



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P22-835-POE-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] 12-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-P22-835-PoE-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	2152
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	25
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	596	596	596
55	245	245	245
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	7944.886	7944.886	7944.886	7944.886	7944.886	7944.886	7944.886	7944.886	7944.886
5	7907.351	7828.869	7818.632	7812.945	7814.082	7840.243	7833.419	7828.869	7808.395
10	6999.689	6965.566	7001.964	6971.253	6938.268	6761.968	6773.342	6793.816	6619.790
15	4173.198	4206.183	4507.599	4360.872	4269.878	3872.919	3454.348	3469.134	3241.650
20	1459.311	1490.022	1551.442	1561.679	1477.510	1308.034	1231.827	1165.857	1103.298
25	614.207	635.818	663.116	668.804	652.880	548.237	489.091	472.030	421.983
30	221.797	221.797	230.896	232.034	210.423	191.087	162.651	150.140	129.666
35	39.810	36.397	38.672	37.535	36.397	34.123	29.573	29.573	29.573
40	14.786	13.649	12.512	12.512	12.512	12.512	11.374	11.374	10.237
45	3.412	3.412	3.412	3.412	3.412	3.412	2.275	3.412	3.412
50	1.137	1.137	1.137	1.137	1.137	1.137	0.000	0.000	1.137
55	1.137	1.137	1.137	0.000	1.137	2.275	0.000	2.275	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-P22-835-POE-OM-OF-CS_0 DEGREE TILT_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1800.87	N.A.	83.70
0-30	2105.35	N.A.	97.80
0-40	2147.27	N.A.	99.80
0-60	2151.66	N.A.	100.00
0-80	2151.66	N.A.	100.00
0-90	2151.66	N.A.	100.00
10-90	1436.99	N.A.	66.80
20-40	346.40	N.A.	16.10
20-50	350.13	N.A.	16.30
40-70	4.39	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	2151.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	714.67
10-20	1086.2
20-30	304.47
30-40	41.92
40-50	3.73
50-60	0.66
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	244	244	244	244	239	239	239	239	228	228	228	218	218	218	210	210	210	205
1	236	232	228	225	231	228	224	221	220	217	214	212	210	208	205	204	202	199
2	229	222	216	211	225	218	213	208	212	207	204	206	202	199	201	198	195	192
3	222	212	205	199	218	210	203	198	205	199	195	200	196	192	196	192	189	186
4	215	204	196	190	212	202	195	189	198	192	187	194	189	185	191	187	183	181
5	209	197	189	183	206	195	188	182	192	186	181	189	183	179	186	181	178	175
6	203	191	182	176	201	189	181	176	186	180	175	184	178	174	182	176	172	170
7	197	185	176	170	195	183	176	170	181	174	169	179	173	168	177	172	168	166
8	192	179	171	165	190	178	170	165	176	169	164	174	168	164	173	167	163	161
9	187	174	166	160	185	173	165	160	171	164	159	170	164	159	169	163	159	157
10	182	169	161	156	181	168	161	156	167	160	155	166	159	155	164	159	154	153

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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

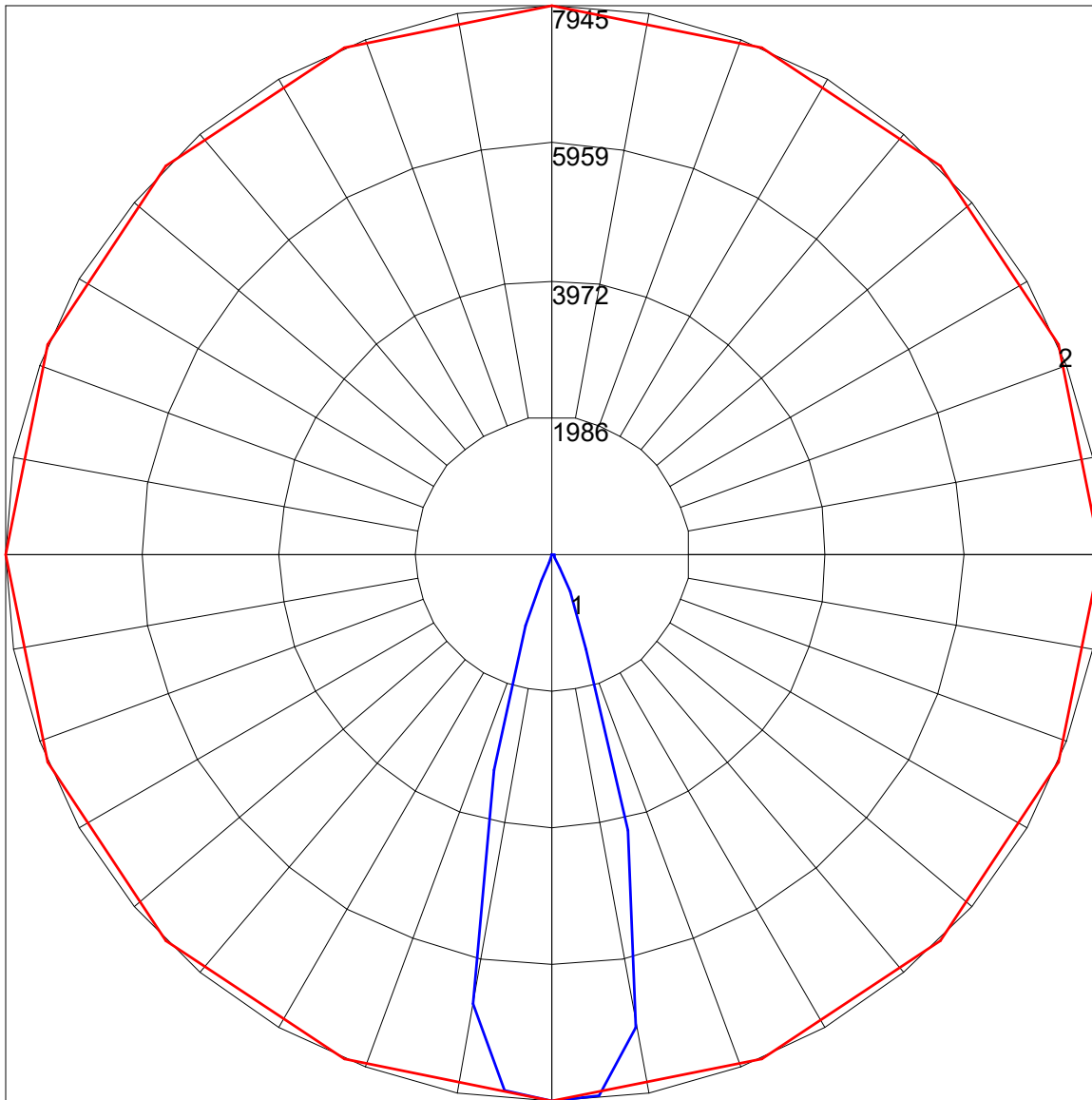
X=2H	Y=2H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	3H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

UGR Viewed Endwise

4H	2H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	3H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8H	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
12H	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Maximum UGR = 0.2

POLAR GRAPH



Maximum Candela = 7944.886 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.)