H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-950-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-L150-950-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	12942
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
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	12024	12051	12183
55	11101	11585	8733
65	10441	8364	8515
75	8003	5334	4928
85	4390	2841	3231

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4707.264	4707.264	4707.264	4707.264	4707.264
5	4639.531	4638.235	4639.531	4641.151	4642.448
10	4635.318	4632.077	4635.318	4641.151	4641.151
15	4538.418	4544.251	4557.215	4558.835	4557.215
20	4362.118	4366.331	4373.785	4379.619	4379.619
25	4112.577	4124.243	4132.994	4116.790	4116.790
30	3874.702	3887.989	3877.619	3874.702	3873.081
35	3620.623	3638.123	3626.456	3633.910	3635.207
40	3459.231	3481.269	3463.444	3473.815	3484.185
45	3327.006	3344.507	3334.460	3359.414	3371.081
50	2940.703	2968.574	2995.148	3015.565	2996.769
55	2491.528	2533.982	2600.095	2045.270	1960.037
60	2087.724	2128.882	2130.503	1686.837	1694.291
65	1726.699	1748.736	1383.174	1424.332	1408.128
70	1265.533	1324.191	1082.103	946.962	758.996
75	810.524	669.550	540.242	550.612	499.083
80	450.795	403.804	232.041	161.392	142.271
85	149.725	96.900	96.900	108.567	110.187
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1724.19	N.A.	13.30
0-30	3627.64	N.A.	28.00
0-40	5918.83	N.A.	45.70
0-60	10618.46	N.A.	82.00
0-80	12808.74	N.A.	99.00
0-90	12942.00	N.A.	100.00
10-90	12498.4	N.A.	96.60
20-40	4194.65	N.A.	32.40
20-50	6737.17	N.A.	52.10
40-70	6212.08	N.A.	48.00
60-80	2190.28	N.A.	16.90
70-80	677.82	N.A.	5.20
80-90	133.26	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	12942.00	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	443.60
10-20	1280.59
20-30	1903.45
30-40	2291.2
40-50	2542.52
50-60	2157.1
60-70	1512.46
70-80	677.82
80-90	133.26
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	20.8	22.5	21.2	22.8	23.1	19.3	20.9	19.7	21.2	21.5
	3H	22.6	24.1	23.0	24.4	24.8	20.8	22.2	21.1	22.5	22.9
	4H	23.1	24.5	23.5	24.8	25.2	21.1	22.5	21.5	22.8	23.2
	6H	23.4	24.7	23.9	25.1	25.5	21.2	22.5	21.6	22.9	23.3
	8H	23.5	24.7	24.0	25.1	25.5	21.2	22.5	21.7	22.8	23.2
	12H	23.6	24.7	24.0	25.1	25.5	21.3	22.4	21.7	22.8	23.2
4H	2H	21.2	22.6	21.6	22.9	23.3	20.0	21.3	20.3	21.7	22.0
	3H	23.2	24.4	23.6	24.8	25.2	21.6	22.8	22.0	23.2	23.6
	4H	23.8	24.8	24.2	25.2	25.7	22.1	23.1	22.5	23.5	24.0
	6H	24.3	25.1	24.7	25.6	26.0	22.2	23.1	22.7	23.6	24.0
	8H	24.4	25.2	24.8	25.7	26.1	22.3	23.1	22.7	23.5	24.0
	12H	24.4	25.2	24.9	25.7	26.1	22.3	23.0	22.8	23.5	24.0
8H	4H	23.9	24.7	24.4	25.2	25.6	22.3	23.2	22.8	23.6	24.1
	6H	24.4	25.1	24.9	25.6	26.1	22.5	23.2	23.0	23.7	24.2
	8H	24.6	25.2	25.1	25.7	26.2	22.5	23.2	23.0	23.7	24.1
	12H	24.7	25.2	25.2	25.7	26.3	22.6	23.2	23.1	23.7	24.2
12H	4H	23.9	24.6	24.4	25.1	25.6	22.3	23.1	22.8	23.6	24.0
	6H	24.4	25.0	24.9	25.5	26.0	22.5	23.2	23.0	23.6	24.1
	8H	24.6	25.1	25.1	25.6	26.2	22.6	23.1	23.1	23.6	24.2

