H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-935-SCHA118-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19725.0
[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 REFLECTOR w/.118"THK CLEAR ACRYLIC LENS
[MORE] 0-10V UNIVERSAL VOLTAGE 122-277V DRIVERS
[LUMCAT] GL-4-L200-935-SCHA118-DIM-UNV_
[LAMPCAT] 22 INCH HLM LINEAR LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, High Bay
[_SEARCH_MOUNTING] Cable, Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	14870
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	133
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.34
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	15950	15623	11925
55	15133	11094	11239
65	12687	9839	9620
75	8237	5543	4093
85	1641	1675	1402

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	5572.581	5572.581	5572.581	5572.581	5572.581
5	5634.711	5570.457	5530.099	5509.389	5514.699
10	5585.325	5521.071	5487.086	5464.251	5471.686
15	5489.210	5443.010	5408.494	5370.791	5384.598
20	5368.136	5301.758	5274.144	5240.690	5261.400
25	5206.173	5121.209	5114.306	5098.906	5102.092
30	4986.329	4908.268	4912.516	4889.151	4902.958
35	4704.885	4612.487	4658.686	4647.534	4650.721
40	4389.987	4286.437	4308.209	4364.498	4356.001
45	4019.862	3923.216	3937.553	3639.117	3005.604
50	3576.987	3520.698	3528.133	2599.369	2624.328
55	3093.754	3063.486	2268.010	2299.340	2297.747
60	2556.356	2530.336	1895.761	1932.401	1932.401
65	1911.160	1941.960	1482.092	1533.070	1449.168
70	1303.136	1032.313	1057.272	972.839	768.925
75	759.897	596.873	511.377	468.895	377.559
80	302.153	262.858	192.231	157.184	146.032
85	50.978	45.668	52.040	52.572	43.544
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2057.19	N.A.	13.80
0-30	4418.52	N.A.	29.70
0-40	7325.31	N.A.	49.30
0-60	12573.15	N.A.	84.60
0-80	14786.5	N.A.	99.40
0-90	14870.26	N.A.	100.00
10-90	14342.17	N.A.	96.40
20-40	5268.12	N.A.	35.40
20-50	8167.74	N.A.	54.90
40-70	6853.66	N.A.	46.10
60-80	2213.35	N.A.	14.90
70-80	607.53	N.A.	4.10
80-90	83.76	N.A.	0.60
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	14870.26	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	528.09
10-20	1529.11
20-30	2361.33
30-40	2906.79
40-50	2899.63
50-60	2348.22
60-70	1605.82
70-80	607.53
80-90	83.76
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	53
5	78	65	57	50	76	64	56	50	62	55	50	60	54	49	58	53	49	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

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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	22.1	23.6	22.4	23.9	24.3	20.1	21.7	20.5	22.0	22.3
	3H	23.3	24.7	23.6	25.0	25.4	21.3	22.7	21.7	23.1	23.4
	4H	23.6	24.9	24.0	25.3	25.7	21.5	22.9	21.9	23.2	23.6
	6H	23.8	25.0	24.2	25.3	25.7	21.6	22.8	22.0	23.2	23.6
	8H	23.8	24.9	24.2	25.3	25.7	21.6	22.7	22.0	23.1	23.5
	12H	23.8	24.9	24.2	25.2	25.7	21.6	22.7	22.0	23.1	23.5
4H	2H	22.3	23.6	22.7	24.0	24.4	20.7	22.0	21.1	22.3	22.7
	3H	23.7	24.8	24.1	25.2	25.6	22.1	23.2	22.5	23.6	24.0
	4H	24.1	25.1	24.5	25.5	25.9	22.4	23.3	22.8	23.8	24.2
	6H	24.3	25.1	24.8	25.6	26.1	22.5	23.3	22.9	23.7	24.2
	8H	24.3	25.1	24.8	25.6	26.0	22.4	23.2	22.9	23.7	24.1
	12H	24.3	25.0	24.8	25.5	26.0	22.4	23.1	22.9	23.6	24.1
8H	4H	24.1	24.9	24.6	25.4	25.8	22.5	23.3	23.0	23.7	24.2
	6H	24.4	25.0	24.9	25.5	26.0	22.6	23.3	23.1	23.7	24.2
	8H	24.4	25.0	24.9	25.5	26.0	22.6	23.2	23.1	23.7	24.2
	12H	24.4	24.9	24.9	25.4	26.0	22.6	23.1	23.1	23.6	24.2
12H	4H	24.1	24.8	24.6	25.3	25.8	22.5	23.2	23.0	23.7	24.1
	6H	24.3	24.9	24.9	25.4	25.9	22.6	23.2	23.1	23.6	24.2
	8H	24.4	24.9	24.9	25.4	26.0	22.6	23.1	23.1	23.6	24.2

