



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L15-827-DIM-UNV-LM-OF-CS_0 DEGREE TILT_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM BALLABS TEST NO. 20457.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 01-06-2025
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] GEN7 V13 LED 4"SHORT HEATSINK 4"RND ADJ DOWNLIGHT @ 0 TILT
 [MORE] ACRYLIC MED TIR OPTIC & 4"CLR ASYM FLUSH REFL w/SOLITE
 [MORE] LENS ADVANCE #XI025C070V054DSM1 @610mA
 [LUMCAT] 4AR-L15-827-DIM-UNV-LM-OF-CS_0 DEGREE TILT
 [LAMPCAT] BXRE-27E2000
 [_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	1271
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	17.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.50
Spacing Criterion (90-270)	0.54
Spacing Criterion (Diagonal)	0.50
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	4968	4483	4726
55	3585	3585	3884
65	3041	3041	3041
75	2317	2317	2317
85	0	0	0

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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	4022.504	4022.504	4022.504	4022.504	4022.504	4022.504	4022.504	4022.504	4022.504
5	3746.334	3751.885	3802.539	3836.540	3837.928	3831.683	3804.621	3760.906	3731.068
10	3023.990	3105.176	3164.851	3236.322	3230.077	3198.851	3110.033	3052.440	2962.234
15	1967.883	2092.784	2177.439	2220.461	2183.685	2085.845	1967.190	1870.738	1820.084
20	990.187	1103.985	1169.211	1188.640	1123.414	1023.494	948.553	922.185	901.368
25	493.359	514.869	544.707	521.808	471.154	446.174	434.378	429.520	412.173
30	210.944	219.271	210.250	196.372	190.821	174.167	179.719	185.964	181.800
35	92.982	97.145	87.431	79.798	79.104	74.941	77.022	90.900	90.900
40	46.491	47.185	43.715	41.634	41.634	42.328	46.491	51.348	53.430
45	28.450	26.368	25.674	24.980	27.062	29.144	31.225	34.001	35.389
50	19.429	19.429	20.123	20.817	21.511	22.899	24.286	26.368	26.368
55	16.653	15.960	16.653	17.347	18.041	18.735	18.735	19.429	19.429
60	13.184	13.184	13.184	13.184	13.878	13.184	13.184	15.266	14.572
65	10.408	11.102	10.408	11.102	10.408	11.102	10.408	10.408	10.408
70	6.939	7.633	6.939	6.939	6.939	6.939	6.939	6.939	6.939
75	4.857	5.551	4.857	4.163	4.857	4.163	4.163	4.857	4.163
80	2.082	2.082	2.082	2.082	2.082	2.082	2.082	2.082	2.082
85	0.000	0.000	0.000	0.000	0.000	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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4AR-L15-827-DIM-UNV-LM-OF-CS_0 DEGREE TILT_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	906.47	N.A.	71.30
0-30	1151.87	N.A.	90.70
0-40	1214.68	N.A.	95.60
0-60	1254.78	N.A.	98.80
0-80	1270.01	N.A.	100.00
0-90	1270.57	N.A.	100.00
10-90	929.13	N.A.	73.10
20-40	308.21	N.A.	24.30
20-50	332.30	N.A.	26.20
40-70	50.48	N.A.	4.00
60-80	15.23	N.A.	1.20
70-80	4.85	N.A.	0.40
80-90	0.57	N.A.	0.00
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	1270.57	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	341.44
10-20	565.03
20-30	245.40
30-40	62.81
40-50	24.09
50-60	16.01
60-70	10.38
70-80	4.85
80-90	0.57
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	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91
3	106	101	97	94	104	99	96	93	97	94	91	95	92	90	93	90	89	87
4	102	96	92	88	101	95	91	88	93	90	87	91	88	86	89	87	85	84
5	99	92	87	84	97	91	87	84	90	86	83	88	85	82	87	84	82	80
6	95	88	84	80	94	88	83	80	86	82	80	85	82	79	84	81	79	77
7	92	85	80	77	91	84	80	77	83	79	76	82	79	76	81	78	76	75
8	89	82	77	74	88	81	77	74	80	76	74	79	76	73	79	75	73	72
9	86	79	74	71	86	79	74	71	78	74	71	77	73	71	76	73	71	70
10	84	76	72	69	83	76	72	69	75	71	69	75	71	69	74	71	68	67

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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

