



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AVX-4-L82-835-CPC-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20624.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 15-JUL-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 4' SURFACE MNT LUMINAIRE

[MORE] WHITE FROST INTERIOR LENS w/CLEAR POLYCARB LENS

[LUMCAT] AVX-4-L82/835-CPC-DIM-UNV

[LAMPCAT] HLM 80 CRI, 3500K CCT

[_SEARCH_SOURCE] LED

[_SEARCH_APPLICATION] INDOOR, ARCHITECTURAL, COMMERCIAL, DIRECT, LINEAR

[_SEARCH_MOUNTING] SURFACE, SUSPENDED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8302
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	71
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.64
Spacing Criterion (Diagonal)	1.50
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.90 ft
Luminous Width (90-270)	0.58 ft
Luminous Height	0.06 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8547	12259	15128
55	7527	11686	14615
65	6177	10765	13270
75	3315	8923	11331
85	769	6732	9482

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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	2515.351	2515.351	2515.351	2515.351	2515.351
5	2522.063	2509.478	2516.190	2534.648	2539.682
10	2454.942	2470.044	2525.419	2579.954	2604.286
15	2350.066	2404.601	2527.097	2616.871	2657.982
20	2205.756	2298.047	2496.893	2652.109	2705.806
25	2051.378	2173.035	2462.493	2674.763	2762.020
30	1872.669	2019.496	2391.177	2688.187	2803.970
35	1679.697	1860.923	2288.818	2654.626	2759.503
40	1485.886	1649.493	2160.450	2559.818	2664.694
45	1297.109	1437.223	1991.809	2419.704	2503.605
50	1105.815	1224.115	1800.515	2225.053	2289.657
55	932.979	1016.880	1593.279	1982.580	2043.827
60	759.304	825.585	1370.942	1743.462	1766.115
65	570.527	637.647	1141.892	1420.443	1459.038
70	377.554	464.811	889.350	1130.146	1172.096
75	192.133	291.136	647.715	843.205	869.214
80	72.155	153.539	426.217	571.366	608.282
85	16.780	52.858	248.347	359.096	390.139
90	0.000	12.585	114.105	192.133	214.786
95	0.000	0.000	33.560	83.062	98.164
100	0.000	0.000	4.195	20.975	27.687
105	0.000	0.000	0.000	4.195	5.873
110	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	950.94	N.A.	11.50
0-30	2071.37	N.A.	24.90
0-40	3479.65	N.A.	41.90
0-60	6331.94	N.A.	76.30
0-80	7995.97	N.A.	96.30
0-90	8244.26	N.A.	99.30
10-90	8003.41	N.A.	96.40
20-40	2528.71	N.A.	30.50
20-50	4020.74	N.A.	48.40
40-70	3897.76	N.A.	46.90
60-80	1664.03	N.A.	20.00
70-80	618.56	N.A.	7.50
80-90	248.29	N.A.	3.00
90-110	57.98	N.A.	0.70
90-120	57.98	N.A.	0.70
90-130	57.98	N.A.	0.70
90-150	57.98	N.A.	0.70
90-180	57.98	N.A.	0.70
110-180	0.00	N.A.	0.00
0-180	8302.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	240.85
10-20	710.09
20-30	1120.43
30-40	1408.28
40-50	1492.03
50-60	1360.27
60-70	1045.46
70-80	618.56
80-90	248.29
90-100	54.42
100-110	3.55
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	100	100	100	100	97	97	97	97	93	93	93	89	89	89	85	85	85	83
1	91	86	82	79	88	84	81	78	81	78	75	77	75	73	74	72	70	69
2	82	75	69	64	80	73	68	63	70	65	61	67	63	60	65	61	58	57
3	75	65	58	53	72	64	57	52	61	56	51	59	54	50	57	53	49	47
4	68	58	50	44	66	57	49	44	54	48	43	52	47	43	50	46	42	40
5	63	51	44	38	61	50	43	38	49	42	37	47	41	37	45	40	36	34
6	58	46	38	33	56	45	38	33	44	37	32	42	36	32	41	36	32	30
7	53	42	34	29	52	41	34	29	40	33	29	38	33	28	37	32	28	26
8	50	38	31	26	48	37	30	26	36	30	25	35	29	25	34	29	25	23
9	46	35	28	23	45	34	28	23	33	27	23	32	27	23	31	26	22	21
10	43	32	25	21	42	32	25	21	31	25	21	30	24	21	29	24	20	19

