IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTVG-22-L85-850-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-L85-850-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	9081
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
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	9074	9102	9110
55	7944	7732	7880
65	6157	6003	6197
75	3939	4081	3776
85	779	1477	1201

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTVG-22-L85-850-CS-SAF125-PC250-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3865.541	3865.541	3865.541	3865.541	3865.541
5	3881.053	3856.330	3836.455	3827.244	3828.214
10	3814.155	3793.310	3776.343	3768.587	3758.407
15	3701.689	3682.298	3675.996	3661.938	3655.636
20	3542.200	3533.475	3532.505	3494.693	3500.510
25	3339.567	3335.204	3327.448	3305.634	3314.359
30	3105.909	3096.214	3075.369	3075.369	3083.610
35	2823.774	2815.533	2806.807	2797.597	2800.505
40	2516.916	2516.916	2520.309	2505.766	2505.766
45	2199.393	2205.210	2206.180	2186.304	2208.119
50	1880.415	1864.418	1869.751	1834.847	1881.870
55	1561.923	1529.928	1520.233	1522.657	1549.319
60	1219.192	1206.588	1182.349	1216.768	1225.979
65	891.973	904.577	869.674	895.851	897.791
70	608.384	605.960	599.173	593.356	583.661
75	349.518	335.944	362.122	343.216	334.975
80	139.613	138.159	166.275	170.154	156.580
85	23.269	30.056	44.114	47.507	35.873
90	0.000	0.000	0.000	0.000	0.000

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTVG-22-L85-850-CS-SAF125-PC250-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1400.19	N.A.	15.40
0-30	2929.13	N.A.	32.30
0-40	4684.85	N.A.	51.60
0-60	7749.9	N.A.	85.30
0-80	9018.34	N.A.	99.30
0-90	9081.26	N.A.	100.00
10-90	8716.34	N.A.	96.00
20-40	3284.66	N.A.	36.20
20-50	4978.45	N.A.	54.80
40-70	3952.41	N.A.	43.50
60-80	1268.43	N.A.	14.00
70-80	381.08	N.A.	4.20
80-90	62.93	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	9081.26	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	364.92
10-20	1035.26
20-30	1528.94
30-40	1755.72
40-50	1693.79
50-60	1371.26
60-70	887.35
70-80	381.08
80-90	62.93
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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTVG-22-L85-850-CS-SAF125-PC250-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	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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTVG-22-L85-850-CS-SAF125-PC250-DIM-UNV_.IES

