



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-940-SAF19156-(L35)-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] 09-23-2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMINAIRE] 2 x 4 RECESSED LED LUMINAIRE
 [MORE] WHITE REFLECTOR w/PAT 12 LENS PRISMS DOWN
 [LUMCAT] 50G-S24-L59-940-SAF19156-(L35)-DIM-UNV
 [LAMP] LED
 [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	2796
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	23.9
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	1517	1496	1475
55	1252	1210	1173
65	1007	946	934
75	815	781	824
85	815	815	961

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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	1259.258	1259.258	1259.258	1259.258	1259.258
5	1246.863	1246.050	1245.034	1244.424	1244.424
10	1224.307	1222.885	1223.901	1224.307	1224.307
15	1174.319	1174.319	1174.319	1175.741	1176.351
20	1130.630	1130.630	1132.052	1134.084	1132.052
25	1035.327	1034.311	1037.359	1039.188	1038.781
30	953.842	952.826	954.858	954.858	956.890
35	858.133	857.726	856.101	855.694	859.555
40	759.375	757.546	753.482	750.231	753.076
45	666.104	663.666	656.757	650.864	647.613
50	547.839	542.962	537.476	528.332	522.845
55	445.831	438.312	430.997	419.820	417.788
60	345.041	339.148	329.801	321.063	320.047
65	264.166	259.289	248.316	245.065	245.065
70	192.435	189.590	180.242	183.697	184.103
75	131.067	129.035	125.580	130.051	132.489
80	88.394	86.972	86.972	90.832	93.677
85	44.095	42.673	44.095	49.988	52.020
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	450.69	N.A.	16.10
0-30	930.20	N.A.	33.30
0-40	1465.82	N.A.	52.40
0-60	2354.21	N.A.	84.20
0-80	2747.09	N.A.	98.20
0-90	2796.47	N.A.	100.00
10-90	2678.2	N.A.	95.80
20-40	1015.14	N.A.	36.30
20-50	1517.55	N.A.	54.30
40-70	1140.7	N.A.	40.80
60-80	392.89	N.A.	14.00
70-80	140.57	N.A.	5.00
80-90	49.38	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	2796.47	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	118.27
10-20	332.42
20-30	479.51
30-40	535.63
40-50	502.41
50-60	385.97
60-70	252.32
70-80	140.57
80-90	49.38
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	67	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	12.3	13.8	12.6	14.1	14.4	11.9	13.4	12.3	13.7	14.1
	3H	13.7	15.1	14.1	15.4	15.8	13.4	14.7	13.7	15.1	15.4
	4H	14.2	15.5	14.6	15.9	16.3	13.9	15.2	14.3	15.6	16.0
	6H	14.7	15.9	15.1	16.3	16.7	14.5	15.7	14.9	16.0	16.4
	8H	14.9	16.0	15.3	16.4	16.8	14.7	15.9	15.1	16.2	16.6
	12H	15.0	16.1	15.4	16.5	16.9	14.9	16.0	15.3	16.4	16.8

