



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GA-8-L110-835-N-DIM-UNV\_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] GEN FROM BALLABS TEST NO. 19576.0  
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
[ISSUEDATE] 2023-05-11  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
[LUMINAIRE] 8' LED AISLE LUMINAIRE  
[MORE] WHITE FLAT REFLECTOR w/CLEAR ACRYLIC ROD OPTIC  
[LUMCAT] GA-8-L110-835-N-DIM-UNV  
[LAMPCAT] HLM 80 CRI LED

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10674
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	146
Total Luminaire Watts	73.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.46
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.68
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	8.00 ft
Luminous Width (90-270)	0.39 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	44663	3071	2113
55	32216	1808	1434
65	19178	1373	1373
75	9220	1952	2430
85	3330	5550	7770

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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	10730.837	10730.837	10730.837	10730.837	10730.837
5	10820.119	10744.691	10599.991	10413.730	10399.875
10	10930.953	10550.732	9825.696	9100.661	8926.714
15	10972.515	10122.792	8484.919	7207.255	6791.630
20	10855.524	8837.431	5521.663	3772.957	3164.912
25	10800.107	7573.622	3683.674	2245.917	1796.426
30	11014.078	5818.758	2148.938	1236.101	1049.839
35	10192.063	3828.373	1271.506	808.161	738.890
40	9764.122	2293.637	822.015	580.336	546.471
45	9045.244	1396.194	621.899	463.346	427.940
50	7276.526	1002.119	463.346	358.669	338.658
55	5292.299	732.732	297.095	235.521	235.521
60	3648.269	463.346	193.959	180.104	193.959
65	2321.346	235.521	166.250	166.250	166.250
70	1313.069	180.104	158.553	166.250	172.408
75	683.473	172.408	144.699	180.104	180.104
80	317.107	166.250	158.553	193.959	193.959
85	83.125	144.699	138.542	180.104	193.959
90	6.157	83.125	83.125	116.991	130.845
95	0.000	0.000	33.866	69.271	69.271
100	0.000	0.000	6.157	20.012	20.012
105	0.000	0.000	0.000	6.157	6.157
110	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
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

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	3318.07	N.A.	31.10
0-30	5605.02	N.A.	52.50
0-40	7428.2	N.A.	69.60
0-60	9738.57	N.A.	91.20
0-80	10466.17	N.A.	98.10
0-90	10624.94	N.A.	99.50
10-90	9638.69	N.A.	90.30
20-40	4110.13	N.A.	38.50
20-50	5503.09	N.A.	51.60
40-70	2781.79	N.A.	26.10
60-80	727.61	N.A.	6.80
70-80	256.17	N.A.	2.40
80-90	158.76	N.A.	1.50
90-110	48.97	N.A.	0.50
90-120	48.97	N.A.	0.50
90-130	48.97	N.A.	0.50
90-150	48.97	N.A.	0.50
90-180	48.97	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	10673.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	986.24
10-20	2331.83
20-30	2286.94
30-40	1823.19
40-50	1392.96
50-60	917.40
60-70	471.43
70-80	256.17
80-90	158.76
90-100	45.32
100-110	3.64
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89
2	104	98	93	88	102	96	91	87	92	89	85	89	86	83	86	84	81	79
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	71
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	81	70	63	58	79	69	62	57	67	61	57	66	60	56	64	60	56	54
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	65	54	47	43	63	53	47	42	52	46	42	51	46	42	50	46	42	40

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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	18.9	20.2	19.3	20.5	20.8	8.3	8.3	8.3	8.3	8.3
	3H	21.0	22.2	21.4	22.5	22.9	8.9	10.1	9.3	10.4	10.8
	4H	21.7	22.7	22.1	23.1	23.5	10.8	11.9	11.2	12.2	12.6
	6H	22.0	23.1	22.5	23.4	23.8	13.0	14.1	13.5	14.4	14.8
	8H	22.1	23.1	22.6	23.5	23.9	14.3	15.2	14.7	15.6	16.0
	12H	22.2	23.1	22.6	23.5	23.9	15.7	16.6	16.1	17.0	17.4

