



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S22-L43-840-FAF12125-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18124.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 11-19-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836

[LUMINAIRE] 2x2' LED TROFFER

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] 50G-S22-L43-840-FAF12125-DIM-UNV

[LAMPCAT] HLM 80 CRI 4000K CCT

[_SEARCH_SOURCETYPE]LED

[_SEARCH_APPLICATION]INDOOR,CLASSROOM, COMMERCIAL, EDUCATIONAL,OFFICE, DIRECT

[_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4494
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	33.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.77 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4985	5089	5299
55	4107	4141	4264
65	3268	3199	3338
75	2861	2758	2748
85	2823	2599	2655

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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>
0	1961.018	1961.018	1961.018	1961.018	1961.018
5	1958.176	1956.755	1952.492	1948.229	1946.808
10	1918.387	1919.808	1919.808	1916.256	1922.650
15	1883.572	1886.414	1896.361	1894.940	1904.887
20	1737.917	1754.969	1761.364	1769.179	1785.521
25	1655.497	1676.812	1686.760	1698.838	1721.575
30	1526.184	1540.394	1562.420	1573.788	1605.761
35	1366.318	1375.555	1403.265	1428.843	1458.685
40	1199.347	1204.321	1229.189	1254.767	1286.740
45	1028.113	1027.403	1049.429	1061.508	1092.770
50	854.748	855.459	871.800	868.248	900.931
55	687.067	688.488	692.751	689.909	713.356
60	530.754	529.333	529.333	522.228	544.254
65	402.861	396.467	394.335	392.204	411.387
70	300.547	294.153	289.890	290.600	296.284
75	215.996	211.733	208.181	206.049	207.470
80	141.392	140.682	138.550	133.577	134.287
85	71.762	74.604	66.078	66.078	67.499
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	712.62	N.A.	15.90
0-30	1485.5	N.A.	33.10
0-40	2362.33	N.A.	52.60
0-60	3794.54	N.A.	84.40
0-80	4419.1	N.A.	98.30
0-90	4494.2	N.A.	100.00
10-90	4308.92	N.A.	95.90
20-40	1649.71	N.A.	36.70
20-50	2459.9	N.A.	54.70
40-70	1832.51	N.A.	40.80
60-80	624.57	N.A.	13.90
70-80	224.27	N.A.	5.00
80-90	75.10	N.A.	1.70
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	4494.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	185.28
10-20	527.34
20-30	772.88
30-40	876.83
40-50	810.19
50-60	622.02
60-70	400.30
70-80	224.27
80-90	75.10
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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48
6	73	60	52	46	71	59	51	46	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34
9	59	46	39	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	41	34	30	40	34	30	28

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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	16.3	17.8	16.7	18.1	18.4	UGR Viewed Endwise	16.3	17.8	16.7	18.1	18.5
	3H	17.7	19.1	18.1	19.4	19.8		17.7	19.1	18.1	19.4	19.8
	4H	18.3	19.6	18.7	19.9	20.3		18.2	19.5	18.6	19.9	20.3
	6H	18.8	20.0	19.2	20.3	20.7		18.7	19.9	19.1	20.3	20.6
	8H	19.0	20.1	19.4	20.5	20.9		18.9	20.0	19.3	20.4	20.8
	12H	19.1	20.2	19.5	20.6	21.0		19.0	20.1	19.4	20.5	20.9

