



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L98-840-HIA-(L57)-EM10W-DIM-UNV_(EMER MODE).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] 03-30-2022

[MANUFAC] WILLIAMS INDOOR

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

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

[LUMCAT] SLF-4-L98-840-HIA-(L57)-EM10W-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	1470
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	10
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	2081	1722	1767
55	1761	1476	1567
65	1417	1247	1344
75	995	999	1131
85	304	804	990

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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	474.645	474.645	474.645	474.645	474.645
5	479.710	472.715	470.786	470.304	470.062
10	469.580	464.274	463.068	464.274	463.068
15	455.109	451.009	452.938	455.109	454.627
20	433.644	430.509	437.262	441.121	442.568
25	410.008	405.908	415.555	424.479	425.203
30	381.308	378.896	391.437	404.461	404.943
35	348.989	347.783	363.460	380.343	382.514
40	314.742	311.606	331.865	352.366	356.948
45	275.429	272.053	298.824	322.218	329.454
50	233.222	234.187	266.023	290.623	300.994
55	193.427	199.457	232.499	258.788	270.364
60	155.080	165.933	200.180	228.399	238.528
65	118.902	132.409	170.515	197.045	205.969
70	85.137	101.055	141.091	168.103	175.339
75	55.231	72.113	111.667	141.332	146.397
80	29.183	49.442	87.790	117.214	121.314
85	7.718	31.836	67.048	95.990	100.573
90	0.965	20.018	52.095	78.143	83.931
95	0.241	11.818	39.313	61.984	68.737
100	0.000	6.994	28.459	47.995	54.748
105	0.000	4.824	20.983	36.418	43.654
110	0.000	3.618	16.642	29.665	35.695
115	0.000	3.135	12.541	23.877	28.459
120	0.000	2.894	10.612	19.536	22.912
125	0.000	1.929	7.718	15.436	18.330
130	0.000	1.688	6.271	11.818	13.989
135	0.000	1.206	4.824	9.406	10.853
140	0.000	1.206	3.618	7.235	8.683
145	0.000	0.482	3.135	5.788	6.512
150	0.000	0.000	2.894	5.065	5.788
155	0.000	0.000	1.929	3.618	4.582
160	0.000	0.000	1.688	2.412	3.135
165	0.000	0.000	0.000	1.688	1.929
170	0.000	0.000	0.000	0.000	1.206
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-L98-840-HIA-(L57)-EM10W-DIM-UNV_(EMER MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	172.65	N.A.	11.70
0-30	364.31	N.A.	24.80
0-40	592.01	N.A.	40.30
0-60	1029.54	N.A.	70.00
0-80	1307.73	N.A.	89.00
0-90	1377.28	N.A.	93.70
10-90	1332.45	N.A.	90.60
20-40	419.37	N.A.	28.50
20-50	650.19	N.A.	44.20
40-70	602.02	N.A.	41.00
60-80	278.19	N.A.	18.90
70-80	113.70	N.A.	7.70
80-90	69.55	N.A.	4.70
90-110	63.81	N.A.	4.30
90-120	77.47	N.A.	5.30
90-130	85.34	N.A.	5.80
90-150	91.55	N.A.	6.20
90-180	92.72	N.A.	6.30
110-180	28.91	N.A.	2.00
0-180	1470.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	44.83
10-20	127.82
20-30	191.66
30-40	227.70
40-50	230.82
50-60	206.71
60-70	164.50
70-80	113.70
80-90	69.55
90-100	40.85
100-110	22.96
110-120	13.67
120-130	7.87
130-140	4.13
140-150	2.08
150-160	0.95
160-170	0.22
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

X=2H	Y=2H	11.1	12.7	11.6	13.1	13.6	14.3	15.8	14.7	16.2	16.7
	3H	12.4	13.8	12.8	14.2	14.7	16.5	17.9	17.0	18.4	18.9
	4H	12.7	14.0	13.2	14.5	15.0	17.6	18.9	18.1	19.4	19.9
	6H	12.9	14.1	13.4	14.6	15.2	18.6	19.9	19.1	20.4	20.9
	8H	12.9	14.1	13.5	14.6	15.2	19.2	20.4	19.7	20.9	21.4
	12H	12.9	14.1	13.5	14.6	15.1	19.8	20.9	20.3	21.4	22.0

UGR Viewed Endwise

4H	2H	12.1	13.5	12.6	13.9	14.4	14.6	15.9	15.1	16.4	16.9
	3H	13.6	14.7	14.1	15.2	15.8	17.1	18.2	17.6	18.7	19.2
	4H	14.0	15.1	14.6	15.6	16.1	18.3	19.3	18.8	19.8	20.4
	6H	14.3	15.2	14.9	15.8	16.3	19.6	20.5	20.1	21.0	21.6
	8H	14.4	15.2	14.9	15.8	16.4	20.2	21.1	20.8	21.6	22.2
	12H	14.4	15.2	15.0	15.7	16.3	20.9	21.7	21.5	22.3	22.9

