H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 96-4-L81-835-HIAFR-(L78)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM BALLABS TEST NO. 20008.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 05-24-2022
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-56 LED 22"ARRAYS 4'VAPORTITE LUMINAIRE
[MORE] WHITE FLAT REFLECTOR w/HIAFR LENS
[MORE] EVERLINE LED DRIVER #D15CC55UNVTW-C @ 1029mA
[LUMCAT] 96-4-L81-835-HIAFR-(L78)-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7643
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	59.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
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	11207	9275	8852
55	9358	7665	7536
65	7163	6313	6863
75	4679	5254	6193
85	1809	4310	5168

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 96-4-L81-835-HIAFR-(L78)-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2753.571	2753.571	2753.571	2753.571	2753.571
5	2793.960	2739.316	2729.813	2719.122	2711.994
10	2752.383	2698.927	2669.229	2644.283	2627.653
15	2683.484	2619.337	2576.573	2540.935	2518.365
20	2581.324	2506.486	2458.970	2388.883	2359.185
25	2454.218	2365.125	2308.105	2224.952	2215.449
30	2296.226	2201.194	2144.174	2103.785	2116.852
35	2114.476	2017.068	1979.055	1993.310	2024.195
40	1891.150	1796.117	1819.875	1824.627	1854.324
45	1627.434	1564.475	1638.125	1632.186	1650.004
50	1367.282	1341.148	1414.798	1434.993	1438.557
55	1120.197	1133.264	1196.223	1250.867	1261.558
60	884.991	931.320	999.031	1102.379	1117.821
65	648.598	712.745	825.596	952.702	983.588
70	446.653	515.552	675.920	807.777	852.918
75	274.407	351.621	533.371	673.544	711.557
80	135.422	226.890	407.452	542.874	561.881
85	45.141	141.361	298.165	420.519	428.835
90	17.819	91.469	219.763	313.608	323.111
95	16.631	62.959	178.186	245.897	257.776
100	14.255	39.201	135.422	191.253	204.320
105	9.503	22.570	99.784	148.489	163.931
110	5.940	8.315	71.274	115.227	128.294
115	4.752	2.376	46.328	85.529	100.972
120	2.376	1.188	28.510	61.771	72.462
125	0.000	0.000	9.503	38.013	49.892
130	0.000	0.000	0.000	17.819	28.510
135	0.000	0.000	0.000	5.940	10.691
140	0.000	0.000	0.000	4.752	4.752
145	0.000	0.000	0.000	2.376	2.376
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-HIAFR-(L78)-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	986.62	N.A.	12.90
0-30	2052.28	N.A.	26.90
0-40	3308.79	N.A.	43.30
0-60	5628.84	N.A.	73.60
0-80	6998.5	N.A.	91.60
0-90	7306.22	N.A.	95.60
10-90	7047.03	N.A.	92.20
20-40	2322.17	N.A.	30.40
20-50	3569.95	N.A.	46.70
40-70	3143.25	N.A.	41.10
60-80	1369.67	N.A.	17.90
70-80	546.46	N.A.	7.10
80-90	307.71	N.A.	4.00
90-110	268.04	N.A.	3.50
90-120	315.67	N.A.	4.10
90-130	332.99	N.A.	4.40
90-150	336.61	N.A.	4.40
90-180	336.61	N.A.	4.40
110-180	68.57	N.A.	0.90
0-180	7642.82	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	259.18
10-20	727.44
20-30	1065.66
30-40	1256.51
40-50	1247.78
50-60	1072.26
60-70	823.20
70-80	546.46
80-90	307.71
90-100	171.85
100-110	96.18
110-120	47.63
120-130	17.32
130-140	3.04
140-150	0.58
150-160	0.00
160-170	0.00
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 96-4-L81-835-HIAFR-(L78)-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	65	57	52	62	56	51	59	54	49	47
5	75	62	53	46	72	61	52	46	58	51	45	56	49	44	53	48	43	41
6	69	56	47	41	67	55	46	40	52	45	39	50	44	39	48	43	38	36
7	64	51	42	36	62	50	41	36	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	32	44	37	31	42	36	31	41	35	30	29
9	56	43	34	29	54	42	34	29	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	31	26	36	30	25	35	29	25	23

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 96-4-L81-835-HIAFR-(L78)-DIM-UNV_.IES

