



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-835-HIA-(L32)-SD50-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] 10-05-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE

[LUMCAT] SLF-4-L52-835-HIA-(L32)-SD50-UNV

[MORE] WITH FROSTED ACRYLIC LENS

[LAMPCAT] HLM 80 CRI 3500K 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	3241
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
Total Luminaire Watts	23.4
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	4588	3796	3895
55	3883	3254	3455
65	3123	2749	2962
75	2194	2203	2494
85	670	1772	2182

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-835-HIA-(L32)-SD50-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	1046.479	1046.479	1046.479	1046.479	1046.479
5	1057.645	1042.225	1037.971	1036.907	1036.375
10	1035.312	1023.614	1020.955	1023.614	1020.955
15	1003.407	994.367	998.621	1003.407	1002.344
20	956.082	949.169	964.058	972.566	975.756
25	903.970	894.931	916.201	935.875	937.470
30	840.692	835.375	863.026	891.740	892.804
35	769.438	766.780	801.343	838.565	843.351
40	693.930	687.017	731.684	776.883	786.986
45	607.255	599.811	658.835	710.414	726.367
50	514.200	516.327	586.517	640.755	663.621
55	426.461	439.755	512.604	570.565	596.089
60	341.914	365.842	441.350	503.565	525.898
65	262.151	291.929	375.945	434.438	454.112
70	187.707	222.802	311.072	370.628	386.580
75	121.770	158.992	246.199	311.604	322.771
80	64.341	109.008	193.556	258.429	267.469
85	17.016	70.191	147.826	211.635	221.739
90	2.127	44.135	114.857	172.286	185.048
95	0.532	26.056	86.675	136.659	151.548
100	0.000	15.421	62.746	105.818	120.707
105	0.000	10.635	46.262	80.294	96.246
110	0.000	7.976	36.691	65.405	78.699
115	0.000	6.913	27.651	52.643	62.746
120	0.000	6.381	23.397	43.072	50.516
125	0.000	4.254	17.016	34.032	40.413
130	0.000	3.722	13.825	26.056	30.841
135	0.000	2.659	10.635	20.738	23.929
140	0.000	2.659	7.976	15.952	19.143
145	0.000	1.063	6.913	12.762	14.357
150	0.000	0.000	6.381	11.167	12.762
155	0.000	0.000	4.254	7.976	10.103
160	0.000	0.000	3.722	5.317	6.913
165	0.000	0.000	0.000	3.722	4.254
170	0.000	0.000	0.000	0.000	2.659
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-L52-835-HIA-(L32)-SD50-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	380.64	N.A.	11.70
0-30	803.21	N.A.	24.80
0-40	1305.25	N.A.	40.30
0-60	2269.89	N.A.	70.00
0-80	2883.24	N.A.	89.00
0-90	3036.58	N.A.	93.70
10-90	2937.75	N.A.	90.60
20-40	924.60	N.A.	28.50
20-50	1433.51	N.A.	44.20
40-70	1327.31	N.A.	41.00
60-80	613.35	N.A.	18.90
70-80	250.67	N.A.	7.70
80-90	153.34	N.A.	4.70
90-110	140.68	N.A.	4.30
90-120	170.81	N.A.	5.30
90-130	188.16	N.A.	5.80
90-150	201.85	N.A.	6.20
90-180	204.43	N.A.	6.30
110-180	63.75	N.A.	2.00
0-180	3241.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	98.83
10-20	281.81
20-30	422.57
30-40	502.03
40-50	508.90
50-60	455.74
60-70	362.67
70-80	250.67
80-90	153.34
90-100	90.06
100-110	50.61
110-120	30.13
120-130	17.35
130-140	9.11
140-150	4.58
150-160	2.08
160-170	0.48
170-180	0.01

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-835-HIA-(L32)-SD50-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-L52-835-HIA-(L32)-SD50-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

X=2H	Y=2H	13.9	15.5	14.4	15.9	16.4	17.0	18.6	17.5	19.0	19.5
	3H	15.2	16.6	15.6	17.0	17.5	19.3	20.7	19.8	21.2	21.7
	4H	15.5	16.8	16.0	17.3	17.8	20.4	21.7	20.9	22.2	22.7
	6H	15.7	16.9	16.2	17.4	17.9	21.4	22.7	21.9	23.1	23.7
	8H	15.7	16.9	16.3	17.4	18.0	22.0	23.2	22.5	23.7	24.2
	12H	15.7	16.9	16.3	17.4	17.9	22.6	23.7	23.1	24.2	24.8

