H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-835-ND-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19459.0
[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 LED HIGHBAY LUMINAIRE
[MORE] WHITE REFL w/CLEAR ACRYLIC ROD DIFFUSERS OVER LED
[MORE] 0-10V UNIVERSAL VOLTAGE 120-277 DRIVERS
[LUMCAT] GL-4-L150-835-ND-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	13868
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	143
Total Luminaire Watts	97
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.72
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.04 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	34156	3645	2695
55	23407	2706	2023
65	14164	2051	2081
75	6936	2266	1890
85	2659	837	837

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	13986.702	13986.702	13986.702	13986.702	13986.702
5	13674.044	13565.359	13347.491	13167.341	13063.122
10	13565.359	13120.194	12135.075	11287.923	11131.594
15	13380.742	12400.586	10525.634	9095.351	8621.899
20	13608.039	11358.891	7940.504	5795.575	5113.685
25	12992.154	9791.634	5814.434	3930.053	3371.240
30	12698.851	7850.181	3532.035	2168.750	1870.485
35	11581.225	5629.817	2087.856	1368.248	1240.704
40	10828.366	3859.085	1354.352	1027.303	961.297
45	9360.862	2405.476	999.015	781.147	738.467
50	7220.400	1614.404	786.110	639.211	601.493
55	5203.512	1198.024	601.493	492.311	449.631
60	3579.678	852.115	468.986	411.914	383.626
65	2320.116	525.562	335.983	355.338	340.945
70	1373.211	378.663	288.836	298.265	265.014
75	695.787	283.873	227.297	203.475	189.580
80	335.983	208.438	141.937	89.827	75.931
85	89.827	66.502	28.288	28.288	28.288
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4201.62	N.A.	30.30
0-30	7367.96	N.A.	53.10
0-40	9858.08	N.A.	71.10
0-60	12831.47	N.A.	92.50
0-80	13799.19	N.A.	99.50
0-90	13867.93	N.A.	100.00
10-90	12625.72	N.A.	91.00
20-40	5656.46	N.A.	40.80
20-50	7463.36	N.A.	53.80
40-70	3628.21	N.A.	26.20
60-80	967.72	N.A.	7.00
70-80	312.90	N.A.	2.30
80-90	68.73	N.A.	0.50
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	13867.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1242.21
10-20	2959.41
20-30	3166.34
30-40	2490.12
40-50	1806.9
50-60	1166.49
60-70	654.82
70-80	312.90
80-90	68.73
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	51
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47
9	68	57	50	46	67	57	50	46	56	50	45	55	49	45	54	49	45	44
10	65	54	47	43	64	53	47	43	52	46	42	51	46	42	51	46	42	41

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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	18.6	19.9	18.9	20.2	20.5	9.6	10.9	9.9	11.2	11.5
	3H	20.4	21.6	20.8	21.9	22.3	11.6	12.8	12.0	13.1	13.5
	4H	20.9	22.0	21.3	22.4	22.7	12.4	13.4	12.8	13.8	14.2
	6H	21.2	22.2	21.7	22.6	23.0	12.7	13.7	13.1	14.0	14.4
	8H	21.3	22.3	21.7	22.6	23.0	12.7	13.7	13.2	14.1	14.5
	12H	21.3	22.2	21.8	22.6	23.0	12.7	13.6	13.2	14.0	14.5
4H	2H	18.4	19.5	18.8	19.8	20.2	10.2	11.3	10.6	11.6	12.0
	3H	20.3	21.2	20.7	21.6	22.0	12.6	13.4	13.0	13.8	14.2
	4H	20.9	21.7	21.3	22.1	22.5	13.4	14.2	13.8	14.6	15.1
	6H	21.3	22.0	21.8	22.4	22.9	13.8	14.5	14.3	14.9	15.4
	8H	21.4	22.0	21.9	22.5	23.0	13.9	14.5	14.3	15.0	15.4
	12H	21.5	22.0	22.0	22.5	23.0	13.9	14.5	14.4	15.0	15.4
8H	4H	20.8	21.4	21.3	21.9	22.3	13.8	14.5	14.3	14.9	15.4
	6H	21.3	21.8	21.8	22.3	22.8	14.3	14.9	14.8	15.4	15.8
	8H	21.4	21.9	21.9	22.4	22.9	14.5	14.9	15.0	15.4	15.9
	12H	21.5	21.9	22.0	22.4	23.0	14.5	14.9	15.0	15.4	16.0
12H	4H	20.8	21.3	21.3	21.8	22.3	13.9	14.5	14.4	15.0	15.5
	6H	21.2	21.7	21.8	22.2	22.7	14.5	15.0	15.0	15.4	16.0
	8H	21.4	21.8	21.9	22.3	22.9	14.6	15.0	15.2	15.5	16.1

