



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-2-L45-835-HIA-(L40)-SD50-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] 24-APRIL-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2' DIRECT/INDIRECT STAIRWELL LIGHT
 [MORE] WHITE REFLECTOR w/FROSTED POLYCARBONATE LENS
 [LUMCAT] SLF-2-L45-835-HIA-(L40)-SD50-UNV
 [LAMPCAT] HLM 80 CRI 3500K 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	4040
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	34
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	9259	8370	9074
55	7729	7048	8126
65	5987	5804	7053
75	4258	4799	6004
85	1814	4030	5298

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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	1273.330	1273.330	1273.330	1273.330	1273.330
5	1276.750	1268.770	1263.070	1264.210	1257.370
10	1253.951	1250.531	1247.111	1253.951	1250.531
15	1214.052	1212.912	1217.472	1227.732	1228.872
20	1163.894	1168.454	1177.574	1196.953	1203.793
25	1086.377	1096.637	1120.576	1146.795	1159.334
30	1002.020	1021.400	1062.438	1097.777	1111.456
35	911.964	932.483	988.341	1038.499	1057.878
40	807.088	834.447	900.564	967.822	988.341
45	701.072	734.131	807.088	886.885	910.824
50	589.357	636.095	709.052	801.388	827.607
55	495.880	541.479	621.275	723.871	753.510
60	394.424	444.582	532.359	632.675	668.014
65	303.228	352.246	448.002	543.759	580.237
70	224.571	273.589	377.325	467.382	497.020
75	151.614	198.352	306.648	394.424	416.084
80	88.916	143.634	248.510	327.167	348.826
85	35.339	99.176	196.072	273.589	287.269
90	0.000	60.418	152.754	221.151	232.551
95	0.000	42.178	121.975	182.393	192.652
100	0.000	27.359	90.056	145.914	153.894
105	0.000	23.939	77.517	118.555	131.095
110	0.000	14.819	55.858	93.476	103.736
115	0.000	13.679	49.018	78.657	88.916
120	0.000	12.540	38.758	64.977	75.237
125	0.000	9.120	29.639	52.438	60.418
130	0.000	0.000	28.499	46.738	51.298
135	0.000	0.000	19.379	34.199	42.178
140	0.000	0.000	17.099	29.639	33.059
145	0.000	0.000	0.000	22.799	27.359
150	0.000	0.000	0.000	19.379	22.799
155	0.000	0.000	0.000	15.959	15.959
160	0.000	0.000	0.000	13.679	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	9.120	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	464.88	N.A.	11.50
0-30	982.51	N.A.	24.30
0-40	1598.45	N.A.	39.60
0-60	2782.95	N.A.	68.90
0-80	3544.15	N.A.	87.70
0-90	3745.15	N.A.	92.70
10-90	3624.76	N.A.	89.70
20-40	1133.57	N.A.	28.10
20-50	1757.53	N.A.	43.50
40-70	1629.81	N.A.	40.30
60-80	761.19	N.A.	18.80
70-80	315.89	N.A.	7.80
80-90	201.00	N.A.	5.00
90-110	195.85	N.A.	4.80
90-120	241.93	N.A.	6.00
90-130	269.92	N.A.	6.70
90-150	291.81	N.A.	7.20
90-180	294.92	N.A.	7.30
110-180	99.07	N.A.	2.50
0-180	4040.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	120.39
10-20	344.49
20-30	517.63
30-40	615.93
40-50	623.97
50-60	560.54
60-70	445.31
70-80	315.89
80-90	201.00
90-100	121.21
100-110	74.64
110-120	46.08
120-130	27.99
130-140	15.25
140-150	6.64
150-160	2.72
160-170	0.28
170-180	0.11

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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

X=2H	Y=2H	16.5	18.0	17.0	18.5	19.0	19.7	21.2	20.2	21.7	22.2
	3H	17.7	19.1	18.2	19.6	20.1	21.9	23.3	22.4	23.8	24.3
	4H	18.1	19.4	18.6	19.9	20.4	23.0	24.3	23.5	24.8	25.3
	6H	18.3	19.5	18.9	20.0	20.6	24.0	25.2	24.5	25.7	26.3
	8H	18.4	19.5	18.9	20.1	20.6	24.5	25.7	25.0	26.2	26.7
	12H	18.4	19.5	18.9	20.0	20.6	25.0	26.1	25.6	26.6	27.2

