IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTVG-22-L85-830-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-L85-830-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	8482
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
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	8474	8501	8508
55	7419	7221	7359
65	5750	5607	5788
75	3679	3812	3526
85	727	1379	1121

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3610.269	3610.269	3610.269	3610.269	3610.269
5	3624.757	3601.667	3583.104	3574.501	3575.407
10	3562.277	3542.809	3526.962	3519.718	3510.210
15	3457.238	3439.128	3433.242	3420.112	3414.226
20	3308.281	3300.132	3299.226	3263.911	3269.345
25	3119.030	3114.955	3107.711	3087.337	3095.487
30	2900.802	2891.747	2872.278	2872.278	2879.975
35	2637.298	2629.602	2621.452	2612.850	2615.566
40	2350.704	2350.704	2353.874	2340.291	2340.291
45	2054.150	2059.583	2060.488	2041.925	2062.299
50	1756.237	1741.296	1746.276	1713.678	1757.595
55	1458.777	1428.895	1419.840	1422.104	1447.005
60	1138.679	1126.907	1104.270	1136.415	1145.018
65	833.069	844.841	812.243	836.691	838.502
70	568.208	565.944	559.605	554.172	545.117
75	326.436	313.759	338.208	320.551	312.854
80	130.393	129.035	155.295	158.917	146.240
85	21.732	28.071	41.201	44.370	33.504
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1307.72	N.A.	15.40
0-30	2735.69	N.A.	32.30
0-40	4375.47	N.A.	51.60
0-60	7238.12	N.A.	85.30
0-80	8422.79	N.A.	99.30
0-90	8481.56	N.A.	100.00
10-90	8140.73	N.A.	96.00
20-40	3067.75	N.A.	36.20
20-50	4649.69	N.A.	54.80
40-70	3691.4	N.A.	43.50
60-80	1184.67	N.A.	14.00
70-80	355.92	N.A.	4.20
80-90	58.77	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	8481.56	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	340.83
10-20	966.90
20-30	1427.97
30-40	1639.78
40-50	1581.94
50-60	1280.71
60-70	828.75
70-80	355.92
80-90	58.77
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	96	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	63	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

