



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 12-4-L84-835-SAF12125-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 18637.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIE, INC

[ISSUEDATE] 04-JUN-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 22" LED ARRAYS 2x4' WHITE REFL SURFACE MOUNT LUMINAIRE

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

[LUMCAT] 12-4-L84-835-SAF12125-DIM-UNV

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] INDOOR

[\_SEARCH\_MOUNTING] SURFACE

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8516
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	62.9
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)	3.77 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft



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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4509	4408	4357
55	3769	3624	3561
65	3117	2982	2955
75	2645	2589	2752
85	2750	2787	3236

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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>	3891.497	3891.497	3891.497	3891.497	3891.497
<b>5</b>	3799.492	3799.492	3794.437	3792.415	3794.437
<b>10</b>	3738.830	3733.775	3731.752	3733.775	3731.752
<b>15</b>	3556.842	3551.787	3547.743	3547.743	3547.743
<b>20</b>	3464.838	3453.716	3453.716	3450.683	3444.617
<b>25</b>	3174.669	3172.647	3163.547	3159.503	3163.547
<b>30</b>	2891.577	2887.533	2876.412	2869.334	2871.357
<b>35</b>	2609.497	2600.398	2584.221	2577.144	2577.144
<b>40</b>	2301.129	2285.964	2263.721	2243.500	2243.500
<b>45</b>	1977.596	1962.431	1933.110	1910.868	1910.868
<b>50</b>	1638.898	1623.732	1594.412	1572.169	1572.169
<b>55</b>	1340.640	1318.398	1289.077	1263.801	1266.834
<b>60</b>	1059.571	1037.328	1013.063	996.886	998.909
<b>65</b>	816.921	796.700	781.535	774.457	774.457
<b>70</b>	617.746	601.569	588.426	597.525	606.625
<b>75</b>	424.637	415.538	415.538	428.681	441.825
<b>80</b>	283.091	283.091	283.091	301.290	314.434
<b>85</b>	148.623	148.623	150.645	170.866	174.910
<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	1370.46	N.A.	16.10
0-30	2829.7	N.A.	33.20
0-40	4444.87	N.A.	52.20
0-60	7101.49	N.A.	83.40
0-80	8350.5	N.A.	98.10
0-90	8515.9	N.A.	100.00
10-90	8154.65	N.A.	95.80
20-40	3074.41	N.A.	36.10
20-50	4567.44	N.A.	53.60
40-70	3446.93	N.A.	40.50
60-80	1249.00	N.A.	14.70
70-80	458.70	N.A.	5.40
80-90	165.40	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	8515.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	361.25
10-20	1009.21
20-30	1459.24
30-40	1615.17
40-50	1493.04
50-60	1163.59
60-70	790.30
70-80	458.70
80-90	165.40
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	120	120	120	120	118	118	118	118	112	112	112	108	108	108	103	103	103	101
1	111	106	102	98	108	104	100	97	100	97	94	96	93	91	92	90	88	86
2	101	94	87	82	99	92	86	81	88	83	79	85	81	77	82	78	75	73
3	93	83	75	69	91	82	74	69	79	72	67	76	71	66	73	69	65	63
4	86	74	66	60	84	73	65	59	71	64	58	68	62	58	66	61	57	55
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48
6	74	61	52	46	72	60	52	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	67	55	47	41	53	46	41	52	45	40	50	44	40	38
8	64	51	43	37	62	50	42	37	49	42	37	48	41	36	46	41	36	34
9	60	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	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	16.0	17.6	16.4	17.9	18.2	15.7	17.3	16.1	17.6	17.9
	3H	17.6	19.0	18.0	19.3	19.7	17.3	18.7	17.7	19.0	19.4
	4H	18.1	19.5	18.5	19.8	20.2	18.0	19.3	18.4	19.6	20.0
	6H	18.6	19.9	19.1	20.2	20.6	18.6	19.8	19.0	20.2	20.6
	8H	18.9	20.0	19.3	20.4	20.8	18.9	20.0	19.3	20.4	20.8
	12H	19.0	20.1	19.4	20.5	20.9	19.1	20.2	19.5	20.6	21.0

