



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L90-840-FAF19156-(L72)-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

[ISSUEDATE] 05-02-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' LED TROFFER

[MORE] WITH ACRYLIC LENS

[LUMCAT] 50G-S24-L90-840-FAF19156-(L72)-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	7147
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	56.5
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	3877	3822	3769
55	3199	3092	2998
65	2572	2418	2386
75	2084	1997	2107
85	2082	2082	2456

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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	3218.279	3218.279	3218.279	3218.279	3218.279
5	3186.600	3184.523	3181.926	3180.368	3180.368
10	3128.955	3125.319	3127.916	3128.955	3128.955
15	3001.200	3001.200	3001.200	3004.835	3006.393
20	2889.544	2889.544	2893.180	2898.373	2893.180
25	2645.979	2643.383	2651.172	2655.846	2654.808
30	2437.728	2435.132	2440.325	2440.325	2445.518
35	2193.125	2192.086	2187.931	2186.893	2196.760
40	1940.731	1936.057	1925.670	1917.361	1924.632
45	1702.359	1696.127	1678.470	1663.409	1655.100
50	1400.110	1387.646	1373.624	1350.254	1336.232
55	1139.407	1120.192	1101.496	1072.933	1067.740
60	881.820	866.759	842.870	820.539	817.943
65	675.127	662.663	634.620	626.310	626.310
70	491.804	484.534	460.644	469.473	470.512
75	334.967	329.774	320.945	332.370	338.602
80	225.908	222.273	222.273	232.140	239.410
85	112.694	109.059	112.694	127.755	132.948
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 50G-S24-L90-840-FAF19156-(L72)-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1151.82	N.A.	16.10
0-30	2377.3	N.A.	33.30
0-40	3746.2	N.A.	52.40
0-60	6016.63	N.A.	84.20
0-80	7020.73	N.A.	98.20
0-90	7146.92	N.A.	100.00
10-90	6844.66	N.A.	95.80
20-40	2594.38	N.A.	36.30
20-50	3878.38	N.A.	54.30
40-70	2915.28	N.A.	40.80
60-80	1004.1	N.A.	14.00
70-80	359.25	N.A.	5.00
80-90	126.19	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	7146.92	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	302.26
10-20	849.56
20-30	1225.48
30-40	1368.9
40-50	1284.01
50-60	986.43
60-70	644.84
70-80	359.25
80-90	126.19
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	15.5	17.0	15.8	17.3	17.6	15.1	16.6	15.5	16.9	17.3
	3H	16.9	18.3	17.3	18.6	19.0	16.5	17.9	16.9	18.3	18.6
	4H	17.4	18.7	17.8	19.1	19.5	17.1	18.4	17.5	18.8	19.2
	6H	17.9	19.1	18.3	19.5	19.9	17.7	18.9	18.1	19.2	19.6
	8H	18.1	19.2	18.5	19.6	20.0	17.9	19.1	18.3	19.4	19.8
	12H	18.2	19.3	18.6	19.7	20.1	18.1	19.2	18.5	19.6	20.0

