H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L400-950-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-L400-950-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	34559
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	267
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	32108	32180	32533
55	29643	30934	23319
65	27881	22334	22737
75	21370	14244	13159
85	11723	7587	8627

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	12569.698	12569.698	12569.698	12569.698	12569.698
5	12388.833	12385.371	12388.833	12393.160	12396.621
10	12377.583	12368.929	12377.583	12393.160	12393.160
15	12118.833	12134.410	12169.025	12173.352	12169.025
20	11648.064	11659.314	11679.218	11694.795	11694.795
25	10981.719	11012.873	11036.238	10992.969	10992.969
30	10346.527	10382.008	10354.316	10346.527	10342.200
35	9668.067	9714.797	9683.643	9703.547	9707.009
40	9237.105	9295.952	9248.355	9276.048	9303.740
45	8884.029	8930.760	8903.933	8970.567	9001.721
50	7852.492	7926.915	7997.876	8052.395	8002.203
55	6653.070	6766.435	6942.973	5461.436	5233.841
60	5574.802	5684.705	5689.032	4504.322	4524.226
65	4610.764	4669.610	3693.458	3803.361	3760.092
70	3379.323	3535.958	2889.516	2528.651	2026.729
75	2164.325	1787.883	1442.595	1470.287	1332.691
80	1203.749	1078.268	619.615	430.961	379.903
85	399.807	258.750	258.750	289.904	294.230
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4604.06	N.A.	13.30
0-30	9686.8	N.A.	28.00
0-40	15804.93	N.A.	45.70
0-60	28354.22	N.A.	82.00
0-80	34202.88	N.A.	99.00
0-90	34558.73	N.A.	100.00
10-90	33374.19	N.A.	96.60
20-40	11200.87	N.A.	32.40
20-50	17990.1	N.A.	52.10
40-70	16587.98	N.A.	48.00
60-80	5848.66	N.A.	16.90
70-80	1809.97	N.A.	5.20
80-90	355.85	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	34558.73	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1184.53
10-20	3419.52
20-30	5082.74
30-40	6118.13
40-50	6789.23
50-60	5760.06
60-70	4038.69
70-80	1809.97
80-90	355.85
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	24.2	25.9	24.6	26.2	26.5	22.7	24.3	23.1	24.6	24.9
	3H	26.0	27.5	26.4	27.8	28.2	24.2	25.6	24.5	25.9	26.3
	4H	26.5	27.9	26.9	28.2	28.6	24.5	25.9	24.9	26.2	26.6
	6H	26.8	28.1	27.3	28.5	28.9	24.6	25.9	25.0	26.3	26.7
	8H	26.9	28.1	27.4	28.5	28.9	24.6	25.9	25.1	26.2	26.6
	12H	27.0	28.1	27.4	28.5	28.9	24.7	25.8	25.1	26.2	26.6
4H	2H	24.6	26.0	25.0	26.3	26.7	23.4	24.7	23.7	25.1	25.4
	3H	26.6	27.8	27.0	28.2	28.6	25.0	26.2	25.4	26.6	27.0
	4H	27.2	28.2	27.6	28.6	29.1	25.5	26.5	25.9	26.9	27.4
	6H	27.7	28.5	28.1	29.0	29.4	25.6	26.5	26.1	27.0	27.4
	8H	27.8	28.6	28.2	29.1	29.5	25.7	26.5	26.1	26.9	27.4
	12H	27.8	28.6	28.3	29.1	29.5	25.7	26.4	26.2	26.9	27.4
8H	4H	27.3	28.1	27.8	28.6	29.0	25.7	26.6	26.2	27.0	27.5
	6H	27.8	28.5	28.3	29.0	29.5	25.9	26.6	26.4	27.1	27.6
	8H	28.0	28.6	28.5	29.1	29.6	25.9	26.6	26.4	27.1	27.5
	12H	28.1	28.6	28.6	29.1	29.7	26.0	26.6	26.5	27.1	27.6
12H	4H	27.3	28.0	27.8	28.5	29.0	25.7	26.5	26.2	27.0	27.4
	6H	27.8	28.4	28.3	28.9	29.4	25.9	26.6	26.4	27.0	27.5
	8H	28.0	28.5	28.5	29.0	29.6	26.0	26.5	26.5	27.0	27.6

