



IES INDOOR REPORT
PHOTOMETRIC FILENAME : GA-8-L70-827-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-L70-827-N-DIM-UNV
[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6670
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
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	27910	1919	1320
55	20132	1130	896
65	11985	858	858
75	5762	1220	1518
85	2081	3468	4856

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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	6705.832	6705.832	6705.832	6705.832	6705.832
5	6761.626	6714.490	6624.066	6507.668	6499.011
10	6830.887	6593.283	6140.199	5687.115	5578.414
15	6856.860	6325.858	5302.331	4503.903	4244.173
20	6783.751	5522.620	3450.555	2357.767	1977.792
25	6749.121	4732.850	2301.973	1403.502	1122.609
30	6882.833	3636.214	1342.898	772.455	656.058
35	6369.146	2392.398	794.580	505.030	461.741
40	6101.721	1433.322	513.687	362.659	341.496
45	5652.485	872.499	388.632	289.550	267.425
50	4547.191	626.237	289.550	224.137	211.631
55	3307.223	457.894	185.659	147.180	147.180
60	2279.848	289.550	121.207	112.549	121.207
65	1450.638	147.180	103.892	103.892	103.892
70	820.553	112.549	99.082	103.892	107.740
75	427.111	107.740	90.424	112.549	112.549
80	198.164	103.892	99.082	121.207	121.207
85	51.946	90.424	86.577	112.549	121.207
90	3.848	51.946	51.946	73.109	81.767
95	0.000	0.000	21.163	43.288	43.288
100	0.000	0.000	3.848	12.505	12.505
105	0.000	0.000	0.000	3.848	3.848
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	2073.51	N.A.	31.10
0-30	3502.64	N.A.	52.50
0-40	4641.98	N.A.	69.60
0-60	6085.75	N.A.	91.20
0-80	6540.44	N.A.	98.10
0-90	6639.65	N.A.	99.50
10-90	6023.34	N.A.	90.30
20-40	2568.47	N.A.	38.50
20-50	3438.95	N.A.	51.60
40-70	1738.38	N.A.	26.10
60-80	454.69	N.A.	6.80
70-80	160.09	N.A.	2.40
80-90	99.21	N.A.	1.50
90-110	30.60	N.A.	0.50
90-120	30.60	N.A.	0.50
90-130	30.60	N.A.	0.50
90-150	30.60	N.A.	0.50
90-180	30.60	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	6670.25	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	616.31
10-20	1457.19
20-30	1429.14
30-40	1139.33
40-50	870.48
50-60	573.29
60-70	294.60
70-80	160.09
80-90	99.21
90-100	28.32
100-110	2.28
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	17.3	18.6	17.7	18.9	19.2	6.7	6.7	6.7	6.7	6.7
	3H	19.4	20.6	19.8	20.9	21.3	7.3	8.5	7.7	8.8	9.2
	4H	20.1	21.1	20.5	21.5	21.9	9.2	10.3	9.6	10.6	11.0
	6H	20.4	21.5	20.9	21.8	22.2	11.4	12.5	11.9	12.8	13.2
	8H	20.5	21.5	21.0	21.9	22.3	12.7	13.6	13.1	14.0	14.4
	12H	20.6	21.5	21.0	21.9	22.3	14.1	15.0	14.5	15.4	15.8

