H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-940-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-L150-940-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	12491
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
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	11605	11631	11758
55	10714	11181	8428
65	10077	8072	8218
75	7724	5148	4756
85	4237	2742	3118

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4543.057	4543.057	4543.057	4543.057	4543.057
5	4477.687	4476.436	4477.687	4479.251	4480.502
10	4473.621	4470.493	4473.621	4479.251	4479.251
15	4380.101	4385.731	4398.242	4399.806	4398.242
20	4209.951	4214.017	4221.211	4226.841	4226.841
25	3969.115	3980.374	3988.819	3973.181	3973.181
30	3739.538	3752.362	3742.353	3739.538	3737.974
35	3494.322	3511.212	3499.952	3507.146	3508.397
40	3338.560	3359.829	3342.626	3352.635	3362.644
45	3210.948	3227.838	3218.142	3242.226	3253.485
50	2838.120	2865.019	2890.666	2910.371	2892.230
55	2404.614	2445.588	2509.394	1973.923	1891.663
60	2014.896	2054.619	2056.183	1627.994	1635.188
65	1666.465	1687.734	1334.924	1374.646	1359.007
70	1221.386	1277.999	1044.356	913.929	732.519
75	782.250	646.193	521.396	531.405	481.673
80	435.070	389.718	223.947	155.762	137.308
85	144.502	93.520	93.520	104.780	106.343
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1664.04	N.A.	13.30
0-30	3501.09	N.A.	28.00
0-40	5712.36	N.A.	45.70
0-60	10248.05	N.A.	82.00
0-80	12361.92	N.A.	99.00
0-90	12490.54	N.A.	100.00
10-90	12062.41	N.A.	96.60
20-40	4048.32	N.A.	32.40
20-50	6502.15	N.A.	52.10
40-70	5995.38	N.A.	48.00
60-80	2113.88	N.A.	16.90
70-80	654.17	N.A.	5.20
80-90	128.61	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	12490.54	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	428.12
10-20	1235.92
20-30	1837.05
30-40	2211.27
40-50	2453.83
50-60	2081.85
60-70	1459.7
70-80	654.17
80-90	128.61
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	20.7	22.4	21.1	22.7	23.0	19.2	20.8	19.6	21.1	21.4
	3H	22.5	24.0	22.9	24.3	24.7	20.7	22.1	21.0	22.4	22.8
	4H	23.0	24.4	23.4	24.7	25.1	21.0	22.4	21.4	22.7	23.1
	6H	23.3	24.6	23.8	25.0	25.4	21.1	22.4	21.5	22.8	23.2
	8H	23.4	24.6	23.9	25.0	25.4	21.1	22.4	21.6	22.7	23.1
	12H	23.5	24.6	23.9	25.0	25.4	21.2	22.3	21.6	22.7	23.1
4H	2H	21.1	22.5	21.5	22.8	23.2	19.9	21.2	20.2	21.6	21.9
	3H	23.1	24.3	23.5	24.7	25.1	21.5	22.7	21.9	23.1	23.5
	4H	23.7	24.7	24.1	25.1	25.6	22.0	23.0	22.4	23.4	23.9
	6H	24.2	25.0	24.6	25.5	25.9	22.1	23.0	22.6	23.5	23.9
	8H	24.3	25.1	24.7	25.6	26.0	22.2	23.0	22.6	23.4	23.9
	12H	24.3	25.1	24.8	25.6	26.0	22.2	22.9	22.7	23.4	23.9
8H	4H	23.8	24.6	24.3	25.1	25.5	22.2	23.1	22.7	23.5	24.0
	6H	24.3	25.0	24.8	25.5	26.0	22.4	23.1	22.9	23.6	24.1
	8H	24.5	25.1	25.0	25.6	26.1	22.4	23.1	22.9	23.6	24.0
	12H	24.6	25.1	25.1	25.6	26.2	22.5	23.1	23.0	23.6	24.1
12H	4H	23.8	24.5	24.3	25.0	25.5	22.2	23.0	22.7	23.5	23.9
	6H	24.3	24.9	24.8	25.4	25.9	22.4	23.1	22.9	23.5	24.0
	8H	24.5	25.0	25.0	25.5	26.1	22.5	23.0	23.0	23.5	24.1