Maximum UGR = 26.1

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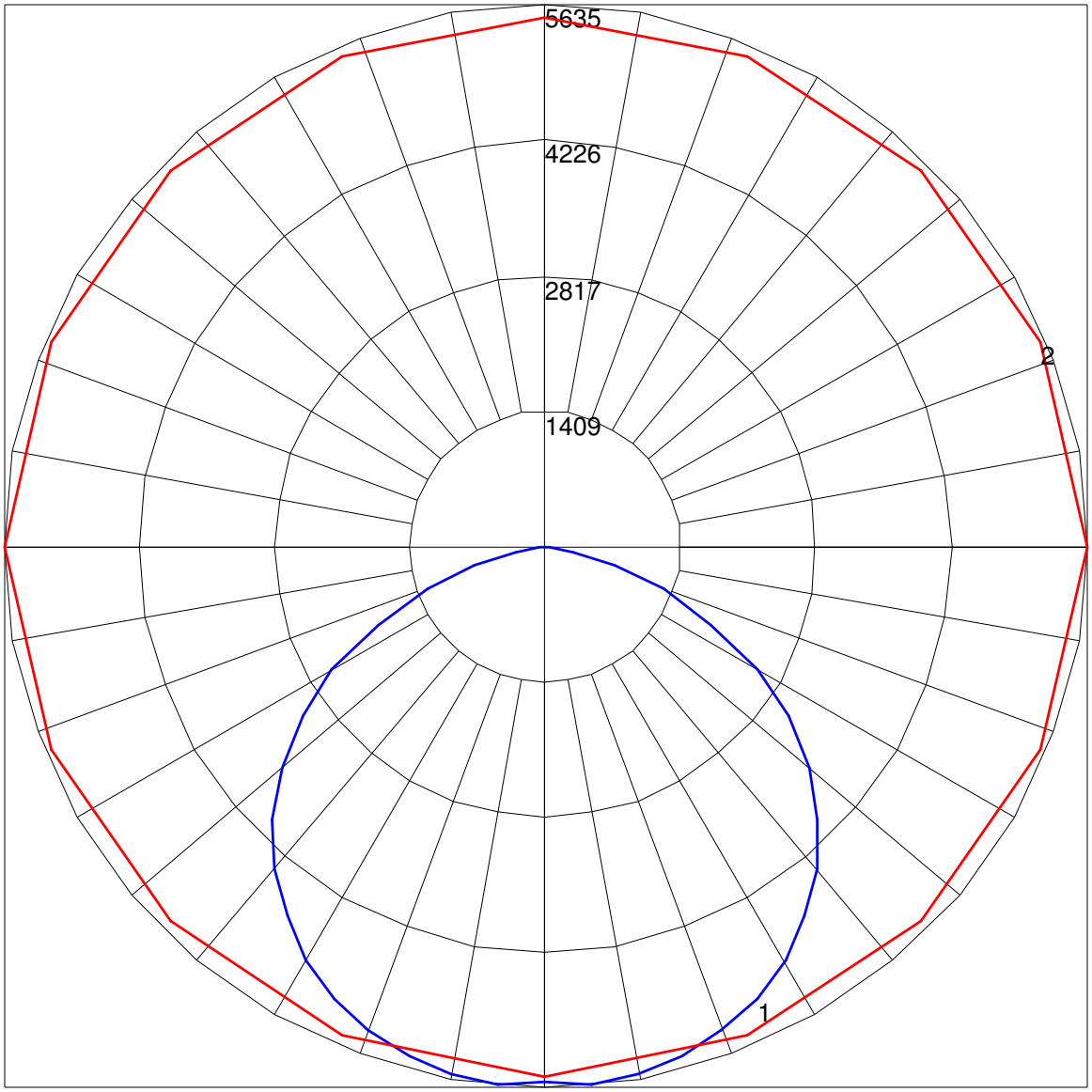
POLAR GRAPH



Maximum Candela = 5634.711 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)