H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-840-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-L150-840-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	12910
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
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	13716	13069	11378
55	12401	10603	9805
65	9765	8108	7772
75	6732	5513	5498
85	2404	2206	2389

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4985.131	4985.131	4985.131	4985.131	4985.131
5	5061.229	4988.440	4955.826	4929.830	4922.268
10	5018.217	4935.502	4914.232	4884.455	4877.838
15	4937.393	4856.095	4839.080	4800.794	4796.068
20	4803.158	4745.021	4719.970	4662.305	4673.177
25	4630.165	4588.098	4553.121	4486.004	4502.074
30	4417.468	4381.546	4355.077	4270.471	4259.127
35	4154.670	4101.259	4094.642	3982.149	3899.434
40	3836.098	3783.160	3747.238	3572.354	3398.889
45	3457.026	3416.377	3293.958	3046.285	2867.620
50	3021.707	2983.422	2748.038	2526.833	2427.575
55	2535.341	2482.403	2167.613	2057.956	2004.546
60	1999.346	1950.662	1658.559	1562.137	1575.844
65	1470.914	1417.503	1221.350	1156.123	1170.776
70	1017.634	920.266	849.840	800.684	810.610
75	621.074	539.304	508.581	481.639	507.163
80	295.412	254.763	240.111	234.911	249.564
85	74.680	69.481	68.536	71.371	74.207
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1839.32	N.A.	14.20
0-30	3935.38	N.A.	30.50
0-40	6460.43	N.A.	50.00
0-60	10953.25	N.A.	84.80
0-80	12803.17	N.A.	99.20
0-90	12909.97	N.A.	100.00
10-90	12437.31	N.A.	96.30
20-40	4621.11	N.A.	35.80
20-50	7107.95	N.A.	55.10
40-70	5771.11	N.A.	44.70
60-80	1849.92	N.A.	14.30
70-80	571.63	N.A.	4.40
80-90	106.80	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	12909.97	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	472.66
10-20	1366.66
20-30	2096.06
30-40	2525.05
40-50	2486.84
50-60	2005.98
60-70	1278.29
70-80	571.63
80-90	106.80
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	20.9	22.5	21.3	22.8	23.1	19.5	21.0	19.8	21.4	21.7
	3H	22.2	23.6	22.6	23.9	24.3	20.7	22.1	21.1	22.5	22.8
	4H	22.5	23.9	22.9	24.2	24.6	21.1	22.5	21.5	22.8	23.2
	6H	22.7	24.0	23.2	24.3	24.7	21.4	22.6	21.8	22.9	23.3
	8H	22.8	23.9	23.2	24.3	24.7	21.4	22.6	21.8	23.0	23.4
	12H	22.8	23.9	23.2	24.3	24.7	21.4	22.5	21.8	22.9	23.3
4H	2H	21.2	22.5	21.6	22.9	23.3	20.0	21.3	20.4	21.7	22.0
	3H	22.7	23.7	23.1	24.1	24.5	21.4	22.5	21.9	22.9	23.3
	4H	23.1	24.1	23.5	24.5	24.9	21.9	22.9	22.4	23.3	23.8
	6H	23.4	24.2	23.8	24.7	25.1	22.2	23.1	22.7	23.5	24.0
	8H	23.4	24.2	23.9	24.7	25.1	22.3	23.1	22.8	23.5	24.0
	12H	23.5	24.2	23.9	24.6	25.1	22.3	23.0	22.8	23.5	24.0
8H	4H	23.2	24.0	23.7	24.4	24.9	22.1	22.9	22.6	23.3	23.8
	6H	23.5	24.2	24.0	24.7	25.1	22.4	23.1	22.9	23.6	24.1
	8H	23.6	24.2	24.1	24.7	25.2	22.5	23.1	23.1	23.6	24.1
	12H	23.7	24.2	24.2	24.7	25.2	22.6	23.1	23.1	23.6	24.2
12H	4H	23.2	23.9	23.7	24.4	24.9	22.1	22.8	22.6	23.3	23.8
	6H	23.5	24.1	24.0	24.6	25.1	22.5	23.1	23.0	23.5	24.1
	8H	23.6	24.1	24.1	24.6	25.2	22.6	23.1	23.1	23.6	24.2

