



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39-4-L52-835-A-(L40)-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] 04-14-2022

[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-(L40)-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	4069
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	128
Total Luminaire Watts	31.8
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	4034	3649	3606
55	3365	2999	3015
65	2784	2455	2618
75	2030	1947	2260
85	1197	1622	2105

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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	1555.217	1555.217	1555.217	1555.217	1555.217
5	1563.852	1563.067	1562.282	1562.282	1563.067
10	1529.310	1528.524	1528.524	1529.310	1530.880
15	1475.140	1476.710	1479.065	1480.635	1482.206
20	1430.391	1431.176	1435.887	1436.672	1436.672
25	1310.276	1313.416	1317.342	1319.697	1319.697
30	1210.573	1214.498	1219.993	1223.134	1223.919
35	1126.570	1132.851	1141.487	1145.412	1147.767
40	988.399	996.249	1008.025	1015.091	1018.231
45	878.489	889.480	905.182	916.173	920.098
50	734.037	745.028	766.225	782.711	788.992
55	605.286	618.632	644.540	664.166	672.802
60	482.816	496.947	524.424	553.472	565.248
65	379.972	394.888	430.216	470.255	482.816
70	276.343	294.400	340.719	383.898	401.169
75	180.565	202.547	253.576	299.895	316.382
80	105.984	134.246	189.986	237.090	253.576
85	46.319	76.937	131.891	176.640	192.341
90	0.000	33.758	78.507	114.620	128.751
95	0.000	14.131	50.244	82.432	94.993
100	0.000	0.000	30.618	55.740	64.375
105	0.000	0.000	19.627	36.898	44.749
110	0.000	0.000	0.000	25.122	30.618
115	0.000	0.000	0.000	18.842	22.767
120	0.000	0.000	0.000	15.701	17.271
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	566.39	N.A.	13.90
0-30	1175.7	N.A.	28.90
0-40	1880.78	N.A.	46.20
0-60	3146.01	N.A.	77.30
0-80	3844.9	N.A.	94.50
0-90	3984.03	N.A.	97.90
10-90	3836.15	N.A.	94.30
20-40	1314.4	N.A.	32.30
20-50	2004.44	N.A.	49.30
40-70	1692.98	N.A.	41.60
60-80	698.89	N.A.	17.20
70-80	271.13	N.A.	6.70
80-90	139.13	N.A.	3.40
90-110	75.50	N.A.	1.90
90-120	83.28	N.A.	2.00
90-130	84.69	N.A.	2.10
90-150	84.69	N.A.	2.10
90-180	84.69	N.A.	2.10
110-180	9.20	N.A.	0.20
0-180	4068.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	147.88
10-20	418.50
20-30	609.31
30-40	705.08
40-50	690.04
50-60	575.19
60-70	427.76
70-80	271.13
80-90	139.13
90-100	54.49
100-110	21.01
110-120	7.79
120-130	1.41
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

