



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 97-2-L25-840-A-DRV-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18138.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 20-SEPT-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2' SUSPENDED LED ENCLOSED/GASKETED LUMINAIRE

[MORE] RAW ALUM A-SHAPED HEATSINK w/BTM SPEC REFL & CLEAR ACRYLIC

[MORE] DROP LENS

[LUMCAT] 97-2-L25-840-A-DRV-UNV

[LAMPCAT] HLM 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2559
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	140
Total Luminaire Watts	18.3
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.36
Spacing Criterion (90-270)	5.24
Spacing Criterion (Diagonal)	4.38
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	2.30 ft
Luminous Width (90-270)	0.52 ft
Luminous Height	0.30 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	431	4750	5264
55	451	4985	5621
65	498	5368	5885
75	593	4487	5018
85	719	4444	5614

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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	50.516	50.516	50.516	50.516	50.516
5	53.284	53.976	55.360	53.630	53.284
10	51.900	54.668	51.554	51.554	51.900
15	53.630	53.630	56.744	211.405	245.312
20	44.634	44.634	226.975	427.999	439.763
25	45.672	46.710	386.134	514.845	508.271
30	43.250	122.829	509.309	500.313	546.677
35	44.634	207.599	464.675	582.660	614.146
40	40.482	330.428	505.849	603.420	638.712
45	38.060	421.079	558.440	634.560	651.168
50	37.022	357.762	571.242	687.498	711.371
55	33.908	332.504	543.909	600.306	653.244
60	32.178	332.504	524.879	624.872	647.708
65	29.756	385.096	522.457	609.648	618.990
70	27.680	330.428	481.975	526.263	538.027
75	25.258	253.616	370.564	433.535	456.371
80	21.106	194.797	319.356	404.125	430.075
85	17.300	142.897	290.292	381.290	415.197
90	11.418	103.453	240.122	329.044	356.378
95	2.076	34.600	199.987	298.596	332.850
100	0.000	12.802	55.360	233.549	265.034
105	0.000	17.300	19.376	39.444	55.014
110	0.000	9.688	15.916	23.182	27.680
115	0.000	5.190	17.992	19.376	22.490
120	0.000	4.152	13.840	18.338	17.646
125	0.000	0.000	8.650	19.030	21.798
130	0.000	0.000	7.266	13.494	15.916
135	0.000	0.000	7.266	8.650	10.034
140	0.000	0.000	5.882	7.612	7.958
145	0.000	0.000	0.000	7.612	8.650
150	0.000	0.000	0.000	6.228	6.574
155	0.000	0.000	0.000	5.882	5.882
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	44.27	N.A.	1.70
0-30	184.98	N.A.	7.20
0-40	436.16	N.A.	17.00
0-60	1226.34	N.A.	47.90
0-80	2022.42	N.A.	79.00
0-90	2299.33	N.A.	89.90
10-90	2294.27	N.A.	89.70
20-40	391.88	N.A.	15.30
20-50	764.42	N.A.	29.90
40-70	1232.07	N.A.	48.10
60-80	796.08	N.A.	31.10
70-80	354.19	N.A.	13.80
80-90	276.91	N.A.	10.80
90-110	230.53	N.A.	9.00
90-120	243.91	N.A.	9.50
90-130	252.41	N.A.	9.90
90-150	258.71	N.A.	10.10
90-180	259.52	N.A.	10.10
110-180	28.99	N.A.	1.10
0-180	2558.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	5.06
10-20	39.21
20-30	140.71
30-40	251.17
40-50	372.54
50-60	417.65
60-70	441.89
70-80	354.19
80-90	276.91
90-100	183.68
100-110	46.84
110-120	13.38
120-130	8.50
130-140	4.29
140-150	2.02
150-160	0.81
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	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90
1	101	93	87	81	97	90	84	79	84	79	74	78	74	70	72	69	66	63
2	89	77	68	60	85	74	66	59	69	62	56	64	58	53	59	54	50	47
3	79	65	55	46	75	63	53	45	58	50	43	54	47	41	50	44	39	36
4	71	56	45	37	67	54	44	36	50	41	34	46	39	32	42	36	31	28
5	64	48	38	30	61	47	37	29	43	34	28	40	32	26	37	30	25	22
6	58	43	32	24	55	41	31	24	38	29	23	35	28	22	33	26	21	18
7	53	38	28	21	51	36	27	20	34	25	19	31	24	18	29	22	17	15
8	49	34	24	17	47	33	23	17	30	22	16	28	21	16	26	20	15	12
9	46	30	21	15	44	29	21	15	27	20	14	26	18	13	24	17	13	11
10	42	28	19	13	41	27	18	13	25	17	12	23	16	12	22	16	11	9