Maximum UGR = 25.2

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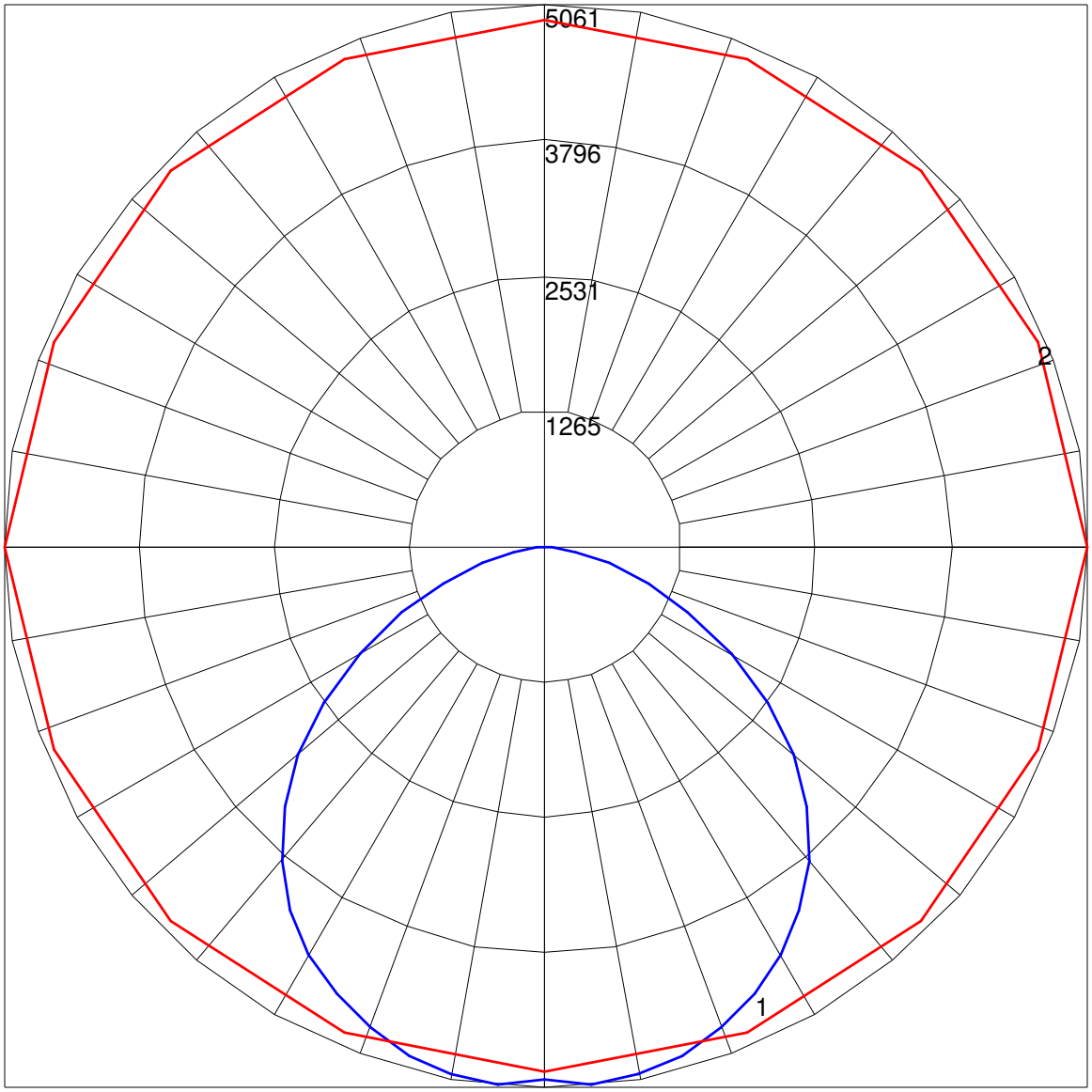
POLAR GRAPH



Maximum Candela = 5061.229 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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