



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-2-L13-827-HIA-DIM-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
 [ISSUEDATE] 06-NOV-2019
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2' LED DIRECT/INDIRECT STAIRWELL LIGHT
 [MORE] WHITE REFLECTOR w/FROSTED POLYCARBONATE LENS
 [LUMCAT] SLF-2-L13-827-HIA-DIM-UNV
 [LAMPCAT] HLM 80 CRI 2700K CCT
 [_SEARCH_SOURCETYPE]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	1297
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	10.5
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	2973	2687	2913
55	2481	2263	2609
65	1922	1863	2264
75	1367	1541	1928
85	583	1294	1701

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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	408.789	408.789	408.789	408.789	408.789
5	409.887	407.325	405.495	405.861	403.666
10	402.568	401.470	400.372	402.568	401.470
15	389.759	389.393	390.857	394.150	394.516
20	373.656	375.120	378.048	384.269	386.465
25	348.770	352.064	359.749	368.166	372.192
30	321.688	327.910	341.085	352.430	356.821
35	292.776	299.364	317.297	333.399	339.621
40	259.107	267.890	289.117	310.709	317.297
45	225.072	235.685	259.107	284.725	292.411
50	189.207	204.212	227.634	257.277	265.695
55	159.197	173.836	199.454	232.391	241.907
60	126.626	142.729	170.908	203.114	214.459
65	97.348	113.085	143.826	174.568	186.279
70	72.096	87.833	121.136	150.048	159.563
75	48.674	63.679	98.446	126.626	133.579
80	28.546	46.112	79.782	105.034	111.987
85	11.345	31.839	62.947	87.833	92.225
90	0.000	19.396	49.040	70.998	74.658
95	0.000	13.541	39.159	58.555	61.849
100	0.000	8.783	28.912	46.844	49.406
105	0.000	7.685	24.886	38.061	42.087
110	0.000	4.758	17.933	30.010	33.303
115	0.000	4.392	15.737	25.252	28.546
120	0.000	4.026	12.443	20.860	24.154
125	0.000	2.928	9.515	16.835	19.396
130	0.000	0.000	9.149	15.005	16.469
135	0.000	0.000	6.222	10.979	13.541
140	0.000	0.000	5.490	9.515	10.613
145	0.000	0.000	0.000	7.319	8.783
150	0.000	0.000	0.000	6.222	7.319
155	0.000	0.000	0.000	5.124	5.124
160	0.000	0.000	0.000	4.392	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	2.928	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	149.25	N.A.	11.50
0-30	315.43	N.A.	24.30
0-40	513.16	N.A.	39.60
0-60	893.44	N.A.	68.90
0-80	1137.81	N.A.	87.70
0-90	1202.34	N.A.	92.70
10-90	1163.69	N.A.	89.70
20-40	363.92	N.A.	28.10
20-50	564.24	N.A.	43.50
40-70	523.23	N.A.	40.30
60-80	244.37	N.A.	18.80
70-80	101.41	N.A.	7.80
80-90	64.53	N.A.	5.00
90-110	62.87	N.A.	4.80
90-120	77.67	N.A.	6.00
90-130	86.66	N.A.	6.70
90-150	93.68	N.A.	7.20
90-180	94.68	N.A.	7.30
110-180	31.81	N.A.	2.50
0-180	1297.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	38.65
10-20	110.60
20-30	166.18
30-40	197.74
40-50	200.32
50-60	179.96
60-70	142.96
70-80	101.41
80-90	64.53
90-100	38.91
100-110	23.96
110-120	14.79
120-130	8.99
130-140	4.90
140-150	2.13
150-160	0.87
160-170	0.09
170-180	0.03

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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

