



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-840-HIA-EM10W-DIM-UNV(EM 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  
 [ISSUE DATE] 06-25-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836  
 [LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE  
 [LUMCAT] SLF-4-L52-840-HIA-EM10W-DIM-UNV (EM MODE)  
 [MORE] WITH 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	1410
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
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	1996	1651	1694
55	1689	1415	1503
65	1359	1196	1289
75	954	958	1085
85	291	771	949

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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	455.233	455.233	455.233	455.233	455.233
5	460.091	453.383	451.532	451.070	450.838
10	450.376	445.287	444.130	445.287	444.130
15	436.497	432.564	434.415	436.497	436.034
20	415.909	412.902	419.379	423.080	424.468
25	393.240	389.308	398.561	407.119	407.813
30	365.713	363.400	375.429	387.920	388.383
35	334.717	333.560	348.596	364.788	366.870
40	301.870	298.863	318.293	337.955	342.350
45	264.165	260.926	286.603	309.041	315.980
50	223.684	224.610	255.144	278.738	288.685
55	185.517	191.300	222.990	248.204	259.307
60	148.737	159.147	191.994	219.058	228.773
65	114.040	126.993	163.542	188.987	197.545
70	81.655	96.922	135.321	161.229	168.168
75	52.972	69.164	107.100	135.552	140.410
80	27.989	47.420	84.200	112.420	116.353
85	7.402	30.534	64.306	92.064	96.460
90	0.925	19.199	49.965	74.947	80.499
95	0.231	11.335	37.705	59.449	65.926
100	0.000	6.708	27.296	46.032	52.509
105	0.000	4.626	20.125	34.929	41.869
110	0.000	3.470	15.961	28.452	34.235
115	0.000	3.007	12.029	22.900	27.296
120	0.000	2.776	10.178	18.737	21.975
125	0.000	1.851	7.402	14.804	17.580
130	0.000	1.619	6.014	11.335	13.416
135	0.000	1.157	4.626	9.021	10.409
140	0.000	1.157	3.470	6.940	8.327
145	0.000	0.463	3.007	5.552	6.246
150	0.000	0.000	2.776	4.858	5.552
155	0.000	0.000	1.851	3.470	4.395
160	0.000	0.000	1.619	2.313	3.007
165	0.000	0.000	0.000	1.619	1.851
170	0.000	0.000	0.000	0.000	1.157
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-L52-840-HIA-EM10W-DIM-UNV(EM MODE)\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	165.59	N.A.	11.70
0-30	349.41	N.A.	24.80
0-40	567.80	N.A.	40.30
0-60	987.43	N.A.	70.00
0-80	1254.25	N.A.	89.00
0-90	1320.95	N.A.	93.70
10-90	1277.96	N.A.	90.60
20-40	402.22	N.A.	28.50
20-50	623.60	N.A.	44.20
40-70	577.40	N.A.	41.00
60-80	266.82	N.A.	18.90
70-80	109.05	N.A.	7.70
80-90	66.71	N.A.	4.70
90-110	61.20	N.A.	4.30
90-120	74.31	N.A.	5.30
90-130	81.85	N.A.	5.80
90-150	87.81	N.A.	6.20
90-180	88.93	N.A.	6.30
110-180	27.73	N.A.	2.00
0-180	1409.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	42.99
10-20	122.59
20-30	183.82
30-40	218.39
40-50	221.38
50-60	198.25
60-70	157.77
70-80	109.05
80-90	66.71
90-100	39.18
100-110	22.02
110-120	13.11
120-130	7.55
130-140	3.96
140-150	1.99
150-160	0.91
160-170	0.21
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	93	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	60	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	11.0	12.6	11.5	13.0	13.5	14.1	15.7	14.6	16.1	16.6
	3H	12.3	13.7	12.7	14.1	14.6	16.4	17.8	16.9	18.3	18.8
	4H	12.6	13.9	13.1	14.4	14.9	17.5	18.8	18.0	19.3	19.8
	6H	12.8	14.0	13.3	14.5	15.1	18.5	19.8	19.0	20.2	20.8
	8H	12.8	14.0	13.4	14.5	15.1	19.1	20.3	19.6	20.8	21.3
	12H	12.8	14.0	13.4	14.5	15.0	19.7	20.8	20.2	21.3	21.9

