



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 12-4-L84-935-FAF12125-(L38)-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-(L38)-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	3400
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	30
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	1800	1760	1740
55	1505	1447	1422
65	1244	1190	1180
75	1056	1034	1099
85	1098	1113	1292

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 12-4-L84-935-FAF12125-(L38)-DIM-UNV_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1553.675	1553.675	1553.675	1553.675	1553.675
5	1516.942	1516.942	1514.924	1514.116	1514.924
10	1492.722	1490.704	1489.897	1490.704	1489.897
15	1420.064	1418.046	1416.431	1416.431	1416.431
20	1383.331	1378.891	1378.891	1377.680	1375.258
25	1267.482	1266.675	1263.042	1261.427	1263.042
30	1154.458	1152.844	1148.403	1145.578	1146.385
35	1041.838	1038.205	1031.747	1028.921	1028.921
40	918.723	912.668	903.787	895.714	895.714
45	789.552	783.498	771.792	762.911	762.911
50	654.327	648.273	636.567	627.686	627.686
55	535.249	526.368	514.662	504.571	505.782
60	423.032	414.152	404.464	398.005	398.813
65	326.155	318.081	312.027	309.201	309.201
70	246.634	240.176	234.928	238.561	242.194
75	169.536	165.903	165.903	171.150	176.398
80	113.024	113.024	113.024	120.290	125.537
85	59.338	59.338	60.145	68.218	69.833
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 12-4-L84-935-FAF12125-(L38)-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	547.15	N.A.	16.10
0-30	1129.75	N.A.	33.20
0-40	1774.61	N.A.	52.20
0-60	2835.26	N.A.	83.40
0-80	3333.92	N.A.	98.10
0-90	3399.96	N.A.	100.00
10-90	3255.73	N.A.	95.80
20-40	1227.45	N.A.	36.10
20-50	1823.55	N.A.	53.60
40-70	1376.18	N.A.	40.50
60-80	498.66	N.A.	14.70
70-80	183.14	N.A.	5.40
80-90	66.04	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	3399.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	144.23
10-20	402.93
20-30	582.60
30-40	644.85
40-50	596.09
50-60	464.56
60-70	315.53
70-80	183.14
80-90	66.04
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 12-4-L84-935-FAF12125-(L38)-DIM-UNV_.IES

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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 12-4-L84-935-FAF12125-(L38)-DIM-UNV_.IES

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	12.9	14.5	13.3	14.8	15.1	12.6	14.2	13.0	14.5	14.8
	3H	14.5	15.9	14.9	16.2	16.6	14.2	15.6	14.6	15.9	16.3
	4H	15.0	16.4	15.4	16.7	17.1	14.9	16.2	15.3	16.5	16.9
	6H	15.5	16.8	16.0	17.1	17.5	15.5	16.7	15.9	17.1	17.5
	8H	15.8	16.9	16.2	17.3	17.7	15.8	16.9	16.2	17.3	17.7
	12H	15.9	17.0	16.3	17.4	17.8	16.0	17.1	16.4	17.5	17.9

