



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L26-940-HIA-(L20)-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] 03-31-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED 22"ARRAYS 54"SURFACE MOUNT LUMINAIRE

[LUMCAT] SLF-4-L26-940-HIA-(L20)-DIM-UNV

[MORE] WHITE FLAT REFLECTOR w/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	1761
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	14.7
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	2493	2063	2116
55	2110	1768	1877
65	1697	1494	1610
75	1192	1197	1355
85	364	963	1185

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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	568.605	568.605	568.605	568.605	568.605
5	574.672	566.294	563.982	563.404	563.115
10	562.538	556.181	554.737	556.181	554.737
15	545.202	540.290	542.602	545.202	544.624
20	519.488	515.732	523.822	528.444	530.178
25	491.173	486.261	497.818	508.509	509.375
30	456.791	453.902	468.926	484.528	485.106
35	418.075	416.630	435.410	455.635	458.236
40	377.048	373.291	397.561	422.120	427.609
45	329.953	325.908	357.978	386.004	394.672
50	279.391	280.546	318.685	348.155	360.579
55	231.718	238.941	278.524	310.017	323.885
60	185.779	198.781	239.808	273.612	285.747
65	142.440	158.620	204.270	236.052	246.742
70	101.991	121.060	169.021	201.381	210.049
75	66.164	86.389	133.772	169.310	175.378
80	34.960	59.230	105.169	140.418	145.329
85	9.246	38.138	80.321	114.992	120.482
90	1.156	23.981	62.408	93.612	100.546
95	0.289	14.157	47.095	74.254	82.344
100	0.000	8.379	34.093	57.496	65.586
105	0.000	5.779	25.137	43.628	52.295
110	0.000	4.334	19.936	35.538	42.761
115	0.000	3.756	15.024	28.604	34.093
120	0.000	3.467	12.713	23.403	27.448
125	0.000	2.311	9.246	18.491	21.958
130	0.000	2.022	7.512	14.157	16.758
135	0.000	1.445	5.779	11.268	13.002
140	0.000	1.445	4.334	8.668	10.401
145	0.000	0.578	3.756	6.934	7.801
150	0.000	0.000	3.467	6.067	6.934
155	0.000	0.000	2.311	4.334	5.490
160	0.000	0.000	2.022	2.889	3.756
165	0.000	0.000	0.000	2.022	2.311
170	0.000	0.000	0.000	0.000	1.445
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	206.82	N.A.	11.70
0-30	436.43	N.A.	24.80
0-40	709.21	N.A.	40.30
0-60	1233.35	N.A.	70.00
0-80	1566.61	N.A.	89.00
0-90	1649.93	N.A.	93.70
10-90	1596.23	N.A.	90.60
20-40	502.38	N.A.	28.50
20-50	778.90	N.A.	44.20
40-70	721.20	N.A.	41.00
60-80	333.26	N.A.	18.90
70-80	136.20	N.A.	7.70
80-90	83.32	N.A.	4.70
90-110	76.44	N.A.	4.30
90-120	92.81	N.A.	5.30
90-130	102.24	N.A.	5.80
90-150	109.67	N.A.	6.20
90-180	111.08	N.A.	6.30
110-180	34.64	N.A.	2.00
0-180	1761.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	53.70
10-20	153.12
20-30	229.60
30-40	272.78
40-50	276.51
50-60	247.62
60-70	197.06
70-80	136.20
80-90	83.32
90-100	48.94
100-110	27.50
110-120	16.37
120-130	9.42
130-140	4.95
140-150	2.49
150-160	1.13
160-170	0.26
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

