H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-930-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-L200-930-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	13618
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	133
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	14469	13786	12002
55	13082	11184	10343
65	10300	8553	8199
75	7102	5815	5799
85	2536	2327	2520

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	5258.540	5258.540	5258.540	5258.540	5258.540
5	5338.812	5262.030	5227.628	5200.206	5192.229
10	5293.441	5206.189	5183.753	5152.342	5145.362
15	5208.183	5122.427	5104.478	5064.093	5059.107
20	5066.586	5005.261	4978.836	4918.009	4929.476
25	4884.105	4839.731	4802.836	4732.038	4748.990
30	4659.744	4621.851	4593.931	4504.685	4492.719
35	4382.532	4326.192	4319.212	4200.550	4113.298
40	4046.488	3990.647	3952.755	3768.280	3585.300
45	3646.626	3603.748	3474.615	3213.358	3024.894
50	3187.432	3147.047	2898.753	2665.417	2560.715
55	2674.392	2618.551	2286.495	2170.824	2114.485
60	2109.000	2057.646	1749.523	1647.812	1662.271
65	1551.586	1495.246	1288.335	1219.531	1234.987
70	1073.446	970.738	896.450	844.597	855.067
75	655.136	568.882	536.474	508.055	534.978
80	311.613	268.735	253.279	247.795	263.251
85	78.776	73.291	72.294	75.286	78.277
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1940.2	N.A.	14.20
0-30	4151.22	N.A.	30.50
0-40	6814.76	N.A.	50.00
0-60	11553.98	N.A.	84.80
0-80	13505.36	N.A.	99.20
0-90	13618.01	N.A.	100.00
10-90	13119.43	N.A.	96.30
20-40	4874.56	N.A.	35.80
20-50	7497.78	N.A.	55.10
40-70	6087.62	N.A.	44.70
60-80	1951.38	N.A.	14.30
70-80	602.98	N.A.	4.40
80-90	112.65	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	13618.01	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	498.58
10-20	1441.62
20-30	2211.02
30-40	2663.54
40-50	2623.23
50-60	2116.00
60-70	1348.4
70-80	602.98
80-90	112.65
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	21.1	22.7	21.5	23.0	23.3	19.7	21.2	20.0	21.6	21.9
	3H	22.4	23.8	22.8	24.1	24.5	20.9	22.3	21.3	22.7	23.0
	4H	22.7	24.1	23.1	24.4	24.8	21.3	22.7	21.7	23.0	23.4
	6H	22.9	24.2	23.4	24.5	24.9	21.6	22.8	22.0	23.1	23.5
	8H	23.0	24.1	23.4	24.5	24.9	21.6	22.8	22.0	23.2	23.6
	12H	23.0	24.1	23.4	24.5	24.9	21.6	22.7	22.0	23.1	23.5
4H	2H	21.4	22.7	21.8	23.1	23.5	20.2	21.5	20.6	21.9	22.2
	3H	22.9	23.9	23.3	24.3	24.7	21.6	22.7	22.1	23.1	23.5
	4H	23.3	24.3	23.7	24.7	25.1	22.1	23.1	22.6	23.5	24.0
	6H	23.6	24.4	24.0	24.9	25.3	22.4	23.3	22.9	23.7	24.2
	8H	23.6	24.4	24.1	24.9	25.3	22.5	23.3	23.0	23.7	24.2
	12H	23.7	24.4	24.1	24.8	25.3	22.5	23.2	23.0	23.7	24.2
8H	4H	23.4	24.2	23.9	24.6	25.1	22.3	23.1	22.8	23.5	24.0
	6H	23.7	24.4	24.2	24.9	25.3	22.6	23.3	23.1	23.8	24.3
	8H	23.8	24.4	24.3	24.9	25.4	22.7	23.3	23.3	23.8	24.3
	12H	23.9	24.4	24.4	24.9	25.4	22.8	23.3	23.3	23.8	24.4
12H	4H	23.4	24.1	23.9	24.6	25.1	22.3	23.0	22.8	23.5	24.0
	6H	23.7	24.3	24.2	24.8	25.3	22.7	23.3	23.2	23.7	24.3
	8H	23.8	24.3	24.3	24.8	25.4	22.8	23.3	23.3	23.8	24.4

