H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-935-SAF118-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19726.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-07-17
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 48 INCH LOW PROFILE LED HIGHBAY LUMINAIRE
[MORE] WHITE REFLECTOR w/.118"THK FROSTED ACRYLIC LENS
[MORE] 0-10V LED DRIVERS
[LUMCAT] GL-4-L300-935-SAF118-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, High Bay
[_SEARCH_MOUNTING] Cable, Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20683
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	200
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	21975	20939	18229
55	19869	16987	15709
65	15644	12990	12452
75	10786	8833	8808
85	3852	3535	3827

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	7986.805	7986.805	7986.805	7986.805	7986.805
5	8108.724	7992.106	7939.855	7898.206	7886.090
10	8039.813	7907.293	7873.216	7825.509	7814.907
15	7910.322	7780.074	7752.812	7691.474	7683.902
20	7695.261	7602.118	7561.983	7469.598	7487.015
25	7418.104	7350.708	7294.671	7187.140	7212.887
30	7077.338	7019.786	6977.380	6841.830	6823.656
35	6656.302	6570.732	6560.130	6379.903	6247.382
40	6145.910	6061.097	6003.545	5723.360	5445.446
45	5538.588	5473.464	5277.334	4880.531	4594.287
50	4841.153	4779.815	4402.701	4048.304	3889.280
55	4061.934	3977.122	3472.787	3297.103	3211.533
60	3203.203	3125.206	2657.220	2502.739	2524.700
65	2356.588	2271.018	1956.756	1852.254	1875.729
70	1630.377	1474.382	1361.551	1282.796	1298.698
75	995.038	864.032	814.810	771.646	812.538
80	473.287	408.162	384.687	376.357	399.832
85	119.647	111.317	109.802	114.346	118.890
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2946.82	N.A.	14.20
0-30	6304.98	N.A.	30.50
0-40	10350.43	N.A.	50.00
0-60	17548.48	N.A.	84.80
0-80	20512.29	N.A.	99.20
0-90	20683.38	N.A.	100.00
10-90	19926.13	N.A.	96.30
20-40	7403.6	N.A.	35.80
20-50	11387.82	N.A.	55.10
40-70	9246.03	N.A.	44.70
60-80	2963.81	N.A.	14.30
70-80	915.82	N.A.	4.40
80-90	171.10	N.A.	0.80
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	20683.38	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	757.26
10-20	2189.57
20-30	3358.15
30-40	4045.45
40-50	3984.22
50-60	3213.83
60-70	2047.98
70-80	915.82
80-90	171.10
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	85	73	65	59	82	72	64	58	69	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	50	63	55	50	61	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	48	44	53	48	43	41
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	37
8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33
9	58	45	37	32	57	45	37	32	44	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

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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	22.5	24.1	22.9	24.4	24.7	21.1	22.6	21.4	23.0	23.3
	3H	23.8	25.2	24.2	25.5	25.9	22.3	23.7	22.7	24.1	24.4
	4H	24.1	25.5	24.5	25.8	26.2	22.7	24.1	23.1	24.4	24.8
	6H	24.3	25.6	24.8	25.9	26.3	23.0	24.2	23.4	24.5	24.9
	8H	24.4	25.5	24.8	25.9	26.3	23.0	24.2	23.4	24.6	25.0
	12H	24.4	25.5	24.8	25.9	26.3	23.0	24.1	23.4	24.5	24.9
4H	2H	22.8	24.1	23.2	24.5	24.9	21.6	22.9	22.0	23.3	23.6
	3H	24.3	25.3	24.7	25.7	26.1	23.0	24.1	23.5	24.5	24.9
	4H	24.7	25.7	25.1	26.1	26.5	23.5	24.5	24.0	24.9	25.4
	6H	25.0	25.8	25.4	26.3	26.7	23.8	24.7	24.3	25.1	25.6
	8H	25.0	25.8	25.5	26.3	26.7	23.9	24.7	24.4	25.1	25.6
	12H	25.1	25.8	25.5	26.2	26.7	23.9	24.6	24.4	25.1	25.6
8H	4H	24.8	25.6	25.3	26.0	26.5	23.7	24.5	24.2	24.9	25.4
	6H	25.1	25.8	25.6	26.3	26.7	24.0	24.7	24.5	25.2	25.7
	8H	25.2	25.8	25.7	26.3	26.8	24.1	24.7	24.7	25.2	25.7
	12H	25.3	25.8	25.8	26.3	26.8	24.2	24.7	24.7	25.2	25.8
12H	4H	24.8	25.5	25.3	26.0	26.5	23.7	24.4	24.2	24.9	25.4
	6H	25.1	25.7	25.6	26.2	26.7	24.1	24.7	24.6	25.1	25.7
	8H	25.2	25.7	25.7	26.2	26.8	24.2	24.7	24.7	25.2	25.8