UGR Viewed Endwise

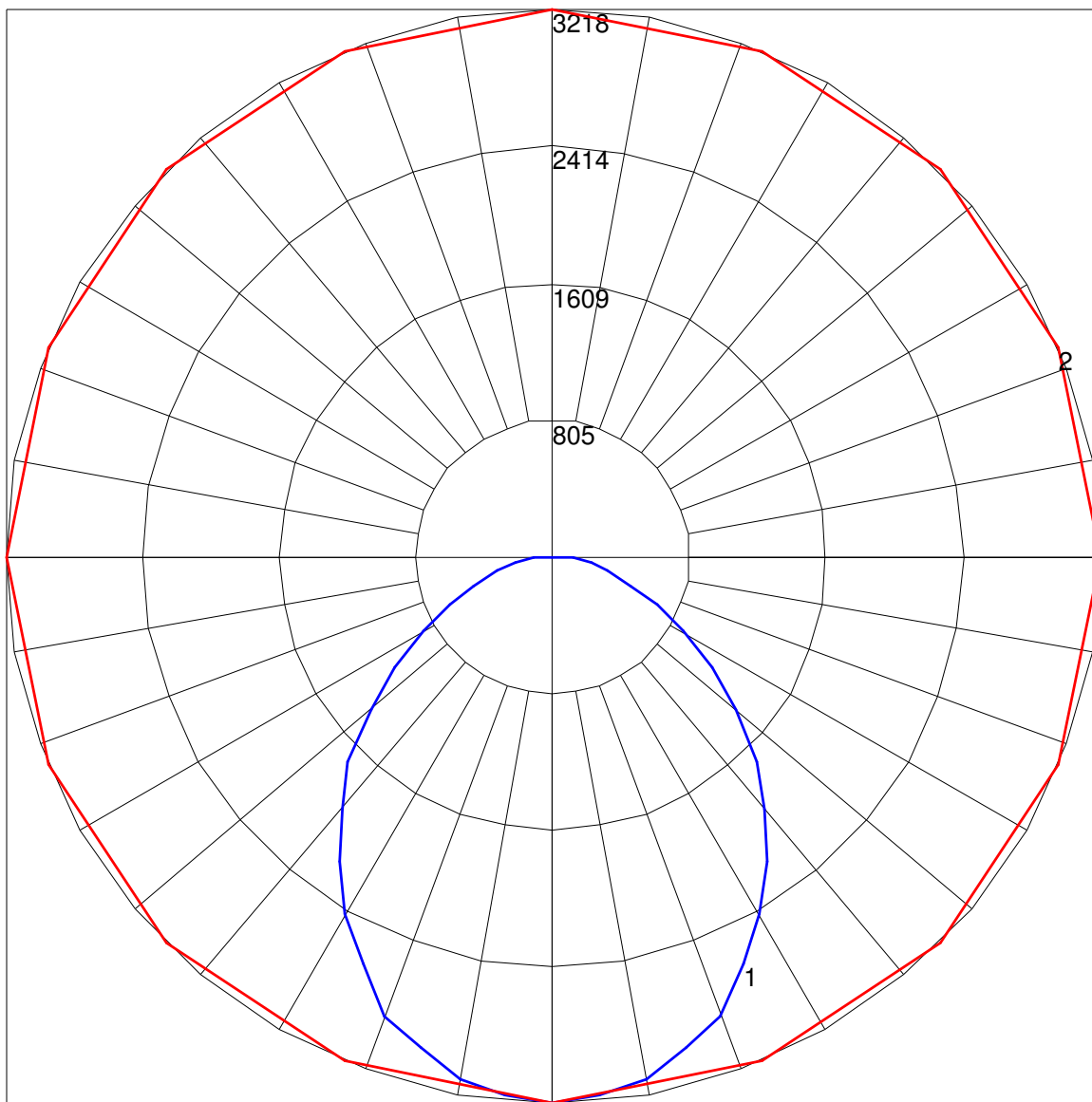
4H	2H	15.9	17.2	16.3	17.5	17.9	15.6	16.9	16.0	17.2	17.6
	3H	17.5	18.6	18.0	19.0	19.4	17.3	18.4	17.7	18.8	19.2
	4H	18.2	19.2	18.6	19.6	20.0	18.0	19.0	18.4	19.4	19.8
	6H	18.8	19.7	19.3	20.1	20.6	18.7	19.5	19.2	20.0	20.4
	8H	19.1	19.9	19.5	20.3	20.8	19.0	19.8	19.5	20.2	20.7
	12H	19.3	20.0	19.8	20.5	20.9	19.3	20.0	19.8	20.5	20.9

8H	4H	18.5	19.3	18.9	19.7	20.2	18.3	19.1	18.7	19.5	20.0
	6H	19.2	19.9	19.7	20.4	20.8	19.1	19.8	19.6	20.3	20.7
	8H	19.5	20.1	20.1	20.7	21.1	19.5	20.1	20.0	20.6	21.1
	12H	19.8	20.4	20.3	20.9	21.4	19.9	20.4	20.4	20.9	21.5

12H	4H	18.5	19.2	19.0	19.7	20.2	18.3	19.0	18.8	19.5	20.0
	6H	19.3	19.9	19.8	20.4	20.9	19.2	19.8	19.7	20.3	20.8
	8H	19.7	20.2	20.2	20.7	21.3	19.6	20.2	20.2	20.7	21.2

Maximum UGR = 21.5

POLAR GRAPH



Maximum Candela = 3218.279 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.)