



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L33-835-SAF19156-(L16)-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] 08-03-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' LED TROFFER

[MORE] FROSTED ACRYLIC LENS

[LUMCAT] 50G-S24-L33-835-SAF19156-(L16)-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	1518
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	137
Total Luminaire Watts	11.1
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	823	812	801
55	679	657	637
65	546	514	507
75	443	424	447
85	442	442	522

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 50G-S24-L33-835-SAF19156-(L16)-DIM-UNV_.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	683.552	683.552	683.552	683.552	683.552
5	676.824	676.382	675.831	675.500	675.500
10	664.580	663.808	664.359	664.580	664.580
15	637.445	637.445	637.445	638.217	638.548
20	613.730	613.730	614.502	615.605	614.502
25	561.997	561.446	563.100	564.093	563.873
30	517.766	517.214	518.317	518.317	519.420
35	465.813	465.592	464.709	464.489	466.585
40	412.205	411.212	409.006	407.241	408.786
45	361.576	360.252	356.502	353.303	351.538
50	297.379	294.731	291.753	286.790	283.811
55	242.006	237.925	233.954	227.887	226.784
60	187.296	184.097	179.023	174.280	173.728
65	143.395	140.748	134.791	133.026	133.026
70	104.458	102.913	97.839	99.715	99.935
75	71.146	70.043	68.168	70.594	71.918
80	47.982	47.210	47.210	49.306	50.850
85	23.936	23.164	23.936	27.135	28.238
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 50G-S24-L33-835-SAF19156-(L16)-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	244.64	N.A.	16.10
0-30	504.93	N.A.	33.30
0-40	795.68	N.A.	52.40
0-60	1277.91	N.A.	84.20
0-80	1491.18	N.A.	98.20
0-90	1517.98	N.A.	100.00
10-90	1453.78	N.A.	95.80
20-40	551.04	N.A.	36.30
20-50	823.76	N.A.	54.30
40-70	619.20	N.A.	40.80
60-80	213.27	N.A.	14.00
70-80	76.30	N.A.	5.00
80-90	26.80	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	1517.98	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	64.20
10-20	180.44
20-30	260.29
30-40	290.75
40-50	272.72
50-60	209.51
60-70	136.96
70-80	76.30
80-90	26.80
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	10.2	11.7	10.5	12.0	12.3	9.8	11.3	10.2	11.6	12.0
	3H	11.6	13.0	12.0	13.3	13.7	11.2	12.6	11.6	13.0	13.3
	4H	12.1	13.4	12.5	13.8	14.2	11.8	13.1	12.2	13.5	13.9
	6H	12.6	13.8	13.0	14.2	14.6	12.4	13.6	12.8	13.9	14.3
	8H	12.8	13.9	13.2	14.3	14.7	12.6	13.8	13.0	14.1	14.5
	12H	12.9	14.0	13.3	14.4	14.8	12.8	13.9	13.2	14.3	14.7

