H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-930-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-L150-930-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	10199
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
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	10836	10325	8989
55	9797	8376	7746
65	7714	6405	6140
75	5319	4355	4343
85	1899	1743	1887

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3938.254	3938.254	3938.254	3938.254	3938.254
5	3998.371	3940.868	3915.103	3894.566	3888.592
10	3964.392	3899.047	3882.244	3858.720	3853.492
15	3900.540	3836.316	3822.873	3792.628	3788.894
20	3794.495	3748.567	3728.776	3683.221	3691.810
25	3657.830	3624.598	3596.966	3543.943	3556.639
30	3489.800	3461.422	3440.511	3373.673	3364.711
35	3282.189	3239.995	3234.768	3145.898	3080.553
40	3030.518	2988.697	2960.318	2822.160	2685.122
45	2731.050	2698.938	2602.227	2406.566	2265.420
50	2387.149	2356.903	2170.950	1996.198	1917.784
55	2002.920	1961.099	1712.414	1625.785	1583.591
60	1579.484	1541.023	1310.262	1234.088	1244.917
65	1162.022	1119.828	964.867	913.337	924.913
70	803.931	727.011	671.374	632.540	640.382
75	490.648	426.050	401.779	380.495	400.659
80	233.375	201.263	189.687	185.580	197.155
85	58.997	54.890	54.143	56.383	58.624
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1453.06	N.A.	14.20
0-30	3108.95	N.A.	30.50
0-40	5103.74	N.A.	50.00
0-60	8653.07	N.A.	84.80
0-80	10114.51	N.A.	99.20
0-90	10198.87	N.A.	100.00
10-90	9825.47	N.A.	96.30
20-40	3650.68	N.A.	35.80
20-50	5615.28	N.A.	55.10
40-70	4559.17	N.A.	44.70
60-80	1461.44	N.A.	14.30
70-80	451.59	N.A.	4.40
80-90	84.37	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	10198.87	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	373.40
10-20	1079.66
20-30	1655.89
30-40	1994.79
40-50	1964.6
50-60	1584.72
60-70	1009.85
70-80	451.59
80-90	84.37
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	20.1	21.7	20.5	22.0	22.3	18.7	20.2	19.0	20.6	20.9
	3H	21.4	22.8	21.8	23.1	23.5	19.9	21.3	20.3	21.7	22.0
	4H	21.7	23.1	22.1	23.4	23.8	20.3	21.7	20.7	22.0	22.4
	6H	21.9	23.2	22.4	23.5	23.9	20.6	21.8	21.0	22.1	22.5
	8H	22.0	23.1	22.4	23.5	23.9	20.6	21.8	21.0	22.2	22.6
	12H	22.0	23.1	22.4	23.5	23.9	20.6	21.7	21.0	22.1	22.5
4H	2H	20.4	21.7	20.8	22.1	22.5	19.2	20.5	19.6	20.9	21.2
	3H	21.9	22.9	22.3	23.3	23.7	20.6	21.7	21.1	22.1	22.5
	4H	22.3	23.3	22.7	23.7	24.1	21.1	22.1	21.6	22.5	23.0
	6H	22.6	23.4	23.0	23.9	24.3	21.4	22.3	21.9	22.7	23.2
	8H	22.6	23.4	23.1	23.9	24.3	21.5	22.3	22.0	22.7	23.2
	12H	22.7	23.4	23.1	23.8	24.3	21.5	22.2	22.0	22.7	23.2
8H	4H	22.4	23.2	22.9	23.6	24.1	21.3	22.1	21.8	22.5	23.0
	6H	22.7	23.4	23.2	23.9	24.3	21.6	22.3	22.1	22.8	23.3
	8H	22.8	23.4	23.3	23.9	24.4	21.7	22.3	22.3	22.8	23.3
	12H	22.9	23.4	23.4	23.9	24.4	21.8	22.3	22.3	22.8	23.4
12H	4H	22.4	23.1	22.9	23.6	24.1	21.3	22.0	21.8	22.5	23.0
	6H	22.7	23.3	23.2	23.8	24.3	21.7	22.3	22.2	22.7	23.3
	8H	22.8	23.3	23.3	23.8	24.4	21.8	22.3	22.3	22.8	23.4