8H	4H	14.8	15.6	15.3	16.2	16.8	18.5	19.3	19.0	19.8	20.4
	6H	15.2	15.9	15.8	16.5	17.1	19.9	20.6	20.5	21.2	21.8
	8H	15.3	16.0	15.9	16.6	17.2	20.7	21.3	21.3	21.9	22.5
	12H	15.4	16.0	16.0	16.6	17.2	21.5	22.1	22.1	22.7	23.4

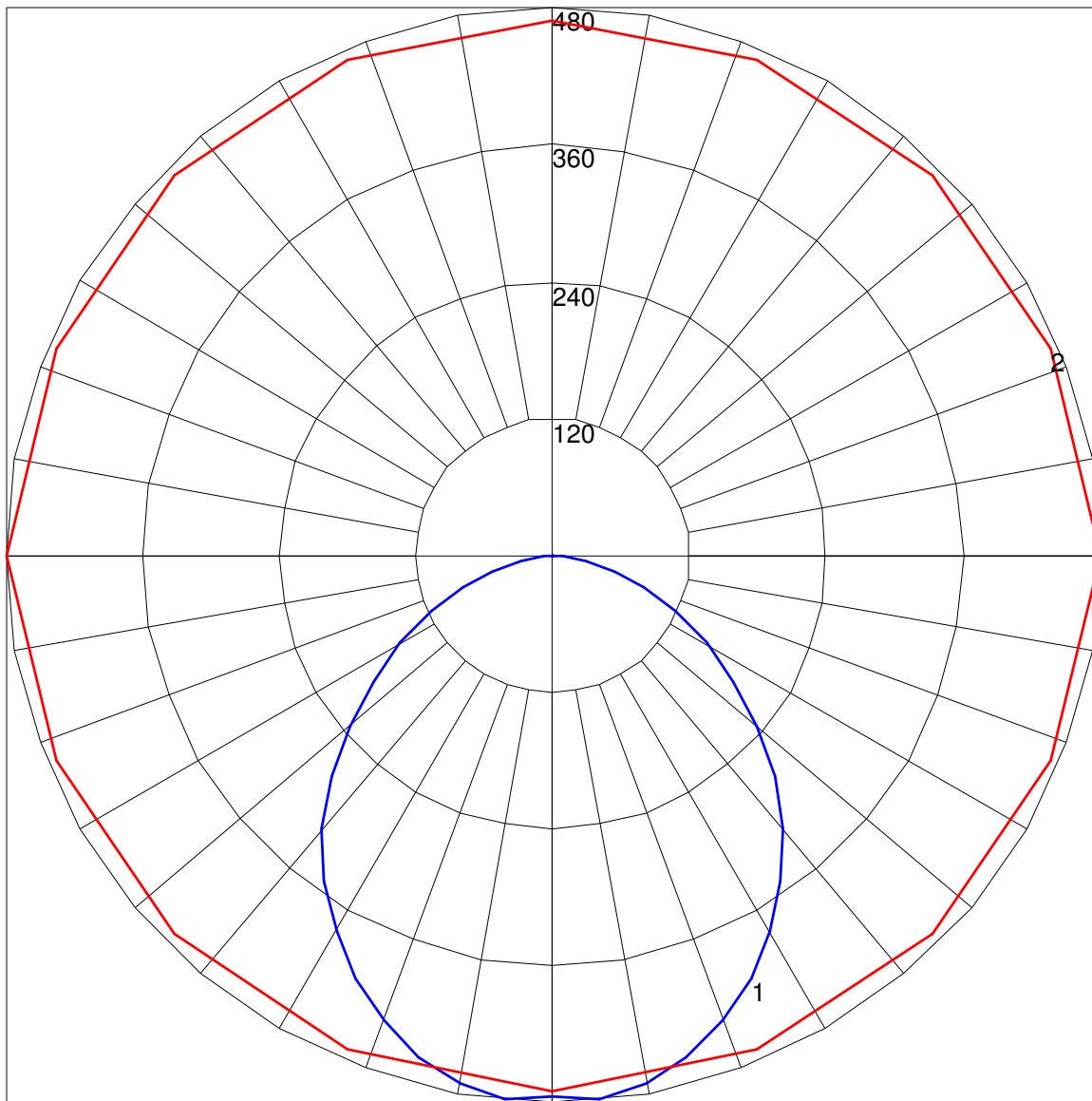
12H	4H	15.0	15.7	15.5	16.3	16.9	18.5	19.2	19.0	19.8	20.4
	6H	15.5	16.2	16.1	16.7	17.4	19.9	20.6	20.5	21.1	21.8
	8H	15.7	16.3	16.3	16.9	17.6	20.7	21.3	21.3	21.9	22.6

Maximum UGR = 23.4

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POLAR GRAPH



Maximum Candela = 479.71 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.)