



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-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] 10-07-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE

[LUMCAT] SLF-4-L52-840-HIA-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	5245
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	37.16
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	7424	6143	6303
55	6284	5266	5592
65	5054	4449	4794
75	3550	3564	4035
85	1084	2867	3531

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-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	1693.468	1693.468	1693.468	1693.468	1693.468
5	1711.539	1686.584	1679.700	1677.979	1677.119
10	1675.398	1656.467	1652.164	1656.467	1652.164
15	1623.768	1609.139	1616.023	1623.768	1622.047
20	1547.183	1535.996	1560.090	1573.858	1579.021
25	1462.854	1448.225	1482.645	1514.484	1517.065
30	1360.454	1351.849	1396.595	1443.062	1444.783
35	1245.147	1240.844	1296.777	1357.012	1364.756
40	1122.955	1111.769	1184.051	1257.194	1273.543
45	982.693	970.646	1066.162	1149.631	1175.446
50	832.106	835.548	949.134	1036.905	1073.907
55	690.123	711.635	829.524	923.319	964.623
60	553.303	592.025	714.217	814.896	851.037
65	424.228	472.416	608.375	703.030	734.869
70	303.757	360.550	503.394	599.770	625.585
75	197.055	257.290	398.412	504.254	522.325
80	104.121	176.403	313.223	418.204	432.833
85	27.536	113.586	239.220	342.480	358.829
90	3.442	71.422	185.868	278.803	299.455
95	0.861	42.165	140.262	221.149	245.243
100	0.000	24.955	101.539	171.240	195.334
105	0.000	17.210	74.864	129.936	155.751
110	0.000	12.908	59.375	105.842	127.354
115	0.000	11.187	44.746	85.190	101.539
120	0.000	10.326	37.862	69.701	81.748
125	0.000	6.884	27.536	55.072	65.398
130	0.000	6.024	22.373	42.165	49.909
135	0.000	4.303	17.210	33.560	38.723
140	0.000	4.303	12.908	25.815	30.978
145	0.000	1.721	11.187	20.652	23.234
150	0.000	0.000	10.326	18.071	20.652
155	0.000	0.000	6.884	12.908	16.350
160	0.000	0.000	6.024	8.605	11.187
165	0.000	0.000	0.000	6.024	6.884
170	0.000	0.000	0.000	0.000	4.303
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	615.98	N.A.	11.70
0-30	1299.8	N.A.	24.80
0-40	2112.22	N.A.	40.30
0-60	3673.26	N.A.	70.00
0-80	4665.81	N.A.	89.00
0-90	4913.95	N.A.	93.70
10-90	4754.02	N.A.	90.60
20-40	1496.24	N.A.	28.50
20-50	2319.78	N.A.	44.20
40-70	2147.93	N.A.	41.00
60-80	992.55	N.A.	18.90
70-80	405.66	N.A.	7.70
80-90	248.14	N.A.	4.70
90-110	227.65	N.A.	4.30
90-120	276.42	N.A.	5.30
90-130	304.49	N.A.	5.80
90-150	326.64	N.A.	6.20
90-180	330.82	N.A.	6.30
110-180	103.16	N.A.	2.00
0-180	5244.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	159.93
10-20	456.05
20-30	683.82
30-40	812.42
40-50	823.54
50-60	737.50
60-70	586.90
70-80	405.66
80-90	248.14
90-100	145.75
100-110	81.91
110-120	48.76
120-130	28.07
130-140	14.74
140-150	7.41
150-160	3.37
160-170	0.78
170-180	0.02

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-DIM-UNV_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-DIM-UNV_.IES

