

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50F-S14-L27-835-SAF12125-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18123.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 08-22-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 1x4' LED TROFFER

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] 50F-S14-L27-835-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	2834
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	23.13
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.77 ft
Luminous Width (90-270)	0.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3688	3501	3284
55	2958	2688	2423
65	2372	2089	1930
75	1891	1749	1749
85	1927	1743	1927

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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	1303.943	1303.943	1303.943	1303.943	1303.943
5	1300.484	1300.051	1300.484	1300.051	1301.349
10	1278.867	1278.867	1278.002	1278.002	1278.002
15	1229.147	1229.147	1226.986	1226.986	1226.553
20	1190.669	1189.804	1187.210	1185.481	1185.049
25	1086.042	1083.448	1080.422	1076.098	1076.098
30	1001.303	997.845	989.630	980.119	977.092
35	914.403	910.079	896.677	879.383	872.898
40	799.400	792.050	773.459	750.978	740.601
45	705.149	693.476	669.265	638.569	627.760
50	575.014	561.180	534.374	501.949	492.437
55	458.715	445.744	416.777	386.946	375.705
60	352.358	339.388	315.177	292.263	283.184
65	271.078	260.270	238.653	224.385	220.494
70	194.121	186.772	170.775	166.452	166.884
75	132.297	128.405	122.353	119.326	122.353
80	88.198	85.604	81.713	83.874	85.171
85	45.396	43.234	41.072	44.964	45.396
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	471.10	N.A.	16.60
0-30	970.84	N.A.	34.30
0-40	1526.35	N.A.	53.90
0-60	2410.98	N.A.	85.10
0-80	2787.09	N.A.	98.30
0-90	2833.86	N.A.	100.00
10-90	2710.48	N.A.	95.60
20-40	1055.26	N.A.	37.20
20-50	1564.04	N.A.	55.20
40-70	1126.32	N.A.	39.70
60-80	376.11	N.A.	13.30
70-80	134.41	N.A.	4.70
80-90	46.77	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	2833.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	123.38
10-20	347.72
20-30	499.75
30-40	555.51
40-50	508.79
50-60	375.84
60-70	241.70
70-80	134.41
80-90	46.77
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	102	98	107	103	100	96	99	96	93	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	73	69	65	63
4	86	74	66	60	83	73	66	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	58	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	31	29

