H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-850-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-L150-850-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	15500
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	161
Total Luminaire Watts	96
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	14401	14433	14592
55	13295	13875	10459
65	12505	10017	10198
75	9585	6389	5902
85	5258	3403	3870

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	5637.770	5637.770	5637.770	5637.770	5637.770
5	5556.648	5555.095	5556.648	5558.589	5560.141
10	5551.602	5547.721	5551.602	5558.589	5558.589
15	5435.548	5442.534	5458.060	5460.000	5458.060
20	5224.398	5229.444	5238.371	5245.358	5245.358
25	4925.528	4939.501	4949.981	4930.574	4930.574
30	4640.632	4656.546	4644.125	4640.632	4638.691
35	4336.328	4357.288	4343.315	4352.242	4353.794
40	4143.033	4169.427	4148.079	4160.499	4172.920
45	3984.671	4005.631	3993.598	4023.485	4037.458
50	3522.005	3555.385	3587.213	3611.666	3589.154
55	2984.040	3034.886	3114.067	2449.567	2347.486
60	2500.414	2549.708	2551.649	2020.282	2029.209
65	2068.023	2094.417	1656.592	1705.886	1686.479
70	1515.696	1585.950	1296.008	1134.152	909.030
75	970.744	801.902	647.034	659.454	597.739
80	539.906	483.626	277.910	193.295	170.395
85	179.322	116.055	116.055	130.028	131.968
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2065.02	N.A.	13.30
0-30	4344.73	N.A.	28.00
0-40	7088.84	N.A.	45.70
0-60	12717.46	N.A.	82.00
0-80	15340.7	N.A.	99.00
0-90	15500.3	N.A.	100.00
10-90	14969.02	N.A.	96.60
20-40	5023.82	N.A.	32.40
20-50	8068.93	N.A.	52.10
40-70	7440.05	N.A.	48.00
60-80	2623.24	N.A.	16.90
70-80	811.81	N.A.	5.20
80-90	159.61	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	15500.3	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	531.29
10-20	1533.73
20-30	2279.71
30-40	2744.11
40-50	3045.11
50-60	2583.51
60-70	1811.44
70-80	811.81
80-90	159.61
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	21.4	23.1	21.8	23.4	23.7	19.9	21.5	20.3	21.8	22.1
	3H	23.2	24.7	23.6	25.0	25.4	21.4	22.8	21.7	23.1	23.5
	4H	23.7	25.1	24.1	25.4	25.8	21.7	23.1	22.1	23.4	23.8
	6H	24.0	25.3	24.5	25.7	26.1	21.8	23.1	22.2	23.5	23.9
	8H	24.1	25.3	24.6	25.7	26.1	21.8	23.1	22.3	23.4	23.8
	12H	24.2	25.3	24.6	25.7	26.1	21.9	23.0	22.3	23.4	23.8
4H	2H	21.8	23.2	22.2	23.5	23.9	20.6	21.9	20.9	22.3	22.6
	3H	23.8	25.0	24.2	25.4	25.8	22.2	23.4	22.6	23.8	24.2
	4H	24.4	25.4	24.8	25.8	26.3	22.7	23.7	23.1	24.1	24.6
	6H	24.9	25.7	25.3	26.2	26.6	22.8	23.7	23.3	24.2	24.6
	8H	25.0	25.8	25.4	26.3	26.7	22.9	23.7	23.3	24.1	24.6
	12H	25.0	25.8	25.5	26.3	26.7	22.9	23.6	23.4	24.1	24.6
8H	4H	24.5	25.3	25.0	25.8	26.2	22.9	23.8	23.4	24.2	24.7
	6H	25.0	25.7	25.5	26.2	26.7	23.1	23.8	23.6	24.3	24.8
	8H	25.2	25.8	25.7	26.3	26.8	23.1	23.8	23.6	24.3	24.7
	12H	25.3	25.8	25.8	26.3	26.9	23.2	23.8	23.7	24.3	24.8
12H	4H	24.5	25.2	25.0	25.7	26.2	22.9	23.7	23.4	24.2	24.6
	6H	25.0	25.6	25.5	26.1	26.6	23.1	23.8	23.6	24.2	24.7
	8H	25.2	25.7	25.7	26.2	26.8	23.2	23.7	23.7	24.2	24.8

