H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L400-830-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19438.0
[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 HIGHBAY LUMINAIRE
[MORE] WHITE REFLECTOR w/OPEN BOTTOM
[MORE] 0-10V DIMMING DRIVERS
[LUMCAT] GL-4-L400-830-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	38577
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	144
Total Luminaire Watts	267
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.05 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	35841	35922	36316
55	33090	34531	26031
65	31123	24931	25381
75	23855	15900	14689
85	13086	8469	9631

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	14031.292	14031.292	14031.292	14031.292	14031.292
5	13829.396	13825.532	13829.396	13834.226	13838.090
10	13816.838	13807.178	13816.838	13834.226	13834.226
15	13528.001	13545.389	13584.030	13588.860	13584.030
20	13002.492	13015.050	13037.268	13054.656	13054.656
25	12258.664	12293.441	12319.523	12271.222	12271.222
30	11549.613	11589.220	11558.307	11549.613	11544.783
35	10792.261	10844.426	10809.650	10831.868	10835.732
40	10311.189	10376.877	10323.747	10354.659	10385.571
45	9917.057	9969.221	9939.275	10013.658	10048.434
50	8765.573	8848.650	8927.863	8988.721	8932.693
55	7426.683	7553.231	7750.297	6096.488	5842.427
60	6223.035	6345.718	6350.548	5028.081	5050.299
65	5146.900	5212.589	4122.930	4245.613	4197.313
70	3772.268	3947.116	3225.507	2822.681	2262.395
75	2415.990	1995.776	1610.338	1641.251	1487.655
80	1343.720	1203.648	691.663	481.073	424.078
85	446.297	288.837	288.837	323.613	328.443
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	5139.41	N.A.	13.30
0-30	10813.17	N.A.	28.00
0-40	17642.71	N.A.	45.70
0-60	31651.23	N.A.	82.00
0-80	38179.96	N.A.	99.00
0-90	38577.18	N.A.	100.00
10-90	37254.92	N.A.	96.60
20-40	12503.3	N.A.	32.40
20-50	20081.98	N.A.	52.10
40-70	18516.82	N.A.	48.00
60-80	6528.73	N.A.	16.90
70-80	2020.43	N.A.	5.20
80-90	397.23	N.A.	1.00
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	38577.18	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1322.27
10-20	3817.14
20-30	5673.75
30-40	6829.54
40-50	7578.68
50-60	6429.84
60-70	4508.31
70-80	2020.43
80-90	397.23
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	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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	24.6	26.3	25.0	26.6	26.9	23.1	24.7	23.5	25.0	25.3
	3H	26.4	27.9	26.8	28.2	28.6	24.6	26.0	24.9	26.3	26.7
	4H	26.9	28.3	27.3	28.6	29.0	24.9	26.3	25.3	26.6	27.0
	6H	27.2	28.5	27.7	28.9	29.3	25.0	26.3	25.4	26.7	27.1
	8H	27.3	28.5	27.8	28.9	29.3	25.0	26.3	25.5	26.6	27.0
	12H	27.4	28.5	27.8	28.9	29.3	25.1	26.2	25.5	26.6	27.0
4H	2H	25.0	26.4	25.4	26.7	27.1	23.8	25.1	24.1	25.5	25.8
	3H	27.0	28.2	27.4	28.6	29.0	25.4	26.6	25.8	27.0	27.4
	4H	27.6	28.6	28.0	29.0	29.5	25.9	26.9	26.3	27.3	27.8
	6H	28.1	28.9	28.5	29.4	29.8	26.0	26.9	26.5	27.4	27.8
	8H	28.2	29.0	28.6	29.5	29.9	26.1	26.9	26.5	27.3	27.8
	12H	28.2	29.0	28.7	29.5	29.9	26.1	26.8	26.6	27.3	27.8
8H	4H	27.7	28.5	28.2	29.0	29.4	26.1	27.0	26.6	27.4	27.9
	6H	28.2	28.9	28.7	29.4	29.9	26.3	27.0	26.8	27.5	28.0
	8H	28.4	29.0	28.9	29.5	30.0	26.3	27.0	26.8	27.5	27.9
	12H	28.5	29.0	29.0	29.5	30.1	26.4	27.0	26.9	27.5	28.0
12H	4H	27.7	28.4	28.2	28.9	29.4	26.1	26.9	26.6	27.4	27.8
	6H	28.2	28.8	28.7	29.3	29.8	26.3	27.0	26.8	27.4	27.9
	8H	28.4	28.9	28.9	29.4	30.0	26.4	26.9	26.9	27.4	28.0

