



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-940-HIA-(L49)-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
 [ISSUE DATE] 09-21-2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE
 [LUMCAT] SLF-4-L52-940-HIA-(L49)-DIM-UNV
 [MORE] WITH FROSTED ACRYLIC LENS
 [LAMPCAT] HLM 90 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	4490
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	37.6
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	6356	5259	5396
55	5380	4508	4787
65	4327	3809	4104
75	3039	3051	3455
85	928	2455	3022

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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	1449.765	1449.765	1449.765	1449.765	1449.765
5	1465.235	1443.872	1437.979	1436.505	1435.769
10	1434.295	1418.089	1414.405	1418.089	1414.405
15	1390.095	1377.572	1383.465	1390.095	1388.622
20	1324.532	1314.955	1335.582	1347.368	1351.788
25	1252.338	1239.815	1269.281	1296.538	1298.748
30	1164.674	1157.308	1195.614	1235.395	1236.868
35	1065.961	1062.277	1110.161	1161.728	1168.358
40	961.354	951.777	1013.657	1076.274	1090.271
45	841.276	830.963	912.733	984.190	1006.290
50	712.359	715.306	812.546	887.687	919.363
55	590.809	609.226	710.149	790.446	825.806
60	473.678	506.829	611.436	697.626	728.566
65	363.178	404.432	520.825	601.859	629.116
70	260.044	308.664	430.952	513.459	535.559
75	168.697	220.264	341.078	431.688	447.158
80	89.137	151.017	268.148	358.021	370.545
85	23.573	97.240	204.794	293.194	307.191
90	2.947	61.144	159.121	238.681	256.361
95	0.737	36.097	120.077	189.324	209.951
100	0.000	21.363	86.927	146.597	167.224
105	0.000	14.733	64.090	111.237	133.337
110	0.000	11.050	50.830	90.610	109.027
115	0.000	9.577	38.307	72.930	86.927
120	0.000	8.840	32.413	59.670	69.984
125	0.000	5.893	23.573	47.147	55.987
130	0.000	5.157	19.153	36.097	42.727
135	0.000	3.683	14.733	28.730	33.150
140	0.000	3.683	11.050	22.100	26.520
145	0.000	1.473	9.577	17.680	19.890
150	0.000	0.000	8.840	15.470	17.680
155	0.000	0.000	5.893	11.050	13.997
160	0.000	0.000	5.157	7.367	9.577
165	0.000	0.000	0.000	5.157	5.893
170	0.000	0.000	0.000	0.000	3.683
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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Zone	Lumens	%Lamp	%Fixt
0-20	527.34	N.A.	11.70
0-30	1112.75	N.A.	24.80
0-40	1808.26	N.A.	40.30
0-60	3144.65	N.A.	70.00
0-80	3994.36	N.A.	89.00
0-90	4206.8	N.A.	93.70
10-90	4069.88	N.A.	90.60
20-40	1280.92	N.A.	28.50
20-50	1985.95	N.A.	44.20
40-70	1838.83	N.A.	41.00
60-80	849.72	N.A.	18.90
70-80	347.28	N.A.	7.70
80-90	212.43	N.A.	4.70
90-110	194.89	N.A.	4.30
90-120	236.64	N.A.	5.30
90-130	260.67	N.A.	5.80
90-150	279.63	N.A.	6.20
90-180	283.21	N.A.	6.30
110-180	88.32	N.A.	2.00
0-180	4490.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	136.92
10-20	390.42
20-30	585.42
30-40	695.51
40-50	705.02
50-60	631.36
60-70	502.44
70-80	347.28
80-90	212.43
90-100	124.77
100-110	70.12
110-120	41.75
120-130	24.03
130-140	12.62
140-150	6.35
150-160	2.89
160-170	0.67
170-180	0.02

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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	15.0	16.6	15.5	17.0	17.5	18.1	19.7	18.6	20.1	20.6
	3H	16.3	17.7	16.7	18.1	18.6	20.4	21.8	20.9	22.3	22.8
	4H	16.6	17.9	17.1	18.4	18.9	21.5	22.8	22.0	23.3	23.8
	6H	16.8	18.0	17.3	18.5	19.0	22.5	23.8	23.0	24.2	24.8
	8H	16.8	18.0	17.4	18.5	19.1	23.1	24.3	23.6	24.8	25.3
	12H	16.8	18.0	17.4	18.5	19.0	23.7	24.8	24.2	25.3	25.9

