H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-840-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-L150-840-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	14297
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	97
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	35212	3758	2778
55	24131	2789	2085
65	14602	2115	2146
75	7151	2336	1948
85	2741	863	863

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	14419.280	14419.280	14419.280	14419.280	14419.280
5	14096.953	13984.906	13760.300	13574.578	13467.136
10	13984.906	13525.973	12510.387	11637.034	11475.870
15	13794.579	12784.109	10851.169	9376.651	8888.555
20	14028.906	11710.197	8186.087	5974.820	5271.840
25	13393.973	10094.468	5994.262	4051.601	3475.505
30	13091.599	8092.970	3641.274	2235.825	1928.335
35	11939.407	5803.935	2152.429	1410.565	1279.076
40	11163.264	3978.438	1396.239	1059.075	991.028
45	9650.373	2479.873	1029.912	805.306	761.306
50	7443.711	1664.334	810.423	658.980	620.096
55	5364.445	1235.076	620.096	507.537	463.537
60	3690.390	878.469	483.491	424.653	395.490
65	2391.872	541.817	346.374	366.327	351.490
70	1415.681	390.374	297.769	307.490	273.211
75	717.306	292.653	234.327	209.768	195.443
80	346.374	214.885	146.326	92.605	78.279
85	92.605	68.558	29.163	29.163	29.163
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4331.57	N.A.	30.30
0-30	7595.83	N.A.	53.10
0-40	10162.97	N.A.	71.10
0-60	13228.32	N.A.	92.50
0-80	14225.97	N.A.	99.50
0-90	14296.83	N.A.	100.00
10-90	13016.2	N.A.	91.00
20-40	5831.4	N.A.	40.80
20-50	7694.18	N.A.	53.80
40-70	3740.42	N.A.	26.20
60-80	997.65	N.A.	7.00
70-80	322.58	N.A.	2.30
80-90	70.86	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	14296.83	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1280.63
10-20	3050.94
20-30	3264.27
30-40	2567.14
40-50	1862.78
50-60	1202.57
60-70	675.07
70-80	322.58
80-90	70.86
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	18.7	20.0	19.0	20.3	20.6	9.7	11.0	10.0	11.3	11.6
	3H	20.5	21.7	20.9	22.0	22.4	11.7	12.9	12.1	13.2	13.6
	4H	21.0	22.1	21.4	22.5	22.8	12.5	13.5	12.9	13.9	14.3
	6H	21.3	22.3	21.8	22.7	23.1	12.8	13.8	13.2	14.1	14.5
	8H	21.4	22.4	21.8	22.7	23.1	12.8	13.8	13.3	14.2	14.6
	12H	21.4	22.3	21.9	22.7	23.1	12.8	13.7	13.3	14.1	14.6
4H	2H	18.5	19.6	18.9	19.9	20.3	10.3	11.4	10.7	11.7	12.1
	3H	20.4	21.3	20.8	21.7	22.1	12.7	13.5	13.1	13.9	14.3
	4H	21.0	21.8	21.4	22.2	22.6	13.5	14.3	13.9	14.7	15.2
	6H	21.4	22.1	21.9	22.5	23.0	13.9	14.6	14.4	15.0	15.5
	8H	21.5	22.1	22.0	22.6	23.1	14.0	14.6	14.4	15.1	15.5
	12H	21.6	22.1	22.1	22.6	23.1	14.0	14.6	14.5	15.1	15.5
8H	4H	20.9	21.5	21.4	22.0	22.4	13.9	14.6	14.4	15.0	15.5
	6H	21.4	21.9	21.9	22.4	22.9	14.4	15.0	14.9	15.5	15.9
	8H	21.5	22.0	22.0	22.5	23.0	14.6	15.0	15.1	15.5	16.0
	12H	21.6	22.0	22.1	22.5	23.1	14.6	15.0	15.1	15.5	16.1
12H	4H	20.9	21.4	21.4	21.9	22.4	14.0	14.6	14.5	15.1	15.6
	6H	21.3	21.8	21.9	22.3	22.8	14.6	15.1	15.1	15.5	16.1
	8H	21.5	21.9	22.0	22.4	23.0	14.7	15.1	15.3	15.6	16.2

