



IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-AD24-L110-835-RA-DIM1-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 19235.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 01/07/2025
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2x4 RECESSED LED DATA CTR LUMINAIRE
 [MORE] WHITE REFLECTOR w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
 [LUMCAT] PTDC-AD24-L110-835-RA-DIM1-UNV
 [LAMPCAT] HLM 80 CRI 3500K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11078
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	83.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 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	4751	5013	5269
55	4259	4661	5034
65	3743	4435	5039
75	2897	4448	5507
85	1749	5837	6688

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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	4238.201	4238.201	4238.201	4238.201	4238.201
5	4173.485	4167.733	4167.733	4153.351	4146.160
10	4160.542	4160.542	4167.733	4173.485	4173.485
15	4051.243	4056.996	4064.186	4074.253	4081.444
20	3783.749	3798.130	3815.388	3838.398	3845.589
25	3569.466	3582.409	3616.925	3647.126	3661.507
30	3127.957	3031.601	3425.652	3312.039	3294.781
35	2884.911	2912.236	2976.952	3031.601	3053.173
40	2567.082	2601.597	2673.504	2745.411	2772.736
45	2345.608	2375.809	2475.041	2567.082	2601.597
50	2037.846	2085.304	2194.603	2290.959	2324.036
55	1705.635	1757.408	1866.707	1976.006	2016.274
60	1390.682	1445.332	1569.012	1681.187	1722.893
65	1104.492	1176.399	1308.708	1439.579	1487.038
70	813.988	898.838	1055.595	1193.657	1241.116
75	523.483	628.468	803.921	943.420	995.194
80	287.628	424.252	625.591	762.215	803.921
85	106.422	243.046	355.221	399.803	406.994
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1536.34	N.A.	13.90
0-30	3184.06	N.A.	28.70
0-40	5041.48	N.A.	45.50
0-60	8609.76	N.A.	77.70
0-80	10746.98	N.A.	97.00
0-90	11078.28	N.A.	100.00
10-90	10679.89	N.A.	96.40
20-40	3505.14	N.A.	31.60
20-50	5399.66	N.A.	48.70
40-70	4860.33	N.A.	43.90
60-80	2137.22	N.A.	19.30
70-80	845.17	N.A.	7.60
80-90	331.30	N.A.	3.00
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	11078.28	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	398.39
10-20	1137.95
20-30	1647.71
30-40	1857.42
40-50	1894.52
50-60	1673.76
60-70	1292.05
70-80	845.17
80-90	331.30
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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UGR TABLE - CORRECTED

