



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L11-8TW-DIM-UNV-OM-OF-CS_0 DEGREE TILT_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20448.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 11-MAR-2020

[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" OPEN ASYM SEMI-SPEC TRIM

[LUMCAT] 4AR-L11-8TW-DIM-UNV-OM-OF-CS_0 DEGREE TILT

[_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	713
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.54
Spacing Criterion (90-270)	0.54
Spacing Criterion (Diagonal)	0.48
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	197	197	197
55	81	81	81
65	0	0	0
75	0	0	0
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	2632.296	2632.296	2632.296	2632.296	2632.296	2632.296	2632.296	2632.296	2632.296
5	2619.860	2593.857	2590.466	2588.581	2588.958	2597.626	2595.365	2593.857	2587.074
10	2319.134	2307.828	2319.887	2309.712	2298.784	2240.372	2244.141	2250.924	2193.266
15	1382.662	1393.591	1493.456	1444.842	1414.694	1283.174	1144.493	1149.392	1074.022
20	483.498	493.673	514.023	517.415	489.528	433.377	408.128	386.271	365.544
25	203.499	210.659	219.703	221.588	216.312	181.642	162.045	156.393	139.811
30	73.486	73.486	76.501	76.877	69.717	63.311	53.890	49.744	42.961
35	13.190	12.059	12.813	12.436	12.059	11.305	9.798	9.798	9.798
40	4.899	4.522	4.145	4.145	4.145	4.145	3.768	3.768	3.392
45	1.131	1.131	1.131	1.131	1.131	1.131	0.754	1.131	1.131
50	0.377	0.377	0.377	0.377	0.377	0.377	0.000	0.000	0.377
55	0.377	0.377	0.377	0.000	0.377	0.754	0.000	0.754	0.000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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-L11-8TW-DIM-UNV-OM-OF-CS_0 DEGREE TILT_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	596.66	N.A.	83.70
0-30	697.54	N.A.	97.80
0-40	711.43	N.A.	99.80
0-60	712.89	N.A.	100.00
0-80	712.89	N.A.	100.00
0-90	712.89	N.A.	100.00
10-90	476.10	N.A.	66.80
20-40	114.77	N.A.	16.10
20-50	116.00	N.A.	16.30
40-70	1.46	N.A.	0.20
60-80	0.00	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	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	712.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	236.78
10-20	359.88
20-30	100.88
30-40	13.89
40-50	1.24
50-60	0.22
60-70	0.00
70-80	0.00
80-90	0.00
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	75	75	75	75	73	73	73	73	70	70	70	67	67	67	64	64	64	63
1	72	71	70	69	71	70	69	68	67	66	66	65	64	64	63	62	62	61
2	70	68	66	64	69	67	65	64	65	63	62	63	62	61	61	60	60	59
3	68	65	63	61	67	64	62	60	63	61	60	61	60	59	60	59	58	57
4	66	62	60	58	65	62	60	58	61	59	57	59	58	57	58	57	56	55
5	64	60	58	56	63	60	57	56	59	57	55	58	56	55	57	55	54	54
6	62	58	56	54	61	58	55	54	57	55	53	56	54	53	56	54	53	52
7	60	56	54	52	60	56	54	52	55	53	52	55	53	51	54	52	51	51
8	59	55	52	50	58	54	52	50	54	52	50	53	51	50	53	51	50	49
9	57	53	51	49	57	53	51	49	52	50	49	52	50	49	52	50	48	48
10	56	52	49	48	55	51	49	48	51	49	47	51	49	47	50	48	47	47