UGR Viewed Endwise

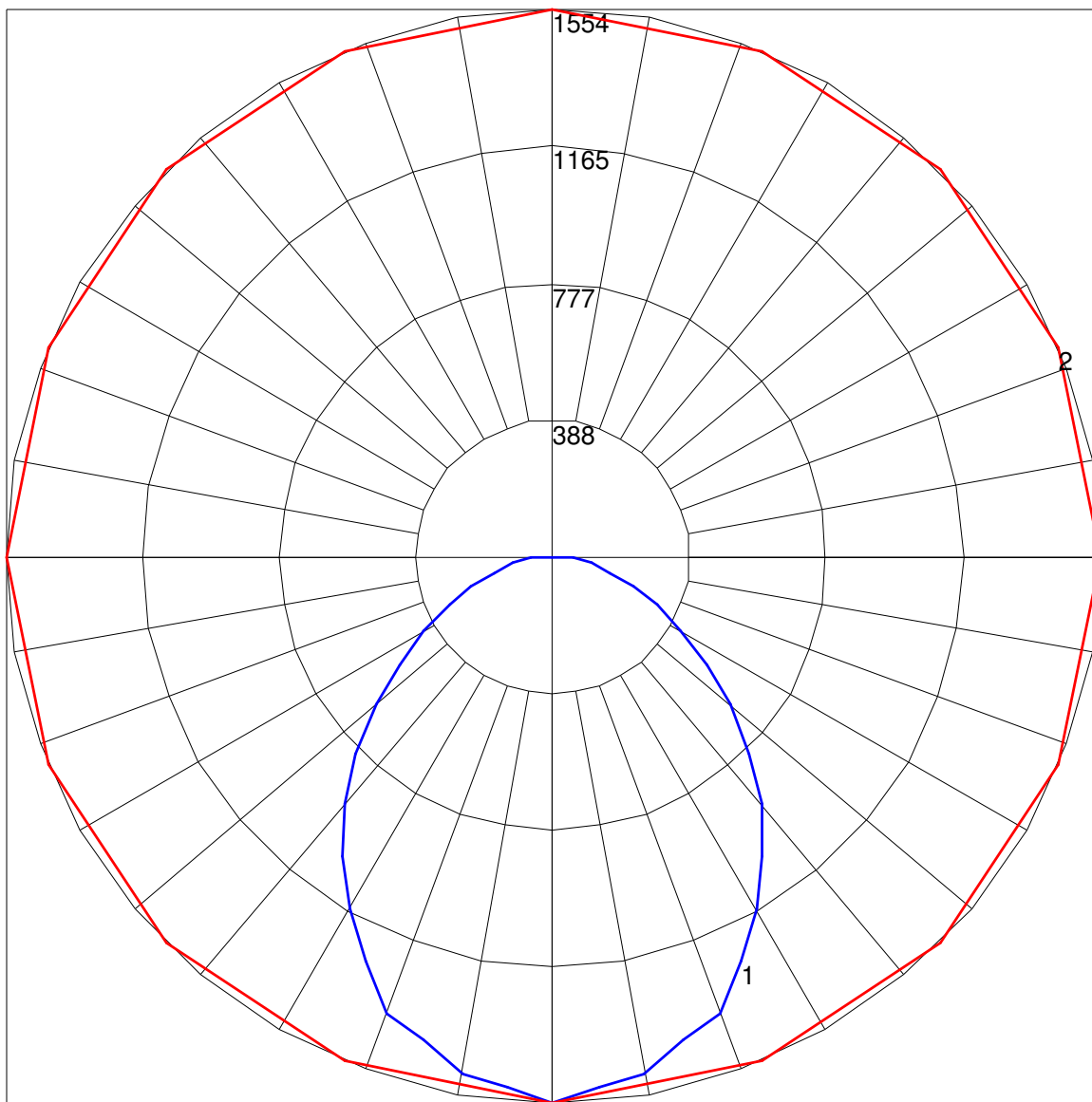
4H	2H	13.4	14.7	13.8	15.1	15.4	13.1	14.5	13.5	14.8	15.2
	3H	15.2	16.3	15.6	16.7	17.1	15.0	16.1	15.4	16.5	16.9
	4H	15.9	16.9	16.3	17.3	17.7	15.8	16.8	16.2	17.2	17.6
	6H	16.5	17.4	17.0	17.8	18.3	16.5	17.4	17.0	17.9	18.3
	8H	16.8	17.6	17.3	18.1	18.5	16.9	17.7	17.3	18.1	18.6
	12H	17.0	17.8	17.5	18.2	18.7	17.2	17.9	17.7	18.4	18.9

8H	4H	16.2	17.0	16.6	17.4	17.9	16.1	16.9	16.5	17.3	17.8
	6H	17.0	17.6	17.5	18.1	18.6	17.0	17.7	17.5	18.2	18.6
	8H	17.3	17.9	17.9	18.4	18.9	17.4	18.0	18.0	18.6	19.0
	12H	17.7	18.2	18.2	18.7	19.3	17.9	18.4	18.4	18.9	19.5

12H	4H	16.2	16.9	16.7	17.4	17.9	16.1	16.8	16.6	17.3	17.8
	6H	17.1	17.7	17.6	18.1	18.7	17.1	17.7	17.6	18.1	18.7
	8H	17.5	18.0	18.0	18.5	19.1	17.6	18.1	18.1	18.6	19.2

Maximum UGR = 19.5

POLAR GRAPH



Maximum Candela = 1553.675 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.)