

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50F-S14-L27-835-SAF12125-EM10W-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-EM10W-DIM-UNV

[LAMPCAT] HLM 80 CRI, 3500K CCT

[_SEARCH_SOURCE TYPE] 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	1225
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	53
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	1595	1514	1420
55	1279	1162	1047
65	1026	903	834
75	817	756	756
85	833	754	833

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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	563.745	563.745	563.745	563.745	563.745
5	562.250	562.063	562.250	562.063	562.624
10	552.904	552.904	552.530	552.530	552.530
15	531.408	531.408	530.474	530.474	530.287
20	514.773	514.399	513.277	512.530	512.343
25	469.539	468.417	467.109	465.239	465.239
30	432.903	431.407	427.856	423.744	422.435
35	395.332	393.463	387.668	380.192	377.388
40	345.612	342.434	334.397	324.677	320.191
45	304.864	299.817	289.349	276.078	271.405
50	248.601	242.620	231.031	217.012	212.900
55	198.320	192.713	180.189	167.292	162.432
60	152.338	146.731	136.263	126.357	122.431
65	117.198	112.525	103.179	97.011	95.328
70	83.926	80.749	73.833	71.964	72.150
75	57.197	55.515	52.898	51.589	52.898
80	38.131	37.010	35.328	36.262	36.823
85	19.626	18.692	17.757	19.439	19.626
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	203.67	N.A.	16.60
0-30	419.73	N.A.	34.30
0-40	659.90	N.A.	53.90
0-60	1042.36	N.A.	85.10
0-80	1204.97	N.A.	98.30
0-90	1225.19	N.A.	100.00
10-90	1171.85	N.A.	95.60
20-40	456.23	N.A.	37.20
20-50	676.20	N.A.	55.20
40-70	486.95	N.A.	39.70
60-80	162.61	N.A.	13.30
70-80	58.11	N.A.	4.70
80-90	20.22	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	1225.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	53.34
10-20	150.33
20-30	216.06
30-40	240.17
40-50	219.97
50-60	162.49
60-70	104.49
70-80	58.11
80-90	20.22
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

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	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	73	69	66	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	59	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

X=2H	Y=2H	12.3	13.8	12.6	14.1	14.4	11.2	12.7	11.5	13.0	13.3
	3H	13.7	15.0	14.1	15.4	15.7	12.6	14.0	13.0	14.3	14.7
	4H	14.2	15.5	14.6	15.8	16.2	13.2	14.5	13.6	14.8	15.2
	6H	14.7	15.8	15.1	16.2	16.6	13.8	14.9	14.2	15.3	15.7
	8H	14.8	16.0	15.3	16.4	16.8	14.0	15.1	14.4	15.5	15.9
	12H	15.0	16.1	15.4	16.4	16.9	14.2	15.3	14.6	15.6	16.1

