



IES INDOOR REPORT
PHOTOMETRIC FILENAME : GA-8-L110-840-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-L110-840-N-DIM-UNV
[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11004
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	151
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	46044	3166	2178
55	33212	1864	1478
65	19771	1416	1416
75	9505	2012	2505
85	3433	5722	8010

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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	11062.719	11062.719	11062.719	11062.719	11062.719
5	11154.763	11077.002	10927.828	10735.805	10721.522
10	11269.025	10877.045	10129.585	9382.126	9202.799
15	11311.873	10435.869	8747.340	7430.161	7001.681
20	11191.263	9110.755	5692.436	3889.646	3262.796
25	11134.133	7807.858	3797.603	2315.379	1851.986
30	11354.721	5998.720	2215.400	1274.331	1082.309
35	10507.282	3946.777	1310.831	833.156	761.742
40	10066.107	2364.575	847.438	598.285	563.372
45	9324.995	1439.375	641.133	477.676	441.176
50	7501.574	1033.113	477.676	369.762	349.132
55	5455.979	755.394	306.284	242.805	242.805
60	3761.102	477.676	199.957	185.675	199.957
65	2393.140	242.805	171.392	171.392	171.392
70	1353.679	185.675	163.457	171.392	177.740
75	704.612	177.740	149.175	185.675	185.675
80	326.914	171.392	163.457	199.957	199.957
85	85.696	149.175	142.827	185.675	199.957
90	6.348	85.696	85.696	120.609	134.892
95	0.000	0.000	34.913	71.413	71.413
100	0.000	0.000	6.348	20.631	20.631
105	0.000	0.000	0.000	6.348	6.348
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	3420.7	N.A.	31.10
0-30	5778.37	N.A.	52.50
0-40	7657.94	N.A.	69.60
0-60	10039.76	N.A.	91.20
0-80	10789.87	N.A.	98.10
0-90	10953.54	N.A.	99.50
10-90	9936.8	N.A.	90.30
20-40	4237.25	N.A.	38.50
20-50	5673.29	N.A.	51.60
40-70	2867.83	N.A.	26.10
60-80	750.11	N.A.	6.80
70-80	264.10	N.A.	2.40
80-90	163.67	N.A.	1.50
90-110	50.48	N.A.	0.50
90-120	50.48	N.A.	0.50
90-130	50.48	N.A.	0.50
90-150	50.48	N.A.	0.50
90-180	50.48	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	11004.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1016.74
10-20	2403.95
20-30	2357.67
30-40	1879.58
40-50	1436.04
50-60	945.77
60-70	486.01
70-80	264.10
80-90	163.67
90-100	46.73
100-110	3.75
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

