

IES INDOOR REPORT

PHOTOMETRIC FILENAME : GA-8-L180-940-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-L180-940-N-DIM-UNV

[LAMPCAT] HLM 90 CRI LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	14828
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
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	62045	4266	2935
55	44753	2512	1992
65	26642	1908	1908
75	12808	2712	3375
85	4626	7710	10794

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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	14907.073	14907.073	14907.073	14907.073	14907.073
5	15031.102	14926.319	14725.305	14466.554	14447.308
10	15185.070	14656.875	13649.669	12642.464	12400.820
15	15242.808	14062.389	11787.087	10012.181	9434.802
20	15080.287	12276.790	7670.588	5241.319	4396.635
25	15003.303	10521.130	5117.290	3119.986	2495.561
30	15300.546	8083.307	2985.264	1717.168	1458.417
35	14158.618	5318.303	1766.352	1122.682	1026.452
40	13564.132	3186.277	1141.928	806.192	759.147
45	12565.480	1939.566	863.930	643.671	594.487
50	10108.411	1392.125	643.671	498.257	470.457
55	7351.960	1017.898	412.719	327.181	327.181
60	5068.105	643.671	269.444	250.198	269.444
65	3224.769	327.181	230.952	230.952	230.952
70	1824.090	250.198	220.259	230.952	239.505
75	949.468	239.505	201.013	250.198	250.198
80	440.519	230.952	220.259	269.444	269.444
85	115.476	201.013	192.460	250.198	269.444
90	8.554	115.476	115.476	162.522	181.767
95	0.000	0.000	47.046	96.230	96.230
100	0.000	0.000	8.554	27.800	27.800
105	0.000	0.000	0.000	8.554	8.554
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	4609.41	N.A.	31.10
0-30	7786.38	N.A.	52.50
0-40	10319.12	N.A.	69.60
0-60	13528.63	N.A.	91.20
0-80	14539.41	N.A.	98.10
0-90	14759.96	N.A.	99.50
10-90	13389.89	N.A.	90.30
20-40	5709.71	N.A.	38.50
20-50	7644.79	N.A.	51.60
40-70	3864.42	N.A.	26.10
60-80	1010.78	N.A.	6.80
70-80	355.87	N.A.	2.40
80-90	220.55	N.A.	1.50
90-110	68.02	N.A.	0.50
90-120	68.02	N.A.	0.50
90-130	68.02	N.A.	0.50
90-150	68.02	N.A.	0.50
90-180	68.02	N.A.	0.50
110-180	0.00	N.A.	0.00
0-180	14827.98	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1370.07
10-20	3239.34
20-30	3176.97
30-40	2532.74
40-50	1935.08
50-60	1274.43
60-70	654.91
70-80	355.87
80-90	220.55
90-100	62.96
100-110	5.06
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	20.0	21.3	20.4	21.6	21.9	9.4	9.4	9.4	9.4	9.4
	3H	22.1	23.3	22.5	23.6	24.0	10.0	11.2	10.4	11.5	11.9
	4H	22.8	23.8	23.2	24.2	24.6	11.9	13.0	12.3	13.3	13.7
	6H	23.1	24.2	23.6	24.5	24.9	14.1	15.2	14.6	15.5	15.9
	8H	23.2	24.2	23.7	24.6	25.0	15.4	16.3	15.8	16.7	17.1
	12H	23.3	24.2	23.7	24.6	25.0	16.8	17.7	17.2	18.1	18.5

