

IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-840-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] 8 AUG, 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-L180-840-N-DIM-UNV

[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17865
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
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	74755	5140	3537
55	53921	3027	2400
65	32099	2299	2299
75	15432	3267	4067
85	5574	9289	13005

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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	17960.781	17960.781	17960.781	17960.781	17960.781
5	18110.218	17983.970	17741.779	17430.022	17406.834
10	18295.726	17659.331	16445.799	15232.268	14941.123
15	18365.292	16943.064	14201.668	12063.173	11367.518
20	18169.478	14791.686	9241.905	6315.001	5297.284
25	18076.724	12676.380	6165.564	3759.113	3006.775
30	18434.857	9739.170	3596.794	2068.929	1757.173
35	17059.006	6407.755	2128.189	1352.662	1236.720
40	16342.739	3838.985	1375.851	971.340	914.657
45	15139.514	2336.885	1040.906	775.526	716.267
50	12179.115	1677.301	775.526	600.324	566.830
55	8858.007	1226.414	497.264	394.204	394.204
60	6106.305	775.526	324.639	301.450	324.639
65	3885.362	394.204	278.262	278.262	278.262
70	2197.754	301.450	265.379	278.262	288.568
75	1143.966	288.568	242.191	301.450	301.450
80	530.759	278.262	265.379	324.639	324.639
85	139.131	242.191	231.885	301.450	324.639
90	10.306	139.131	139.131	195.814	219.002
95	0.000	0.000	56.683	115.942	115.942
100	0.000	0.000	10.306	33.494	33.494
105	0.000	0.000	0.000	10.306	10.306
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	5553.64	N.A.	31.10
0-30	9381.42	N.A.	52.50
0-40	12432.99	N.A.	69.60
0-60	16299.96	N.A.	91.20
0-80	17517.8	N.A.	98.10
0-90	17783.53	N.A.	99.50
10-90	16132.8	N.A.	90.30
20-40	6879.35	N.A.	38.50
20-50	9210.82	N.A.	51.60
40-70	4656.04	N.A.	26.10
60-80	1217.84	N.A.	6.80
70-80	428.77	N.A.	2.40
80-90	265.73	N.A.	1.50
90-110	81.96	N.A.	0.50
90-120	81.96	N.A.	0.50
90-130	81.96	N.A.	0.50
90-150	81.96	N.A.	0.50
90-180	81.96	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	17865.49	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1650.72
10-20	3902.92
20-30	3827.78
30-40	3051.57
40-50	2331.47
50-60	1535.5
60-70	789.06
70-80	428.77
80-90	265.73
90-100	75.86
100-110	6.09
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	193	193	193	193	189	189	189	189	180	180	180	172	172	172	165	165	165	162
1	181	175	169	165	176	171	166	162	164	160	157	158	155	152	152	150	147	144
2	169	159	150	143	165	156	148	141	150	144	138	145	140	135	140	136	132	129
3	158	145	135	126	154	142	133	125	138	130	123	133	127	121	130	124	119	116
4	148	133	122	113	145	131	120	112	127	118	111	123	116	109	120	113	108	105
5	139	122	111	102	136	121	110	102	117	108	101	115	106	100	112	105	99	96
6	131	113	102	93	128	112	101	93	109	99	92	107	98	91	104	97	91	88
7	123	105	94	86	121	104	93	86	102	92	85	100	91	84	98	90	84	81
8	117	99	87	79	114	97	87	79	95	86	79	94	85	78	92	84	78	75
9	110	92	81	74	108	91	81	74	90	80	73	88	79	73	87	79	73	70
10	105	87	76	69	103	86	76	69	85	75	69	83	75	68	82	74	68	66

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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

