



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S22-L43-950-SA12125-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] 02-17-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x2' LED TROFFER

[MORE] WITH ACRYLIC LENS

[LUMCAT] 50G-S22-L43-950-SA12125-DIM-UNV

[LAMPCAT] HLM 90 CRI, 5000K 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	3844
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
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	4264	4353	4533
55	3513	3542	3648
65	2796	2737	2855
75	2448	2359	2351
85	2415	2224	2271

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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	1677.486	1677.486	1677.486	1677.486	1677.486
5	1675.055	1673.840	1670.193	1666.546	1665.331
10	1641.019	1642.235	1642.235	1639.196	1644.666
15	1611.238	1613.669	1622.178	1620.962	1629.471
20	1486.642	1501.229	1506.699	1513.384	1527.364
25	1416.139	1434.372	1442.881	1453.214	1472.663
30	1305.522	1317.678	1336.519	1346.244	1373.594
35	1168.770	1176.672	1200.375	1222.255	1247.782
40	1025.941	1030.195	1051.468	1073.348	1100.699
45	879.465	878.857	897.698	908.031	934.773
50	731.165	731.773	745.752	742.713	770.671
55	587.728	588.944	592.590	590.159	610.216
60	454.015	452.800	452.800	446.722	465.563
65	344.614	339.144	337.321	335.497	351.907
70	257.093	251.623	247.976	248.584	253.446
75	184.767	181.120	178.081	176.258	177.473
80	120.949	120.341	118.518	114.264	114.871
85	61.386	63.817	56.524	56.524	57.740
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	609.59	N.A.	15.90
0-30	1270.72	N.A.	33.10
0-40	2020.77	N.A.	52.60
0-60	3245.91	N.A.	84.40
0-80	3780.17	N.A.	98.30
0-90	3844.41	N.A.	100.00
10-90	3685.92	N.A.	95.90
20-40	1411.18	N.A.	36.70
20-50	2104.24	N.A.	54.70
40-70	1567.56	N.A.	40.80
60-80	534.26	N.A.	13.90
70-80	191.84	N.A.	5.00
80-90	64.24	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	3844.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	158.49
10-20	451.09
20-30	661.13
30-40	750.05
40-50	693.05
50-60	532.08
60-70	342.42
70-80	191.84
80-90	64.24
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	15.8	17.3	16.2	17.6	17.9	15.8	17.3	16.2	17.6	18.0
	3H	17.2	18.6	17.6	18.9	19.3	17.2	18.6	17.6	18.9	19.3
	4H	17.8	19.1	18.2	19.4	19.8	17.7	19.0	18.1	19.4	19.8
	6H	18.3	19.5	18.7	19.8	20.2	18.2	19.4	18.6	19.8	20.1
	8H	18.5	19.6	18.9	20.0	20.4	18.4	19.5	18.8	19.9	20.3
	12H	18.6	19.7	19.0	20.1	20.5	18.5	19.6	18.9	20.0	20.4

