



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GA-4-L55-840-N-DIM-UNV\_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] GEN FROM BALLABS TEST NO. 20801.0  
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
[ISSUEDATE] 2023-05-11  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
[LUMINAIRE] 4'LED STRIP AISLE LUMINAIRE  
[MORE] WHITE REFLECTOR w/.375"DIA ACRYLIC ROD OPTIC  
[LUMCAT] GA-4-L55-840-N-DIM-UNV  
[LAMPCAT] HLM 80 CRI 4000K CCT  
[ \_SEARCH\_SOURCETYPE] LED  
[ \_SEARCH\_APPLICATION] INDOOR  
[ \_SEARCH\_MOUNTING] SURFACE, SUSPENDED

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5502
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	37.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.42
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.72
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.03 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	38935	3740	2375
55	28929	1801	1591
65	17963	1455	1455
75	9022	2079	2454
85	2255	4200	4806

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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	5308.043	5308.043	5308.043	5308.043	5308.043
5	5464.129	5301.157	5162.287	4982.101	4831.754
10	5448.061	5156.549	4743.382	4311.853	4062.805
15	5431.993	4909.797	4034.113	3355.831	3050.547
20	5396.415	4443.837	3070.058	2240.281	1985.495
25	5324.111	3832.120	2096.821	1350.825	1148.833
30	5179.503	3037.922	1213.103	751.734	659.919
35	4918.978	2260.940	717.303	472.846	436.120
40	4484.005	1467.889	490.062	356.930	315.613
45	3869.994	958.317	392.508	289.217	253.638
50	3134.328	677.134	302.989	229.537	200.845
55	2340.130	535.969	157.233	150.347	142.313
60	1665.291	306.432	105.587	107.882	111.325
65	1076.529	159.528	97.553	103.292	100.996
70	643.851	123.950	92.962	106.735	106.735
75	335.124	107.882	92.962	115.916	115.916
80	142.313	97.553	97.553	105.587	106.735
85	29.840	86.076	88.372	109.030	113.621
90	4.591	35.578	39.021	61.975	67.713
95	2.295	1.148	8.034	40.169	42.464
100	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
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	1623.21	N.A.	29.50
0-30	2834.84	N.A.	51.50
0-40	3804.4	N.A.	69.10
0-60	4997.93	N.A.	90.80
0-80	5391.35	N.A.	98.00
0-90	5480.5	N.A.	99.60
10-90	5001.7	N.A.	90.90
20-40	2181.2	N.A.	39.60
20-50	2903.15	N.A.	52.80
40-70	1441.12	N.A.	26.20
60-80	393.42	N.A.	7.20
70-80	145.83	N.A.	2.70
80-90	89.15	N.A.	1.60
90-110	21.61	N.A.	0.40
90-120	21.61	N.A.	0.40
90-130	21.61	N.A.	0.40
90-150	21.61	N.A.	0.40
90-180	21.61	N.A.	0.40
110-180	0.00	N.A.	0.00
0-180	5502.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	478.81
10-20	1144.4
20-30	1211.63
30-40	969.56
40-50	721.95
50-60	471.58
60-70	247.59
70-80	145.83
80-90	89.15
90-100	21.61
100-110	0.00
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	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	73	69	66	64
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	53
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	53	48	58	52	48	57	52	47	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	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	19.0	20.3	19.4	20.6	21.0	7.4	8.7	7.8	9.1	9.4
	3H	20.8	21.9	21.2	22.3	22.7	10.2	11.3	10.6	11.7	12.1
	4H	21.3	22.4	21.7	22.7	23.2	12.1	13.2	12.5	13.6	14.0
	6H	21.6	22.6	22.0	23.0	23.4	14.0	15.0	14.5	15.4	15.9
	8H	21.6	22.6	22.1	23.0	23.4	15.1	16.1	15.6	16.5	16.9
	12H	21.6	22.5	22.1	22.9	23.4	16.4	17.3	16.9	17.7	18.2

