

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 97-4-L50-835-FR-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19304.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 28-MAR-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' SUSPENDED ENCLOSED/GASKETED LUMINAIRE

[MORE] WHITE FLAT REFL w/HIGHLY SPEC CENTER REFL & FROSTED

[MORE] ACRYLIC DROP LENS

[LUMCAT] 97-4-L50-835-FR-DIM-UNV

[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4923
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	143
Total Luminaire Watts	34.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.86
Spacing Criterion (Diagonal)	1.90
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.25 ft
Luminous Width (90-270)	0.46 ft
Luminous Height	0.27 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4101	4464	5166
55	3823	5512	6824
65	3338	6968	8217
75	2721	6664	6228
85	2049	3698	2890

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 97-4-L50-835-FR-DIM-UNV_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	793.248	793.248	793.248	793.248	793.248
5	806.184	818.085	820.672	783.416	748.230
10	798.940	811.876	824.812	792.213	758.579
15	784.451	801.009	825.847	803.079	770.480
20	760.648	786.003	826.364	811.358	781.346
25	732.706	769.445	825.329	821.190	797.387
30	697.520	748.747	821.190	836.196	820.672
35	659.746	721.322	818.603	863.621	862.586
40	611.106	682.514	819.120	908.638	937.616
45	558.326	641.118	836.196	995.052	1052.489
50	497.785	597.652	881.214	1116.135	1177.711
55	433.104	557.291	951.069	1244.980	1307.073
60	360.661	521.070	1020.407	1359.336	1421.429
65	290.288	494.163	1062.838	1378.481	1426.086
70	221.985	464.668	1020.407	1252.741	1262.055
75	157.822	413.958	852.237	977.459	936.063
80	99.350	333.236	587.303	620.937	599.722
85	55.884	238.543	367.388	371.528	353.934
90	35.704	164.548	235.956	232.852	211.119
95	26.390	110.216	161.444	153.682	144.368
100	22.250	75.030	117.978	111.251	107.112
105	18.628	52.262	95.210	92.106	88.484
110	13.971	34.152	76.582	80.722	77.100
115	11.384	23.285	60.024	70.890	68.821
120	7.762	15.523	45.535	61.059	59.507
125	5.692	9.314	33.117	49.158	48.640
130	4.657	5.692	22.768	35.704	37.256
135	0.000	0.000	15.523	26.390	27.942
140	0.000	0.000	9.832	19.146	20.180
145	0.000	0.000	6.209	13.454	14.489
150	0.000	0.000	0.000	8.797	9.832
155	0.000	0.000	0.000	4.657	5.174
160	0.000	0.000	0.000	0.000	4.657
165	0.000	2.587	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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 97-4-L50-835-FR-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	303.39	N.A.	6.20
0-30	671.34	N.A.	13.60
0-40	1169.21	N.A.	23.70
0-60	2619.41	N.A.	53.20
0-80	4263.76	N.A.	86.60
0-90	4605.28	N.A.	93.50
10-90	4528.93	N.A.	92.00
20-40	865.82	N.A.	17.60
20-50	1503.95	N.A.	30.50
40-70	2371.64	N.A.	48.20
60-80	1644.35	N.A.	33.40
70-80	722.91	N.A.	14.70
80-90	341.52	N.A.	6.90
90-110	225.45	N.A.	4.60
90-120	274.02	N.A.	5.60
90-130	300.97	N.A.	6.10
90-150	316.73	N.A.	6.40
90-180	317.79	N.A.	6.50
110-180	92.34	N.A.	1.90
0-180	4923.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	76.34
10-20	227.04
20-30	367.95
30-40	497.87
40-50	638.13
50-60	812.07
60-70	921.44
70-80	722.91
80-90	341.52
90-100	146.52
100-110	78.93
110-120	48.58
120-130	26.95
130-140	11.52
140-150	4.25
150-160	0.91
160-170	0.14
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 97-4-L50-835-FR-DIM-UNV_.IES

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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	103	96	90	85	99	93	88	83	88	83	79	83	79	76	78	75	72	69
2	91	80	72	64	87	78	70	63	73	66	60	69	63	58	64	60	56	53
3	81	68	58	50	78	66	57	49	62	54	47	58	51	46	55	49	44	41
4	73	59	48	40	70	57	47	40	54	45	38	50	43	37	47	41	36	33
5	67	52	41	33	64	50	40	33	47	38	32	44	37	31	42	35	30	27
6	61	46	36	28	58	44	35	28	42	33	27	39	32	26	37	30	25	23
7	56	41	31	24	54	40	30	24	38	29	23	35	28	23	33	27	22	20
8	52	37	28	21	50	36	27	21	34	26	20	32	25	20	31	24	19	17
9	48	34	25	19	47	33	24	18	31	23	18	30	22	17	28	22	17	15
10	45	31	22	17	44	30	22	16	29	21	16	27	20	16	26	20	15	13

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 97-4-L50-835-FR-DIM-UNV_.IES