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UGR TABLE - CORRECTED

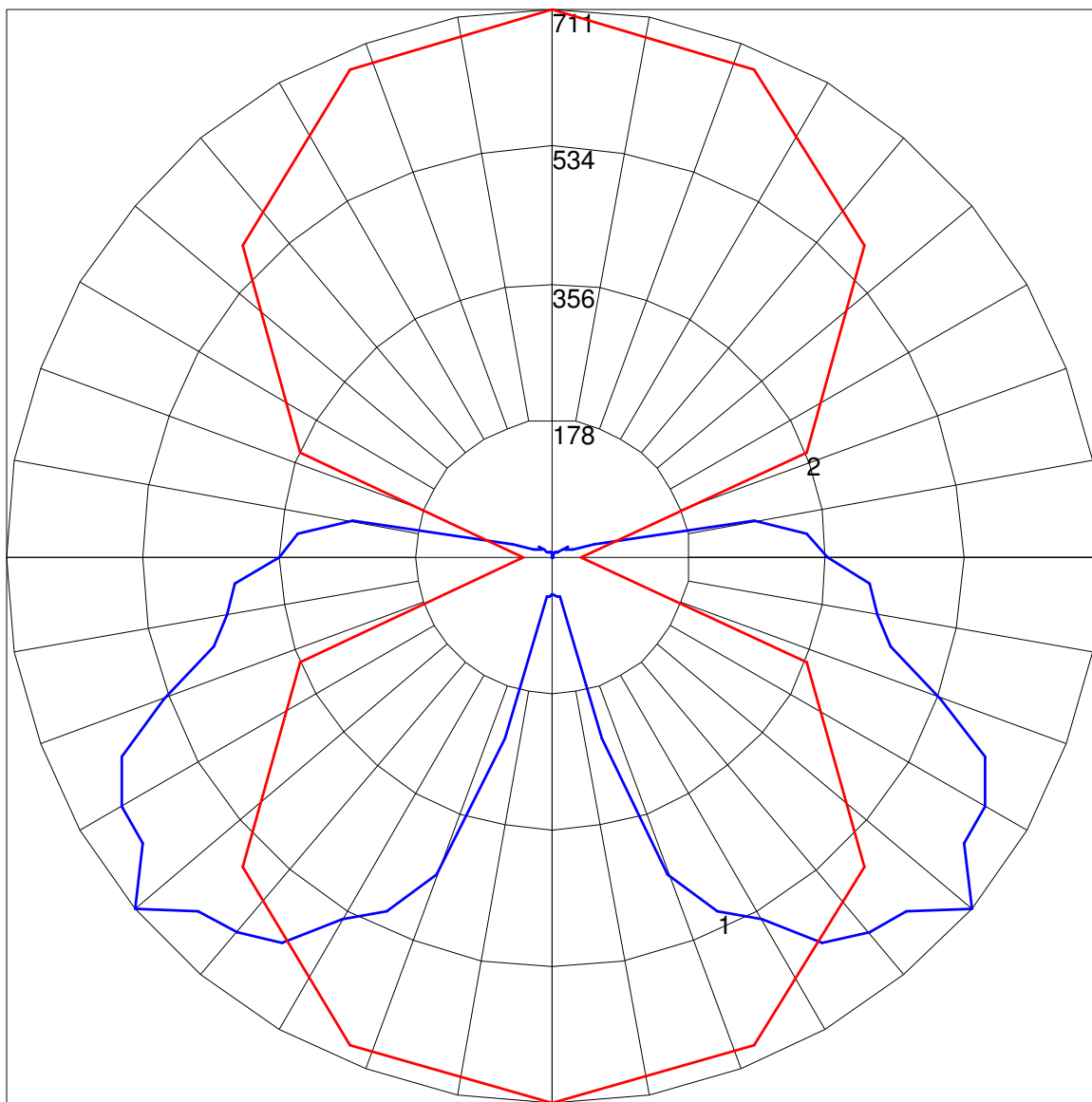
Reflectances

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	13.2	14.9	13.7	15.4	15.9	19.7	21.4	20.2	21.9	22.4
	3H	14.8	16.4	15.3	16.9	17.5	22.6	24.2	23.1	24.7	25.3
	4H	15.2	16.7	15.7	17.2	17.8	23.8	25.3	24.3	25.8	26.4
	6H	15.4	16.8	16.0	17.4	18.0	25.1	26.5	25.7	27.1	27.7
	8H	15.5	16.8	16.0	17.4	18.0	25.8	27.2	26.4	27.8	28.4
	12H	15.5	16.8	16.0	17.4	18.0	26.6	27.9	27.2	28.5	29.1
4H	2H	16.2	17.7	16.8	18.3	18.9	20.2	21.7	20.7	22.3	22.8
	3H	18.2	19.6	18.8	20.1	20.7	23.3	24.6	23.9	25.2	25.8
	4H	18.9	20.1	19.4	20.7	21.3	24.7	25.9	25.2	26.5	27.1
	6H	19.3	20.3	19.8	20.9	21.6	26.2	27.3	26.7	27.9	28.5
	8H	19.3	20.4	19.9	21.0	21.7	27.0	28.0	27.6	28.6	29.3
	12H	19.4	20.4	20.0	21.0	21.7	27.9	28.9	28.5	29.5	30.2
8H	4H	20.3	21.3	20.8	21.9	22.6	24.9	25.9	25.5	26.5	27.2
	6H	21.0	21.9	21.6	22.5	23.2	26.6	27.5	27.2	28.1	28.8
	8H	21.2	22.0	21.9	22.7	23.4	27.6	28.4	28.2	29.0	29.7
	12H	21.4	22.1	22.0	22.8	23.5	28.7	29.4	29.3	30.1	30.8
12H	4H	20.6	21.6	21.2	22.2	22.9	24.9	25.9	25.5	26.5	27.2
	6H	21.5	22.3	22.2	23.0	23.7	26.7	27.5	27.3	28.1	28.8
	8H	21.9	22.7	22.5	23.3	24.0	27.7	28.4	28.3	29.1	29.8

Maximum UGR = 30.8

POLAR GRAPH



Maximum Candela = 711.371 Located At Horizontal Angle = 90, Vertical Angle = 50
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (50) (Through Max. Cd.)