



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 11-4-L52-835-SAF12125-DIM-UNV.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 18638.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 04-JUN-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 22" LED ARRAYS 1x4' SURFACE MNT LUMINAIRE w/WHITE REFL

[MORE] ARRAYS ON INTERNAL WHITE REFLS w/PAT12 LENS (PRISMS DOWN)

[LUMCAT] 11-4-L52-835-SAF12125-DIM-UNV

[\_SEARCH\_SOURCE] LED

[\_SEARCH\_APPLICATION] INDOOR

[\_SEARCH\_MOUNTING] SURFACE

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5101
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	42.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.80 ft
Luminous Width (90-270)	0.77 ft
Luminous Height	0.00 ft



### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6459	6099	5805
55	5212	4781	4425
65	4275	3843	3656
75	3574	3352	3490
85	3702	3702	4154

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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>
<b>0</b>	2362.640	2362.640	2362.640	2362.640	2362.640
<b>5</b>	2347.026	2346.050	2342.146	2342.146	2342.146
<b>10</b>	2305.062	2303.110	2300.183	2300.183	2299.207
<b>15</b>	2194.786	2193.810	2190.883	2187.955	2185.027
<b>20</b>	2146.967	2143.064	2131.353	2126.474	2124.522
<b>25</b>	1948.861	1942.030	1928.367	1918.608	1913.729
<b>30</b>	1785.887	1776.128	1754.658	1736.116	1724.405
<b>35</b>	1623.888	1610.226	1581.925	1553.624	1539.961
<b>40</b>	1418.950	1401.384	1364.300	1322.337	1313.554
<b>45</b>	1243.289	1221.820	1174.001	1127.158	1117.399
<b>50</b>	1014.930	992.484	945.642	900.750	887.088
<b>55</b>	813.896	790.474	746.559	705.572	690.933
<b>60</b>	633.355	609.934	572.850	539.670	531.862
<b>65</b>	491.851	473.309	442.080	423.538	420.610
<b>70</b>	362.057	348.394	328.876	325.949	328.876
<b>75</b>	251.781	244.949	236.166	242.022	245.925
<b>80</b>	168.830	164.926	163.950	172.733	175.661
<b>85</b>	87.830	86.855	87.830	98.565	98.565
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	845.32	N.A.	16.60
0-30	1738.00	N.A.	34.10
0-40	2720.89	N.A.	53.30
0-60	4295.22	N.A.	84.20
0-80	5005.17	N.A.	98.10
0-90	5100.92	N.A.	100.00
10-90	4878.48	N.A.	95.60
20-40	1875.57	N.A.	36.80
20-50	2774.81	N.A.	54.40
40-70	2022.53	N.A.	39.70
60-80	709.95	N.A.	13.90
70-80	261.74	N.A.	5.10
80-90	95.75	N.A.	1.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	5100.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	222.43
10-20	622.89
20-30	892.68
30-40	982.89
40-50	899.23
50-60	675.09
60-70	448.20
70-80	261.74
80-90	95.75
90-100	0.00
100-110	0.00
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	116	116	116	116	113	113	113	113	108	108	108	104	104	104	100	100	100	98
1	107	103	99	95	104	100	97	94	96	93	91	93	90	88	89	87	85	83
2	98	91	85	79	96	89	83	78	86	81	77	82	78	75	79	76	73	71
3	90	81	73	67	88	79	72	67	76	70	66	74	69	65	71	67	63	61
4	83	72	64	58	81	71	64	58	69	62	57	66	61	56	64	60	56	54
5	77	65	57	51	75	64	56	51	62	55	50	60	54	50	58	53	49	47
6	71	59	51	45	70	58	50	45	57	50	44	55	49	44	53	48	44	42
7	67	54	46	40	65	53	46	40	52	45	40	50	44	40	49	44	39	37
8	62	50	42	36	61	49	41	36	48	41	36	46	40	36	45	40	36	34
9	58	46	38	33	57	45	38	33	44	37	33	43	37	33	42	36	32	31
10	55	42	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28

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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	17.2	18.7	17.5	19.0	19.3	16.3	17.8	16.6	18.1	18.4
	3H	18.7	20.0	19.0	20.4	20.7	17.9	19.2	18.2	19.6	19.9
	4H	19.2	20.5	19.6	20.9	21.3	18.5	19.8	18.9	20.2	20.6
	6H	19.7	20.9	20.2	21.3	21.7	19.2	20.4	19.6	20.7	21.1
	8H	20.0	21.1	20.4	21.5	21.9	19.5	20.6	19.9	21.0	21.4
	12H	20.1	21.2	20.5	21.6	22.0	19.7	20.8	20.1	21.2	21.6

