



IES INDOOR REPORT
PHOTOMETRIC FILENAME : GA-8-L70-840-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-L70-840-N-DIM-UNV
[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7096
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	50.3
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	29692	2041	1405
55	21417	1202	953
65	12750	913	913
75	6130	1298	1615
85	2214	3690	5166

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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	7133.863	7133.863	7133.863	7133.863	7133.863
5	7193.218	7143.074	7046.878	6923.051	6913.840
10	7266.901	7014.130	6532.126	6050.122	5934.482
15	7294.531	6729.635	5640.777	4791.386	4515.078
20	7216.756	5875.127	3670.803	2508.263	2104.034
25	7179.915	5034.946	2448.908	1493.087	1194.265
30	7322.162	3868.312	1428.615	821.760	697.934
35	6775.686	2545.104	845.298	537.266	491.214
40	6491.191	1524.811	546.476	385.808	363.294
45	6013.281	928.190	413.439	308.032	284.495
50	4837.437	666.209	308.032	238.444	225.140
55	3518.322	487.121	197.509	156.575	156.575
60	2425.370	308.032	128.944	119.733	128.944
65	1543.231	156.575	110.523	110.523	110.523
70	872.929	119.733	105.406	110.523	114.617
75	454.373	114.617	96.196	119.733	119.733
80	210.813	110.523	105.406	128.944	128.944
85	55.262	96.196	92.103	119.733	128.944
90	4.093	55.262	55.262	77.776	86.986
95	0.000	0.000	22.514	46.051	46.051
100	0.000	0.000	4.093	13.304	13.304
105	0.000	0.000	0.000	4.093	4.093
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	2205.86	N.A.	31.10
0-30	3726.22	N.A.	52.50
0-40	4938.27	N.A.	69.60
0-60	6474.2	N.A.	91.20
0-80	6957.92	N.A.	98.10
0-90	7063.46	N.A.	99.50
10-90	6407.81	N.A.	90.30
20-40	2732.42	N.A.	38.50
20-50	3658.46	N.A.	51.60
40-70	1849.34	N.A.	26.10
60-80	483.71	N.A.	6.80
70-80	170.30	N.A.	2.40
80-90	105.55	N.A.	1.50
90-110	32.55	N.A.	0.50
90-120	32.55	N.A.	0.50
90-130	32.55	N.A.	0.50
90-150	32.55	N.A.	0.50
90-180	32.55	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	7096.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	655.65
10-20	1550.2
20-30	1520.36
30-40	1212.06
40-50	926.04
50-60	609.89
60-70	313.41
70-80	170.30
80-90	105.55
90-100	30.13
100-110	2.42
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	17.5	18.8	17.9	19.1	19.4	6.9	6.9	6.9	6.9	6.9
	3H	19.6	20.8	20.0	21.1	21.5	7.5	8.7	7.9	9.0	9.4
	4H	20.3	21.3	20.7	21.7	22.1	9.4	10.5	9.8	10.8	11.2
	6H	20.6	21.7	21.1	22.0	22.4	11.6	12.7	12.1	13.0	13.4
	8H	20.7	21.7	21.2	22.1	22.5	12.9	13.8	13.3	14.2	14.6
	12H	20.8	21.7	21.2	22.1	22.5	14.3	15.2	14.7	15.6	16.0

