

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-950-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-L180-950-N-DIM-UNV

[LAMPCAT] HLM 90 CRI LED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	15364
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
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	64288	4420	3042
55	46371	2603	2064
65	27605	1977	1977
75	13271	2810	3497
85	4793	7989	11184

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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	15445.882	15445.882	15445.882	15445.882	15445.882
5	15574.394	15465.823	15257.544	14989.441	14969.499
10	15733.927	15186.641	14143.030	13099.419	12849.041
15	15793.752	14570.667	12213.126	10374.067	9775.818
20	15625.356	12720.529	947.838	5430.764	4555.549
25	15545.590	10901.411	5302.251	3232.756	2585.762
30	15853.577	8375.475	3093.165	1779.234	1511.131
35	14670.375	5510.530	1830.196	1163.260	1063.552
40	14054.401	3301.444	1183.202	835.332	786.586
45	13019.653	2009.671	895.157	666.936	615.974
50	10473.775	1442.443	666.936	516.266	487.461
55	7617.694	1054.689	427.637	339.007	339.007
60	5251.290	666.936	279.182	259.241	279.182
65	3341.327	339.007	239.299	239.299	239.299
70	1890.021	259.241	228.221	239.299	248.162
75	983.786	248.162	208.279	259.241	259.241
80	456.441	239.299	228.221	279.182	279.182
85	119.650	208.279	199.416	259.241	279.182
90	8.863	119.650	119.650	168.396	188.337
95	0.000	0.000	48.746	99.708	99.708
100	0.000	0.000	8.863	28.805	28.805
105	0.000	0.000	0.000	8.863	8.863
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	4776.01	N.A.	31.10
0-30	8067.81	N.A.	52.50
0-40	10692.1	N.A.	69.60
0-60	14017.61	N.A.	91.20
0-80	15064.93	N.A.	98.10
0-90	15293.45	N.A.	99.50
10-90	13873.86	N.A.	90.30
20-40	5916.09	N.A.	38.50
20-50	7921.11	N.A.	51.60
40-70	4004.09	N.A.	26.10
60-80	1047.31	N.A.	6.80
70-80	368.73	N.A.	2.40
80-90	228.52	N.A.	1.50
90-110	70.48	N.A.	0.50
90-120	70.48	N.A.	0.50
90-130	70.48	N.A.	0.50
90-150	70.48	N.A.	0.50
90-180	70.48	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	15363.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1419.59
10-20	3356.42
20-30	3291.8
30-40	2624.28
40-50	2005.02
50-60	1320.5
60-70	678.58
70-80	368.73
80-90	228.52
90-100	65.24
100-110	5.24
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

