



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L33-940-SAF12125-(L30)-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] 09-DEC-2020
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMINAIRE] 2x4'RECESSED LUMINAIRE
[MORE] WHITE REFLECTOR w/PAT 12 LENS PRISMS DOWN
[LUMCAT] 50G-S24-L33-940-SAF12125-(L30)-DIM-UNV
[LAMPCAT] HLM 90 CRI 4000K CCT
[_SEARCH_SOURCETYPE]LED
[_SEARCH_APPLICATION]INDOOR,DIRECT
[_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2519
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	21
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	1366	1347	1328
55	1127	1090	1056
65	907	852	841
75	735	704	742
85	734	734	866

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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	1134.301	1134.301	1134.301	1134.301	1134.301
5	1123.135	1122.403	1121.488	1120.939	1120.939
10	1102.818	1101.537	1102.452	1102.818	1102.818
15	1057.790	1057.790	1057.790	1059.071	1059.620
20	1018.436	1018.436	1019.718	1021.548	1019.718
25	932.590	931.675	934.421	936.068	935.702
30	859.191	858.276	860.106	860.106	861.937
35	772.979	772.613	771.149	770.783	774.260
40	684.022	682.374	678.713	675.785	678.347
45	600.006	597.810	591.586	586.278	583.349
50	493.477	489.084	484.142	475.905	470.963
55	401.590	394.818	388.228	378.161	376.331
60	310.802	305.494	297.074	289.204	288.288
65	237.952	233.559	223.675	220.747	220.747
70	173.339	170.777	162.357	165.468	165.835
75	118.061	116.231	113.119	117.146	119.342
80	79.623	78.341	78.341	81.819	84.382
85	39.720	38.438	39.720	45.028	46.858
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	405.97	N.A.	16.10
0-30	837.89	N.A.	33.30
0-40	1320.37	N.A.	52.40
0-60	2120.6	N.A.	84.20
0-80	2474.49	N.A.	98.20
0-90	2518.97	N.A.	100.00
10-90	2412.44	N.A.	95.80
20-40	914.40	N.A.	36.30
20-50	1366.96	N.A.	54.30
40-70	1027.51	N.A.	40.80
60-80	353.90	N.A.	14.00
70-80	126.62	N.A.	5.00
80-90	44.48	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	2518.97	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	106.53
10-20	299.43
20-30	431.93
30-40	482.48
40-50	452.56
50-60	347.67
60-70	227.28
70-80	126.62
80-90	44.48
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	11.9	13.4	12.2	13.7	14.0	11.5	13.0	11.9	13.3	13.7
	3H	13.3	14.7	13.7	15.0	15.4	12.9	14.3	13.3	14.7	15.0
	4H	13.8	15.1	14.2	15.5	15.9	13.5	14.8	13.9	15.2	15.6
	6H	14.3	15.5	14.7	15.9	16.3	14.1	15.3	14.5	15.6	16.0
	8H	14.5	15.6	14.9	16.0	16.4	14.3	15.5	14.7	15.8	16.2
	12H	14.6	15.7	15.0	16.1	16.5	14.5	15.6	14.9	16.0	16.4

