H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-935-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-L150-935-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	10328
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
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	10973	10456	9102
55	9921	8482	7844
65	7812	6486	6218
75	5386	4410	4398
85	1923	1765	1911

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3988.106	3988.106	3988.106	3988.106	3988.106
5	4048.984	3990.752	3964.662	3943.865	3937.815
10	4014.574	3948.402	3931.387	3907.565	3902.271
15	3949.915	3884.877	3871.264	3840.636	3836.855
20	3842.527	3796.017	3775.976	3729.845	3738.542
25	3704.132	3670.479	3642.497	3588.803	3601.660
30	3533.975	3505.237	3484.062	3416.378	3407.302
35	3323.736	3281.008	3275.714	3185.720	3119.548
40	3068.879	3026.529	2997.791	2857.884	2719.111
45	2765.621	2733.102	2635.167	2437.029	2294.097
50	2417.366	2386.738	2198.430	2021.467	1942.060
55	2028.273	1985.923	1734.090	1646.365	1603.637
60	1599.477	1560.530	1326.848	1249.710	1260.675
65	1176.731	1134.003	977.080	924.899	936.621
70	814.107	736.213	679.872	640.547	648.488
75	496.859	431.443	406.865	385.311	405.730
80	236.329	203.810	192.089	187.929	199.651
85	59.744	55.585	54.828	57.097	59.366
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1471.46	N.A.	14.20
0-30	3148.31	N.A.	30.50
0-40	5168.35	N.A.	50.00
0-60	8762.6	N.A.	84.80
0-80	10242.54	N.A.	99.20
0-90	10327.97	N.A.	100.00
10-90	9949.85	N.A.	96.30
20-40	3696.89	N.A.	35.80
20-50	5686.36	N.A.	55.10
40-70	4616.89	N.A.	44.70
60-80	1479.94	N.A.	14.30
70-80	457.30	N.A.	4.40
80-90	85.44	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	10327.97	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	378.13
10-20	1093.33
20-30	1676.85
30-40	2020.04
40-50	1989.47
50-60	1604.78
60-70	1022.63
70-80	457.31
80-90	85.44
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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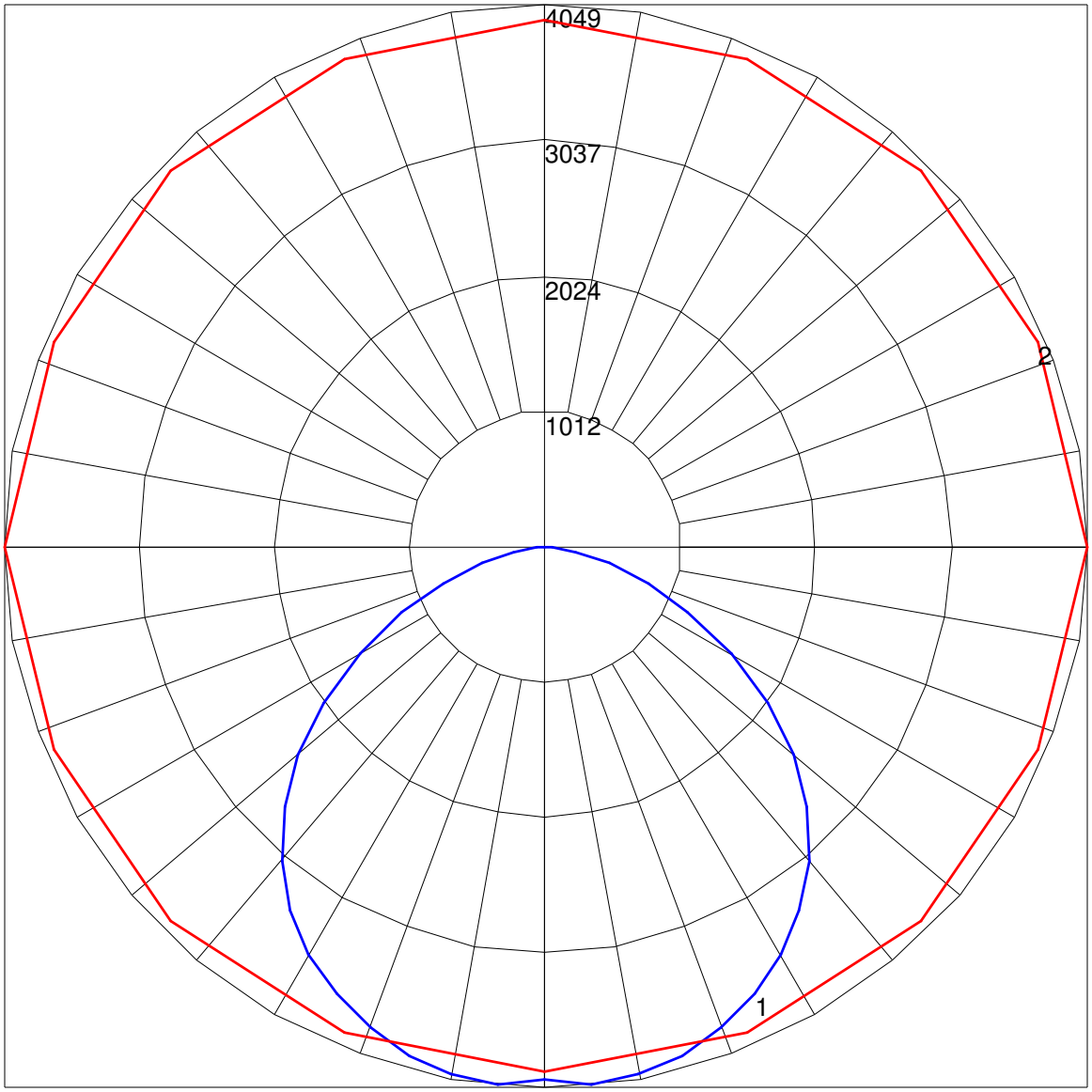
POLAR GRAPH



Maximum Candela = 4048.984 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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