

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-2-L13-835-HIA-DRV-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM BALLABS TEST NO. 17259.0  
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
[ISSUE DATE] 08-30-2023  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO64836  
[LUMINAIRE] 2' LED DIRECT/INDIRECT STAIRWELL LIGHT  
[MORE] WITH FROSTED POLYCARBONATE LENS  
[LUMCAT] SLF-2-L13-835-HIA-DRV-UNV  
[LAMPCAT] HLM 80 CRI 3500K CCT  
[ \_SEARCH\_SOURCE TYPE] LED  
[ \_SEARCH\_APPLICATION] INDOOR, COMMERCIAL, DIRECT, LINEAR  
[ \_SEARCH\_MOUNTING] CEILING, SURFACE, WALL

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1316
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	10.49
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	2.06 ft
Luminous Width (90-270)	0.50 ft
Luminous Height	0.24 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3016	2726	2956
55	2518	2296	2647
65	1950	1890	2298
75	1387	1563	1956
85	591	1313	1726

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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	414.778	414.778	414.778	414.778	414.778
5	415.892	413.292	411.436	411.807	409.579
10	408.465	407.351	406.237	408.465	407.351
15	395.468	395.097	396.582	399.924	400.296
20	379.130	380.615	383.586	389.898	392.126
25	353.879	357.221	365.019	373.560	377.644
30	326.401	332.713	346.081	357.593	362.049
35	297.065	303.749	321.945	338.283	344.596
40	262.903	271.815	293.352	315.261	321.945
45	228.369	239.138	262.903	288.896	296.694
50	191.979	207.203	230.968	261.046	269.587
55	161.529	176.383	202.376	235.796	245.450
60	128.481	144.819	173.412	206.089	217.600
65	98.774	114.742	145.933	177.125	189.008
70	73.152	89.120	122.911	152.246	161.901
75	49.387	64.612	99.888	128.481	135.536
80	28.964	46.788	80.950	106.572	113.628
85	11.511	32.306	63.869	89.120	93.576
90	0.000	19.681	49.758	72.038	75.752
95	0.000	13.739	39.733	59.413	62.755
100	0.000	8.912	29.335	47.530	50.130
105	0.000	7.798	25.251	38.619	42.703
110	0.000	4.827	18.195	30.449	33.791
115	0.000	4.456	15.967	25.622	28.964
120	0.000	4.085	12.625	21.166	24.508
125	0.000	2.971	9.655	17.081	19.681
130	0.000	0.000	9.283	15.225	16.710
135	0.000	0.000	6.313	11.140	13.739
140	0.000	0.000	5.570	9.655	10.769
145	0.000	0.000	0.000	7.427	8.912
150	0.000	0.000	0.000	6.313	7.427
155	0.000	0.000	0.000	5.199	5.199
160	0.000	0.000	0.000	4.456	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	2.971	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	151.43	N.A.	11.50
0-30	320.05	N.A.	24.30
0-40	520.68	N.A.	39.60
0-60	906.53	N.A.	68.90
0-80	1154.48	N.A.	87.70
0-90	1219.95	N.A.	92.70
10-90	1180.74	N.A.	89.70
20-40	369.25	N.A.	28.10
20-50	572.50	N.A.	43.50
40-70	530.90	N.A.	40.30
60-80	247.95	N.A.	18.80
70-80	102.90	N.A.	7.80
80-90	65.47	N.A.	5.00
90-110	63.80	N.A.	4.80
90-120	78.81	N.A.	6.00
90-130	87.92	N.A.	6.70
90-150	95.05	N.A.	7.20
90-180	96.07	N.A.	7.30
110-180	32.27	N.A.	2.50
0-180	1316.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	39.21
10-20	112.22
20-30	168.61
30-40	200.64
40-50	203.25
50-60	182.59
60-70	145.06
70-80	102.90
80-90	65.47
90-100	39.48
100-110	24.31
110-120	15.01
120-130	9.12
130-140	4.97
140-150	2.16
150-160	0.89
160-170	0.09
170-180	0.04

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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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93
1	106	100	96	91	102	97	93	89	92	88	85	86	84	81	82	79	77	75
2	96	87	80	74	92	84	78	72	80	74	69	75	71	67	71	67	64	61
3	87	76	68	61	84	74	66	60	70	63	58	66	61	56	63	58	54	52
4	80	67	58	51	77	66	57	51	62	55	49	59	53	48	56	51	46	44
5	73	60	51	44	71	59	50	44	56	48	43	53	46	41	50	45	40	38
6	68	54	45	39	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	38	33	28	26
9	55	41	33	27	53	40	32	27	39	31	26	37	31	26	35	30	25	24
10	51	38	30	25	50	37	30	24	36	29	24	34	28	24	33	27	23	21

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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	12.7	14.2	13.2	14.7	15.2	15.9	17.4	16.4	17.9	18.4
	3H	13.9	15.3	14.4	15.8	16.3	18.1	19.5	18.6	20.0	20.5
	4H	14.3	15.6	14.8	16.1	16.6	19.2	20.5	19.7	21.0	21.5
	6H	14.5	15.8	15.1	16.2	16.8	20.2	21.4	20.7	21.9	22.5
	8H	14.6	15.7	15.1	16.3	16.8	20.7	21.9	21.2	22.4	22.9
	12H	14.6	15.7	15.1	16.2	16.8	21.2	22.3	21.8	22.8	23.4

