

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-935-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

[ISSUE DATE] 09-06-2023

[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-L180-935-N-DIM-UNV

[LAMPCAT] HLM 90 CRI LED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	14292
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	128.4
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	59802	4112	2829
55	43136	2422	1920
65	25679	1839	1839
75	12345	2614	3253
85	4459	7431	10404

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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	14368.262	14368.262	14368.262	14368.262	14368.262
5	14487.809	14386.813	14193.065	13943.666	13925.115
10	14636.211	14127.108	13156.307	12185.507	11952.597
15	14691.862	13554.109	11361.047	9650.295	9093.785
20	14535.215	11833.050	7393.338	5051.874	4237.720
25	14461.014	10140.848	4932.327	3007.215	2405.360
30	14747.513	7791.139	2877.363	1655.102	1405.703
35	13646.860	5126.075	1702.508	1082.103	989.351
40	13073.861	3071.110	1100.653	777.053	731.708
45	12111.305	1869.461	832.704	620.406	572.999
50	9743.046	1341.807	620.406	480.247	453.453
55	7086.227	981.106	397.802	315.356	315.356
60	4884.921	620.406	259.705	241.154	259.705
65	3108.211	315.356	222.604	222.604	222.604
70	1758.159	241.154	212.298	222.604	230.849
75	915.150	230.849	193.748	241.154	241.154
80	424.596	222.604	212.298	259.705	259.705
85	111.302	193.748	185.503	241.154	259.705
90	8.245	111.302	111.302	156.647	175.198
95	0.000	0.000	45.345	92.752	92.752
100	0.000	0.000	8.245	26.795	26.795
105	0.000	0.000	0.000	8.245	8.245
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	4442.8	N.A.	31.10
0-30	7504.94	N.A.	52.50
0-40	9946.14	N.A.	69.60
0-60	13039.64	N.A.	91.20
0-80	14013.89	N.A.	98.10
0-90	14226.46	N.A.	99.50
10-90	12905.92	N.A.	90.30
20-40	5503.34	N.A.	38.50
20-50	7368.47	N.A.	51.60
40-70	3724.74	N.A.	26.10
60-80	974.24	N.A.	6.80
70-80	343.01	N.A.	2.40
80-90	212.58	N.A.	1.50
90-110	65.56	N.A.	0.50
90-120	65.56	N.A.	0.50
90-130	65.56	N.A.	0.50
90-150	65.56	N.A.	0.50
90-180	65.56	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	14292.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1320.55
10-20	3122.25
20-30	3062.14
30-40	2441.19
40-50	1865.13
50-60	1228.37
60-70	631.24
70-80	343.01
80-90	212.58
90-100	60.69
100-110	4.88
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	19.9	21.2	20.3	21.5	21.8	9.3	9.3	9.3	9.3	9.3
	3H	22.0	23.2	22.4	23.5	23.9	9.9	11.1	10.3	11.4	11.8
	4H	22.7	23.7	23.1	24.1	24.5	11.8	12.9	12.2	13.2	13.6
	6H	23.0	24.1	23.5	24.4	24.8	14.0	15.1	14.5	15.4	15.8
	8H	23.1	24.1	23.6	24.5	24.9	15.3	16.2	15.7	16.6	17.0
	12H	23.2	24.1	23.6	24.5	24.9	16.7	17.6	17.1	18.0	18.4

