



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-(L30)-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]04-28-2023  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836  
 [LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE  
 [LUMCAT] SLF-4-L52-840-HIA-(L30)-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	3168
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	140
Total Luminaire Watts	22.6
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	4485	3711	3807
55	3796	3181	3378
65	3053	2688	2896
75	2144	2153	2438
85	655	1732	2133

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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	1022.908	1022.908	1022.908	1022.908	1022.908
5	1033.823	1018.750	1014.592	1013.552	1013.032
10	1011.993	1000.558	997.959	1000.558	997.959
15	980.807	971.971	976.129	980.807	979.767
20	934.547	927.790	942.344	950.660	953.779
25	883.610	874.773	895.564	914.796	916.355
30	821.757	816.559	843.587	871.655	872.694
35	752.108	749.509	783.294	819.678	824.356
40	678.300	671.543	715.204	759.384	769.260
45	593.578	586.301	643.995	694.413	710.006
50	502.618	504.697	573.307	626.323	648.673
55	416.856	429.850	501.059	557.714	582.663
60	334.212	357.602	431.409	492.222	514.053
65	256.247	285.354	367.478	424.652	443.884
70	183.479	217.784	304.066	362.280	377.873
75	119.027	155.411	240.654	304.585	315.501
80	62.892	106.553	189.196	252.608	261.444
85	16.633	68.610	144.496	206.869	216.744
90	2.079	43.141	112.270	168.406	180.880
95	0.520	25.469	84.723	133.581	148.135
100	0.000	15.073	61.333	103.434	117.988
105	0.000	10.395	45.220	78.485	94.078
110	0.000	7.797	35.864	63.932	76.926
115	0.000	6.757	27.028	51.457	61.333
120	0.000	6.237	22.870	42.101	49.378
125	0.000	4.158	16.633	33.265	39.503
130	0.000	3.638	13.514	25.469	30.147
135	0.000	2.599	10.395	20.271	23.390
140	0.000	2.599	7.797	15.593	18.712
145	0.000	1.040	6.757	12.474	14.034
150	0.000	0.000	6.237	10.915	12.474
155	0.000	0.000	4.158	7.797	9.876
160	0.000	0.000	3.638	5.198	6.757
165	0.000	0.000	0.000	3.638	4.158
170	0.000	0.000	0.000	0.000	2.599
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	372.07	N.A.	11.70
0-30	785.12	N.A.	24.80
0-40	1275.85	N.A.	40.30
0-60	2218.76	N.A.	70.00
0-80	2818.29	N.A.	89.00
0-90	2968.18	N.A.	93.70
10-90	2871.58	N.A.	90.60
20-40	903.78	N.A.	28.50
20-50	1401.22	N.A.	44.20
40-70	1297.42	N.A.	41.00
60-80	599.53	N.A.	18.90
70-80	245.03	N.A.	7.70
80-90	149.89	N.A.	4.70
90-110	137.51	N.A.	4.30
90-120	166.97	N.A.	5.30
90-130	183.92	N.A.	5.80
90-150	197.30	N.A.	6.20
90-180	199.82	N.A.	6.30
110-180	62.31	N.A.	2.00
0-180	3168.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	96.60
10-20	275.47
20-30	413.05
30-40	490.73
40-50	497.44
50-60	445.47
60-70	354.50
70-80	245.03
80-90	149.89
90-100	88.04
100-110	49.47
110-120	29.46
120-130	16.95
130-140	8.90
140-150	4.48
150-160	2.04
160-170	0.47
170-180	0.01

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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	13.8	15.4	14.3	15.8	16.3	16.9	18.5	17.4	18.9	19.4
	3H	15.1	16.5	15.5	16.9	17.4	19.2	20.6	19.7	21.1	21.6
	4H	15.4	16.7	15.9	17.2	17.7	20.3	21.6	20.8	22.1	22.6
	6H	15.6	16.8	16.1	17.3	17.8	21.3	22.6	21.8	23.0	23.6
	8H	15.6	16.8	16.2	17.3	17.9	21.9	23.1	22.4	23.6	24.1
	12H	15.6	16.8	16.2	17.3	17.8	22.5	23.6	23.0	24.1	24.7