UGR TABLE - CORRECTED

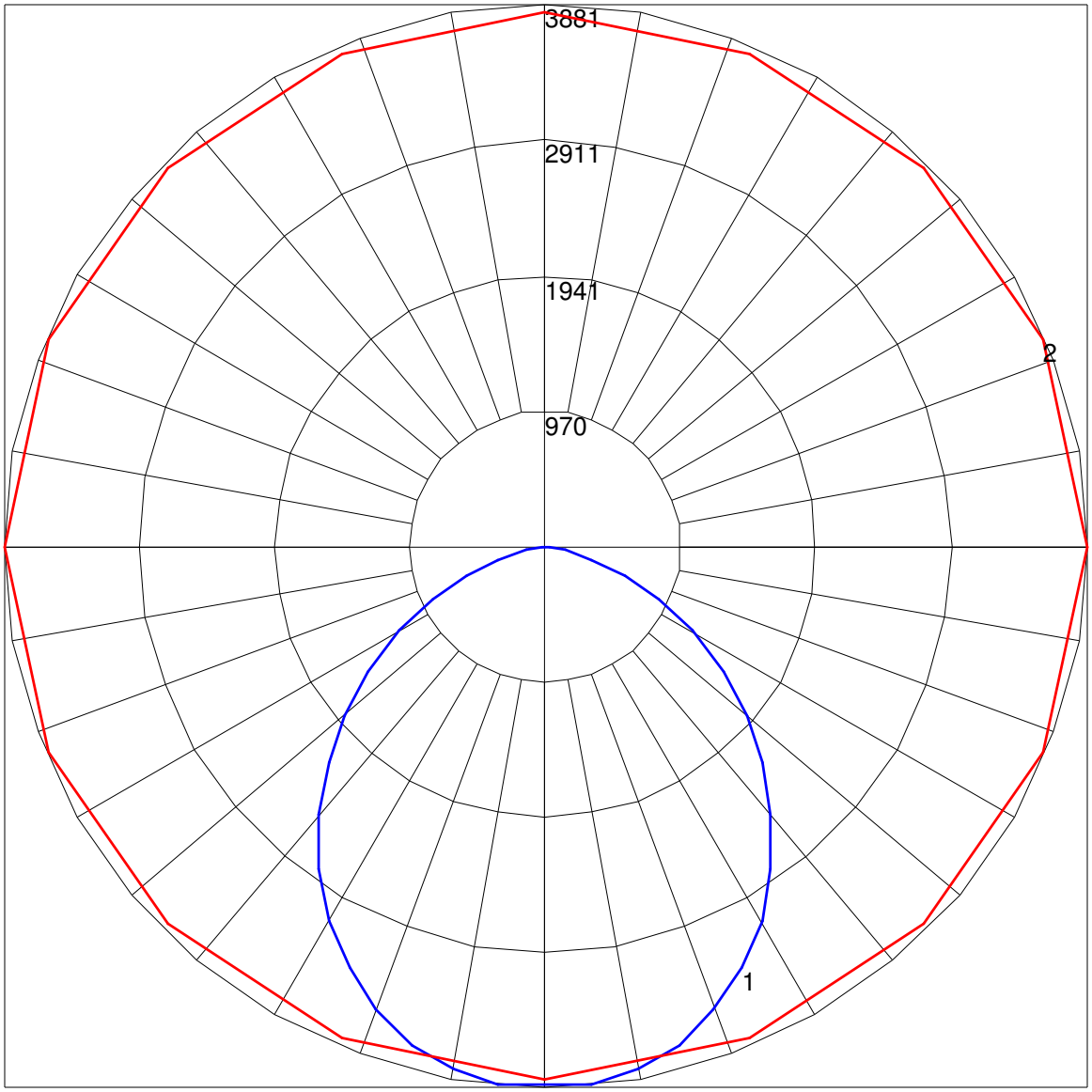
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	19.0	20.5	19.3	20.8	21.1	19.0	20.5	19.3	20.8	21.2
	3H	20.2	21.6	20.6	22.0	22.3	20.2	21.6	20.6	21.9	22.3
	4H	20.6	21.9	21.0	22.2	22.6	20.5	21.8	20.9	22.2	22.5
	6H	20.7	21.9	21.1	22.3	22.7	20.7	21.9	21.1	22.3	22.6
	8H	20.7	21.9	21.1	22.2	22.6	20.7	21.8	21.1	22.2	22.6
	12H	20.7	21.8	21.1	22.2	22.6	20.7	21.8	21.1	22.2	22.6
4H	2H	19.4	20.7	19.8	21.1	21.4	19.4	20.7	19.8	21.1	21.4
	3H	20.9	21.9	21.3	22.3	22.7	20.8	21.9	21.2	22.3	22.7
	4H	21.3	22.2	21.7	22.7	23.1	21.2	22.2	21.7	22.6	23.1
	6H	21.5	22.3	21.9	22.7	23.2	21.5	22.3	21.9	22.8	23.2
	8H	21.5	22.3	21.9	22.7	23.2	21.5	22.3	22.0	22.7	23.2
	12H	21.5	22.2	21.9	22.6	23.1	21.5	22.2	22.0	22.7	23.2
8H	4H	21.4	22.2	21.9	22.6	23.1	21.4	22.2	21.8	22.6	23.1
	6H	21.7	22.3	22.1	22.8	23.3	21.7	22.3	22.2	22.8	23.3
	8H	21.7	22.3	22.2	22.8	23.3	21.7	22.3	22.3	22.8	23.3
	12H	21.7	22.2	22.2	22.7	23.2	21.8	22.3	22.3	22.8	23.3
12H	4H	21.4	22.1	21.9	22.6	23.1	21.4	22.1	21.8	22.5	23.0
	6H	21.7	22.2	22.2	22.7	23.2	21.7	22.3	22.2	22.7	23.3
	8H	21.7	22.2	22.2	22.7	23.3	21.8	22.3	22.3	22.8	23.3

Maximum UGR = 23.3

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MCTVG-22-L85-850-CS-SAF125-PC250-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 3881.053 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.)

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.