

IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-927-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-L180-927-N-DIM-UNV

[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	13756
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
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	57560	3957	2723
55	41518	2331	1848
65	24716	1770	1770
75	11883	2516	3131
85	4292	7153	10014

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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	13829.453	13829.453	13829.453	13829.453	13829.453
5	13944.517	13847.308	13660.826	13420.779	13402.924
10	14087.354	13597.342	12662.947	11728.551	11504.375
15	14140.919	13045.831	10935.009	9288.409	8752.768
20	13990.146	11389.312	7116.088	4862.429	4078.806
25	13918.727	9760.567	4747.365	2894.444	2315.159
30	14194.483	7498.972	2769.462	1593.036	1352.989
35	13135.104	4933.847	1638.664	1041.524	952.250
40	12583.592	2955.944	1059.379	747.913	704.269
45	11657.132	1799.356	801.477	597.140	551.512
50	9377.683	1291.490	597.140	462.238	436.448
55	6820.494	944.315	382.884	303.530	303.530
60	4701.736	597.140	249.966	232.111	249.966
65	2991.653	303.530	214.256	214.256	214.256
70	1692.228	232.111	204.337	214.256	222.192
75	880.832	222.192	186.482	232.111	232.111
80	408.674	214.256	204.337	249.966	249.966
85	107.128	186.482	178.547	232.111	249.966
90	7.935	107.128	107.128	150.773	168.628
95	0.000	0.000	43.645	89.273	89.273
100	0.000	0.000	7.935	25.790	25.790
105	0.000	0.000	0.000	7.935	7.935
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	4276.2	N.A.	31.10
0-30	7223.51	N.A.	52.50
0-40	9573.16	N.A.	69.60
0-60	12550.66	N.A.	91.20
0-80	13488.37	N.A.	98.10
0-90	13692.97	N.A.	99.50
10-90	12421.95	N.A.	90.30
20-40	5296.96	N.A.	38.50
20-50	7092.15	N.A.	51.60
40-70	3585.06	N.A.	26.10
60-80	937.71	N.A.	6.80
70-80	330.15	N.A.	2.40
80-90	204.61	N.A.	1.50
90-110	63.10	N.A.	0.50
90-120	63.10	N.A.	0.50
90-130	63.10	N.A.	0.50
90-150	63.10	N.A.	0.50
90-180	63.10	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	13756.08	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1271.03
10-20	3005.17
20-30	2947.31
30-40	2349.65
40-50	1795.19
50-60	1182.31
60-70	607.56
70-80	330.15
80-90	204.61
90-100	58.41
100-110	4.69
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	19.8	21.1	20.2	21.4	21.7	9.2	9.2	9.2	9.2	9.2
	3H	21.9	23.1	22.3	23.4	23.8	9.8	11.0	10.2	11.3	11.7
	4H	22.6	23.6	23.0	24.0	24.4	11.7	12.8	12.1	13.1	13.5
	6H	22.9	24.0	23.4	24.3	24.7	13.9	15.0	14.4	15.3	15.7
	8H	23.0	24.0	23.5	24.4	24.8	15.2	16.1	15.6	16.5	16.9
	12H	23.1	24.0	23.5	24.4	24.8	16.6	17.5	17.0	17.9	18.3

