

IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-4-L52-835-HIATP-(L28)-SD50-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] 6-7-2023

[MANUFAC] WILLIAMS INDOOR

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

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

[LUMCAT] SLF-4-L52-835-HIA-(L28)-SD50-UNV

[MORE] WHITE FLAT REFLECTOR w/FROSTED ACRYLIC LENS

[LAMPCAT] HLM2256_5630 REV A #10560223

[_SEARCH_SOURCE TYPE] 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	2836
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	128
Total Luminaire Watts	22.15
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	4015	3322	3408
55	3398	2847	3024
65	2733	2406	2592
75	1920	1927	2182
85	586	1551	1909

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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	915.709	915.709	915.709	915.709	915.709
5	925.481	911.987	908.264	907.334	906.869
10	905.938	895.701	893.375	895.701	893.375
15	878.020	870.110	873.832	878.020	877.089
20	836.608	830.559	843.588	851.033	853.824
25	791.009	783.099	801.711	818.927	820.323
30	735.638	730.985	755.181	780.307	781.238
35	673.288	670.962	701.206	733.777	737.965
40	607.216	601.167	640.252	679.802	688.643
45	531.372	524.858	576.506	621.640	635.599
50	449.945	451.806	513.225	560.686	580.694
55	373.170	384.803	448.549	499.266	521.601
60	299.188	320.126	386.199	440.639	460.181
65	229.393	255.449	328.967	380.150	397.366
70	164.251	194.960	272.200	324.314	338.273
75	106.554	139.125	215.434	272.665	282.437
80	56.301	95.386	169.369	226.136	234.046
85	14.890	61.420	129.353	185.189	194.030
90	1.861	38.620	100.505	150.757	161.924
95	0.465	22.800	75.844	119.582	132.610
100	0.000	13.494	54.905	92.595	105.623
105	0.000	9.306	40.481	70.260	84.219
110	0.000	6.979	32.106	57.232	68.864
115	0.000	6.049	24.196	46.065	54.905
120	0.000	5.584	20.473	37.689	44.203
125	0.000	3.722	14.890	29.779	35.363
130	0.000	3.257	12.098	22.800	26.987
135	0.000	2.326	9.306	18.147	20.938
140	0.000	2.326	6.979	13.959	16.751
145	0.000	0.931	6.049	11.167	12.563
150	0.000	0.000	5.584	9.771	11.167
155	0.000	0.000	3.722	6.979	8.841
160	0.000	0.000	3.257	4.653	6.049
165	0.000	0.000	0.000	3.257	3.722
170	0.000	0.000	0.000	0.000	2.326
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	333.08	N.A.	11.70
0-30	702.84	N.A.	24.80
0-40	1142.14	N.A.	40.30
0-60	1986.24	N.A.	70.00
0-80	2522.94	N.A.	89.00
0-90	2657.12	N.A.	93.70
10-90	2570.64	N.A.	90.60
20-40	809.06	N.A.	28.50
20-50	1254.37	N.A.	44.20
40-70	1161.45	N.A.	41.00
60-80	536.70	N.A.	18.90
70-80	219.35	N.A.	7.70
80-90	134.18	N.A.	4.70
90-110	123.10	N.A.	4.30
90-120	149.47	N.A.	5.30
90-130	164.65	N.A.	5.80
90-150	176.62	N.A.	6.20
90-180	178.88	N.A.	6.30
110-180	55.78	N.A.	2.00
0-180	2836.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	86.48
10-20	246.60
20-30	369.76
30-40	439.30
40-50	445.31
50-60	398.79
60-70	317.35
70-80	219.35
80-90	134.18
90-100	78.81
100-110	44.29
110-120	26.37
120-130	15.18
130-140	7.97
140-150	4.01
150-160	1.82
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

