



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-835-SAF12125-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18125.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 2-16-2024

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' LED TROFFER

[MORE] FROSTED ACRYLIC LENS

[LUMCAT] 50G-S24-L59-835-SAF12125-DIM-UNV

[LAMPCAT] HLM 80 CRI, 3500K 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	13762
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	287
Total Luminaire Watts	48
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.77 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	7465	7360	7257
55	6159	5954	5772
65	4953	4656	4595
75	4013	3845	4056
85	4009	4009	4730

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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	6197	6197	6197	6197	6197
5	6136	6132	6127	6124	6124
10	6025	6018	6023	6025	6025
15	5779	5779	5779	5786	5789
20	5564	5564	5571	5581	5571
25	5095	5090	5105	5114	5112
30	4694	4689	4699	4699	4709
35	4223	4221	4213	4211	4230
40	3737	3728	3708	3692	3706
45	3278	3266	3232	3203	3187
50	2696	2672	2645	2600	2573
55	2194	2157	2121	2066	2056
60	1698	1669	1623	1580	1575
65	1300	1276	1222	1206	1206
70	947	933	887	904	906
75	645	635	618	640	652
80	435	428	428	447	461
85	217	210	217	246	256
90	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2217.91	N.A.	16.10
0-30	4577.65	N.A.	33.30
0-40	7213.54	N.A.	52.40
0-60	11585.4	N.A.	84.20
0-80	13518.85	N.A.	98.20
0-90	13761.84	N.A.	100.00
10-90	13179.82	N.A.	95.80
20-40	4995.63	N.A.	36.30
20-50	7468.07	N.A.	54.30
40-70	5613.55	N.A.	40.80
60-80	1933.45	N.A.	14.00
70-80	691.76	N.A.	5.00
80-90	242.99	N.A.	1.80
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	13761.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	582.02
10-20	1635.89
20-30	2359.74
30-40	2635.9
40-50	2472.43
50-60	1899.42
60-70	1241.69
70-80	691.76
80-90	242.99
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	92	90	91	89	88	86
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	54
5	79	66	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	55	43	35	30	42	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

