



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L40-935-DFR-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]GEN FROM BALLABS TEST NO. 20205.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUE DATE] 06-07-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 2-56 LED 22"ARRAYS 4'ENCLOSED & GASKETED LUMINAIRE  
 [MORE] WHITE FLAT REFL w/ ACRYLIC DROP LENS  
 [MORE] OT150/120-277/1A4 DIM-1-G2 #57452  
 [LUMCAT] 96-4-L40-935-DFR-DIM-UNV  
 [LAMPCAT] HLM2256\_5630 REV A 10560223

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3432
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	27.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.25 ft
Luminous Width (90-270)	0.50 ft
Luminous Height	0.17 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5223	4152	3942
55	4316	3487	3519
65	3427	2885	3077
75	2202	2374	2625
85	915	1935	2155

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : 96-4-L40-935-DFR-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	1229.400	1229.400	1229.400	1229.400	1229.400
5	1253.815	1223.100	1215.224	1204.198	1199.473
10	1235.701	1202.623	1188.447	1171.908	1165.607
15	1203.411	1166.395	1149.068	1120.715	1114.415
20	1160.094	1119.140	1092.363	1062.435	1052.197
25	1107.327	1060.072	1015.968	990.766	982.890
30	1042.746	993.916	943.512	936.423	937.999
35	966.351	912.796	878.143	888.382	888.382
40	870.267	817.500	813.562	815.925	815.137
45	758.432	719.054	733.230	727.717	734.805
50	634.783	619.819	637.934	641.871	660.773
55	516.647	522.948	544.212	562.327	589.104
60	411.900	426.864	453.642	489.870	513.497
65	310.303	331.568	377.247	423.714	441.041
70	213.432	244.147	307.941	361.496	370.947
75	129.162	168.540	240.997	291.402	301.640
80	62.218	111.835	179.566	225.246	237.059
85	22.840	71.669	133.887	173.266	178.779
90	8.663	44.892	97.659	129.162	135.462
95	8.663	30.715	77.970	105.535	109.473
100	7.088	17.327	61.431	84.270	88.996
105	5.513	10.238	44.892	66.944	70.094
110	4.725	5.513	32.290	52.767	55.130
115	3.150	2.363	20.477	38.591	44.892
120	2.363	0.788	11.026	28.353	32.290
125	0.000	0.000	2.363	17.327	21.264
130	0.000	0.000	0.000	8.663	11.026
135	0.000	0.000	0.000	0.788	4.725
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 96-4-L40-935-DFR-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	439.11	N.A.	12.80
0-30	914.12	N.A.	26.60
0-40	1476.8	N.A.	43.00
0-60	2530.22	N.A.	73.70
0-80	3149.63	N.A.	91.80
0-90	3283.83	N.A.	95.70
10-90	3168.44	N.A.	92.30
20-40	1037.7	N.A.	30.20
20-50	1601.97	N.A.	46.70
40-70	1428.28	N.A.	41.60
60-80	619.40	N.A.	18.00
70-80	244.54	N.A.	7.10
80-90	134.21	N.A.	3.90
90-110	118.28	N.A.	3.40
90-120	140.00	N.A.	4.10
90-130	147.50	N.A.	4.30
90-150	148.52	N.A.	4.30
90-180	148.52	N.A.	4.30
110-180	30.24	N.A.	0.90
0-180	3432.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	115.40
10-20	323.71
20-30	475.01
30-40	562.69
40-50	564.28
50-60	489.14
60-70	374.87
70-80	244.54
80-90	134.21
90-100	75.14
100-110	43.14
110-120	21.72
120-130	7.49
130-140	1.02
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 96-4-L40-935-DFR-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	115	115	115	115	109	109	109	103	103	103	98	98	98	96
1	107	102	97	93	104	99	95	91	94	91	88	89	87	84	85	83	81	78
2	97	89	82	76	94	86	80	75	82	77	72	78	74	70	75	71	68	65
3	89	78	70	63	86	76	68	62	72	66	61	69	64	59	66	61	57	55
4	81	69	60	54	79	68	59	53	64	57	52	62	56	51	59	54	49	47
5	75	62	53	46	72	61	52	46	58	51	45	55	49	44	53	48	43	41
6	69	56	47	40	67	55	46	40	52	45	39	50	44	39	48	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	28
9	56	43	34	29	54	42	34	29	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	23

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 96-4-L40-935-DFR-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