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UGR TABLE - CORRECTED

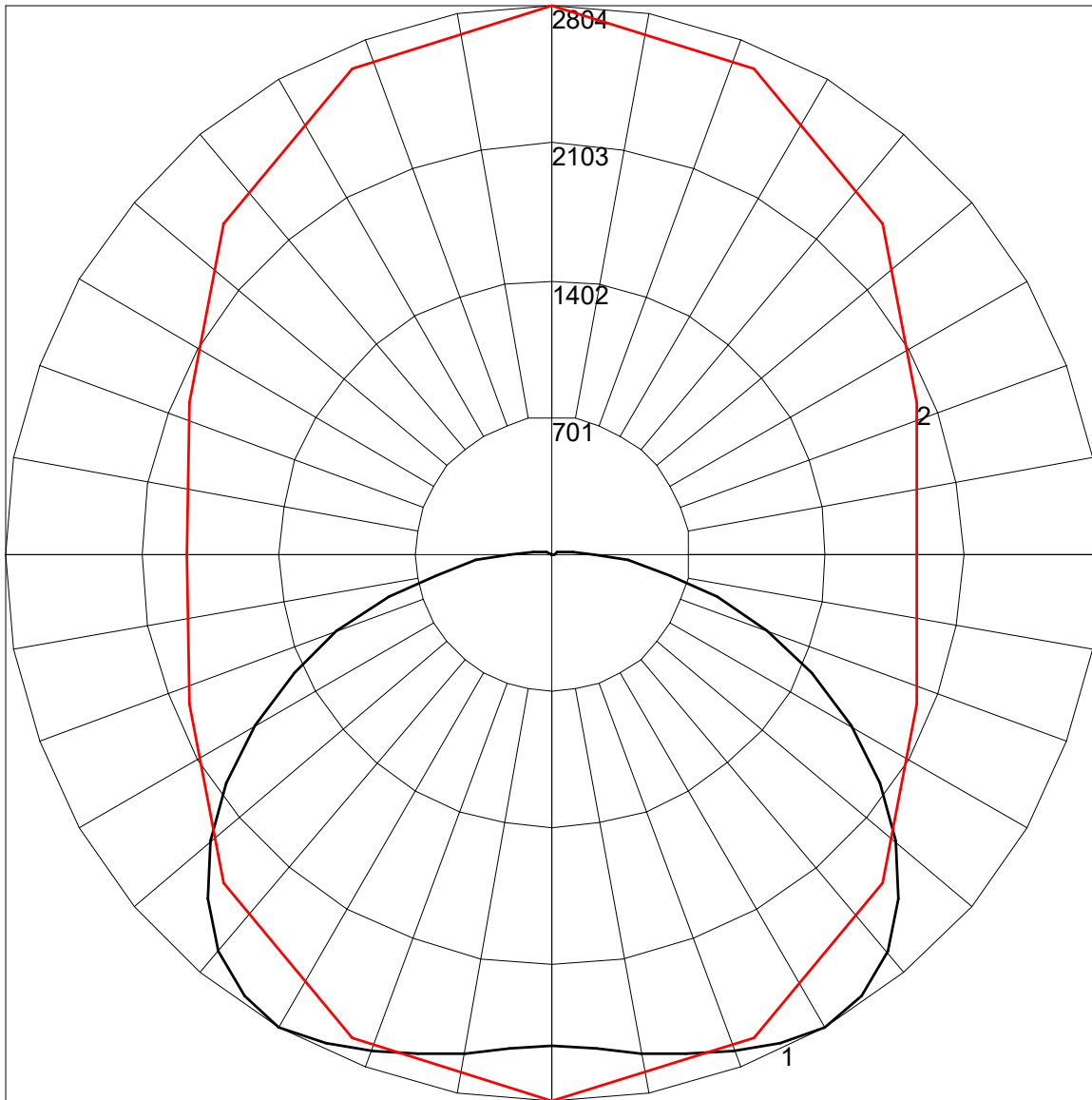
Reflectances

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	18.0	19.6	18.3	19.9	20.3	23.3	24.9	23.7	25.3	25.6
	3H	19.2	20.7	19.6	21.1	21.4	25.3	26.8	25.7	27.1	27.5
	4H	19.5	20.9	19.9	21.3	21.7	26.1	27.5	26.5	27.8	28.2
	6H	19.6	20.9	20.0	21.3	21.7	26.8	28.1	27.2	28.5	28.9
	8H	19.6	20.8	20.0	21.2	21.7	27.1	28.3	27.5	28.7	29.1
	12H	19.6	20.8	20.0	21.2	21.6	27.4	28.6	27.8	29.0	29.4
4H	2H	19.7	21.2	20.2	21.5	21.9	23.6	25.0	24.0	25.4	25.8
	3H	21.1	22.3	21.5	22.7	23.1	25.9	27.0	26.3	27.5	27.9
	4H	21.4	22.5	21.8	22.9	23.4	26.8	27.9	27.3	28.4	28.8
	6H	21.5	22.5	22.0	22.9	23.4	27.7	28.7	28.2	29.1	29.6
	8H	21.5	22.4	22.0	22.9	23.4	28.1	29.0	28.6	29.4	29.9
	12H	21.5	22.3	22.0	22.8	23.3	28.5	29.3	29.0	29.8	30.3
8H	4H	22.4	23.3	22.9	23.7	24.2	27.0	27.9	27.5	28.3	28.8
	6H	22.6	23.4	23.2	23.9	24.4	28.0	28.7	28.5	29.2	29.7
	8H	22.7	23.3	23.2	23.9	24.4	28.5	29.2	29.0	29.7	30.2
	12H	22.7	23.3	23.2	23.8	24.4	29.0	29.6	29.5	30.1	30.7
12H	4H	22.6	23.4	23.1	23.9	24.4	27.0	27.8	27.5	28.3	28.8
	6H	23.0	23.6	23.5	24.1	24.7	28.0	28.7	28.5	29.2	29.7
	8H	23.1	23.7	23.6	24.2	24.8	28.6	29.2	29.1	29.7	30.2

Maximum UGR = 30.7

POLAR GRAPH



Maximum Candela = 2803.97 Located At Horizontal Angle = 90, Vertical Angle = 30
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (30) (Through Max. Cd.)