

IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-827-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

[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-L180-827-N-DIM-UNV

[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16793
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
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	70268	4831	3324
55	50684	2845	2256
65	30173	2161	2161
75	14506	3071	3823
85	5239	8732	12225

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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	16882.709	16882.709	16882.709	16882.709	16882.709
5	17023.177	16904.506	16676.852	16383.809	16362.012
10	17197.550	16599.353	15458.662	14317.971	14044.302
15	17262.940	15926.079	13349.232	11339.097	10685.198
20	17078.879	13903.835	8687.172	5935.952	4979.322
25	16991.693	11915.497	5795.485	3533.478	2826.298
30	17328.330	9154.589	3380.901	1944.745	1651.701
35	16035.062	6023.138	2000.447	1271.471	1162.488
40	15361.788	3608.555	1293.267	913.037	859.756
45	14230.785	2196.617	978.427	728.977	673.274
50	11448.080	1576.624	728.977	564.291	532.807
55	8326.317	1152.800	467.417	370.543	370.543
60	5739.782	728.977	305.153	283.356	305.153
65	3652.148	370.543	261.560	261.560	261.560
70	2065.837	283.356	249.450	261.560	271.247
75	1075.301	271.247	227.654	283.356	283.356
80	498.901	261.560	249.450	305.153	305.153
85	130.780	227.654	217.966	283.356	305.153
90	9.687	130.780	130.780	184.061	205.857
95	0.000	0.000	53.281	108.983	108.983
100	0.000	0.000	9.687	31.484	31.484
105	0.000	0.000	0.000	9.687	9.687
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	5220.29	N.A.	31.10
0-30	8818.31	N.A.	52.50
0-40	11686.71	N.A.	69.60
0-60	15321.58	N.A.	91.20
0-80	16466.32	N.A.	98.10
0-90	16716.1	N.A.	99.50
10-90	15164.46	N.A.	90.30
20-40	6466.42	N.A.	38.50
20-50	8657.95	N.A.	51.60
40-70	4376.57	N.A.	26.10
60-80	1144.74	N.A.	6.80
70-80	403.04	N.A.	2.40
80-90	249.78	N.A.	1.50
90-110	77.04	N.A.	0.50
90-120	77.04	N.A.	0.50
90-130	77.04	N.A.	0.50
90-150	77.04	N.A.	0.50
90-180	77.04	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	16793.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1551.64
10-20	3668.65
20-30	3598.02
30-40	2868.4
40-50	2191.53
50-60	1443.33
60-70	741.70
70-80	403.04
80-90	249.78
90-100	71.31
100-110	5.73
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

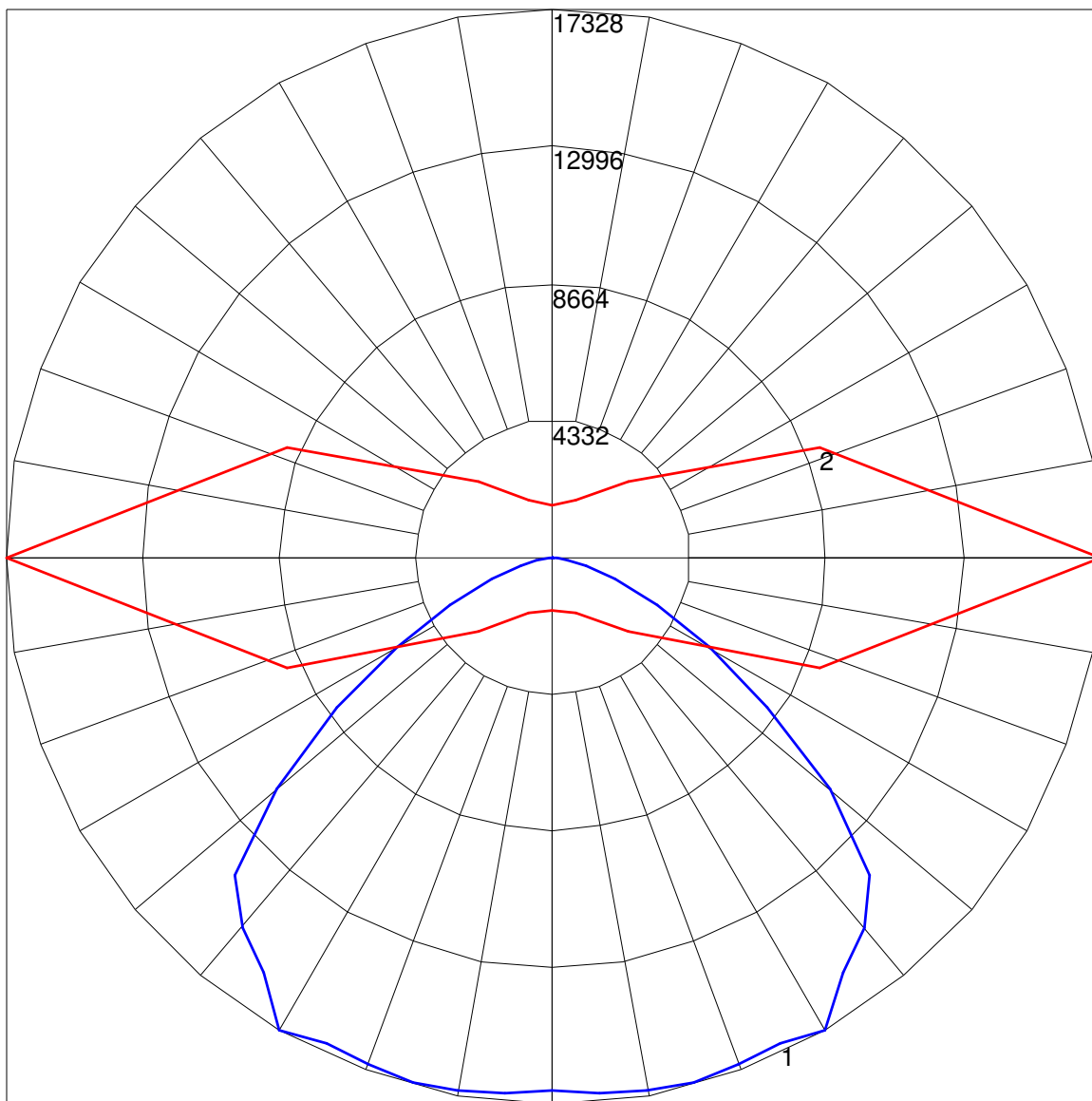
4H	2H	20.3	21.4	20.7	21.7	22.1	9.9	9.9	9.9	10.0	10.4
	3H	22.4	23.3	22.9	23.7	24.1	11.6	12.5	12.0	12.9	13.3
	4H	23.1	23.9	23.5	24.3	24.8	13.7	14.5	14.1	14.9	15.4
	6H	23.6	24.3	24.1	24.7	25.2	16.2	16.9	16.7	17.4	17.9
	8H	23.8	24.4	24.2	24.9	25.3	17.6	18.2	18.0	18.7	19.1
	12H	23.9	24.5	24.4	24.9	25.4	19.1	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 = 17328.33 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.)