UGR Viewed Endwise

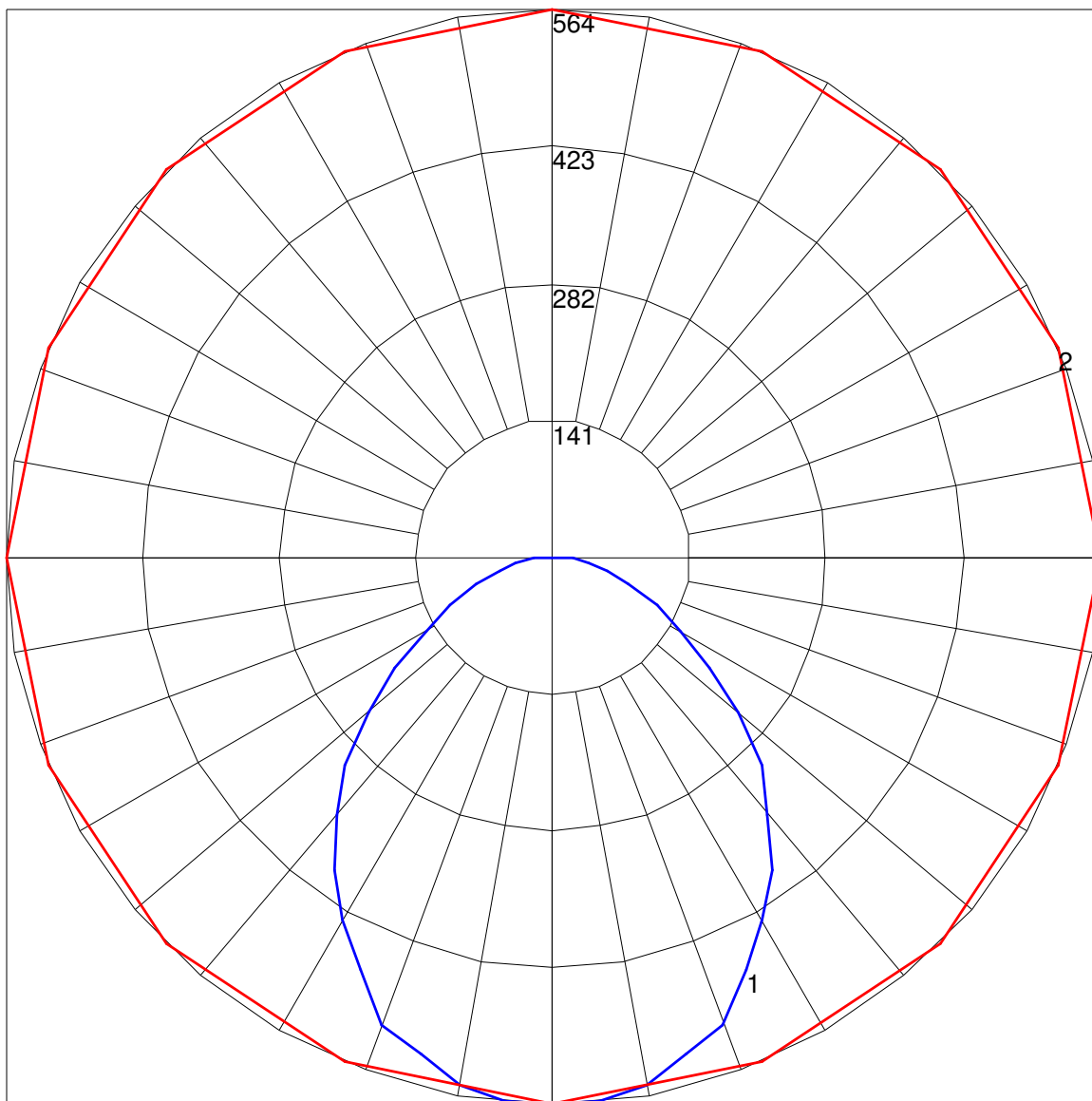
4H	2H	12.6	13.9	13.0	14.3	14.6	11.7	13.0	12.1	13.4	13.7
	3H	14.3	15.3	14.7	15.7	16.1	13.4	14.5	13.8	14.9	15.3
	4H	14.9	15.9	15.4	16.3	16.8	14.1	15.1	14.6	15.5	15.9
	6H	15.6	16.4	16.0	16.8	17.3	14.8	15.7	15.3	16.1	16.6
	8H	15.8	16.6	16.2	17.0	17.5	15.1	15.9	15.6	16.3	16.8
	12H	16.0	16.7	16.5	17.2	17.6	15.4	16.1	15.8	16.5	17.0

8H	4H	15.1	15.9	15.6	16.4	16.8	14.4	15.2	14.9	15.6	16.1
	6H	15.9	16.5	16.4	17.0	17.5	15.3	15.9	15.7	16.4	16.9
	8H	16.2	16.8	16.7	17.3	17.8	15.7	16.2	16.2	16.8	17.2
	12H	16.5	17.0	17.0	17.5	18.1	16.0	16.5	16.5	17.0	17.6

12H	4H	15.2	15.9	15.7	16.4	16.8	14.4	15.2	14.9	15.6	16.1
	6H	16.0	16.5	16.5	17.0	17.5	15.4	15.9	15.9	16.4	16.9
	8H	16.3	16.9	16.8	17.3	17.9	15.8	16.3	16.3	16.8	17.4

Maximum UGR = 18.1

POLAR GRAPH



Maximum Candela = 563.745 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.)