



IES INDOOR REPORT
PHOTOMETRIC FILENAME : GA-8-L110-850-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-L110-850-N-DIM-UNV
[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11334
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	155
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	47426	3261	2244
55	34208	1920	1522
65	20364	1458	1458
75	9790	2073	2580
85	3536	5893	8251

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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	11394.602	11394.602	11394.602	11394.602	11394.602
5	11489.407	11409.313	11255.663	11057.880	11043.169
10	11607.096	11203.357	10433.473	9663.590	9478.883
15	11651.229	10748.946	9009.761	7653.066	7211.732
20	11527.002	9384.078	5863.210	4006.336	3360.680
25	11468.157	8042.094	3911.531	2384.841	1907.546
30	11695.363	6178.682	2281.863	1312.561	1114.778
35	10822.501	4065.181	1350.156	858.150	784.595
40	10368.090	2435.512	872.861	616.234	580.273
45	9604.745	1482.557	660.367	492.006	454.411
50	7726.622	1064.106	492.006	380.855	359.606
55	5619.659	778.056	315.472	250.090	250.090
60	3873.936	492.006	205.956	191.245	205.956
65	2464.935	250.090	176.534	176.534	176.534
70	1394.290	191.245	168.361	176.534	183.072
75	725.750	183.072	153.650	191.245	191.245
80	336.722	176.534	168.361	205.956	205.956
85	88.267	153.650	147.111	191.245	205.956
90	6.538	88.267	88.267	124.227	138.939
95	0.000	0.000	35.961	73.556	73.556
100	0.000	0.000	6.538	21.249	21.249
105	0.000	0.000	0.000	6.538	6.538
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	3523.32	N.A.	31.10
0-30	5951.72	N.A.	52.50
0-40	7887.68	N.A.	69.60
0-60	10340.95	N.A.	91.20
0-80	11113.57	N.A.	98.10
0-90	11282.15	N.A.	99.50
10-90	10234.91	N.A.	90.30
20-40	4364.37	N.A.	38.50
20-50	5843.49	N.A.	51.60
40-70	2953.86	N.A.	26.10
60-80	772.61	N.A.	6.80
70-80	272.02	N.A.	2.40
80-90	168.58	N.A.	1.50
90-110	51.99	N.A.	0.50
90-120	51.99	N.A.	0.50
90-130	51.99	N.A.	0.50
90-150	51.99	N.A.	0.50
90-180	51.99	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	11334.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1047.25
10-20	2476.07
20-30	2428.4
30-40	1935.96
40-50	1479.12
50-60	974.15
60-70	500.59
70-80	272.02
80-90	168.58
90-100	48.13
100-110	3.87
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	19.1	20.4	19.5	20.7	21.0	8.5	8.5	8.5	8.5	8.5
	3H	21.2	22.4	21.6	22.7	23.1	9.1	10.3	9.5	10.6	11.0
	4H	21.9	22.9	22.3	23.3	23.7	11.0	12.1	11.4	12.4	12.8
	6H	22.2	23.3	22.7	23.6	24.0	13.2	14.3	13.7	14.6	15.0
	8H	22.3	23.3	22.8	23.7	24.1	14.5	15.4	14.9	15.8	16.2
	12H	22.4	23.3	22.8	23.7	24.1	15.9	16.8	16.3	17.2	17.6