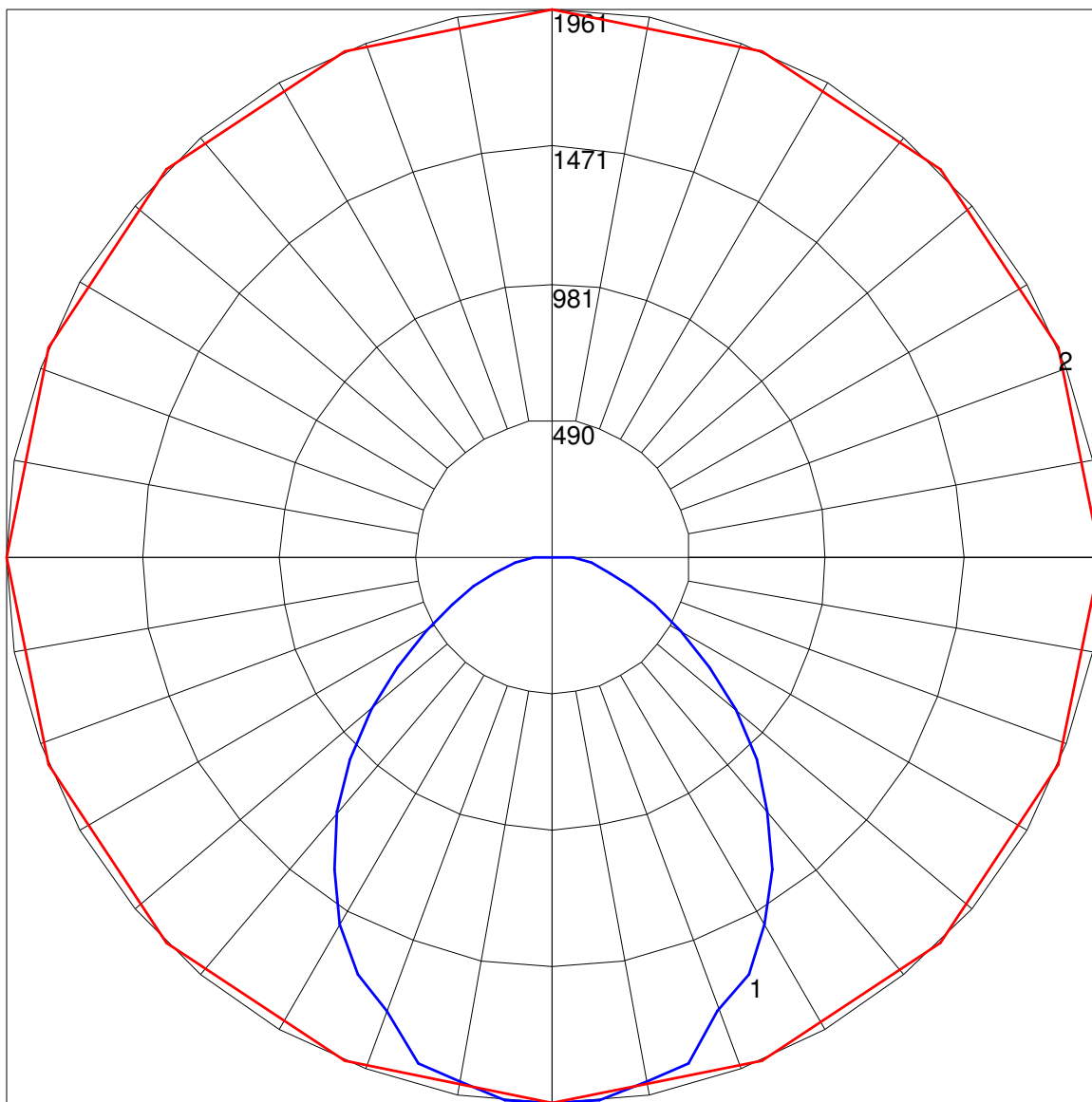
4H	2H	16.7	18.0	17.1	18.4	18.8	16.7	18.0	17.1	18.4	18.8
	3H	18.4	19.5	18.8	19.9	20.3	18.4	19.5	18.8	19.9	20.3
	4H	19.1	20.1	19.5	20.5	20.9	19.1	20.0	19.5	20.4	20.9
	6H	19.8	20.6	20.2	21.0	21.5	19.7	20.5	20.1	20.9	21.4
	8H	20.0	20.8	20.5	21.2	21.7	19.9	20.7	20.4	21.1	21.6
	12H	20.2	20.9	20.7	21.4	21.9	20.1	20.8	20.6	21.3	21.7

8H	4H	19.4	20.2	19.8	20.6	21.1	19.3	20.1	19.8	20.6	21.0
	6H	20.2	20.8	20.7	21.3	21.8	20.1	20.7	20.6	21.2	21.7
	8H	20.5	21.1	21.0	21.6	22.1	20.4	21.0	20.9	21.5	22.0
	12H	20.8	21.4	21.4	21.9	22.4	20.7	21.2	21.2	21.7	22.2

12H	4H	19.4	20.1	19.9	20.6	21.1	19.4	20.1	19.8	20.5	21.0
	6H	20.2	20.8	20.8	21.3	21.8	20.1	20.7	20.7	21.2	21.7
	8H	20.7	21.2	21.2	21.7	22.2	20.5	21.0	21.0	21.5	22.1

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 1961.018 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.)