

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L30-835-DIM-UNV-LW-WH-MWT_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN FROM BALLABS TEST NO. 20481.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 2/13/2025

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] GEN7 V18 LED 4" TALL HEATSINK 4" RND ADJ DOWNLIGHT

[MORE] ACRYLIC WIDE TIR OPTIC & 4" ASYM FLUSH TRIM w/SOLITE LENS

[LUMCAT] 4AR-L30-835-DIM-UNV-LW-WH-MWT_

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Industrial, Direct, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2672
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	36.34
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.70
Spacing Criterion (90-270)	0.70
Spacing Criterion (Diagonal)	0.64
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.33 ft (Diameter)
Luminous Width (90-270)	0.33 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	20416	17404	20249
55	15266	14854	16710
65	14559	13440	13440
75	12344	10515	10058
85	5430	2716	1357

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0	5076.190	5076.190	5076.190	5076.190	5076.190	5076.190	5076.190	5076.190	5076.190
5	5025.400	4986.109	4969.817	4984.192	5022.525	5034.983	5056.066	5064.690	5077.149
10	4738.864	4646.865	4660.282	4699.573	4738.864	4778.155	4817.445	4808.821	4813.612
15	4022.045	3826.549	3933.880	4090.085	3990.420	4013.420	4039.294	4198.374	4065.169
20	2800.194	2754.195	2690.946	2768.570	2777.194	2666.030	2646.864	2592.240	2661.238
25	1337.807	1448.971	1525.636	1400.097	1367.514	1353.140	1310.974	1323.432	1315.765
30	689.986	660.278	630.571	615.238	588.405	557.739	575.947	606.613	611.404
35	333.493	288.453	280.786	255.870	262.578	280.786	308.577	324.869	340.202
40	177.288	169.622	150.455	142.789	152.372	170.580	189.746	206.996	214.662
45	116.914	109.248	99.665	104.456	115.956	129.372	137.997	149.497	151.414
50	87.207	82.415	78.582	87.207	93.915	99.665	106.373	109.248	110.206
55	70.915	68.999	68.999	71.874	77.623	79.540	80.498	77.623	79.540
60	58.457	56.541	57.499	60.374	59.415	61.332	61.332	58.457	60.374
65	49.832	45.999	45.999	45.999	45.999	45.999	44.082	44.082	44.082
70	38.333	36.416	33.541	33.541	33.541	30.666	30.666	30.666	30.666
75	25.874	23.958	22.041	21.083	21.083	19.166	20.125	19.166	18.208
80	14.375	11.500	11.500	11.500	10.541	8.625	7.667	7.667	7.667
85	3.833	1.917	1.917	0.000	0.958	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1543.28	N.A.	57.80
0-30	2223.95	N.A.	83.20
0-40	2434.45	N.A.	91.10
0-60	2600.83	N.A.	97.30
0-80	2668.67	N.A.	99.90
0-90	2671.85	N.A.	100.00
10-90	2201.92	N.A.	82.40
20-40	891.17	N.A.	33.40
20-50	989.63	N.A.	37.00
40-70	211.78	N.A.	7.90
60-80	67.85	N.A.	2.50
70-80	22.44	N.A.	0.80
80-90	3.18	N.A.	0.10
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	2671.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	469.93
10-20	1073.35
20-30	680.67
30-40	210.50
40-50	98.46
50-60	67.92
60-70	45.41
70-80	22.44
80-90	3.18
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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	92	90	88
3	104	98	93	90	102	96	92	89	94	90	87	91	89	86	89	87	85	83
4	99	92	87	83	98	91	87	83	89	85	82	87	84	81	85	82	80	79
5	95	87	82	78	94	87	82	78	85	81	77	83	80	77	82	79	76	75
6	91	83	78	74	90	82	77	74	81	76	73	80	76	73	78	75	72	71
7	87	79	74	70	86	79	73	70	77	73	69	76	72	69	75	72	69	68
8	84	76	70	67	83	75	70	66	74	69	66	73	69	66	72	68	66	64
9	81	72	67	64	80	72	67	63	71	66	63	70	66	63	69	66	63	62
10	78	69	64	61	77	69	64	61	68	64	61	67	63	60	67	63	60	59

