



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-(L33)-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] 12-05-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' SURFACE MOUNT LED LUMINAIRE

[LUMCAT] SLF-4-L52-840-HIA-(L33)-DIM-UNV

[MORE] WHITE FLAT REFLECTOR w/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	3384
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
Total Luminaire Watts	24.4
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	4790	3964	4067
55	4055	3397	3608
65	3261	2871	3093
75	2290	2300	2604
85	700	1850	2278

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-(L33)-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	1092.652	1092.652	1092.652	1092.652	1092.652
5	1104.311	1088.210	1083.768	1082.658	1082.103
10	1080.992	1068.778	1066.002	1068.778	1066.002
15	1047.680	1038.241	1042.683	1047.680	1046.569
20	998.266	991.048	1006.594	1015.478	1018.809
25	943.856	934.417	956.625	977.168	978.834
30	877.786	872.234	901.105	931.086	932.196
35	803.388	800.612	836.700	875.565	880.562
40	724.548	717.330	763.968	811.161	821.710
45	634.049	626.276	687.904	741.760	758.416
50	536.887	539.108	612.396	669.027	692.901
55	445.278	459.158	535.222	595.739	622.390
60	357.000	381.984	460.824	525.783	549.102
65	273.718	304.810	392.533	453.606	474.149
70	195.989	232.633	324.797	386.981	403.637
75	127.143	166.008	257.062	325.353	337.012
80	67.180	113.818	202.096	269.832	279.270
85	17.767	73.288	154.348	220.973	231.522
90	2.221	46.082	119.925	179.888	193.213
95	0.555	27.205	90.499	142.689	158.235
100	0.000	16.101	65.515	110.487	126.032
105	0.000	11.104	48.303	83.837	100.493
110	0.000	8.328	38.309	68.291	82.171
115	0.000	7.218	28.871	54.966	65.515
120	0.000	6.663	24.429	44.972	52.745
125	0.000	4.442	17.767	35.533	42.196
130	0.000	3.886	14.435	27.205	32.202
135	0.000	2.776	11.104	21.653	24.984
140	0.000	2.776	8.328	16.656	19.988
145	0.000	1.110	7.218	13.325	14.991
150	0.000	0.000	6.663	11.659	13.325
155	0.000	0.000	4.442	8.328	10.549
160	0.000	0.000	3.886	5.552	7.218
165	0.000	0.000	0.000	3.886	4.442
170	0.000	0.000	0.000	0.000	2.776
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-(L33)-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	397.44	N.A.	11.70
0-30	838.65	N.A.	24.80
0-40	1362.84	N.A.	40.30
0-60	2370.04	N.A.	70.00
0-80	3010.45	N.A.	89.00
0-90	3170.56	N.A.	93.70
10-90	3067.37	N.A.	90.60
20-40	965.40	N.A.	28.50
20-50	1496.76	N.A.	44.20
40-70	1385.88	N.A.	41.00
60-80	640.41	N.A.	18.90
70-80	261.74	N.A.	7.70
80-90	160.11	N.A.	4.70
90-110	146.89	N.A.	4.30
90-120	178.35	N.A.	5.30
90-130	196.46	N.A.	5.80
90-150	210.75	N.A.	6.20
90-180	213.45	N.A.	6.30
110-180	66.56	N.A.	2.00
0-180	3384.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	103.19
10-20	294.25
20-30	441.21
30-40	524.18
40-50	531.36
50-60	475.84
60-70	378.68
70-80	261.74
80-90	160.11
90-100	94.04
100-110	52.85
110-120	31.46
120-130	18.11
130-140	9.51
140-150	4.78
150-160	2.18
160-170	0.51
170-180	0.01

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-(L33)-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-(L33)-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

X=2H	Y=2H	14.0	15.6	14.5	16.0	16.5	17.1	18.7	17.6	19.1	19.6
	3H	15.3	16.7	15.7	17.1	17.6	19.4	20.8	19.9	21.3	21.8
	4H	15.6	16.9	16.1	17.4	17.9	20.5	21.8	21.0	22.3	22.8
	6H	15.8	17.0	16.3	17.5	18.0	21.5	22.8	22.0	23.2	23.8
	8H	15.8	17.0	16.4	17.5	18.1	22.1	23.3	22.6	23.8	24.3
	12H	15.8	17.0	16.4	17.5	18.0	22.7	23.8	23.2	24.3	24.9