Maximum UGR = 29.7

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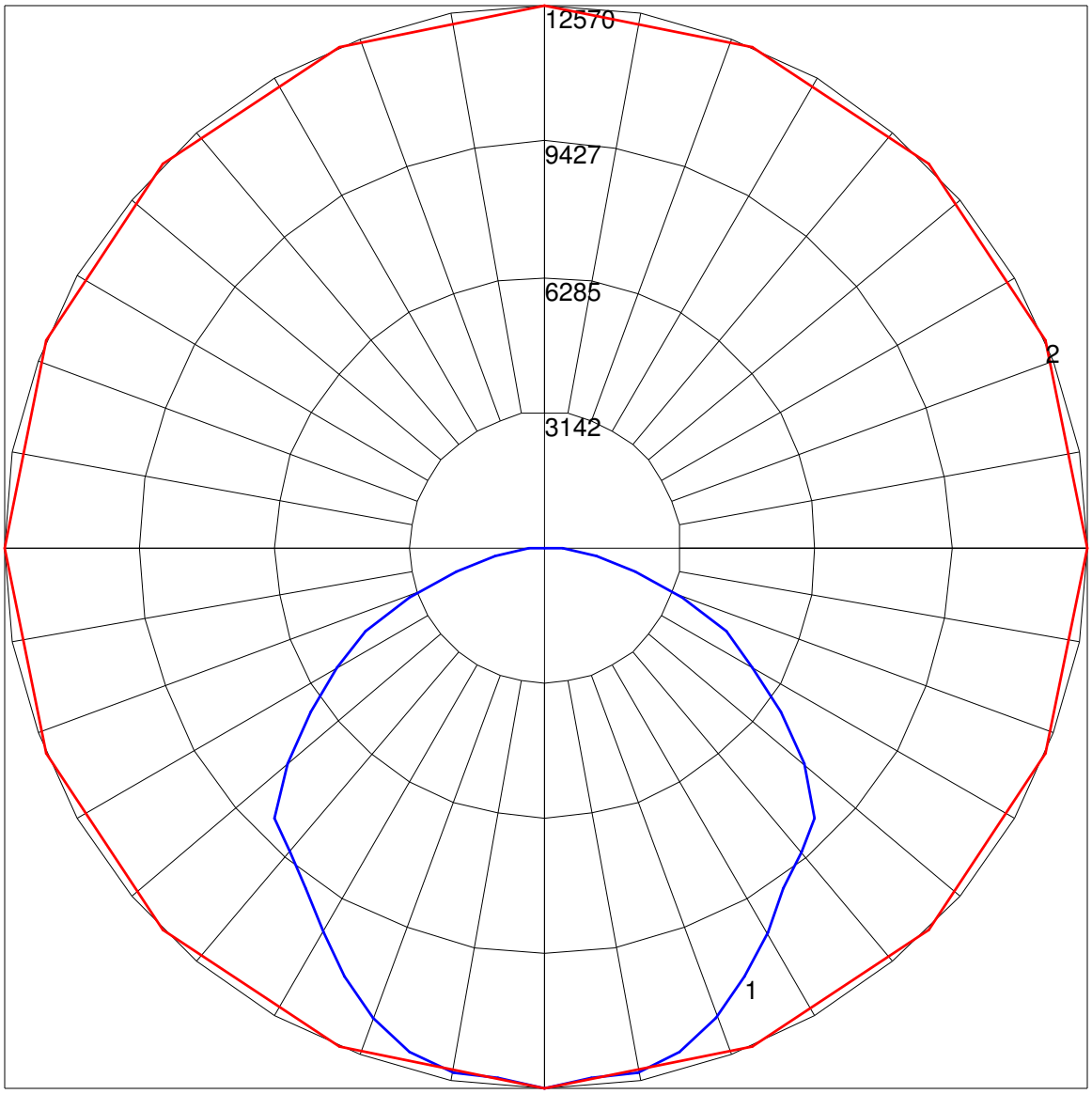
POLAR GRAPH



Maximum Candela = 12569.698 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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