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UGR TABLE - CORRECTED

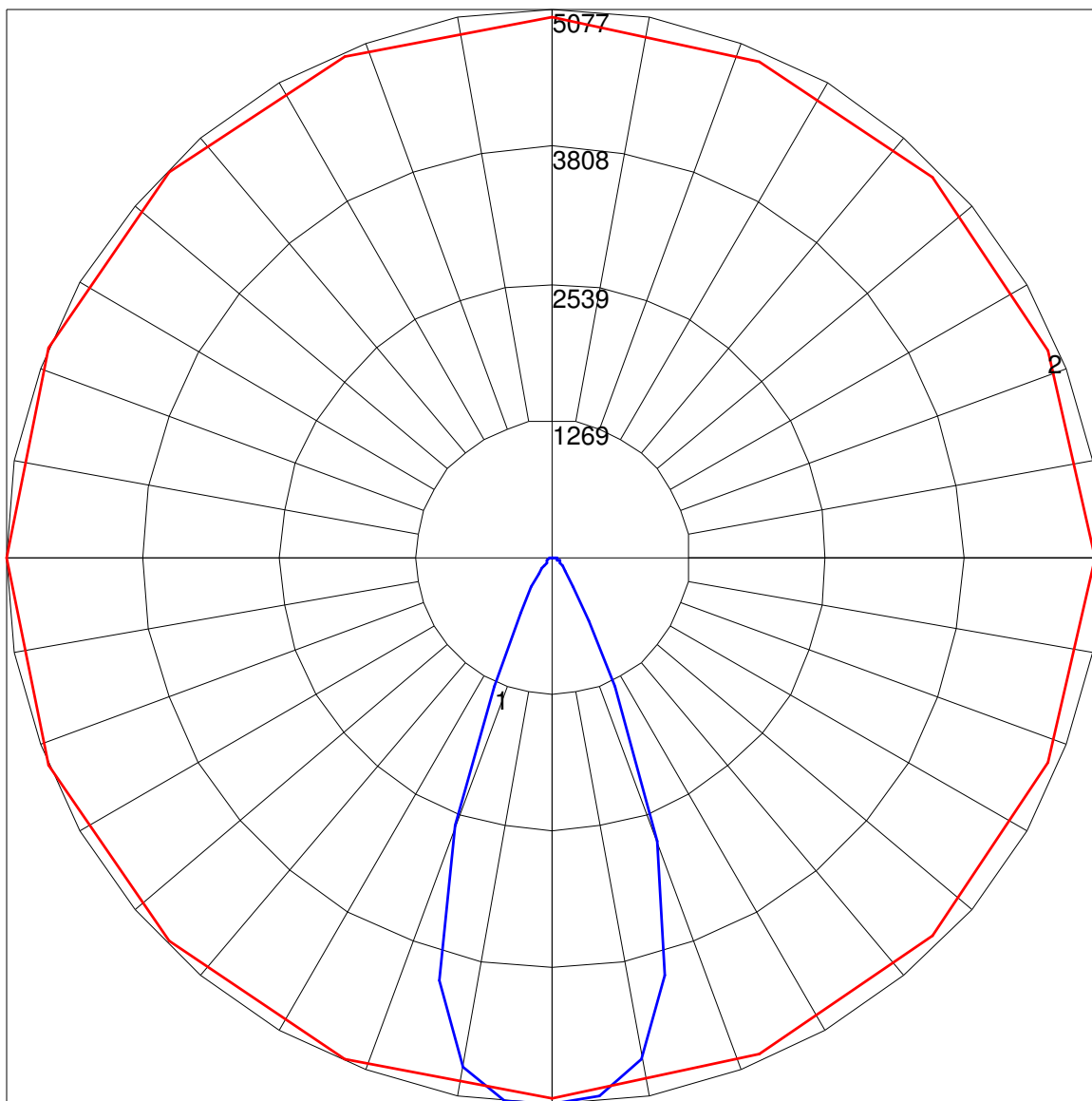
Reflectances

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	14.6	15.7	15.0	16.0	16.3	15.2	16.2	15.6	16.5	16.8
	3H	16.5	17.4	16.9	17.7	18.1	16.5	17.4	16.9	17.8	18.1
	4H	17.1	17.9	17.5	18.3	18.7	17.0	17.8	17.4	18.1	18.5
	6H	17.5	18.2	17.9	18.6	19.0	17.2	17.9	17.6	18.3	18.7
	8H	17.6	18.3	18.0	18.7	19.1	17.2	17.9	17.6	18.3	18.7
	12H	17.6	18.3	18.0	18.6	19.1	17.2	17.8	17.6	18.2	18.6
4H	2H	15.1	16.0	15.6	16.3	16.7	15.6	16.4	16.0	16.7	17.1
	3H	17.2	17.8	17.6	18.2	18.6	17.1	17.8	17.5	18.2	18.6
	4H	17.9	18.5	18.3	18.9	19.3	17.6	18.2	18.0	18.6	19.1
	6H	18.3	18.8	18.8	19.3	19.8	17.9	18.4	18.4	18.9	19.3
	8H	18.4	18.9	18.9	19.4	19.8	17.9	18.4	18.4	18.8	19.3
	12H	18.4	18.9	18.9	19.3	19.8	17.9	18.3	18.4	18.8	19.3
8H	4H	18.0	18.5	18.5	18.9	19.4	17.7	18.2	18.2	18.6	19.1
	6H	18.5	18.9	19.0	19.4	19.9	18.1	18.5	18.6	19.0	19.4
	8H	18.7	19.0	19.2	19.5	20.0	18.1	18.5	18.6	19.0	19.5
	12H	18.7	19.0	19.2	19.5	20.1	18.1	18.4	18.6	18.9	19.5
12H	4H	18.0	18.4	18.5	18.9	19.3	17.7	18.1	18.2	18.6	19.1
	6H	18.5	18.9	19.0	19.3	19.9	18.0	18.4	18.6	18.9	19.4
	8H	18.7	19.0	19.2	19.5	20.0	18.1	18.4	18.6	18.9	19.5

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 5077.149 Located At Horizontal Angle = 180, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)