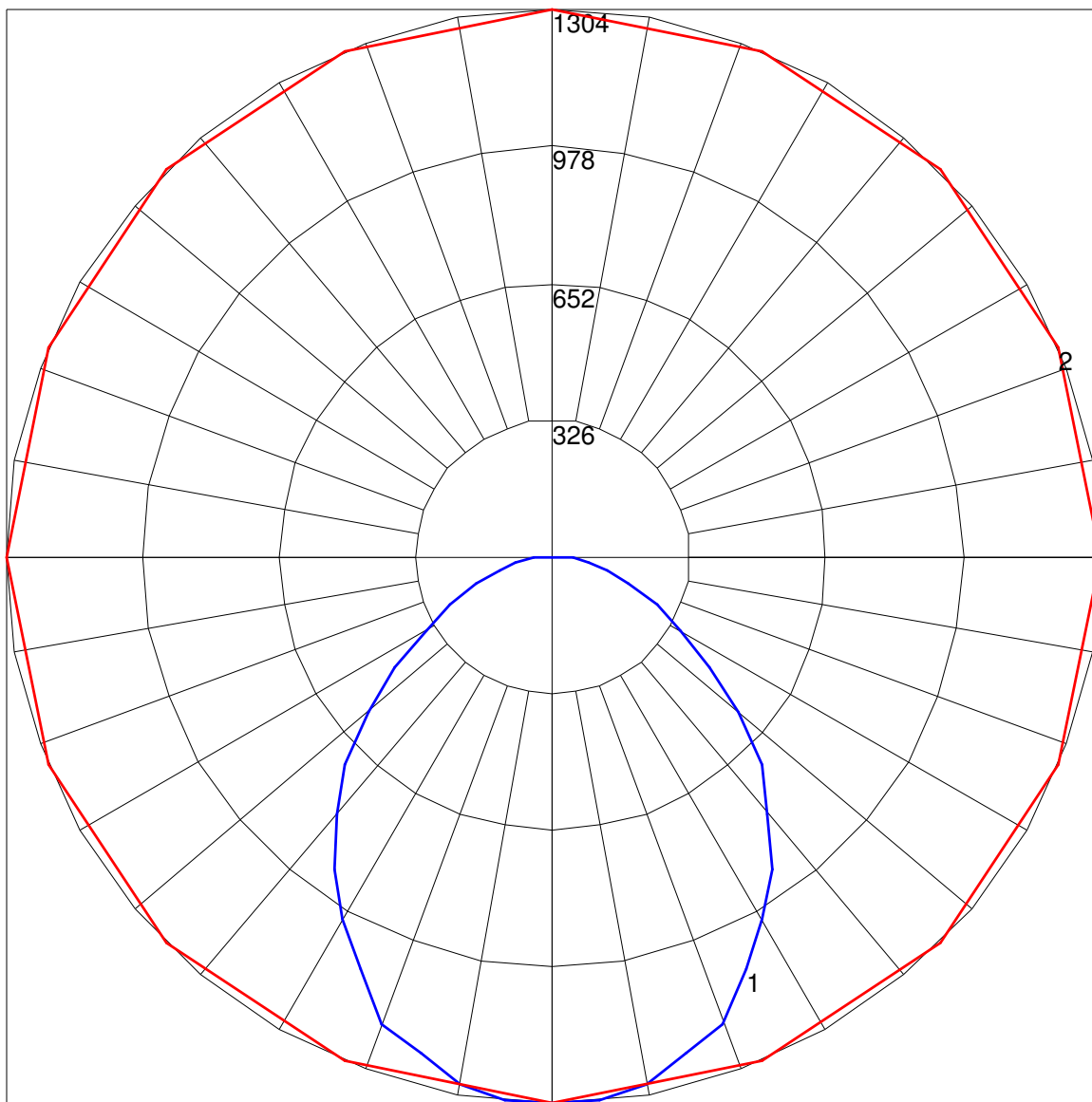
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	15.2	16.7	15.5	17.0	17.3	14.1	15.6	14.4	15.9	16.2
	3H	16.6	17.9	17.0	18.3	18.6	15.5	16.9	15.9	17.2	17.6
	4H	17.1	18.4	17.5	18.7	19.1	16.1	17.4	16.5	17.7	18.1
	6H	17.6	18.7	18.0	19.1	19.5	16.7	17.8	17.1	18.2	18.6
	8H	17.7	18.9	18.2	19.2	19.6	16.9	18.0	17.3	18.4	18.8
	12H	17.9	19.0	18.3	19.3	19.8	17.1	18.2	17.5	18.5	19.0
4H	2H	15.5	16.8	15.9	17.2	17.5	14.6	15.9	15.0	16.3	16.6
	3H	17.2	18.2	17.6	18.6	19.0	16.3	17.4	16.7	17.8	18.2
	4H	17.8	18.8	18.3	19.2	19.6	17.0	18.0	17.4	18.4	18.8
	6H	18.4	19.3	18.9	19.7	20.2	17.7	18.5	18.2	19.0	19.4
	8H	18.7	19.5	19.1	19.9	20.4	18.0	18.8	18.5	19.2	19.7
	12H	18.9	19.6	19.4	20.1	20.5	18.3	19.0	18.7	19.4	19.9
8H	4H	18.0	18.8	18.5	19.3	19.7	17.3	18.1	17.8	18.5	19.0
	6H	18.8	19.4	19.3	19.9	20.4	18.2	18.8	18.6	19.3	19.8
	8H	19.1	19.7	19.6	20.2	20.7	18.6	19.1	19.1	19.6	20.1
	12H	19.4	19.9	19.9	20.4	21.0	18.9	19.4	19.4	19.9	20.5
12H	4H	18.1	18.8	18.5	19.2	19.7	17.3	18.1	17.8	18.5	19.0
	6H	18.9	19.4	19.4	19.9	20.4	18.3	18.8	18.8	19.3	19.8
	8H	19.2	19.8	19.7	20.2	20.8	18.7	19.2	19.2	19.7	20.3

Maximum UGR = 21.0

POLAR GRAPH



Maximum Candela = 1303.943 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.)