UGR Viewed Endwise

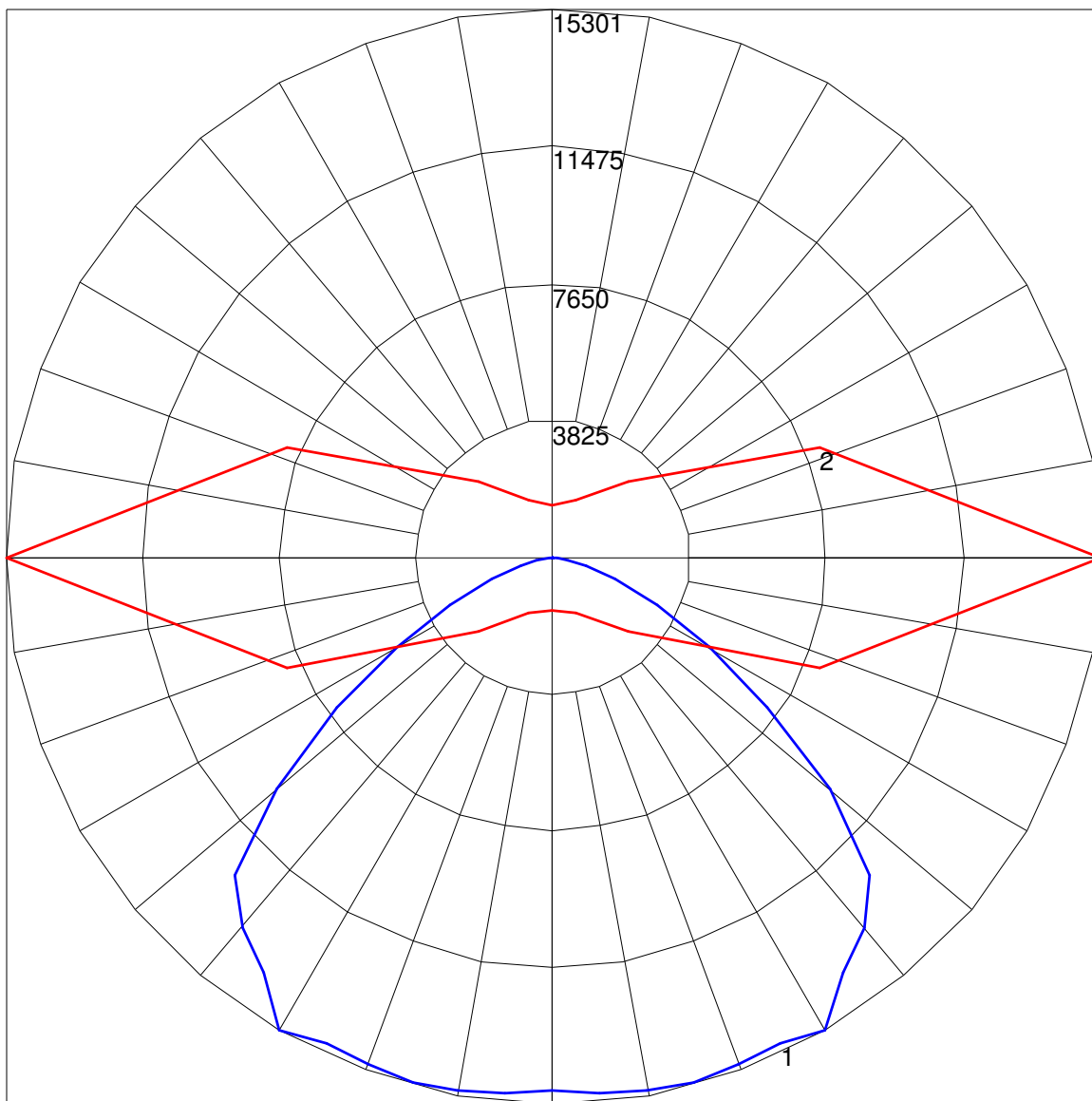
4H	2H	19.8	20.9	20.2	21.2	21.6	9.4	9.4	9.4	9.5	9.9
	3H	21.9	22.8	22.4	23.2	23.6	11.1	12.0	11.5	12.4	12.8
	4H	22.6	23.4	23.0	23.8	24.3	13.2	14.0	13.6	14.4	14.9
	6H	23.1	23.8	23.6	24.2	24.7	15.7	16.4	16.2	16.9	17.4
	8H	23.3	23.9	23.7	24.4	24.8	17.1	17.7	17.5	18.2	18.6
	12H	23.4	24.0	23.9	24.4	24.9	18.6	19.1	19.1	19.6	20.1

8H	4H	22.5	23.2	23.0	23.6	24.1	13.8	14.5	14.3	15.0	15.4
	6H	23.1	23.6	23.6	24.1	24.6	16.7	17.2	17.2	17.7	18.2
	8H	23.3	23.8	23.8	24.3	24.8	18.2	18.7	18.7	19.2	19.7
	12H	23.5	24.0	24.0	24.4	25.0	19.9	20.4	20.5	20.9	21.4

12H	4H	22.5	23.1	23.0	23.5	24.0	14.1	14.7	14.6	15.2	15.6
	6H	23.1	23.6	23.6	24.0	24.6	16.9	17.4	17.5	17.9	18.4
	8H	23.4	23.8	23.9	24.3	24.9	18.6	19.0	19.1	19.5	20.1

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 15300.546 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.)