IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L10-927-RD-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] BALLABS TEST NO. 21002.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-04-25
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] SL LED SLIMLINE ARCHITECTURAL LUMINAIRE
[MORE] 1.375 WIDE ALUM CHANNEL w/1"WIDE WHITE RADIAL ACRYLIC LENS
[LUMCAT] SL-4-L10-927-RD-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR, COVE, CLASSROOM
[_SEARCH_MOUNTING] SURFACE, WALL

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3105
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	36
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	19192	15469	14713
55	18115	13840	13272
65	16123	11896	11810
75	13502	9792	10512
85	7310	8119	9465

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L10-927-RD-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	977.6	977.6	977.6	977.6	977.6
5	980.8	976.0	969.6	968.0	969.6
10	966.4	961.6	955.2	955.2	958.4
15	945.6	940.8	934.4	936.0	936.0
20	913.6	908.8	900.8	907.2	908.8
25	873.6	868.8	867.2	872.0	875.2
30	824.0	824.0	824.0	830.4	828.8
35	771.2	771.2	771.2	777.6	782.4
40	707.2	708.8	710.4	721.6	728.0
45	638.4	643.2	648.0	660.8	665.6
50	563.2	568.0	579.2	598.4	608.0
55	491.2	492.8	513.6	529.6	544.0
60	408.0	416.0	444.8	475.2	484.8
65	324.8	337.6	371.2	404.8	419.2
70	248.0	260.8	302.4	344.0	356.8
75	169.6	192.0	238.4	284.8	304.0
80	99.2	123.2	185.6	232.0	252.8
85	33.6	78.4	136.0	182.4	203.2
90	0.0	43.2	100.8	142.4	158.4
95	0.0	22.4	68.8	110.4	124.8
100	0.0	11.2	48.0	81.6	96.0
105	0.0	6.4	33.6	59.2	72.0
110	0.0	4.8	22.4	43.2	51.2
115	0.0	3.2	14.4	30.4	38.4
120	0.0	0.0	8.0	19.2	24.0
125	0.0	0.0	6.4	12.8	16.0
130	0.0	0.0	0.0	8.0	9.6
135	0.0	0.0	0.0	0.0	6.4
140	0.0	0.0	0.0	0.0	0.0
145	0.0	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0	0.0
155	0.0	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L10-927-RD-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	356.94	N.A.	11.50
0-30	758.11	N.A.	24.40
0-40	1242.17	N.A.	40.00
0-60	2204.35	N.A.	71.00
0-80	2826.46	N.A.	91.00
0-90	2970.44	N.A.	95.70
10-90	2878.06	N.A.	92.70
20-40	885.23	N.A.	28.50
20-50	1387.39	N.A.	44.70
40-70	1331.4	N.A.	42.90
60-80	622.11	N.A.	20.00
70-80	252.88	N.A.	8.10
80-90	143.98	N.A.	4.60
90-110	110.64	N.A.	3.60
90-120	127.44	N.A.	4.10
90-130	133.45	N.A.	4.30
90-150	134.40	N.A.	4.30
90-180	134.40	N.A.	4.30
110-180	23.77	N.A.	0.80
0-180	3104.85	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	92.38
10-20	264.56
20-30	401.17
30-40	484.07
40-50	502.16
50-60	460.02
60-70	369.22
70-80	252.88
80-90	143.98
90-100	73.86
100-110	36.78
110-120	16.80
120-130	6.01
130-140	0.96
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L10-927-RD-DIM-UNV_.IES

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	58	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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L10-927-RD-DIM-UNV_.IES