UGR Viewed Endwise

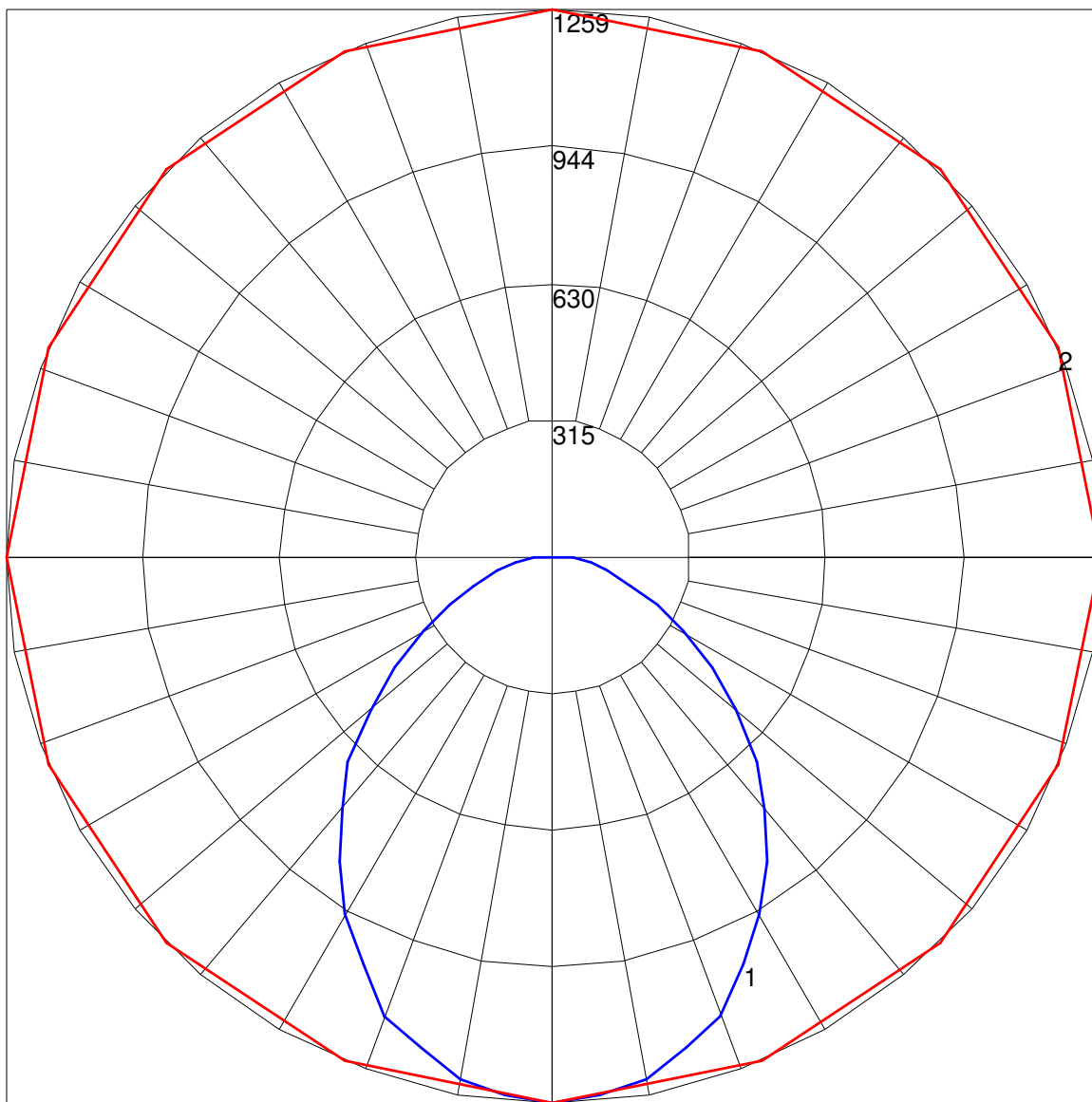
4H	2H	12.7	14.0	13.1	14.3	14.7	12.4	13.7	12.8	14.0	14.4
	3H	14.3	15.4	14.8	15.8	16.2	14.1	15.2	14.5	15.6	16.0
	4H	15.0	16.0	15.5	16.4	16.8	14.8	15.8	15.2	16.2	16.6
	6H	15.6	16.5	16.1	16.9	17.4	15.5	16.3	16.0	16.8	17.3
	8H	15.9	16.7	16.3	17.1	17.6	15.8	16.6	16.3	17.0	17.5
	12H	16.1	16.8	16.6	17.3	17.7	16.1	16.8	16.6	17.3	17.7

8H	4H	15.3	16.1	15.7	16.5	17.0	15.1	15.9	15.5	16.3	16.8
	6H	16.0	16.7	16.5	17.2	17.6	15.9	16.6	16.4	17.1	17.5
	8H	16.3	16.9	16.9	17.5	17.9	16.3	16.9	16.8	17.4	17.9
	12H	16.6	17.2	17.1	17.7	18.2	16.7	17.2	17.2	17.7	18.3

12H	4H	15.3	16.0	15.8	16.5	17.0	15.1	15.8	15.6	16.3	16.8
	6H	16.1	16.7	16.6	17.2	17.7	16.0	16.6	16.5	17.1	17.6
	8H	16.5	17.0	17.0	17.5	18.1	16.4	17.0	17.0	17.5	18.0

Maximum UGR = 18.3

POLAR GRAPH



Maximum Candela = 1259.258 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.)