### UGR Viewed Endwise

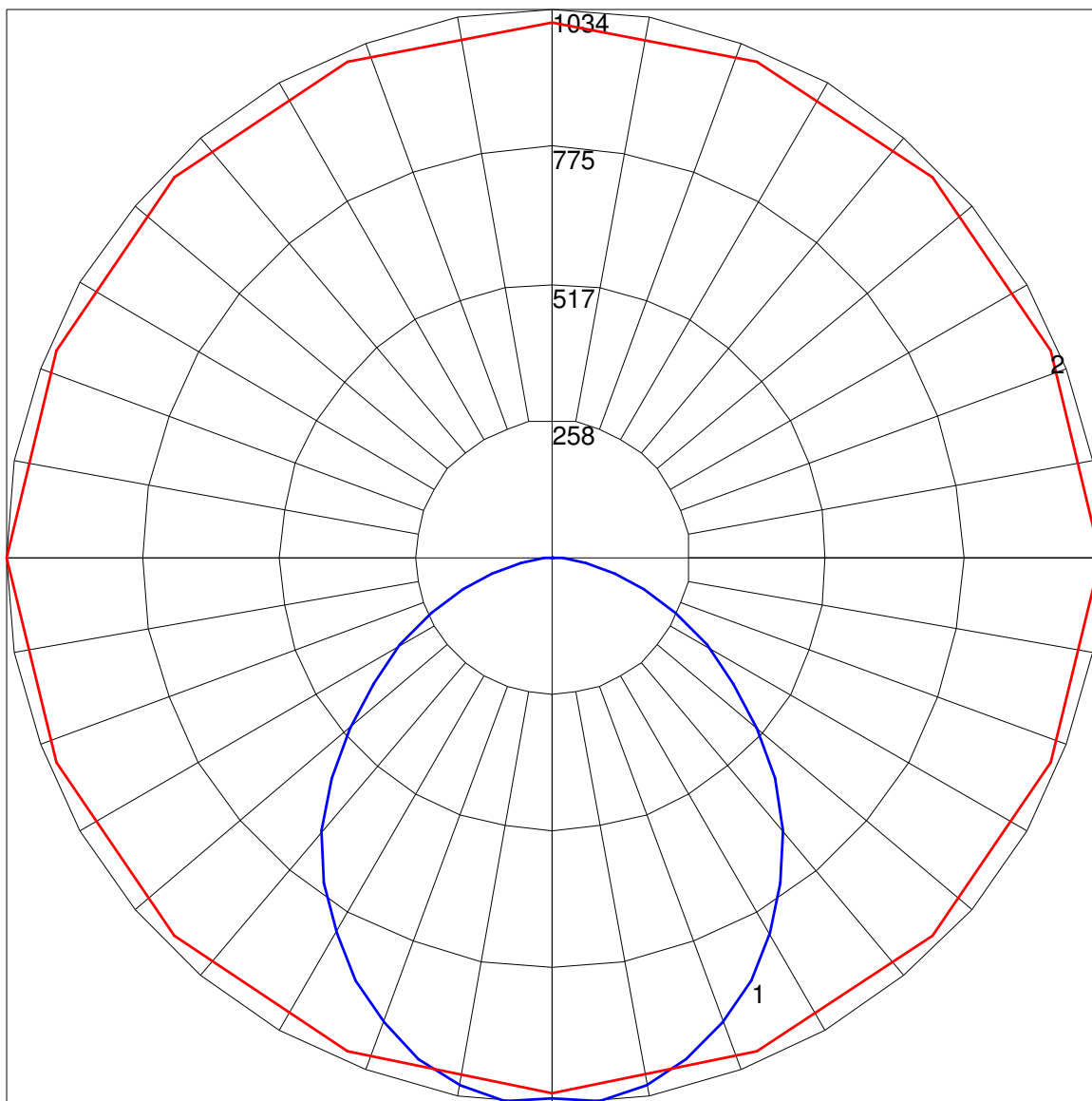
4H	2H	14.8	16.1	15.3	16.6	17.1	17.3	18.6	17.8	19.1	19.6
	3H	16.3	17.4	16.8	17.9	18.5	19.8	20.9	20.3	21.4	21.9
	4H	16.7	17.8	17.3	18.3	18.8	21.0	22.0	21.5	22.5	23.1
	6H	17.0	17.9	17.6	18.5	19.0	22.3	23.2	22.8	23.7	24.3
	8H	17.1	17.9	17.6	18.5	19.1	22.9	23.8	23.5	24.3	24.9
	12H	17.1	17.8	17.7	18.4	19.0	23.6	24.4	24.2	25.0	25.6

8H	4H	17.5	18.3	18.0	18.9	19.5	21.2	22.0	21.7	22.5	23.1
	6H	17.9	18.6	18.5	19.2	19.8	22.6	23.3	23.1	23.9	24.5
	8H	18.0	18.7	18.6	19.3	19.9	23.4	24.0	24.0	24.6	25.2
	12H	18.1	18.7	18.7	19.3	19.9	24.2	24.8	24.8	25.4	26.1

12H	4H	17.7	18.4	18.2	19.0	19.6	21.1	21.9	21.7	22.5	23.1
	6H	18.2	18.9	18.8	19.4	20.1	22.6	23.3	23.2	23.8	24.5
	8H	18.4	19.0	19.0	19.6	20.3	23.4	24.0	24.0	24.6	25.3

Maximum UGR = 26.1

POLAR GRAPH



Maximum Candela = 1033.823 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.)