H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-940-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-L300-940-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	21459
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
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	22800	21724	18912
55	20614	17624	16298
65	16231	13477	12919
75	11191	9164	9138
85	3996	3667	3971

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	8286.310	8286.310	8286.310	8286.310	8286.310
5	8412.801	8291.810	8237.600	8194.389	8181.818
10	8341.306	8203.817	8168.462	8118.966	8107.967
15	8206.959	8071.826	8043.543	7979.905	7972.048
20	7983.833	7887.197	7845.558	7749.708	7767.778
25	7696.283	7626.360	7568.221	7456.658	7483.370
30	7342.738	7283.028	7239.031	7098.399	7079.543
35	6905.913	6817.134	6806.135	6619.149	6481.659
40	6376.381	6288.388	6228.678	5937.986	5649.650
45	5746.286	5678.719	5475.234	5063.551	4766.573
50	5022.697	4959.059	4567.802	4200.115	4035.128
55	4214.257	4126.264	3603.017	3420.745	3331.966
60	3323.324	3242.401	2756.866	2596.592	2619.376
65	2444.960	2356.181	2030.134	1921.714	1946.069
70	1691.517	1529.672	1412.609	1330.901	1347.399
75	1032.352	896.433	845.366	800.583	843.009
80	491.035	423.468	399.113	390.471	414.826
85	124.134	115.491	113.920	118.634	123.348
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3057.33	N.A.	14.20
0-30	6541.41	N.A.	30.50
0-40	10738.57	N.A.	50.00
0-60	18206.55	N.A.	84.80
0-80	21281.5	N.A.	99.20
0-90	21459.01	N.A.	100.00
10-90	20673.36	N.A.	96.30
20-40	7681.24	N.A.	35.80
20-50	11814.87	N.A.	55.10
40-70	9592.76	N.A.	44.70
60-80	3074.95	N.A.	14.30
70-80	950.17	N.A.	4.40
80-90	177.52	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	21459.01	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	785.65
10-20	2271.68
20-30	3484.08
30-40	4197.15
40-50	4133.63
50-60	3334.35
60-70	2124.78
70-80	950.17
80-90	177.52
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	22.7	24.3	23.1	24.6	24.9	21.3	22.8	21.6	23.2	23.5
	3H	24.0	25.4	24.4	25.7	26.1	22.5	23.9	22.9	24.3	24.6
	4H	24.3	25.7	24.7	26.0	26.4	22.9	24.3	23.3	24.6	25.0
	6H	24.5	25.8	25.0	26.1	26.5	23.2	24.4	23.6	24.7	25.1
	8H	24.6	25.7	25.0	26.1	26.5	23.2	24.4	23.6	24.8	25.2
	12H	24.6	25.7	25.0	26.1	26.5	23.2	24.3	23.6	24.7	25.1
4H	2H	23.0	24.3	23.4	24.7	25.1	21.8	23.1	22.2	23.5	23.8
	3H	24.5	25.5	24.9	25.9	26.3	23.2	24.3	23.7	24.7	25.1
	4H	24.9	25.9	25.3	26.3	26.7	23.7	24.7	24.2	25.1	25.6
	6H	25.2	26.0	25.6	26.5	26.9	24.0	24.9	24.5	25.3	25.8
	8H	25.2	26.0	25.7	26.5	26.9	24.1	24.9	24.6	25.3	25.8
	12H	25.3	26.0	25.7	26.4	26.9	24.1	24.8	24.6	25.3	25.8
8H	4H	25.0	25.8	25.5	26.2	26.7	23.9	24.7	24.4	25.1	25.6
	6H	25.3	26.0	25.8	26.5	26.9	24.2	24.9	24.7	25.4	25.9
	8H	25.4	26.0	25.9	26.5	27.0	24.3	24.9	24.9	25.4	25.9
	12H	25.5	26.0	26.0	26.5	27.0	24.4	24.9	24.9	25.4	26.0
12H	4H	25.0	25.7	25.5	26.2	26.7	23.9	24.6	24.4	25.1	25.6
	6H	25.3	25.9	25.8	26.4	26.9	24.3	24.9	24.8	25.3	25.9
	8H	25.4	25.9	25.9	26.4	27.0	24.4	24.9	24.9	25.4	26.0