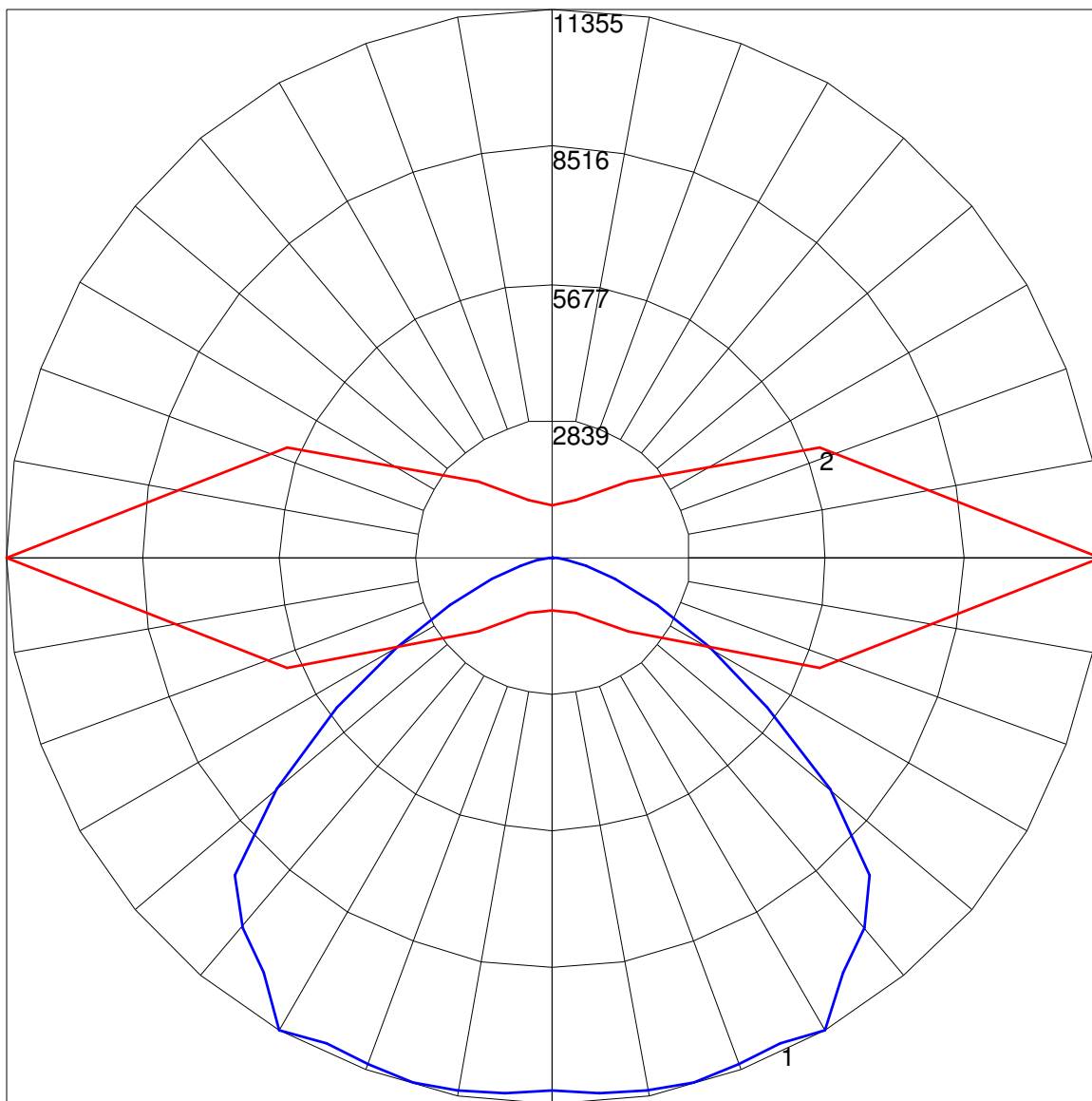
X=2H	Y=2H	19.0	20.3	19.4	20.6	20.9	8.4	8.4	8.4	8.4	8.4
	3H	21.1	22.3	21.5	22.6	23.0	9.0	10.2	9.4	10.5	10.9
	4H	21.8	22.8	22.2	23.2	23.6	10.9	12.0	11.3	12.3	12.7
	6H	22.1	23.2	22.6	23.5	23.9	13.1	14.2	13.6	14.5	14.9
	8H	22.2	23.2	22.7	23.6	24.0	14.4	15.3	14.8	15.7	16.1
	12H	22.3	23.2	22.7	23.6	24.0	15.8	16.7	16.2	17.1	17.5

UGR Viewed Endwise

4H	2H	18.8	19.9	19.2	20.2	20.6	8.4	8.4	8.4	8.5	8.9
	3H	20.9	21.8	21.4	22.2	22.6	10.1	11.0	10.5	11.4	11.8
	4H	21.6	22.4	22.0	22.8	23.3	12.2	13.0	12.6	13.4	13.9
	6H	22.1	22.8	22.6	23.2	23.7	14.7	15.4	15.2	15.9	16.4
	8H	22.3	22.9	22.7	23.4	23.8	16.1	16.7	16.5	17.2	17.6
	12H	22.4	23.0	22.9	23.4	23.9	17.6	18.1	18.1	18.6	19.1
8H	4H	21.5	22.2	22.0	22.6	23.1	12.8	13.5	13.3	14.0	14.4
	6H	22.1	22.6	22.6	23.1	23.6	15.7	16.2	16.2	16.7	17.2
	8H	22.3	22.8	22.8	23.3	23.8	17.2	17.7	17.7	18.2	18.7
	12H	22.5	23.0	23.0	23.4	24.0	18.9	19.4	19.5	19.9	20.4
12H	4H	21.5	22.1	22.0	22.5	23.0	13.1	13.7	13.6	14.2	14.6
	6H	22.1	22.6	22.6	23.0	23.6	15.9	16.4	16.5	16.9	17.4
	8H	22.4	22.8	22.9	23.3	23.9	17.6	18.0	18.1	18.5	19.1

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 11354.721 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.)