UGR Viewed Endwise

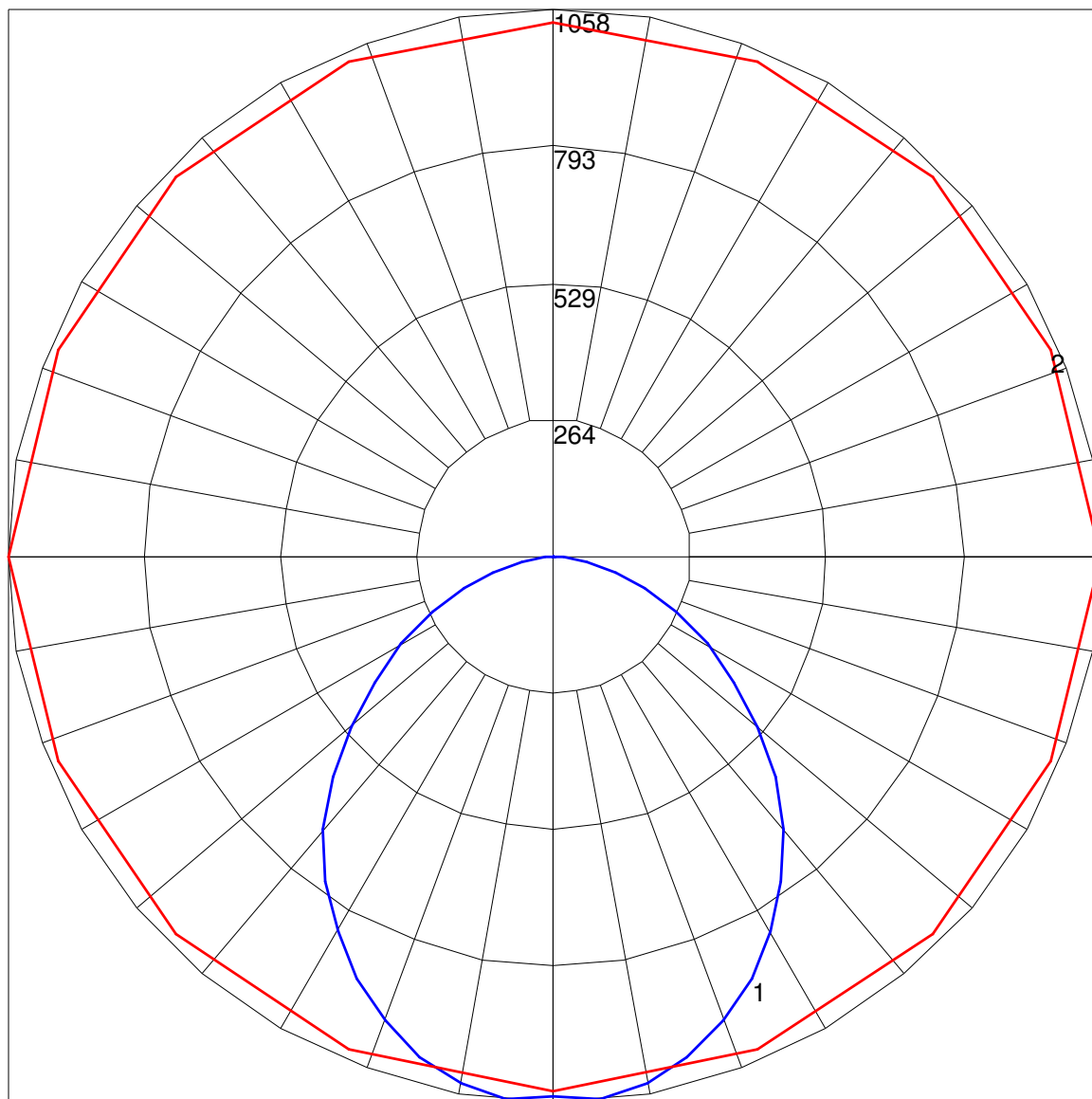
4H	2H	14.9	16.2	15.4	16.7	17.2	17.4	18.7	17.9	19.2	19.7
	3H	16.4	17.5	16.9	18.0	18.6	19.9	21.0	20.4	21.5	22.0
	4H	16.8	17.9	17.4	18.4	18.9	21.1	22.1	21.6	22.6	23.2
	6H	17.1	18.0	17.7	18.6	19.1	22.4	23.3	22.9	23.8	24.4
	8H	17.2	18.0	17.7	18.6	19.2	23.0	23.9	23.6	24.4	25.0
	12H	17.2	17.9	17.8	18.5	19.1	23.7	24.5	24.3	25.1	25.7

8H	4H	17.6	18.4	18.1	19.0	19.6	21.3	22.1	21.8	22.6	23.2
	6H	18.0	18.7	18.6	19.3	19.9	22.7	23.4	23.2	24.0	24.6
	8H	18.1	18.8	18.7	19.4	20.0	23.5	24.1	24.1	24.7	25.3
	12H	18.2	18.8	18.8	19.4	20.0	24.3	24.9	24.9	25.5	26.2

12H	4H	17.8	18.5	18.3	19.1	19.7	21.2	22.0	21.8	22.6	23.2
	6H	18.3	19.0	18.9	19.5	20.2	22.7	23.4	23.3	23.9	24.6
	8H	18.5	19.1	19.1	19.7	20.4	23.5	24.1	24.1	24.7	25.4

Maximum UGR = 26.2

POLAR GRAPH



Maximum Candela = 1057.645 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.)