

IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-830-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-L180-830-N-DIM-UNV

[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17150
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
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	71763	4934	3395
55	51763	2906	2304
65	30815	2207	2207
75	14815	3136	3904
85	5351	8918	12485

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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	17241.911	17241.911	17241.911	17241.911	17241.911
5	17385.367	17264.171	17031.674	16732.395	16710.135
10	17563.450	16952.526	15787.565	14622.605	14343.113
15	17630.231	16264.927	13633.254	11580.351	10912.539
20	17442.255	14199.657	8872.003	6062.247	5085.263
25	17353.213	12169.015	55918.791	3608.657	2886.431
30	17697.012	9349.365	3452.834	1986.122	1686.843
35	16376.229	6151.289	2043.009	1298.523	1187.221
40	15688.630	3685.332	1320.783	932.463	878.049
45	14533.563	2243.353	999.244	744.486	687.599
50	11691.653	1610.168	744.486	576.297	544.143
55	8503.470	1177.327	477.362	378.427	378.427
60	5861.903	744.486	311.646	289.385	311.646
65	3729.852	378.427	267.125	267.125	267.125
70	2109.791	289.385	254.758	267.125	277.018
75	1098.179	277.018	232.497	289.385	289.385
80	509.516	267.125	254.758	311.646	311.646
85	133.562	232.497	222.604	289.385	311.646
90	9.894	133.562	133.562	187.977	210.237
95	0.000	0.000	54.414	111.302	111.302
100	0.000	0.000	9.894	32.154	32.154
105	0.000	0.000	0.000	9.894	9.894
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	5331.36	N.A.	31.10
0-30	9005.93	N.A.	52.50
0-40	11935.36	N.A.	69.60
0-60	15647.57	N.A.	91.20
0-80	16816.66	N.A.	98.10
0-90	17071.75	N.A.	99.50
10-90	15487.1	N.A.	90.30
20-40	6604.00	N.A.	38.50
20-50	8842.16	N.A.	51.60
40-70	4469.68	N.A.	26.10
60-80	1169.09	N.A.	6.80
70-80	411.61	N.A.	2.40
80-90	255.09	N.A.	1.50
90-110	78.68	N.A.	0.50
90-120	78.68	N.A.	0.50
90-130	78.68	N.A.	0.50
90-150	78.68	N.A.	0.50
90-180	78.68	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	17150.43	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1584.66
10-20	3746.7
20-30	3674.57
30-40	2929.43
40-50	2238.16
50-60	1474.04
60-70	757.48
70-80	411.61
80-90	255.10
90-100	72.83
100-110	5.85
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

