IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L5-950-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-L5-950-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	1772
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
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	10956	8831	8399
55	10341	7901	7576
65	9204	6791	6742
75	7708	5590	6001
85	4173	4635	5403

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	558.078	558.078	558.078	558.078	558.078
5	559.905	557.165	553.511	552.598	553.511
10	551.684	548.944	545.291	545.291	547.118
15	539.810	537.070	533.417	534.330	534.330
20	521.543	518.803	514.236	517.889	518.803
25	498.708	495.968	495.055	497.795	499.622
30	470.393	470.393	470.393	474.047	473.133
35	440.252	440.252	440.252	443.905	446.645
40	403.716	404.630	405.543	411.937	415.590
45	364.441	367.181	369.921	377.228	379.968
50	321.511	324.252	330.645	341.606	347.086
55	280.409	281.323	293.197	302.330	310.551
60	232.913	237.480	253.921	271.275	276.756
65	185.417	192.724	211.905	231.086	239.307
70	141.575	148.882	172.630	196.378	203.685
75	96.819	109.606	136.094	162.583	173.543
80	56.630	70.331	105.953	132.441	144.315
85	19.181	44.756	77.638	104.126	116.000
90	0.000	24.661	57.543	81.291	90.425
95	0.000	12.787	39.276	63.024	71.244
100	0.000	6.394	27.402	46.583	54.803
105	0.000	3.654	19.181	33.795	41.102
110	0.000	2.740	12.787	24.661	29.228
115	0.000	1.827	8.220	17.354	21.921
120	0.000	0.000	4.567	10.961	13.701
125	0.000	0.000	3.654	7.307	9.134
130	0.000	0.000	0.000	4.567	5.480
135	0.000	0.000	0.000	0.000	3.654
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	203.76	N.A.	11.50
0-30	432.78	N.A.	24.40
0-40	709.11	N.A.	40.00
0-60	1258.39	N.A.	71.00
0-80	1613.53	N.A.	91.00
0-90	1695.72	N.A.	95.70
10-90	1642.99	N.A.	92.70
20-40	505.35	N.A.	28.50
20-50	792.02	N.A.	44.70
40-70	760.05	N.A.	42.90
60-80	355.14	N.A.	20.00
70-80	144.36	N.A.	8.10
80-90	82.20	N.A.	4.60
90-110	63.16	N.A.	3.60
90-120	72.75	N.A.	4.10
90-130	76.18	N.A.	4.30
90-150	76.73	N.A.	4.30
90-180	76.73	N.A.	4.30
110-180	13.57	N.A.	0.80
0-180	1772.45	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	52.74
10-20	151.03
20-30	229.01
30-40	276.34
40-50	286.67
50-60	262.61
60-70	210.78
70-80	144.36
80-90	82.20
90-100	42.16
100-110	21.00
110-120	9.59
120-130	3.43
130-140	0.55
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	56	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	18.1	19.7	18.5	20.1	20.5	19.8	21.4	20.2	21.8	22.2
	3H	19.6	21.0	20.0	21.4	21.9	22.1	23.5	22.5	24.0	24.4
	4H	20.0	21.4	20.5	21.8	22.3	23.2	24.6	23.7	25.0	25.5
	6H	20.3	21.6	20.8	22.1	22.5	24.4	25.6	24.8	26.1	26.6
	8H	20.4	21.6	20.9	22.1	22.6	25.0	26.2	25.5	26.7	27.1
	12H	20.4	21.6	20.9	22.0	22.6	25.6	26.8	26.1	27.2	27.8
4H	2H	18.9	20.3	19.3	20.7	21.2	20.2	21.6	20.7	22.0	22.5
	3H	20.6	21.7	21.0	22.2	22.7	22.7	23.9	23.2	24.4	24.9
	4H	21.1	22.2	21.6	22.7	23.2	24.0	25.1	24.5	25.5	26.1
	6H	21.5	22.5	22.1	23.0	23.5	25.3	26.3	25.9	26.8	27.3
	8H	21.6	22.5	22.2	23.0	23.6	26.0	26.9	26.5	27.4	28.0
	12H	21.7	22.5	22.2	23.0	23.6	26.8	27.6	27.3	28.1	28.7
8H	4H	21.7	22.6	22.2	23.1	23.6	24.2	25.1	24.7	25.6	26.1
	6H	22.2	23.0	22.8	23.5	24.1	25.7	26.4	26.2	27.0	27.5
	8H	22.4	23.1	22.9	23.6	24.2	26.5	27.2	27.0	27.7	28.3
	12H	22.5	23.1	23.1	23.6	24.3	27.4	28.0	28.0	28.6	29.2
12H	4H	21.8	22.6	22.4	23.2	23.7	24.2	25.0	24.7	25.5	26.1
	6H	22.4	23.1	23.0	23.7	24.3	25.7	26.4	26.3	26.9	27.5
	8H	22.7	23.3	23.3	23.8	24.5	26.6	27.2	27.1	27.7	28.4