Maximum UGR = 26.9

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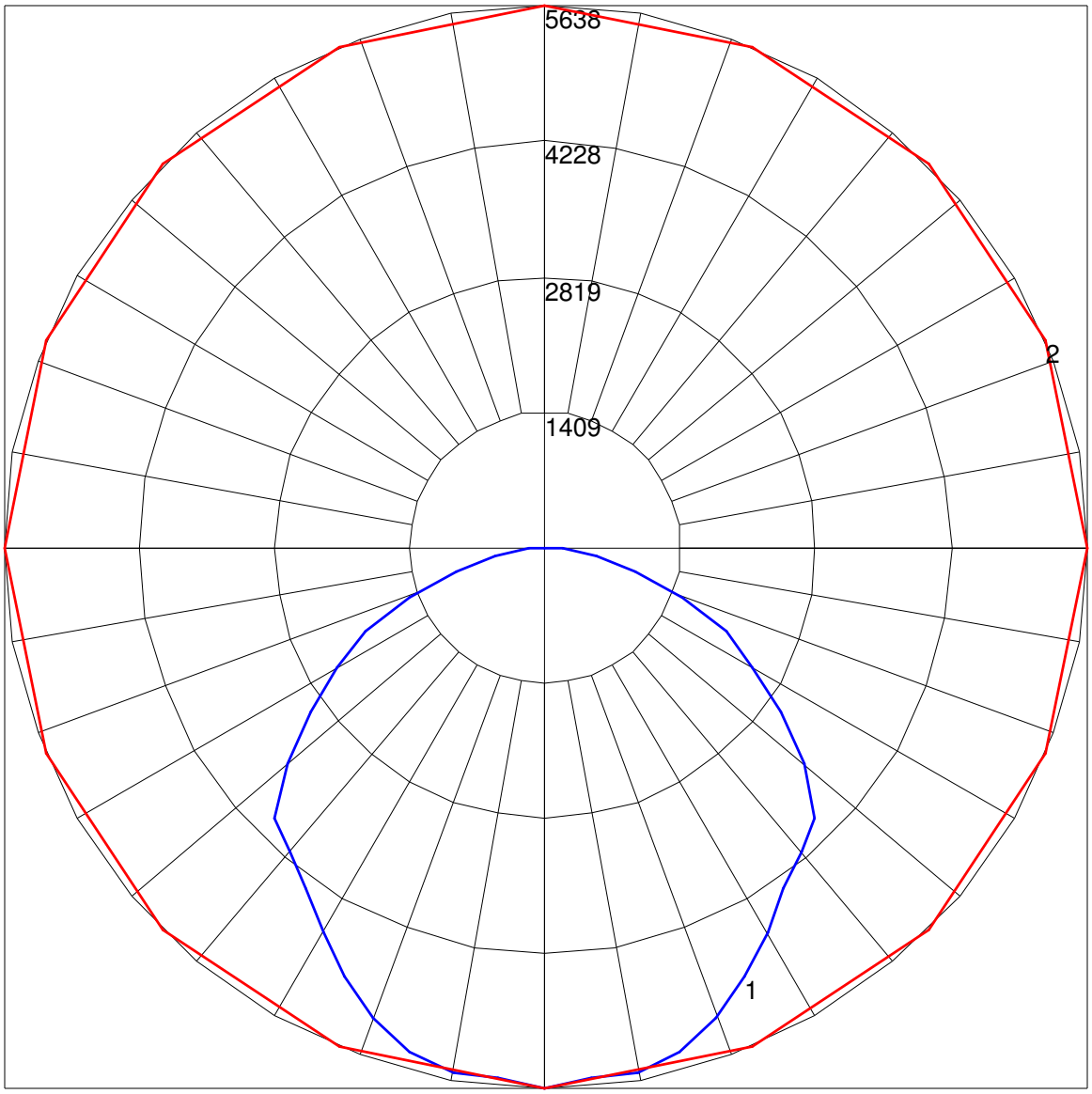
POLAR GRAPH



Maximum Candela = 5637.77 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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