H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-940-ND-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19459.0
[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 REFL w/CLEAR ACRYLIC ROD DIFFUSERS OVER LED
[MORE] 0-10V UNIVERSAL VOLTAGE 120-277 DRIVERS
[LUMCAT] GL-4-L300-940-ND-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Warehouse, High Bay
[_SEARCH_MOUNTING] Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	23764
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	195
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.72
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.04 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	58530	6246	4617
55	40110	4636	3466
65	24272	3515	3567
75	11886	3883	3238
85	4557	1435	1435

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	23967.812	23967.812	23967.812	23967.812	23967.812
5	23432.038	23245.792	22872.451	22563.743	22385.152
10	23245.792	22482.952	20794.839	19343.146	19075.259
15	22929.431	21249.821	18036.878	15585.924	14774.609
20	23318.930	19464.758	13606.961	9931.381	8762.883
25	22263.540	16779.084	9963.697	6734.595	5777.005
30	21760.933	13452.182	6052.546	3716.401	3205.290
35	19845.753	9647.336	3577.780	2344.650	2126.088
40	18555.643	6612.983	2320.837	1760.401	1647.293
45	16040.906	4122.059	1711.926	1338.585	1265.447
50	12372.980	2766.465	1347.089	1095.360	1030.727
55	8916.812	2052.950	1030.727	843.632	770.494
60	6134.188	1460.197	803.661	705.861	657.386
65	3975.784	900.611	575.745	608.912	584.249
70	2353.154	648.882	494.953	511.111	454.132
75	1192.310	486.449	389.499	348.678	324.866
80	575.745	357.183	243.224	153.929	130.117
85	153.929	113.958	48.475	48.475	48.475
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	7199.95	N.A.	30.30
0-30	12625.83	N.A.	53.10
0-40	16892.94	N.A.	71.10
0-60	21988.19	N.A.	92.50
0-80	23646.49	N.A.	99.50
0-90	23764.28	N.A.	100.00
10-90	21635.61	N.A.	91.00
20-40	9692.99	N.A.	40.80
20-50	12789.32	N.A.	53.80
40-70	6217.36	N.A.	26.20
60-80	1658.31	N.A.	7.00
70-80	536.19	N.A.	2.30
80-90	117.78	N.A.	0.50
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	23764.28	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2128.67
10-20	5071.29
20-30	5425.88
30-40	4267.11
40-50	3096.33
50-60	1998.91
60-70	1122.11
70-80	536.19
80-90	117.78
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	51
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47
9	68	57	50	46	67	57	50	46	56	50	45	55	49	45	54	49	45	44
10	65	54	47	43	64	53	47	43	52	46	42	51	46	42	51	46	42	41

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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	20.4	21.7	20.7	22.0	22.3	11.4	12.7	11.7	13.0	13.3
	3H	22.2	23.4	22.6	23.7	24.1	13.4	14.6	13.8	14.9	15.3
	4H	22.7	23.8	23.1	24.2	24.5	14.2	15.2	14.6	15.6	16.0
	6H	23.0	24.0	23.5	24.4	24.8	14.5	15.5	14.9	15.8	16.2
	8H	23.1	24.1	23.5	24.4	24.8	14.5	15.5	15.0	15.9	16.3
	12H	23.1	24.0	23.6	24.4	24.8	14.5	15.4	15.0	15.8	16.3
4H	2H	20.2	21.3	20.6	21.6	22.0	12.0	13.1	12.4	13.4	13.8
	3H	22.1	23.0	22.5	23.4	23.8	14.4	15.2	14.8	15.6	16.0
	4H	22.7	23.5	23.1	23.9	24.3	15.2	16.0	15.6	16.4	16.9
	6H	23.1	23.8	23.6	24.2	24.7	15.6	16.3	16.1	16.7	17.2
	8H	23.2	23.8	23.7	24.3	24.8	15.7	16.3	16.1	16.8	17.2
	12H	23.3	23.8	23.8	24.3	24.8	15.7	16.3	16.2	16.8	17.2
8H	4H	22.6	23.2	23.1	23.7	24.1	15.6	16.3	16.1	16.7	17.2
	6H	23.1	23.6	23.6	24.1	24.6	16.1	16.7	16.6	17.2	17.6
	8H	23.2	23.7	23.7	24.2	24.7	16.3	16.7	16.8	17.2	17.7
	12H	23.3	23.7	23.8	24.2	24.8	16.3	16.7	16.8	17.2	17.8
12H	4H	22.6	23.1	23.1	23.6	24.1	15.7	16.3	16.2	16.8	17.3
	6H	23.0	23.5	23.6	24.0	24.5	16.3	16.8	16.8	17.2	17.8
	8H	23.2	23.6	23.7	24.1	24.7	16.4	16.8	17.0	17.3	17.9

