

IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-930-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-L180-930-N-DIM-UNV

[LAMPCAT] HLM 90 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	14113
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
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	59055	4060	2794
55	42596	2391	1896
65	25358	1816	1816
75	12191	2581	3213
85	4403	7338	10274

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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	14188.661	14188.661	14188.661	14188.661	14188.661
5	14306.714	14206.980	14015.654	13769.372	13751.054
10	14453.261	13950.522	12991.856	12033.190	11803.191
15	14508.217	13384.685	11219.036	9529.668	8980.114
20	14353.528	11685.139	7300.922	4988.726	4184.749
25	14280.254	10014.089	4870.674	2969.625	2375.293
30	14563.172	7693.751	2841.396	1634.413	1388.132
35	13476.277	5062.000	1681.227	1068.577	976.984
40	12910.440	3032.722	1086.895	767.340	722.561
45	11959.916	1846.093	822.295	612.651	565.837
50	9621.260	1325.035	612.651	474.244	447.784
55	6997.650	968.843	392.829	311.414	311.414
60	4823.860	612.651	256.458	238.140	256.458
65	3069.359	311.414	219.821	219.821	219.821
70	1736.183	238.140	209.645	219.821	227.963
75	903.710	227.963	191.326	238.140	238.140
80	419.289	219.821	209.645	256.458	256.458
85	109.911	191.326	183.185	238.140	256.458
90	8.142	109.911	109.911	154.689	173.008
95	0.000	0.000	44.778	91.592	91.592
100	0.000	0.000	8.142	26.460	26.460
105	0.000	0.000	0.000	8.142	8.142
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	4387.27	N.A.	31.10
0-30	7411.13	N.A.	52.50
0-40	9821.81	N.A.	69.60
0-60	12876.65	N.A.	91.20
0-80	13838.71	N.A.	98.10
0-90	14048.64	N.A.	99.50
10-90	12744.6	N.A.	90.30
20-40	5434.55	N.A.	38.50
20-50	7276.37	N.A.	51.60
40-70	3678.18	N.A.	26.10
60-80	962.07	N.A.	6.80
70-80	338.72	N.A.	2.40
80-90	209.92	N.A.	1.50
90-110	64.74	N.A.	0.50
90-120	64.74	N.A.	0.50
90-130	64.74	N.A.	0.50
90-150	64.74	N.A.	0.50
90-180	64.74	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	14113.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1304.04
10-20	3083.23
20-30	3023.87
30-40	2410.68
40-50	1841.82
50-60	1213.02
60-70	623.35
70-80	338.72
80-90	209.92
90-100	59.93
100-110	4.81
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

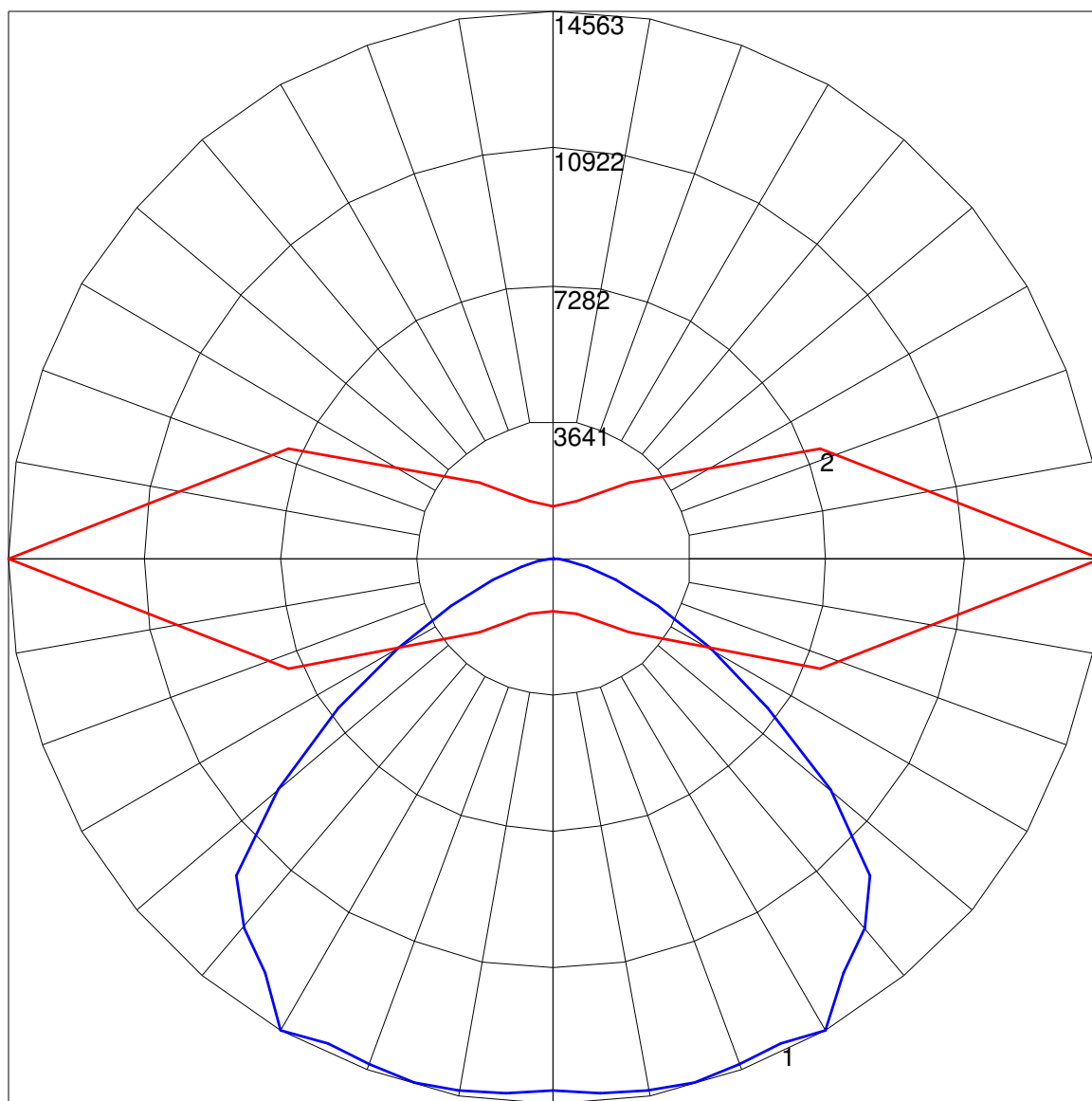
4H	2H	19.7	20.8	20.1	21.1	21.5	9.3	9.3	9.3	9.4	9.8
	3H	21.8	22.7	22.3	23.1	23.5	11.0	11.9	11.4	12.3	12.7
	4H	22.5	23.3	22.9	23.7	24.2	13.1	13.9	13.5	14.3	14.8
	6H	23.0	23.7	23.5	24.1	24.6	15.6	16.3	16.1	16.8	17.3
	8H	23.2	23.8	23.6	24.3	24.7	17.0	17.6	17.4	18.1	18.5
	12H	23.3	23.9	23.8	24.3	24.8	18.5	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 = 14563.172 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.)