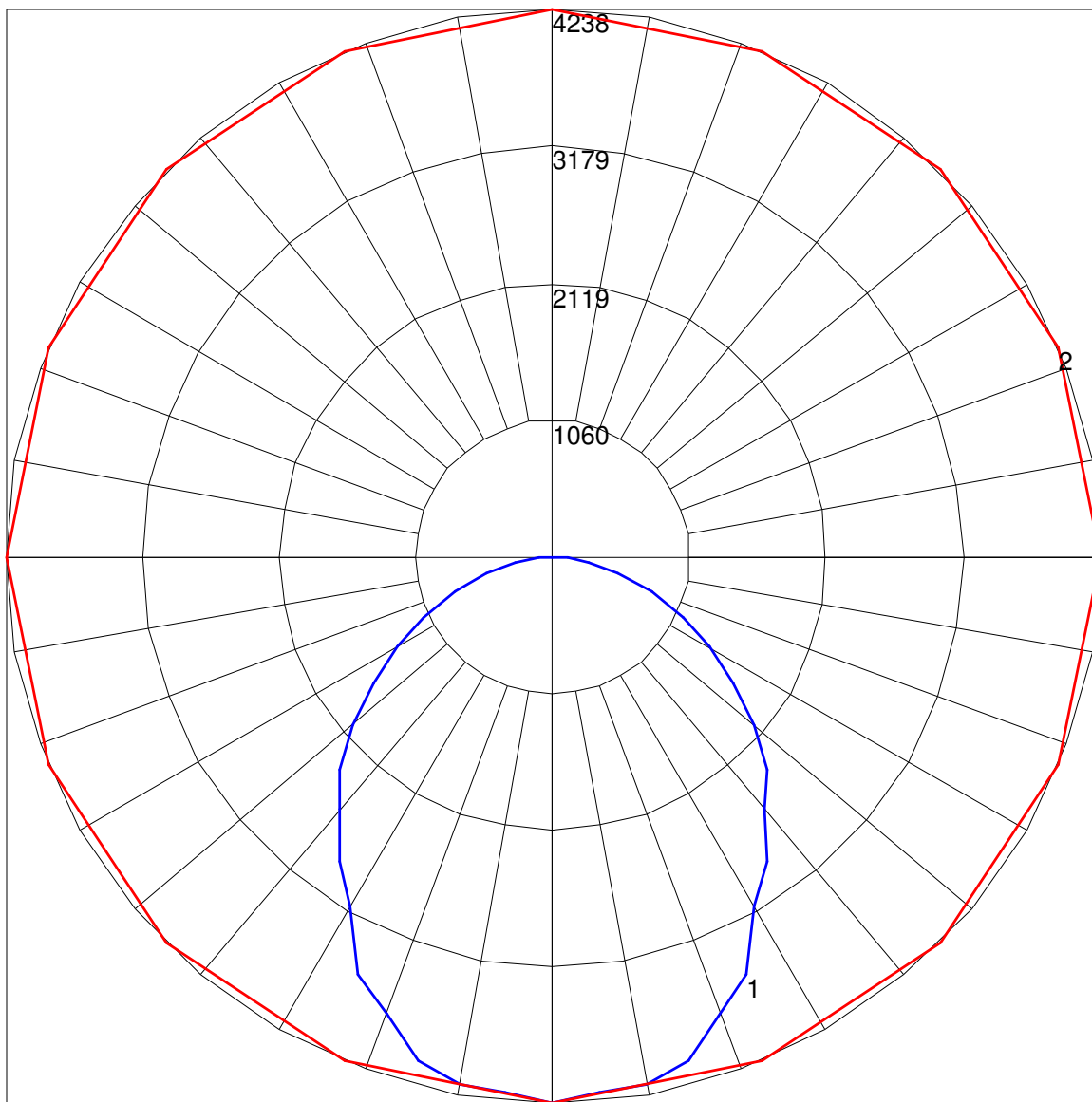
Reflectances

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	16.8	18.4	17.1	18.7	19.0	17.8	19.4	18.1	19.7	20.0
	3H	18.4	19.9	18.8	20.2	20.6	19.9	21.4	20.3	21.8	22.1
	4H	19.0	20.4	19.4	20.7	21.1	20.9	22.3	21.3	22.7	23.1
	6H	19.3	20.7	19.8	21.0	21.4	22.0	23.3	22.4	23.6	24.0
	8H	19.5	20.7	19.9	21.1	21.5	22.4	23.6	22.8	24.0	24.4
	12H	19.5	20.7	20.0	21.1	21.5	22.7	23.9	23.2	24.3	24.7
4H	2H	17.5	18.9	17.9	19.3	19.7	18.3	19.7	18.7	20.1	20.4
	3H	19.4	20.6	19.9	21.0	21.4	20.8	22.0	21.2	22.4	22.8
	4H	20.1	21.2	20.6	21.6	22.1	21.9	23.0	22.4	23.4	23.9
	6H	20.7	21.6	21.1	22.1	22.5	23.2	24.1	23.6	24.6	25.0
	8H	20.8	21.7	21.3	22.2	22.6	23.7	24.6	24.2	25.0	25.5
	12H	21.0	21.8	21.5	22.2	22.7	24.1	24.9	24.6	25.4	25.9
8H	4H	20.7	21.6	21.2	22.1	22.5	22.3	23.2	22.7	23.6	24.1
	6H	21.5	22.2	22.0	22.7	23.2	23.7	24.5	24.2	25.0	25.4
	8H	21.8	22.4	22.3	22.9	23.4	24.4	25.1	24.9	25.6	26.0
	12H	22.0	22.6	22.5	23.1	23.6	25.0	25.5	25.5	26.0	26.6
12H	4H	20.9	21.7	21.4	22.2	22.6	22.3	23.1	22.8	23.6	24.1
	6H	21.7	22.4	22.3	22.9	23.4	23.8	24.5	24.4	25.0	25.5
	8H	22.1	22.7	22.6	23.2	23.8	24.6	25.1	25.1	25.6	26.2

Maximum UGR = 26.6

POLAR GRAPH



Maximum Candela = 4238.201 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.)