



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-(L43)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20114.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 02-11-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE

[LUMCAT] SLF-4-L52-840-HIA-(L43)-DIM-UNV

[MORE] WITH FROSTED ACRYLIC LENS

[LAMPCAT] HLM 80 CRI 4000K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Industrial, Manufacturing, Office, Direct

[_SEARCH_MOUNTING] Pendant, Surface, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4412
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	142
Total Luminaire Watts	31
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.06 ft
Luminous Width (90-270)	0.47 ft
Luminous Height	0.23 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6246	5168	5303
55	5286	4430	4704
65	4252	3743	4033
75	2986	2998	3395
85	912	2412	2970

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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	1424.580	1424.580	1424.580	1424.580	1424.580
5	1439.781	1418.789	1412.998	1411.550	1410.827
10	1409.379	1393.454	1389.834	1393.454	1389.834
15	1365.946	1353.641	1359.432	1365.946	1364.499
20	1301.522	1292.112	1312.380	1323.962	1328.305
25	1230.582	1218.277	1247.231	1274.015	1276.186
30	1144.442	1137.203	1174.844	1213.933	1215.381
35	1047.443	1043.823	1090.875	1141.546	1148.061
40	944.653	935.243	996.048	1057.577	1071.331
45	826.662	816.528	896.877	967.093	988.809
50	699.984	702.880	798.431	872.266	903.392
55	580.545	598.642	697.813	776.715	811.461
60	465.450	498.024	600.814	685.507	715.909
65	356.869	397.406	511.778	591.403	618.187
70	255.527	303.302	423.465	504.539	526.255
75	165.767	216.438	335.153	424.189	439.390
80	87.589	148.394	263.489	351.802	364.108
85	23.164	95.551	201.236	288.101	301.855
90	2.895	60.081	156.356	234.535	251.907
95	0.724	35.470	117.991	186.035	206.304
100	0.000	20.992	85.417	144.051	164.319
105	0.000	14.477	62.977	109.305	131.021
110	0.000	10.858	49.947	89.036	107.133
115	0.000	9.410	37.641	71.663	85.417
120	0.000	8.686	31.850	58.634	68.768
125	0.000	5.791	23.164	46.328	55.014
130	0.000	5.067	18.821	35.470	41.985
135	0.000	3.619	14.477	28.231	32.574
140	0.000	3.619	10.858	21.716	26.059
145	0.000	1.448	9.410	17.373	19.545
150	0.000	0.000	8.686	15.201	17.373
155	0.000	0.000	5.791	10.858	13.754
160	0.000	0.000	5.067	7.239	9.410
165	0.000	0.000	0.000	5.067	5.791
170	0.000	0.000	0.000	0.000	3.619
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	518.18	N.A.	11.70
0-30	1093.42	N.A.	24.80
0-40	1776.84	N.A.	40.30
0-60	3090.02	N.A.	70.00
0-80	3924.97	N.A.	89.00
0-90	4133.72	N.A.	93.70
10-90	3999.18	N.A.	90.60
20-40	1258.67	N.A.	28.50
20-50	1951.45	N.A.	44.20
40-70	1806.88	N.A.	41.00
60-80	834.96	N.A.	18.90
70-80	341.25	N.A.	7.70
80-90	208.74	N.A.	4.70
90-110	191.51	N.A.	4.30
90-120	232.53	N.A.	5.30
90-130	256.14	N.A.	5.80
90-150	274.78	N.A.	6.20
90-180	278.29	N.A.	6.30
110-180	86.78	N.A.	2.00
0-180	4412.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	134.54
10-20	383.64
20-30	575.25
30-40	683.42
40-50	692.78
50-60	620.40
60-70	493.71
70-80	341.25
80-90	208.74
90-100	122.60
100-110	68.90
110-120	41.02
120-130	23.61
130-140	12.40
140-150	6.24
150-160	2.84
160-170	0.66
170-180	0.02

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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	92	89	86	87	84	82	83	80	78	76
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	77	68	61	84	74	67	60	71	64	58	67	61	57	64	59	55	52
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	61	51	45	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	38	33	42	36	32	30
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	24	22

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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	15.0	16.6	15.5	17.0	17.5	18.1	19.7	18.6	20.1	20.6
	3H	16.3	17.7	16.7	18.1	18.6	20.4	21.8	20.9	22.3	22.8
	4H	16.6	17.9	17.1	18.4	18.9	21.5	22.8	22.0	23.3	23.8
	6H	16.8	18.0	17.3	18.5	19.0	22.5	23.8	23.0	24.2	24.8
	8H	16.8	18.0	17.4	18.5	19.1	23.1	24.3	23.6	24.8	25.3
	12H	16.8	18.0	17.4	18.5	19.0	23.7	24.8	24.2	25.3	25.9

