IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTVG-22-L85-840-CS-SAF125-PC250-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19834.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2026-05-06
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 3-42 LED 22" ARRAYS 2x2' RECESSED WHITE REFL LUMINAIRE
[MORE] FROSTED ACRYLIC LENS w/CLEAR ACRYLIC LENS IN DOOR
[LUMCAT] MCTVG-22-L85-840-CS-SAF125-PC250-DIM-UNV_
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Healthcare, Institutional, Office, Direct, Clean Room
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8824
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	77.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8817	8844	8852
55	7719	7513	7657
65	5983	5833	6022
75	3828	3966	3669
85	757	1435	1167

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3756.138	3756.138	3756.138	3756.138	3756.138
5	3771.212	3747.188	3727.876	3718.926	3719.868
10	3706.207	3685.952	3669.466	3661.929	3652.037
15	3596.924	3578.082	3571.959	3558.298	3552.175
20	3441.949	3433.470	3432.528	3395.787	3401.439
25	3245.051	3240.812	3233.275	3212.078	3220.557
30	3018.006	3008.585	2988.330	2988.330	2996.338
35	2743.856	2735.848	2727.369	2718.419	2721.245
40	2445.682	2445.682	2448.980	2434.848	2434.848
45	2137.146	2142.798	2143.740	2124.427	2145.625
50	1827.196	1811.651	1816.833	1782.917	1828.609
55	1517.717	1486.628	1477.207	1479.562	1505.470
60	1184.686	1172.439	1148.887	1182.331	1191.281
65	866.729	878.976	845.060	870.497	872.381
70	591.165	588.810	582.216	576.563	567.142
75	339.626	326.436	351.873	333.502	325.494
80	135.662	134.249	161.570	165.338	152.149
85	22.610	29.205	42.865	46.163	34.858
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1360.56	N.A.	15.40
0-30	2846.23	N.A.	32.30
0-40	4552.26	N.A.	51.60
0-60	7530.57	N.A.	85.30
0-80	8763.1	N.A.	99.30
0-90	8824.25	N.A.	100.00
10-90	8469.65	N.A.	96.00
20-40	3191.7	N.A.	36.20
20-50	4837.55	N.A.	54.80
40-70	3840.55	N.A.	43.50
60-80	1232.53	N.A.	14.00
70-80	370.30	N.A.	4.20
80-90	61.15	N.A.	0.70
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	8824.25	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	354.60
10-20	1005.96
20-30	1485.67
30-40	1706.03
40-50	1645.86
50-60	1332.45
60-70	862.24
70-80	370.30
80-90	61.15
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	110	106	102	99	107	104	100	97	99	97	94	95	93	91	92	90	88	86
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	93	83	75	69	90	81	74	69	78	72	67	76	71	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	64	58	68	62	57	66	61	57	55
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48
6	73	60	52	45	71	59	51	45	57	50	45	56	49	45	54	49	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	38
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34
9	59	46	38	33	58	46	38	33	44	37	33	43	37	32	42	37	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29	28

