



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-835-HIA-(L40)-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]04-07-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE

[LUMCAT] SLF-4-L52-835-HIA-(40)-DIM-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	4082
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	30.7
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	5778	4781	4906
55	4891	4098	4352
65	3934	3463	3731
75	2763	2774	3141
85	844	2232	2748

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-835-HIA-(L40)-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	1318.027	1318.027	1318.027	1318.027	1318.027
5	1332.092	1312.669	1307.312	1305.972	1305.302
10	1303.963	1289.229	1285.880	1289.229	1285.880
15	1263.779	1252.394	1257.752	1263.779	1262.440
20	1204.173	1195.467	1214.219	1224.935	1228.953
25	1138.540	1127.154	1153.944	1178.724	1180.733
30	1058.842	1052.145	1086.971	1123.136	1124.475
35	969.098	965.750	1009.282	1056.163	1062.191
40	873.997	865.290	921.548	978.474	991.199
45	764.831	755.455	829.795	894.758	914.850
50	647.628	650.307	738.711	807.024	835.822
55	537.123	553.866	645.619	718.620	750.767
60	430.636	460.774	555.875	634.234	662.362
65	330.177	367.681	473.499	547.169	571.949
70	236.414	280.617	391.792	466.801	486.893
75	153.368	200.249	310.085	392.461	406.526
80	81.037	137.295	243.781	325.488	336.874
85	21.431	88.404	186.185	266.552	279.277
90	2.679	55.588	144.662	216.992	233.066
95	0.670	32.817	109.166	172.120	190.873
100	0.000	19.422	79.028	133.276	152.029
105	0.000	13.395	58.266	101.129	121.221
110	0.000	10.046	46.211	82.377	99.120
115	0.000	8.706	34.826	66.303	79.028
120	0.000	8.037	29.468	54.248	63.624
125	0.000	5.358	21.431	42.863	50.899
130	0.000	4.688	17.413	32.817	38.844
135	0.000	3.349	13.395	26.119	30.138
140	0.000	3.349	10.046	20.092	24.110
145	0.000	1.339	8.706	16.074	18.083
150	0.000	0.000	8.037	14.064	16.074
155	0.000	0.000	5.358	10.046	12.725
160	0.000	0.000	4.688	6.697	8.706
165	0.000	0.000	0.000	4.688	5.358
170	0.000	0.000	0.000	0.000	3.349
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-(L40)-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	479.42	N.A.	11.70
0-30	1011.64	N.A.	24.80
0-40	1643.94	N.A.	40.30
0-60	2858.9	N.A.	70.00
0-80	3631.4	N.A.	89.00
0-90	3824.53	N.A.	93.70
10-90	3700.06	N.A.	90.60
20-40	1164.53	N.A.	28.50
20-50	1805.49	N.A.	44.20
40-70	1671.74	N.A.	41.00
60-80	772.50	N.A.	18.90
70-80	315.72	N.A.	7.70
80-90	193.13	N.A.	4.70
90-110	177.18	N.A.	4.30
90-120	215.14	N.A.	5.30
90-130	236.98	N.A.	5.80
90-150	254.22	N.A.	6.20
90-180	257.48	N.A.	6.30
110-180	80.29	N.A.	2.00
0-180	4082.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	124.48
10-20	354.94
20-30	532.22
30-40	632.31
40-50	640.96
50-60	573.99
60-70	456.78
70-80	315.72
80-90	193.13
90-100	113.43
100-110	63.75
110-120	37.95
120-130	21.85
130-140	11.47
140-150	5.77
150-160	2.63
160-170	0.61
170-180	0.01

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SLF-4-L52-835-HIA-(L40)-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-L52-835-HIA-(L40)-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	14.7	16.3	15.2	16.7	17.2	17.8	19.4	18.3	19.8	20.3
	3H	16.0	17.4	16.4	17.8	18.3	20.1	21.5	20.6	22.0	22.5
	4H	16.3	17.6	16.8	18.1	18.6	21.2	22.5	21.7	23.0	23.5
	6H	16.5	17.7	17.0	18.2	18.7	22.2	23.5	22.7	23.9	24.5
	8H	16.5	17.7	17.1	18.2	18.8	22.8	24.0	23.3	24.5	25.0
	12H	16.5	17.7	17.1	18.2	18.7	23.4	24.5	23.9	25.0	25.6

