



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : SL-4-L10-940-RD-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 21002.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2023-10-03

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 48 INCH LED SLIMLINE ARCHITECTURAL LUMINAIRE

[MORE] 1.5" ALUM CHANNEL w/1"WIDE WHITE RADIAL ACRYLIC LENS

[MORE] 0-10V REMOTE DRIVER ENCLOSURE

[LUMCAT] SL-4-L10-940-RD-DIM-UNV

[LAMPCAT] 22 INCH LED ARRAY

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3505
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.13 ft
Luminous Height	0.05 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	21668	17464	16611
55	20452	15625	14984
65	18203	13431	13334
75	15243	11055	11868
85	8253	9166	10686

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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	1103.710	1103.710	1103.710	1103.710	1103.710
5	1107.323	1101.903	1094.678	1092.871	1094.678
10	1091.065	1085.646	1078.420	1078.420	1082.033
15	1067.582	1062.163	1054.937	1056.743	1056.743
20	1031.454	1026.035	1017.003	1024.228	1026.035
25	986.294	980.875	979.068	984.487	988.100
30	930.295	930.295	930.295	937.521	935.715
35	870.684	870.684	870.684	877.910	883.329
40	798.428	800.235	802.041	814.686	821.912
45	720.753	726.172	731.592	746.043	751.462
50	635.852	641.272	653.916	675.593	686.432
55	554.564	556.371	579.854	597.918	614.176
60	460.632	469.664	502.179	536.500	547.339
65	366.699	381.150	419.085	457.019	473.277
70	279.992	294.443	341.409	388.376	402.827
75	191.478	216.768	269.153	321.539	343.216
80	111.997	139.093	209.542	261.928	285.411
85	37.934	88.514	153.544	205.929	229.413
90	0.000	48.773	113.803	160.770	178.833
95	0.000	25.290	77.675	124.642	140.899
100	0.000	12.645	54.192	92.126	108.384
105	0.000	7.226	37.934	66.837	81.288
110	0.000	5.419	25.290	48.773	57.805
115	0.000	3.613	16.258	34.322	43.354
120	0.000	0.000	9.032	21.677	27.096
125	0.000	0.000	7.226	14.451	18.064
130	0.000	0.000	0.000	9.032	10.838
135	0.000	0.000	0.000	0.000	7.226
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	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	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	402.98	N.A.	11.50
0-30	855.90	N.A.	24.40
0-40	1402.41	N.A.	40.00
0-60	2488.71	N.A.	71.00
0-80	3191.07	N.A.	91.00
0-90	3353.63	N.A.	95.70
10-90	3249.33	N.A.	92.70
20-40	999.43	N.A.	28.50
20-50	1566.37	N.A.	44.70
40-70	1503.16	N.A.	42.90
60-80	702.36	N.A.	20.00
70-80	285.50	N.A.	8.10
80-90	162.56	N.A.	4.60
90-110	124.91	N.A.	3.60
90-120	143.87	N.A.	4.10
90-130	150.66	N.A.	4.30
90-150	151.74	N.A.	4.30
90-180	151.74	N.A.	4.30
110-180	26.83	N.A.	0.80
0-180	3505.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	104.30
10-20	298.69
20-30	452.92
30-40	546.51
40-50	566.94
50-60	519.36
60-70	416.85
70-80	285.50
80-90	162.56
90-100	83.38
100-110	41.53
110-120	18.96
120-130	6.79
130-140	1.08
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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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	115	115	115	115	109	109	109	103	103	103	98	98	98	96
1	106	101	96	92	103	98	94	90	93	90	86	89	86	83	84	82	80	77
2	96	87	80	74	93	85	78	73	81	75	70	77	72	68	73	69	66	63
3	88	76	68	61	85	75	67	60	71	64	59	68	62	57	64	60	55	53
4	80	68	58	51	77	66	57	51	63	55	50	60	54	49	57	52	47	45
5	74	60	51	44	71	59	50	44	56	49	43	54	47	42	51	46	41	39
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	47	41	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	38	32	43	37	32	30
8	59	45	36	30	57	44	36	30	42	35	29	41	34	29	39	33	29	27
9	55	41	33	27	53	40	32	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	24	36	29	24	35	28	24	33	28	23	22