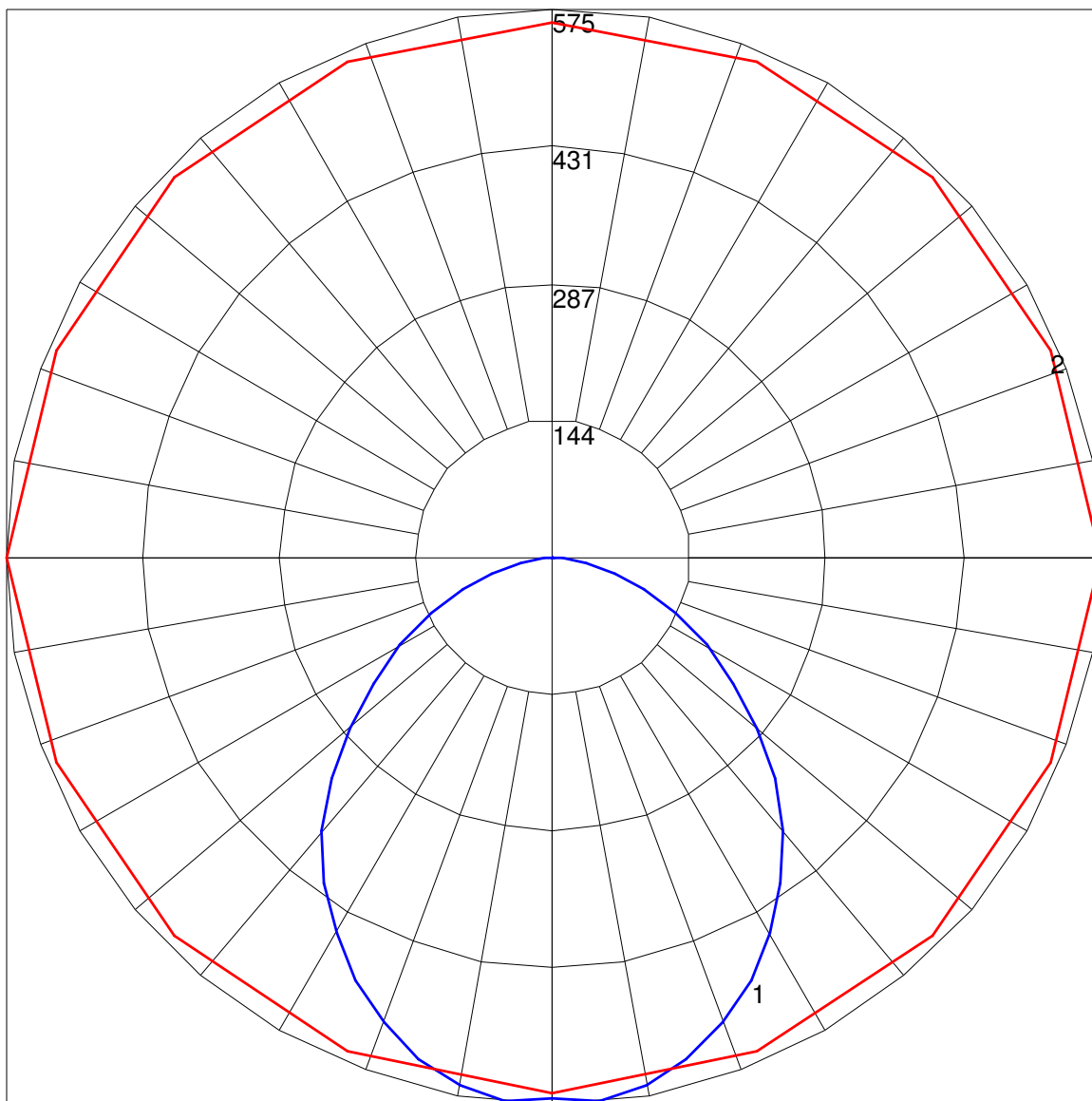
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	11.8	13.4	12.3	13.8	14.3	15.0	16.5	15.4	16.9	17.4
	3H	13.1	14.5	13.5	14.9	15.4	17.2	18.6	17.7	19.1	19.6
	4H	13.4	14.7	13.9	15.2	15.7	18.3	19.6	18.8	20.1	20.6
	6H	13.6	14.8	14.1	15.3	15.9	19.3	20.6	19.8	21.1	21.6
	8H	13.6	14.8	14.2	15.3	15.9	19.9	21.1	20.4	21.6	22.1
	12H	13.6	14.8	14.2	15.3	15.8	20.5	21.6	21.0	22.1	22.7
4H	2H	12.8	14.2	13.3	14.6	15.1	15.3	16.6	15.8	17.1	17.6
	3H	14.3	15.4	14.8	15.9	16.5	17.8	18.9	18.3	19.4	19.9
	4H	14.7	15.8	15.3	16.3	16.8	19.0	20.0	19.5	20.5	21.1
	6H	15.0	15.9	15.6	16.5	17.0	20.3	21.2	20.8	21.7	22.3
	8H	15.1	15.9	15.6	16.5	17.1	20.9	21.8	21.5	22.3	22.9
	12H	15.1	15.9	15.7	16.4	17.0	21.6	22.4	22.2	23.0	23.6
8H	4H	15.5	16.3	16.0	16.9	17.5	19.2	20.0	19.7	20.5	21.1
	6H	15.9	16.6	16.5	17.2	17.8	20.6	21.3	21.2	21.9	22.5
	8H	16.0	16.7	16.6	17.3	17.9	21.4	22.0	22.0	22.6	23.2
	12H	16.1	16.7	16.7	17.3	17.9	22.2	22.8	22.8	23.4	24.1
12H	4H	15.7	16.4	16.2	17.0	17.6	19.2	19.9	19.7	20.5	21.1
	6H	16.2	16.9	16.8	17.4	18.1	20.6	21.3	21.2	21.8	22.5
	8H	16.4	17.0	17.0	17.6	18.3	21.4	22.0	22.0	22.6	23.3

Maximum UGR = 24.1

POLAR GRAPH



Maximum Candela = 574.672 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.)