



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 12-4-L130-840-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-JUNE-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4-72LED 22"ARRAYS 2x4'WHITE REFL SURFACE MOUNT LUMINAIRE

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

[LUMCAT] 12-4-L130-840-SAF12125-DIM-UNV

[LAMPCAT] HLM 80 CRI 4000K CCT

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] INDOOR

[\_SEARCH\_MOUNTING] SURFACE

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	13509
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	101.2
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	7153	6992	6912
55	5978	5748	5649
65	4944	4730	4687
75	4196	4106	4366
85	4362	4421	5133

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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>	6173.115	6173.115	6173.115	6173.115	6173.115
<b>5</b>	6027.167	6027.167	6019.148	6015.940	6019.148
<b>10</b>	5930.937	5922.918	5919.710	5922.918	5919.710
<b>15</b>	5642.249	5634.230	5627.815	5627.815	5627.815
<b>20</b>	5496.301	5478.659	5478.659	5473.848	5464.225
<b>25</b>	5036.004	5032.796	5018.362	5011.947	5018.362
<b>30</b>	4586.934	4580.518	4562.876	4551.650	4554.857
<b>35</b>	4139.467	4125.033	4099.371	4088.145	4088.145
<b>40</b>	3650.301	3626.244	3590.960	3558.883	3558.883
<b>45</b>	3137.078	3113.020	3066.509	3031.225	3031.225
<b>50</b>	2599.797	2575.740	2529.229	2493.945	2493.945
<b>55</b>	2126.669	2091.385	2044.874	2004.779	2009.590
<b>60</b>	1680.806	1645.522	1607.031	1581.369	1584.577
<b>65</b>	1295.889	1263.812	1239.755	1228.528	1228.528
<b>70</b>	979.936	954.275	933.425	947.859	962.294
<b>75</b>	673.606	659.171	659.171	680.021	700.871
<b>80</b>	449.070	449.070	449.070	477.939	498.789
<b>85</b>	235.762	235.762	238.970	271.046	277.461
<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	2173.97	N.A.	16.10
0-30	4488.78	N.A.	33.20
0-40	7050.93	N.A.	52.20
0-60	11265.16	N.A.	83.40
0-80	13246.46	N.A.	98.10
0-90	13508.84	N.A.	100.00
10-90	12935.79	N.A.	95.80
20-40	4876.96	N.A.	36.10
20-50	7245.37	N.A.	53.60
40-70	5467.89	N.A.	40.50
60-80	1981.3	N.A.	14.70
70-80	727.64	N.A.	5.40
80-90	262.38	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	13508.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	573.06
10-20	1600.92
20-30	2314.8
30-40	2562.15
40-50	2368.42
50-60	1845.81
60-70	1253.66
70-80	727.64
80-90	262.38
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	65	73	68	64	62
4	85	74	65	59	83	72	64	59	70	63	58	67	62	57	65	60	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42
7	68	55	46	41	66	54	46	40	52	45	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	41	34	30	40	34	30	28