UGR Viewed Endwise

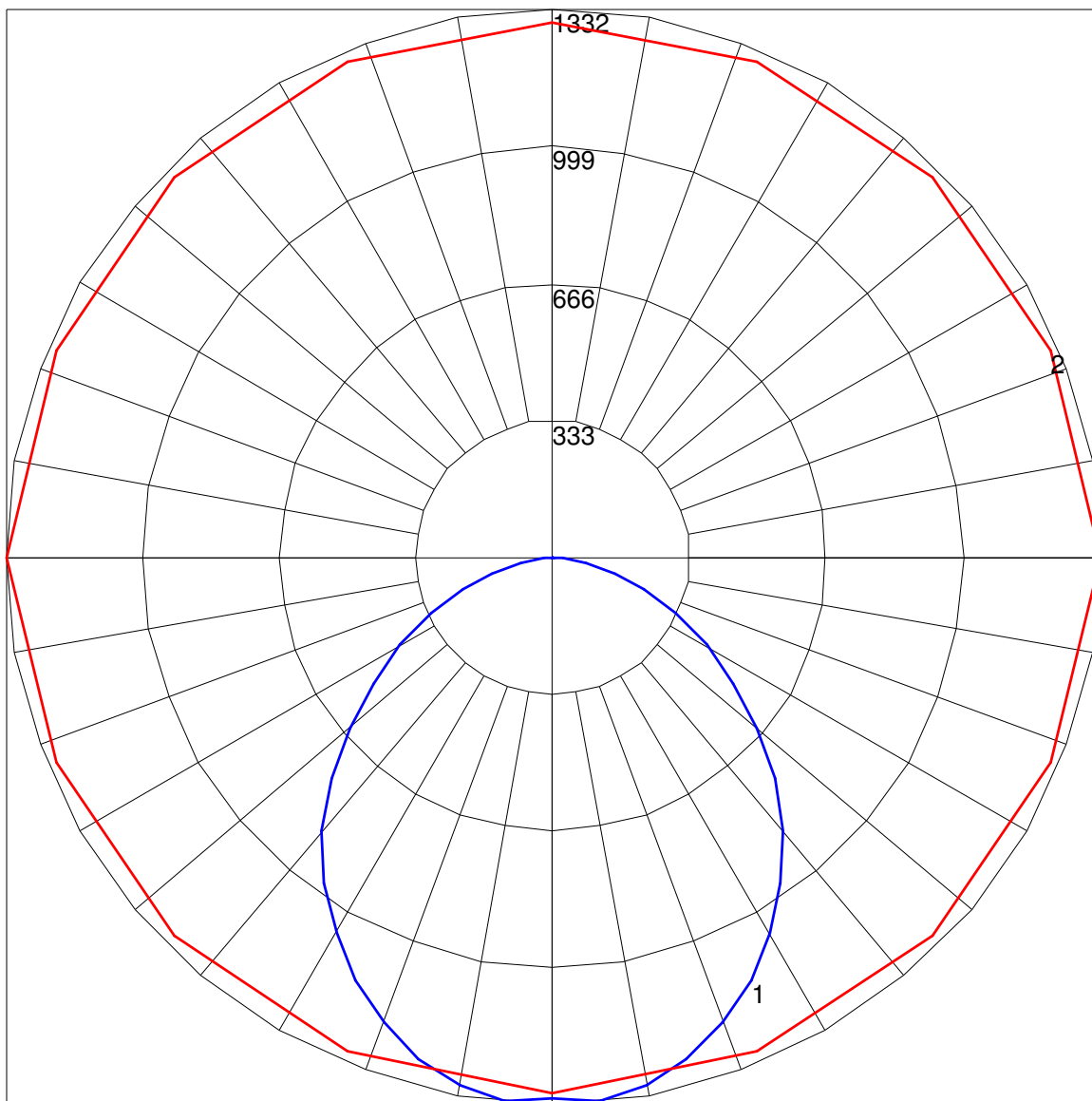
4H	2H	15.7	17.0	16.2	17.5	18.0	18.2	19.5	18.7	20.0	20.5
	3H	17.2	18.3	17.7	18.8	19.4	20.7	21.8	21.2	22.3	22.8
	4H	17.6	18.7	18.2	19.2	19.7	21.9	22.9	22.4	23.4	24.0
	6H	17.9	18.8	18.5	19.4	19.9	23.2	24.1	23.7	24.6	25.2
	8H	18.0	18.8	18.5	19.4	20.0	23.8	24.7	24.4	25.2	25.8
	12H	18.0	18.7	18.6	19.3	19.9	24.5	25.3	25.1	25.9	26.5

8H	4H	18.4	19.2	18.9	19.8	20.4	22.1	22.9	22.6	23.4	24.0
	6H	18.8	19.5	19.4	20.1	20.7	23.5	24.2	24.0	24.8	25.4
	8H	18.9	19.6	19.5	20.2	20.8	24.3	24.9	24.9	25.5	26.1
	12H	19.0	19.6	19.6	20.2	20.8	25.1	25.7	25.7	26.3	27.0

12H	4H	18.6	19.3	19.1	19.9	20.5	22.0	22.8	22.6	23.4	24.0
	6H	19.1	19.8	19.7	20.3	21.0	23.5	24.2	24.1	24.7	25.4
	8H	19.3	19.9	19.9	20.5	21.2	24.3	24.9	24.9	25.5	26.2

Maximum UGR = 27.0

POLAR GRAPH



Maximum Candela = 1332.092 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.)