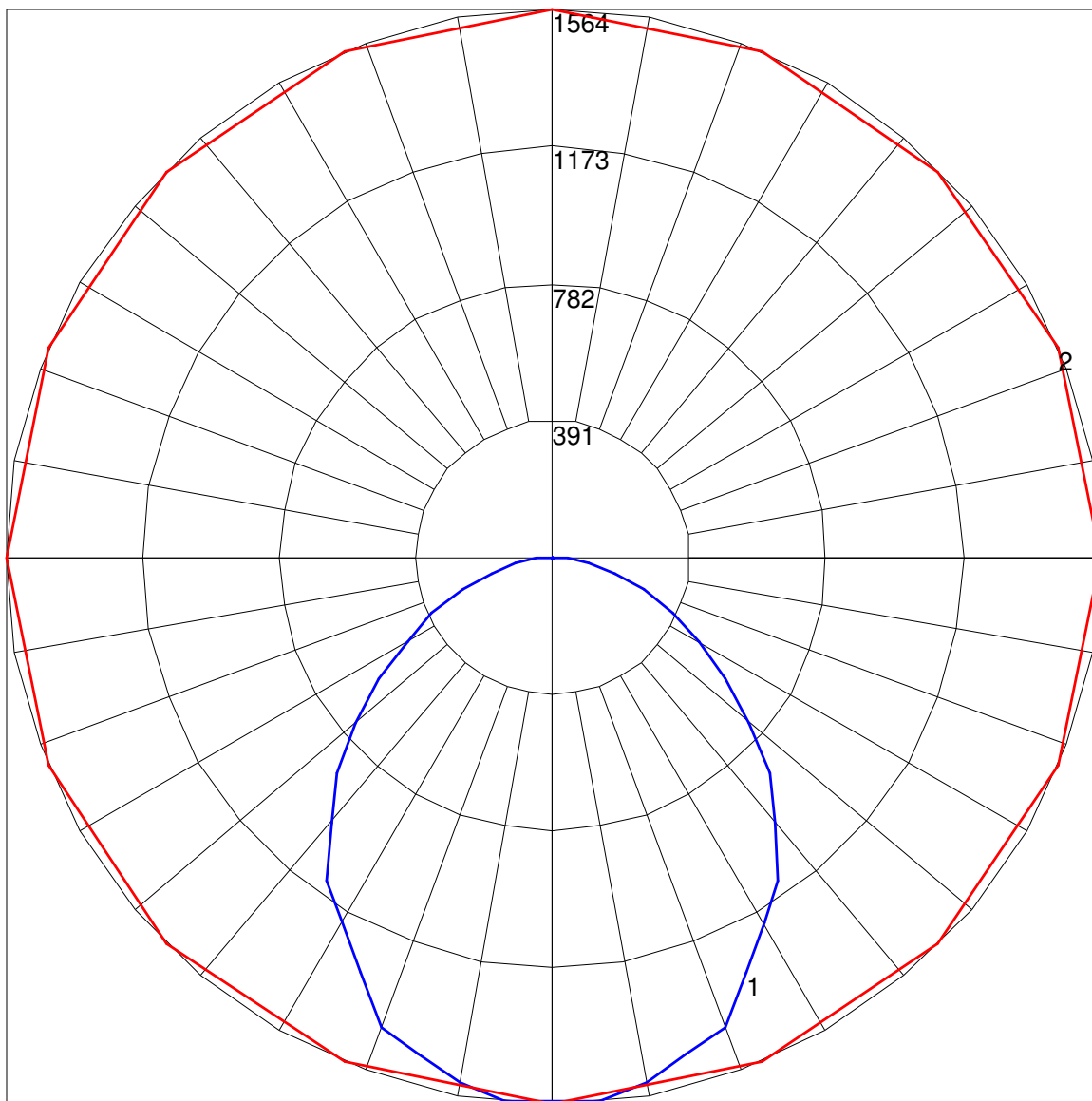
Reflectances

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	14.8	16.3	15.2	16.7	17.1	15.9	17.5	16.3	17.9	18.2
	3H	16.1	17.6	16.5	17.9	18.3	18.0	19.4	18.4	19.8	20.2
	4H	16.5	17.9	17.0	18.3	18.7	18.9	20.2	19.3	20.6	21.0
	6H	16.8	18.1	17.2	18.5	18.9	19.8	21.0	20.2	21.4	21.9
	8H	16.9	18.1	17.3	18.5	18.9	20.2	21.4	20.7	21.8	22.3
	12H	16.9	18.0	17.4	18.5	18.9	20.6	21.8	21.1	22.2	22.7
4H	2H	15.4	16.8	15.9	17.2	17.6	16.4	17.7	16.8	18.1	18.5
	3H	17.0	18.1	17.5	18.6	19.0	18.6	19.8	19.1	20.2	20.6
	4H	17.5	18.6	18.0	19.0	19.5	19.7	20.7	20.2	21.2	21.6
	6H	17.9	18.8	18.4	19.3	19.8	20.8	21.7	21.2	22.1	22.6
	8H	18.0	18.9	18.5	19.3	19.8	21.3	22.1	21.8	22.6	23.1
	12H	18.1	18.8	18.6	19.3	19.9	21.8	22.6	22.4	23.1	23.6
8H	4H	18.0	18.8	18.5	19.3	19.8	19.9	20.7	20.4	21.2	21.7
	6H	18.5	19.2	19.0	19.7	20.2	21.1	21.8	21.6	22.3	22.9
	8H	18.6	19.3	19.2	19.8	20.4	21.7	22.4	22.3	22.9	23.5
	12H	18.8	19.3	19.3	19.9	20.5	22.5	23.0	23.0	23.6	24.2
12H	4H	18.1	18.8	18.6	19.4	19.9	19.9	20.6	20.4	21.2	21.7
	6H	18.6	19.3	19.2	19.8	20.4	21.1	21.8	21.7	22.3	22.9
	8H	18.9	19.5	19.4	20.0	20.6	21.8	22.4	22.4	22.9	23.5

Maximum UGR = 24.2

POLAR GRAPH



Maximum Candela = 1563.852 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.)