UGR Viewed Endwise

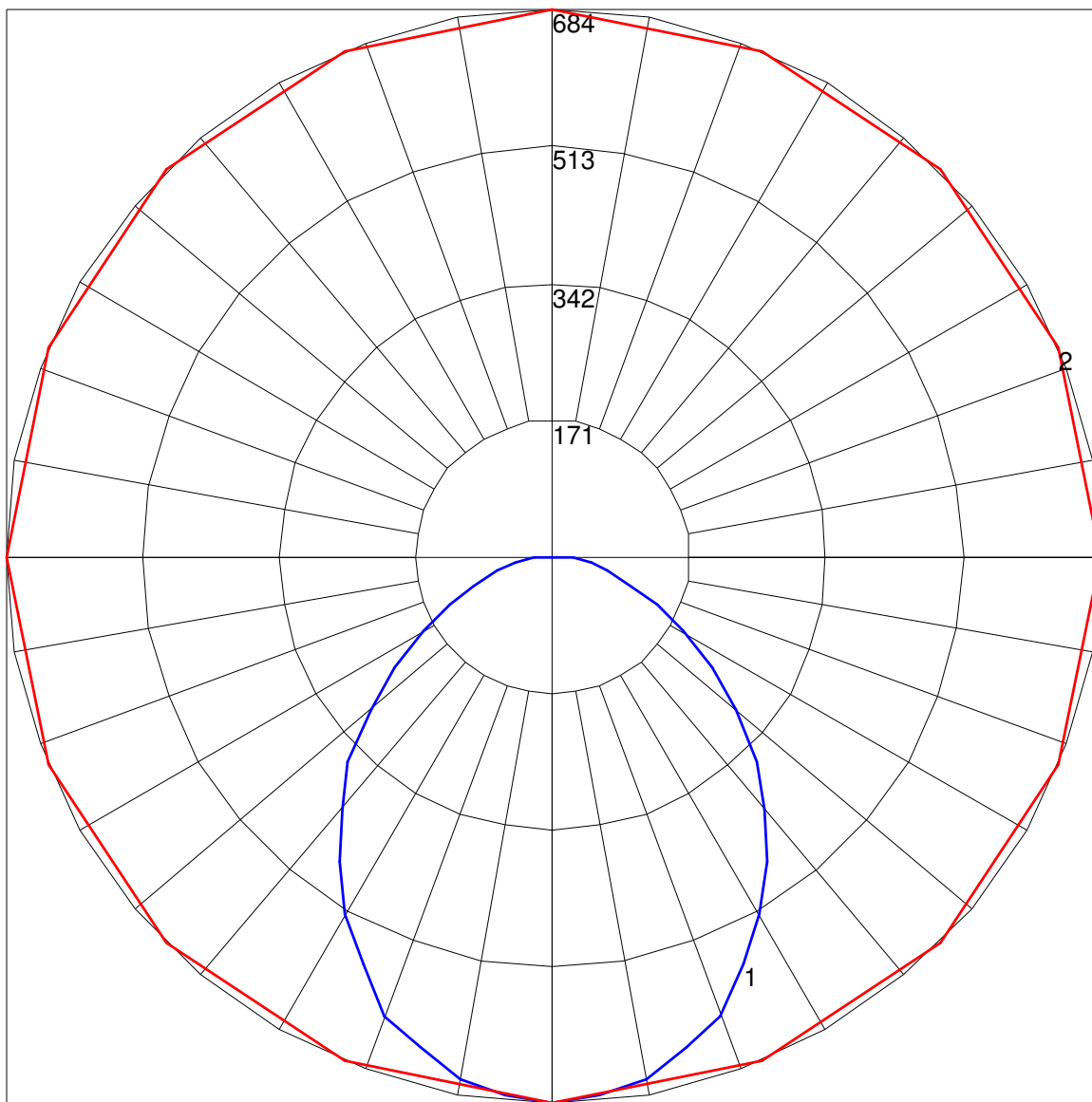
4H	2H	10.6	11.9	11.0	12.2	12.6	10.3	11.6	10.7	11.9	12.3
	3H	12.2	13.3	12.7	13.7	14.1	12.0	13.1	12.4	13.5	13.9
	4H	12.9	13.9	13.3	14.3	14.7	12.7	13.7	13.1	14.1	14.5
	6H	13.5	14.4	14.0	14.8	15.3	13.4	14.2	13.9	14.7	15.1
	8H	13.8	14.6	14.2	15.0	15.5	13.7	14.5	14.2	14.9	15.4
	12H	14.0	14.7	14.5	15.2	15.6	14.0	14.7	14.5	15.2	15.6

8H	4H	13.2	14.0	13.6	14.4	14.9	13.0	13.8	13.4	14.2	14.7
	6H	13.9	14.6	14.4	15.1	15.5	13.8	14.5	14.3	15.0	15.4
	8H	14.2	14.8	14.8	15.4	15.8	14.2	14.8	14.7	15.3	15.8
	12H	14.5	15.1	15.0	15.6	16.1	14.6	15.1	15.1	15.6	16.2

12H	4H	13.2	13.9	13.7	14.4	14.9	13.0	13.7	13.5	14.2	14.7
	6H	14.0	14.6	14.5	15.1	15.6	13.9	14.5	14.4	15.0	15.5
	8H	14.4	14.9	14.9	15.4	16.0	14.3	14.9	14.9	15.4	15.9

Maximum UGR = 16.2

POLAR GRAPH



Maximum Candela = 683.552 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.)