H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L10-835-RD-XX-(L6)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 21002.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 02-16-2022
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
[LUMINAIRE] 4'LED SLIMLINE ARCHITECTURAL LUMINAIRE
[MORE] WITH FROSTED ACRYLIC LENS
[LUMCAT] SL-4-L10-835-RD-xx-(L6)-DIM-UNV
[LAMPCAT] HLM 80 CRI, 3500K CCT
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Direct
[_SEARCH_MOUNTING] SURFACE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2329
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	22
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	14394	11601	11035
55	13586	10380	9954
65	12092	8922	8858
75	10126	7344	7884
85	5482	6089	7099

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	733.2	733.2	733.2	733.2	733.2
5	735.6	732.0	727.2	726.0	727.2
10	724.8	721.2	716.4	716.4	718.8
15	709.2	705.6	700.8	702.0	702.0
20	685.2	681.6	675.6	680.4	681.6
25	655.2	651.6	650.4	654.0	656.4
30	618.0	618.0	618.0	622.8	621.6
35	578.4	578.4	578.4	583.2	586.8
40	530.4	531.6	532.8	541.2	546.0
45	478.8	482.4	486.0	495.6	499.2
50	422.4	426.0	434.4	448.8	456.0
55	368.4	369.6	385.2	397.2	408.0
60	306.0	312.0	333.6	356.4	363.6
65	243.6	253.2	278.4	303.6	314.4
70	186.0	195.6	226.8	258.0	267.6
75	127.2	144.0	178.8	213.6	228.0
80	74.4	92.4	139.2	174.0	189.6
85	25.2	58.8	102.0	136.8	152.4
90	0.0	32.4	75.6	106.8	118.8
95	0.0	16.8	51.6	82.8	93.6
100	0.0	8.4	36.0	61.2	72.0
105	0.0	4.8	25.2	44.4	54.0
110	0.0	3.6	16.8	32.4	38.4
115	0.0	2.4	10.8	22.8	28.8
120	0.0	0.0	6.0	14.4	18.0
125	0.0	0.0	4.8	9.6	12.0
130	0.0	0.0	0.0	6.0	7.2
135	0.0	0.0	0.0	0.0	4.8
140	0.0	0.0	0.0	0.0	0.0
145	0.0	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0	0.0
155	0.0	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	267.70	N.A.	11.50
0-30	568.58	N.A.	24.40
0-40	931.63	N.A.	40.00
0-60	1653.26	N.A.	71.00
0-80	2119.85	N.A.	91.00
0-90	2227.83	N.A.	95.70
10-90	2158.55	N.A.	92.70
20-40	663.93	N.A.	28.50
20-50	1040.55	N.A.	44.70
40-70	998.55	N.A.	42.90
60-80	466.58	N.A.	20.00
70-80	189.66	N.A.	8.10
80-90	107.99	N.A.	4.60
90-110	82.98	N.A.	3.60
90-120	95.58	N.A.	4.10
90-130	100.08	N.A.	4.30
90-150	100.80	N.A.	4.30
90-180	100.80	N.A.	4.30
110-180	17.82	N.A.	0.80
0-180	2328.64	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	69.29
10-20	198.42
20-30	300.88
30-40	363.05
40-50	376.62
50-60	345.02
60-70	276.92
70-80	189.66
80-90	107.99
90-100	55.39
100-110	27.59
110-120	12.60
120-130	4.51
130-140	0.72
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	88	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	19.0	20.6	19.4	21.0	21.4	20.7	22.3	21.1	22.7	23.1
	3H	20.5	21.9	20.9	22.3	22.8	23.0	24.4	23.4	24.9	25.3
	4H	20.9	22.3	21.4	22.7	23.2	24.1	25.5	24.6	25.9	26.4
	6H	21.2	22.5	21.7	23.0	23.4	25.3	26.5	25.7	27.0	27.5
	8H	21.3	22.5	21.8	23.0	23.5	25.8	27.1	26.3	27.5	28.0
	12H	21.3	22.5	21.8	22.9	23.5	26.5	27.7	27.0	28.1	28.7
4H	2H	19.8	21.1	20.2	21.6	22.0	21.1	22.5	21.6	22.9	23.4
	3H	21.5	22.6	21.9	23.1	23.6	23.6	24.8	24.1	25.3	25.8
	4H	22.0	23.1	22.5	23.6	24.1	24.9	26.0	25.4	26.4	27.0
	6H	22.4	23.4	23.0	23.9	24.4	26.2	27.2	26.8	27.7	28.2
	8H	22.5	23.4	23.1	23.9	24.5	26.9	27.8	27.4	28.3	28.9
	12H	22.6	23.4	23.1	23.9	24.5	27.7	28.5	28.2	29.0	29.6
8H	4H	22.6	23.5	23.1	24.0	24.5	25.1	26.0	25.6	26.5	27.0
	6H	23.1	23.9	23.7	24.4	25.0	26.6	27.3	27.1	27.9	28.4
	8H	23.3	24.0	23.8	24.5	25.1	27.4	28.1	27.9	28.6	29.2
	12H	23.4	24.0	24.0	24.5	25.2	28.3	28.9	28.9	29.5	30.1
12H	4H	22.7	23.5	23.3	24.1	24.6	25.1	25.9	25.6	26.4	27.0
	6H	23.3	24.0	23.9	24.6	25.2	26.6	27.3	27.2	27.8	28.4
	8H	23.6	24.2	24.1	24.7	25.4	27.5	28.1	28.0	28.6	29.3

