



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S22-L43-840-SAF12125-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] 10-19-2022

[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-SAF12125-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	4648
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	35.2
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	5156	5263	5480
55	4248	4283	4410
65	3380	3309	3452
75	2959	2852	2843
85	2920	2689	2746

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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	2028.218	2028.218	2028.218	2028.218	2028.218
5	2025.279	2023.809	2019.400	2014.991	2013.521
10	1984.127	1985.596	1985.596	1981.922	1988.536
15	1948.118	1951.058	1961.346	1959.876	1970.164
20	1797.472	1815.108	1821.722	1829.806	1846.707
25	1712.228	1734.274	1744.562	1757.054	1780.570
30	1578.483	1593.180	1615.961	1627.719	1660.787
35	1413.139	1422.692	1451.352	1477.807	1508.671
40	1240.447	1245.591	1271.311	1297.766	1330.834
45	1063.345	1062.610	1085.391	1097.883	1130.217
50	884.039	884.773	901.675	898.001	931.805
55	710.611	712.081	716.490	713.551	737.801
60	548.942	547.472	547.472	540.123	562.904
65	416.667	410.053	407.848	405.644	425.485
70	310.846	304.233	299.824	300.558	306.437
75	223.398	218.989	215.314	213.110	214.580
80	146.237	145.503	143.298	138.154	138.889
85	74.221	77.160	68.342	68.342	69.812
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	737.04	N.A.	15.90
0-30	1536.4	N.A.	33.10
0-40	2443.28	N.A.	52.60
0-60	3924.57	N.A.	84.40
0-80	4570.54	N.A.	98.30
0-90	4648.21	N.A.	100.00
10-90	4456.58	N.A.	95.90
20-40	1706.24	N.A.	36.70
20-50	2544.2	N.A.	54.70
40-70	1895.31	N.A.	40.80
60-80	645.97	N.A.	13.90
70-80	231.95	N.A.	5.00
80-90	77.67	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	4648.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	191.63
10-20	545.41
20-30	799.36
30-40	906.87
40-50	837.96
50-60	643.33
60-70	414.02
70-80	231.95
80-90	77.67
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	16.4	17.9	16.8	18.2	18.5	UGR Viewed Endwise			
	3H	17.8	19.2	18.2	19.5	19.9	16.4	17.9	16.8	18.2
	4H	18.4	19.7	18.8	20.0	20.4	17.8	19.2	18.2	19.5
	6H	18.9	20.1	19.3	20.4	20.8	18.3	19.6	18.7	20.0
	8H	19.1	20.2	19.5	20.6	21.0	18.8	20.0	19.2	20.4
	12H	19.2	20.3	19.6	20.7	21.1	19.0	20.1	19.4	20.5

