



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 97-4-L79-840-FR-DRV-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
 [ISSUEDATE] 01-04-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 4 LED 22" ARRAYS 4' SUSPENDED ENCLOSED/GASKETED
 [MORE] LUMINAIRE WHITE FLAT REFL w/HIGHLY SPEC CENTER REFL & FROSTED
 [MORE] ACRYLIC DROP LENS
 [LUMCAT] 97-4-L79-840-FR-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7813
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	148
Total Luminaire Watts	52.9
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	6508	7085	8199
55	6068	8748	10829
65	5298	11059	13040
75	4319	10576	9884
85	3252	5869	4587

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 97-4-L79-840-FR-DRV-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	1258.916	1258.916	1258.916	1258.916	1258.916
5	1279.447	1298.334	1302.441	1243.313	1187.471
10	1267.950	1288.480	1309.010	1257.274	1203.895
15	1244.956	1271.235	1310.653	1274.519	1222.783
20	1207.180	1247.419	1311.474	1287.659	1240.028
25	1162.835	1221.141	1309.831	1303.262	1265.486
30	1106.992	1188.292	1303.262	1327.077	1302.441
35	1047.044	1144.768	1299.156	1370.601	1368.959
40	969.850	1083.177	1299.977	1442.046	1488.034
45	886.087	1017.480	1327.077	1579.189	1670.343
50	790.005	948.499	1398.522	1771.352	1869.076
55	687.354	884.444	1509.386	1975.833	2074.379
60	572.384	826.959	1619.428	2157.321	2255.866
65	460.699	784.256	1686.767	2187.706	2263.257
70	352.299	737.447	1619.428	1988.152	2002.933
75	250.469	656.969	1352.534	1551.267	1485.571
80	157.672	528.860	932.074	985.453	951.783
85	88.691	378.578	583.060	589.629	561.708
90	56.664	261.145	374.472	369.545	335.054
95	41.882	174.918	256.218	243.900	229.118
100	35.312	119.076	187.236	176.560	169.991
105	29.564	82.942	151.103	146.176	140.427
110	22.173	54.200	121.539	128.109	122.360
115	18.067	36.954	95.260	112.506	109.221
120	12.318	24.636	72.267	96.903	94.439
125	9.033	14.782	52.557	78.015	77.194
130	7.391	9.033	36.133	56.664	59.127
135	0.000	0.000	24.636	41.882	44.345
140	0.000	0.000	15.603	30.385	32.027
145	0.000	0.000	9.855	21.351	22.994
150	0.000	0.000	0.000	13.961	15.603
155	0.000	0.000	0.000	7.391	8.212
160	0.000	0.000	0.000	0.000	7.391
165	0.000	4.106	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-L79-840-FR-DRV-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	481.49	N.A.	6.20
0-30	1065.44	N.A.	13.60
0-40	1855.58	N.A.	23.70
0-60	4157.11	N.A.	53.20
0-80	6766.76	N.A.	86.60
0-90	7308.76	N.A.	93.50
10-90	7187.6	N.A.	92.00
20-40	1374.09	N.A.	17.60
20-50	2386.84	N.A.	30.50
40-70	3763.89	N.A.	48.20
60-80	2609.66	N.A.	33.40
70-80	1147.3	N.A.	14.70
80-90	542.00	N.A.	6.90
90-110	357.80	N.A.	4.60
90-120	434.89	N.A.	5.60
90-130	477.65	N.A.	6.10
90-150	502.67	N.A.	6.40
90-180	504.34	N.A.	6.50
110-180	146.55	N.A.	1.90
0-180	7813.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	121.16
10-20	360.32
20-30	583.96
30-40	790.14
40-50	1012.74
50-60	1288.78
60-70	1462.36
70-80	1147.3
80-90	542.00
90-100	232.53
100-110	125.26
110-120	77.09
120-130	42.76
130-140	18.28
140-150	6.74
150-160	1.45
160-170	0.22
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 97-4-L79-840-FR-DRV-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-L79-840-FR-DRV-UNV_.IES

