H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-935-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-L300-935-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	24111
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	200
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	22401	22451	22698
55	20681	21582	16269
65	19452	15582	15863
75	14910	9938	9181
85	8179	5293	6019

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	8769.630	8769.630	8769.630	8769.630	8769.630
5	8643.444	8641.029	8643.444	8646.462	8648.877
10	8635.595	8629.557	8635.595	8646.462	8646.462
15	8455.070	8465.938	8490.088	8493.107	8490.088
20	8126.624	8134.473	8148.359	8159.227	8159.227
25	7661.728	7683.463	7699.765	7669.577	7669.577
30	7218.567	7243.322	7224.001	7218.567	7215.549
35	6745.219	6777.822	6756.086	6769.973	6772.388
40	6444.546	6485.601	6452.395	6471.715	6491.035
45	6198.211	6230.814	6212.098	6258.587	6280.323
50	5478.528	5530.451	5579.960	5617.997	5582.979
55	4641.715	4720.808	4843.975	3810.336	3651.547
60	3889.429	3966.107	3969.125	3142.576	3156.463
65	3216.839	3257.895	2576.852	2653.530	2623.342
70	2357.687	2466.968	2015.958	1764.190	1414.008
75	1510.006	1247.370	1006.470	1025.790	929.792
80	839.832	752.286	432.293	300.673	265.051
85	278.938	180.525	180.525	202.260	205.279
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3212.16	N.A.	13.30
0-30	6758.29	N.A.	28.00
0-40	11026.79	N.A.	45.70
0-60	19782.18	N.A.	82.00
0-80	23862.67	N.A.	99.00
0-90	24110.94	N.A.	100.00
10-90	23284.51	N.A.	96.60
20-40	7814.63	N.A.	32.40
20-50	12551.34	N.A.	52.10
40-70	11573.11	N.A.	48.00
60-80	4080.49	N.A.	16.90
70-80	1262.78	N.A.	5.20
80-90	248.27	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	24110.94	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	826.43
10-20	2385.73
20-30	3546.13
30-40	4268.5
40-50	4736.71
50-60	4018.68
60-70	2817.71
70-80	1262.78
80-90	248.27
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	23.0	24.7	23.4	25.0	25.3	21.5	23.1	21.9	23.4	23.7
	3H	24.8	26.3	25.2	26.6	27.0	23.0	24.4	23.3	24.7	25.1
	4H	25.3	26.7	25.7	27.0	27.4	23.3	24.7	23.7	25.0	25.4
	6H	25.6	26.9	26.1	27.3	27.7	23.4	24.7	23.8	25.1	25.5
	8H	25.7	26.9	26.2	27.3	27.7	23.4	24.7	23.9	25.0	25.4
	12H	25.8	26.9	26.2	27.3	27.7	23.5	24.6	23.9	25.0	25.4
4H	2H	23.4	24.8	23.8	25.1	25.5	22.2	23.5	22.5	23.9	24.2
	3H	25.4	26.6	25.8	27.0	27.4	23.8	25.0	24.2	25.4	25.8
	4H	26.0	27.0	26.4	27.4	27.9	24.3	25.3	24.7	25.7	26.2
	6H	26.5	27.3	26.9	27.8	28.2	24.4	25.3	24.9	25.8	26.2
	8H	26.6	27.4	27.0	27.9	28.3	24.5	25.3	24.9	25.7	26.2
	12H	26.6	27.4	27.1	27.9	28.3	24.5	25.2	25.0	25.7	26.2
8H	4H	26.1	26.9	26.6	27.4	27.8	24.5	25.4	25.0	25.8	26.3
	6H	26.6	27.3	27.1	27.8	28.3	24.7	25.4	25.2	25.9	26.4
	8H	26.8	27.4	27.3	27.9	28.4	24.7	25.4	25.2	25.9	26.3
	12H	26.9	27.4	27.4	27.9	28.5	24.8	25.4	25.3	25.9	26.4
12H	4H	26.1	26.8	26.6	27.3	27.8	24.5	25.3	25.0	25.8	26.2
	6H	26.6	27.2	27.1	27.7	28.2	24.7	25.4	25.2	25.8	26.3
	8H	26.8	27.3	27.3	27.8	28.4	24.8	25.3	25.3	25.8	26.4

