	74	70	68
3	90	79	71	65	87	78	70	64	74	68	63	71	66	61	69	64	60	58
4	82	71	62	55	80	69	61	55	66	59	54	64	58	53	61	56	52	50
5	76	63	54	48	74	62	54	48	60	52	47	58	51	46	55	50	45	43
6	70	57	48	42	68	56	48	42	54	47	41	52	46	41	50	45	40	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	46	40	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	36	30	55	43	35	30	42	35	30	41	34	30	39	34	29	27
10	53	40	33	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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UGR TABLE - CORRECTED

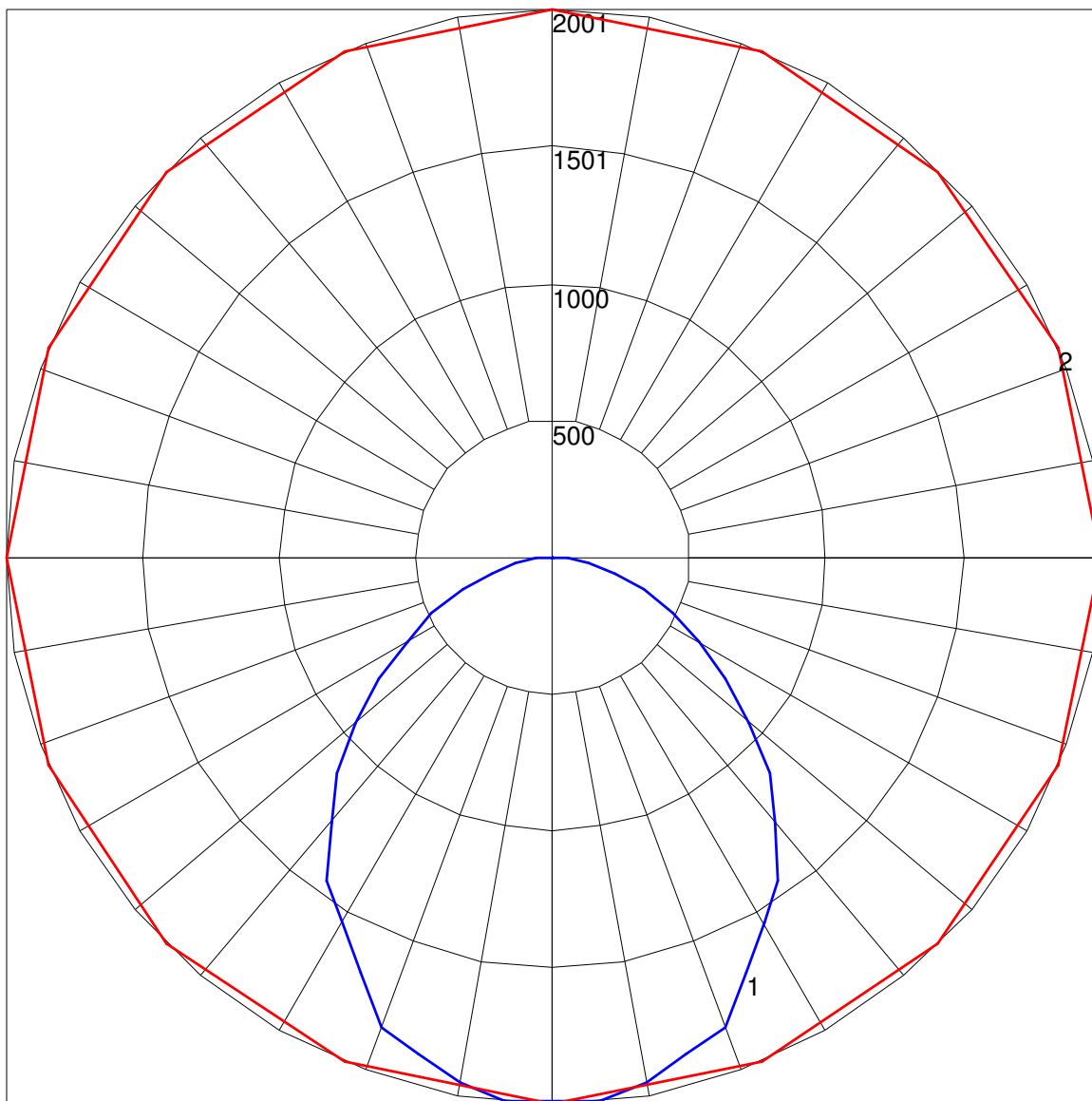
Reflectances

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	15.6	17.1	16.0	17.5	17.9	16.7	18.3	17.1	18.7	19.0
	3H	16.9	18.4	17.3	18.7	19.1	18.8	20.2	19.2	20.6	21.0
	4H	17.3	18.7	17.8	19.1	19.5	19.7	21.0	20.1	21.4	21.8
	6H	17.6	18.9	18.0	19.3	19.7	20.6	21.8	21.0	22.2	22.7
	8H	17.7	18.9	18.1	19.3	19.7	21.0	22.2	21.5	22.6	23.1
	12H	17.7	18.8	18.2	19.3	19.7	21.4	22.6	21.9	23.0	23.5
4H	2H	16.2	17.6	16.7	18.0	18.4	17.2	18.5	17.6	18.9	19.3
	3H	17.8	18.9	18.3	19.4	19.8	19.4	20.6	19.9	21.0	21.4
	4H	18.3	19.4	18.8	19.8	20.3	20.5	21.5	21.0	22.0	22.4
	6H	18.7	19.6	19.2	20.1	20.6	21.6	22.5	22.0	22.9	23.4
	8H	18.8	19.7	19.3	20.1	20.6	22.1	22.9	22.6	23.4	23.9
	12H	18.9	19.6	19.4	20.1	20.7	22.6	23.4	23.2	23.9	24.4
8H	4H	18.8	19.6	19.3	20.1	20.6	20.7	21.5	21.2	22.0	22.5
	6H	19.3	20.0	19.8	20.5	21.0	21.9	22.6	22.4	23.1	23.7
	8H	19.4	20.1	20.0	20.6	21.2	22.5	23.2	23.1	23.7	24.3
	12H	19.6	20.1	20.1	20.7	21.3	23.3	23.8	23.8	24.4	25.0
12H	4H	18.9	19.6	19.4	20.2	20.7	20.7	21.4	21.2	22.0	22.5
	6H	19.4	20.1	20.0	20.6	21.2	21.9	22.6	22.5	23.1	23.7
	8H	19.7	20.3	20.2	20.8	21.4	22.6	23.2	23.2	23.7	24.3

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 2000.841 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.)