UGR Viewed Endwise

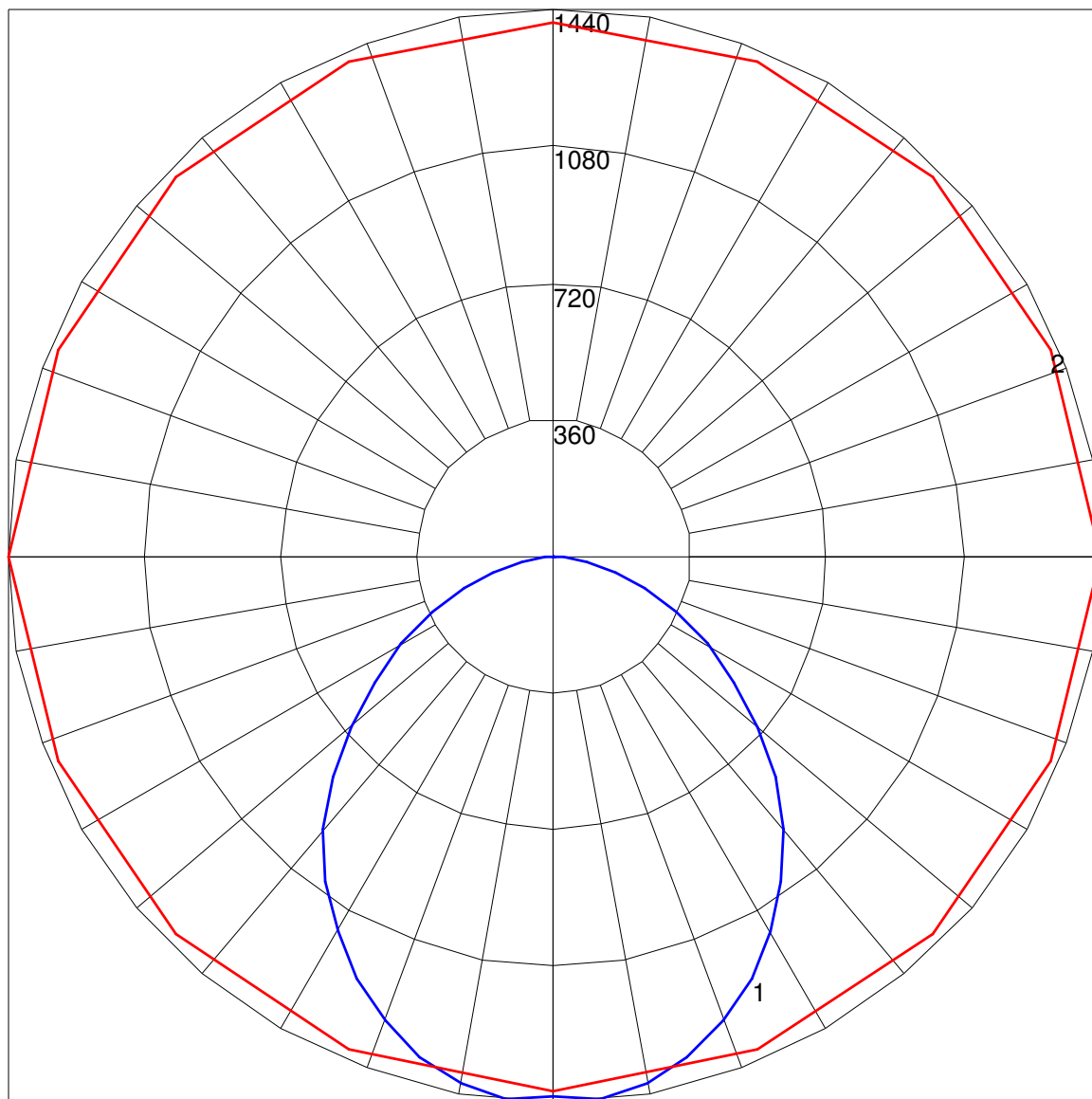
4H	2H	16.0	17.3	16.5	17.8	18.3	18.5	19.8	19.0	20.3	20.8
	3H	17.5	18.6	18.0	19.1	19.7	21.0	22.1	21.5	22.6	23.1
	4H	17.9	19.0	18.5	19.5	20.0	22.2	23.2	22.7	23.7	24.3
	6H	18.2	19.1	18.8	19.7	20.2	23.5	24.4	24.0	24.9	25.5
	8H	18.3	19.1	18.8	19.7	20.3	24.1	25.0	24.7	25.5	26.1
	12H	18.3	19.0	18.9	19.6	20.2	24.8	25.6	25.4	26.2	26.8

8H	4H	18.7	19.5	19.2	20.1	20.7	22.4	23.2	22.9	23.7	24.3
	6H	19.1	19.8	19.7	20.4	21.0	23.8	24.5	24.3	25.1	25.7
	8H	19.2	19.9	19.8	20.5	21.1	24.6	25.2	25.2	25.8	26.4
	12H	19.3	19.9	19.9	20.5	21.1	25.4	26.0	26.0	26.6	27.3

12H	4H	18.9	19.6	19.4	20.2	20.8	22.3	23.1	22.9	23.7	24.3
	6H	19.4	20.1	20.0	20.6	21.3	23.8	24.5	24.4	25.0	25.7
	8H	19.6	20.2	20.2	20.8	21.5	24.6	25.2	25.2	25.8	26.5

Maximum UGR = 27.3

POLAR GRAPH



Maximum Candela = 1439.781 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)