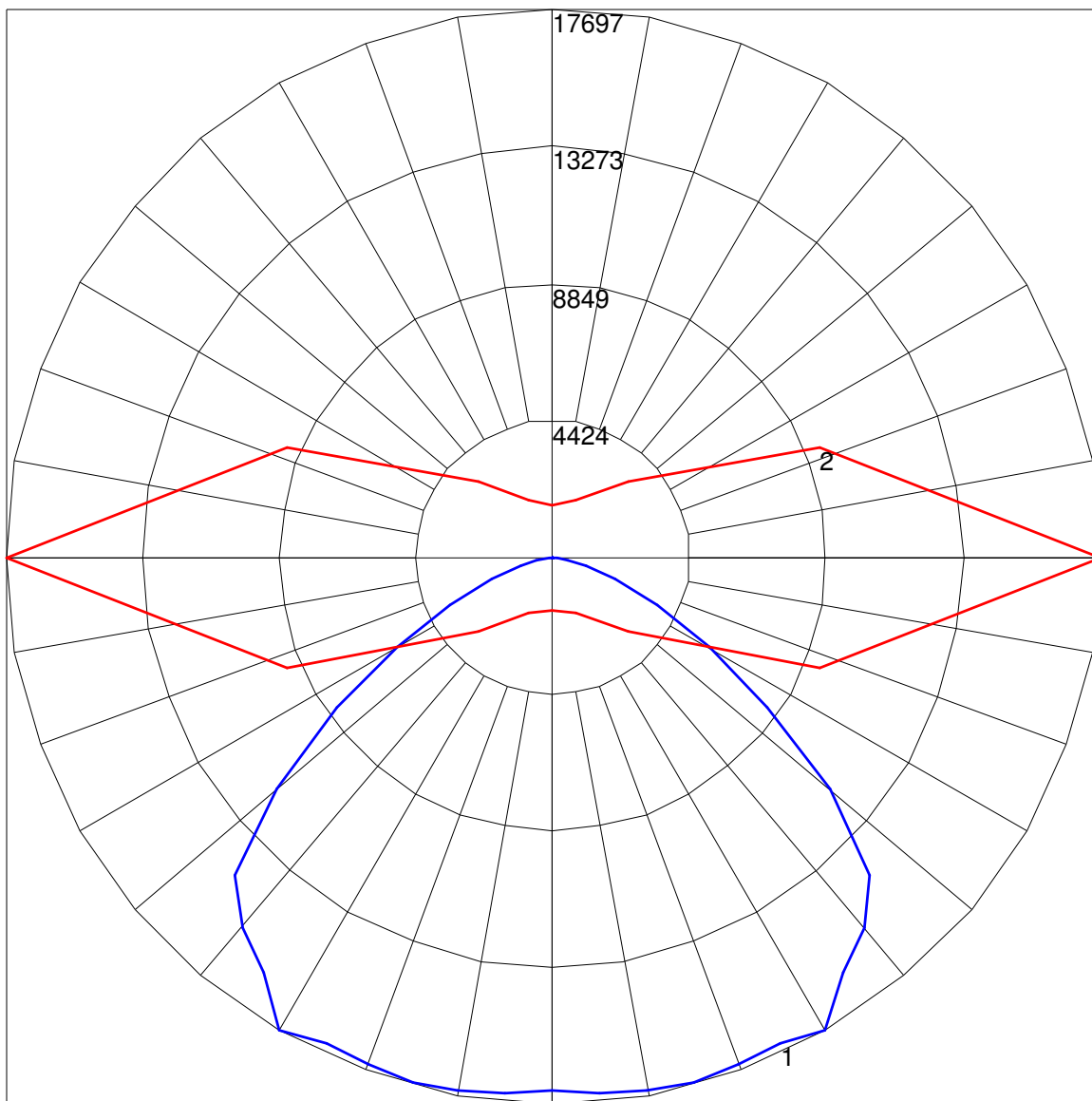
X=2H	Y=2H	20.5	21.8	20.9	22.1	22.4	9.9	9.9	9.9	9.9	9.9
	3H	22.6	23.8	23.0	24.1	24.5	10.5	11.7	10.9	12.0	12.4
	4H	23.3	24.3	23.7	24.7	25.1	12.4	13.5	12.8	13.8	14.2
	6H	23.6	24.7	24.1	25.0	25.4	14.6	15.7	15.1	16.0	16.4
	8H	23.7	24.7	24.2	25.1	25.5	15.9	16.8	16.3	17.2	17.6
	12H	23.8	24.7	24.2	25.1	25.5	17.3	18.2	17.7	18.6	19.0

UGR Viewed Endwise

4H	2H	20.3	21.4	20.7	21.7	22.1	9.9	9.9	9.9	10.0	10.4
	3H	22.4	23.3	22.9	23.7	24.1	11.6	12.5	12.0	12.9	13.3
	4H	23.1	23.9	23.5	24.3	24.8	13.7	14.5	14.1	14.9	15.4
	6H	23.6	24.3	24.1	24.7	25.2	16.2	16.9	16.7	17.4	17.9
	8H	23.8	24.4	24.2	24.9	25.3	17.6	18.2	18.0	18.7	19.1
	12H	23.9	24.5	24.4	24.9	25.4	19.1	19.6	19.6	20.1	20.6
8H	4H	23.0	23.7	23.5	24.1	24.6	14.3	15.0	14.8	15.5	15.9
	6H	23.6	24.1	24.1	24.6	25.1	17.2	17.7	17.7	18.2	18.7
	8H	23.8	24.3	24.3	24.8	25.3	18.7	19.2	19.2	19.7	20.2
	12H	24.0	24.5	24.5	24.9	25.5	20.4	20.9	21.0	21.4	21.9
12H	4H	23.0	23.6	23.5	24.0	24.5	14.6	15.2	15.1	15.7	16.1
	6H	23.6	24.1	24.1	24.5	25.1	17.4	17.9	18.0	18.4	18.9
	8H	23.9	24.3	24.4	24.8	25.4	19.1	19.5	19.6	20.0	20.6

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 17697.012 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.)