H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-930-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-L150-930-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	11889
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
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	11045	11070	11192
55	10197	10642	8022
65	9591	7683	7822
75	7352	4900	4527
85	4033	2610	2968

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4324.114	4324.114	4324.114	4324.114	4324.114
5	4261.895	4260.704	4261.895	4263.383	4264.574
10	4258.025	4255.048	4258.025	4263.383	4263.383
15	4169.012	4174.371	4186.279	4187.767	4186.279
20	4007.062	4010.932	4017.780	4023.138	4023.138
25	3777.832	3788.549	3796.587	3781.702	3781.702
30	3559.319	3571.525	3561.999	3559.319	3557.831
35	3325.921	3341.997	3331.280	3338.127	3339.318
40	3177.666	3197.910	3181.536	3191.062	3200.589
45	3056.204	3072.280	3063.051	3085.974	3096.691
50	2701.343	2726.946	2751.357	2770.113	2752.846
55	2288.729	2327.728	2388.459	1878.794	1800.499
60	1917.793	1955.601	1957.090	1549.536	1556.383
65	1586.154	1606.397	1270.590	1308.398	1293.513
70	1162.524	1216.408	994.025	869.884	697.217
75	744.551	615.051	496.268	505.795	458.460
80	414.103	370.936	213.154	148.255	130.691
85	137.538	89.013	89.013	99.730	101.219
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1583.85	N.A.	13.30
0-30	3332.36	N.A.	28.00
0-40	5437.07	N.A.	45.70
0-60	9754.16	N.A.	82.00
0-80	11766.17	N.A.	99.00
0-90	11888.58	N.A.	100.00
10-90	11481.09	N.A.	96.60
20-40	3853.22	N.A.	32.40
20-50	6188.79	N.A.	52.10
40-70	5706.45	N.A.	48.00
60-80	2012.00	N.A.	16.90
70-80	622.65	N.A.	5.20
80-90	122.42	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	11888.58	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	407.49
10-20	1176.35
20-30	1748.52
30-40	2104.71
40-50	2335.57
50-60	1981.52
60-70	1389.35
70-80	622.65
80-90	122.42
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	20.5	22.2	20.9	22.5	22.8	19.0	20.6	19.4	20.9	21.2
	3H	22.3	23.8	22.7	24.1	24.5	20.5	21.9	20.8	22.2	22.6
	4H	22.8	24.2	23.2	24.5	24.9	20.8	22.2	21.2	22.5	22.9
	6H	23.1	24.4	23.6	24.8	25.2	20.9	22.2	21.3	22.6	23.0
	8H	23.2	24.4	23.7	24.8	25.2	20.9	22.2	21.4	22.5	22.9
	12H	23.3	24.4	23.7	24.8	25.2	21.0	22.1	21.4	22.5	22.9
4H	2H	20.9	22.3	21.3	22.6	23.0	19.7	21.0	20.0	21.4	21.7
	3H	22.9	24.1	23.3	24.5	24.9	21.3	22.5	21.7	22.9	23.3
	4H	23.5	24.5	23.9	24.9	25.4	21.8	22.8	22.2	23.2	23.7
	6H	24.0	24.8	24.4	25.3	25.7	21.9	22.8	22.4	23.3	23.7
	8H	24.1	24.9	24.5	25.4	25.8	22.0	22.8	22.4	23.2	23.7
	12H	24.1	24.9	24.6	25.4	25.8	22.0	22.7	22.5	23.2	23.7
8H	4H	23.6	24.4	24.1	24.9	25.3	22.0	22.9	22.5	23.3	23.8
	6H	24.1	24.8	24.6	25.3	25.8	22.2	22.9	22.7	23.4	23.9
	8H	24.3	24.9	24.8	25.4	25.9	22.2	22.9	22.7	23.4	23.8
	12H	24.4	24.9	24.9	25.4	26.0	22.3	22.9	22.8	23.4	23.9
12H	4H	23.6	24.3	24.1	24.8	25.3	22.0	22.8	22.5	23.3	23.7
	6H	24.1	24.7	24.6	25.2	25.7	22.2	22.9	22.7	23.3	23.8
	8H	24.3	24.8	24.8	25.3	25.9	22.3	22.8	22.8	23.3	23.9

