



IES INDOOR REPORT
PHOTOMETRIC FILENAME : GA-8-L110-827-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-L110-827-N-DIM-UNV
[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10344
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	142
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	43282	2976	2048
55	31219	1753	1389
65	18585	1331	1331
75	8935	1892	2354
85	3227	5378	7530

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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	10398.954	10398.954	10398.954	10398.954	10398.954
5	10485.476	10412.380	10272.156	10091.655	10078.229
10	10592.881	10224.420	9521.808	8819.196	8650.629
15	10633.158	9809.715	8222.498	6984.350	6581.579
20	10519.786	8564.108	5350.889	3656.267	3067.028
25	10466.083	7339.385	3569.746	2176.456	1740.866
30	10673.435	5638.796	2082.476	1197.871	1017.370
35	9876.844	3709.970	1232.181	783.166	716.038
40	9462.139	2222.700	796.592	562.388	529.569
45	8765.494	1353.013	602.665	449.015	414.705
50	7051.479	971.126	449.015	347.577	328.184
55	5128.619	710.071	287.907	228.237	228.237
60	3535.436	449.015	187.960	174.534	187.960
65	2249.551	228.237	161.108	161.108	161.108
70	1272.458	174.534	153.650	161.108	167.075
75	662.335	167.075	140.224	174.534	174.534
80	307.299	161.108	153.650	187.960	187.960
85	80.554	140.224	134.257	174.534	187.960
90	5.967	80.554	80.554	113.373	126.798
95	0.000	0.000	32.818	67.129	67.129
100	0.000	0.000	5.967	19.393	19.393
105	0.000	0.000	0.000	5.967	5.967
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	3215.45	N.A.	31.10
0-30	5431.66	N.A.	52.50
0-40	7198.47	N.A.	69.60
0-60	9437.37	N.A.	91.20
0-80	10142.48	N.A.	98.10
0-90	10296.33	N.A.	99.50
10-90	9340.59	N.A.	90.30
20-40	3983.01	N.A.	38.50
20-50	5332.89	N.A.	51.60
40-70	2695.76	N.A.	26.10
60-80	705.10	N.A.	6.80
70-80	248.25	N.A.	2.40
80-90	153.85	N.A.	1.50
90-110	47.45	N.A.	0.50
90-120	47.45	N.A.	0.50
90-130	47.45	N.A.	0.50
90-150	47.45	N.A.	0.50
90-180	47.45	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	10343.78	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	955.74
10-20	2259.72
20-30	2216.21
30-40	1766.8
40-50	1349.88
50-60	889.03
60-70	456.85
70-80	248.25
80-90	153.85
90-100	43.92
100-110	3.53
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	18.8	20.1	19.2	20.4	20.7	8.2	8.2	8.2	8.2	8.2
	3H	20.9	22.1	21.3	22.4	22.8	8.8	10.0	9.2	10.3	10.7
	4H	21.6	22.6	22.0	23.0	23.4	10.7	11.8	11.1	12.1	12.5
	6H	21.9	23.0	22.4	23.3	23.7	12.9	14.0	13.4	14.3	14.7
	8H	22.0	23.0	22.5	23.4	23.8	14.2	15.1	14.6	15.5	15.9
	12H	22.1	23.0	22.5	23.4	23.8	15.6	16.5	16.0	16.9	17.3