UGR TABLE - CORRECTED

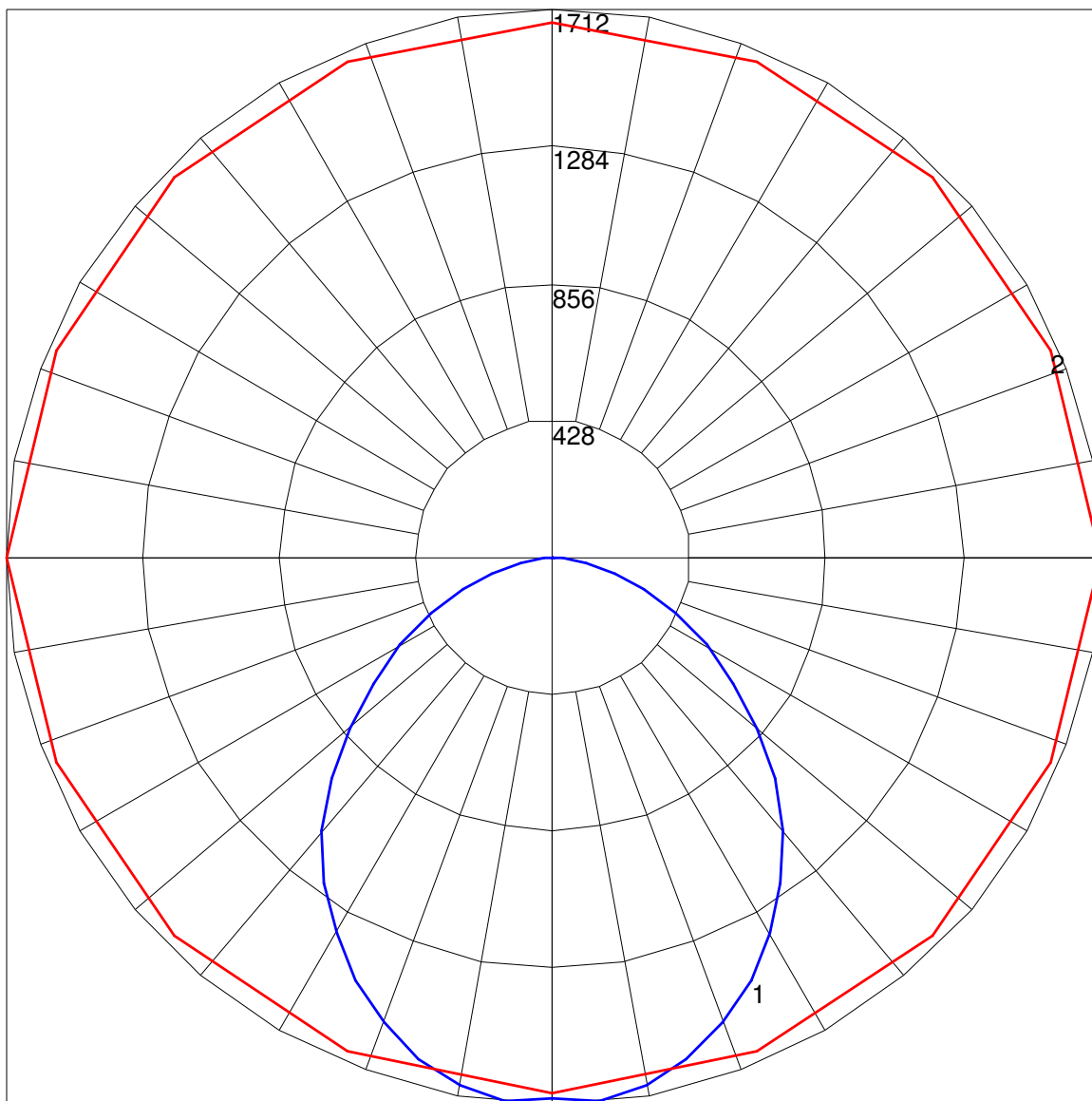
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	15.6	17.2	16.1	17.6	18.1	18.7	20.3	19.2	20.7	21.2
	3H	16.9	18.3	17.3	18.7	19.2	21.0	22.4	21.5	22.9	23.4
	4H	17.2	18.5	17.7	19.0	19.5	22.1	23.4	22.6	23.9	24.4
	6H	17.4	18.6	17.9	19.1	19.6	23.1	24.4	23.6	24.8	25.4
	8H	17.4	18.6	18.0	19.1	19.7	23.7	24.9	24.2	25.4	25.9
	12H	17.4	18.6	18.0	19.1	19.6	24.3	25.4	24.8	25.9	26.5
4H	2H	16.6	17.9	17.1	18.4	18.9	19.1	20.4	19.6	20.9	21.4
	3H	18.1	19.2	18.6	19.7	20.3	21.6	22.7	22.1	23.2	23.7
	4H	18.5	19.6	19.1	20.1	20.6	22.8	23.8	23.3	24.3	24.9
	6H	18.8	19.7	19.4	20.3	20.8	24.1	25.0	24.6	25.5	26.1
	8H	18.9	19.7	19.4	20.3	20.9	24.7	25.6	25.3	26.1	26.7
	12H	18.9	19.6	19.5	20.2	20.8	25.4	26.2	26.0	26.8	27.4
8H	4H	19.3	20.1	19.8	20.7	21.3	23.0	23.8	23.5	24.3	24.9
	6H	19.7	20.4	20.3	21.0	21.6	24.4	25.1	24.9	25.7	26.3
	8H	19.8	20.5	20.4	21.1	21.7	25.2	25.8	25.8	26.4	27.0
	12H	19.9	20.5	20.5	21.1	21.7	26.0	26.6	26.6	27.2	27.9
12H	4H	19.5	20.2	20.0	20.8	21.4	22.9	23.7	23.5	24.3	24.9
	6H	20.0	20.7	20.6	21.2	21.9	24.4	25.1	25.0	25.6	26.3
	8H	20.2	20.8	20.8	21.4	22.1	25.2	25.8	25.8	26.4	27.1

Maximum UGR = 27.9

POLAR GRAPH



Maximum Candela = 1711.539 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.)