Maximum UGR = 24.8

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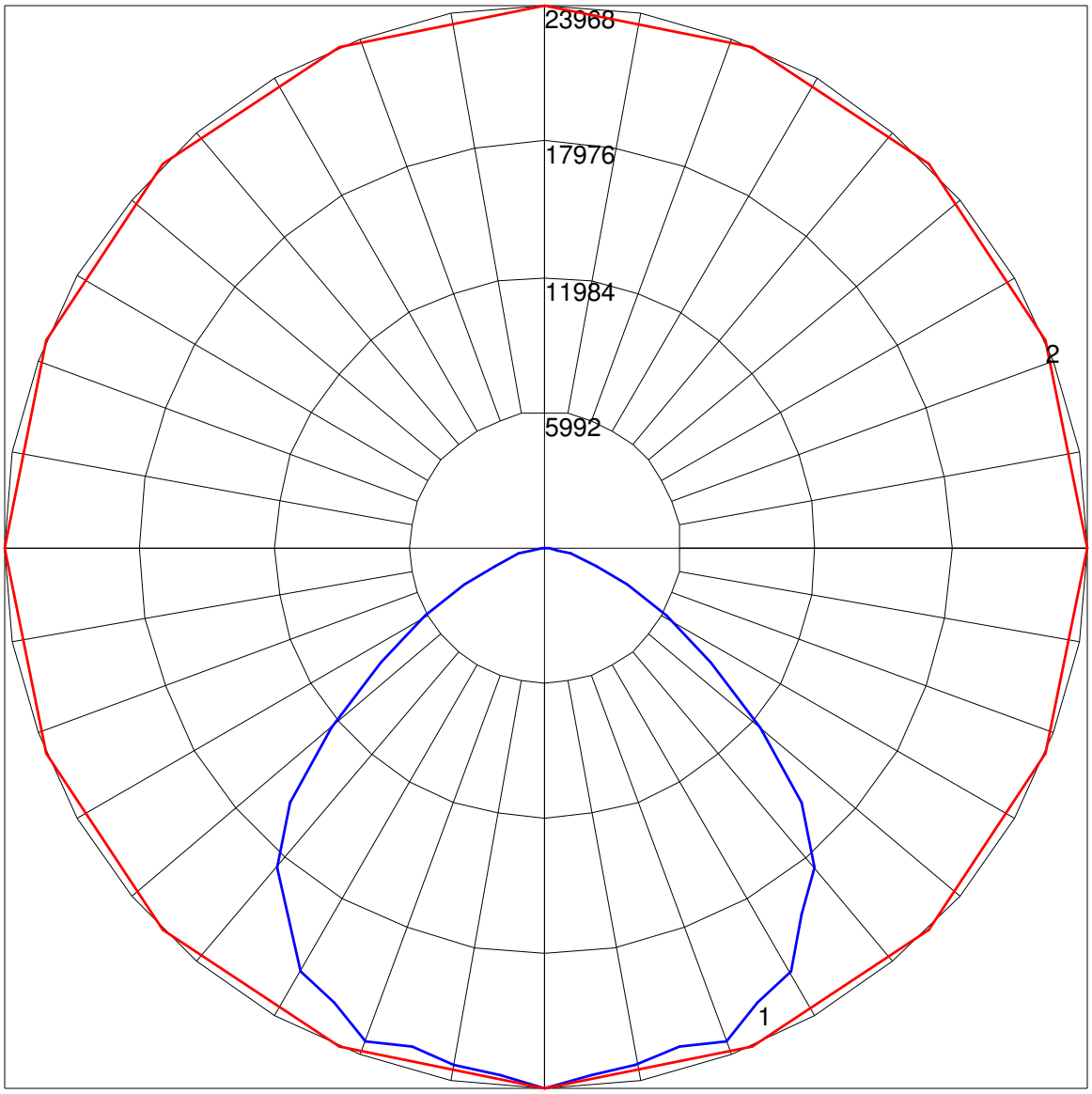
POLAR GRAPH



Maximum Candela = 23967.812 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

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