



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L81-835-PCFR-(L80)-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 20009.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 07-14-2023  
 [MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 4' VAPORTITE LUMINAIRE  
 [MORE] WHITE FLAT REFLECTOR w/PCFR LENS  
 [LUMCAT] 96-4-L81-835-PCFR-(L80)-DIM-UNV  
 [LAMPCAT] HLM 80 CRI 3500K CCT

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7330
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	62
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
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	10008	8349	8406
55	8535	7322	7772
65	6792	6305	7067
75	4680	5283	6265
85	1500	4418	5503

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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	2562.275	2562.275	2562.275	2562.275	2562.275
5	2602.193	2548.553	2528.593	2519.861	2516.119
10	2554.790	2504.892	2478.695	2454.993	2452.498
15	2487.427	2432.539	2405.095	2387.631	2377.651
20	2380.146	2315.278	2304.051	2257.895	2256.648
25	2236.689	2179.306	2158.099	2138.140	2133.150
30	2068.282	2027.116	2002.167	1989.692	1989.692
35	1878.669	1853.720	1825.028	1842.492	1849.977
40	1667.849	1659.116	1649.137	1697.788	1709.015
45	1453.286	1459.523	1474.493	1549.340	1566.805
50	1237.476	1261.178	1312.324	1403.388	1433.327
55	1021.666	1071.565	1142.670	1257.436	1301.097
60	814.589	876.962	981.748	1111.483	1156.392
65	614.996	692.338	824.568	971.768	1012.934
70	437.857	531.416	676.121	829.558	863.240
75	274.440	384.216	536.406	684.853	719.782
80	133.478	259.471	414.155	547.633	576.325
85	37.424	158.427	305.627	427.877	456.569
90	11.227	96.054	229.532	330.576	369.247
95	9.980	63.620	175.891	270.698	306.874
100	8.732	37.424	137.220	220.800	253.234
105	3.742	14.969	98.549	173.396	204.583
110	3.742	3.742	69.858	133.478	163.417
115	2.495	1.247	43.661	98.549	124.746
120	0.000	0.000	17.464	67.363	91.064
125	0.000	0.000	3.742	38.671	61.125
130	0.000	0.000	0.000	16.217	33.681
135	0.000	0.000	0.000	2.495	11.227
140	0.000	0.000	0.000	1.247	1.247
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-L81-835-PCFR-(L80)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	919.84	N.A.	12.50
0-30	1916.65	N.A.	26.10
0-40	3072.11	N.A.	41.90
0-60	5267.48	N.A.	71.90
0-80	6646.9	N.A.	90.70
0-90	6967.24	N.A.	95.00
10-90	6726.51	N.A.	91.80
20-40	2152.27	N.A.	29.40
20-50	3310.71	N.A.	45.20
40-70	3015.69	N.A.	41.10
60-80	1379.43	N.A.	18.80
70-80	559.10	N.A.	7.60
80-90	320.34	N.A.	4.40
90-110	290.81	N.A.	4.00
90-120	342.83	N.A.	4.70
90-130	360.34	N.A.	4.90
90-150	362.96	N.A.	5.00
90-180	362.96	N.A.	5.00
110-180	72.15	N.A.	1.00
0-180	7330.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	240.73
10-20	679.11
20-30	996.81
30-40	1155.46
40-50	1158.44
50-60	1036.93
60-70	820.32
70-80	559.10
80-90	320.34
90-100	184.89
100-110	105.92
110-120	52.02
120-130	17.51
130-140	2.54
140-150	0.08
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	118	118	118	118	115	115	115	115	108	108	108	103	103	103	97	97	97	95
1	107	101	97	92	103	99	94	90	93	90	87	89	86	83	84	82	80	77
2	97	88	81	75	94	86	79	74	81	76	71	77	73	69	74	70	66	64
3	88	77	69	62	85	75	68	61	72	65	60	68	63	58	65	60	56	54
4	81	68	60	53	78	67	59	52	64	56	51	61	55	50	58	53	48	46
5	74	61	52	45	72	60	51	45	57	50	44	55	48	43	52	47	42	40
6	69	55	46	40	66	54	46	39	52	44	39	50	43	38	47	42	37	35
7	64	50	41	35	62	49	41	35	47	40	34	45	39	34	43	38	33	31
8	59	46	37	31	57	45	37	31	43	36	31	41	35	30	40	34	30	28
9	55	42	34	28	54	41	33	28	40	33	28	38	32	27	37	31	27	25
10	52	39	31	26	50	38	31	26	37	30	25	36	29	25	34	29	24	23

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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