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UGR TABLE - CORRECTED

Reflectances

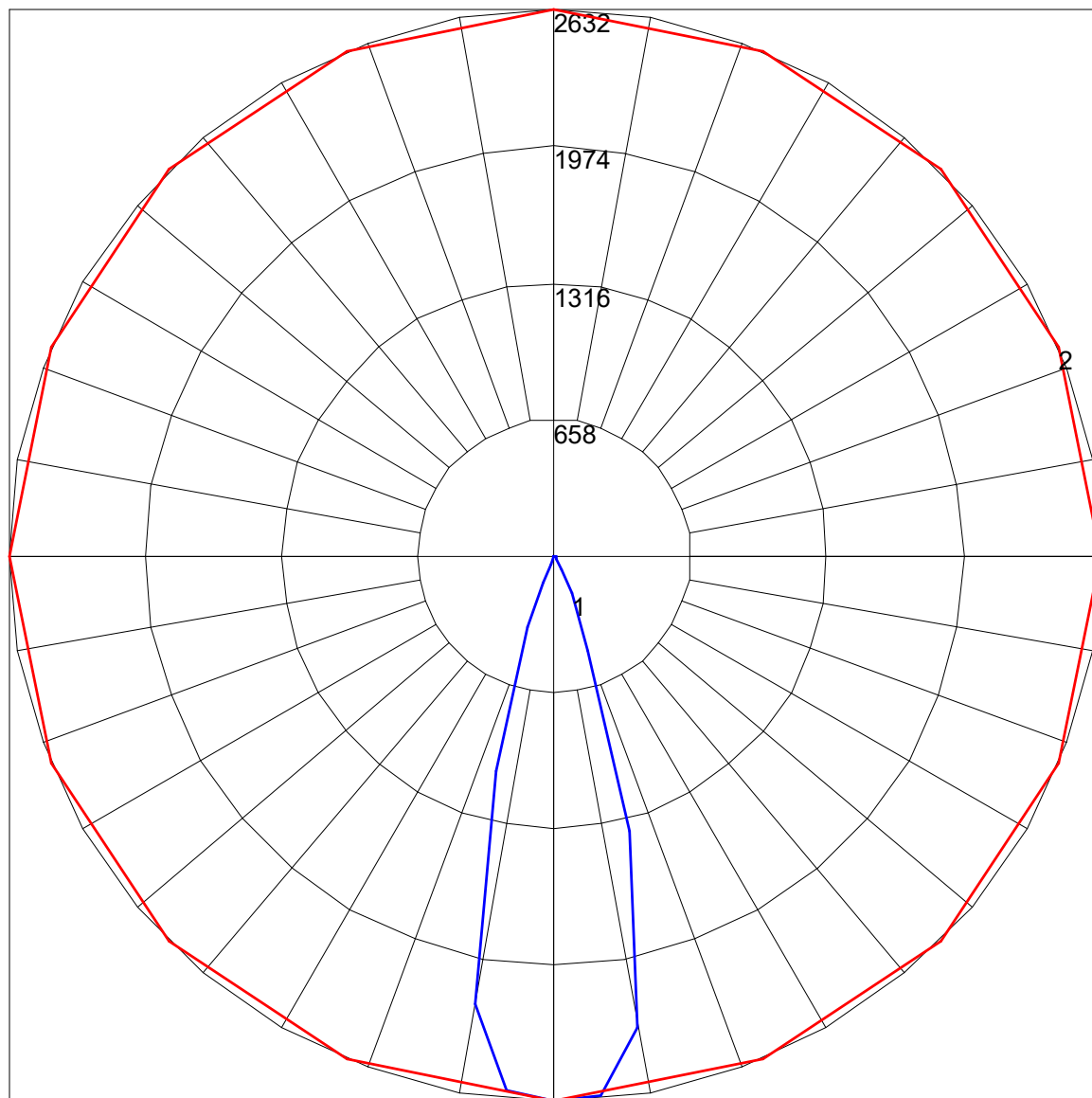
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	0.4	0.4	0.4	0.4	0.4	UGR Viewed Endwise				
	3H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	4H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	6H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	8H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	12H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
4H	2H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	3H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	4H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	6H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	8H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	12H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
8H	4H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	6H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	8H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	12H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
12H	4H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	6H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	8H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Maximum UGR = 0.4

POLAR GRAPH



Maximum Candela = 2632.296 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.)