UGR Viewed Endwise

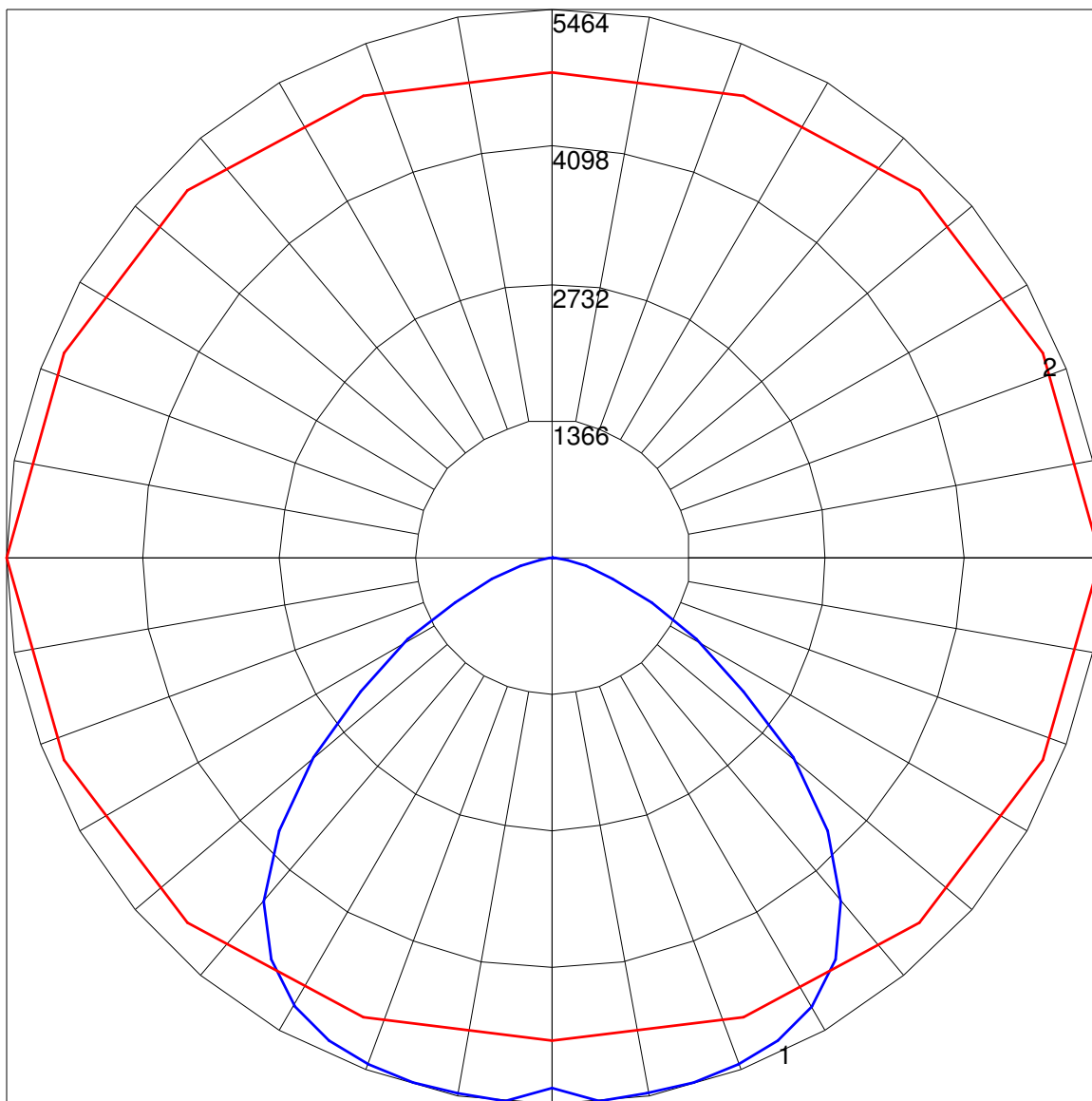
4H	2H	18.8	19.9	19.2	20.2	20.6	8.0	9.1	8.4	9.4	9.9
	3H	20.6	21.5	21.0	21.9	22.3	11.2	12.0	11.6	12.5	12.9
	4H	21.1	22.0	21.6	22.4	22.9	13.3	14.1	13.8	14.6	15.0
	6H	21.5	22.2	22.0	22.7	23.2	15.5	16.2	16.0	16.6	17.1
	8H	21.6	22.3	22.1	22.7	23.2	16.7	17.3	17.2	17.8	18.3
	12H	21.7	22.2	22.2	22.7	23.2	18.1	18.7	18.6	19.2	19.7

8H	4H	21.1	21.7	21.6	22.2	22.7	13.9	14.5	14.4	15.0	15.5
	6H	21.5	22.1	22.1	22.6	23.1	16.3	16.8	16.8	17.3	17.8
	8H	21.7	22.2	22.2	22.7	23.2	17.6	18.1	18.2	18.7	19.2
	12H	21.8	22.2	22.4	22.8	23.3	19.3	19.7	19.8	20.2	20.8

12H	4H	21.1	21.6	21.6	22.2	22.6	14.0	14.6	14.5	15.1	15.6
	6H	21.5	22.0	22.1	22.5	23.1	16.5	17.0	17.0	17.5	18.0
	8H	21.8	22.2	22.3	22.7	23.3	18.0	18.4	18.5	18.9	19.5

Maximum UGR = 23.4

POLAR GRAPH



Maximum Candela = 5464.129 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.)