Maximum UGR = 26.0

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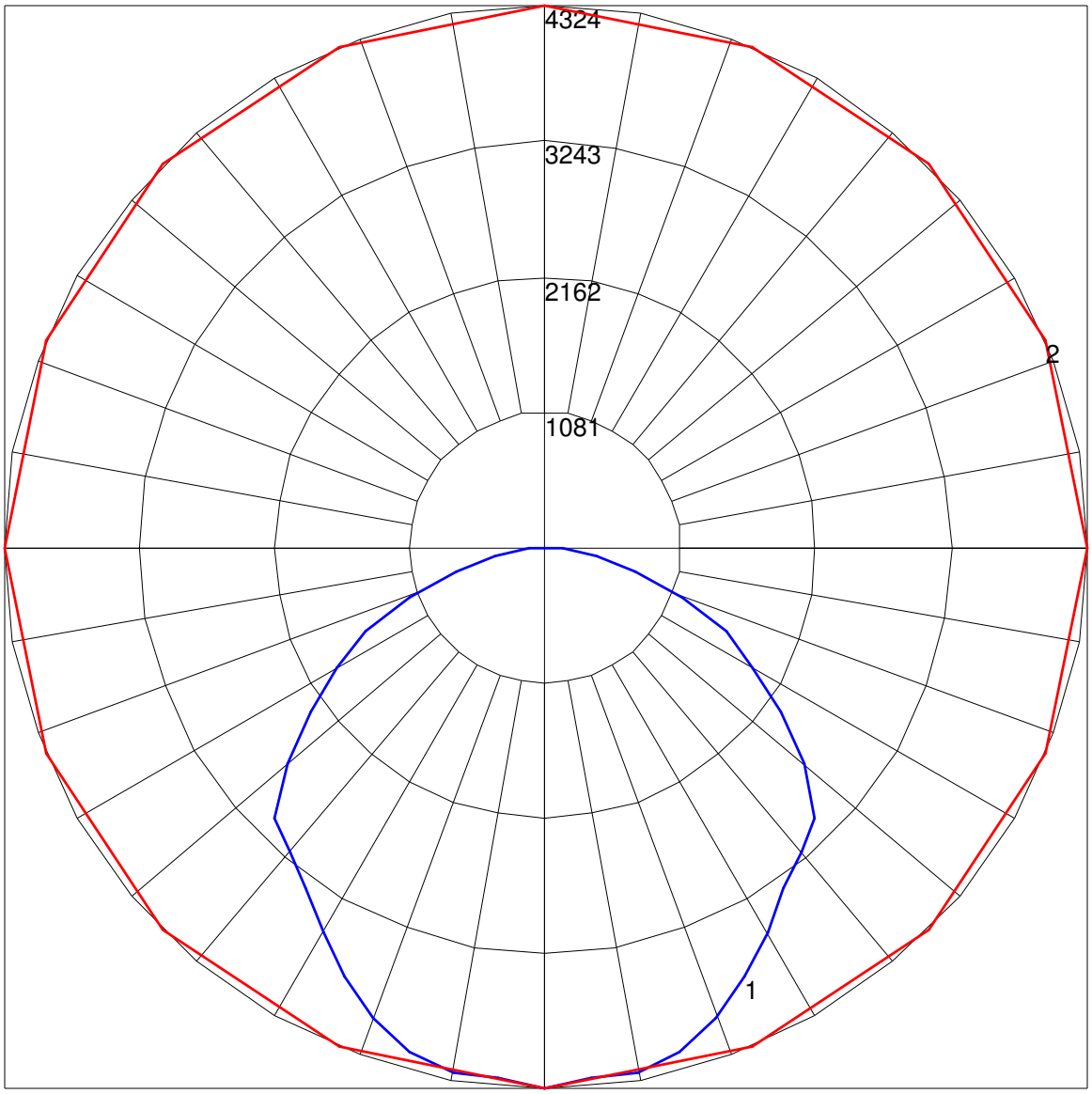
POLAR GRAPH



Maximum Candela = 4324.114 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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