UGR Viewed Endwise

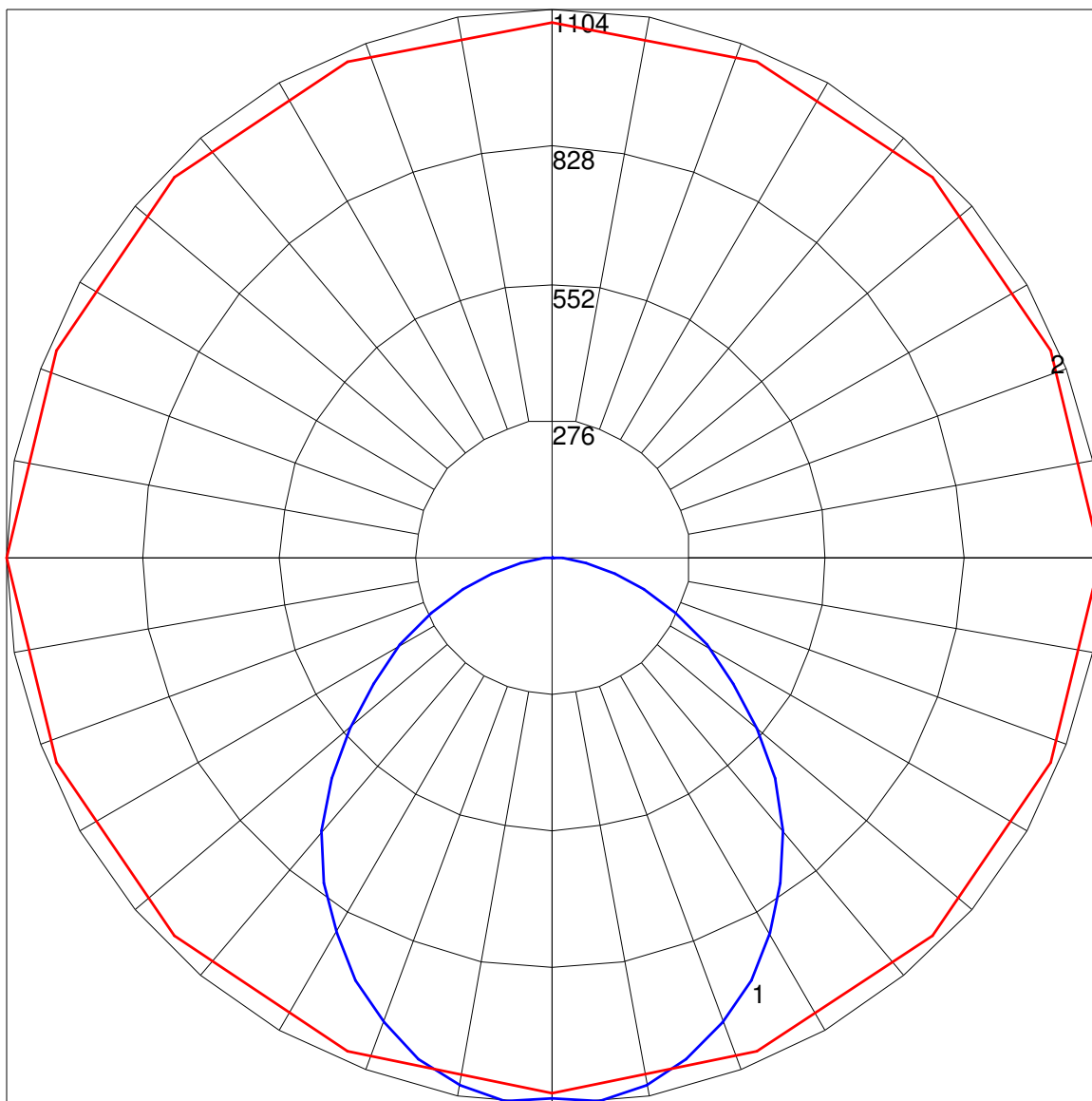
4H	2H	15.0	16.3	15.5	16.8	17.3	17.5	18.8	18.0	19.3	19.8
	3H	16.5	17.6	17.0	18.1	18.7	20.0	21.1	20.5	21.6	22.1
	4H	16.9	18.0	17.5	18.5	19.0	21.2	22.2	21.7	22.7	23.3
	6H	17.2	18.1	17.8	18.7	19.2	22.5	23.4	23.0	23.9	24.5
	8H	17.3	18.1	17.8	18.7	19.3	23.1	24.0	23.7	24.5	25.1
	12H	17.3	18.0	17.9	18.6	19.2	23.8	24.6	24.4	25.2	25.8

8H	4H	17.7	18.5	18.2	19.1	19.7	21.4	22.2	21.9	22.7	23.3
	6H	18.1	18.8	18.7	19.4	20.0	22.8	23.5	23.3	24.1	24.7
	8H	18.2	18.9	18.8	19.5	20.1	23.6	24.2	24.2	24.8	25.4
	12H	18.3	18.9	18.9	19.5	20.1	24.4	25.0	25.0	25.6	26.3

12H	4H	17.9	18.6	18.4	19.2	19.8	21.3	22.1	21.9	22.7	23.3
	6H	18.4	19.1	19.0	19.6	20.3	22.8	23.5	23.4	24.0	24.7
	8H	18.6	19.2	19.2	19.8	20.5	23.6	24.2	24.2	24.8	25.5

Maximum UGR = 26.3

POLAR GRAPH



Maximum Candela = 1104.311 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.)