Maximum UGR = 30.1

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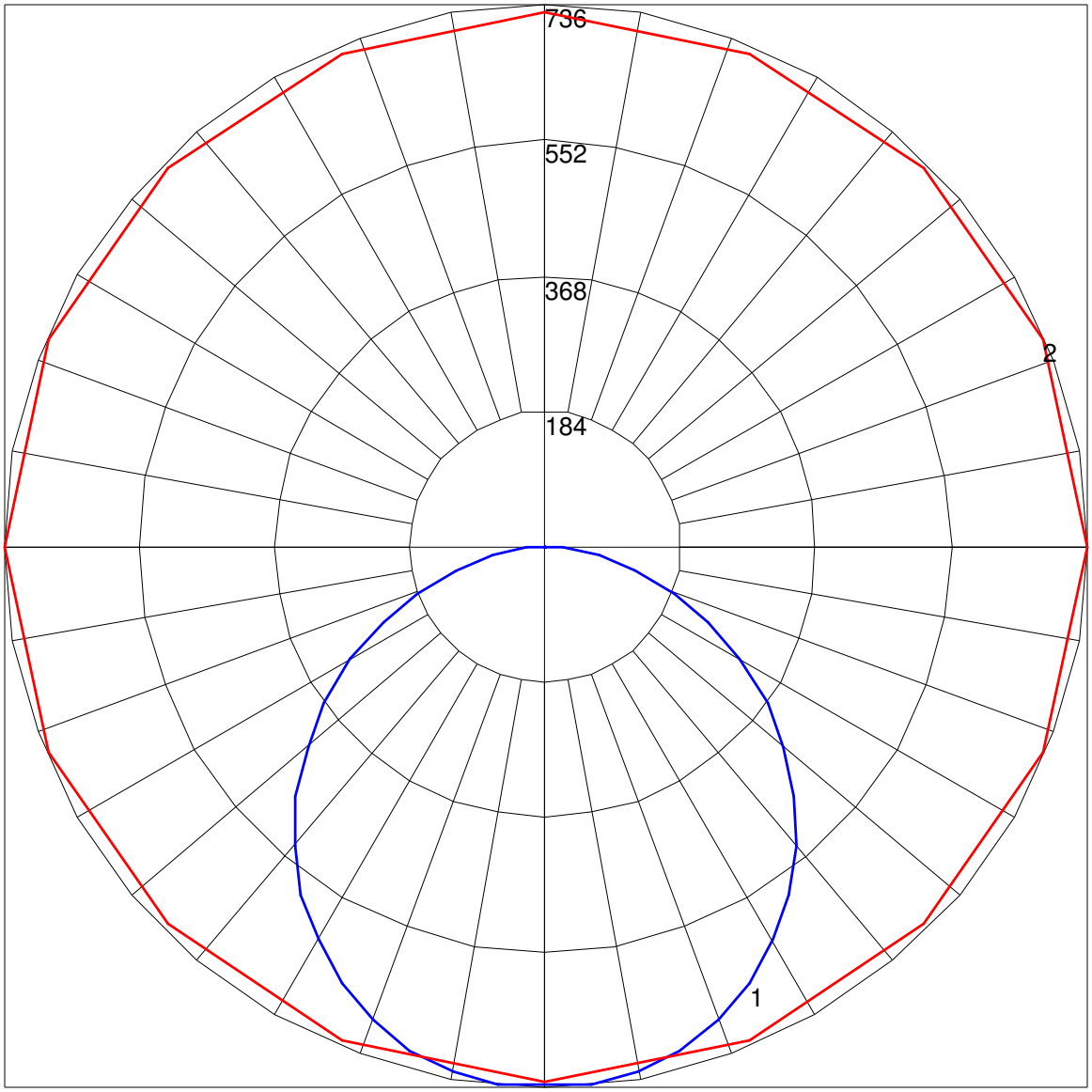
POLAR GRAPH



Maximum Candela = 735.6 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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