

IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-850-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

[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-L180-850-N-DIM-UNV

[LAMPCAT] HLM 80 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	18401
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	143
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	76996	5294	3643
55	55537	3118	2472
65	33061	2368	2368
75	15895	3365	4188
85	5741	9568	13395

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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	18499.138	18499.138	18499.138	18499.138	18499.138
5	18653.054	18523.021	18273.571	17952.470	17928.586
10	18844.123	18188.652	16938.746	15688.840	15388.969
15	18915.773	17450.915	14627.349	12424.755	11708.248
20	18714.090	15235.052	9518.922	6504.287	5456.065
25	18618.556	13056.342	6350.371	3871.789	3096.901
30	18987.424	10031.092	3704.604	2130.944	1809.843
35	17570.333	6599.822	2191.979	1393.207	1273.789
40	16832.597	3954.055	1417.091	1000.455	942.073
45	15593.306	2406.931	1072.106	798.772	737.736
50	12544.172	1727.577	798.772	618.319	583.820
55	9123.517	1263.175	512.170	406.020	406.020
60	6289.335	798.772	334.370	310.486	334.370
65	4001.822	406.020	286.603	286.603	286.603
70	2263.630	310.486	273.334	286.603	297.218
75	1178.255	297.218	249.450	310.486	310.486
80	546.668	286.603	273.334	334.370	334.370
85	143.301	249.450	238.836	310.486	334.370
90	10.615	143.301	143.301	201.683	225.567
95	0.000	0.000	58.382	119.418	119.418
100	0.000	0.000	10.615	34.498	34.498
105	0.000	0.000	0.000	10.615	10.615
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	5720.11	N.A.	31.10
0-30	9662.62	N.A.	52.50
0-40	12805.65	N.A.	69.60
0-60	16788.54	N.A.	91.20
0-80	18042.88	N.A.	98.10
0-90	18316.57	N.A.	99.50
10-90	16616.37	N.A.	90.30
20-40	7085.55	N.A.	38.50
20-50	9486.91	N.A.	51.60
40-70	4795.6	N.A.	26.10
60-80	1254.34	N.A.	6.80
70-80	441.62	N.A.	2.40
80-90	273.70	N.A.	1.50
90-110	84.41	N.A.	0.50
90-120	84.41	N.A.	0.50
90-130	84.41	N.A.	0.50
90-150	84.41	N.A.	0.50
90-180	84.41	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	18400.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1700.2
10-20	4019.9
20-30	3942.51
30-40	3143.04
40-50	2401.36
50-60	1581.53
60-70	812.72
70-80	441.62
80-90	273.70
90-100	78.14
100-110	6.28
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	20.8	22.1	21.2	22.4	22.7	10.2	10.2	10.2	10.2	10.2
	3H	22.9	24.1	23.3	24.4	24.8	10.8	12.0	11.2	12.3	12.7
	4H	23.6	24.6	24.0	25.0	25.4	12.7	13.8	13.1	14.1	14.5
	6H	23.9	25.0	24.4	25.3	25.7	14.9	16.0	15.4	16.3	16.7
	8H	24.0	25.0	24.5	25.4	25.8	16.2	17.1	16.6	17.5	17.9
	12H	24.1	25.0	24.5	25.4	25.8	17.6	18.5	18.0	18.9	19.3

