IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L5-927-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-L5-927-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	1593
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	17.9
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	9848	7938	7550
55	9295	7102	6810
65	8273	6104	6060
75	6928	5024	5394
85	3751	4166	4857

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	501.643	501.643	501.643	501.643	501.643
5	503.285	500.822	497.538	496.717	497.538
10	495.896	493.433	490.149	490.149	491.791
15	485.223	482.760	479.476	480.297	480.297
20	468.802	466.339	462.234	465.518	466.339
25	448.277	445.814	444.993	447.456	449.098
30	422.825	422.825	422.825	426.109	425.288
35	395.732	395.732	395.732	399.016	401.479
40	362.891	363.712	364.533	370.280	373.564
45	327.587	330.050	332.513	339.081	341.544
50	288.999	291.462	297.209	307.062	311.988
55	252.053	252.874	263.547	271.758	279.147
60	209.360	213.465	228.244	243.843	248.769
65	166.667	173.235	190.477	207.718	215.107
70	127.258	133.826	155.173	176.519	183.087
75	87.028	98.522	122.332	146.142	155.994
80	50.903	63.219	95.238	119.048	129.721
85	17.241	40.230	69.787	93.596	104.270
90	0.000	22.168	51.724	73.071	81.281
95	0.000	11.494	35.304	56.650	64.040
100	0.000	5.747	24.631	41.872	49.261
105	0.000	3.284	17.241	30.378	36.946
110	0.000	2.463	11.494	22.168	26.273
115	0.000	1.642	7.389	15.599	19.704
120	0.000	0.000	4.105	9.852	12.315
125	0.000	0.000	3.284	6.568	8.210
130	0.000	0.000	0.000	4.105	4.926
135	0.000	0.000	0.000	0.000	3.284
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	183.16	N.A.	11.50
0-30	389.01	N.A.	24.40
0-40	637.41	N.A.	40.00
0-60	1131.14	N.A.	71.00
0-80	1450.36	N.A.	91.00
0-90	1524.25	N.A.	95.70
10-90	1476.84	N.A.	92.70
20-40	454.25	N.A.	28.50
20-50	711.92	N.A.	44.70
40-70	683.19	N.A.	42.90
60-80	319.23	N.A.	20.00
70-80	129.76	N.A.	8.10
80-90	73.88	N.A.	4.60
90-110	56.77	N.A.	3.60
90-120	65.39	N.A.	4.10
90-130	68.48	N.A.	4.30
90-150	68.97	N.A.	4.30
90-180	68.97	N.A.	4.30
110-180	12.19	N.A.	0.80
0-180	1593.21	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	47.40
10-20	135.76
20-30	205.85
30-40	248.39
40-50	257.68
50-60	236.05
60-70	189.46
70-80	129.76
80-90	73.88
90-100	37.90
100-110	18.87
110-120	8.62
120-130	3.08
130-140	0.49
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	17.7	19.3	18.1	19.7	20.1	19.4	21.0	19.8	21.4	21.8
	3H	19.2	20.6	19.6	21.0	21.5	21.7	23.1	22.1	23.6	24.0
	4H	19.6	21.0	20.1	21.4	21.9	22.8	24.2	23.3	24.6	25.1
	6H	19.9	21.2	20.4	21.7	22.1	24.0	25.2	24.4	25.7	26.2
	8H	20.0	21.2	20.5	21.7	22.2	24.6	25.8	25.1	26.3	26.7
	12H	20.0	21.2	20.5	21.6	22.2	25.2	26.4	25.7	26.8	27.4
4H	2H	18.5	19.9	18.9	20.3	20.7	19.8	21.2	20.3	21.6	22.1
	3H	20.2	21.3	20.6	21.8	22.3	22.3	23.5	22.8	24.0	24.5
	4H	20.7	21.8	21.2	22.3	22.8	23.6	24.7	24.1	25.1	25.7
	6H	21.1	22.1	21.7	22.6	23.1	24.9	25.9	25.5	26.4	26.9
	8H	21.2	22.1	21.8	22.6	23.2	25.6	26.5	26.1	27.0	27.6
	12H	21.3	22.1	21.8	22.6	23.2	26.4	27.2	26.9	27.7	28.3
8H	4H	21.3	22.2	21.8	22.7	23.2	23.8	24.7	24.3	25.2	25.7
	6H	21.8	22.6	22.4	23.1	23.7	25.3	26.0	25.8	26.6	27.1
	8H	22.0	22.7	22.5	23.2	23.8	26.1	26.8	26.6	27.3	27.9
	12H	22.1	22.7	22.7	23.2	23.9	27.0	27.6	27.6	28.2	28.8
12H	4H	21.4	22.2	22.0	22.8	23.3	23.8	24.6	24.3	25.1	25.7
	6H	22.0	22.7	22.6	23.3	23.9	25.3	26.0	25.9	26.5	27.1
	8H	22.3	22.9	22.9	23.4	24.1	26.2	26.8	26.7	27.3	28.0