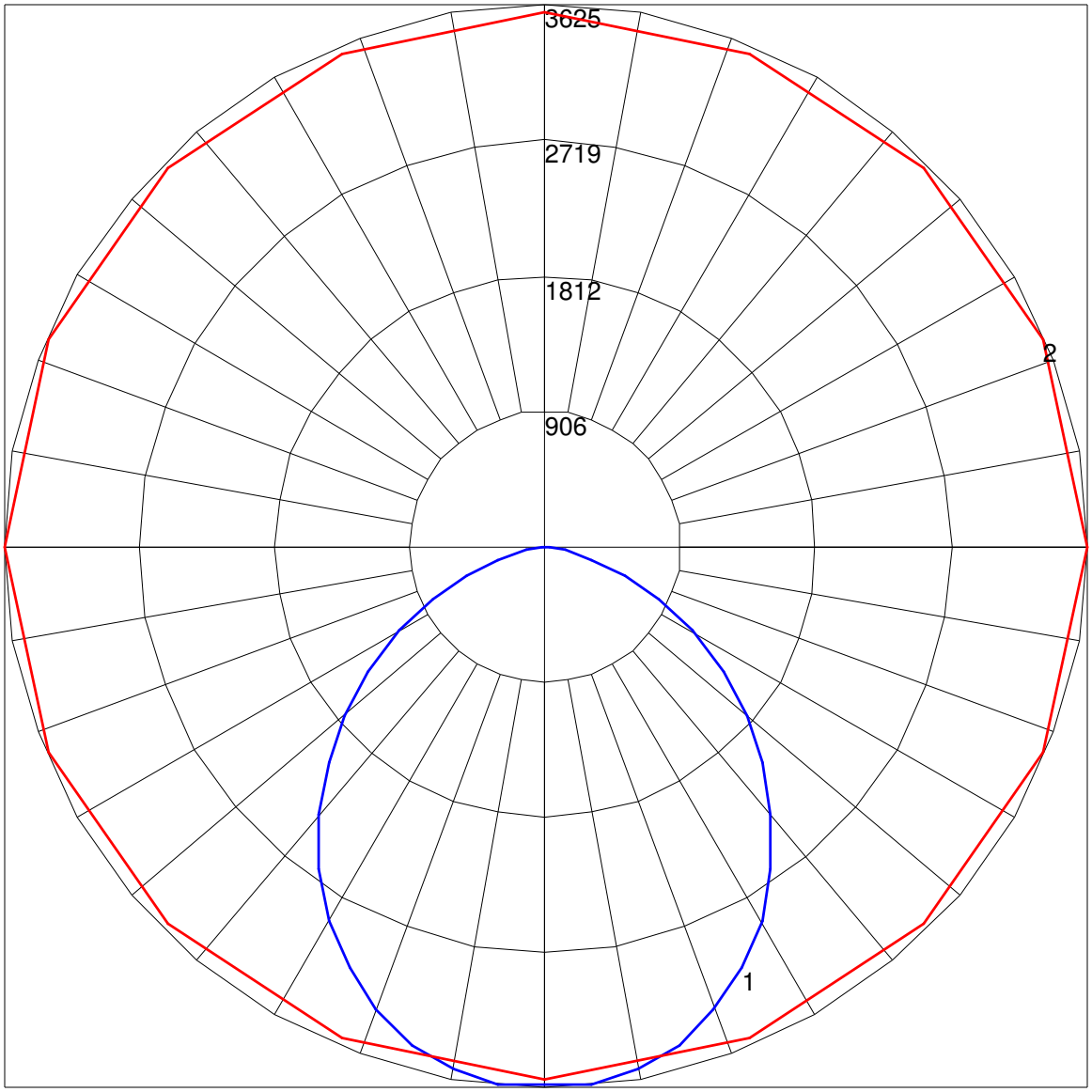
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	18.7	20.2	19.0	20.5	20.8	18.7	20.2	19.0	20.5	20.9
	3H	19.9	21.3	20.3	21.7	22.0	19.9	21.3	20.3	21.6	22.0
	4H	20.3	21.6	20.7	21.9	22.3	20.2	21.5	20.6	21.9	22.2
	6H	20.4	21.6	20.8	22.0	22.4	20.4	21.6	20.8	21.9	22.3
	8H	20.4	21.6	20.8	21.9	22.3	20.4	21.5	20.8	21.9	22.3
	12H	20.4	21.5	20.8	21.9	22.3	20.4	21.5	20.8	21.9	22.3
4H	2H	19.1	20.4	19.5	20.8	21.1	19.1	20.4	19.5	20.8	21.1
	3H	20.6	21.6	21.0	22.0	22.4	20.5	21.6	20.9	22.0	22.4
	4H	21.0	21.9	21.4	22.4	22.8	20.9	21.9	21.4	22.3	22.8
	6H	21.2	22.0	21.6	22.4	22.9	21.2	22.0	21.6	22.4	22.9
	8H	21.2	22.0	21.6	22.4	22.9	21.2	22.0	21.7	22.4	22.9
	12H	21.2	21.9	21.6	22.3	22.8	21.2	21.9	21.7	22.4	22.9
8H	4H	21.1	21.9	21.6	22.3	22.8	21.1	21.9	21.5	22.3	22.8
	6H	21.4	22.0	21.8	22.5	23.0	21.4	22.0	21.9	22.5	23.0
	8H	21.4	22.0	21.9	22.5	23.0	21.4	22.0	22.0	22.5	23.0
	12H	21.4	21.9	21.9	22.4	22.9	21.5	22.0	22.0	22.5	23.0
12H	4H	21.1	21.8	21.6	22.3	22.7	21.1	21.8	21.5	22.2	22.7
	6H	21.4	21.9	21.9	22.4	22.9	21.4	22.0	21.9	22.4	23.0
	8H	21.4	21.9	21.9	22.4	23.0	21.5	22.0	22.0	22.5	23.0

Maximum UGR = 23.0

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POLAR GRAPH



Maximum Candela = 3624.757 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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