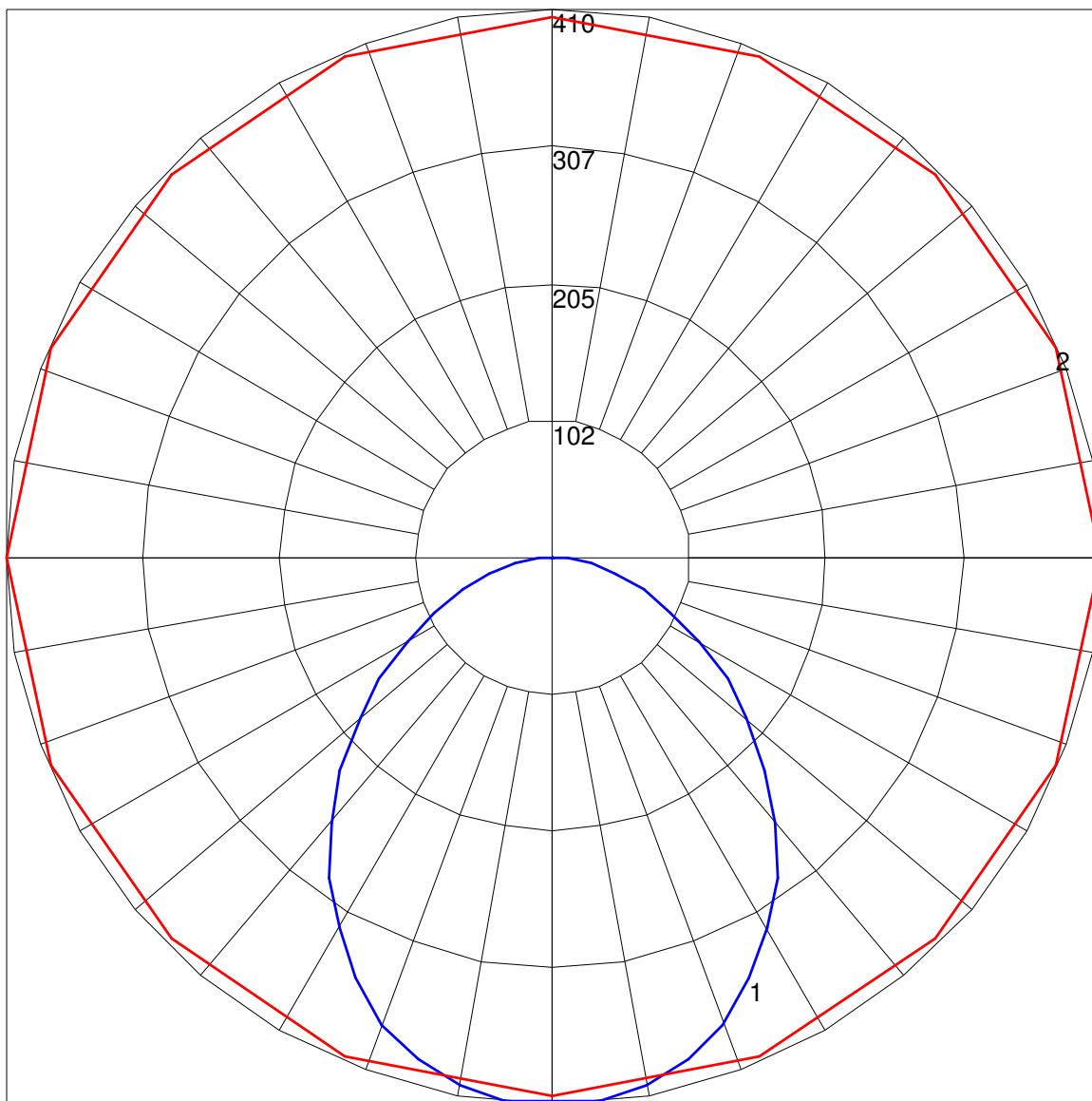
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	13.4	14.9	13.9	15.4	15.9	15.8	17.3	16.3	17.8	18.3
	3H	14.8	16.2	15.3	16.7	17.2	18.0	19.4	18.5	19.9	20.4
	4H	15.3	16.6	15.8	17.1	17.6	19.1	20.4	19.6	20.9	21.4
	6H	15.6	16.8	16.2	17.3	17.9	20.1	21.3	20.6	21.8	22.4
	8H	15.7	16.9	16.2	17.4	18.0	20.6	21.8	21.1	22.3	22.8
	12H	15.8	16.9	16.3	17.4	18.0	21.1	22.2	21.7	22.7	23.3
4H	2H	14.1	15.4	14.6	15.9	16.5	16.1	17.4	16.6	17.9	18.4
	3H	15.8	16.9	16.3	17.4	18.0	18.6	19.7	19.1	20.2	20.8
	4H	16.4	17.4	16.9	17.9	18.5	19.8	20.8	20.3	21.3	21.9
	6H	16.8	17.7	17.4	18.3	18.9	21.0	21.9	21.6	22.5	23.1
	8H	17.0	17.8	17.5	18.4	19.0	21.6	22.5	22.2	23.0	23.6
	12H	17.0	17.8	17.6	18.4	19.0	22.3	23.0	22.8	23.6	24.2
8H	4H	16.9	17.7	17.5	18.3	18.9	19.9	20.8	20.5	21.3	22.0
	6H	17.5	18.2	18.1	18.8	19.5	21.3	22.0	21.9	22.6	23.3
	8H	17.8	18.4	18.4	19.0	19.6	22.1	22.7	22.7	23.3	24.0
	12H	17.9	18.5	18.5	19.1	19.8	22.9	23.5	23.5	24.1	24.8
12H	4H	17.0	17.8	17.6	18.4	19.0	19.9	20.7	20.5	21.3	21.9
	6H	17.7	18.4	18.4	19.0	19.7	21.4	22.0	22.0	22.6	23.3
	8H	18.0	18.6	18.6	19.2	19.9	22.1	22.7	22.8	23.3	24.0

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 409.887 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.)