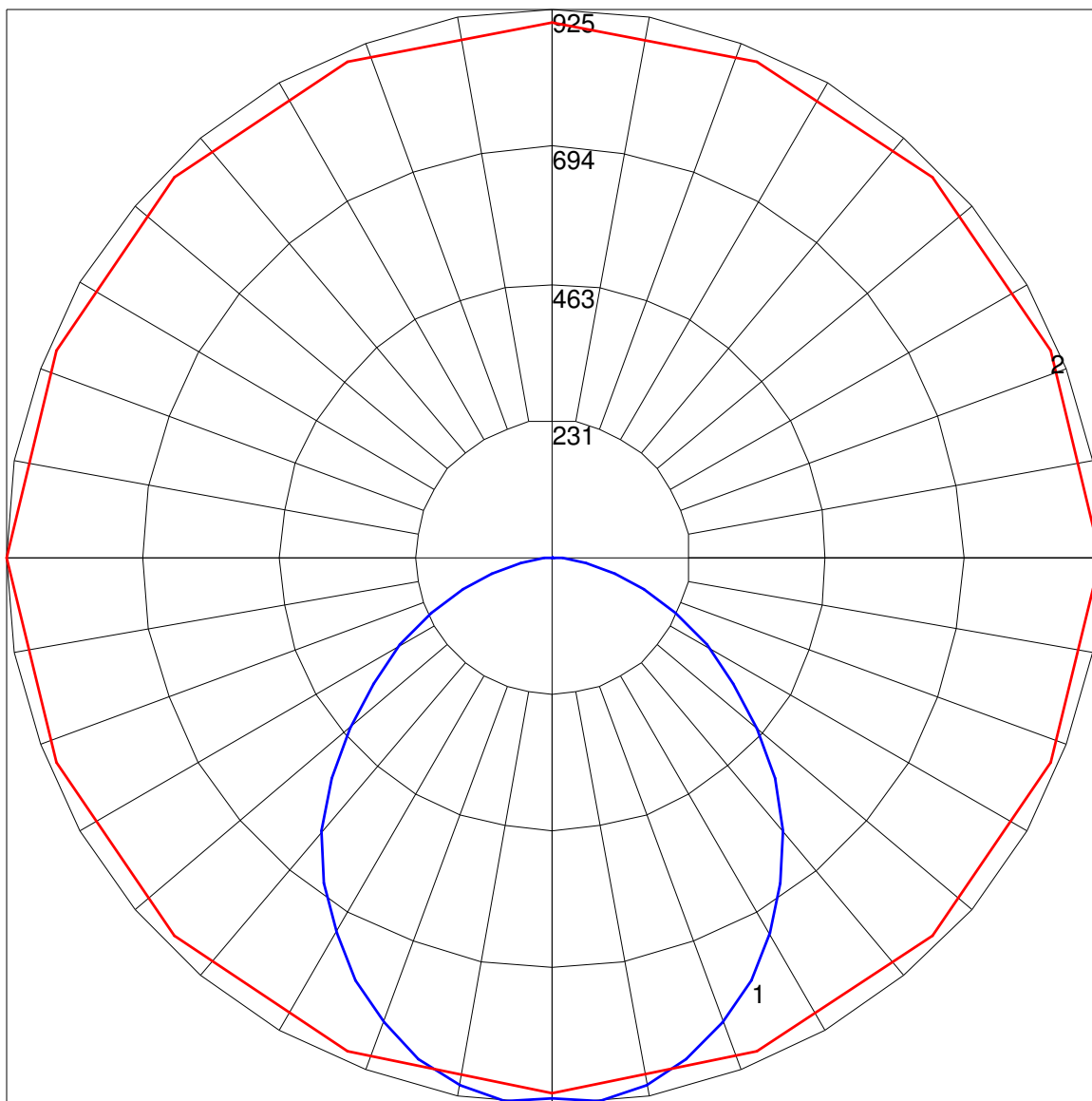
Reflectances

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	13.4	15.0	13.9	15.4	15.9	16.5	18.1	17.0	18.5	19.0
	3H	14.7	16.1	15.1	16.5	17.0	18.8	20.2	19.3	20.7	21.2
	4H	15.0	16.3	15.5	16.8	17.3	19.9	21.2	20.4	21.7	22.2
	6H	15.2	16.4	15.7	16.9	17.4	20.9	22.2	21.4	22.6	23.2
	8H	15.2	16.4	15.7	16.9	17.5	21.5	22.7	22.0	23.2	23.7
	12H	15.2	16.4	15.8	16.9	17.4	22.1	23.2	22.6	23.7	24.3
4H	2H	14.4	15.7	14.9	16.2	16.7	16.9	18.2	17.4	18.7	19.2
	3H	15.9	17.0	16.4	17.5	18.1	19.4	20.5	19.9	21.0	21.5
	4H	16.3	17.4	16.9	17.9	18.4	20.6	21.6	21.1	22.1	22.7
	6H	16.6	17.5	17.2	18.1	18.6	21.9	22.8	22.4	23.3	23.9
	8H	16.7	17.5	17.2	18.1	18.7	22.5	23.4	23.1	23.9	24.5
	12H	16.7	17.4	17.3	18.0	18.6	23.2	24.0	23.8	24.6	25.2
8H	4H	17.1	17.9	17.6	18.5	19.1	20.8	21.6	21.3	22.1	22.7
	6H	17.5	18.2	18.1	18.8	19.4	22.2	22.9	22.7	23.5	24.1
	8H	17.6	18.3	18.2	18.9	19.5	23.0	23.6	23.6	24.2	24.8
	12H	17.7	18.3	18.3	18.9	19.5	23.8	24.4	24.4	25.0	25.7
12H	4H	17.3	18.0	17.8	18.6	19.2	20.7	21.5	21.3	22.1	22.7
	6H	17.8	18.5	18.4	19.0	19.7	22.2	22.9	22.8	23.4	24.1
	8H	18.0	18.6	18.6	19.2	19.9	23.0	23.6	23.6	24.2	24.9

Maximum UGR = 25.7

POLAR GRAPH



Maximum Candela = 925.481 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.)