



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S14-L45-840-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

[ISSUEDATE] 10-19-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 1x4' LED TROFFER

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] 50G-S14-L45-840-SAF12125-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	4869
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	37.6
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	6337	6015	5642
55	5082	4617	4162
65	4076	3588	3315
75	3248	3004	3004
85	3310	2995	3310

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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	2240.260	2240.260	2240.260	2240.260	2240.260
5	2234.318	2233.575	2234.318	2233.575	2235.803
10	2197.178	2197.178	2195.692	2195.692	2195.692
15	2111.757	2111.757	2108.043	2108.043	2107.300
20	2045.649	2044.163	2039.706	2036.735	2035.992
25	1865.893	1861.436	1856.237	1848.809	1848.809
30	1720.306	1714.363	1700.250	1683.909	1678.709
35	1571.005	1563.577	1540.550	1510.838	1499.697
40	1373.422	1360.795	1328.854	1290.229	1272.402
45	1211.493	1191.438	1149.842	1097.103	1078.534
50	987.913	964.144	918.091	862.381	846.040
55	788.102	765.818	716.051	664.799	645.486
60	605.375	583.092	541.495	502.127	486.529
65	465.730	447.161	410.021	385.509	378.824
70	333.514	320.886	293.403	285.975	286.718
75	227.294	220.609	210.210	205.011	210.210
80	151.530	147.073	140.388	144.102	146.330
85	77.993	74.279	70.565	77.250	77.993
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	809.38	N.A.	16.60
0-30	1667.98	N.A.	34.30
0-40	2622.38	N.A.	53.90
0-60	4142.22	N.A.	85.10
0-80	4788.4	N.A.	98.30
0-90	4868.76	N.A.	100.00
10-90	4656.78	N.A.	95.60
20-40	1813.00	N.A.	37.20
20-50	2687.13	N.A.	55.20
40-70	1935.09	N.A.	39.70
60-80	646.18	N.A.	13.30
70-80	230.93	N.A.	4.70
80-90	80.36	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	4868.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	211.98
10-20	597.40
20-30	858.60
30-40	954.40
40-50	874.13
50-60	645.71
60-70	415.25
70-80	230.93
80-90	80.36
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

X=2H	Y=2H	17.1	18.6	17.4	18.9	19.2	16.0	17.5	16.3	17.8	18.1
	3H	18.5	19.8	18.9	20.2	20.5	17.4	18.8	17.8	19.1	19.5
	4H	19.0	20.3	19.4	20.6	21.0	18.0	19.3	18.4	19.6	20.0
	6H	19.5	20.6	19.9	21.0	21.4	18.6	19.7	19.0	20.1	20.5
	8H	19.6	20.8	20.1	21.1	21.5	18.8	19.9	19.2	20.3	20.7
	12H	19.8	20.9	20.2	21.2	21.7	19.0	20.1	19.4	20.4	20.9