UGR Viewed Endwise

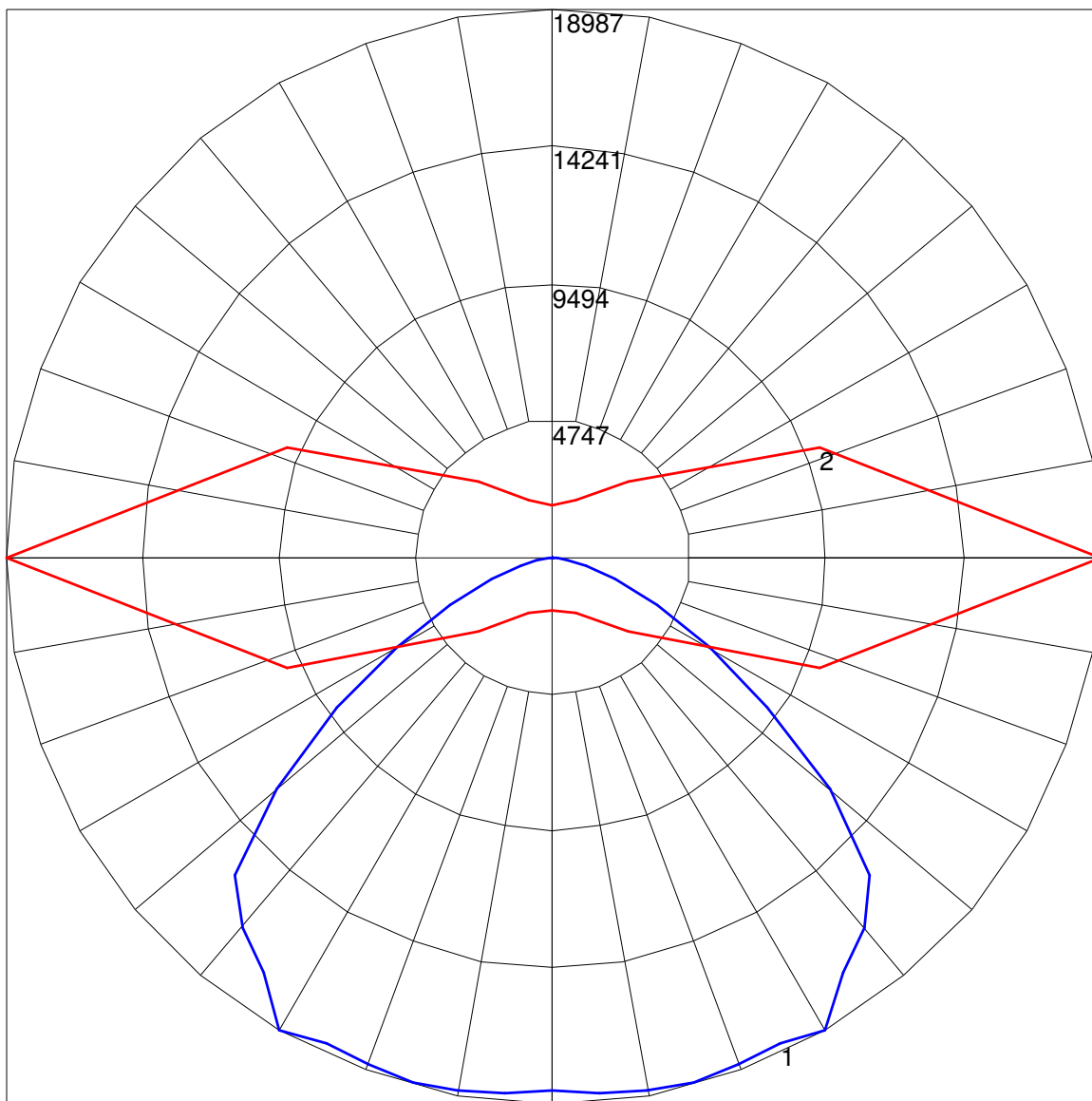
4H	2H	20.6	21.7	21.0	22.0	22.4	10.2	10.2	10.2	10.3	10.7
	3H	22.7	23.6	23.2	24.0	24.4	11.9	12.8	12.3	13.2	13.6
	4H	23.4	24.2	23.8	24.6	25.1	14.0	14.8	14.4	15.2	15.7
	6H	23.9	24.6	24.4	25.0	25.5	16.5	17.2	17.0	17.7	18.2
	8H	24.1	24.7	24.5	25.2	25.6	17.9	18.5	18.3	19.0	19.4
	12H	24.2	24.8	24.7	25.2	25.7	19.4	19.9	19.9	20.4	20.9

8H	4H	23.3	24.0	23.8	24.4	24.9	14.6	15.3	15.1	15.8	16.2
	6H	23.9	24.4	24.4	24.9	25.4	17.5	18.0	18.0	18.5	19.0
	8H	24.1	24.6	24.6	25.1	25.6	19.0	19.5	19.5	20.0	20.5
	12H	24.3	24.8	24.8	25.2	25.8	20.7	21.2	21.3	21.7	22.2

12H	4H	23.3	23.9	23.8	24.3	24.8	14.9	15.5	15.4	16.0	16.4
	6H	23.9	24.4	24.4	24.8	25.4	17.7	18.2	18.3	18.7	19.2
	8H	24.2	24.6	24.7	25.1	25.7	19.4	19.8	19.9	20.3	20.9

Maximum UGR = 25.8

POLAR GRAPH



Maximum Candela = 18987.424 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.)