Maximum UGR = 23.0

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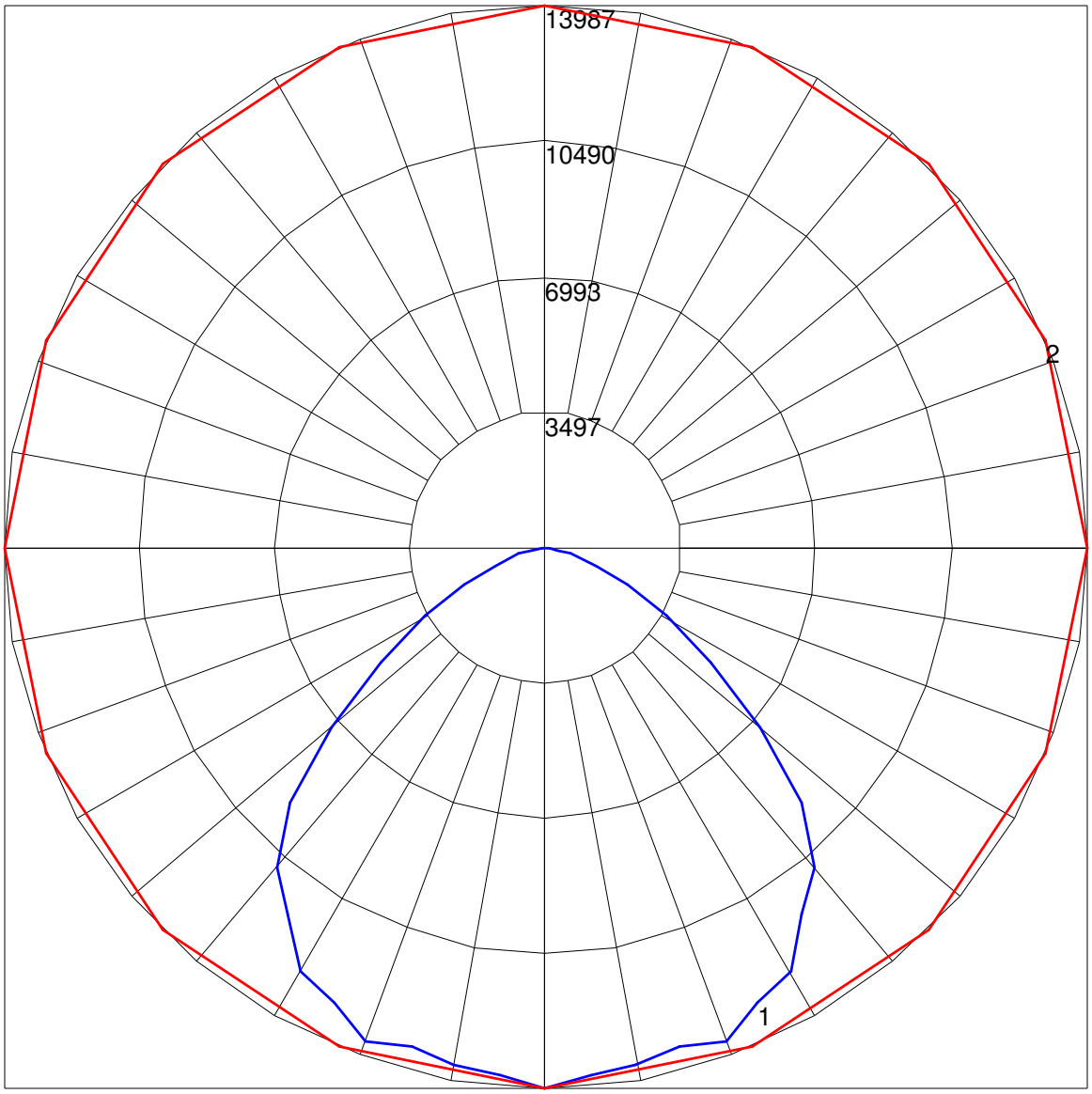
POLAR GRAPH



Maximum Candela = 13986.702 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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