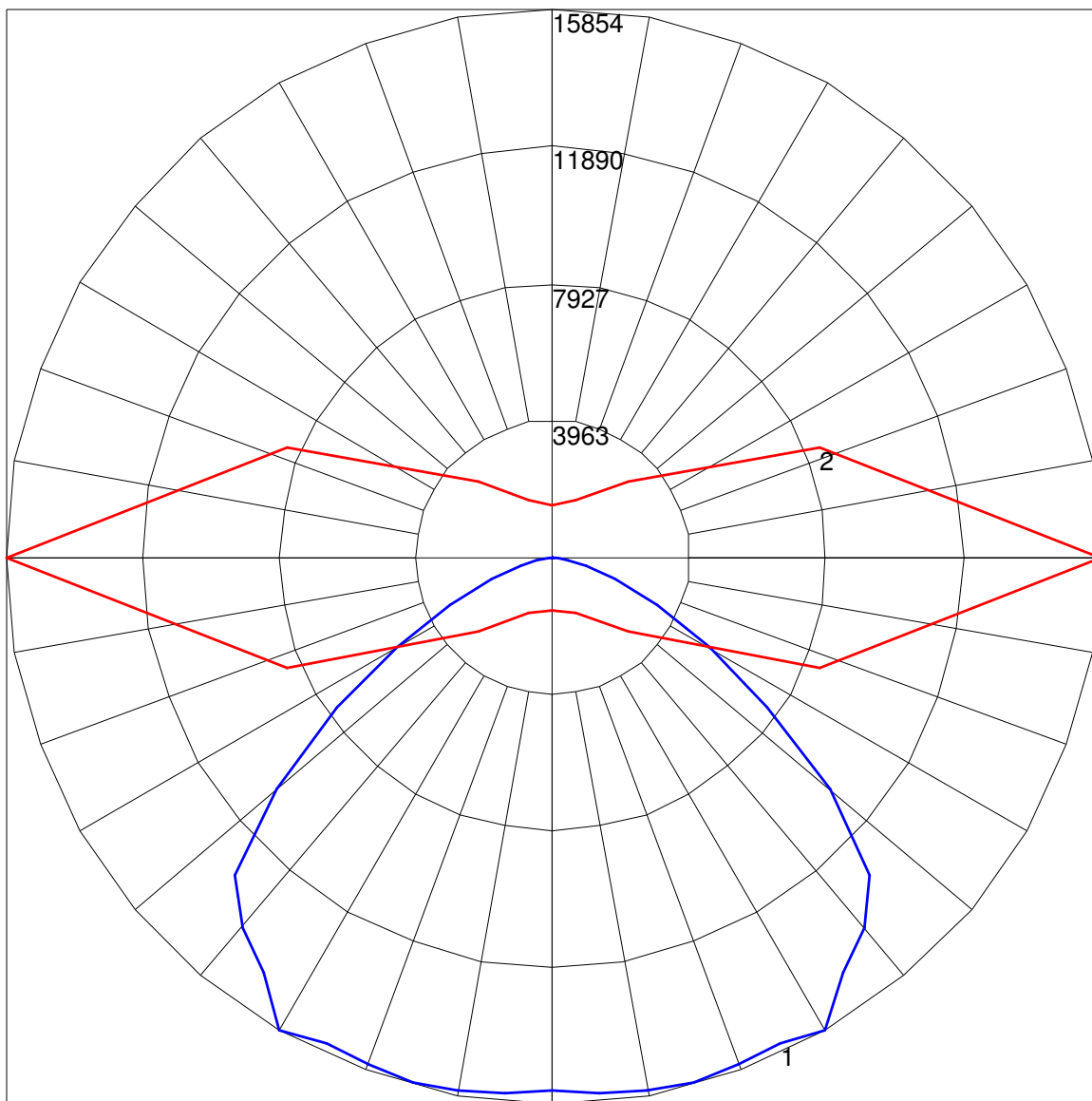
X=2H	Y=2H	20.2	21.5	20.6	21.8	22.1	9.6	9.6	9.6	9.6	9.6
	3H	22.3	23.5	22.7	23.8	24.2	10.2	11.4	10.6	11.7	12.1
	4H	23.0	24.0	23.4	24.4	24.8	12.1	13.2	12.5	13.5	13.9
	6H	23.3	24.4	23.8	24.7	25.1	14.3	15.4	14.8	15.7	16.1
	8H	23.4	24.4	23.9	24.8	25.2	15.6	16.5	16.0	16.9	17.3
	12H	23.5	24.4	23.9	24.8	25.2	17.0	17.9	17.4	18.3	18.7

UGR Viewed Endwise

4H	2H	20.0	21.1	20.4	21.4	21.8	9.6	9.6	9.6	9.7	10.1
	3H	22.1	23.0	22.6	23.4	23.8	11.3	12.2	11.7	12.6	13.0
	4H	22.8	23.6	23.2	24.0	24.5	13.4	14.2	13.8	14.6	15.1
	6H	23.3	24.0	23.8	24.4	24.9	15.9	16.6	16.4	17.1	17.6
	8H	23.5	24.1	23.9	24.6	25.0	17.3	17.9	17.7	18.4	18.8
	12H	23.6	24.2	24.1	24.6	25.1	18.8	19.3	19.3	19.8	20.3
8H	4H	22.7	23.4	23.2	23.8	24.3	14.0	14.7	14.5	15.2	15.6
	6H	23.3	23.8	23.8	24.3	24.8	16.9	17.4	17.4	17.9	18.4
	8H	23.5	24.0	24.0	24.5	25.0	18.4	18.9	18.9	19.4	19.9
	12H	23.7	24.2	24.2	24.6	25.2	20.1	20.6	20.7	21.1	21.6
12H	4H	22.7	23.3	23.2	23.7	24.2	14.3	14.9	14.8	15.4	15.8
	6H	23.3	23.8	23.8	24.2	24.8	17.1	17.6	17.7	18.1	18.6
	8H	23.6	24.0	24.1	24.5	25.1	18.8	19.2	19.3	19.7	20.3

Maximum UGR = 25.2

POLAR GRAPH



Maximum Candela = 15853.577 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.)