Maximum UGR = 25.4

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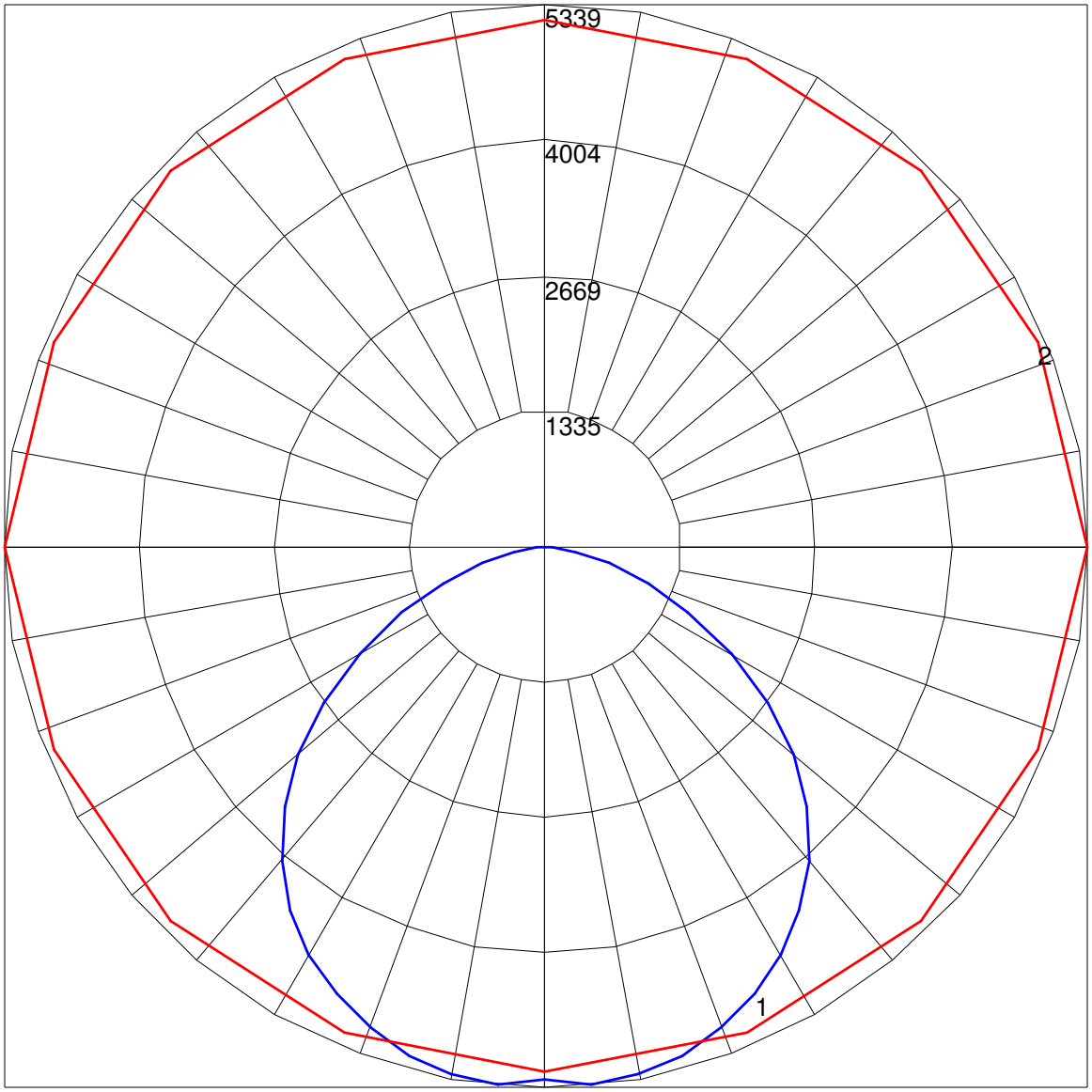
POLAR GRAPH



Maximum Candela = 5338.812 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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