Maximum UGR = 28.8

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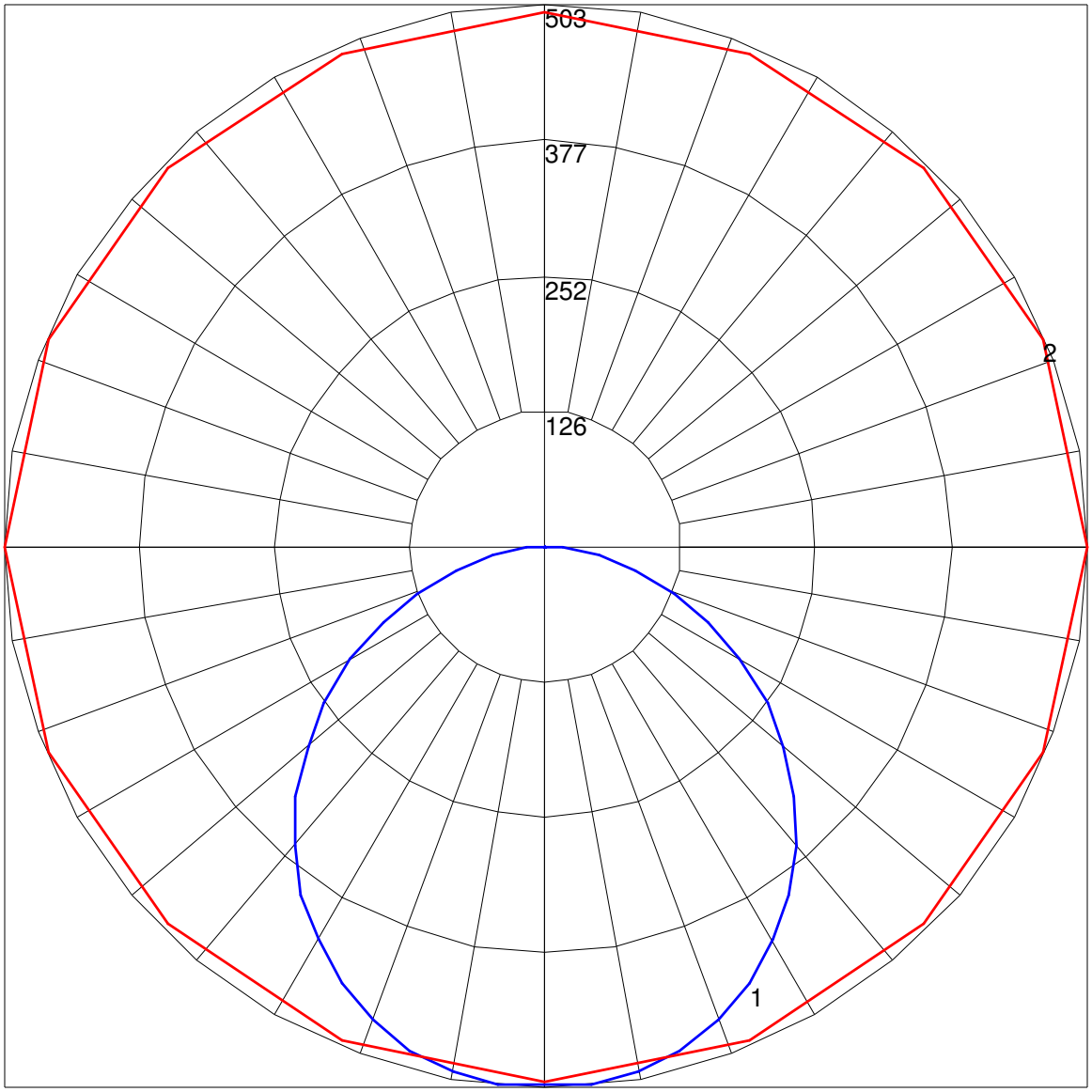
POLAR GRAPH



Maximum Candela = 503.285 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.)

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