UGR Viewed Endwise

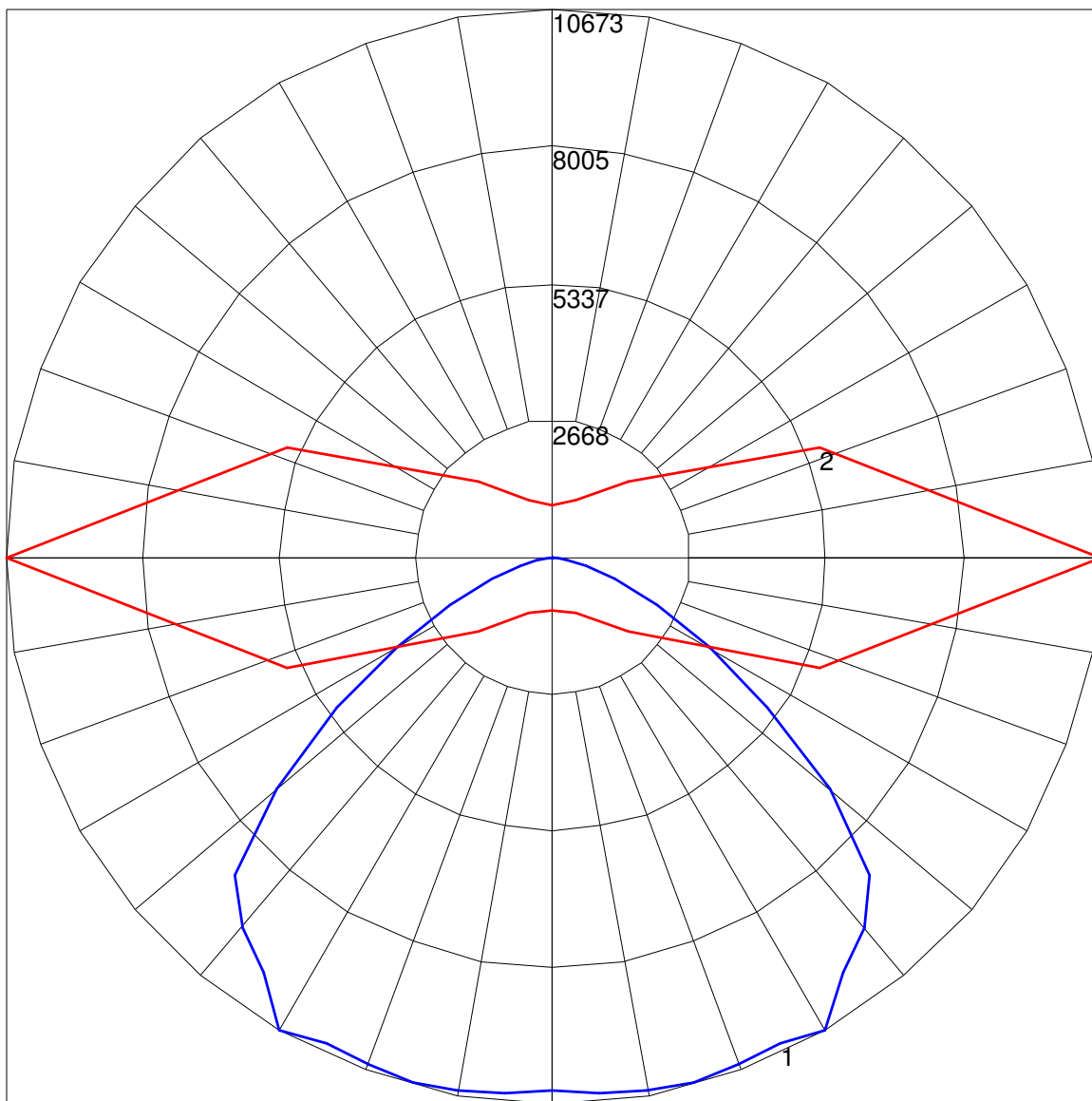
4H	2H	18.6	19.7	19.0	20.0	20.4	8.2	8.2	8.2	8.3	8.7
	3H	20.7	21.6	21.2	22.0	22.4	9.9	10.8	10.3	11.2	11.6
	4H	21.4	22.2	21.8	22.6	23.1	12.0	12.8	12.4	13.2	13.7
	6H	21.9	22.6	22.4	23.0	23.5	14.5	15.2	15.0	15.7	16.2
	8H	22.1	22.7	22.5	23.2	23.6	15.9	16.5	16.3	17.0	17.4
	12H	22.2	22.8	22.7	23.2	23.7	17.4	17.9	17.9	18.4	18.9

8H	4H	21.3	22.0	21.8	22.4	22.9	12.6	13.3	13.1	13.8	14.2
	6H	21.9	22.4	22.4	22.9	23.4	15.5	16.0	16.0	16.5	17.0
	8H	22.1	22.6	22.6	23.1	23.6	17.0	17.5	17.5	18.0	18.5
	12H	22.3	22.8	22.8	23.2	23.8	18.7	19.2	19.3	19.7	20.2

12H	4H	21.3	21.9	21.8	22.3	22.8	12.9	13.5	13.4	14.0	14.4
	6H	21.9	22.4	22.4	22.8	23.4	15.7	16.2	16.3	16.7	17.2
	8H	22.2	22.6	22.7	23.1	23.7	17.4	17.8	17.9	18.3	18.9

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 10673.435 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.)