IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L5-827-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-L5-827-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	1932
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
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	11941	9624	9154
55	11271	8611	8257
65	10032	7402	7348
75	8400	6092	6540
85	4548	5051	5889

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	608.243	608.243	608.243	608.243	608.243
5	610.233	607.247	603.265	602.270	603.265
10	601.274	598.288	594.306	594.306	596.297
15	588.333	585.346	581.364	582.360	582.360
20	568.423	565.437	560.459	564.441	565.437
25	543.536	540.549	539.554	542.540	544.531
30	512.676	512.676	512.676	516.658	515.662
35	479.825	479.825	479.825	483.807	486.793
40	440.005	441.001	441.996	448.965	452.947
45	397.199	400.186	403.172	411.136	414.123
50	350.411	353.398	360.366	372.312	378.285
55	305.614	306.610	319.551	329.506	338.466
60	253.849	258.827	276.745	295.660	301.633
65	202.084	210.048	230.953	251.858	260.818
70	154.300	162.264	188.147	214.030	221.994
75	105.522	119.458	148.328	177.197	189.143
80	61.720	76.652	115.476	144.346	157.287
85	20.905	48.779	84.616	113.486	126.427
90	0.000	26.878	62.716	88.598	98.553
95	0.000	13.937	42.806	68.689	77.648
100	0.000	6.968	29.865	50.770	59.729
105	0.000	3.982	20.905	36.833	44.797
110	0.000	2.986	13.937	26.878	31.856
115	0.000	1.991	8.959	18.914	23.892
120	0.000	0.000	4.977	11.946	14.932
125	0.000	0.000	3.982	7.964	9.955
130	0.000	0.000	0.000	4.977	5.973
135	0.000	0.000	0.000	0.000	3.982
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	222.08	N.A.	11.50
0-30	471.68	N.A.	24.40
0-40	772.85	N.A.	40.00
0-60	1371.5	N.A.	71.00
0-80	1758.57	N.A.	91.00
0-90	1848.15	N.A.	95.70
10-90	1790.67	N.A.	92.70
20-40	550.77	N.A.	28.50
20-50	863.21	N.A.	44.70
40-70	828.37	N.A.	42.90
60-80	387.06	N.A.	20.00
70-80	157.34	N.A.	8.10
80-90	89.58	N.A.	4.60
90-110	68.84	N.A.	3.60
90-120	79.29	N.A.	4.10
90-130	83.03	N.A.	4.30
90-150	83.62	N.A.	4.30
90-180	83.62	N.A.	4.30
110-180	14.79	N.A.	0.80
0-180	1931.77	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	57.48
10-20	164.60
20-30	249.60
30-40	301.18
40-50	312.43
50-60	286.22
60-70	229.72
70-80	157.34
80-90	89.58
90-100	45.95
100-110	22.88
110-120	10.45
120-130	3.74
130-140	0.60
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	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

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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	18.4	20.0	18.8	20.4	20.8	20.1	21.7	20.5	22.1	22.5
	3H	19.9	21.3	20.3	21.7	22.2	22.4	23.8	22.8	24.3	24.7
	4H	20.3	21.7	20.8	22.1	22.6	23.5	24.9	24.0	25.3	25.8
	6H	20.6	21.9	21.1	22.4	22.8	24.7	25.9	25.1	26.4	26.9
	8H	20.7	21.9	21.2	22.4	22.9	25.2	26.5	25.7	26.9	27.4
	12H	20.7	21.9	21.2	22.3	22.9	25.9	27.1	26.4	27.5	28.1
4H	2H	19.2	20.5	19.6	21.0	21.4	20.5	21.9	21.0	22.3	22.8
	3H	20.9	22.0	21.3	22.5	23.0	23.0	24.2	23.5	24.7	25.2
	4H	21.4	22.5	21.9	23.0	23.5	24.3	25.4	24.8	25.8	26.4
	6H	21.8	22.8	22.4	23.3	23.8	25.6	26.6	26.2	27.1	27.6
	8H	21.9	22.8	22.5	23.3	23.9	26.3	27.2	26.8	27.7	28.3
	12H	22.0	22.8	22.5	23.3	23.9	27.1	27.9	27.6	28.4	29.0
8H	4H	22.0	22.9	22.5	23.4	23.9	24.5	25.4	25.0	25.9	26.4
	6H	22.5	23.3	23.1	23.8	24.4	26.0	26.7	26.5	27.3	27.8
	8H	22.7	23.4	23.2	23.9	24.5	26.8	27.5	27.3	28.0	28.6
	12H	22.8	23.4	23.4	23.9	24.6	27.7	28.3	28.3	28.9	29.5
12H	4H	22.1	22.9	22.7	23.5	24.0	24.5	25.3	25.0	25.8	26.4
	6H	22.7	23.4	23.3	24.0	24.6	26.0	26.7	26.6	27.2	27.8
	8H	23.0	23.6	23.5	24.1	24.8	26.9	27.5	27.4	28.0	28.7

