IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L10-835-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-L10-835-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	3881
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
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	23990	19336	18391
55	22643	17299	16590
65	20154	14870	14763
75	16877	12239	13140
85	9137	10148	11832

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1222	1222	1222	1222	1222
5	1226	1220	1212	1210	1212
10	1208	1202	1194	1194	1198
15	1182	1176	1168	1170	1170
20	1142	1136	1126	1134	1136
25	1092	1086	1084	1090	1094
30	1030	1030	1030	1038	1036
35	964	964	964	972	978
40	884	886	888	902	910
45	798	804	810	826	832
50	704	710	724	748	760
55	614	616	642	662	680
60	510	520	556	594	606
65	406	422	464	506	524
70	310	326	378	430	446
75	212	240	298	356	380
80	124	154	232	290	316
85	42	98	170	228	254
90	0	54	126	178	198
95	0	28	86	138	156
100	0	14	60	102	120
105	0	8	42	74	90
110	0	6	28	54	64
115	0	4	18	38	48
120	0	0	10	24	30
125	0	0	8	16	20
130	0	0	0	10	12
135	0	0	0	0	8
140	0	0	0	0	0
145	0	0	0	0	0
150	0	0	0	0	0
155	0	0	0	0	0
160	0	0	0	0	0
165	0	0	0	0	0
170	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	446.17	N.A.	11.50
0-30	947.63	N.A.	24.40
0-40	1552.72	N.A.	40.00
0-60	2755.44	N.A.	71.00
0-80	3533.08	N.A.	91.00
0-90	3713.06	N.A.	95.70
10-90	3597.58	N.A.	92.70
20-40	1106.54	N.A.	28.50
20-50	1734.24	N.A.	44.70
40-70	1664.26	N.A.	42.90
60-80	777.63	N.A.	20.00
70-80	316.10	N.A.	8.10
80-90	179.98	N.A.	4.60
90-110	138.30	N.A.	3.60
90-120	159.29	N.A.	4.10
90-130	166.81	N.A.	4.30
90-150	168.00	N.A.	4.30
90-180	168.00	N.A.	4.30
110-180	29.71	N.A.	0.80
0-180	3881.06	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	115.48
10-20	330.70
20-30	501.46
30-40	605.08
40-50	627.70
50-60	575.03
60-70	461.53
70-80	316.10
80-90	179.98
90-100	92.32
100-110	45.98
110-120	21.00
120-130	7.51
130-140	1.20
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	20.8	22.4	21.2	22.8	23.2	22.5	24.1	22.9	24.5	24.9
	3H	22.3	23.7	22.7	24.1	24.6	24.8	26.2	25.2	26.7	27.1
	4H	22.7	24.1	23.2	24.5	25.0	25.9	27.3	26.4	27.7	28.2
	6H	23.0	24.3	23.5	24.8	25.2	27.1	28.3	27.5	28.8	29.3
	8H	23.1	24.3	23.6	24.8	25.3	27.6	28.9	28.1	29.3	29.8
	12H	23.1	24.3	23.6	24.7	25.3	28.3	29.5	28.8	29.9	30.5
4H	2H	21.6	23.0	22.0	23.4	23.8	22.9	24.3	23.4	24.7	25.2
	3H	23.3	24.4	23.7	24.9	25.4	25.4	26.6	25.9	27.1	27.6
	4H	23.8	24.9	24.3	25.4	25.9	26.7	27.8	27.2	28.2	28.8
	6H	24.2	25.2	24.8	25.7	26.2	28.0	29.0	28.6	29.5	30.0
	8H	24.3	25.2	24.9	25.7	26.3	28.7	29.6	29.2	30.1	30.7
	12H	24.4	25.2	24.9	25.7	26.3	29.5	30.3	30.0	30.8	31.4
8H	4H	24.4	25.3	24.9	25.8	26.3	26.9	27.8	27.4	28.3	28.8
	6H	24.9	25.7	25.5	26.2	26.8	28.4	29.1	28.9	29.7	30.2
	8H	25.1	25.8	25.6	26.3	26.9	29.2	29.9	29.7	30.4	31.0
	12H	25.2	25.8	25.8	26.3	27.0	30.1	30.7	30.7	31.3	31.9
12H	4H	24.5	25.3	25.1	25.9	26.4	26.9	27.7	27.4	28.2	28.8
	6H	25.1	25.8	25.7	26.4	27.0	28.4	29.1	29.0	29.6	30.2
	8H	25.4	26.0	25.9	26.5	27.2	29.3	29.9	29.8	30.4	31.1

