H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-835-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-L150-835-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	12523
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
Total Luminaire Watts	96
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	13305	12677	11037
55	12029	10285	9511
65	9472	7865	7539
75	6530	5348	5333
85	2332	2140	2317

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4835.578	4835.578	4835.578	4835.578	4835.578
5	4909.393	4838.787	4807.152	4781.936	4774.600
10	4867.671	4787.438	4766.806	4737.922	4731.503
15	4789.272	4710.413	4693.908	4656.771	4652.186
20	4659.063	4602.671	4578.371	4522.437	4532.982
25	4491.260	4450.456	4416.528	4351.424	4367.012
30	4284.945	4250.100	4224.425	4142.358	4131.354
35	4030.030	3978.222	3971.803	3862.685	3782.452
40	3721.015	3669.666	3634.821	3465.184	3296.922
45	3353.315	3313.886	3195.140	2954.897	2781.592
50	2931.056	2893.919	2665.597	2451.029	2354.748
55	2459.281	2407.932	2102.585	1996.218	1944.409
60	1939.366	1892.143	1608.803	1515.273	1528.569
65	1426.787	1374.978	1184.710	1121.440	1135.652
70	987.105	892.659	824.345	776.663	786.291
75	602.441	523.125	493.323	467.190	491.948
80	286.549	247.120	232.907	227.864	242.077
85	72.440	67.396	66.479	69.230	71.981
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1784.14	N.A.	14.20
0-30	3817.32	N.A.	30.50
0-40	6266.62	N.A.	50.00
0-60	10624.65	N.A.	84.80
0-80	12419.08	N.A.	99.20
0-90	12522.67	N.A.	100.00
10-90	12064.19	N.A.	96.30
20-40	4482.48	N.A.	35.80
20-50	6894.71	N.A.	55.10
40-70	5597.97	N.A.	44.70
60-80	1794.42	N.A.	14.30
70-80	554.48	N.A.	4.40
80-90	103.59	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	12522.67	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	458.48
10-20	1325.66
20-30	2033.18
30-40	2449.3
40-50	2412.23
50-60	1945.8
60-70	1239.94
70-80	554.48
80-90	103.59
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	20.8	22.4	21.2	22.7	23.0	19.4	20.9	19.7	21.3	21.6
	3H	22.1	23.5	22.5	23.8	24.2	20.6	22.0	21.0	22.4	22.7
	4H	22.4	23.8	22.8	24.1	24.5	21.0	22.4	21.4	22.7	23.1
	6H	22.6	23.9	23.1	24.2	24.6	21.3	22.5	21.7	22.8	23.2
	8H	22.7	23.8	23.1	24.2	24.6	21.3	22.5	21.7	22.9	23.3
	12H	22.7	23.8	23.1	24.2	24.6	21.3	22.4	21.7	22.8	23.2
4H	2H	21.1	22.4	21.5	22.8	23.2	19.9	21.2	20.3	21.6	21.9
	3H	22.6	23.6	23.0	24.0	24.4	21.3	22.4	21.8	22.8	23.2
	4H	23.0	24.0	23.4	24.4	24.8	21.8	22.8	22.3	23.2	23.7
	6H	23.3	24.1	23.7	24.6	25.0	22.1	23.0	22.6	23.4	23.9
	8H	23.3	24.1	23.8	24.6	25.0	22.2	23.0	22.7	23.4	23.9
	12H	23.4	24.1	23.8	24.5	25.0	22.2	22.9	22.7	23.4	23.9
8H	4H	23.1	23.9	23.6	24.3	24.8	22.0	22.8	22.5	23.2	23.7
	6H	23.4	24.1	23.9	24.6	25.0	22.3	23.0	22.8	23.5	24.0
	8H	23.5	24.1	24.0	24.6	25.1	22.4	23.0	23.0	23.5	24.0
	12H	23.6	24.1	24.1	24.6	25.1	22.5	23.0	23.0	23.5	24.1
12H	4H	23.1	23.8	23.6	24.3	24.8	22.0	22.7	22.5	23.2	23.7
	6H	23.4	24.0	23.9	24.5	25.0	22.4	23.0	22.9	23.4	24.0
	8H	23.5	24.0	24.0	24.5	25.1	22.5	23.0	23.0	23.5	24.1