UGR Viewed Endwise

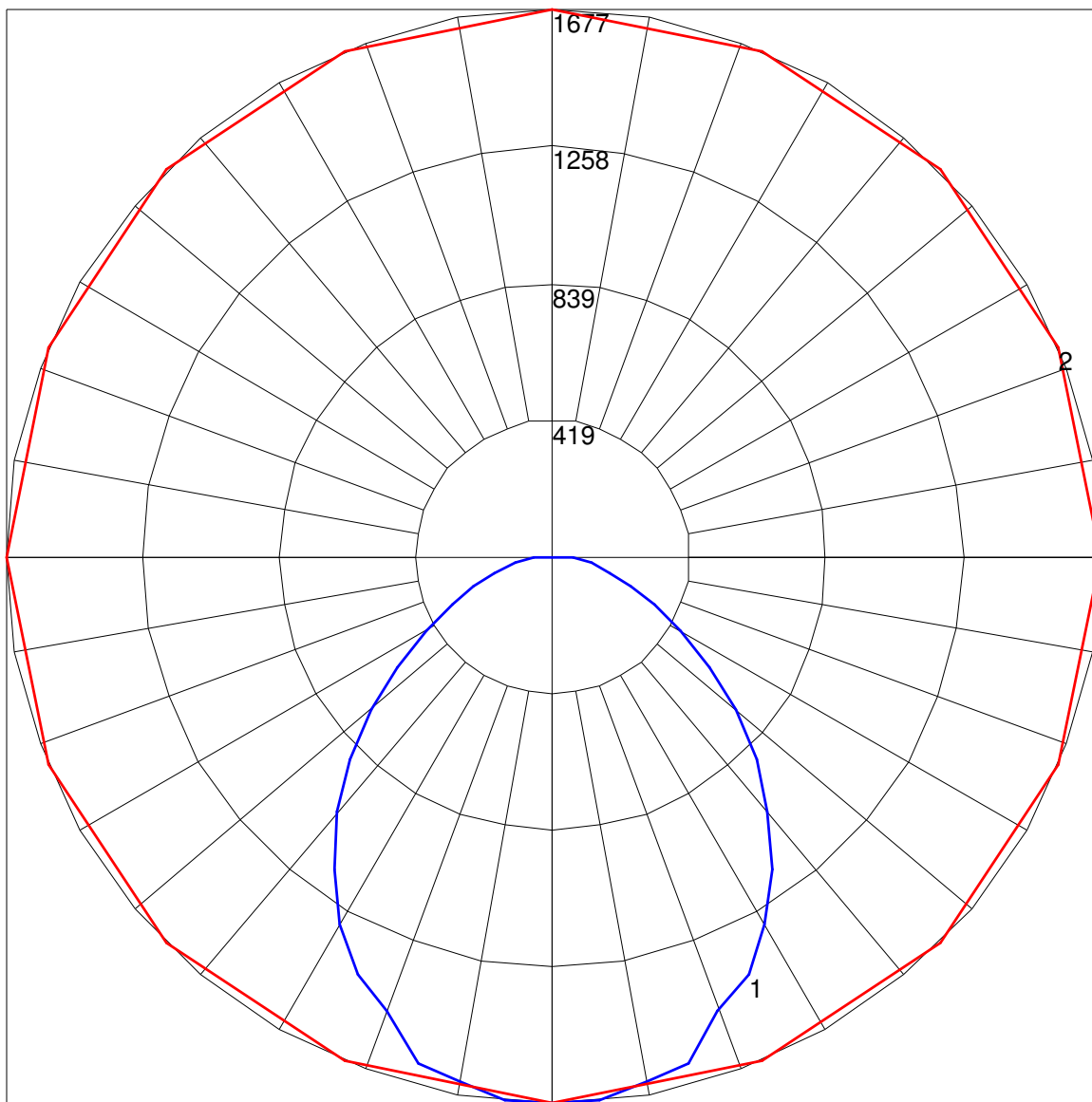
4H	2H	16.2	17.5	16.6	17.9	18.3	16.2	17.5	16.6	17.9	18.3
	3H	17.9	19.0	18.3	19.4	19.8	17.9	19.0	18.3	19.4	19.8
	4H	18.6	19.6	19.0	20.0	20.4	18.6	19.5	19.0	19.9	20.4
	6H	19.3	20.1	19.7	20.5	21.0	19.2	20.0	19.6	20.4	20.9
	8H	19.5	20.3	20.0	20.7	21.2	19.4	20.2	19.9	20.6	21.1
	12H	19.7	20.4	20.2	20.9	21.4	19.6	20.3	20.1	20.8	21.2

8H	4H	18.9	19.7	19.3	20.1	20.6	18.8	19.6	19.3	20.1	20.5
	6H	19.7	20.3	20.2	20.8	21.3	19.6	20.2	20.1	20.7	21.2
	8H	20.0	20.6	20.5	21.1	21.6	19.9	20.5	20.4	21.0	21.5
	12H	20.3	20.9	20.9	21.4	21.9	20.2	20.7	20.7	21.2	21.7

12H	4H	18.9	19.6	19.4	20.1	20.6	18.9	19.6	19.3	20.0	20.5
	6H	19.7	20.3	20.3	20.8	21.3	19.6	20.2	20.2	20.7	21.2
	8H	20.2	20.7	20.7	21.2	21.7	20.0	20.5	20.5	21.0	21.6

Maximum UGR = 21.9

POLAR GRAPH



Maximum Candela = 1677.486 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.)