UGR Viewed Endwise

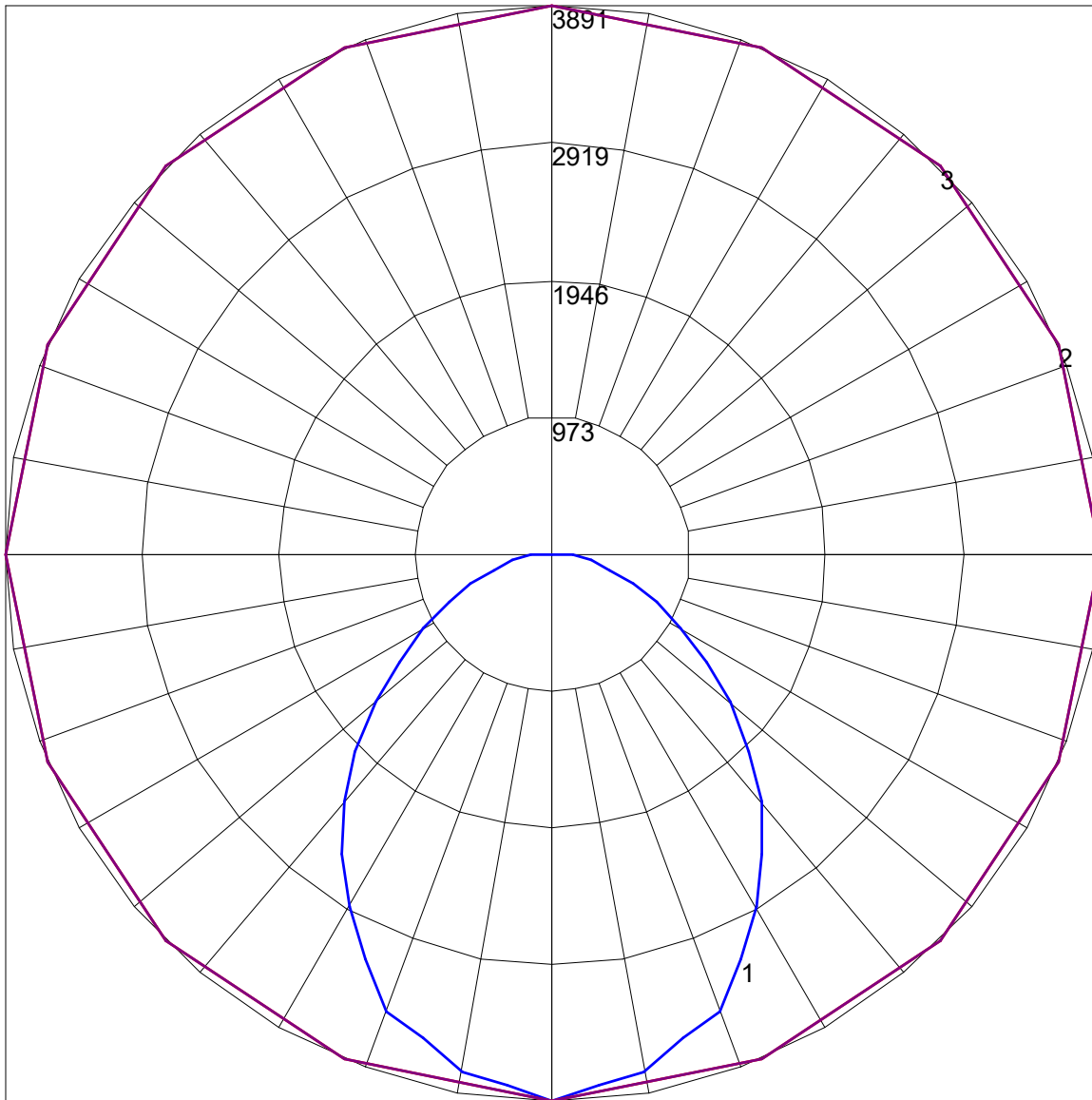
4H	2H	16.5	17.8	16.9	18.2	18.5	16.2	17.6	16.6	17.9	18.3
	3H	18.3	19.4	18.7	19.8	20.2	18.1	19.2	18.5	19.6	20.0
	4H	19.0	20.0	19.4	20.4	20.8	18.9	19.9	19.3	20.3	20.7
	6H	19.6	20.5	20.1	20.9	21.4	19.6	20.5	20.1	21.0	21.4
	8H	19.9	20.7	20.4	21.2	21.6	20.0	20.8	20.4	21.2	21.7
	12H	20.1	20.9	20.6	21.3	21.8	20.3	21.0	20.8	21.5	22.0

8H	4H	19.3	20.1	19.7	20.5	21.0	19.2	20.0	19.6	20.4	20.9
	6H	20.1	20.7	20.6	21.2	21.7	20.1	20.8	20.6	21.3	21.7
	8H	20.4	21.0	21.0	21.5	22.0	20.5	21.1	21.1	21.7	22.1
	12H	20.8	21.3	21.3	21.8	22.4	21.0	21.5	21.5	22.0	22.6

12H	4H	19.3	20.0	19.8	20.5	21.0	19.2	19.9	19.7	20.4	20.9
	6H	20.2	20.8	20.7	21.2	21.8	20.2	20.8	20.7	21.2	21.8
	8H	20.6	21.1	21.1	21.6	22.2	20.7	21.2	21.2	21.7	22.3

Maximum UGR = 22.6

POLAR GRAPH



Maximum Candela = 3891.497 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)