UGR Viewed Endwise

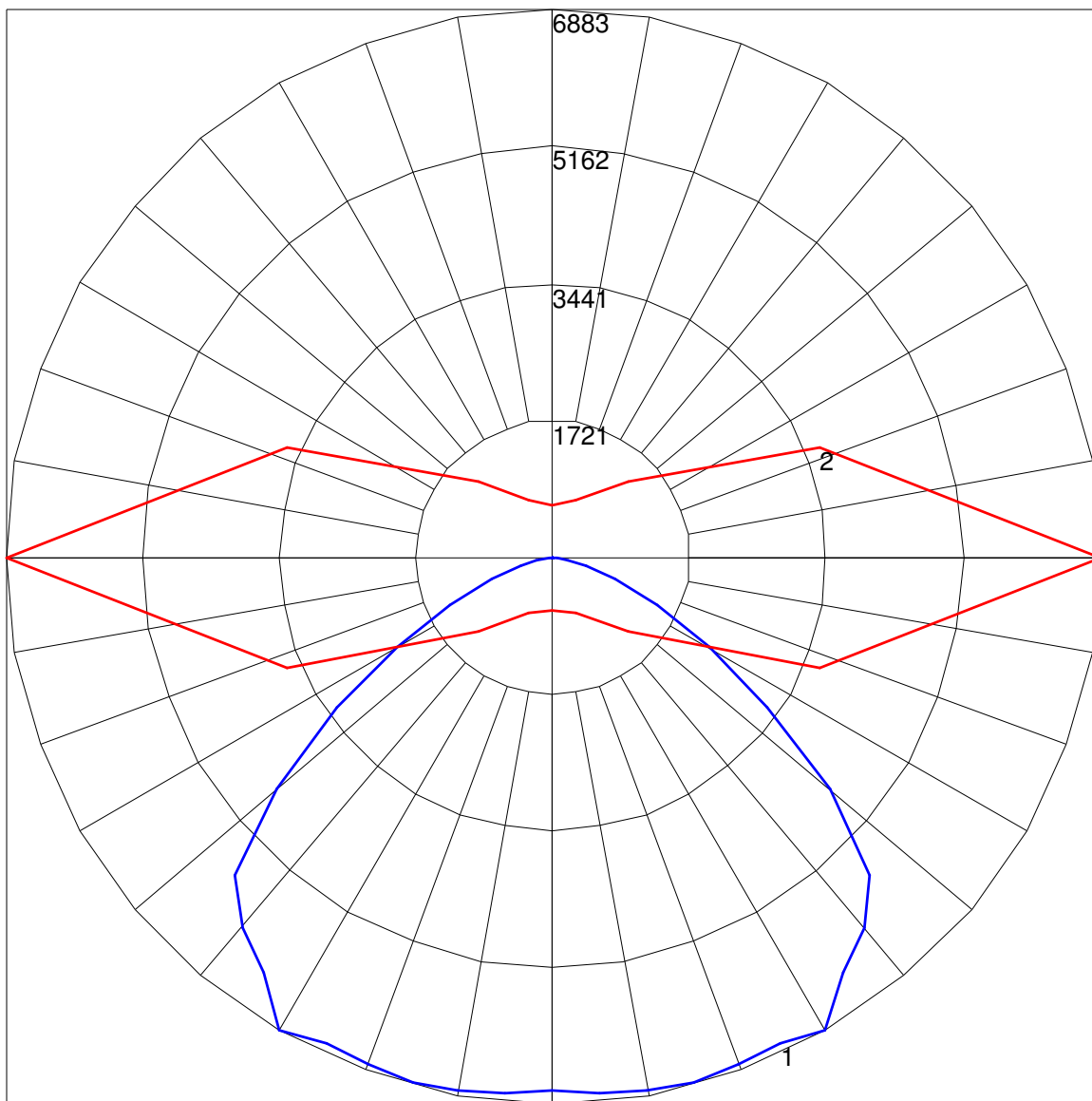
4H	2H	17.1	18.2	17.5	18.5	18.9	6.7	6.7	6.7	6.8	7.2
	3H	19.2	20.1	19.7	20.5	20.9	8.4	9.3	8.8	9.7	10.1
	4H	19.9	20.7	20.3	21.1	21.6	10.5	11.3	10.9	11.7	12.2
	6H	20.4	21.1	20.9	21.5	22.0	13.0	13.7	13.5	14.2	14.7
	8H	20.6	21.2	21.0	21.7	22.1	14.4	15.0	14.8	15.5	15.9
	12H	20.7	21.3	21.2	21.7	22.2	15.9	16.4	16.4	16.9	17.4

8H	4H	19.8	20.5	20.3	20.9	21.4	11.1	11.8	11.6	12.3	12.7
	6H	20.4	20.9	20.9	21.4	21.9	14.0	14.5	14.5	15.0	15.5
	8H	20.6	21.1	21.1	21.6	22.1	15.5	16.0	16.0	16.5	17.0
	12H	20.8	21.3	21.3	21.7	22.3	17.2	17.7	17.8	18.2	18.7

12H	4H	19.8	20.4	20.3	20.8	21.3	11.4	12.0	11.9	12.5	12.9
	6H	20.4	20.9	20.9	21.3	21.9	14.2	14.7	14.8	15.2	15.7
	8H	20.7	21.1	21.2	21.6	22.2	15.9	16.3	16.4	16.8	17.4

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 6882.833 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.)