Maximum UGR = 23.1

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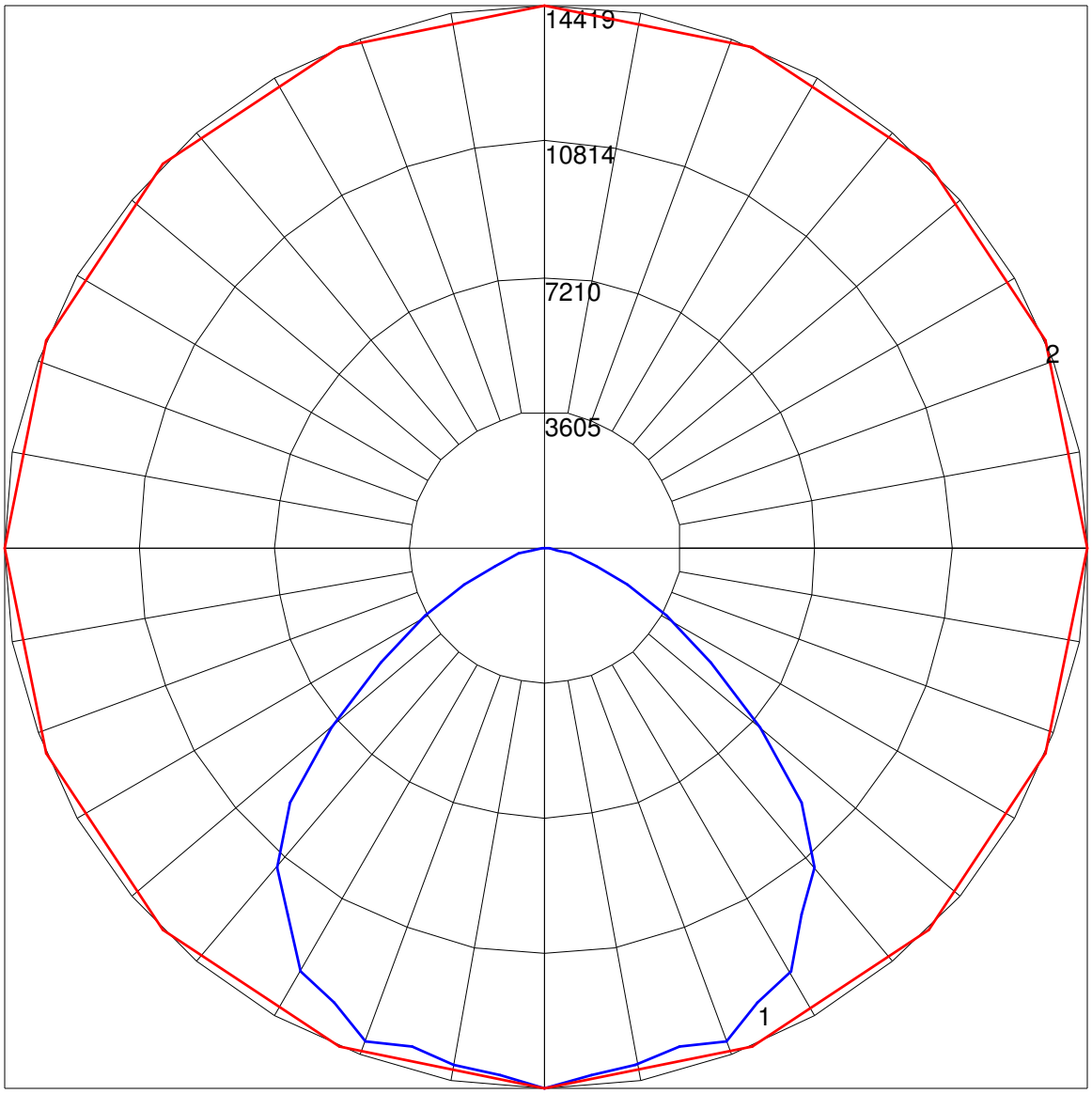
POLAR GRAPH



Maximum Candela = 14419.28 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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