



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 12-4-L84-935-FAF12125-(L71)-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] 10-12-2021

[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-L84-935-FAF12125-(L71)-DIM-UNV

[LAMPCAT] HLM 90 CRI 3500K 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	6126
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	57.6
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	3244	3171	3134
55	2711	2607	2562
65	2242	2145	2125
75	1903	1862	1980
85	1978	2005	2328

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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	2799.356	2799.356	2799.356	2799.356	2799.356
5	2733.172	2733.172	2729.536	2728.081	2729.536
10	2689.534	2685.898	2684.443	2685.898	2684.443
15	2558.621	2554.985	2552.076	2552.076	2552.076
20	2492.438	2484.437	2484.437	2482.256	2477.892
25	2283.704	2282.250	2275.704	2272.795	2275.704
30	2080.062	2077.153	2069.152	2064.061	2065.516
35	1877.147	1870.601	1858.964	1853.873	1853.873
40	1655.322	1644.412	1628.412	1613.866	1613.866
45	1422.588	1411.678	1390.587	1374.586	1374.586
50	1178.944	1168.035	1146.943	1130.943	1130.943
55	964.392	948.392	927.300	909.118	911.300
60	762.204	746.204	728.749	717.112	718.567
65	587.654	573.108	562.199	557.107	557.107
70	444.377	432.740	423.285	429.831	436.377
75	305.464	298.918	298.918	308.373	317.828
80	203.642	203.642	203.642	216.734	226.189
85	106.912	106.912	108.367	122.913	125.822
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	985.84	N.A.	16.10
0-30	2035.55	N.A.	33.20
0-40	3197.42	N.A.	52.20
0-60	5108.47	N.A.	83.40
0-80	6006.95	N.A.	98.10
0-90	6125.93	N.A.	100.00
10-90	5866.06	N.A.	95.80
20-40	2211.58	N.A.	36.10
20-50	3285.6	N.A.	53.60
40-70	2479.55	N.A.	40.50
60-80	898.47	N.A.	14.70
70-80	329.97	N.A.	5.40
80-90	118.98	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	6125.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	259.87
10-20	725.98
20-30	1049.71
30-40	1161.87
40-50	1074.02
50-60	837.03
60-70	568.50
70-80	329.97
80-90	118.98
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

