H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-935-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-L300-935-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	22905
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
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	56415	6021	4450
55	38660	4469	3341
65	23395	3388	3438
75	11456	3742	3121
85	4392	1383	1383

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	23101.506	23101.506	23101.506	23101.506	23101.506
5	22585.097	22405.584	22045.737	21748.187	21576.051
10	22405.584	21670.316	20043.218	18643.997	18385.792
15	22100.657	20481.756	17384.943	15022.577	14240.587
20	22476.078	18761.213	13115.144	9572.416	8446.153
25	21458.834	16172.612	9603.564	6491.176	5568.198
30	20974.394	12965.959	5833.780	3582.074	3089.436
35	19128.437	9298.637	3448.463	2259.903	2049.241
40	17884.958	6373.960	2236.952	1696.772	1587.752
45	15461.115	3973.069	1650.049	1290.202	1219.708
50	11925.764	2666.473	1298.399	1055.769	993.472
55	8594.518	1978.747	993.472	813.139	742.645
60	5912.471	1407.419	774.613	680.348	633.625
65	3832.081	868.059	554.935	586.903	563.131
70	2268.100	625.428	477.063	492.638	437.718
75	1149.214	468.866	375.421	336.076	313.124
80	554.935	344.273	234.433	148.365	125.414
85	148.365	109.839	46.723	46.723	46.723
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	6939.72	N.A.	30.30
0-30	12169.48	N.A.	53.10
0-40	16282.36	N.A.	71.10
0-60	21193.43	N.A.	92.50
0-80	22791.8	N.A.	99.50
0-90	22905.33	N.A.	100.00
10-90	20853.6	N.A.	91.00
20-40	9342.64	N.A.	40.80
20-50	12327.06	N.A.	53.80
40-70	5992.63	N.A.	26.20
60-80	1598.37	N.A.	7.00
70-80	516.81	N.A.	2.30
80-90	113.53	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	22905.33	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2051.73
10-20	4887.99
20-30	5229.77
30-40	4112.88
40-50	2984.42
50-60	1926.66
60-70	1081.55
70-80	516.81
80-90	113.53
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	47	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	20.3	21.6	20.6	21.9	22.2	11.3	12.6	11.6	12.9	13.2
	3H	22.1	23.3	22.5	23.6	24.0	13.3	14.5	13.7	14.8	15.2
	4H	22.6	23.7	23.0	24.1	24.4	14.1	15.1	14.5	15.5	15.9
	6H	22.9	23.9	23.4	24.3	24.7	14.4	15.4	14.8	15.7	16.1
	8H	23.0	24.0	23.4	24.3	24.7	14.4	15.4	14.9	15.8	16.2
	12H	23.0	23.9	23.5	24.3	24.7	14.4	15.3	14.9	15.7	16.2
4H	2H	20.1	21.2	20.5	21.5	21.9	11.9	13.0	12.3	13.3	13.7
	3H	22.0	22.9	22.4	23.3	23.7	14.3	15.1	14.7	15.5	15.9
	4H	22.6	23.4	23.0	23.8	24.2	15.1	15.9	15.5	16.3	16.8
	6H	23.0	23.7	23.5	24.1	24.6	15.5	16.2	16.0	16.6	17.1
	8H	23.1	23.7	23.6	24.2	24.7	15.6	16.2	16.0	16.7	17.1
	12H	23.2	23.7	23.7	24.2	24.7	15.6	16.2	16.1	16.7	17.1
8H	4H	22.5	23.1	23.0	23.6	24.0	15.5	16.2	16.0	16.6	17.1
	6H	23.0	23.5	23.5	24.0	24.5	16.0	16.6	16.5	17.1	17.5
	8H	23.1	23.6	23.6	24.1	24.6	16.2	16.6	16.7	17.1	17.6
	12H	23.2	23.6	23.7	24.1	24.7	16.2	16.6	16.7	17.1	17.7
12H	4H	22.5	23.0	23.0	23.5	24.0	15.6	16.2	16.1	16.7	17.2
	6H	22.9	23.4	23.5	23.9	24.4	16.2	16.7	16.7	17.1	17.7
	8H	23.1	23.5	23.6	24.0	24.6	16.3	16.7	16.9	17.2	17.8