Maximum UGR = 27.0

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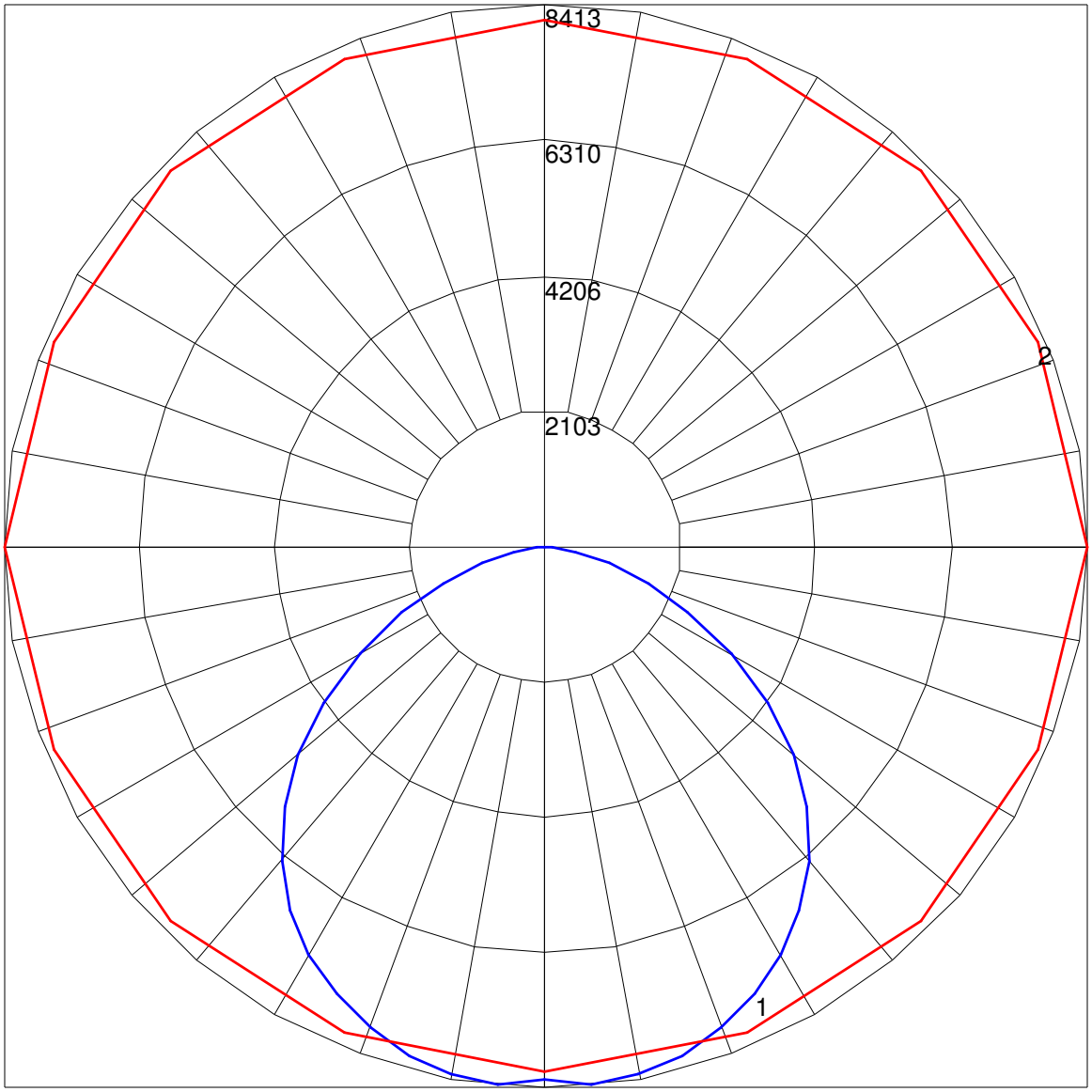
POLAR GRAPH



Maximum Candela = 8412.801 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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