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UGR TABLE - CORRECTED

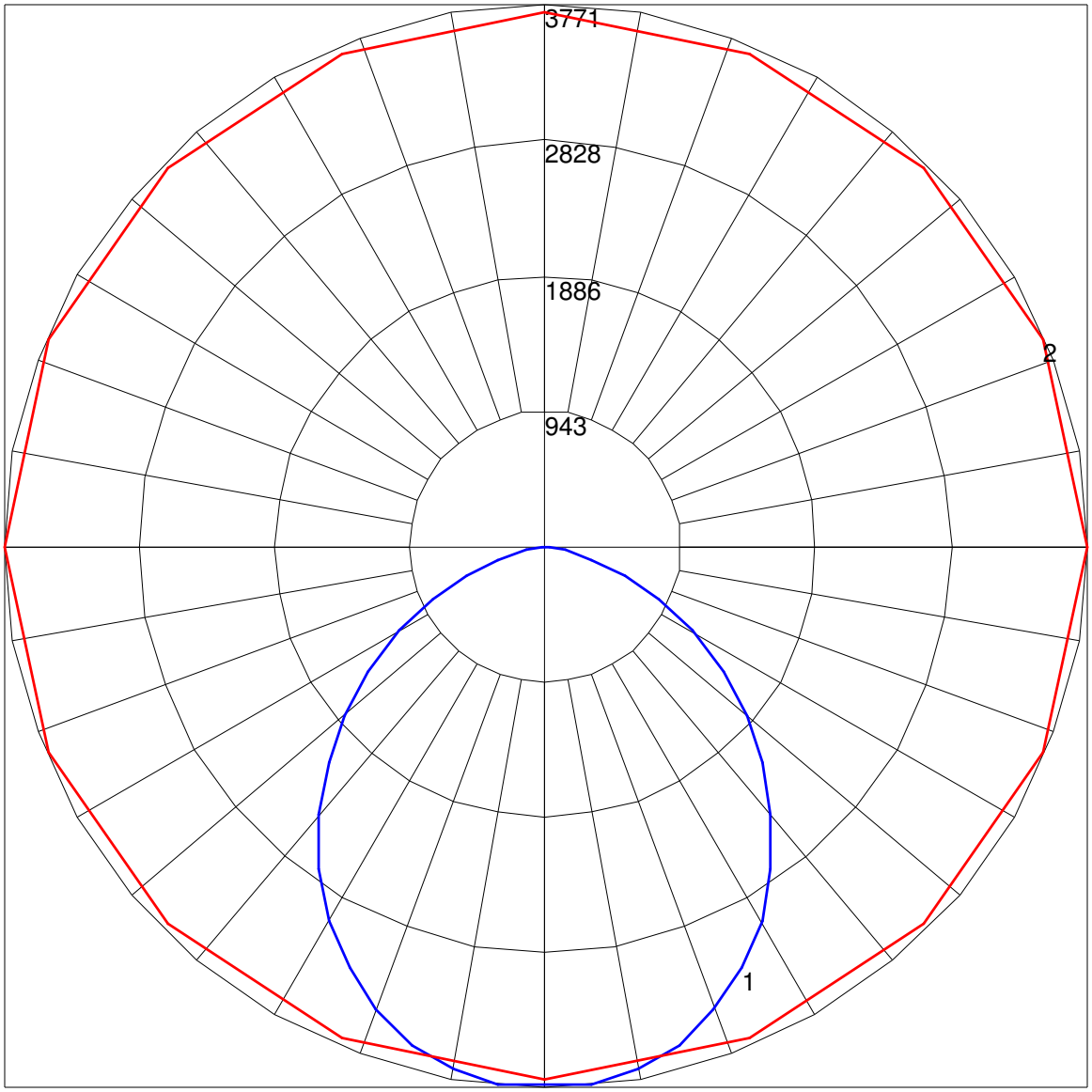
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	18.9	20.4	19.2	20.7	21.0	18.9	20.4	19.2	20.7	21.1
	3H	20.1	21.5	20.5	21.9	22.2	20.1	21.5	20.5	21.8	22.2
	4H	20.5	21.8	20.9	22.1	22.5	20.4	21.7	20.8	22.1	22.4
	6H	20.6	21.8	21.0	22.2	22.6	20.6	21.8	21.0	22.2	22.5
	8H	20.6	21.8	21.0	22.1	22.5	20.6	21.7	21.0	22.1	22.5
	12H	20.6	21.7	21.0	22.1	22.5	20.6	21.7	21.0	22.1	22.5
4H	2H	19.3	20.6	19.7	21.0	21.3	19.3	20.6	19.7	21.0	21.3
	3H	20.8	21.8	21.2	22.2	22.6	20.7	21.8	21.1	22.2	22.6
	4H	21.2	22.1	21.6	22.6	23.0	21.1	22.1	21.6	22.5	23.0
	6H	21.4	22.2	21.8	22.6	23.1	21.4	22.2	21.8	22.7	23.1
	8H	21.4	22.2	21.8	22.6	23.1	21.4	22.2	21.9	22.6	23.1
	12H	21.4	22.1	21.8	22.5	23.0	21.4	22.1	21.9	22.6	23.1
8H	4H	21.3	22.1	21.8	22.5	23.0	21.3	22.1	21.7	22.5	23.0
	6H	21.6	22.2	22.0	22.7	23.2	21.6	22.2	22.1	22.7	23.2
	8H	21.6	22.2	22.1	22.7	23.2	21.6	22.2	22.2	22.7	23.2
	12H	21.6	22.1	22.1	22.6	23.1	21.7	22.2	22.2	22.7	23.2
12H	4H	21.3	22.0	21.8	22.5	23.0	21.3	22.0	21.7	22.4	22.9
	6H	21.6	22.1	22.1	22.6	23.1	21.6	22.2	22.1	22.6	23.2
	8H	21.6	22.1	22.1	22.6	23.2	21.7	22.2	22.2	22.7	23.2

Maximum UGR = 23.2

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POLAR GRAPH



Maximum Candela = 3771.212 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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