UGR Viewed Endwise

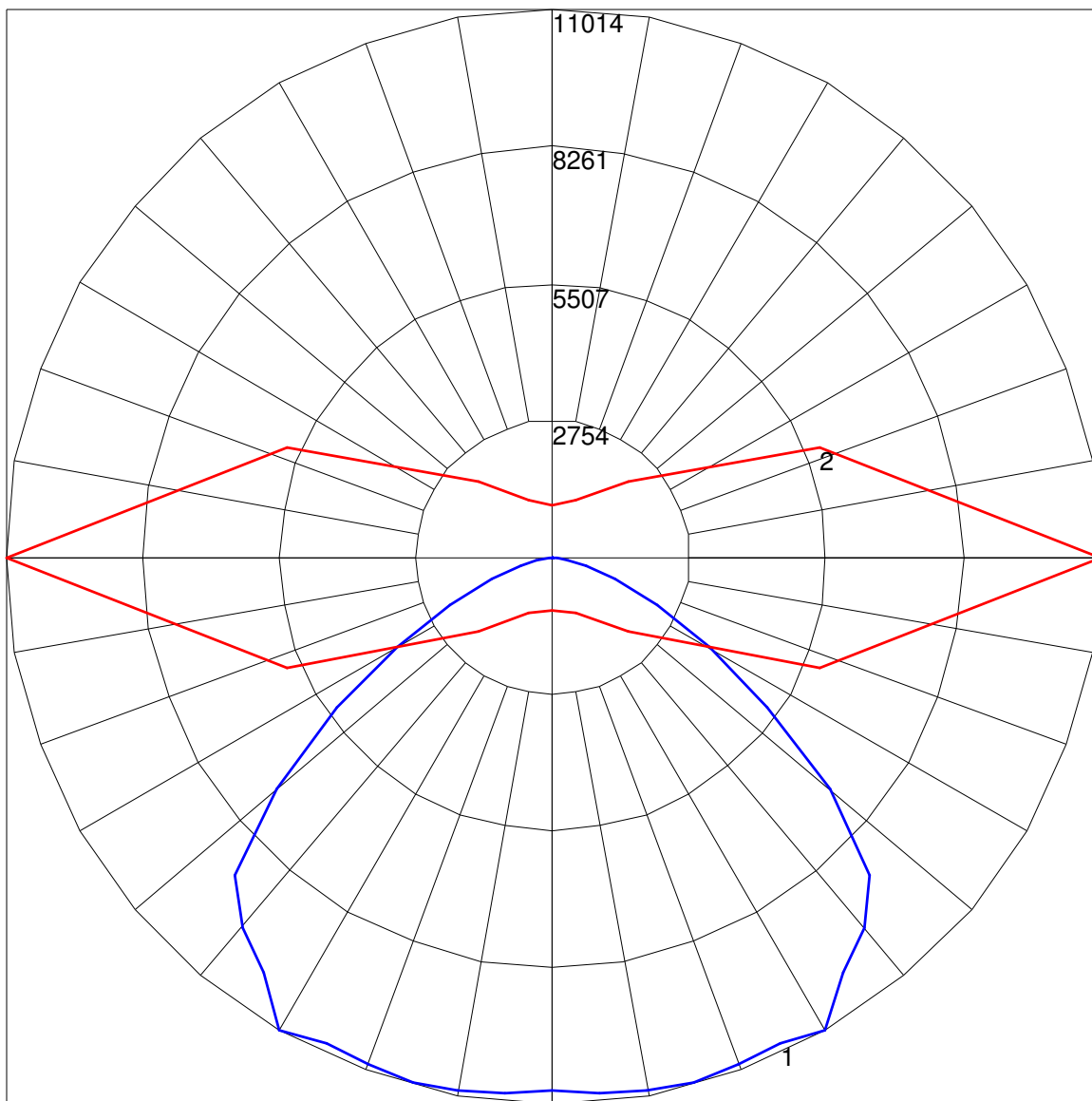
4H	2H	18.7	19.8	19.1	20.1	20.5	8.3	8.3	8.3	8.4	8.8
	3H	20.8	21.7	21.3	22.1	22.5	10.0	10.9	10.4	11.3	11.7
	4H	21.5	22.3	21.9	22.7	23.2	12.1	12.9	12.5	13.3	13.8
	6H	22.0	22.7	22.5	23.1	23.6	14.6	15.3	15.1	15.8	16.3
	8H	22.2	22.8	22.6	23.3	23.7	16.0	16.6	16.4	17.1	17.5
	12H	22.3	22.9	22.8	23.3	23.8	17.5	18.0	18.0	18.5	19.0

8H	4H	21.4	22.1	21.9	22.5	23.0	12.7	13.4	13.2	13.9	14.3
	6H	22.0	22.5	22.5	23.0	23.5	15.6	16.1	16.1	16.6	17.1
	8H	22.2	22.7	22.7	23.2	23.7	17.1	17.6	17.6	18.1	18.6
	12H	22.4	22.9	22.9	23.3	23.9	18.8	19.3	19.4	19.8	20.3

12H	4H	21.4	22.0	21.9	22.4	22.9	13.0	13.6	13.5	14.1	14.5
	6H	22.0	22.5	22.5	22.9	23.5	15.8	16.3	16.4	16.8	17.3
	8H	22.3	22.7	22.8	23.2	23.8	17.5	17.9	18.0	18.4	19.0

Maximum UGR = 23.9

POLAR GRAPH



Maximum Candela = 11014.078 Located At Horizontal Angle = 0, Vertical Angle = 30  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (30) (Through Max. Cd.)