



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L26-840-HIA-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] 05-NOV-2019  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE  
 [LUMCAT] SLF-4-L26-840-HIA-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	2788
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	142
Total Luminaire Watts	19.6
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	3947	3266	3351
55	3341	2799	2972
65	2687	2365	2548
75	1887	1895	2145
85	576	1524	1877

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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	900.211	900.211	900.211	900.211	900.211
5	909.817	896.551	892.892	891.977	891.520
10	890.605	880.541	878.254	880.541	878.254
15	863.159	855.383	859.042	863.159	862.244
20	822.449	816.502	829.310	836.629	839.373
25	777.621	769.845	788.142	805.066	806.439
30	723.188	718.613	742.399	767.100	768.015
35	661.893	659.606	689.338	721.358	725.475
40	596.938	590.992	629.416	668.297	676.988
45	522.378	515.974	566.748	611.119	624.841
50	442.329	444.159	504.539	551.196	570.865
55	366.854	378.290	440.957	490.816	512.772
60	294.124	314.708	379.662	433.181	452.392
65	225.510	251.126	323.399	373.715	390.640
70	161.471	191.661	267.593	318.825	332.547
75	104.750	136.770	211.787	268.051	277.656
80	55.348	93.772	166.502	222.308	230.084
85	14.638	60.380	127.164	182.055	190.746
90	1.830	37.966	98.804	148.205	159.184
95	0.457	22.414	74.560	117.558	130.366
100	0.000	13.265	53.976	91.027	103.835
105	0.000	9.148	39.796	69.071	82.794
110	0.000	6.861	31.562	56.263	67.699
115	0.000	5.947	23.786	45.285	53.976
120	0.000	5.489	20.127	37.051	43.455
125	0.000	3.659	14.638	29.275	34.764
130	0.000	3.202	11.893	22.414	26.531
135	0.000	2.287	9.148	17.840	20.584
140	0.000	2.287	6.861	13.723	16.467
145	0.000	0.915	5.947	10.978	12.350
150	0.000	0.000	5.489	9.606	10.978
155	0.000	0.000	3.659	6.861	8.691
160	0.000	0.000	3.202	4.574	5.947
165	0.000	0.000	0.000	3.202	3.659
170	0.000	0.000	0.000	0.000	2.287
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	327.44	N.A.	11.70
0-30	690.95	N.A.	24.80
0-40	1122.81	N.A.	40.30
0-60	1952.62	N.A.	70.00
0-80	2480.24	N.A.	89.00
0-90	2612.15	N.A.	93.70
10-90	2527.13	N.A.	90.60
20-40	795.37	N.A.	28.50
20-50	1233.14	N.A.	44.20
40-70	1141.79	N.A.	41.00
60-80	527.62	N.A.	18.90
70-80	215.64	N.A.	7.70
80-90	131.91	N.A.	4.70
90-110	121.02	N.A.	4.30
90-120	146.94	N.A.	5.30
90-130	161.86	N.A.	5.80
90-150	173.63	N.A.	6.20
90-180	175.85	N.A.	6.30
110-180	54.84	N.A.	2.00
0-180	2788.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	85.02
10-20	242.42
20-30	363.51
30-40	431.86
40-50	437.77
50-60	392.04
60-70	311.98
70-80	215.64
80-90	131.91
90-100	77.48
100-110	43.54
110-120	25.92
120-130	14.92
130-140	7.84
140-150	3.94
150-160	1.79
160-170	0.42
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**