UGR Viewed Endwise

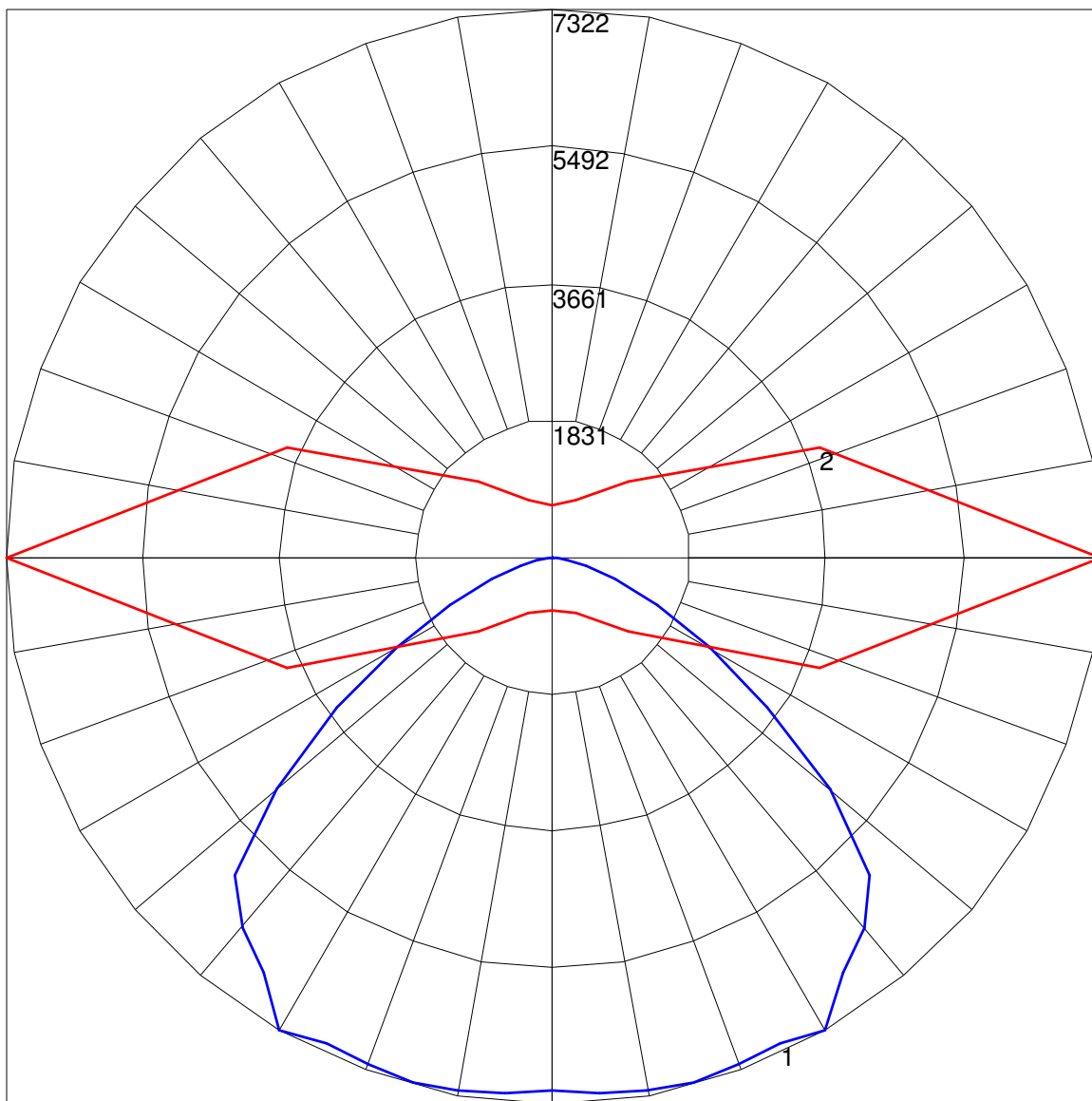
4H	2H	17.3	18.4	17.7	18.7	19.1	6.9	6.9	6.9	7.0	7.4
	3H	19.4	20.3	19.9	20.7	21.1	8.6	9.5	9.0	9.9	10.3
	4H	20.1	20.9	20.5	21.3	21.8	10.7	11.5	11.1	11.9	12.4
	6H	20.6	21.3	21.1	21.7	22.2	13.2	13.9	13.7	14.4	14.9
	8H	20.8	21.4	21.2	21.9	22.3	14.6	15.2	15.0	15.7	16.1
	12H	20.9	21.5	21.4	21.9	22.4	16.1	16.6	16.6	17.1	17.6

8H	4H	20.0	20.7	20.5	21.1	21.6	11.3	12.0	11.8	12.5	12.9
	6H	20.6	21.1	21.1	21.6	22.1	14.2	14.7	14.7	15.2	15.7
	8H	20.8	21.3	21.3	21.8	22.3	15.7	16.2	16.2	16.7	17.2
	12H	21.0	21.5	21.5	21.9	22.5	17.4	17.9	18.0	18.4	18.9

12H	4H	20.0	20.6	20.5	21.0	21.5	11.6	12.2	12.1	12.7	13.1
	6H	20.6	21.1	21.1	21.5	22.1	14.4	14.9	15.0	15.4	15.9
	8H	20.9	21.3	21.4	21.8	22.4	16.1	16.5	16.6	17.0	17.6

Maximum UGR = 22.5

POLAR GRAPH



Maximum Candela = 7322.162 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.)