UGR Viewed Endwise

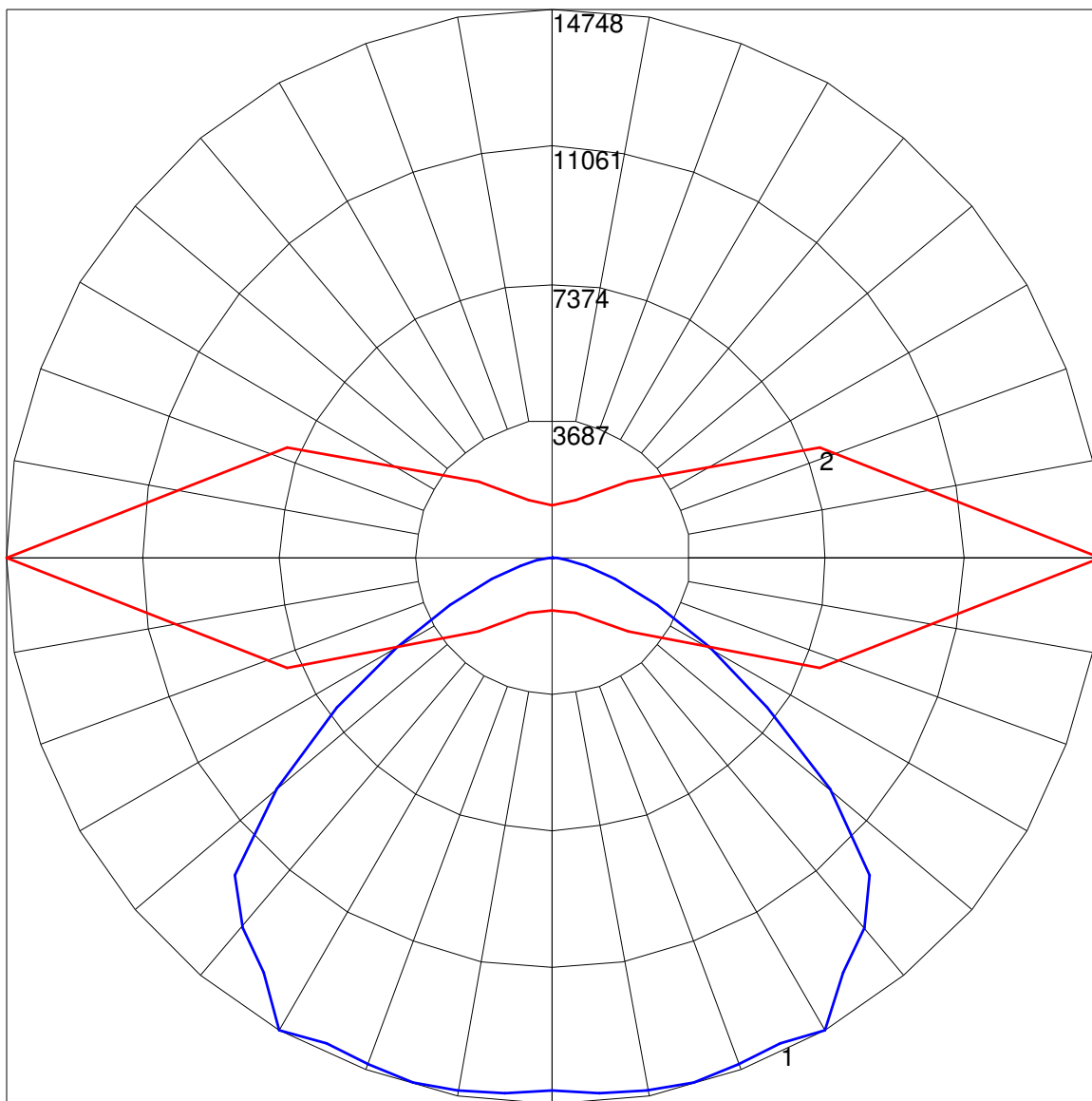
4H	2H	19.7	20.8	20.1	21.1	21.5	9.3	9.3	9.3	9.4	9.8
	3H	21.8	22.7	22.3	23.1	23.5	11.0	11.9	11.4	12.3	12.7
	4H	22.5	23.3	22.9	23.7	24.2	13.1	13.9	13.5	14.3	14.8
	6H	23.0	23.7	23.5	24.1	24.6	15.6	16.3	16.1	16.8	17.3
	8H	23.2	23.8	23.6	24.3	24.7	17.0	17.6	17.4	18.1	18.5
	12H	23.3	23.9	23.8	24.3	24.8	18.5	19.0	19.0	19.5	20.0

8H	4H	22.4	23.1	22.9	23.5	24.0	13.7	14.4	14.2	14.9	15.3
	6H	23.0	23.5	23.5	24.0	24.5	16.6	17.1	17.1	17.6	18.1
	8H	23.2	23.7	23.7	24.2	24.7	18.1	18.6	18.6	19.1	19.6
	12H	23.4	23.9	23.9	24.3	24.9	19.8	20.3	20.4	20.8	21.3

12H	4H	22.4	23.0	22.9	23.4	23.9	14.0	14.6	14.5	15.1	15.5
	6H	23.0	23.5	23.5	23.9	24.5	16.8	17.3	17.4	17.8	18.3
	8H	23.3	23.7	23.8	24.2	24.8	18.5	18.9	19.0	19.4	20.0

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 14747.513 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.)