



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L90-840-FAF19156-(L70)-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-(L70)-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	6991
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	55.2
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	3792	3739	3687
55	3129	3025	2932
65	2516	2365	2334
75	2038	1953	2061
85	2037	2037	2403

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	3148.033	3148.033	3148.033	3148.033	3148.033
5	3117.045	3115.013	3112.473	3110.949	3110.949
10	3060.658	3057.102	3059.642	3060.658	3060.658
15	2935.691	2935.691	2935.691	2939.247	2940.771
20	2826.473	2826.473	2830.029	2835.109	2830.029
25	2588.224	2585.684	2593.304	2597.876	2596.860
30	2384.519	2381.979	2387.059	2387.059	2392.139
35	2145.254	2144.238	2140.174	2139.158	2148.810
40	1898.370	1893.798	1883.638	1875.510	1882.622
45	1665.201	1659.105	1641.833	1627.102	1618.974
50	1369.549	1357.357	1343.641	1320.782	1307.066
55	1114.537	1095.741	1077.453	1049.514	1044.434
60	862.572	847.840	824.473	802.629	800.089
65	660.391	648.199	620.767	612.640	612.640
70	481.069	473.957	450.590	459.226	460.242
75	327.655	322.576	313.940	325.116	331.211
80	220.977	217.421	217.421	227.073	234.185
85	110.234	106.679	110.234	124.966	130.046
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1126.68	N.A.	16.10
0-30	2325.41	N.A.	33.30
0-40	3664.43	N.A.	52.40
0-60	5885.3	N.A.	84.20
0-80	6867.48	N.A.	98.20
0-90	6990.92	N.A.	100.00
10-90	6695.25	N.A.	95.80
20-40	2537.75	N.A.	36.30
20-50	3793.73	N.A.	54.30
40-70	2851.64	N.A.	40.80
60-80	982.18	N.A.	14.00
70-80	351.41	N.A.	5.00
80-90	123.44	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	6990.92	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	295.66
10-20	831.02
20-30	1198.73
30-40	1339.02
40-50	1255.98
50-60	964.89
60-70	630.77
70-80	351.41
80-90	123.44
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

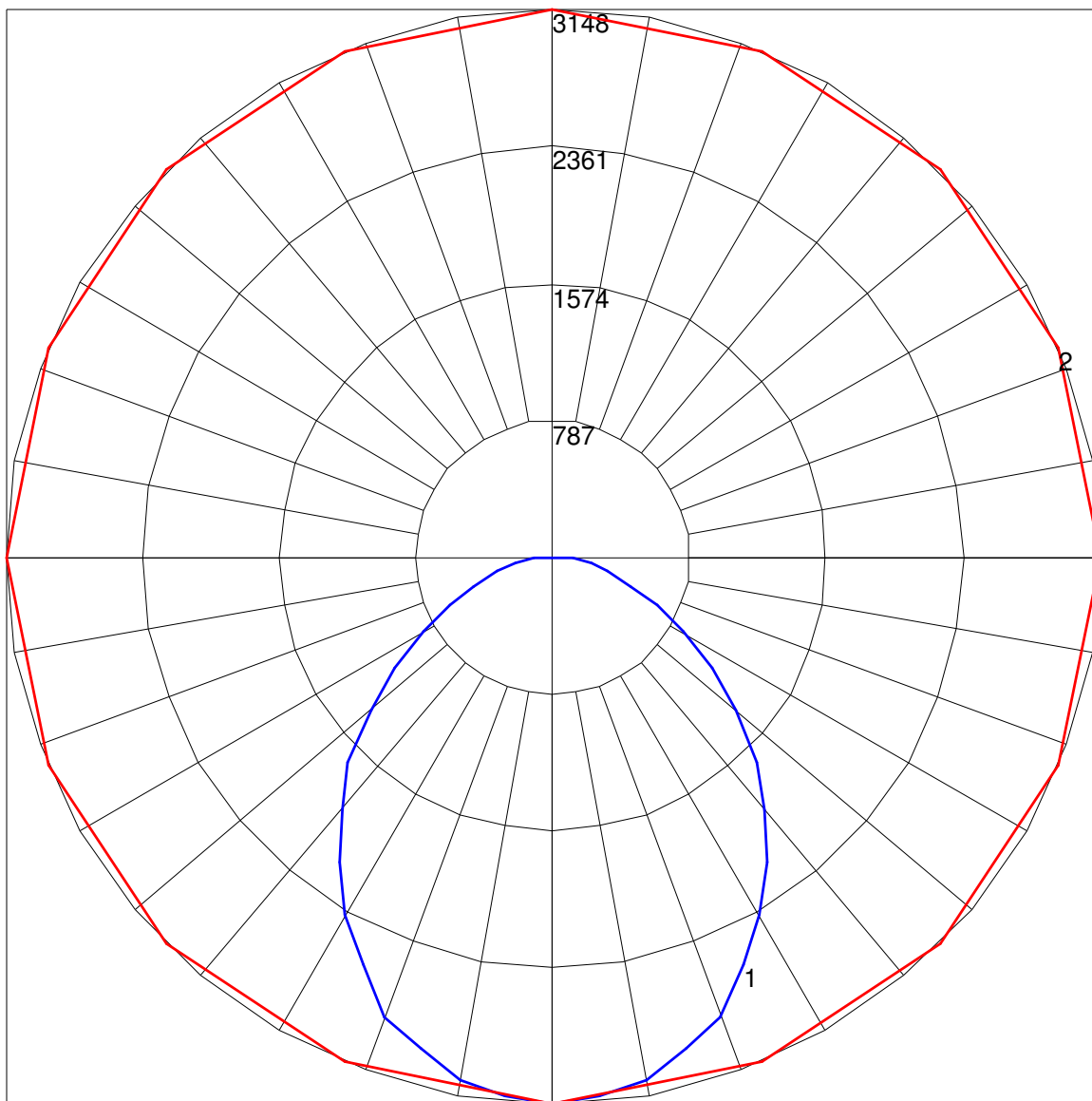
4H	2H	15.9	17.2	16.3	17.5	17.9	15.6	16.9	16.0	17.2	17.6
	3H	17.5	18.6	18.0	19.0	19.4	17.3	18.4	17.7	18.8	19.2
	4H	18.2	19.2	18.6	19.6	20.0	18.0	19.0	18.4	19.4	19.8
	6H	18.8	19.7	19.3	20.1	20.6	18.7	19.5	19.2	20.0	20.4
	8H	19.1	19.9	19.5	20.3	20.8	19.0	19.8	19.5	20.2	20.7
	12H	19.3	20.0	19.8	20.5	20.9	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 = 3148.033 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.)