Maximum UGR = 31.9

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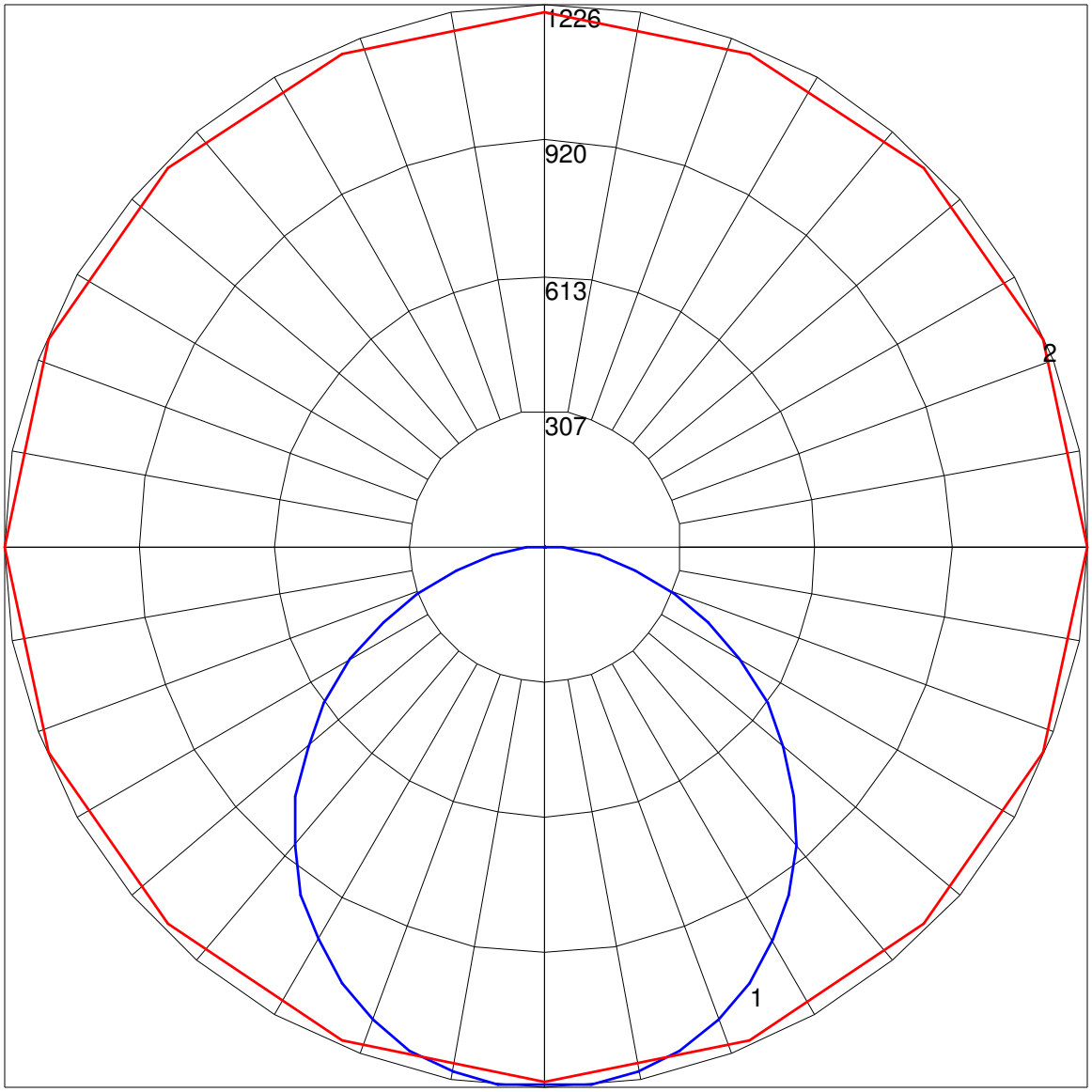
POLAR GRAPH



Maximum Candela = 1226 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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