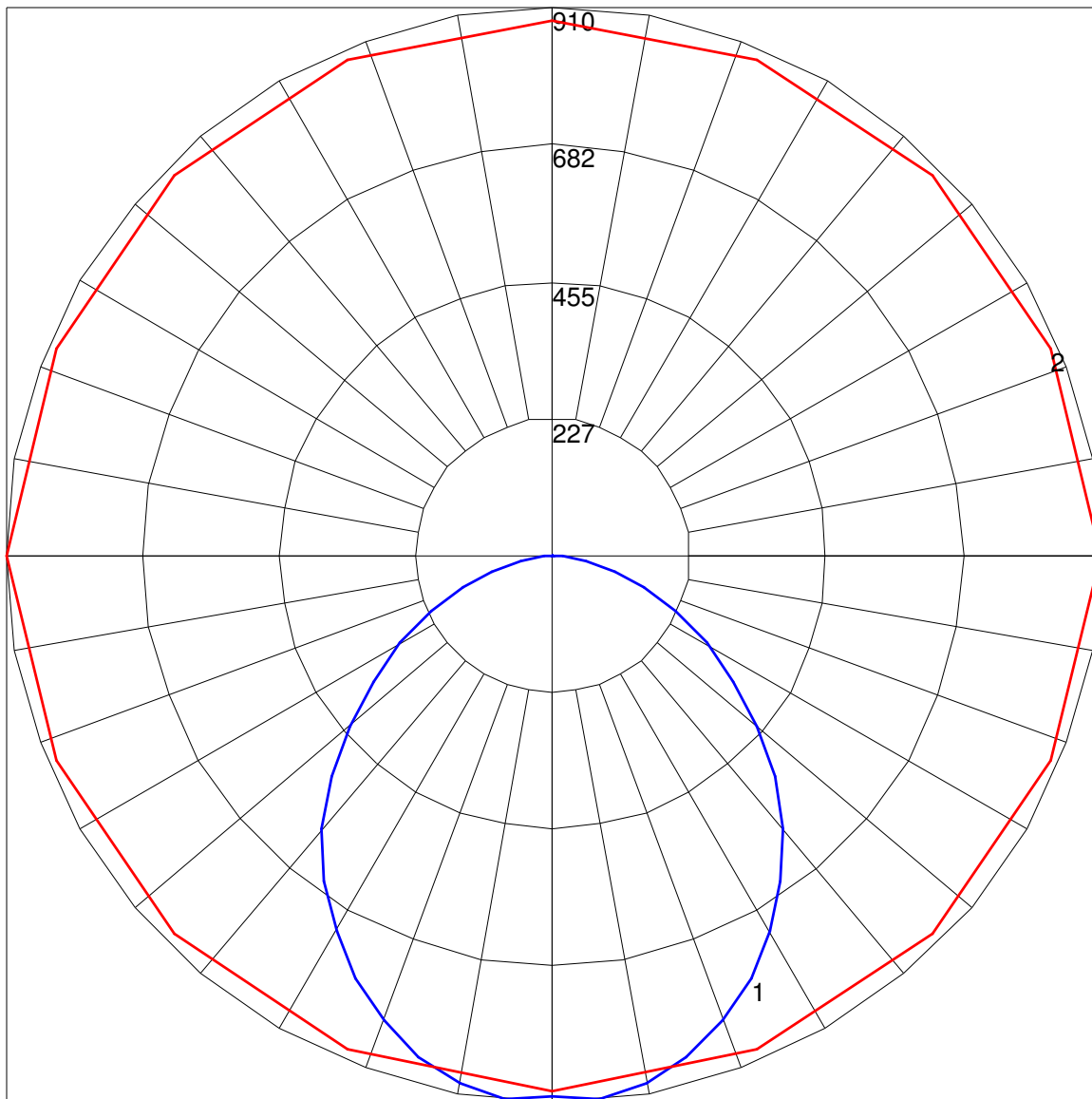
Reflectances

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	14.4	15.9	14.9	16.4	16.8	16.5	18.1	17.0	18.5	19.0
	3H	15.9	17.3	16.4	17.7	18.2	18.8	20.2	19.3	20.7	21.2
	4H	16.4	17.7	16.9	18.2	18.7	19.9	21.2	20.4	21.7	22.2
	6H	16.7	17.9	17.2	18.4	18.9	20.9	22.2	21.4	22.6	23.2
	8H	16.8	17.9	17.3	18.4	19.0	21.5	22.7	22.0	23.2	23.7
	12H	16.8	17.9	17.3	18.4	19.0	22.1	23.2	22.6	23.7	24.3
4H	2H	15.2	16.5	15.6	16.9	17.4	16.9	18.2	17.4	18.7	19.2
	3H	16.8	18.0	17.3	18.5	19.0	19.4	20.5	19.9	21.0	21.5
	4H	17.4	18.4	17.9	19.0	19.5	20.6	21.6	21.1	22.1	22.7
	6H	17.8	18.7	18.4	19.3	19.9	21.9	22.8	22.4	23.3	23.9
	8H	18.0	18.8	18.5	19.3	19.9	22.5	23.4	23.1	23.9	24.5
	12H	18.0	18.8	18.6	19.3	20.0	23.2	24.0	23.8	24.6	25.2
8H	4H	17.9	18.8	18.5	19.3	19.9	20.8	21.6	21.3	22.1	22.7
	6H	18.5	19.2	19.1	19.8	20.4	22.2	22.9	22.7	23.5	24.1
	8H	18.7	19.3	19.3	19.9	20.5	23.0	23.6	23.6	24.2	24.8
	12H	18.8	19.4	19.4	20.0	20.7	23.8	24.4	24.4	25.0	25.7
12H	4H	18.0	18.8	18.6	19.4	20.0	20.7	21.5	21.3	22.1	22.7
	6H	18.7	19.3	19.3	19.9	20.6	22.2	22.9	22.8	23.4	24.1
	8H	18.9	19.5	19.5	20.1	20.8	23.0	23.6	23.6	24.2	24.9

Maximum UGR = 25.7

POLAR GRAPH



Maximum Candela = 909.817 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.)