UGR Viewed Endwise

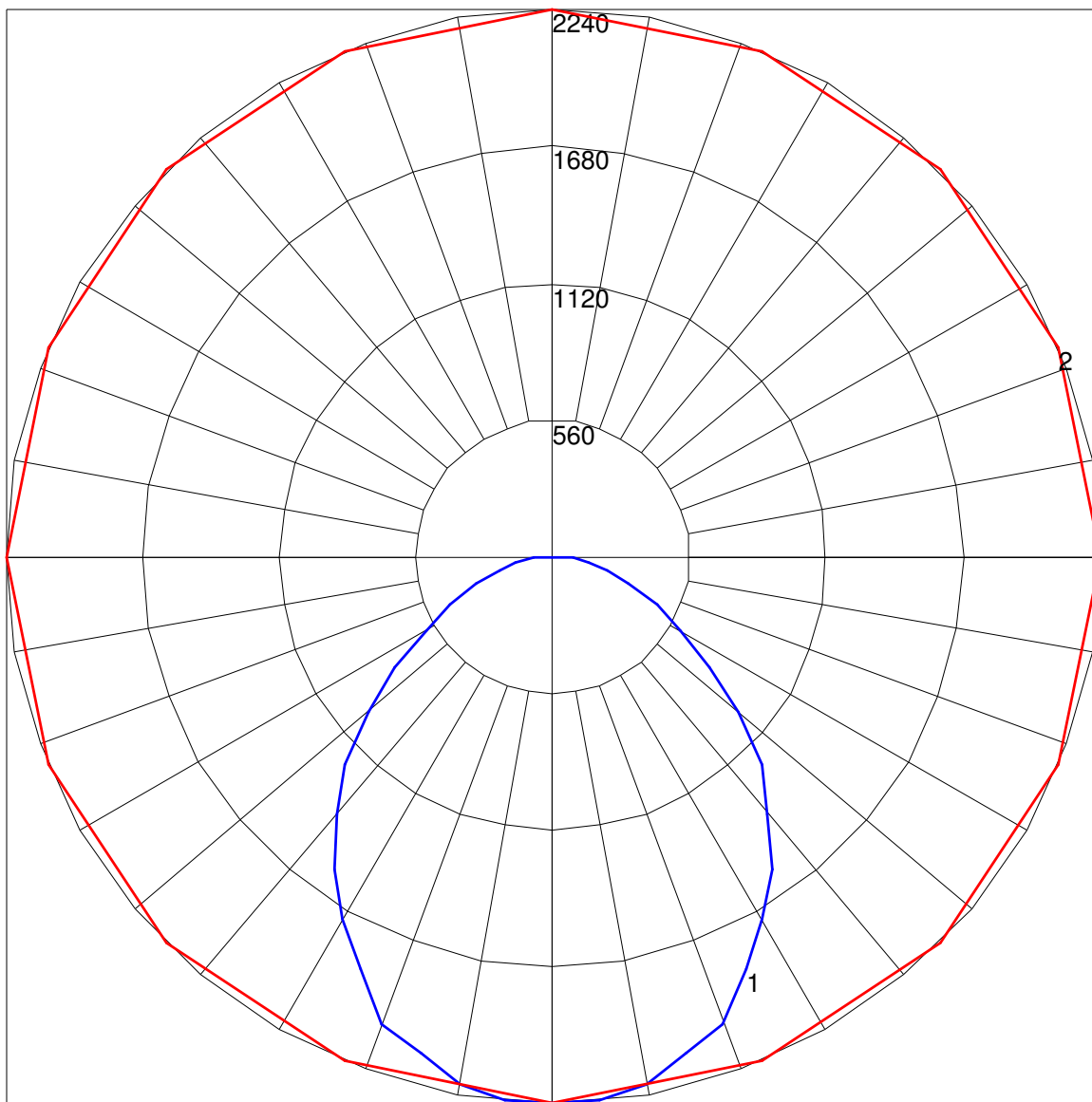
4H	2H	17.4	18.7	17.8	19.1	19.4	16.5	17.8	16.9	18.2	18.5
	3H	19.1	20.1	19.5	20.5	20.9	18.2	19.3	18.6	19.7	20.1
	4H	19.7	20.7	20.2	21.1	21.5	18.9	19.9	19.3	20.3	20.7
	6H	20.3	21.2	20.8	21.6	22.1	19.6	20.4	20.1	20.9	21.3
	8H	20.6	21.4	21.0	21.8	22.3	19.9	20.7	20.4	21.1	21.6
	12H	20.8	21.5	21.3	22.0	22.4	20.2	20.9	20.6	21.3	21.8

8H	4H	19.9	20.7	20.4	21.2	21.6	19.2	20.0	19.7	20.4	20.9
	6H	20.7	21.3	21.2	21.8	22.3	20.1	20.7	20.5	21.2	21.7
	8H	21.0	21.6	21.5	22.1	22.6	20.5	21.0	21.0	21.5	22.0
	12H	21.3	21.8	21.8	22.3	22.9	20.8	21.3	21.3	21.8	22.4

12H	4H	20.0	20.7	20.4	21.1	21.6	19.2	20.0	19.7	20.4	20.9
	6H	20.8	21.3	21.3	21.8	22.3	20.2	20.7	20.7	21.2	21.7
	8H	21.1	21.7	21.6	22.1	22.7	20.6	21.1	21.1	21.6	22.2

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 2240.26 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.)