Maximum UGR = 26.3

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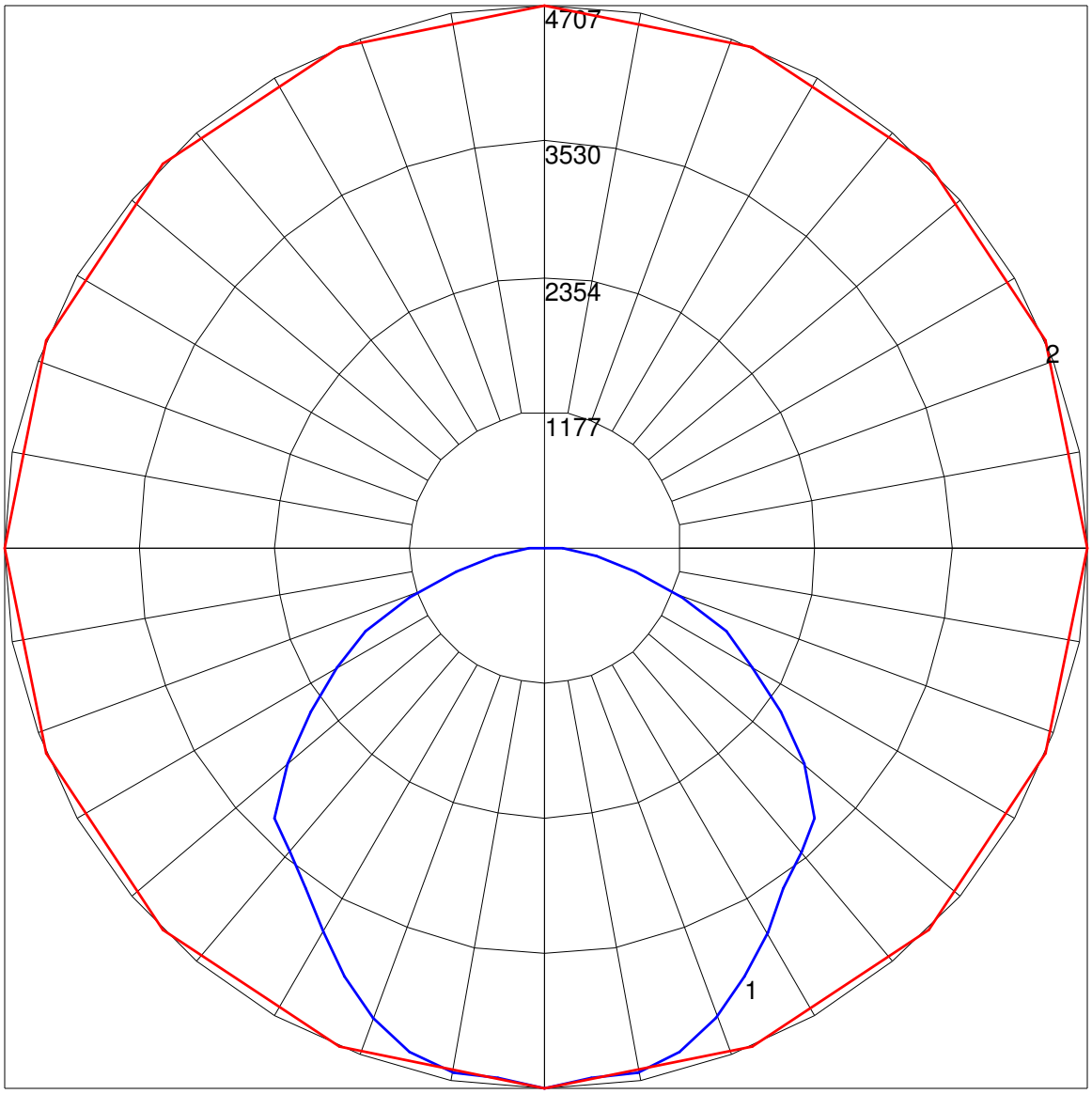
POLAR GRAPH



Maximum Candela = 4707.264 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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