H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-930-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-L300-930-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	23810
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
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	22121	22171	22414
55	20423	21313	16066
65	19209	15387	15665
75	14723	9814	9066
85	8077	5227	5944

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	8660.010	8660.010	8660.010	8660.010	8660.010
5	8535.401	8533.016	8535.401	8538.382	8540.767
10	8527.650	8521.688	8527.650	8538.382	8538.382
15	8349.382	8360.114	8383.963	8386.944	8383.963
20	8025.042	8032.793	8046.506	8057.238	8057.238
25	7565.957	7587.421	7603.519	7573.708	7573.708
30	7128.336	7152.781	7133.702	7128.336	7125.355
35	6660.904	6693.100	6671.636	6685.349	6687.734
40	6363.989	6404.532	6371.740	6390.819	6409.898
45	6120.734	6152.930	6134.447	6180.356	6201.819
50	5410.047	5461.321	5510.211	5547.772	5513.192
55	4583.694	4661.798	4783.426	3762.707	3605.903
60	3840.811	3916.531	3919.512	3103.294	3117.007
65	3176.629	3217.171	2544.642	2620.361	2590.550
70	2328.216	2436.131	1990.759	1742.138	1396.333
75	1491.132	1231.778	993.889	1012.968	918.170
80	829.334	742.883	426.889	296.915	261.738
85	275.451	178.268	178.268	199.732	202.713
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3172.01	N.A.	13.30
0-30	6673.81	N.A.	28.00
0-40	10888.95	N.A.	45.70
0-60	19534.9	N.A.	82.00
0-80	23564.39	N.A.	99.00
0-90	23809.55	N.A.	100.00
10-90	22993.46	N.A.	96.60
20-40	7716.94	N.A.	32.40
20-50	12394.45	N.A.	52.10
40-70	11428.45	N.A.	48.00
60-80	4029.49	N.A.	16.90
70-80	1246.99	N.A.	5.20
80-90	245.16	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	23809.55	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	816.09
10-20	2355.91
20-30	3501.8
30-40	4215.14
40-50	4677.5
50-60	3968.45
60-70	2782.49
70-80	1246.99
80-90	245.16
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	22.9	24.6	23.3	24.9	25.2	21.4	23.0	21.8	23.3	23.6
	3H	24.7	26.2	25.1	26.5	26.9	22.9	24.3	23.2	24.6	25.0
	4H	25.2	26.6	25.6	26.9	27.3	23.2	24.6	23.6	24.9	25.3
	6H	25.5	26.8	26.0	27.2	27.6	23.3	24.6	23.7	25.0	25.4
	8H	25.6	26.8	26.1	27.2	27.6	23.3	24.6	23.8	24.9	25.3
	12H	25.7	26.8	26.1	27.2	27.6	23.4	24.5	23.8	24.9	25.3
4H	2H	23.3	24.7	23.7	25.0	25.4	22.1	23.4	22.4	23.8	24.1
	3H	25.3	26.5	25.7	26.9	27.3	23.7	24.9	24.1	25.3	25.7
	4H	25.9	26.9	26.3	27.3	27.8	24.2	25.2	24.6	25.6	26.1
	6H	26.4	27.2	26.8	27.7	28.1	24.3	25.2	24.8	25.7	26.1
	8H	26.5	27.3	26.9	27.8	28.2	24.4	25.2	24.8	25.6	26.1
	12H	26.5	27.3	27.0	27.8	28.2	24.4	25.1	24.9	25.6	26.1
8H	4H	26.0	26.8	26.5	27.3	27.7	24.4	25.3	24.9	25.7	26.2
	6H	26.5	27.2	27.0	27.7	28.2	24.6	25.3	25.1	25.8	26.3
	8H	26.7	27.3	27.2	27.8	28.3	24.6	25.3	25.1	25.8	26.2
	12H	26.8	27.3	27.3	27.8	28.4	24.7	25.3	25.2	25.8	26.3
12H	4H	26.0	26.7	26.5	27.2	27.7	24.4	25.2	24.9	25.7	26.1
	6H	26.5	27.1	27.0	27.6	28.1	24.6	25.3	25.1	25.7	26.2
	8H	26.7	27.2	27.2	27.7	28.3	24.7	25.2	25.2	25.7	26.3