Maximum UGR = 26.2

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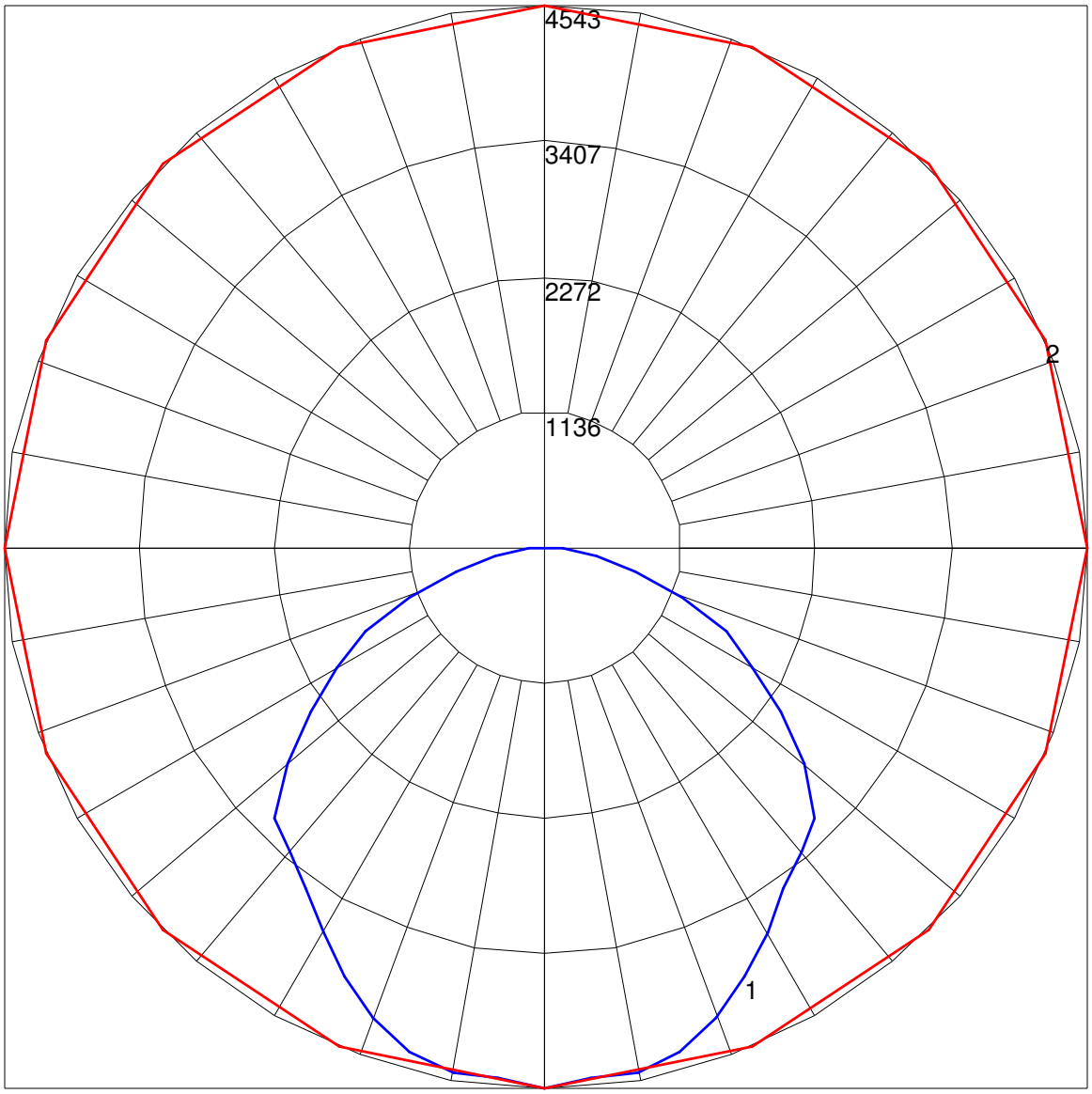
POLAR GRAPH



Maximum Candela = 4543.057 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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