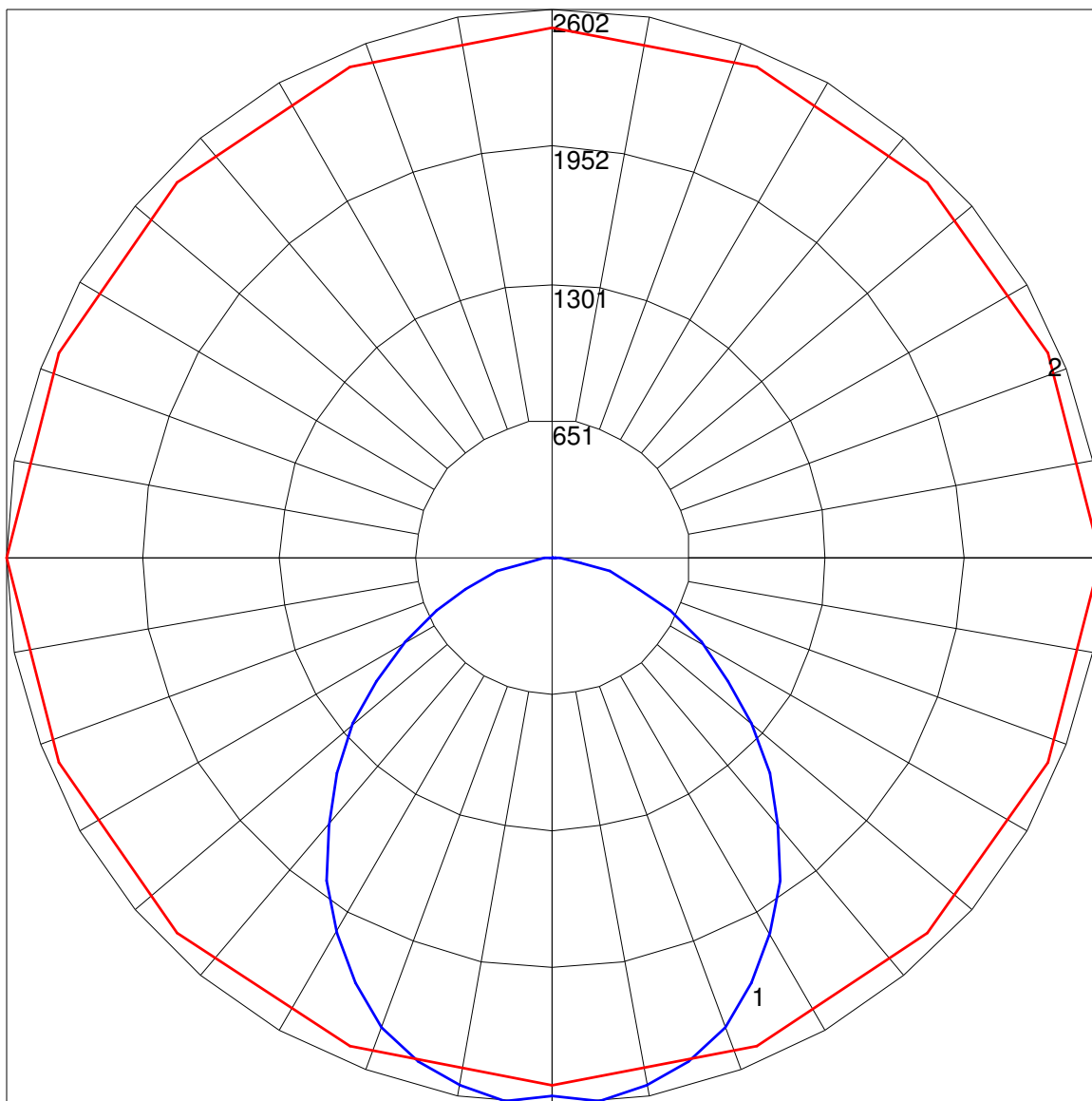
X=2H	Y=2H	17.4	18.9	17.8	19.3	19.8	19.6	21.2	20.1	21.6	22.0
	3H	18.6	20.0	19.1	20.4	20.9	21.9	23.4	22.4	23.8	24.3
	4H	19.0	20.3	19.4	20.7	21.2	23.0	24.4	23.5	24.8	25.3
	6H	19.1	20.4	19.6	20.8	21.3	24.1	25.3	24.6	25.8	26.3
	8H	19.2	20.3	19.7	20.8	21.3	24.6	25.8	25.1	26.3	26.8
	12H	19.2	20.3	19.7	20.8	21.3	25.1	26.3	25.6	26.7	27.3

### UGR Viewed Endwise

4H	2H	18.2	19.5	18.7	20.0	20.5	20.0	21.3	20.5	21.8	22.2
	3H	19.7	20.8	20.2	21.3	21.8	22.6	23.7	23.1	24.2	24.7
	4H	20.2	21.2	20.7	21.7	22.2	23.8	24.8	24.3	25.3	25.9
	6H	20.5	21.4	21.0	21.9	22.5	25.0	26.0	25.6	26.5	27.0
	8H	20.5	21.4	21.0	21.9	22.5	25.7	26.5	26.2	27.0	27.6
	12H	20.5	21.3	21.1	21.9	22.4	26.3	27.1	26.9	27.7	28.2
8H	4H	20.8	21.7	21.3	22.2	22.8	24.0	24.8	24.5	25.4	25.9
	6H	21.3	22.0	21.8	22.6	23.2	25.4	26.1	26.0	26.7	27.3
	8H	21.4	22.1	22.0	22.6	23.2	26.1	26.8	26.7	27.4	28.0
	12H	21.5	22.1	22.1	22.6	23.3	27.0	27.5	27.5	28.1	28.8
12H	4H	21.0	21.8	21.5	22.3	22.9	24.0	24.7	24.5	25.3	25.9
	6H	21.5	22.2	22.1	22.7	23.4	25.4	26.1	26.0	26.6	27.3
	8H	21.8	22.3	22.3	22.9	23.6	26.2	26.8	26.8	27.4	28.0

Maximum UGR = 28.8

POLAR GRAPH



Maximum Candela = 2602.193 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.)