Maximum UGR = 28.4

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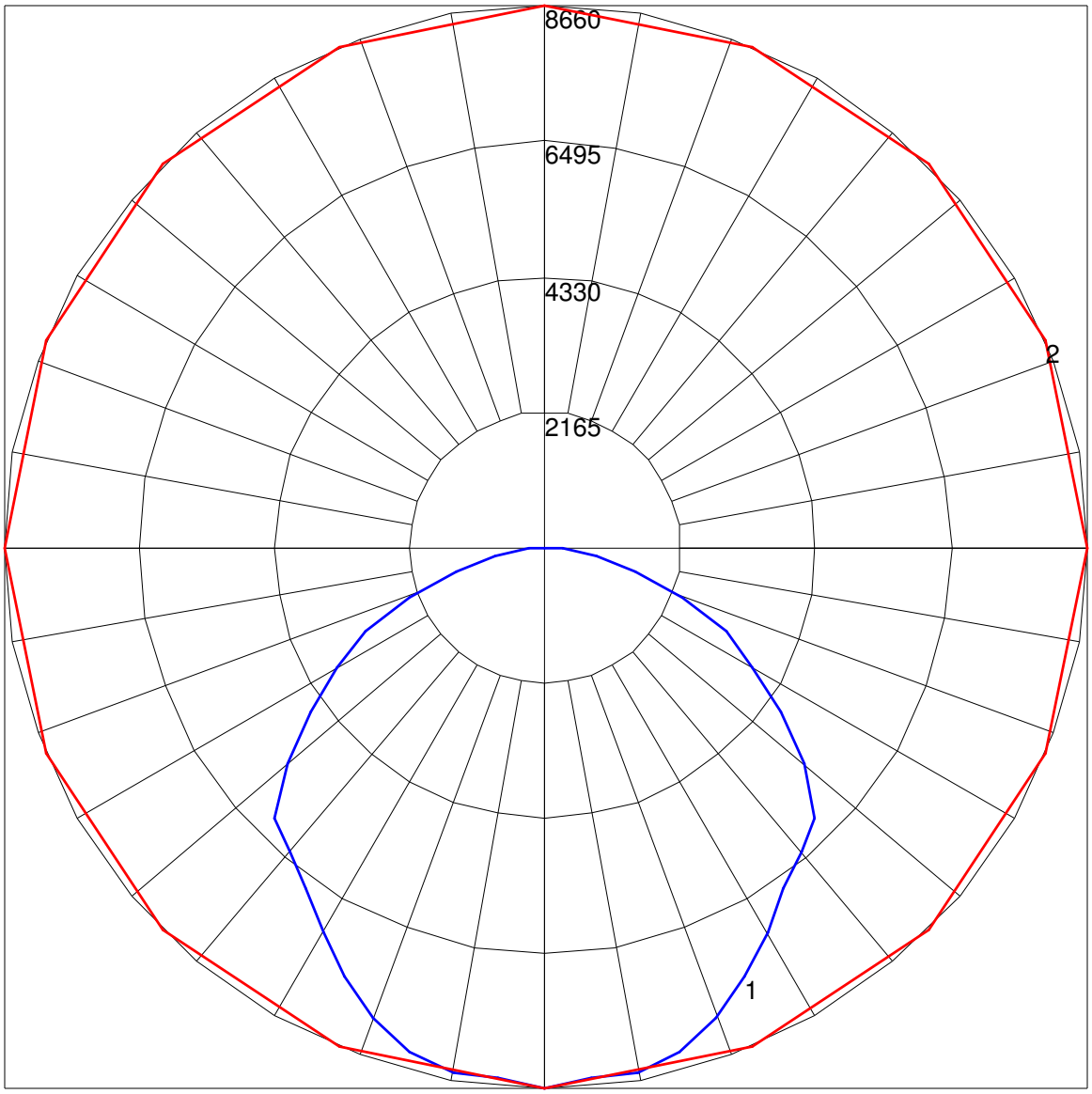
POLAR GRAPH



Maximum Candela = 8660.01 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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