IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L5-850-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-L5-850-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	2111
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
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	13049	10517	10004
55	12316	9410	9024
65	10962	8088	8030
75	9180	6657	7147
85	4970	5520	6436

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	664.678	664.678	664.678	664.678	664.678
5	666.853	663.590	659.238	658.150	659.238
10	657.063	653.799	649.448	649.448	651.623
15	642.921	639.657	635.306	636.393	636.393
20	621.163	617.900	612.461	616.812	617.900
25	593.967	590.704	589.616	592.879	595.055
30	560.244	560.244	560.244	564.595	563.507
35	524.345	524.345	524.345	528.696	531.960
40	480.831	481.918	483.006	490.621	494.973
45	434.053	437.317	440.580	449.283	452.546
50	382.924	386.187	393.802	406.857	413.384
55	333.971	335.058	349.200	360.079	369.870
60	277.402	282.842	302.423	323.092	329.619
65	220.834	229.537	252.382	275.227	285.017
70	168.617	177.320	205.604	233.888	242.591
75	115.312	130.542	162.090	193.638	206.692
80	67.447	83.765	126.191	157.739	171.881
85	22.845	53.305	92.467	124.015	138.157
90	0.000	29.372	68.535	96.819	107.697
95	0.000	15.230	46.778	75.062	84.852
100	0.000	7.615	32.636	55.480	65.271
105	0.000	4.351	22.845	40.251	48.953
110	0.000	3.264	15.230	29.372	34.811
115	0.000	2.176	9.791	20.669	26.108
120	0.000	0.000	5.439	13.054	16.318
125	0.000	0.000	4.351	8.703	10.879
130	0.000	0.000	0.000	5.439	6.527
135	0.000	0.000	0.000	0.000	4.351
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	242.69	N.A.	11.50
0-30	515.44	N.A.	24.40
0-40	844.56	N.A.	40.00
0-60	1498.76	N.A.	71.00
0-80	1921.73	N.A.	91.00
0-90	2019.63	N.A.	95.70
10-90	1956.82	N.A.	92.70
20-40	601.88	N.A.	28.50
20-50	943.30	N.A.	44.70
40-70	905.23	N.A.	42.90
60-80	422.98	N.A.	20.00
70-80	171.94	N.A.	8.10
80-90	97.90	N.A.	4.60
90-110	75.22	N.A.	3.60
90-120	86.64	N.A.	4.10
90-130	90.73	N.A.	4.30
90-150	91.38	N.A.	4.30
90-180	91.38	N.A.	4.30
110-180	16.16	N.A.	0.80
0-180	2111.01	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	62.81
10-20	179.88
20-30	272.76
30-40	329.12
40-50	341.42
50-60	312.77
60-70	251.04
70-80	171.94
80-90	97.90
90-100	50.22
100-110	25.01
110-120	11.42
120-130	4.09
130-140	0.65
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	18.7	20.3	19.1	20.7	21.1	20.4	22.0	20.8	22.4	22.8
	3H	20.2	21.6	20.6	22.0	22.5	22.7	24.1	23.1	24.6	25.0
	4H	20.6	22.0	21.1	22.4	22.9	23.8	25.2	24.3	25.6	26.1
	6H	20.9	22.2	21.4	22.7	23.1	25.0	26.2	25.4	26.7	27.2
	8H	21.0	22.2	21.5	22.7	23.2	25.5	26.8	26.0	27.2	27.7
	12H	21.0	22.2	21.5	22.6	23.2	26.2	27.4	26.7	27.8	28.4
4H	2H	19.5	20.8	19.9	21.3	21.7	20.8	22.2	21.3	22.6	23.1
	3H	21.2	22.3	21.6	22.8	23.3	23.3	24.5	23.8	25.0	25.5
	4H	21.7	22.8	22.2	23.3	23.8	24.6	25.7	25.1	26.1	26.7
	6H	22.1	23.1	22.7	23.6	24.1	25.9	26.9	26.5	27.4	27.9
	8H	22.2	23.1	22.8	23.6	24.2	26.6	27.5	27.1	28.0	28.6
	12H	22.3	23.1	22.8	23.6	24.2	27.4	28.2	27.9	28.7	29.3
8H	4H	22.3	23.2	22.8	23.7	24.2	24.8	25.7	25.3	26.2	26.7
	6H	22.8	23.6	23.4	24.1	24.7	26.3	27.0	26.8	27.6	28.1
	8H	23.0	23.7	23.5	24.2	24.8	27.1	27.8	27.6	28.3	28.9
	12H	23.1	23.7	23.7	24.2	24.9	28.0	28.6	28.6	29.2	29.8
12H	4H	22.4	23.2	23.0	23.8	24.3	24.8	25.6	25.3	26.1	26.7
	6H	23.0	23.7	23.6	24.3	24.9	26.3	27.0	26.9	27.5	28.1
	8H	23.3	23.9	23.8	24.4	25.1	27.2	27.8	27.7	28.3	29.0