UGR TABLE - CORRECTED

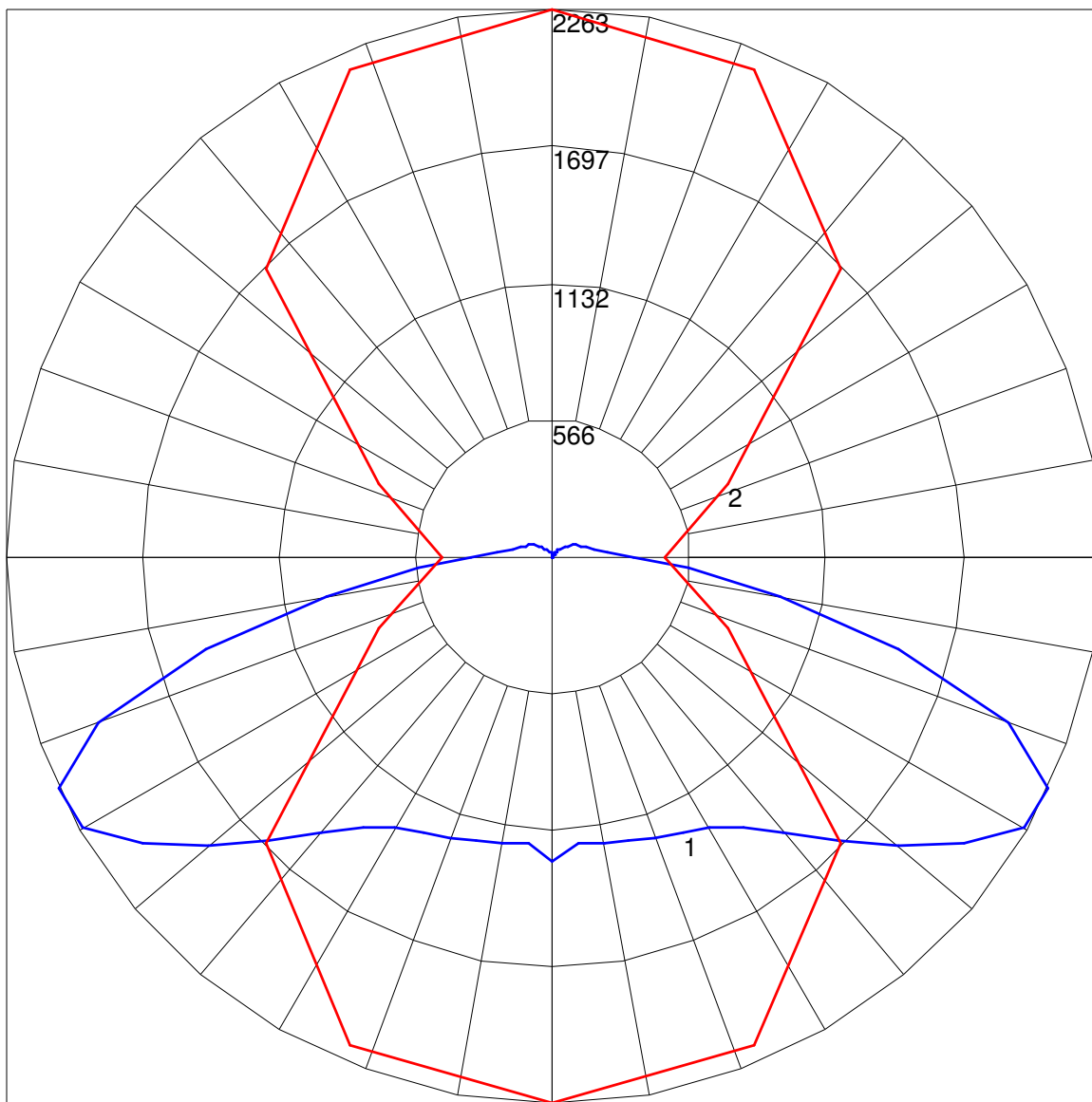
Reflectances

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	15.2	16.9	15.6	17.3	17.8	22.9	24.6	23.3	25.0	25.5
	3H	16.9	18.5	17.4	18.9	19.4	26.3	27.9	26.7	28.3	28.8
	4H	17.5	19.0	18.0	19.5	20.0	27.4	29.0	27.9	29.4	29.9
	6H	17.8	19.3	18.3	19.8	20.3	28.2	29.7	28.7	30.1	30.7
	8H	17.9	19.3	18.5	19.8	20.4	28.5	29.9	29.0	30.4	30.9
	12H	18.0	19.3	18.5	19.8	20.4	28.8	30.1	29.3	30.6	31.2
4H	2H	18.7	20.3	19.2	20.7	21.2	23.3	24.8	23.8	25.3	25.8
	3H	20.5	21.8	21.0	22.3	22.9	26.9	28.3	27.4	28.8	29.3
	4H	21.1	22.3	21.6	22.8	23.4	28.3	29.5	28.8	30.0	30.6
	6H	21.5	22.6	22.0	23.1	23.7	29.2	30.3	29.7	30.8	31.4
	8H	21.6	22.6	22.1	23.2	23.7	29.5	30.6	30.1	31.1	31.7
	12H	21.7	22.6	22.2	23.2	23.8	29.9	30.8	30.4	31.4	32.0
8H	4H	22.8	23.9	23.4	24.4	25.0	28.4	29.5	29.0	30.0	30.6
	6H	23.5	24.3	24.0	24.9	25.5	29.5	30.4	30.1	31.0	31.6
	8H	23.7	24.5	24.2	25.1	25.7	30.0	30.8	30.5	31.3	32.0
	12H	23.8	24.5	24.4	25.1	25.8	30.4	31.1	30.9	31.7	32.3
12H	4H	23.1	24.1	23.7	24.6	25.2	28.5	29.4	29.0	30.0	30.6
	6H	23.9	24.7	24.5	25.2	25.9	29.6	30.4	30.2	30.9	31.6
	8H	24.2	24.9	24.8	25.5	26.2	30.0	30.7	30.6	31.3	32.0

Maximum UGR = 32.3

POLAR GRAPH



Maximum Candela = 2263.257 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.)