UGR Viewed Endwise

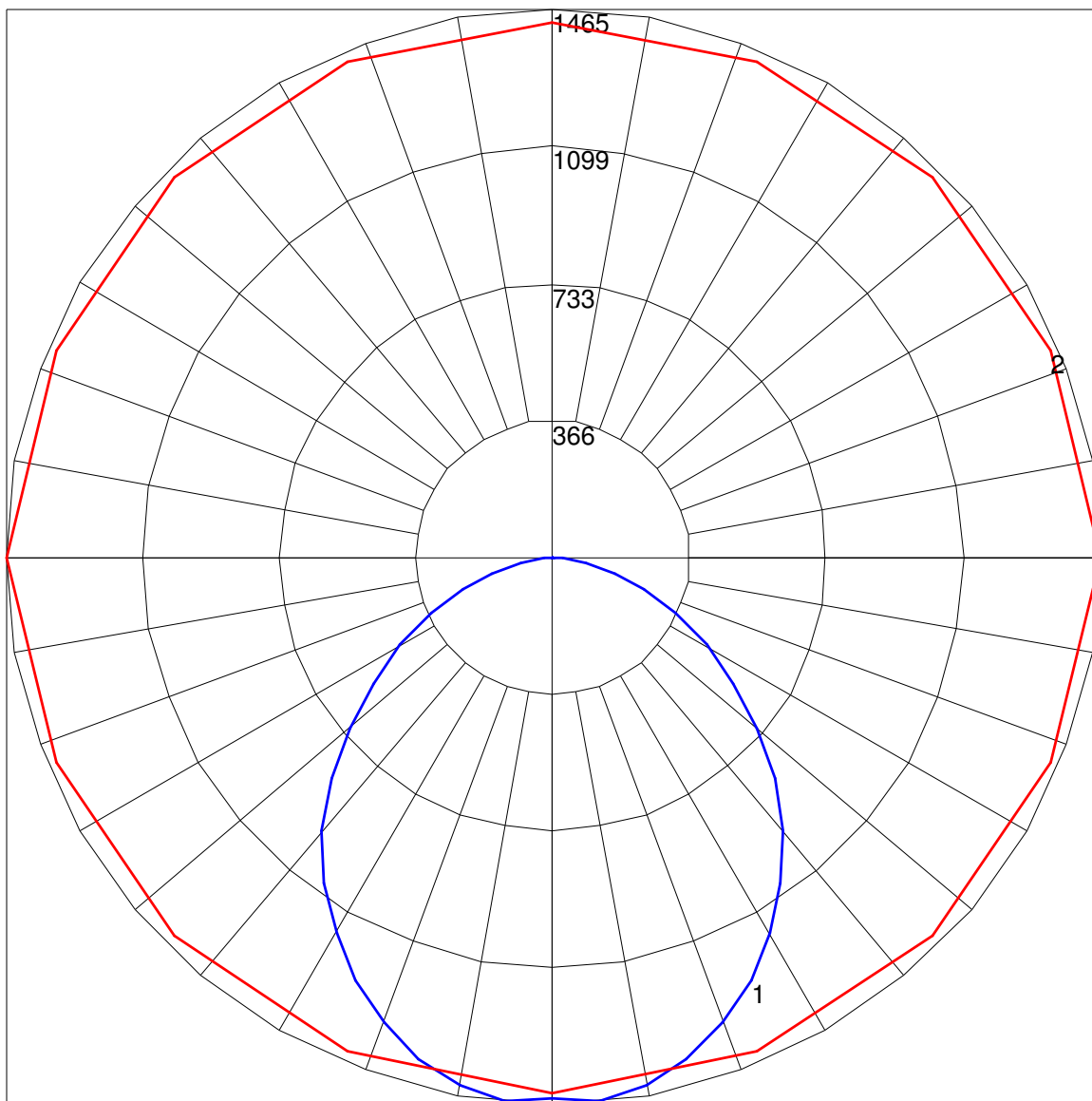
4H	2H	16.0	17.3	16.5	17.8	18.3	18.5	19.8	19.0	20.3	20.8
	3H	17.5	18.6	18.0	19.1	19.7	21.0	22.1	21.5	22.6	23.1
	4H	17.9	19.0	18.5	19.5	20.0	22.2	23.2	22.7	23.7	24.3
	6H	18.2	19.1	18.8	19.7	20.2	23.5	24.4	24.0	24.9	25.5
	8H	18.3	19.1	18.8	19.7	20.3	24.1	25.0	24.7	25.5	26.1
	12H	18.3	19.0	18.9	19.6	20.2	24.8	25.6	25.4	26.2	26.8

8H	4H	18.7	19.5	19.2	20.1	20.7	22.4	23.2	22.9	23.7	24.3
	6H	19.1	19.8	19.7	20.4	21.0	23.8	24.5	24.3	25.1	25.7
	8H	19.2	19.9	19.8	20.5	21.1	24.6	25.2	25.2	25.8	26.4
	12H	19.3	19.9	19.9	20.5	21.1	25.4	26.0	26.0	26.6	27.3

12H	4H	18.9	19.6	19.4	20.2	20.8	22.3	23.1	22.9	23.7	24.3
	6H	19.4	20.1	20.0	20.6	21.3	23.8	24.5	24.4	25.0	25.7
	8H	19.6	20.2	20.2	20.8	21.5	24.6	25.2	25.2	25.8	26.5

Maximum UGR = 27.3

POLAR GRAPH



Maximum Candela = 1465.235 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.)