H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-930-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-L300-930-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	22619
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
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	55709	5945	4395
55	38177	4413	3299
65	23103	3346	3395
75	11313	3696	3082
85	4337	1366	1366

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	22812.739	22812.739	22812.739	22812.739	22812.739
5	22302.785	22125.515	21770.167	21476.336	21306.352
10	22125.515	21399.438	19792.679	18410.948	18155.971
15	21824.400	20225.735	17167.632	14834.796	14062.581
20	22195.128	18526.699	12951.205	9452.761	8340.576
25	21190.600	15970.455	9483.520	6410.037	5498.596
30	20712.215	12803.885	5760.858	3537.298	3050.818
35	18889.333	9182.405	3405.358	2231.655	2023.626
40	17661.397	6294.286	2208.990	1675.562	1567.905
45	15267.852	3923.406	1629.424	1274.075	1204.462
50	11776.693	2633.142	1282.169	1042.572	981.054
55	8487.087	1954.013	981.054	802.975	733.362
60	5838.565	1389.826	764.931	671.844	625.705
65	3784.180	857.208	547.998	579.566	556.092
70	2239.749	617.611	471.100	486.480	432.246
75	1134.849	463.006	370.728	331.875	309.210
80	547.998	339.969	231.503	146.511	123.846
85	146.511	108.466	46.139	46.139	46.139
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	6852.97	N.A.	30.30
0-30	12017.36	N.A.	53.10
0-40	16078.83	N.A.	71.10
0-60	20928.52	N.A.	92.50
0-80	22506.9	N.A.	99.50
0-90	22619.01	N.A.	100.00
10-90	20592.93	N.A.	91.00
20-40	9225.86	N.A.	40.80
20-50	12172.97	N.A.	53.80
40-70	5917.72	N.A.	26.20
60-80	1578.39	N.A.	7.00
70-80	510.35	N.A.	2.30
80-90	112.11	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	22619.01	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2026.08
10-20	4826.89
20-30	5164.39
30-40	4061.46
40-50	2947.11
50-60	1902.58
60-70	1068.03
70-80	510.35
80-90	112.11
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	20.3	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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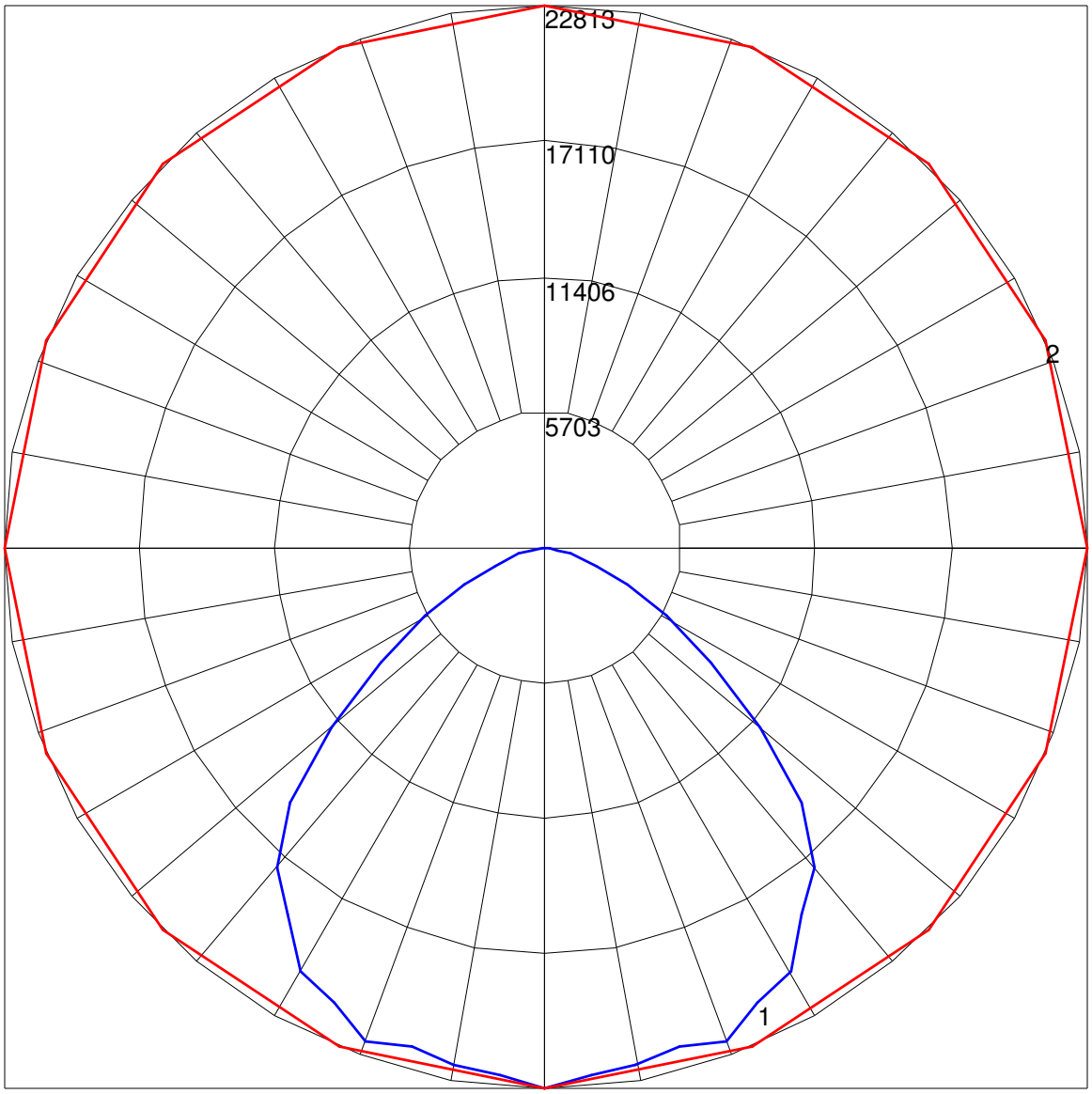
POLAR GRAPH



Maximum Candela = 22812.739 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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