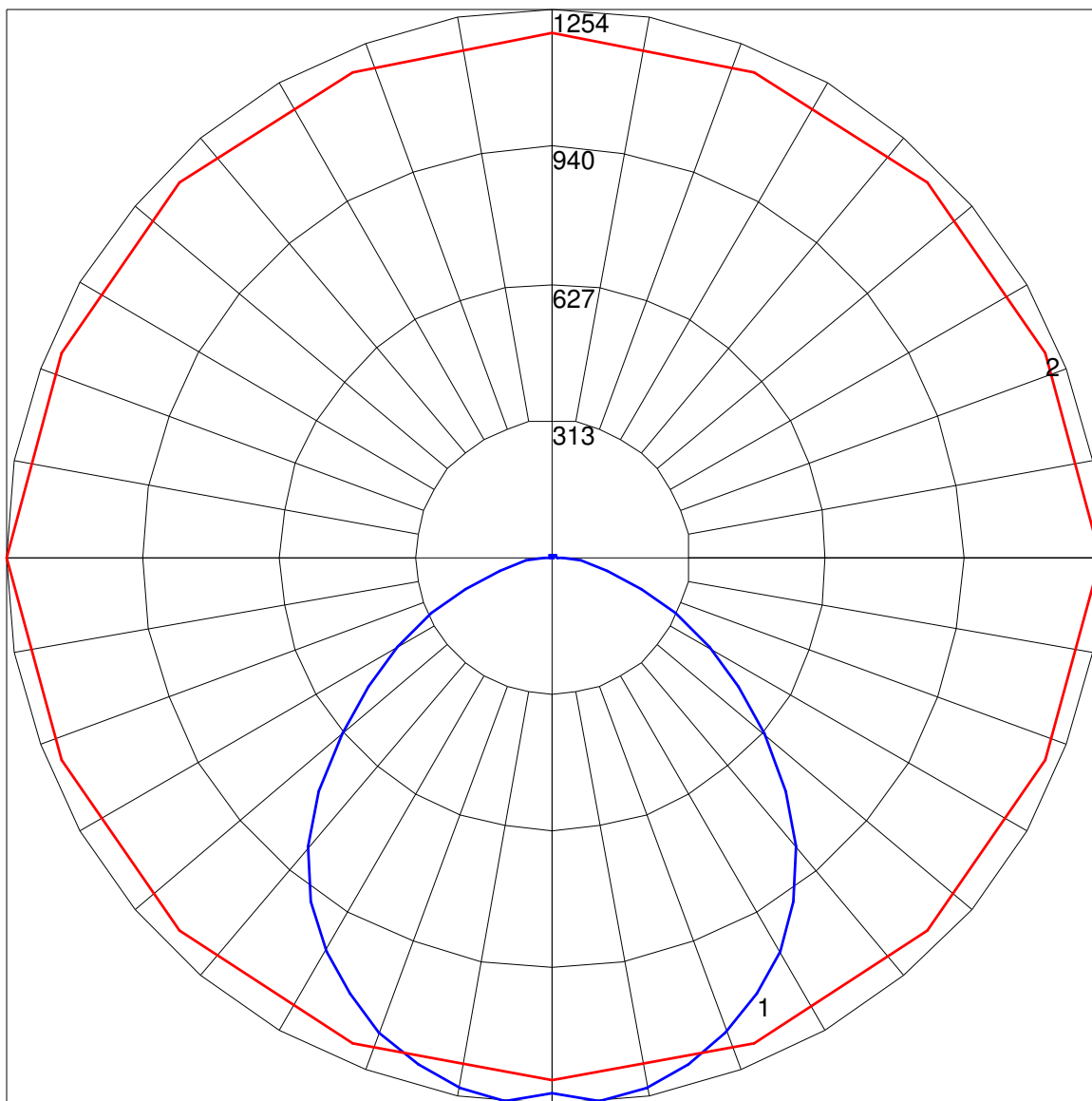
Reflectances

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	15.1	16.7	15.6	17.1	17.5	16.7	18.2	17.1	18.6	19.1
	3H	16.3	17.7	16.8	18.1	18.6	18.9	20.4	19.4	20.8	21.2
	4H	16.6	18.0	17.1	18.4	18.9	20.0	21.3	20.4	21.7	22.2
	6H	16.8	18.0	17.3	18.5	19.0	20.9	22.2	21.4	22.6	23.1
	8H	16.8	18.0	17.3	18.5	19.0	21.4	22.6	21.9	23.0	23.5
	12H	16.8	17.9	17.3	18.4	18.9	21.8	23.0	22.3	23.5	24.0
4H	2H	15.8	17.2	16.3	17.6	18.1	17.1	18.4	17.6	18.9	19.3
	3H	17.3	18.4	17.7	18.9	19.4	19.6	20.7	20.1	21.2	21.7
	4H	17.7	18.7	18.2	19.2	19.7	20.8	21.8	21.3	22.3	22.8
	6H	17.9	18.9	18.5	19.4	19.9	21.9	22.8	22.4	23.3	23.8
	8H	18.0	18.8	18.5	19.4	19.9	22.5	23.3	23.0	23.8	24.4
	12H	18.0	18.8	18.6	19.3	19.9	23.0	23.8	23.6	24.3	24.9
8H	4H	18.3	19.1	18.8	19.6	20.2	20.9	21.8	21.5	22.3	22.8
	6H	18.7	19.4	19.2	19.9	20.5	22.2	22.9	22.8	23.5	24.1
	8H	18.8	19.4	19.4	20.0	20.6	22.9	23.5	23.5	24.1	24.7
	12H	18.9	19.4	19.4	20.0	20.6	23.6	24.2	24.2	24.8	25.4
12H	4H	18.4	19.2	18.9	19.7	20.3	20.9	21.7	21.5	22.2	22.8
	6H	18.9	19.5	19.5	20.1	20.7	22.2	22.9	22.8	23.4	24.1
	8H	19.1	19.7	19.6	20.2	20.9	23.0	23.6	23.5	24.1	24.8

Maximum UGR = 25.4

POLAR GRAPH



Maximum Candela = 1253.815 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.)