Maximum UGR = 24.4

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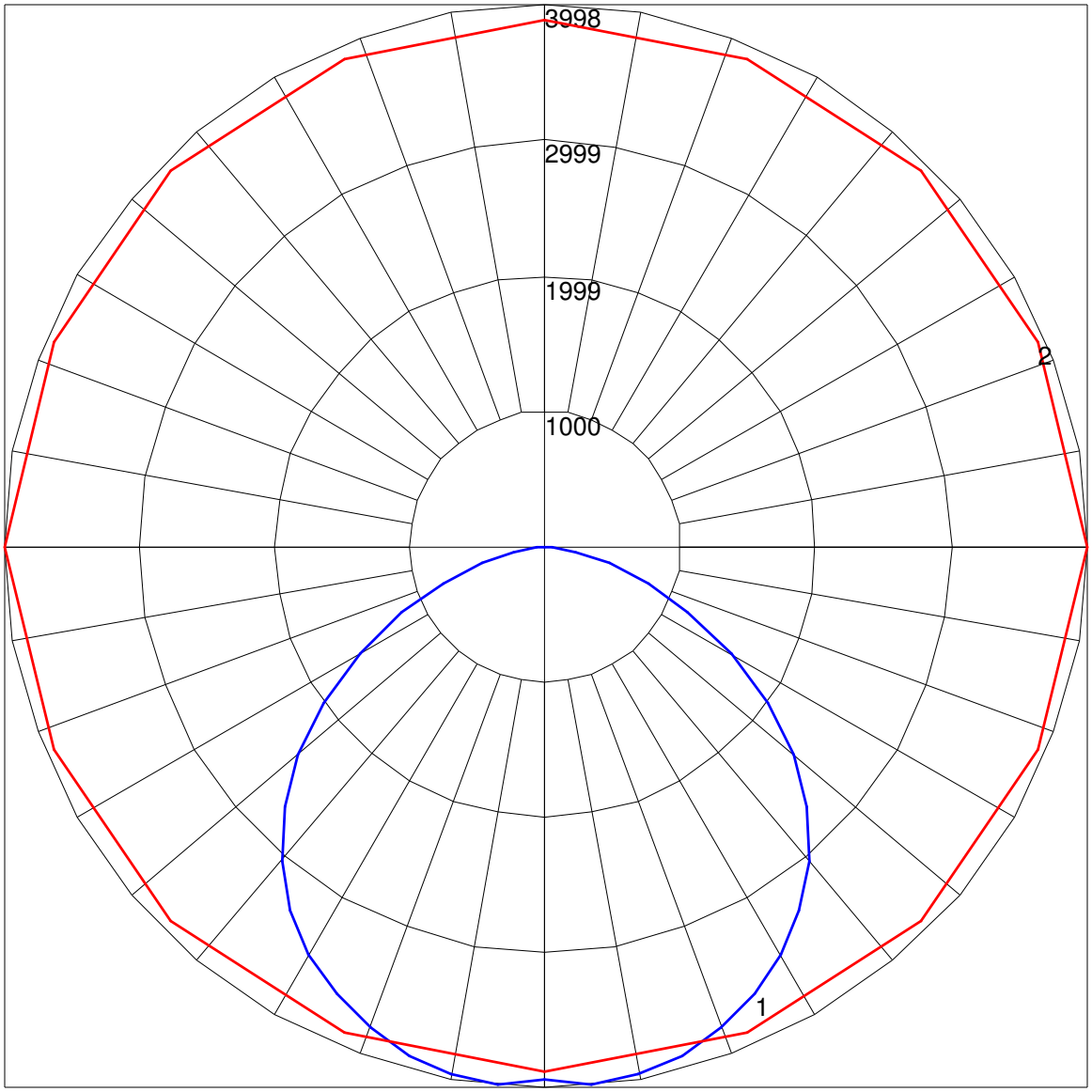
POLAR GRAPH



Maximum Candela = 3998.371 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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