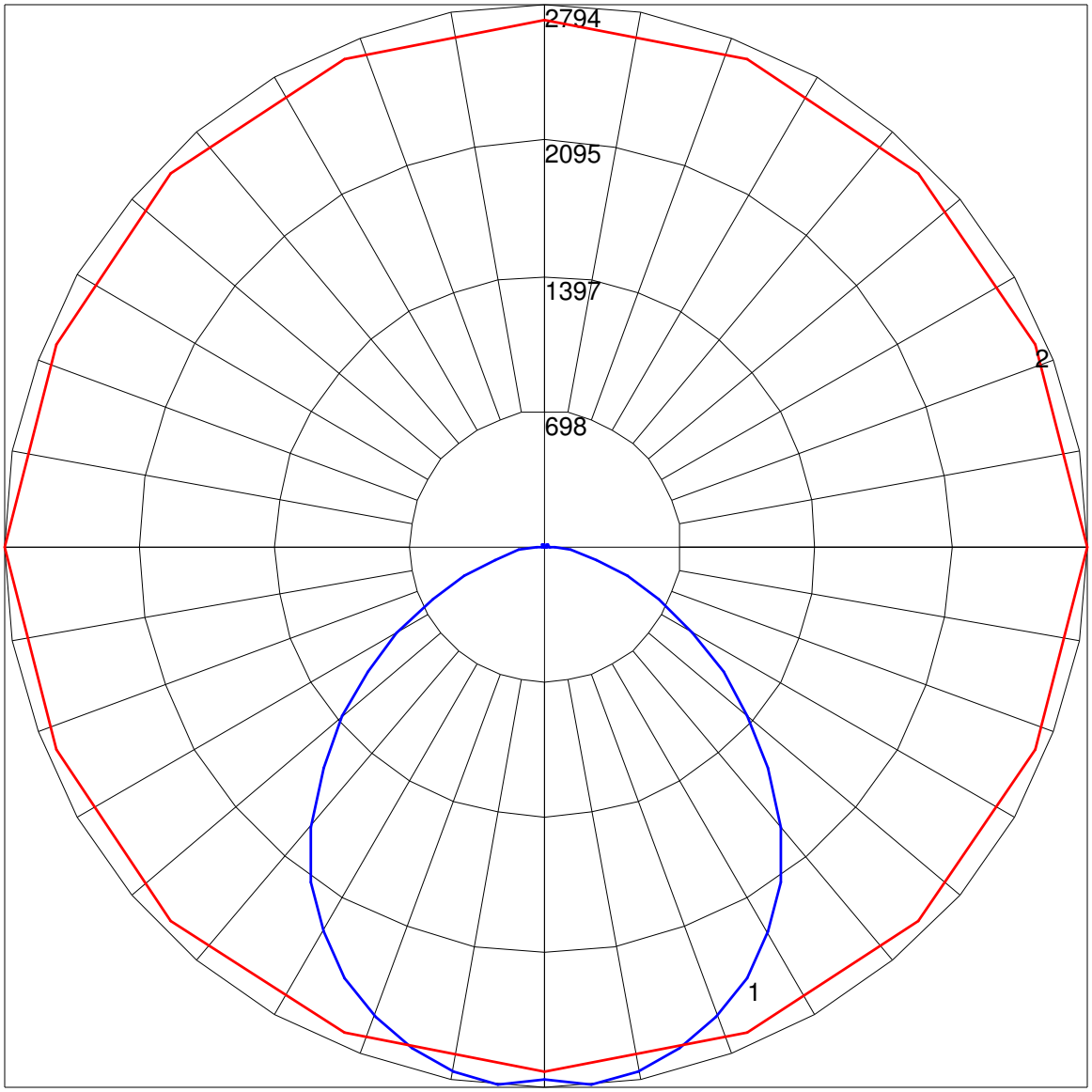
UGR TABLE - CORRECTED

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	17.8	19.3	18.2	19.7	20.1	19.5	21.0	19.9	21.4	21.8
	3H	18.9	20.3	19.3	20.7	21.2	21.8	23.2	22.2	23.6	24.1
	4H	19.2	20.5	19.6	20.9	21.4	22.9	24.2	23.3	24.6	25.1
	6H	19.3	20.6	19.8	21.0	21.5	23.9	25.2	24.4	25.6	26.1
	8H	19.3	20.5	19.8	21.0	21.5	24.4	25.6	24.9	26.1	26.6
	12H	19.3	20.5	19.8	20.9	21.5	24.9	26.1	25.4	26.5	27.1
4H	2H	18.5	19.8	18.9	20.2	20.7	19.9	21.2	20.3	21.6	22.1
	3H	19.8	21.0	20.3	21.4	21.9	22.4	23.5	22.9	24.0	24.5
	4H	20.3	21.3	20.8	21.8	22.3	23.7	24.7	24.2	25.2	25.7
	6H	20.5	21.4	21.0	21.9	22.4	24.9	25.8	25.4	26.3	26.9
	8H	20.5	21.4	21.0	21.9	22.4	25.5	26.3	26.0	26.9	27.4
	12H	20.6	21.3	21.1	21.9	22.4	26.1	26.9	26.7	27.4	28.0
8H	4H	20.8	21.7	21.4	22.2	22.8	23.8	24.7	24.3	25.2	25.7
	6H	21.2	21.9	21.8	22.5	23.1	25.2	25.9	25.8	26.5	27.1
	8H	21.3	22.0	21.9	22.6	23.1	26.0	26.6	26.5	27.2	27.8
	12H	21.4	22.0	22.0	22.5	23.2	26.8	27.3	27.3	27.9	28.5
12H	4H	21.0	21.8	21.6	22.3	22.9	23.8	24.6	24.4	25.1	25.7
	6H	21.5	22.1	22.1	22.7	23.3	25.2	25.9	25.8	26.4	27.1
	8H	21.7	22.3	22.2	22.8	23.5	26.0	26.6	26.6	27.2	27.8

Maximum UGR = 28.5

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 96-4-L81-835-HIAFR-(L78)-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 2793.96 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.)