Maximum UGR = 26.8

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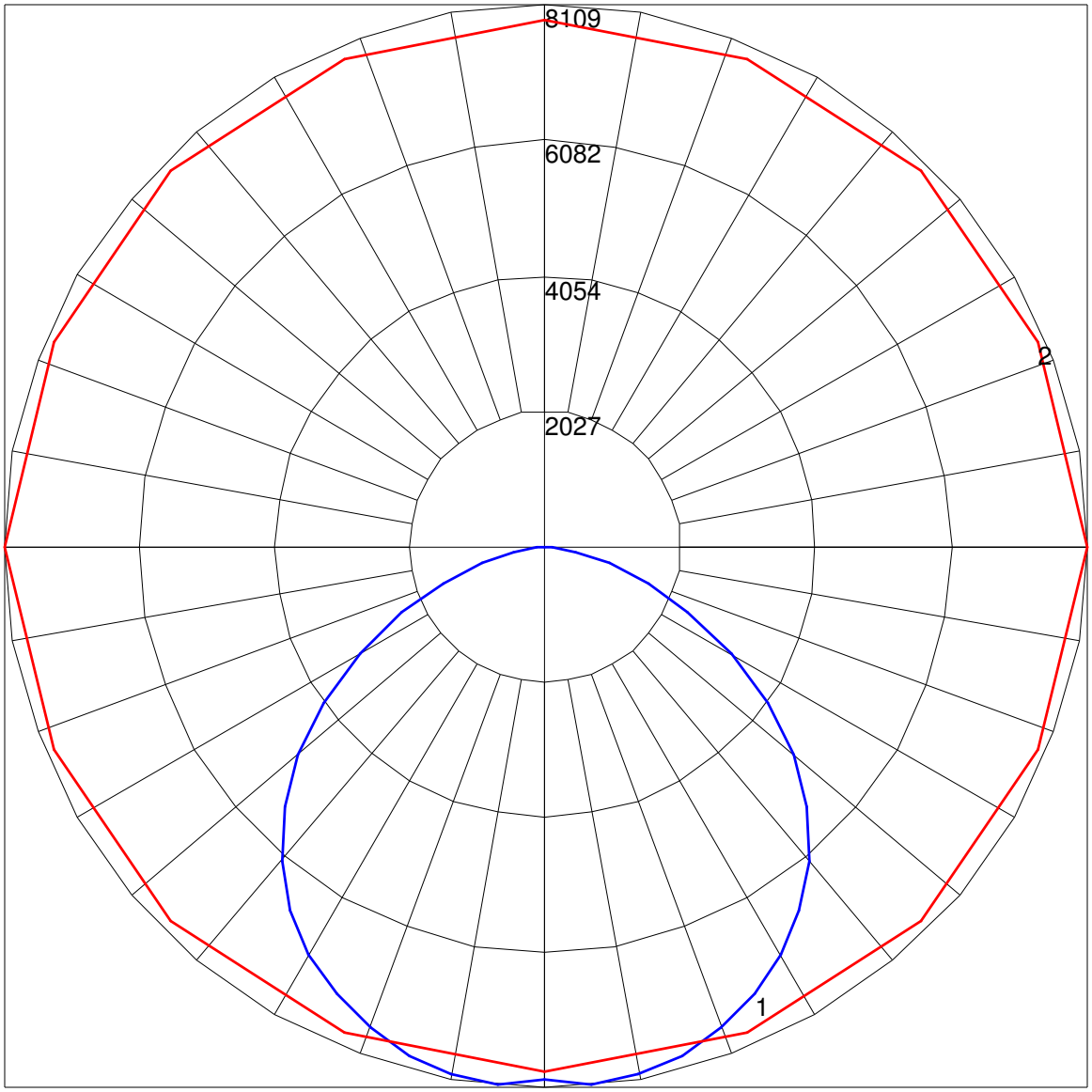
POLAR GRAPH



Maximum Candela = 8108.724 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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