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**UGR TABLE - CORRECTED**

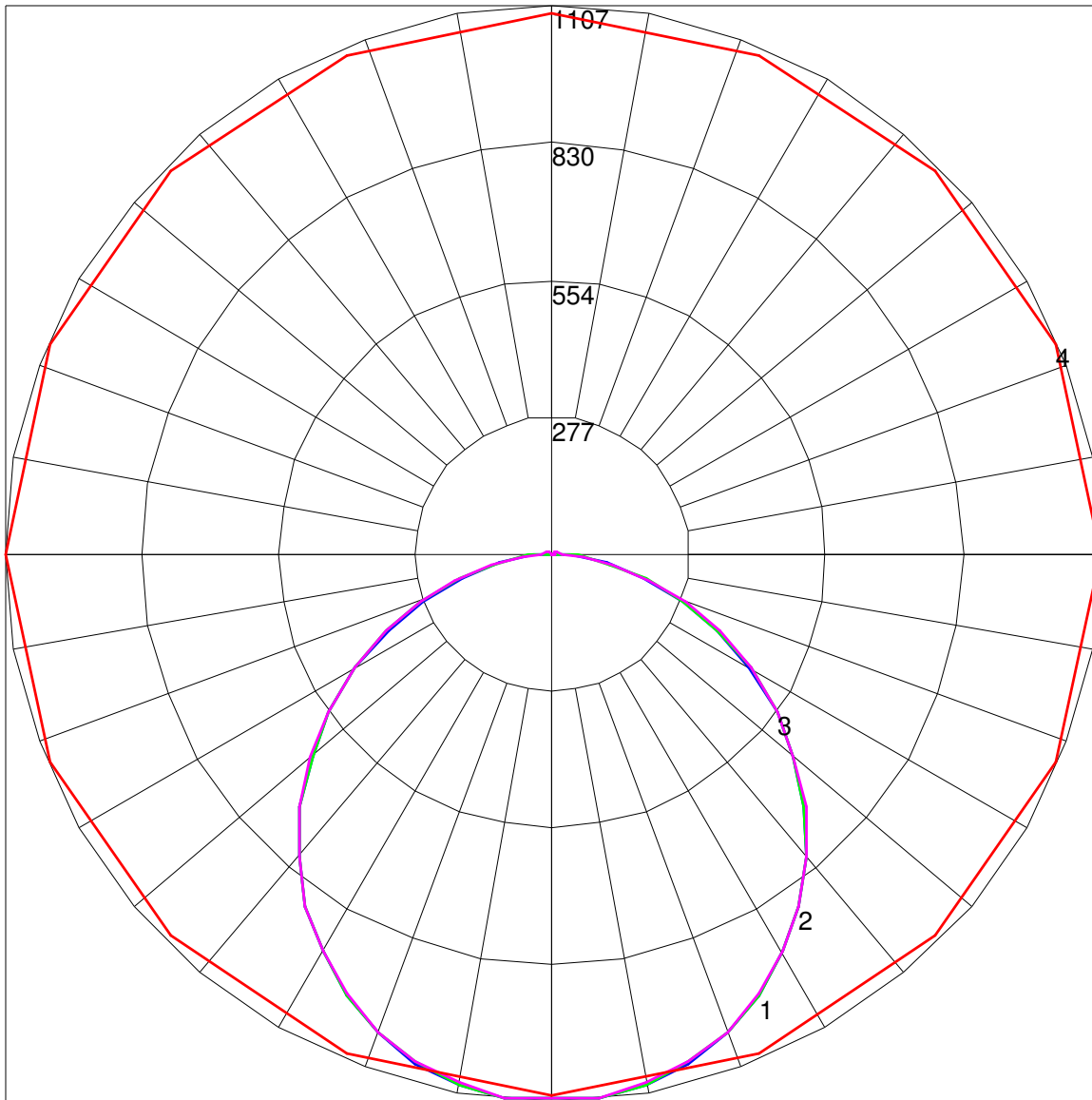
Reflectances

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	20.5	22.1	20.9	22.5	22.9	22.2	23.8	22.6	24.2	24.6
	3H	22.0	23.4	22.4	23.8	24.3	24.5	25.9	24.9	26.4	26.8
	4H	22.4	23.8	22.9	24.2	24.7	25.6	27.0	26.1	27.4	27.9
	6H	22.7	24.0	23.2	24.5	24.9	26.8	28.0	27.2	28.5	29.0
	8H	22.8	24.0	23.3	24.5	25.0	27.4	28.6	27.9	29.1	29.5
	12H	22.8	24.0	23.3	24.4	25.0	28.0	29.2	28.5	29.6	30.2
4H	2H	21.3	22.7	21.7	23.1	23.5	22.6	24.0	23.1	24.4	24.9
	3H	23.0	24.1	23.4	24.6	25.1	25.1	26.3	25.6	26.8	27.3
	4H	23.5	24.6	24.0	25.1	25.6	26.4	27.5	26.9	27.9	28.5
	6H	23.9	24.9	24.5	25.4	25.9	27.7	28.7	28.3	29.2	29.7
	8H	24.0	24.9	24.6	25.4	26.0	28.4	29.3	28.9	29.8	30.4
	12H	24.1	24.9	24.6	25.4	26.0	29.2	30.0	29.7	30.5	31.1
8H	4H	24.1	25.0	24.6	25.5	26.0	26.6	27.5	27.1	28.0	28.5
	6H	24.6	25.4	25.2	25.9	26.5	28.1	28.8	28.6	29.4	29.9
	8H	24.8	25.5	25.3	26.0	26.6	28.9	29.6	29.4	30.1	30.7
	12H	24.9	25.5	25.5	26.0	26.7	29.8	30.4	30.4	31.0	31.6
12H	4H	24.2	25.0	24.8	25.6	26.1	26.6	27.4	27.1	27.9	28.5
	6H	24.8	25.5	25.4	26.1	26.7	28.1	28.8	28.7	29.3	29.9
	8H	25.1	25.7	25.7	26.2	26.9	29.0	29.6	29.5	30.1	30.8

Maximum UGR = 31.6

POLAR GRAPH



Maximum Candela = 1107.323 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Vertical Plane Through Horizontal Angles (5 - 185)  
# 3 - Vertical Plane Through Horizontal Angles (10 - 190)  
# 4 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)