Maximum UGR = 28.5

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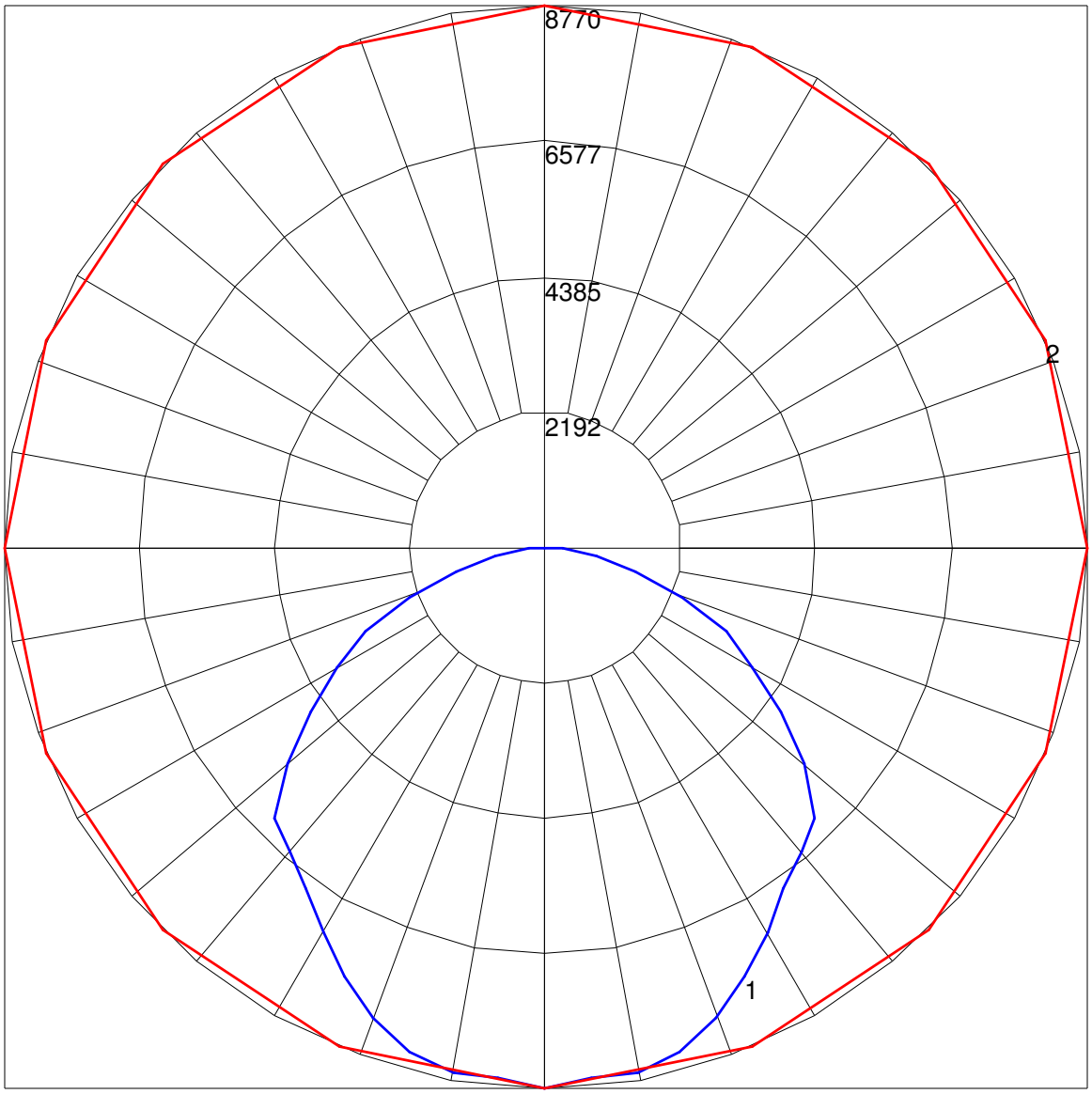
POLAR GRAPH



Maximum Candela = 8769.63 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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