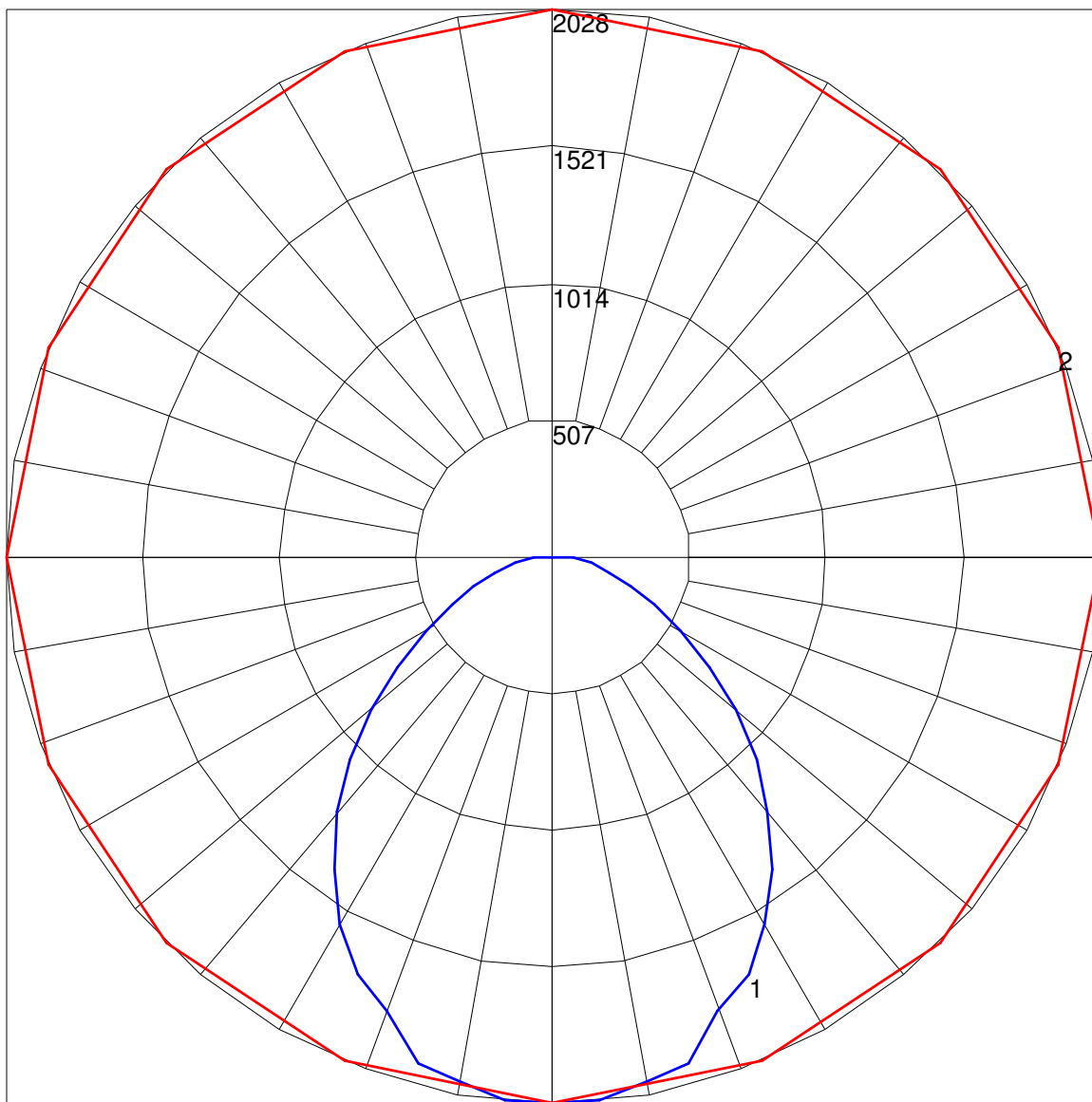
4H	2H	16.8	18.1	17.2	18.5	18.9	16.4	17.9	16.8	18.2
	3H	18.5	19.6	18.9	20.0	20.4	17.8	19.2	18.2	19.5
	4H	19.2	20.2	19.6	20.6	21.0	18.3	19.6	18.7	20.0
	6H	19.9	20.7	20.3	21.1	21.6	18.8	20.0	19.2	20.4
	8H	20.1	20.9	20.6	21.3	21.8	19.0	20.1	19.4	20.5
	12H	20.3	21.0	20.8	21.5	22.0	19.1	20.2	19.5	20.6

8H	4H	19.5	20.3	19.9	20.7	21.2	16.8	18.1	17.2	18.5
	6H	20.3	20.9	20.8	21.4	21.9	18.5	19.6	18.9	20.0
	8H	20.6	21.2	21.1	21.7	22.2	19.2	20.1	19.6	20.5
	12H	20.9	21.5	21.5	22.0	22.5	19.8	20.6	20.2	21.0

12H	4H	19.5	20.2	20.0	20.7	21.2	20.0	20.8	20.5	21.2
	6H	20.3	20.9	20.9	21.4	21.9	20.2	20.8	20.2	21.0
	8H	20.8	21.3	21.3	21.8	22.3	20.5	21.1	21.0	21.6

Maximum UGR = 22.5

POLAR GRAPH



Maximum Candela = 2028.218 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.)