UGR Viewed Endwise

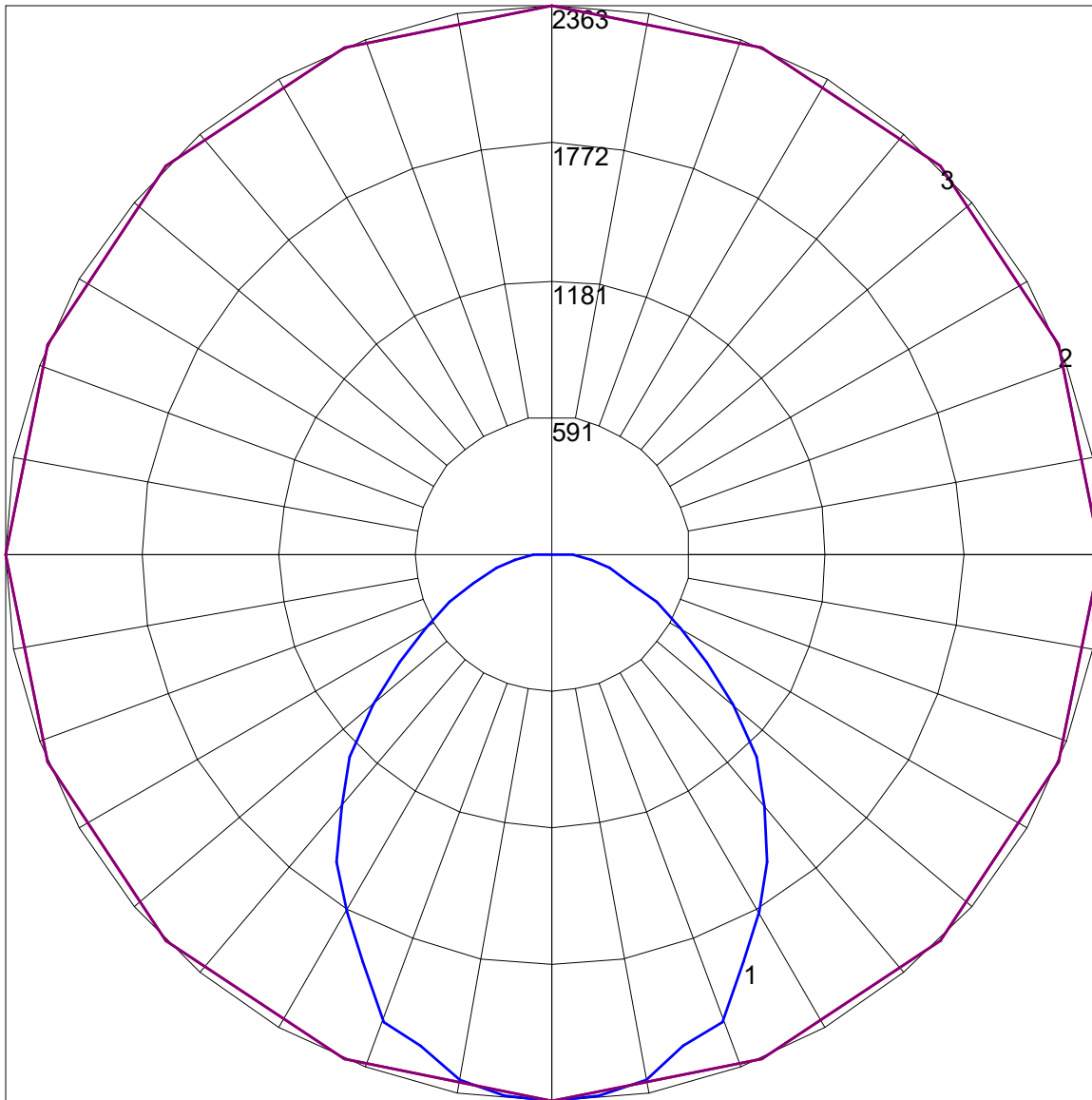
4H	2H	17.6	18.9	18.0	19.2	19.6	16.8	18.1	17.2	18.5	18.9
	3H	19.3	20.4	19.7	20.8	21.2	18.7	19.7	19.1	20.1	20.5
	4H	20.0	21.0	20.5	21.4	21.9	19.5	20.5	19.9	20.9	21.3
	6H	20.7	21.5	21.2	22.0	22.4	20.3	21.1	20.7	21.6	22.0
	8H	21.0	21.8	21.4	22.2	22.7	20.6	21.4	21.1	21.9	22.3
	12H	21.2	21.9	21.7	22.4	22.9	21.0	21.7	21.4	22.1	22.6

8H	4H	20.3	21.1	20.8	21.5	22.0	19.8	20.6	20.3	21.0	21.5
	6H	21.1	21.8	21.6	22.2	22.7	20.8	21.4	21.3	21.9	22.4
	8H	21.5	22.1	22.0	22.6	23.0	21.2	21.8	21.7	22.3	22.8
	12H	21.8	22.3	22.3	22.8	23.4	21.7	22.2	22.2	22.7	23.3

12H	4H	20.3	21.0	20.8	21.5	22.0	19.9	20.6	20.3	21.0	21.5
	6H	21.2	21.8	21.7	22.2	22.8	20.9	21.5	21.4	21.9	22.5
	8H	21.6	22.1	22.1	22.6	23.2	21.4	21.9	21.9	22.4	23.0

Maximum UGR = 23.4

POLAR GRAPH



Maximum Candela = 2362.64 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)  
# 3 - Horizontal Cone Through Vertical Angle (0)