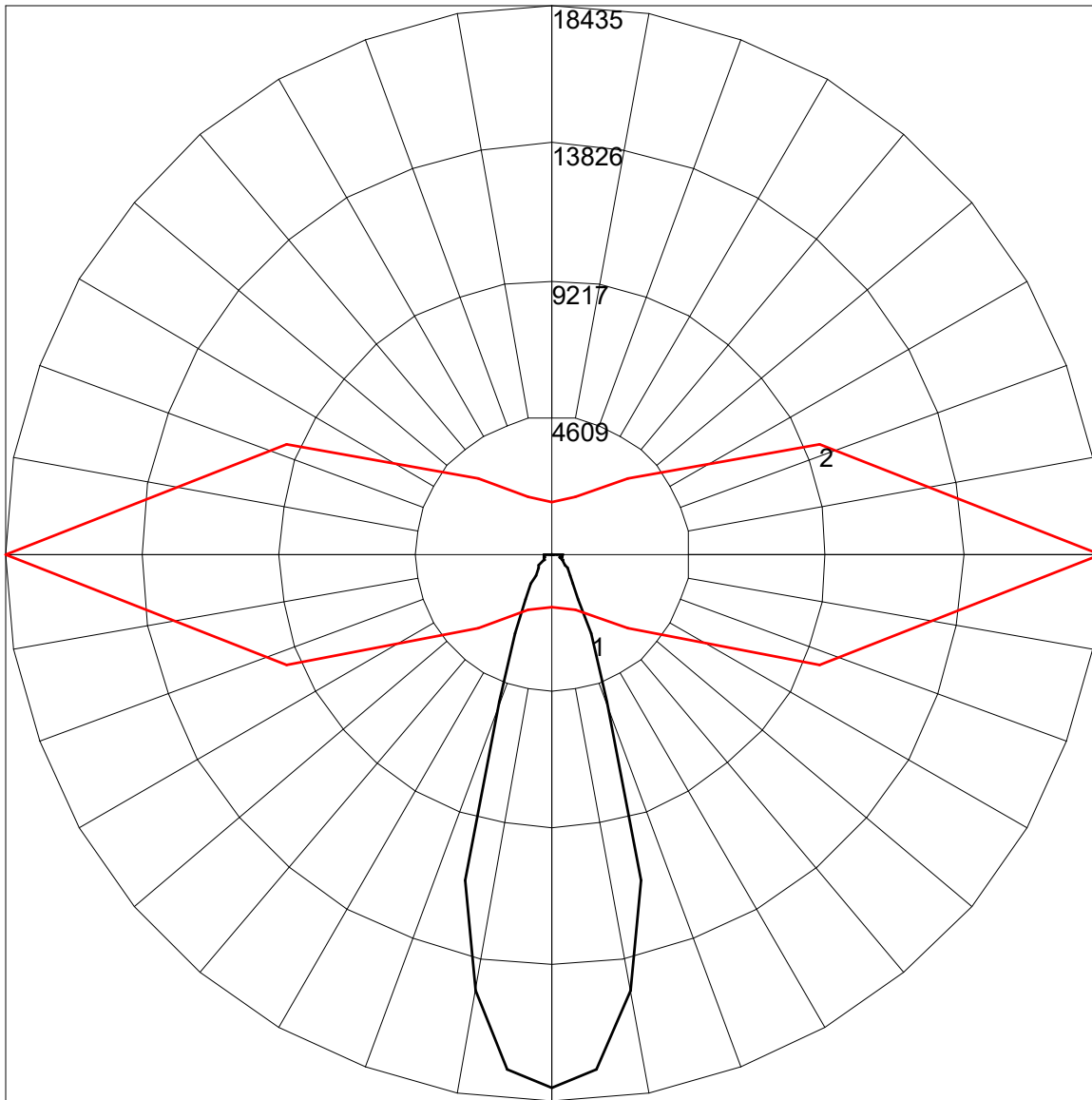
X=2H	Y=2H	19.0	20.3	19.4	20.6	20.9	8.4	8.4	8.4	8.4	8.4
	3H	21.1	22.3	21.5	22.6	23.0	9.0	10.2	9.4	10.5	10.9
	4H	21.8	22.8	22.2	23.2	23.6	10.9	12.0	11.3	12.3	12.7
	6H	22.1	23.2	22.6	23.5	23.9	13.1	14.2	13.6	14.5	14.9
	8H	22.2	23.2	22.7	23.6	24.0	14.4	15.3	14.8	15.7	16.1
	12H	22.3	23.2	22.7	23.6	24.0	15.8	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 = 18434.857 Located At Horizontal Angle = 0, Vertical Angle = 30
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (30) (Through Max. Cd.)