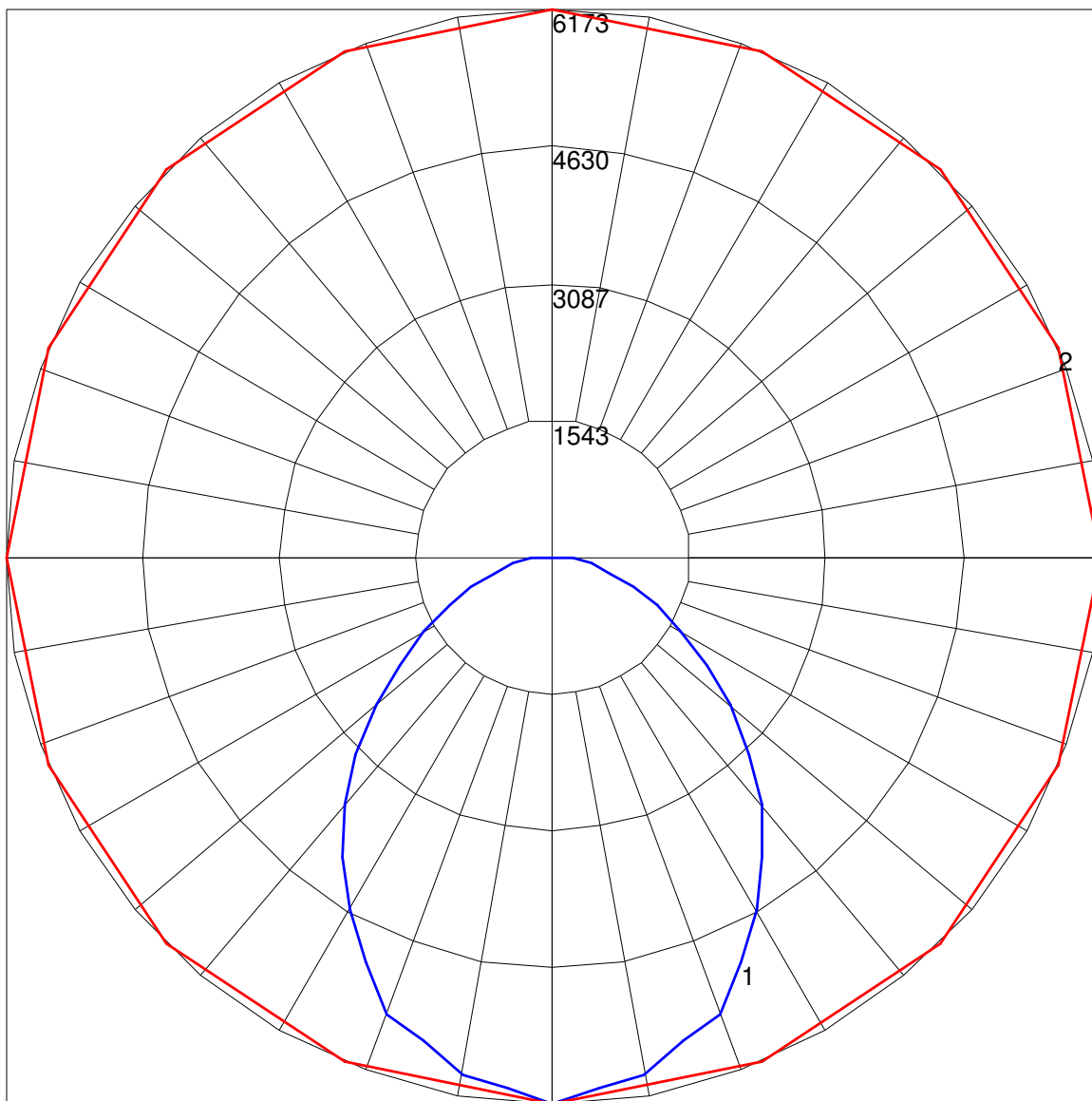
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**UGR TABLE - CORRECTED**

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					UGR Viewed Endwise				
X=2H	Y=2H	17.6	19.2	18.0	19.5	19.8	17.3	18.9	17.7	19.2	19.5
	3H	19.2	20.6	19.6	20.9	21.3	18.9	20.3	19.3	20.6	21.0
	4H	19.7	21.1	20.1	21.4	21.8	19.6	20.9	20.0	21.2	21.6
	6H	20.2	21.5	20.7	21.8	22.2	20.2	21.4	20.6	21.8	22.2
	8H	20.5	21.6	20.9	22.0	22.4	20.5	21.6	20.9	22.0	22.4
	12H	20.6	21.7	21.0	22.1	22.5	20.7	21.8	21.1	22.2	22.6
4H	2H	18.1	19.4	18.5	19.8	20.1	17.8	19.2	18.2	19.5	19.9
	3H	19.9	21.0	20.3	21.4	21.8	19.7	20.8	20.1	21.2	21.6
	4H	20.6	21.6	21.0	22.0	22.4	20.5	21.5	20.9	21.9	22.3
	6H	21.2	22.1	21.7	22.5	23.0	21.2	22.1	21.7	22.6	23.0
	8H	21.5	22.3	22.0	22.8	23.2	21.6	22.4	22.0	22.8	23.3
	12H	21.7	22.5	22.2	22.9	23.4	21.9	22.6	22.4	23.1	23.6
8H	4H	20.9	21.7	21.3	22.1	22.6	20.8	21.6	21.2	22.0	22.5
	6H	21.7	22.3	22.2	22.8	23.3	21.7	22.4	22.2	22.9	23.3
	8H	22.0	22.6	22.5	23.1	23.6	22.1	22.7	22.7	23.3	23.7
	12H	22.4	22.9	22.9	23.4	24.0	22.6	23.1	23.1	23.6	24.2
12H	4H	20.9	21.6	21.4	22.1	22.6	20.8	21.5	21.3	22.0	22.5
	6H	21.8	22.4	22.3	22.8	23.4	21.8	22.4	22.3	22.8	23.4
	8H	22.2	22.7	22.7	23.2	23.8	22.3	22.8	22.8	23.3	23.9

Maximum UGR = 24.2

POLAR GRAPH



Maximum Candela = 6173.115 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.)