



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-835-HIA-(L30)-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] 01-27-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 4' LED SURFACE MOUNT LUMINAIRE
 [LUMCAT] SLF-4-L52-835-HIA-(L30)-DIM-UNV
 [MORE] WITH FROSTED ACRYLIC LENS
 [LAMPCAT] HLM 80 CRI 3500K 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	3076
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	22.9
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	4354	3603	3697
55	3686	3088	3279
65	2964	2609	2811
75	2082	2090	2367
85	636	1682	2071

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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	993.202	993.202	993.202	993.202	993.202
5	1003.801	989.165	985.128	984.118	983.613
10	982.604	971.501	968.978	971.501	968.978
15	952.324	943.744	947.781	952.324	951.314
20	907.407	900.847	914.978	923.052	926.080
25	857.949	849.370	869.557	888.230	889.744
30	797.893	792.846	819.089	846.342	847.351
35	730.266	727.743	760.547	795.874	800.416
40	658.602	652.041	694.434	737.332	746.920
45	576.340	569.275	625.294	674.247	689.387
50	488.022	490.040	556.658	608.135	629.836
55	404.750	417.367	486.508	541.517	565.742
60	324.507	347.217	418.881	477.928	499.125
65	248.805	277.067	356.806	412.320	430.993
70	178.151	211.459	295.235	351.759	366.899
75	115.571	150.898	233.665	295.740	306.338
80	61.066	103.459	183.702	245.273	253.852
85	16.150	66.617	140.300	200.861	210.450
90	2.019	41.888	109.010	163.515	175.627
95	0.505	24.729	82.262	129.702	143.833
100	0.000	14.636	59.552	100.431	114.561
105	0.000	10.094	43.907	76.206	91.346
110	0.000	7.570	34.823	62.075	74.692
115	0.000	6.561	26.243	49.963	59.552
120	0.000	6.056	22.206	40.879	47.944
125	0.000	4.037	16.150	32.299	38.355
130	0.000	3.533	13.122	24.729	29.271
135	0.000	2.523	10.094	19.682	22.710
140	0.000	2.523	7.570	15.140	18.168
145	0.000	1.009	6.561	12.112	13.626
150	0.000	0.000	6.056	10.598	12.112
155	0.000	0.000	4.037	7.570	9.589
160	0.000	0.000	3.533	5.047	6.561
165	0.000	0.000	0.000	3.533	4.037
170	0.000	0.000	0.000	0.000	2.523
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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Zone	Lumens	%Lamp	%Fixt
0-20	361.27	N.A.	11.70
0-30	762.32	N.A.	24.80
0-40	1238.8	N.A.	40.30
0-60	2154.33	N.A.	70.00
0-80	2736.45	N.A.	89.00
0-90	2881.98	N.A.	93.70
10-90	2788.18	N.A.	90.60
20-40	877.53	N.A.	28.50
20-50	1360.53	N.A.	44.20
40-70	1259.74	N.A.	41.00
60-80	582.12	N.A.	18.90
70-80	237.91	N.A.	7.70
80-90	145.53	N.A.	4.70
90-110	133.52	N.A.	4.30
90-120	162.12	N.A.	5.30
90-130	178.58	N.A.	5.80
90-150	191.57	N.A.	6.20
90-180	194.02	N.A.	6.30
110-180	60.50	N.A.	2.00
0-180	3076.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	93.80
10-20	267.47
20-30	401.06
30-40	476.48
40-50	483.00
50-60	432.53
60-70	344.21
70-80	237.91
80-90	145.53
90-100	85.48
100-110	48.04
110-120	28.60
120-130	16.46
130-140	8.64
140-150	4.35
150-160	1.98
160-170	0.46
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	13.7	15.3	14.2	15.7	16.2	16.8	18.4	17.3	18.8	19.3
	3H	15.0	16.4	15.4	16.8	17.3	19.1	20.5	19.6	21.0	21.5
	4H	15.3	16.6	15.8	17.1	17.6	20.2	21.5	20.7	22.0	22.5
	6H	15.5	16.7	16.0	17.2	17.7	21.2	22.5	21.7	22.9	23.5
	8H	15.5	16.7	16.1	17.2	17.8	21.8	23.0	22.3	23.5	24.0
	12H	15.5	16.7	16.1	17.2	17.7	22.4	23.5	22.9	24.0	24.6