Maximum UGR = 29.2

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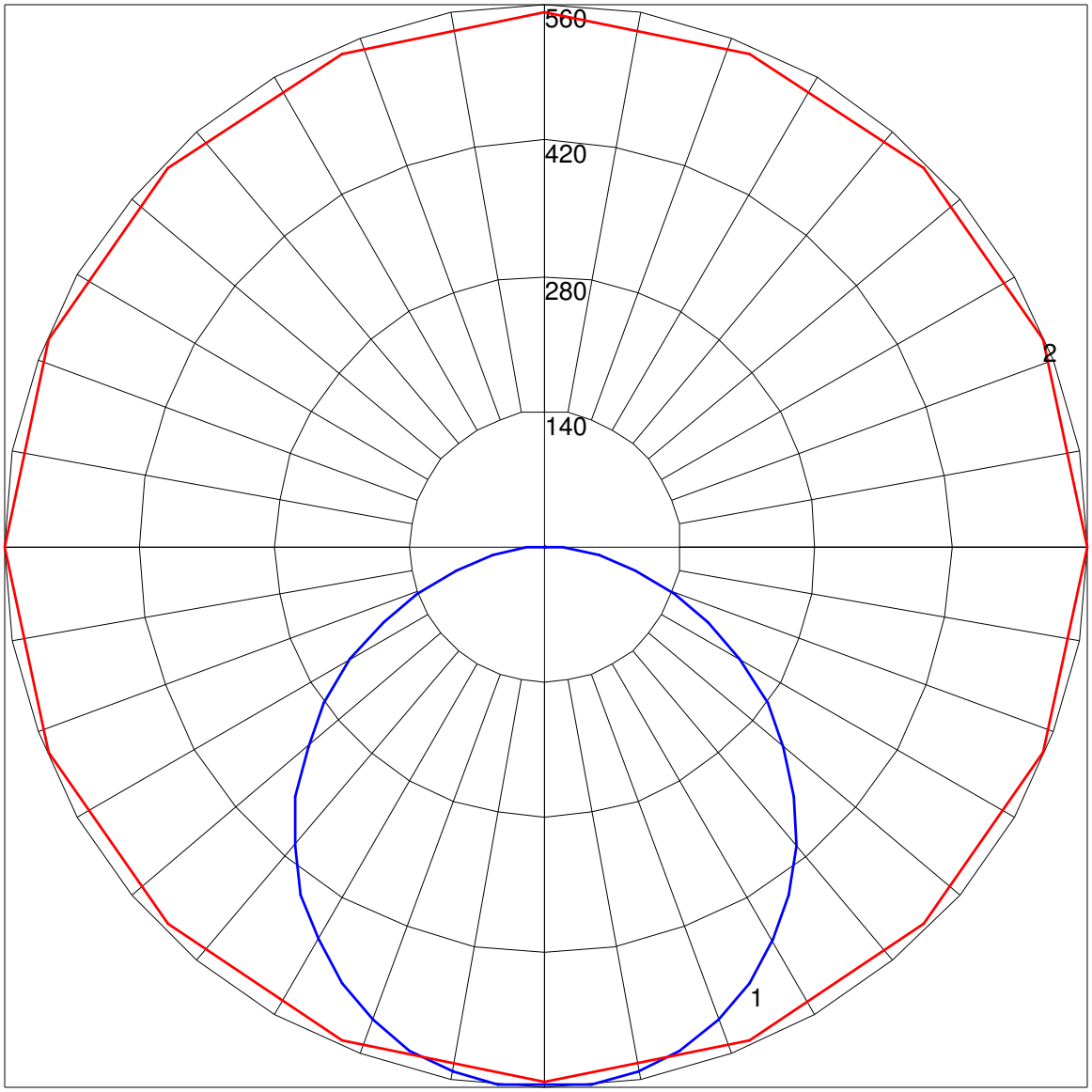
POLAR GRAPH



Maximum Candela = 559.905 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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