H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-930-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-L200-930-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	15081
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	131
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	37143	3964	2930
55	25454	2942	2199
65	15403	2231	2264
75	7543	2464	2055
85	2892	911	911

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	15210.085	15210.085	15210.085	15210.085	15210.085
5	14870.081	14751.889	14514.965	14319.057	14205.722
10	14751.889	14267.787	13196.502	12275.251	12105.248
15	14551.124	13485.236	11446.287	9890.900	9376.036
20	14798.302	12352.426	8635.041	6302.501	5560.967
25	14128.547	10648.085	6323.009	4273.806	3666.115
30	13809.590	8536.818	3840.974	2358.446	2034.092
35	12594.208	6122.244	2270.476	1487.926	1349.225
40	11775.498	4196.630	1472.814	1117.158	1045.380
45	10179.634	2615.878	1086.396	849.472	803.059
50	7851.951	1755.612	854.869	695.121	654.104
55	5658.650	1302.812	654.104	535.373	488.959
60	3892.785	926.648	510.007	447.943	417.180
65	2523.051	571.532	365.370	386.418	370.767
70	1493.322	411.784	314.100	324.354	288.195
75	756.645	308.703	247.178	221.273	206.162
80	365.370	226.670	154.351	97.684	82.573
85	97.684	72.318	30.762	30.762	30.762
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4569.12	N.A.	30.30
0-30	8012.41	N.A.	53.10
0-40	10720.34	N.A.	71.10
0-60	13953.81	N.A.	92.50
0-80	15006.17	N.A.	99.50
0-90	15080.92	N.A.	100.00
10-90	13730.06	N.A.	91.00
20-40	6151.22	N.A.	40.80
20-50	8116.16	N.A.	53.80
40-70	3945.56	N.A.	26.20
60-80	1052.37	N.A.	7.00
70-80	340.27	N.A.	2.30
80-90	74.75	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	15080.92	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1350.86
10-20	3218.26
20-30	3443.29
30-40	2707.93
40-50	1964.95
50-60	1268.52
60-70	712.10
70-80	340.27
80-90	74.75
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	18.9	20.2	19.2	20.5	20.8	9.9	11.2	10.2	11.5	11.8
	3H	20.7	21.9	21.1	22.2	22.6	11.9	13.1	12.3	13.4	13.8
	4H	21.2	22.3	21.6	22.7	23.0	12.7	13.7	13.1	14.1	14.5
	6H	21.5	22.5	22.0	22.9	23.3	13.0	14.0	13.4	14.3	14.7
	8H	21.6	22.6	22.0	22.9	23.3	13.0	14.0	13.5	14.4	14.8
	12H	21.6	22.5	22.1	22.9	23.3	13.0	13.9	13.5	14.3	14.8
4H	2H	18.7	19.8	19.1	20.1	20.5	10.5	11.6	10.9	11.9	12.3
	3H	20.6	21.5	21.0	21.9	22.3	12.9	13.7	13.3	14.1	14.5
	4H	21.2	22.0	21.6	22.4	22.8	13.7	14.5	14.1	14.9	15.4
	6H	21.6	22.3	22.1	22.7	23.2	14.1	14.8	14.6	15.2	15.7
	8H	21.7	22.3	22.2	22.8	23.3	14.2	14.8	14.6	15.3	15.7
	12H	21.8	22.3	22.3	22.8	23.3	14.2	14.8	14.7	15.3	15.7
8H	4H	21.1	21.7	21.6	22.2	22.6	14.1	14.8	14.6	15.2	15.7
	6H	21.6	22.1	22.1	22.6	23.1	14.6	15.2	15.1	15.7	16.1
	8H	21.7	22.2	22.2	22.7	23.2	14.8	15.2	15.3	15.7	16.2
	12H	21.8	22.2	22.3	22.7	23.3	14.8	15.2	15.3	15.7	16.3
12H	4H	21.1	21.6	21.6	22.1	22.6	14.2	14.8	14.7	15.3	15.8
	6H	21.5	22.0	22.1	22.5	23.0	14.8	15.3	15.3	15.7	16.3
	8H	21.7	22.1	22.2	22.6	23.2	14.9	15.3	15.5	15.8	16.4