UGR Viewed Endwise

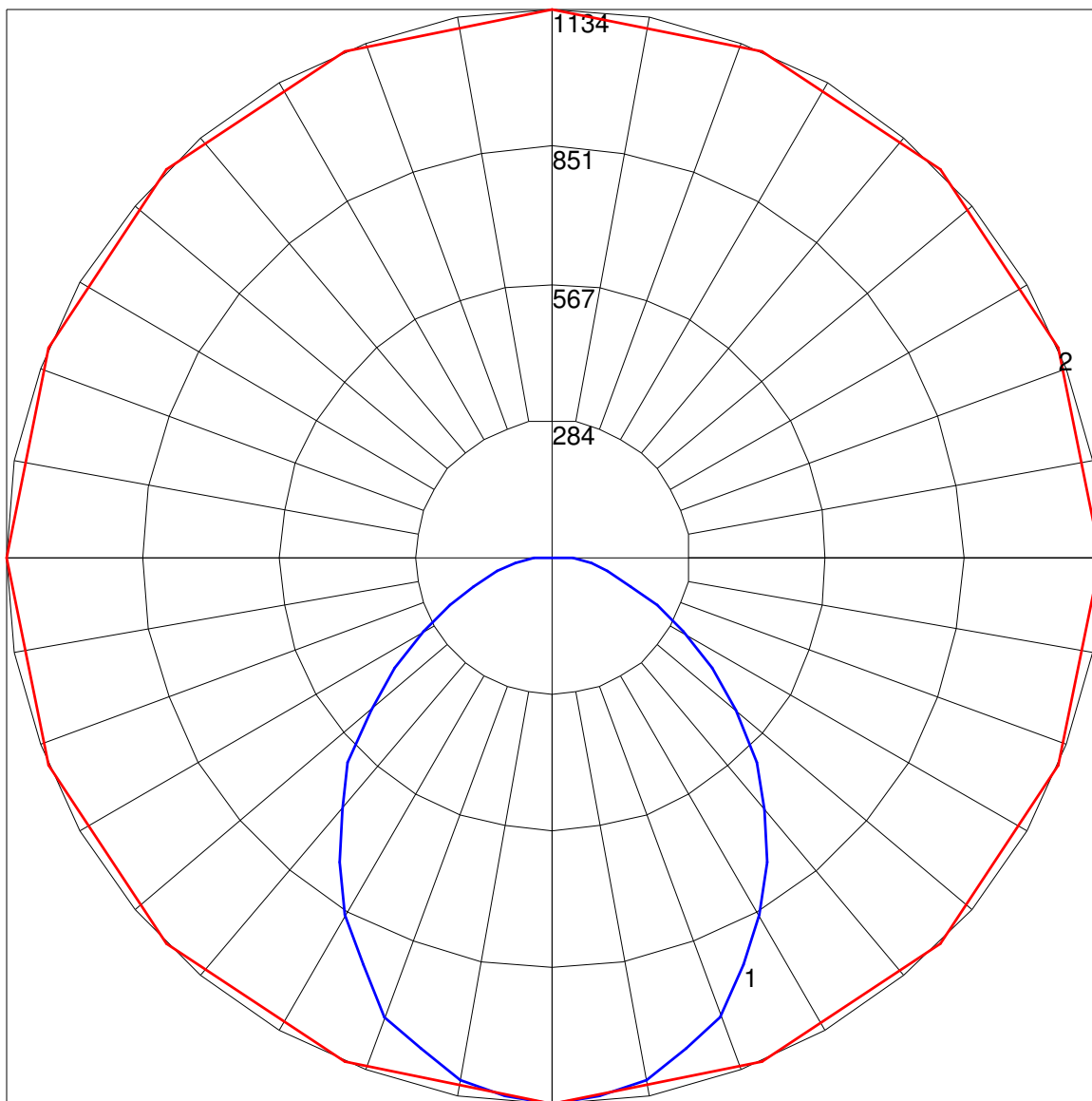
4H	2H	12.3	13.6	12.7	13.9	14.3	12.0	13.3	12.4	13.6	14.0
	3H	13.9	15.0	14.4	15.4	15.8	13.7	14.8	14.1	15.2	15.6
	4H	14.6	15.6	15.0	16.0	16.4	14.4	15.4	14.8	15.8	16.2
	6H	15.2	16.1	15.7	16.5	17.0	15.1	15.9	15.6	16.4	16.8
	8H	15.5	16.3	15.9	16.7	17.2	15.4	16.2	15.9	16.6	17.1
	12H	15.7	16.4	16.2	16.9	17.3	15.7	16.4	16.2	16.9	17.3

8H	4H	14.9	15.7	15.3	16.1	16.6	14.7	15.5	15.1	15.9	16.4
	6H	15.6	16.3	16.1	16.8	17.2	15.5	16.2	16.0	16.7	17.1
	8H	15.9	16.5	16.5	17.1	17.5	15.9	16.5	16.4	17.0	17.5
	12H	16.2	16.8	16.7	17.3	17.8	16.3	16.8	16.8	17.3	17.9

12H	4H	14.9	15.6	15.4	16.1	16.6	14.7	15.4	15.2	15.9	16.4
	6H	15.7	16.3	16.2	16.8	17.3	15.6	16.2	16.1	16.7	17.2
	8H	16.1	16.6	16.6	17.1	17.7	16.0	16.6	16.6	17.1	17.6

Maximum UGR = 17.9

POLAR GRAPH



Maximum Candela = 1134.301 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.)