UGR Viewed Endwise

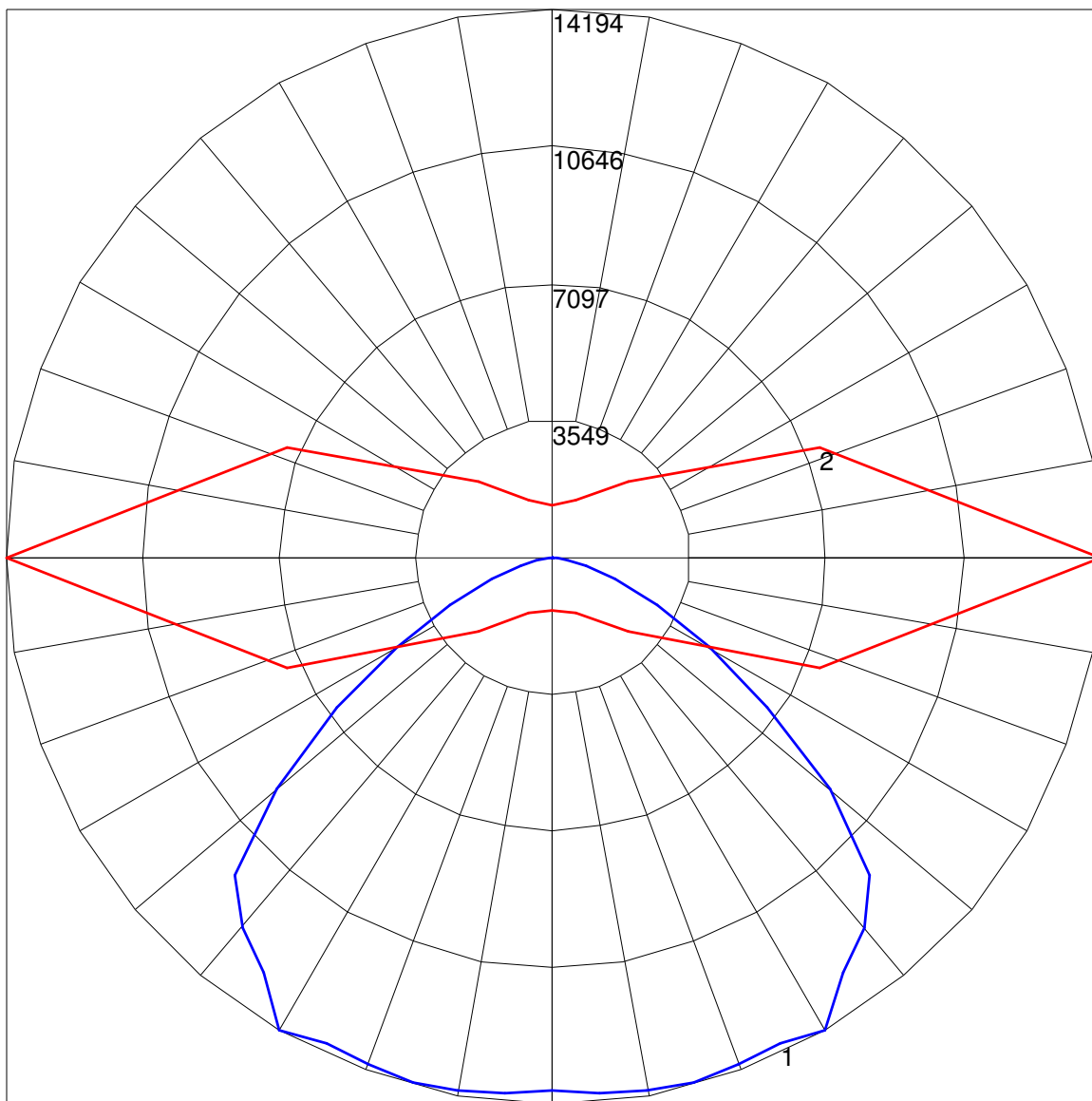
4H	2H	19.6	20.7	20.0	21.0	21.4	9.2	9.2	9.2	9.3	9.7
	3H	21.7	22.6	22.2	23.0	23.4	10.9	11.8	11.3	12.2	12.6
	4H	22.4	23.2	22.8	23.6	24.1	13.0	13.8	13.4	14.2	14.7
	6H	22.9	23.6	23.4	24.0	24.5	15.5	16.2	16.0	16.7	17.2
	8H	23.1	23.7	23.5	24.2	24.6	16.9	17.5	17.3	18.0	18.4
	12H	23.2	23.8	23.7	24.2	24.7	18.4	18.9	18.9	19.4	19.9

8H	4H	22.3	23.0	22.8	23.4	23.9	13.6	14.3	14.1	14.8	15.2
	6H	22.9	23.4	23.4	23.9	24.4	16.5	17.0	17.0	17.5	18.0
	8H	23.1	23.6	23.6	24.1	24.6	18.0	18.5	18.5	19.0	19.5
	12H	23.3	23.8	23.8	24.2	24.8	19.7	20.2	20.3	20.7	21.2

12H	4H	22.3	22.9	22.8	23.3	23.8	13.9	14.5	14.4	15.0	15.4
	6H	22.9	23.4	23.4	23.8	24.4	16.7	17.2	17.3	17.7	18.2
	8H	23.2	23.6	23.7	24.1	24.7	18.4	18.8	18.9	19.3	19.9

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 14194.483 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.)