Maximum UGR = 24.7

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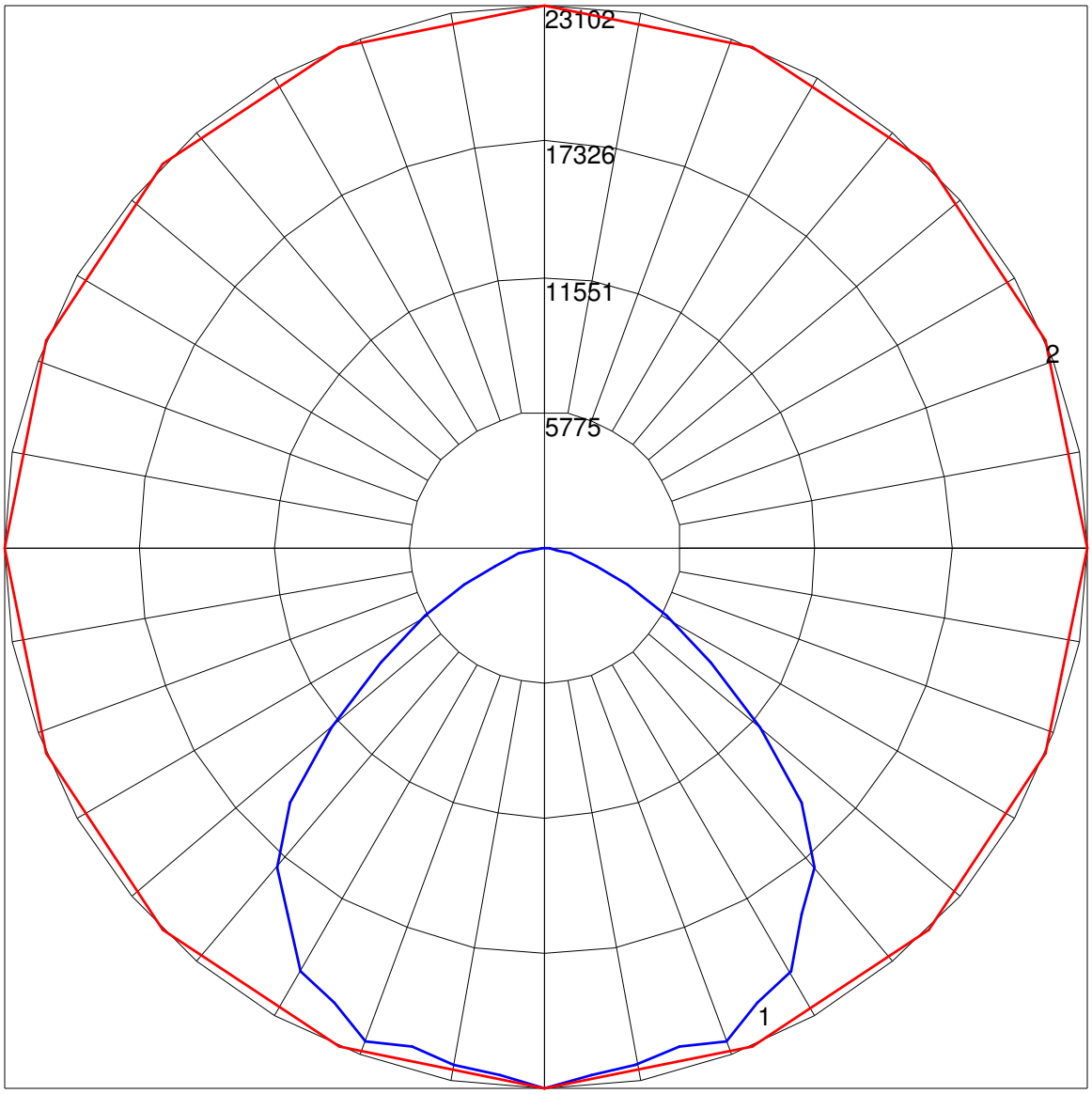
POLAR GRAPH



Maximum Candela = 23101.506 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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