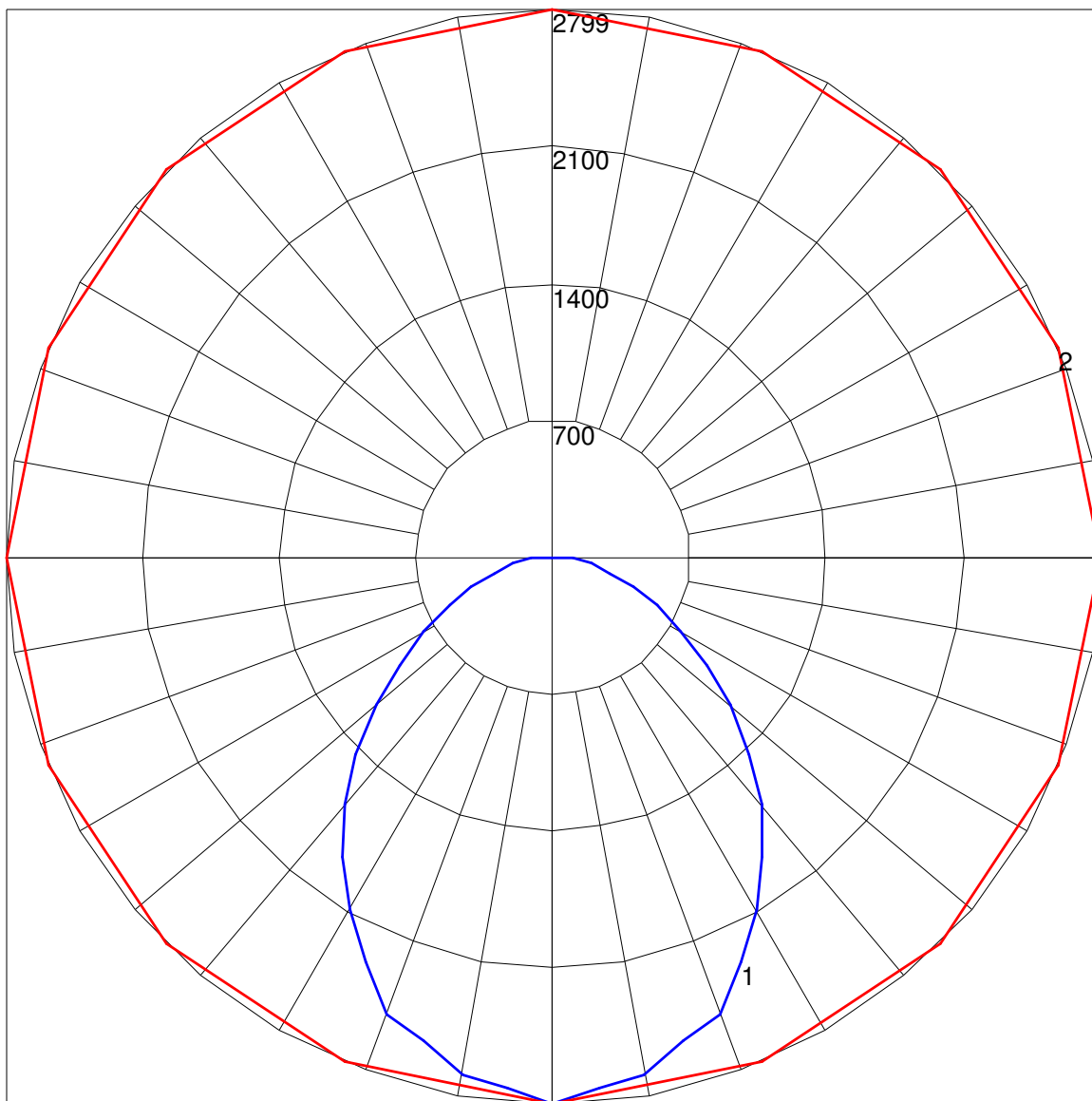
Reflectances

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	14.9	16.5	15.3	16.8	17.1	14.6	16.2	15.0	16.5	16.8
	3H	16.5	17.9	16.9	18.2	18.6	16.2	17.6	16.6	17.9	18.3
	4H	17.0	18.4	17.4	18.7	19.1	16.9	18.2	17.3	18.5	18.9
	6H	17.5	18.8	18.0	19.1	19.5	17.5	18.7	17.9	19.1	19.5
	8H	17.8	18.9	18.2	19.3	19.7	17.8	18.9	18.2	19.3	19.7
	12H	17.9	19.0	18.3	19.4	19.8	18.0	19.1	18.4	19.5	19.9
4H	2H	15.4	16.7	15.8	17.1	17.4	15.1	16.5	15.5	16.8	17.2
	3H	17.2	18.3	17.6	18.7	19.1	17.0	18.1	17.4	18.5	18.9
	4H	17.9	18.9	18.3	19.3	19.7	17.8	18.8	18.2	19.2	19.6
	6H	18.5	19.4	19.0	19.8	20.3	18.5	19.4	19.0	19.9	20.3
	8H	18.8	19.6	19.3	20.1	20.5	18.9	19.7	19.3	20.1	20.6
	12H	19.0	19.8	19.5	20.2	20.7	19.2	19.9	19.7	20.4	20.9
8H	4H	18.2	19.0	18.6	19.4	19.9	18.1	18.9	18.5	19.3	19.8
	6H	19.0	19.6	19.5	20.1	20.6	19.0	19.7	19.5	20.2	20.6
	8H	19.3	19.9	19.9	20.4	20.9	19.4	20.0	20.0	20.6	21.0
	12H	19.7	20.2	20.2	20.7	21.3	19.9	20.4	20.4	20.9	21.5
12H	4H	18.2	18.9	18.7	19.4	19.9	18.1	18.8	18.6	19.3	19.8
	6H	19.1	19.7	19.6	20.1	20.7	19.1	19.7	19.6	20.1	20.7
	8H	19.5	20.0	20.0	20.5	21.1	19.6	20.1	20.1	20.6	21.2

Maximum UGR = 21.5

POLAR GRAPH



Maximum Candela = 2799.356 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.)