UGR TABLE - CORRECTED

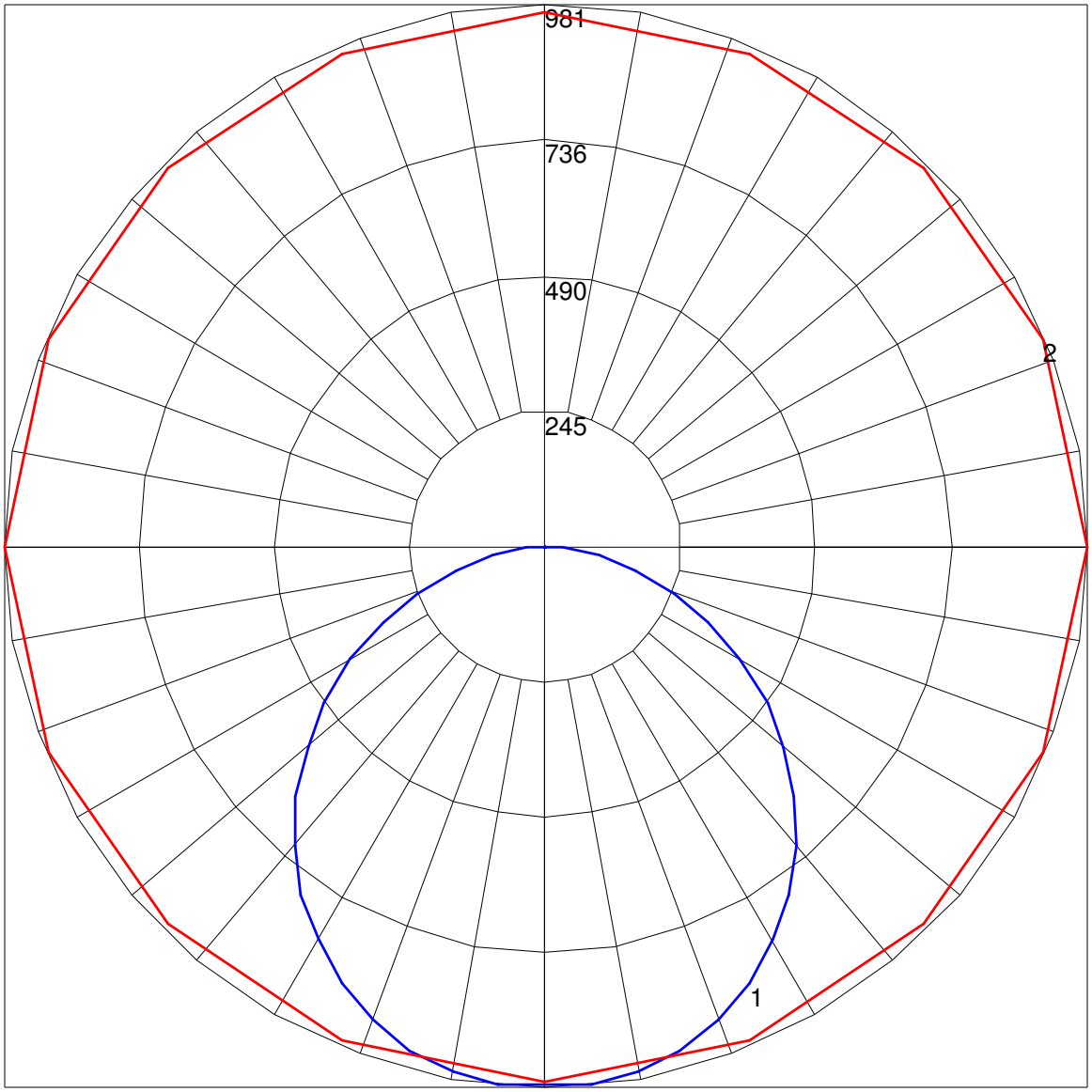
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	20.0	21.6	20.4	22.0	22.4	21.7	23.3	22.1	23.7	24.1
	3H	21.5	22.9	21.9	23.3	23.8	24.0	25.4	24.4	25.9	26.3
	4H	21.9	23.3	22.4	23.7	24.2	25.1	26.5	25.6	26.9	27.4
	6H	22.2	23.5	22.7	24.0	24.4	26.3	27.5	26.7	28.0	28.5
	8H	22.3	23.5	22.8	24.0	24.5	26.8	28.1	27.3	28.5	29.0
	12H	22.3	23.5	22.8	23.9	24.5	27.5	28.7	28.0	29.1	29.7
4H	2H	20.8	22.1	21.2	22.6	23.0	22.1	23.5	22.6	23.9	24.4
	3H	22.5	23.6	22.9	24.1	24.6	24.6	25.8	25.1	26.3	26.8
	4H	23.0	24.1	23.5	24.6	25.1	25.9	27.0	26.4	27.4	28.0
	6H	23.4	24.4	24.0	24.9	25.4	27.2	28.2	27.8	28.7	29.2
	8H	23.5	24.4	24.1	24.9	25.5	27.9	28.8	28.4	29.3	29.9
	12H	23.6	24.4	24.1	24.9	25.5	28.7	29.5	29.2	30.0	30.6
8H	4H	23.6	24.5	24.1	25.0	25.5	26.1	27.0	26.6	27.5	28.0
	6H	24.1	24.9	24.7	25.4	26.0	27.6	28.3	28.1	28.9	29.4
	8H	24.3	25.0	24.8	25.5	26.1	28.4	29.1	28.9	29.6	30.2
	12H	24.4	25.0	25.0	25.5	26.2	29.3	29.9	29.9	30.5	31.1
12H	4H	23.7	24.5	24.3	25.1	25.6	26.1	26.9	26.6	27.4	28.0
	6H	24.3	25.0	24.9	25.6	26.2	27.6	28.3	28.2	28.8	29.4
	8H	24.6	25.2	25.1	25.7	26.4	28.5	29.1	29.0	29.6	30.3

Maximum UGR = 31.1

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L10-927-RD-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 980.8 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.)

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.