Maximum UGR = 29.5

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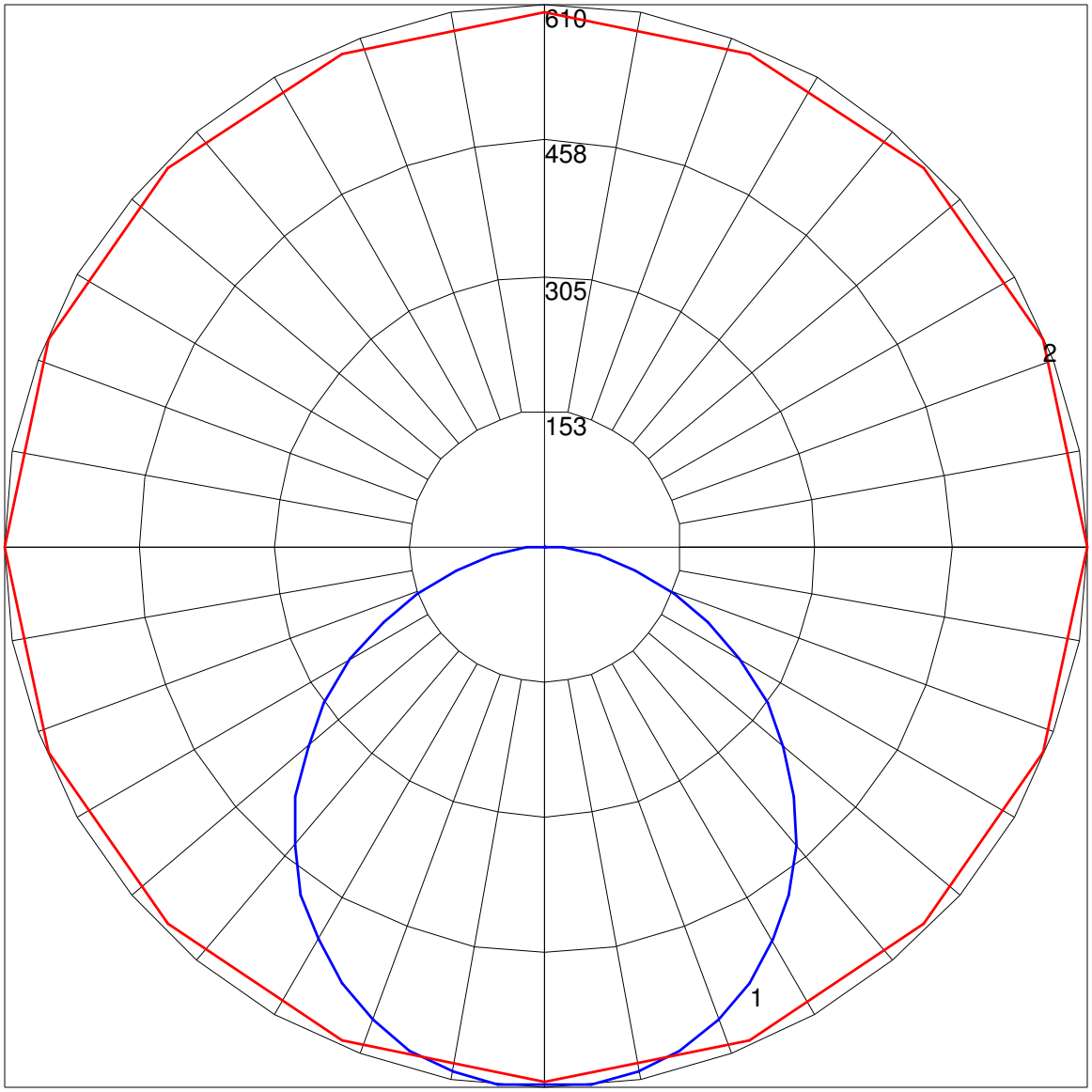
POLAR GRAPH



Maximum Candela = 610.233 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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