UGR Viewed Endwise

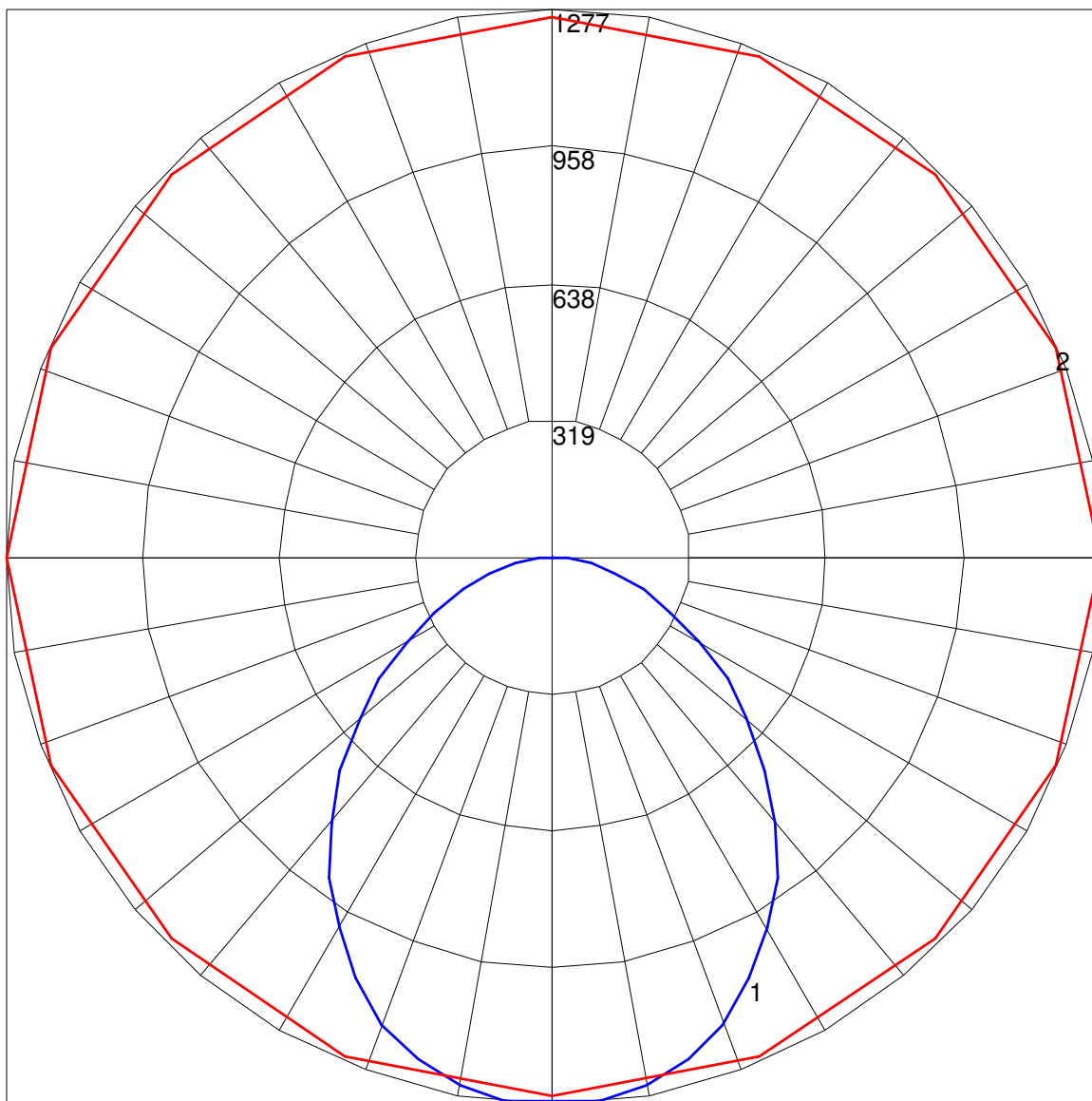
4H	2H	17.4	18.7	17.9	19.2	19.8	20.0	21.3	20.5	21.8	22.3
	3H	18.9	20.0	19.4	20.5	21.1	22.5	23.6	23.0	24.1	24.7
	4H	19.4	20.4	19.9	20.9	21.5	23.7	24.7	24.2	25.2	25.8
	6H	19.7	20.6	20.3	21.2	21.8	24.9	25.8	25.5	26.4	27.0
	8H	19.8	20.6	20.4	21.2	21.8	25.5	26.4	26.1	26.9	27.5
	12H	19.8	20.6	20.4	21.2	21.8	26.2	26.9	26.7	27.5	28.1

8H	4H	20.1	21.0	20.7	21.5	22.1	23.8	24.7	24.4	25.2	25.9
	6H	20.6	21.3	21.2	21.9	22.6	25.2	25.9	25.8	26.5	27.2
	8H	20.8	21.4	21.4	22.1	22.7	26.0	26.6	26.6	27.2	27.9
	12H	20.9	21.5	21.5	22.1	22.8	26.8	27.4	27.4	28.0	28.7

12H	4H	20.3	21.1	20.9	21.7	22.3	23.8	24.6	24.4	25.2	25.8
	6H	21.0	21.6	21.6	22.2	22.9	25.3	25.9	25.9	26.5	27.2
	8H	21.2	21.8	21.8	22.4	23.1	26.0	26.6	26.6	27.2	27.9

Maximum UGR = 28.7

POLAR GRAPH



Maximum Candela = 1276.75 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.)