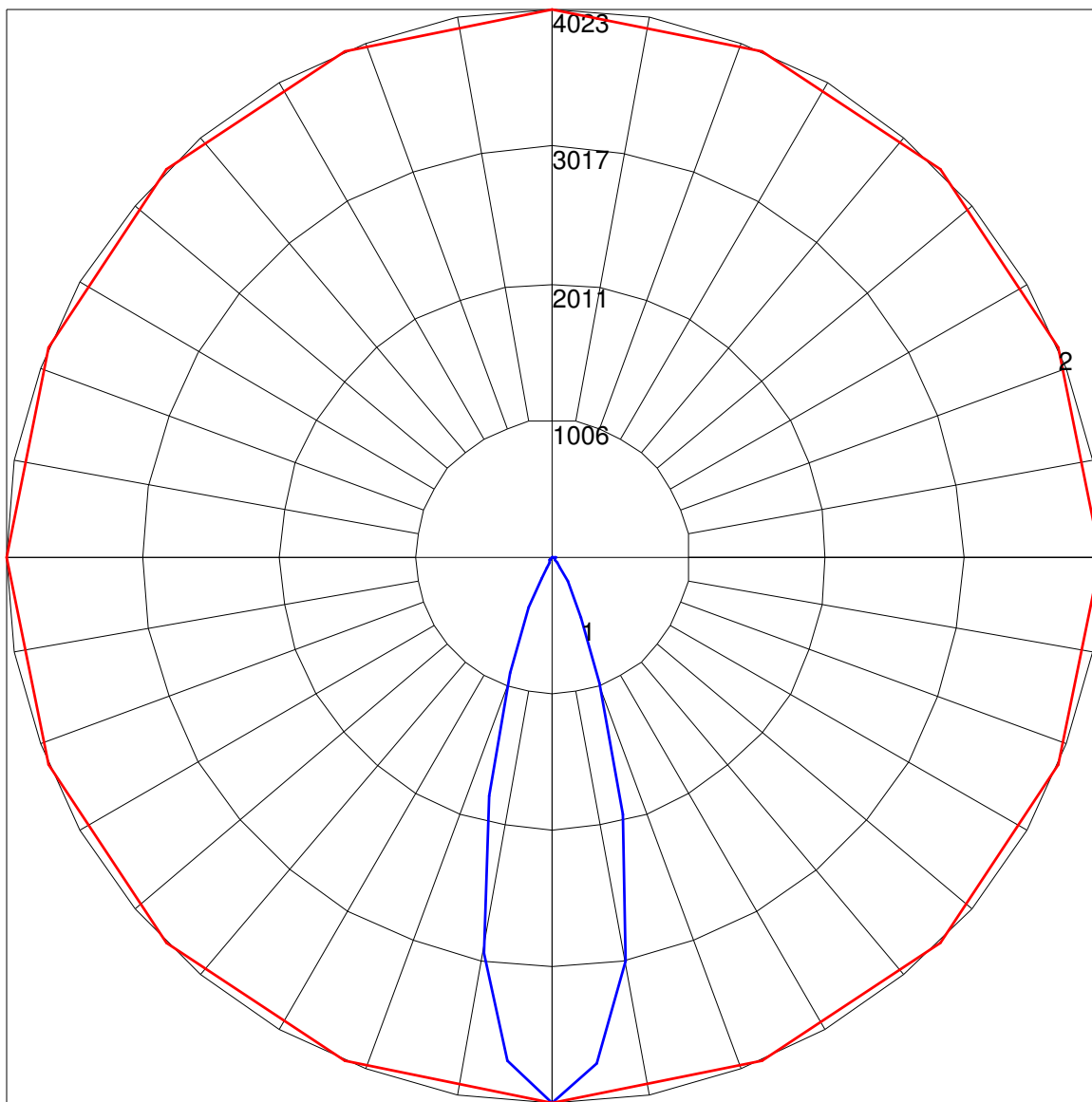
X=2H	Y=2H	7.1	8.1	7.5	8.4	8.7	7.6	8.5	8.0	8.8	9.2
	3H	8.6	9.4	9.0	9.8	10.1	8.8	9.7	9.2	10.0	10.4
	4H	9.1	9.9	9.5	10.2	10.6	9.2	10.0	9.6	10.3	10.7
	6H	9.3	10.0	9.8	10.4	10.8	9.4	10.1	9.8	10.5	10.9
	8H	9.3	10.0	9.8	10.4	10.8	9.4	10.0	9.8	10.4	10.8
	12H	9.3	9.9	9.7	10.3	10.7	9.3	10.0	9.8	10.3	10.8

UGR Viewed Endwise

4H	2H	7.6	8.4	8.0	8.7	9.1	7.9	8.7	8.4	9.1	9.5
	3H	9.2	9.9	9.7	10.3	10.7	9.3	10.0	9.8	10.4	10.8
	4H	9.9	10.5	10.3	10.9	11.3	9.8	10.3	10.2	10.8	11.2
	6H	10.2	10.7	10.7	11.1	11.6	10.0	10.5	10.5	11.0	11.4
	8H	10.2	10.6	10.7	11.1	11.6	10.0	10.5	10.5	10.9	11.4
	12H	10.1	10.5	10.6	11.0	11.5	10.0	10.4	10.5	10.8	11.3
8H	4H	10.0	10.4	10.5	10.9	11.4	9.9	10.3	10.4	10.8	11.2
	6H	10.3	10.7	10.8	11.2	11.7	10.2	10.5	10.7	11.0	11.5
	8H	10.3	10.7	10.9	11.2	11.7	10.2	10.5	10.7	11.0	11.5
	12H	10.3	10.6	10.9	11.1	11.7	10.2	10.4	10.7	10.9	11.5
12H	4H	9.9	10.3	10.4	10.8	11.3	9.8	10.2	10.3	10.7	11.2
	6H	10.3	10.6	10.8	11.1	11.6	10.1	10.5	10.7	10.9	11.5
	8H	10.4	10.6	10.9	11.1	11.7	10.2	10.5	10.7	11.0	11.5

Maximum UGR = 11.7

POLAR GRAPH



Maximum Candela = 4022.504 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.)