Maximum UGR = 30.1

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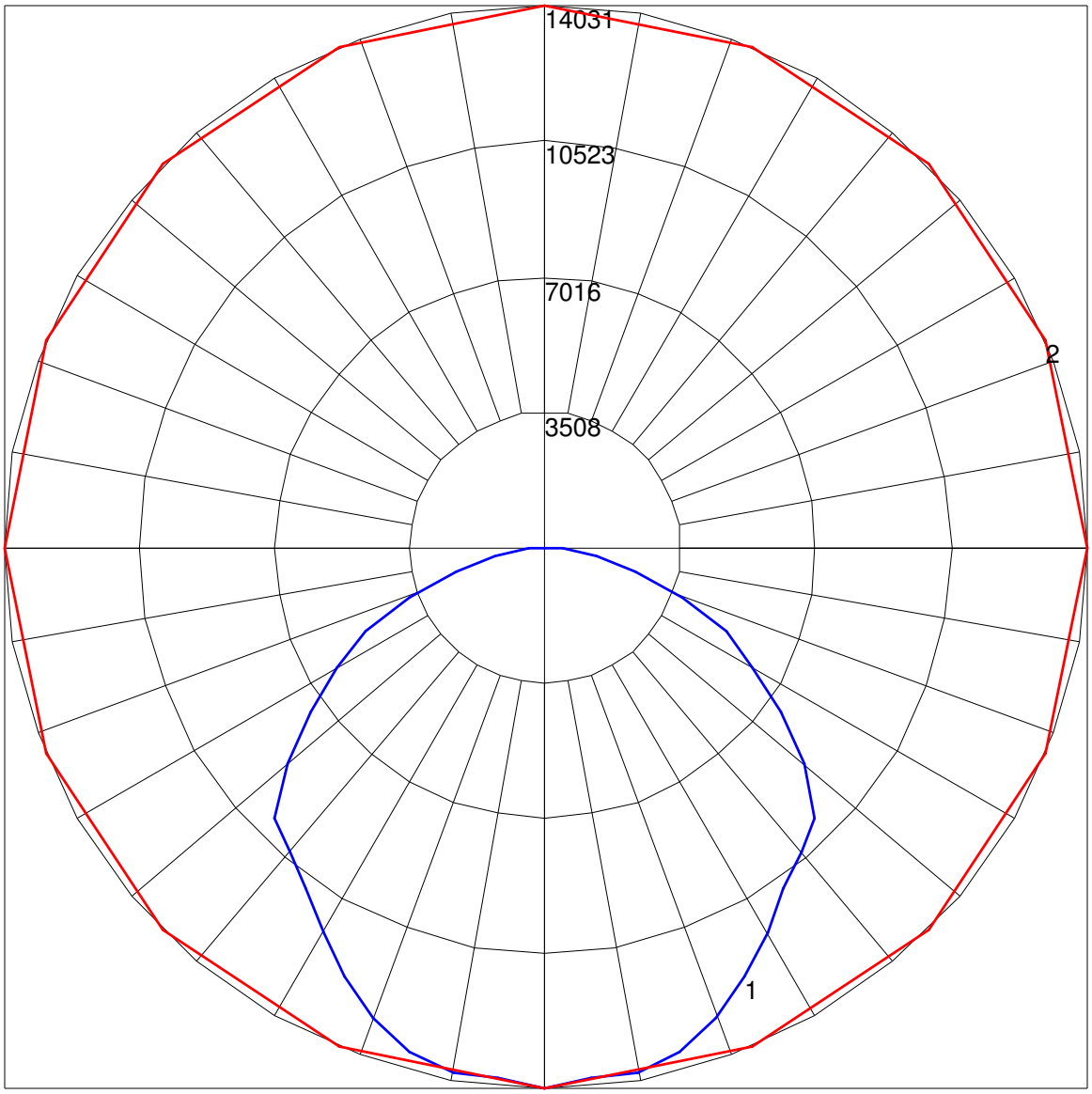
POLAR GRAPH



Maximum Candela = 14031.292 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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