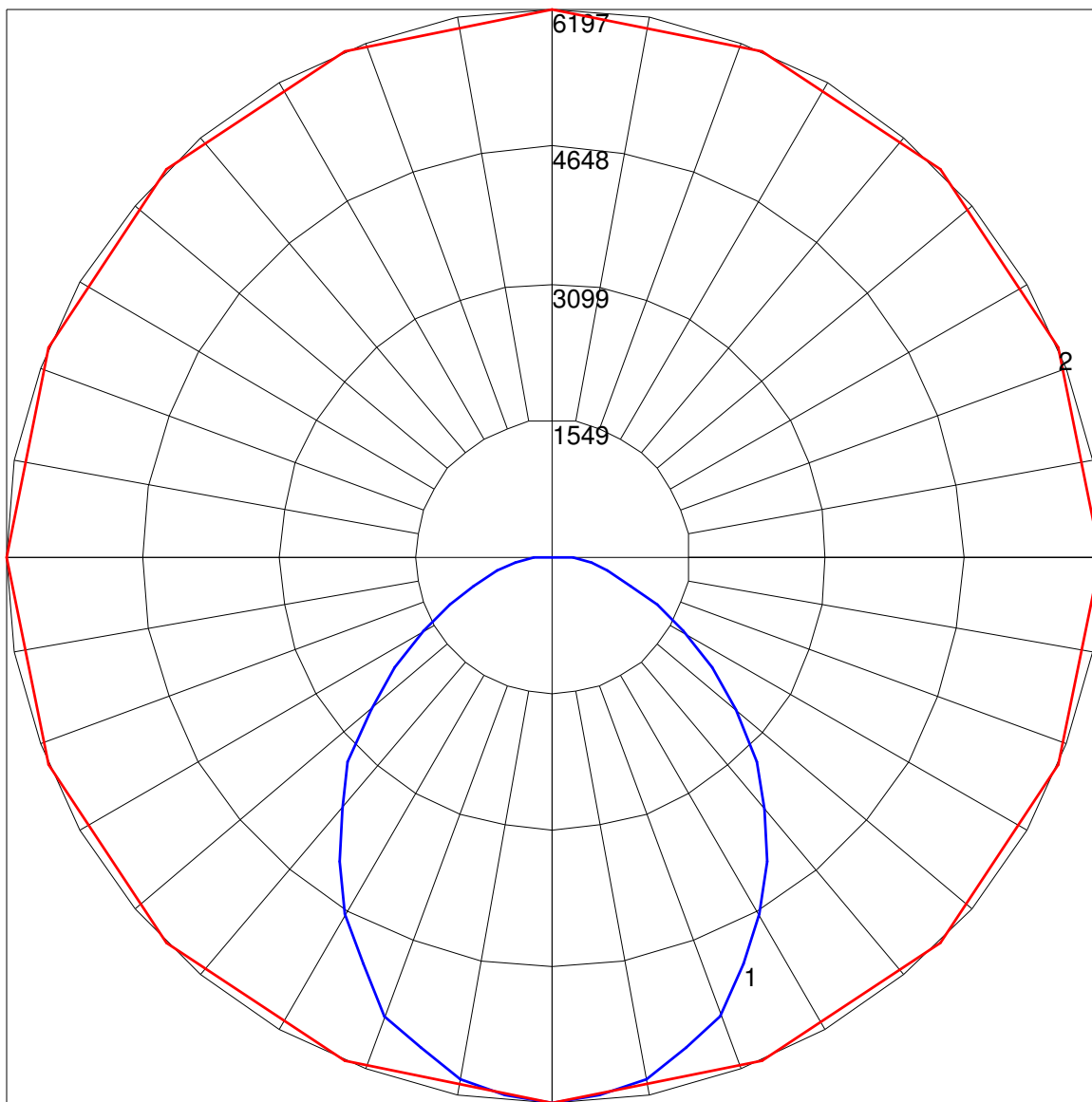
X=2H	Y=2H	17.8	19.3	18.1	19.6	19.9	17.4	18.9	17.8	19.2	19.6
	3H	19.2	20.6	19.6	20.9	21.3	18.8	20.2	19.2	20.6	20.9
	4H	19.7	21.0	20.1	21.4	21.8	19.4	20.7	19.8	21.1	21.5
	6H	20.2	21.4	20.6	21.8	22.2	20.0	21.2	20.4	21.5	21.9
	8H	20.4	21.5	20.8	21.9	22.3	20.2	21.4	20.6	21.7	22.1
	12H	20.5	21.6	20.9	22.0	22.4	20.4	21.5	20.8	21.9	22.3

UGR Viewed Endwise

4H	2H	18.2	19.5	18.6	19.8	20.2	17.9	19.2	18.3	19.5	19.9
	3H	19.8	20.9	20.3	21.3	21.7	19.6	20.7	20.0	21.1	21.5
	4H	20.5	21.5	20.9	21.9	22.3	20.3	21.3	20.7	21.7	22.1
	6H	21.1	22.0	21.6	22.4	22.9	21.0	21.8	21.5	22.3	22.7
	8H	21.4	22.2	21.8	22.6	23.1	21.3	22.1	21.8	22.5	23.0
	12H	21.6	22.3	22.1	22.8	23.2	21.6	22.3	22.1	22.8	23.2
8H	4H	20.8	21.6	21.2	22.0	22.5	20.6	21.4	21.0	21.8	22.3
	6H	21.5	22.2	22.0	22.7	23.1	21.4	22.1	21.9	22.6	23.0
	8H	21.8	22.4	22.4	23.0	23.4	21.8	22.4	22.3	22.9	23.4
	12H	22.1	22.7	22.6	23.2	23.7	22.2	22.7	22.7	23.2	23.8
12H	4H	20.8	21.5	21.3	22.0	22.5	20.6	21.3	21.1	21.8	22.3
	6H	21.6	22.2	22.1	22.7	23.2	21.5	22.1	22.0	22.6	23.1
	8H	22.0	22.5	22.5	23.0	23.6	21.9	22.5	22.5	23.0	23.5

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 6197 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.)