UGR Viewed Endwise

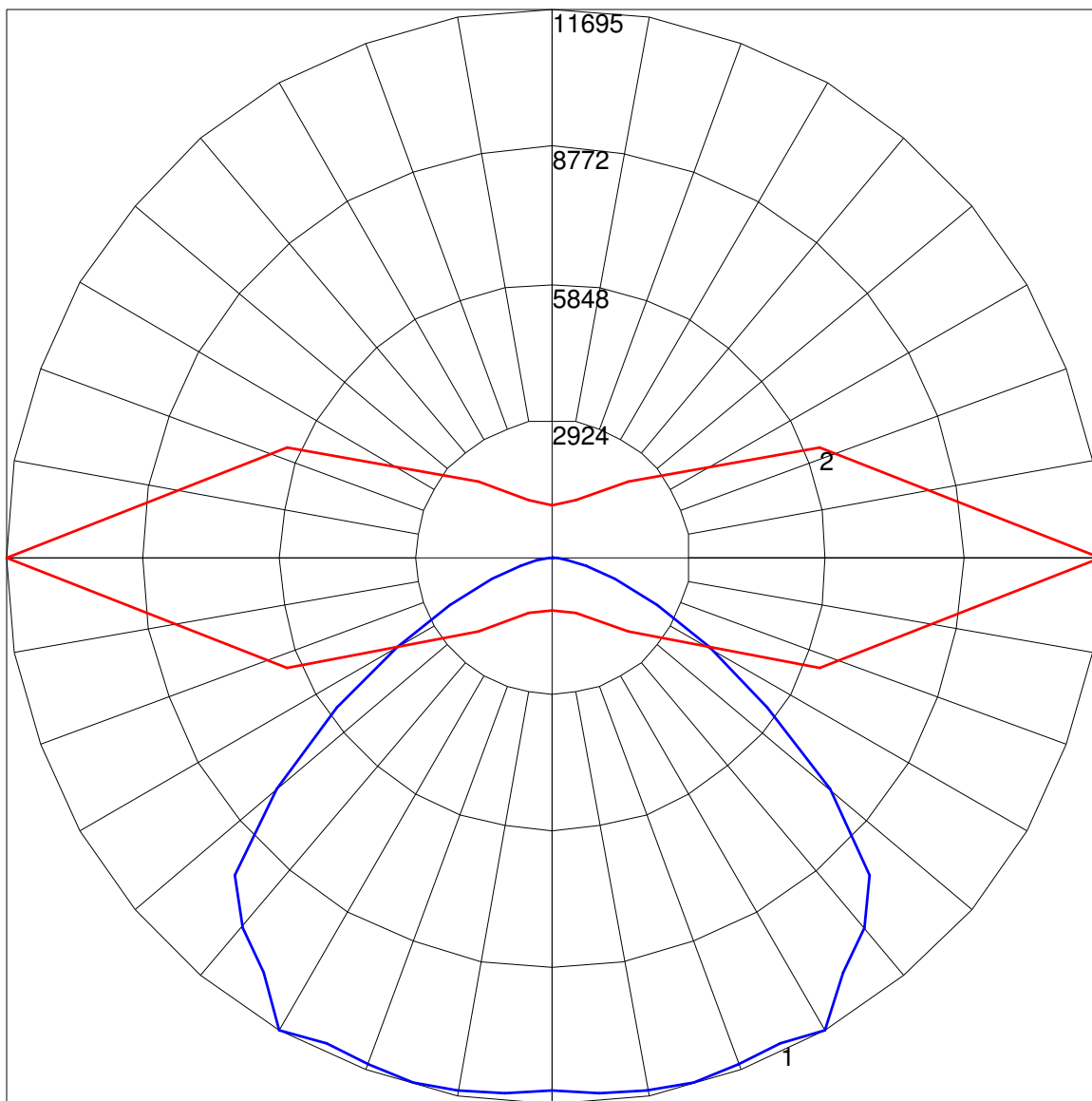
4H	2H	18.9	20.0	19.3	20.3	20.7	8.5	8.5	8.5	8.6	9.0
	3H	21.0	21.9	21.5	22.3	22.7	10.2	11.1	10.6	11.5	11.9
	4H	21.7	22.5	22.1	22.9	23.4	12.3	13.1	12.7	13.5	14.0
	6H	22.2	22.9	22.7	23.3	23.8	14.8	15.5	15.3	16.0	16.5
	8H	22.4	23.0	22.8	23.5	23.9	16.2	16.8	16.6	17.3	17.7
	12H	22.5	23.1	23.0	23.5	24.0	17.7	18.2	18.2	18.7	19.2

8H	4H	21.6	22.3	22.1	22.7	23.2	12.9	13.6	13.4	14.1	14.5
	6H	22.2	22.7	22.7	23.2	23.7	15.8	16.3	16.3	16.8	17.3
	8H	22.4	22.9	22.9	23.4	23.9	17.3	17.8	17.8	18.3	18.8
	12H	22.6	23.1	23.1	23.5	24.1	19.0	19.5	19.6	20.0	20.5

12H	4H	21.6	22.2	22.1	22.6	23.1	13.2	13.8	13.7	14.3	14.7
	6H	22.2	22.7	22.7	23.1	23.7	16.0	16.5	16.6	17.0	17.5
	8H	22.5	22.9	23.0	23.4	24.0	17.7	18.1	18.2	18.6	19.2

Maximum UGR = 24.1

POLAR GRAPH



Maximum Candela = 11695.363 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.)