Maximum UGR = 25.1

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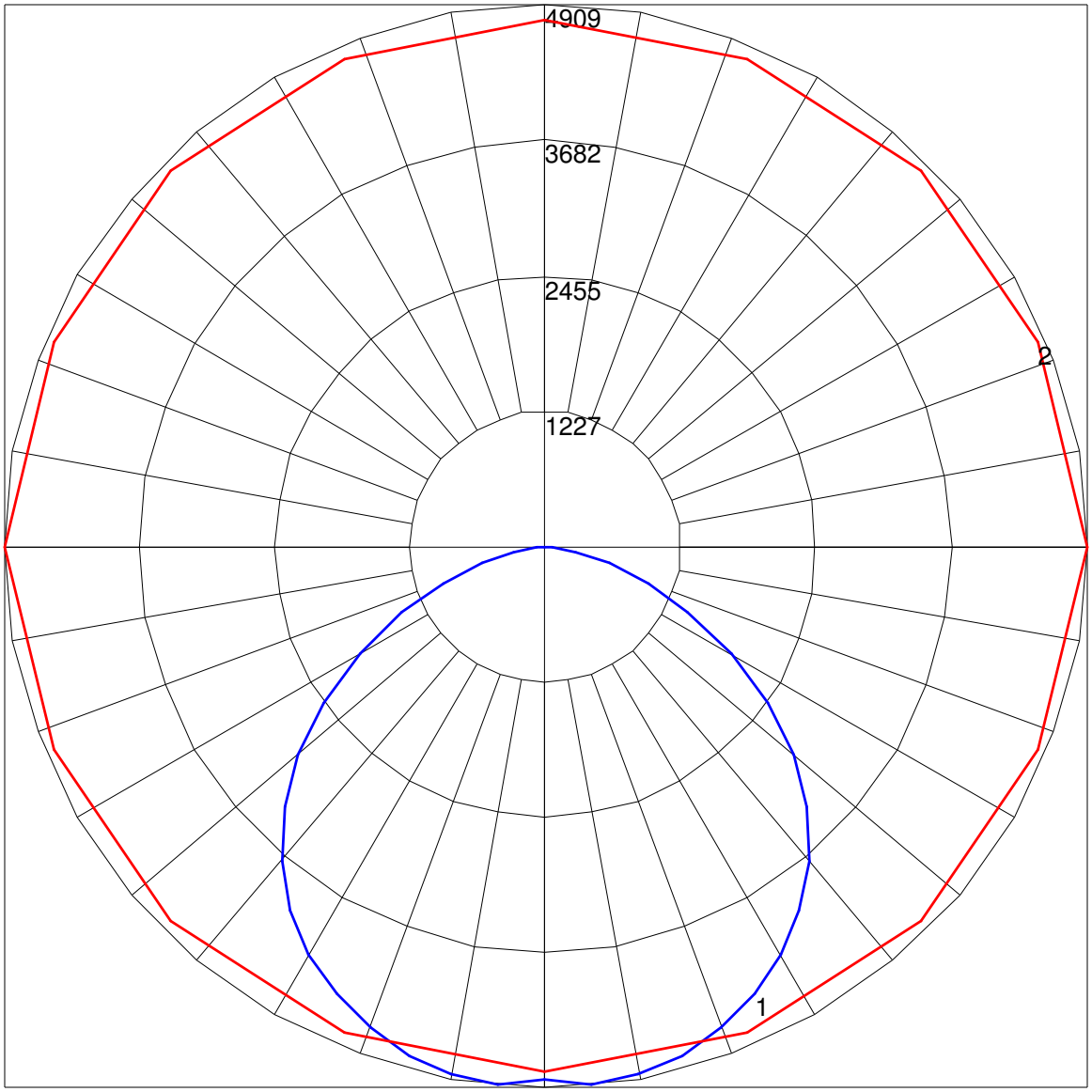
POLAR GRAPH



Maximum Candela = 4909.393 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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