



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 12-4-L130-835-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	13116
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
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	6945	6789	6711
55	5804	5581	5485
65	4800	4592	4551
75	4074	3987	4239
85	4235	4292	4984

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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	5993.528	5993.528	5993.528	5993.528	5993.528
5	5851.826	5851.826	5844.040	5840.926	5844.040
10	5758.396	5750.610	5747.496	5750.610	5747.496
15	5478.107	5470.321	5464.092	5464.092	5464.092
20	5336.405	5319.276	5319.276	5314.604	5305.261
25	4889.498	4886.384	4872.369	4866.141	4872.369
30	4453.492	4447.263	4430.135	4419.234	4422.349
35	4019.043	4005.028	3980.114	3969.214	3969.214
40	3544.108	3520.750	3486.492	3455.349	3455.349
45	3045.815	3022.457	2977.300	2943.042	2943.042
50	2524.165	2500.807	2455.649	2421.392	2421.392
55	2064.801	2030.543	1985.385	1946.456	1951.128
60	1631.909	1597.651	1560.279	1535.365	1538.479
65	1258.189	1227.046	1203.689	1192.788	1192.788
70	951.428	926.513	906.270	920.285	934.299
75	654.009	639.995	639.995	660.238	680.481
80	436.006	436.006	436.006	464.035	484.278
85	228.903	228.903	232.018	263.161	269.390
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2110.73	N.A.	16.10
0-30	4358.19	N.A.	33.20
0-40	6845.81	N.A.	52.20
0-60	10937.44	N.A.	83.40
0-80	12861.1	N.A.	98.10
0-90	13115.85	N.A.	100.00
10-90	12559.46	N.A.	95.80
20-40	4735.08	N.A.	36.10
20-50	7034.59	N.A.	53.60
40-70	5308.82	N.A.	40.50
60-80	1923.66	N.A.	14.70
70-80	706.48	N.A.	5.40
80-90	254.75	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	13115.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	556.39
10-20	1554.34
20-30	2247.46
30-40	2487.61
40-50	2299.52
50-60	1792.11
60-70	1217.19
70-80	706.48
80-90	254.75
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	183	183	183	183	179	179	179	179	171	171	171	164	164	164	157	157	157	154
1	169	162	156	150	164	158	153	148	152	147	143	146	142	138	140	137	134	131
2	155	143	133	125	151	140	131	123	134	127	120	129	123	117	125	120	115	112
3	142	127	115	105	138	124	113	104	120	110	103	116	108	101	112	105	99	96
4	131	113	100	91	127	111	99	90	107	97	89	104	95	88	101	93	87	83
5	121	102	89	79	118	100	88	79	97	86	78	94	85	77	91	83	76	73
6	112	93	79	70	109	91	79	70	88	77	69	86	76	69	83	75	68	65
7	104	84	72	62	102	83	71	62	81	70	62	79	69	61	77	68	61	58
8	97	77	65	56	95	76	64	56	74	63	56	72	63	55	71	62	55	52
9	91	71	59	51	89	70	59	51	69	58	51	67	57	50	66	57	50	47
10	86	66	54	47	84	65	54	46	64	53	46	62	53	46	61	52	46	43

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UGR TABLE - CORRECTED

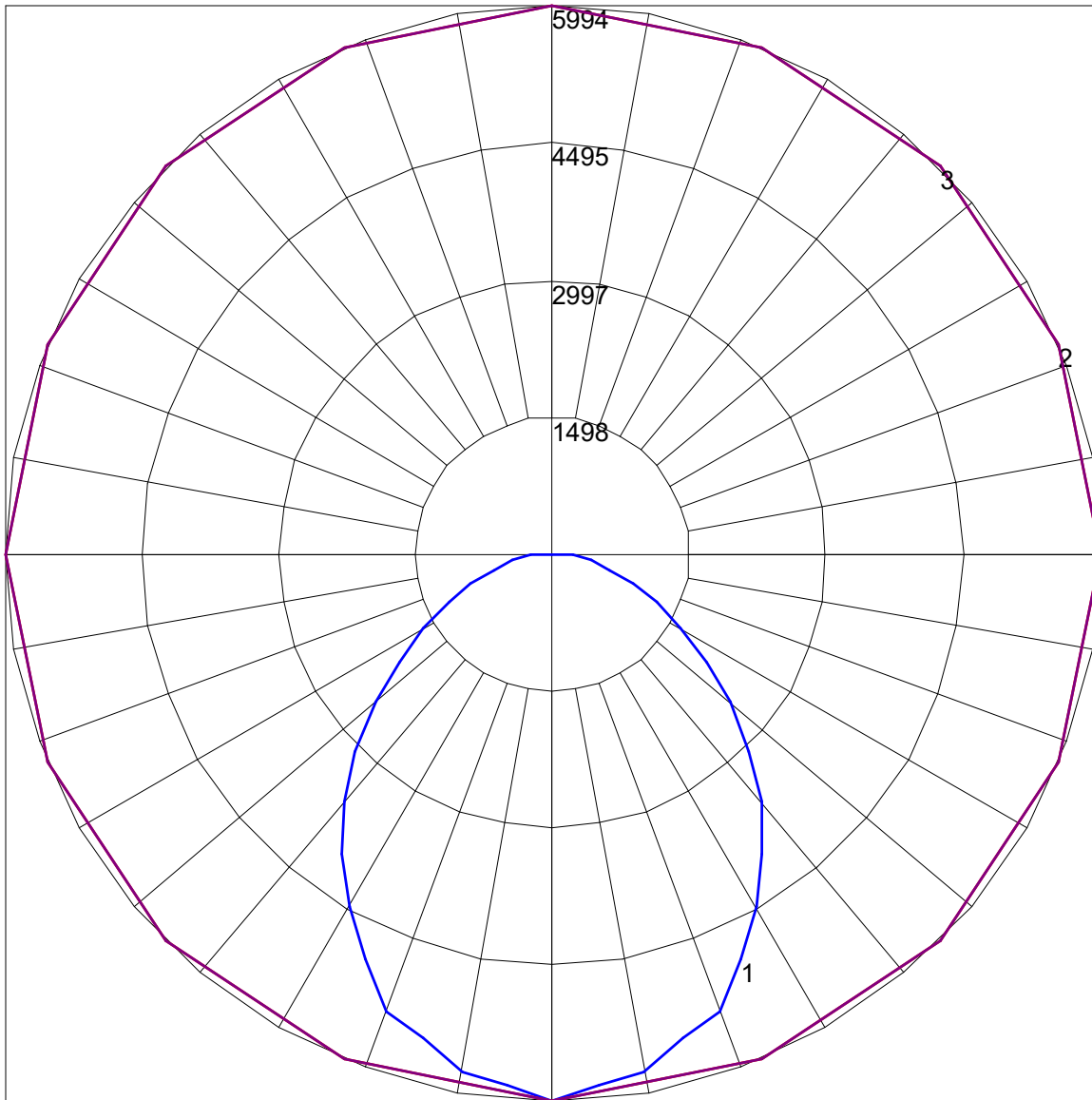
Reflectances

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	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
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 = 5993.528 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)