



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GA-8-L110-830-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-L110-830-N-DIM-UNV  
[LAMPCAT] HLM 80 CRI LED

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10564
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
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	44203	3039	2091
55	31883	1790	1419
65	18980	1359	1359
75	9125	1932	2405
85	3296	5493	7690

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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	10620.207	10620.207	10620.207	10620.207	10620.207
5	10708.569	10633.918	10490.711	10306.369	10292.658
10	10818.260	10441.959	9724.398	9006.837	8834.684
15	10859.394	10018.431	8397.444	7132.952	6721.611
20	10743.609	8746.322	5464.737	3734.059	3132.283
25	10688.764	7495.541	3645.697	2222.763	1777.906
30	10900.528	5758.769	2126.784	1223.358	1039.016
35	10086.988	3788.905	1258.398	799.829	731.272
40	9663.459	2269.991	813.540	574.353	540.837
45	8951.992	1381.800	615.488	458.569	423.529
50	7201.509	991.788	458.569	354.972	335.166
55	5237.738	725.178	294.032	233.093	233.093
60	3610.657	458.569	191.959	178.248	191.959
65	2297.414	233.093	164.536	164.536	164.536
70	1299.532	178.248	156.919	164.536	170.630
75	676.427	170.630	143.207	178.248	178.248
80	313.838	164.536	156.919	191.959	191.959
85	82.268	143.207	137.114	178.248	191.959
90	6.094	82.268	82.268	115.785	129.496
95	0.000	0.000	33.517	68.557	68.557
100	0.000	0.000	6.094	19.805	19.805
105	0.000	0.000	0.000	6.094	6.094
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	3283.87	N.A.	31.10
0-30	5547.23	N.A.	52.50
0-40	7351.62	N.A.	69.60
0-60	9638.17	N.A.	91.20
0-80	10358.27	N.A.	98.10
0-90	10515.4	N.A.	99.50
10-90	9539.33	N.A.	90.30
20-40	4067.76	N.A.	38.50
20-50	5446.36	N.A.	51.60
40-70	2753.12	N.A.	26.10
60-80	720.11	N.A.	6.80
70-80	253.53	N.A.	2.40
80-90	157.13	N.A.	1.50
90-110	48.46	N.A.	0.50
90-120	48.46	N.A.	0.50
90-130	48.46	N.A.	0.50
90-150	48.46	N.A.	0.50
90-180	48.46	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	10563.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	976.07
10-20	2307.79
20-30	2263.36
30-40	1804.39
40-50	1378.6
50-60	907.94
60-70	466.57
70-80	253.53
80-90	157.13
90-100	44.86
100-110	3.60
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

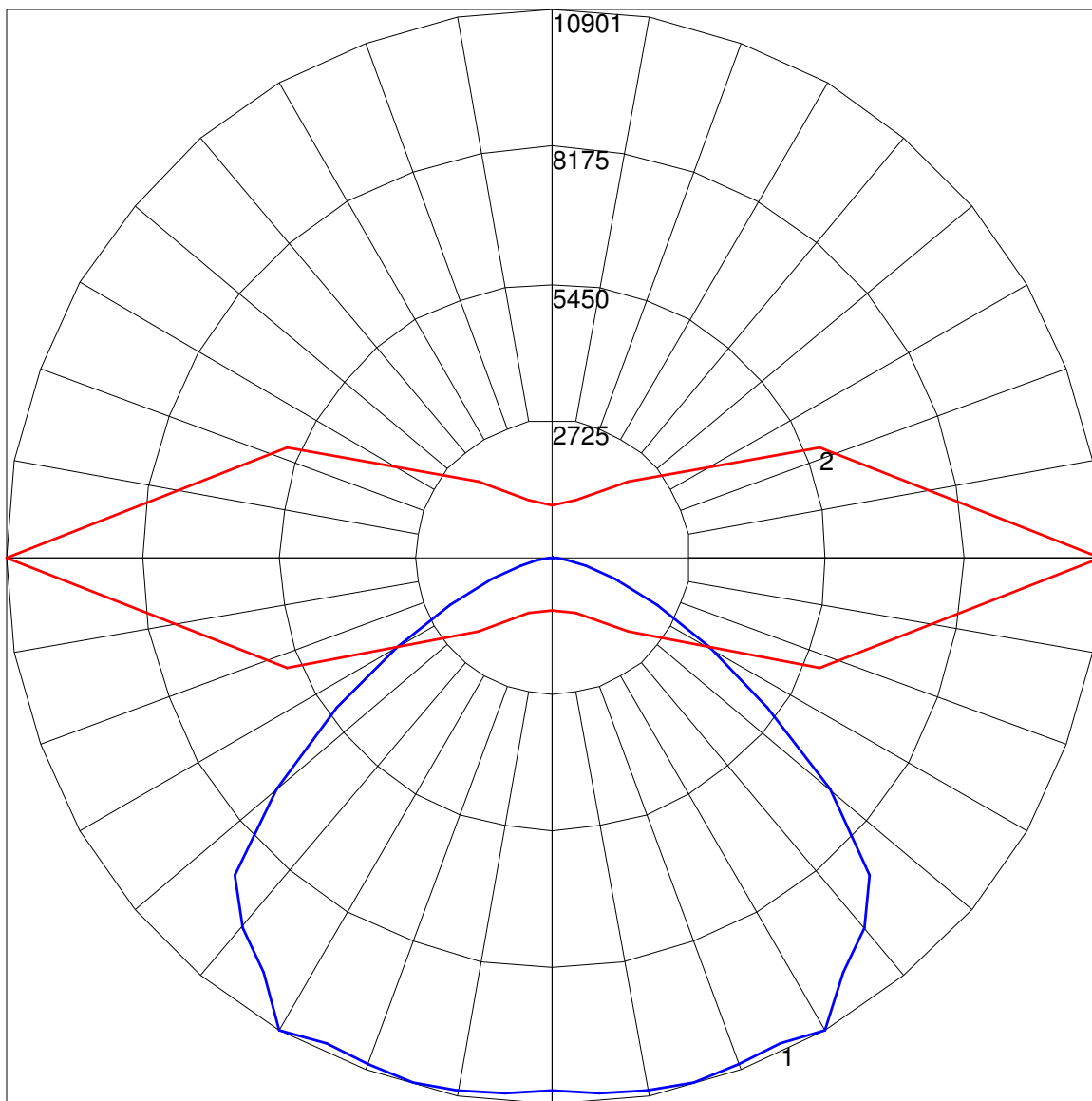
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**UGR TABLE - CORRECTED**

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					UGR Viewed Endwise				
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
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 = 10900.528 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.)