### UGR Viewed Endwise

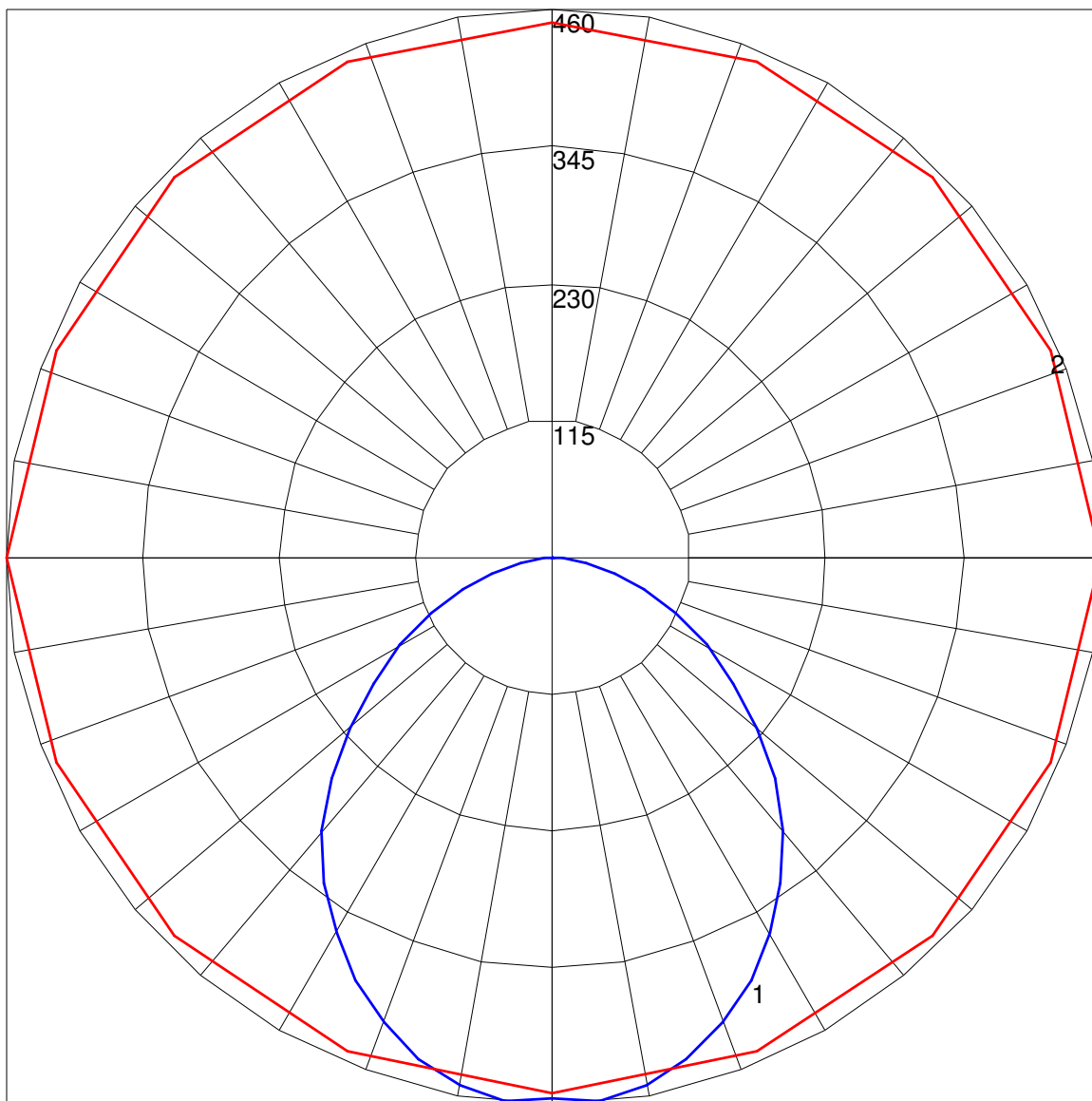
4H	2H	12.0	13.4	12.5	13.8	14.3	14.5	15.8	15.0	16.3	16.8
	3H	13.5	14.6	14.0	15.1	15.7	17.0	18.1	17.5	18.6	19.1
	4H	13.9	15.0	14.5	15.5	16.0	18.2	19.2	18.7	19.7	20.3
	6H	14.2	15.1	14.8	15.7	16.2	19.5	20.4	20.0	20.9	21.5
	8H	14.3	15.1	14.8	15.7	16.3	20.1	21.0	20.7	21.5	22.1
	12H	14.3	15.0	14.9	15.6	16.2	20.8	21.6	21.4	22.2	22.8

8H	4H	14.7	15.5	15.2	16.1	16.7	18.4	19.2	18.9	19.7	20.3
	6H	15.1	15.8	15.7	16.4	17.0	19.8	20.5	20.3	21.1	21.7
	8H	15.2	15.9	15.8	16.5	17.1	20.6	21.2	21.2	21.8	22.4
	12H	15.3	15.9	15.9	16.5	17.1	21.4	22.0	22.0	22.6	23.3

12H	4H	14.9	15.6	15.4	16.2	16.8	18.4	19.1	18.9	19.7	20.3
	6H	15.4	16.1	16.0	16.6	17.3	19.8	20.5	20.4	21.0	21.7
	8H	15.6	16.2	16.2	16.8	17.5	20.6	21.2	21.2	21.8	22.5

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 460.091 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.)