Maximum UGR = 23.3

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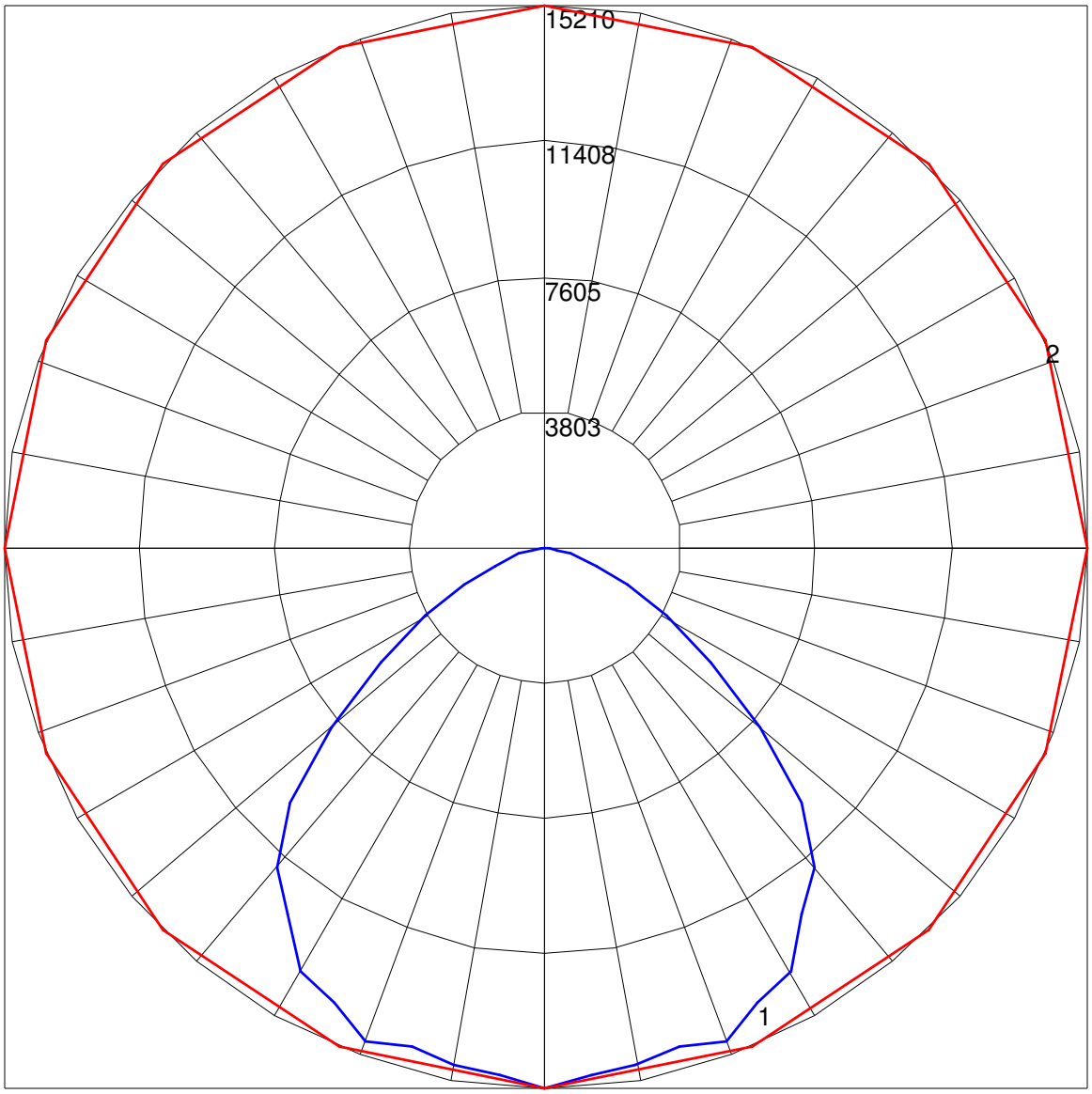
POLAR GRAPH



Maximum Candela = 15210.085 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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