UGR Viewed Endwise

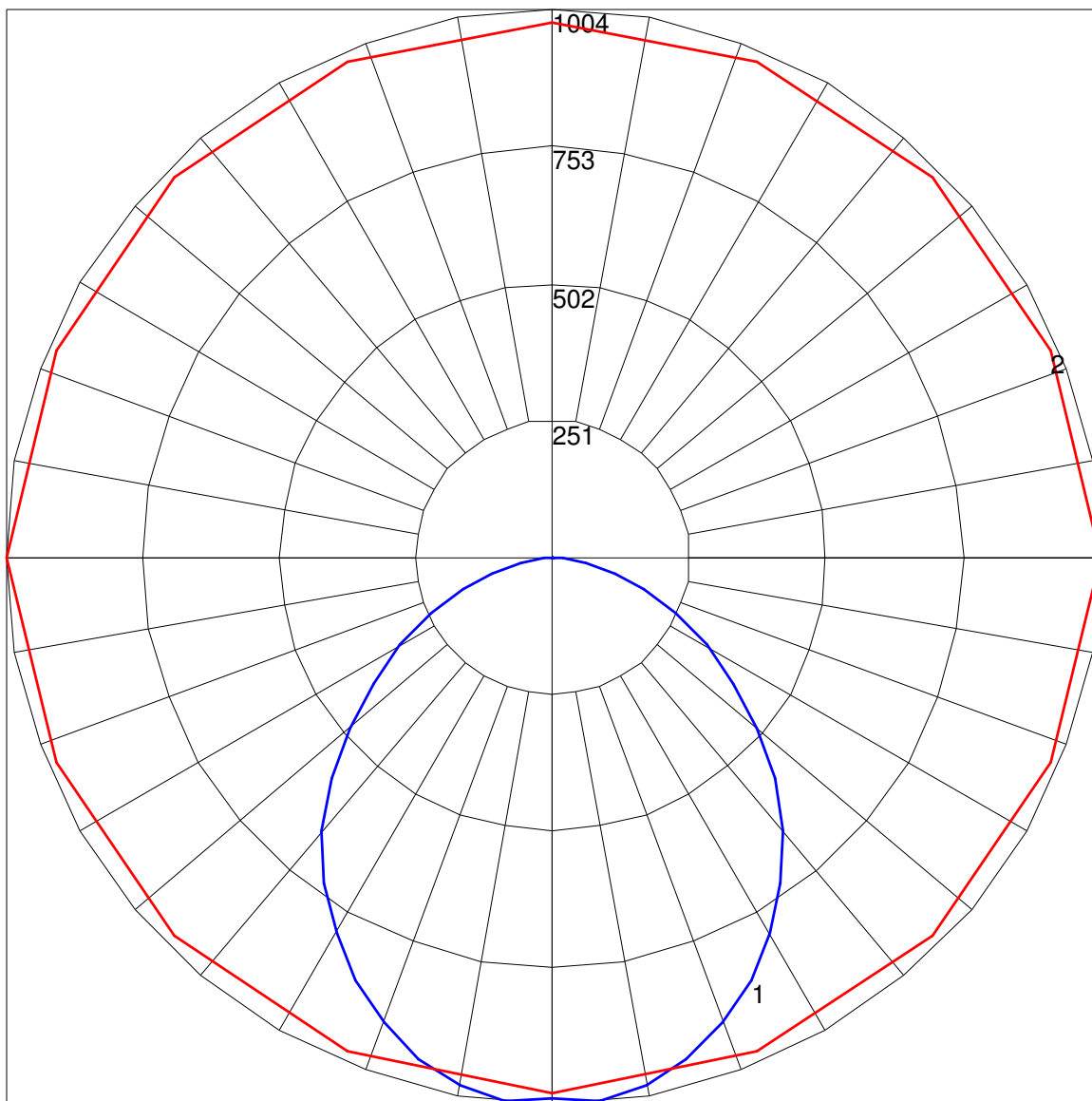
4H	2H	14.7	16.0	15.2	16.5	17.0	17.2	18.5	17.7	19.0	19.5
	3H	16.2	17.3	16.7	17.8	18.4	19.7	20.8	20.2	21.3	21.8
	4H	16.6	17.7	17.2	18.2	18.7	20.9	21.9	21.4	22.4	23.0
	6H	16.9	17.8	17.5	18.4	18.9	22.2	23.1	22.7	23.6	24.2
	8H	17.0	17.8	17.5	18.4	19.0	22.8	23.7	23.4	24.2	24.8
	12H	17.0	17.7	17.6	18.3	18.9	23.5	24.3	24.1	24.9	25.5

8H	4H	17.4	18.2	17.9	18.8	19.4	21.1	21.9	21.6	22.4	23.0
	6H	17.8	18.5	18.4	19.1	19.7	22.5	23.2	23.0	23.8	24.4
	8H	17.9	18.6	18.5	19.2	19.8	23.3	23.9	23.9	24.5	25.1
	12H	18.0	18.6	18.6	19.2	19.8	24.1	24.7	24.7	25.3	26.0

12H	4H	17.6	18.3	18.1	18.9	19.5	21.0	21.8	21.6	22.4	23.0
	6H	18.1	18.8	18.7	19.3	20.0	22.5	23.2	23.1	23.7	24.4
	8H	18.3	18.9	18.9	19.5	20.2	23.3	23.9	23.9	24.5	25.2

Maximum UGR = 26.0

POLAR GRAPH



Maximum Candela = 1003.801 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.)