Maximum UGR = 29.8

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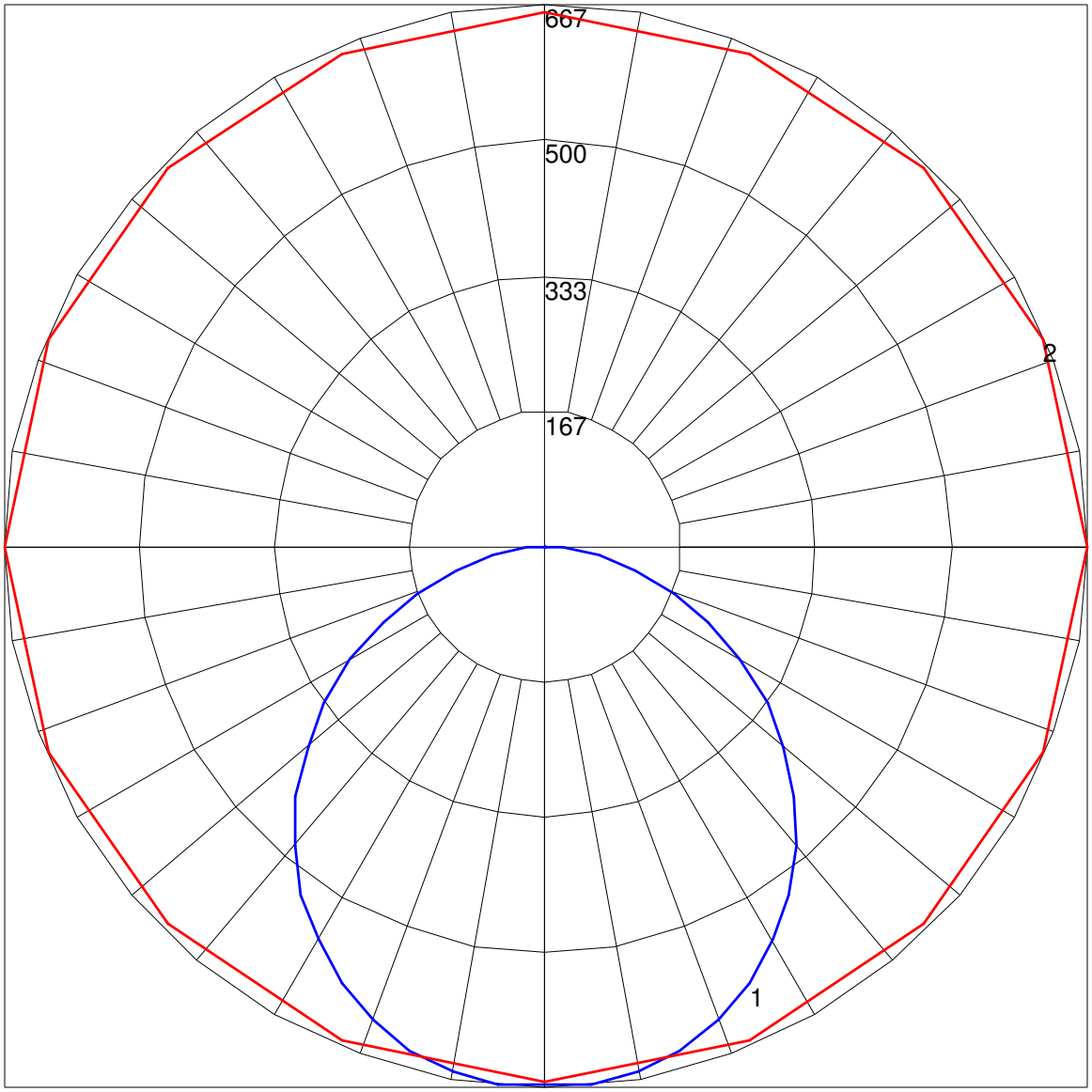
POLAR GRAPH



Maximum Candela = 666.853 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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