UGR TABLE - CORRECTED

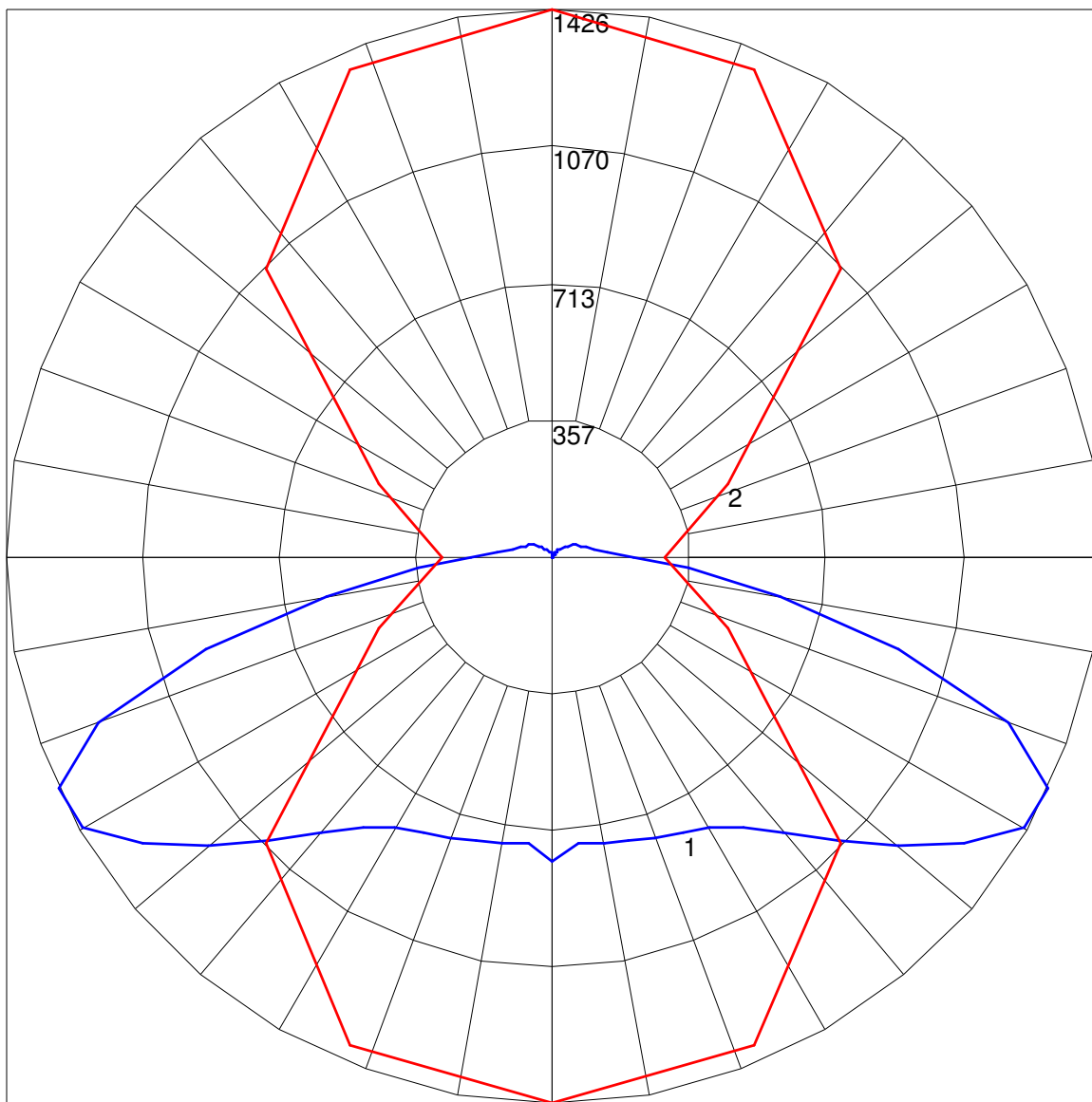
Reflectances

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	13.6	15.3	14.0	15.7	16.2	21.3	23.0	21.7	23.4	23.9
	3H	15.3	16.9	15.8	17.3	17.8	24.7	26.3	25.1	26.7	27.2
	4H	15.9	17.4	16.4	17.9	18.4	25.8	27.4	26.3	27.8	28.3
	6H	16.2	17.7	16.7	18.2	18.7	26.6	28.1	27.1	28.5	29.1
	8H	16.3	17.7	16.9	18.2	18.8	26.9	28.3	27.4	28.8	29.3
	12H	16.4	17.7	16.9	18.2	18.8	27.2	28.5	27.7	29.0	29.6
4H	2H	17.1	18.7	17.6	19.1	19.6	21.7	23.2	22.2	23.7	24.2
	3H	18.9	20.2	19.4	20.7	21.3	25.3	26.7	25.8	27.2	27.7
	4H	19.5	20.7	20.0	21.2	21.8	26.7	27.9	27.2	28.4	29.0
	6H	19.9	21.0	20.4	21.5	22.1	27.6	28.7	28.1	29.2	29.8
	8H	20.0	21.0	20.5	21.6	22.1	27.9	29.0	28.5	29.5	30.1
	12H	20.1	21.0	20.6	21.6	22.2	28.3	29.2	28.8	29.8	30.4
8H	4H	21.2	22.3	21.8	22.8	23.4	26.8	27.9	27.4	28.4	29.0
	6H	21.9	22.7	22.4	23.3	23.9	27.9	28.8	28.5	29.4	30.0
	8H	22.1	22.9	22.6	23.5	24.1	28.4	29.2	28.9	29.7	30.4
	12H	22.2	22.9	22.8	23.5	24.2	28.8	29.5	29.3	30.1	30.7
12H	4H	21.5	22.5	22.1	23.0	23.6	26.9	27.8	27.4	28.4	29.0
	6H	22.3	23.1	22.9	23.6	24.3	28.0	28.8	28.6	29.3	30.0
	8H	22.6	23.3	23.2	23.9	24.6	28.4	29.1	29.0	29.7	30.4

Maximum UGR = 30.7

POLAR GRAPH



Maximum Candela = 1426.086 Located At Horizontal Angle = 90, Vertical Angle = 65
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)