



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L30-930-DIM-UNV-OM-OF-WH_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

[ISSUE DATE] 05-17-2022

[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-L30-930-DIM-UNV-OM-OF-WH_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	1755
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	48
Total Luminaire Watts	36.9
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	486	486	486
55	200	200	200
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	6481.581	6481.581	6481.581	6481.581	6481.581	6481.581	6481.581	6481.581	6481.581
5	6450.959	6386.932	6378.581	6373.941	6374.869	6396.211	6390.644	6386.932	6370.229
10	5710.472	5682.634	5712.328	5687.274	5660.364	5516.535	5525.814	5542.517	5400.544
15	3404.570	3431.480	3677.381	3557.678	3483.444	3159.597	2818.119	2830.182	2644.596
20	1190.532	1215.586	1265.694	1274.046	1205.379	1067.118	1004.947	951.127	900.091
25	501.081	518.712	540.982	545.622	532.631	447.262	399.009	385.090	344.261
30	180.946	180.946	188.369	189.297	171.667	155.892	132.694	122.487	105.784
35	32.477	29.694	31.550	30.622	29.694	27.838	24.126	24.126	24.126
40	12.063	11.135	10.207	10.207	10.207	10.207	9.279	9.279	8.351
45	2.784	2.784	2.784	2.784	2.784	2.784	1.856	2.784	2.784
50	0.928	0.928	0.928	0.928	0.928	0.928	0.000	0.000	0.928
55	0.928	0.928	0.928	0.000	0.928	1.856	0.000	1.856	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

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Zone	Lumens	%Lamp	%Fixt
0-20	1469.18	N.A.	83.70
0-30	1717.58	N.A.	97.80
0-40	1751.78	N.A.	99.80
0-60	1755.37	N.A.	100.00
0-80	1755.37	N.A.	100.00
0-90	1755.37	N.A.	100.00
10-90	1172.33	N.A.	66.80
20-40	282.60	N.A.	16.10
20-50	285.64	N.A.	16.30
40-70	3.58	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	1755.37	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	583.04
10-20	886.14
20-30	248.40
30-40	34.20
40-50	3.04
50-60	0.54
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	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	115	113	111	110	113	111	109	108	107	106	104	103	102	101	100	99	98	97
2	111	108	105	103	109	106	104	101	103	101	99	100	99	97	98	96	95	94
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	94	92	91
4	105	100	96	93	103	99	95	92	97	94	91	95	92	90	93	91	89	88
5	102	96	92	89	100	95	91	89	94	90	88	92	89	87	91	88	87	85
6	99	93	89	86	98	92	88	86	91	88	85	90	87	85	88	86	84	83
7	96	90	86	83	95	89	86	83	88	85	82	87	84	82	86	84	82	81
8	94	87	83	80	93	87	83	80	86	82	80	85	82	80	84	81	79	78
9	91	85	81	78	90	84	81	78	84	80	78	83	80	77	82	79	77	76
10	89	82	78	76	88	82	78	76	81	78	76	81	78	75	80	77	75	74

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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

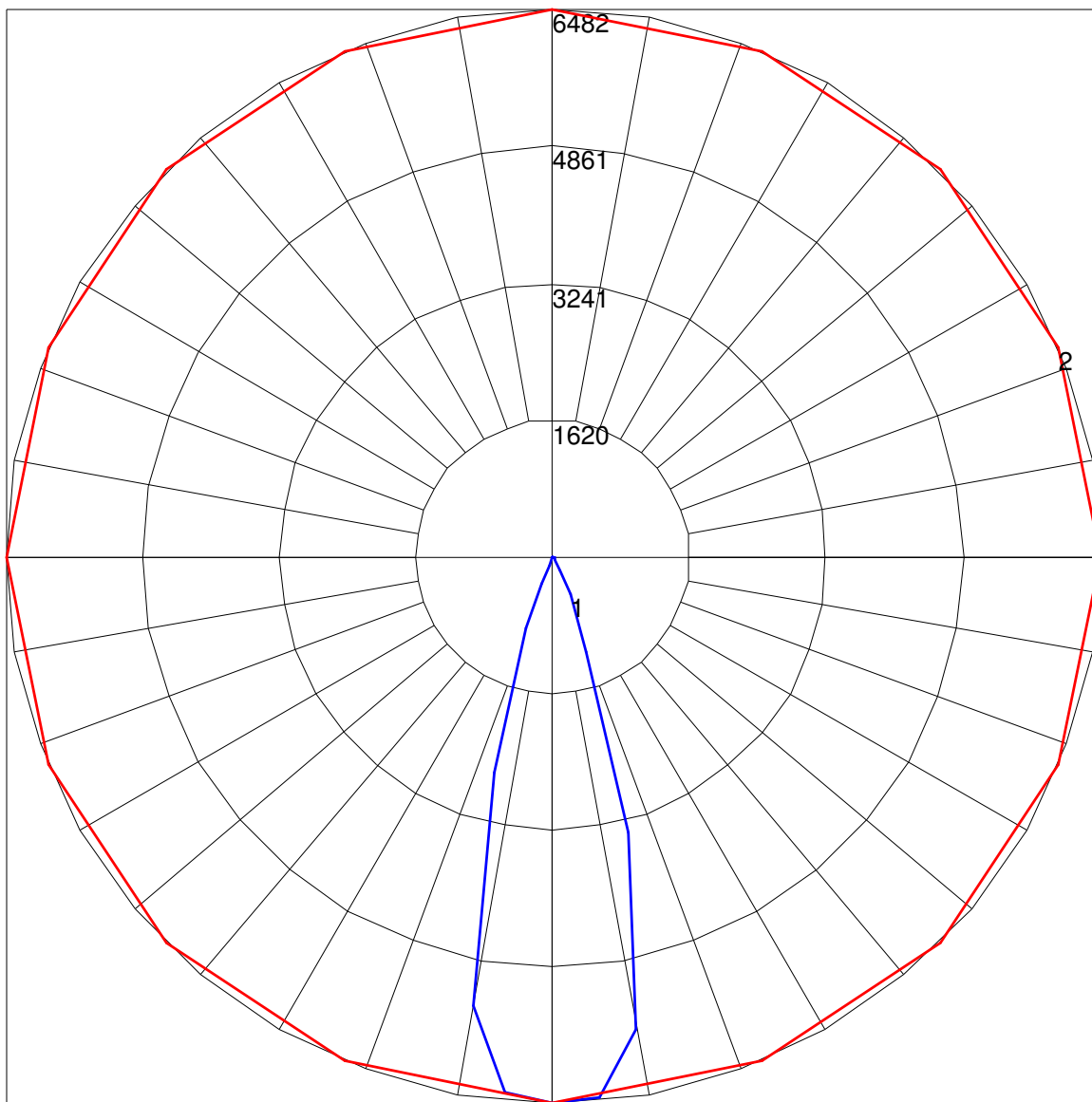
X=2H	Y=2H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	3H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	4H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	6H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	8H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	12H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

UGR Viewed Endwise

4H	2H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	3H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	4H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	6H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	8H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	12H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
8H	4H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	6H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	8H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	12H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12H	4H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	6H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	8H	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

Maximum UGR = 2.0

POLAR GRAPH



Maximum Candela = 6481.581 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.)