UGR Viewed Endwise

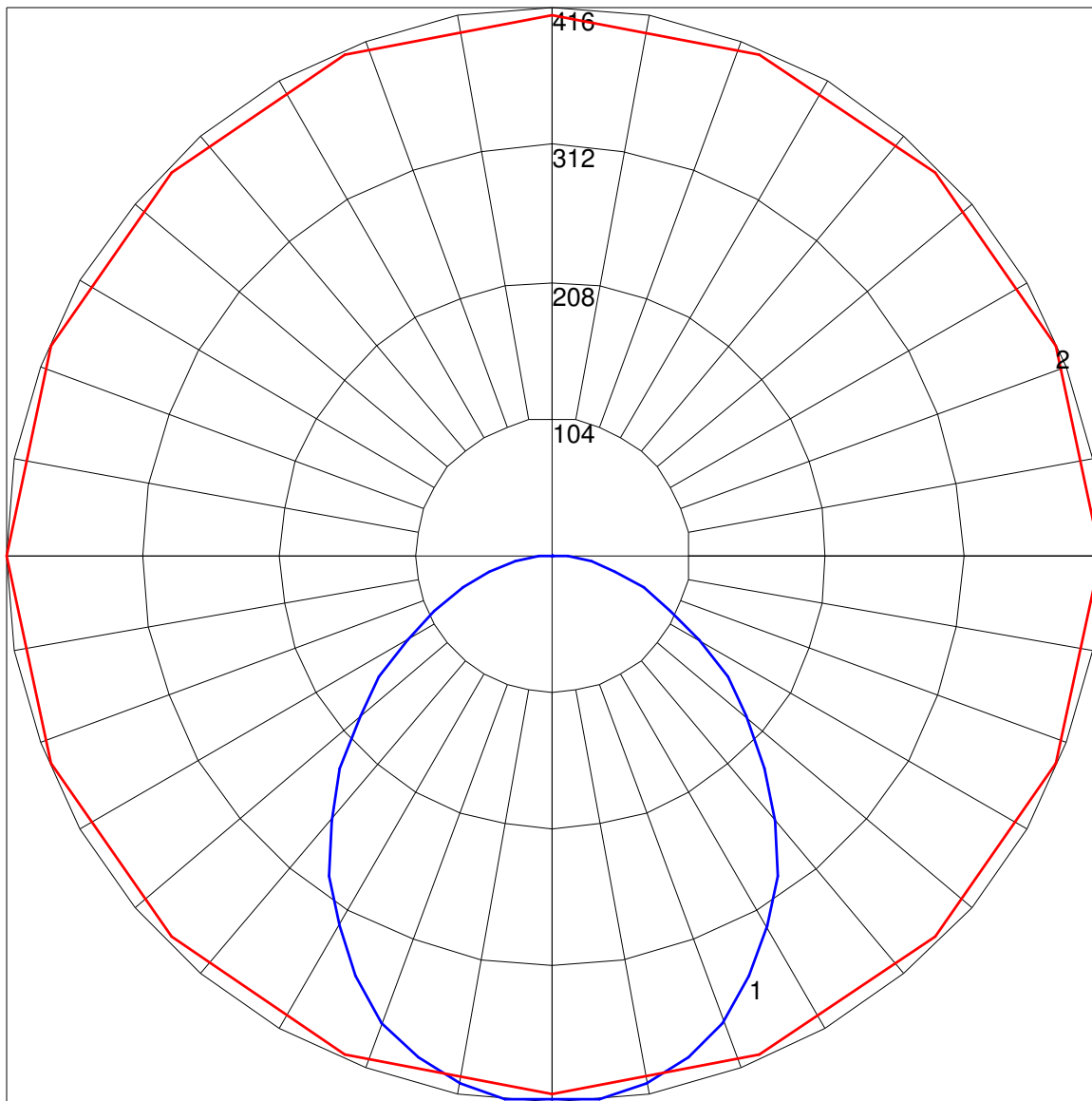
4H	2H	13.6	14.9	14.1	15.4	16.0	16.2	17.5	16.7	18.0	18.5
	3H	15.1	16.2	15.6	16.7	17.3	18.7	19.8	19.2	20.3	20.9
	4H	15.6	16.6	16.1	17.1	17.7	19.9	20.9	20.4	21.4	22.0
	6H	15.9	16.8	16.5	17.4	18.0	21.1	22.0	21.7	22.6	23.2
	8H	16.0	16.8	16.6	17.4	18.0	21.7	22.6	22.3	23.1	23.7
	12H	16.0	16.8	16.6	17.4	18.0	22.4	23.1	22.9	23.7	24.3

8H	4H	16.3	17.2	16.9	17.7	18.4	20.0	20.9	20.6	21.4	22.1
	6H	16.8	17.5	17.4	18.1	18.8	21.4	22.1	22.0	22.7	23.4
	8H	17.0	17.6	17.6	18.3	18.9	22.2	22.8	22.8	23.4	24.1
	12H	17.1	17.7	17.7	18.3	19.0	23.0	23.6	23.6	24.2	24.9

12H	4H	16.5	17.3	17.1	17.9	18.5	20.0	20.8	20.6	21.4	22.0
	6H	17.2	17.8	17.8	18.4	19.1	21.5	22.1	22.1	22.7	23.4
	8H	17.4	18.0	18.0	18.6	19.3	22.2	22.8	22.9	23.4	24.1

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 415.892 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.)