H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-850-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-L150-850-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	14726
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	152
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	36269	3871	2861
55	24855	2873	2148
65	15041	2178	2210
75	7365	2406	2007
85	2824	889	889

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	14851.858	14851.858	14851.858	14851.858	14851.858
5	14519.861	14404.453	14173.109	13981.816	13871.150
10	14404.453	13931.752	12885.699	11986.145	11820.146
15	14208.417	13167.632	11176.705	9657.950	9155.212
20	14449.773	12061.503	8431.669	6154.065	5429.995
25	13795.792	10397.302	6174.090	4173.149	3579.771
30	13484.347	8335.759	3750.512	2302.900	1986.185
35	12297.590	5978.053	2217.002	1452.882	1317.448
40	11498.162	4097.791	1438.127	1090.847	1020.759
45	9939.884	2554.269	1060.809	829.465	784.145
50	7667.022	1714.264	834.735	678.749	638.699
55	5525.378	1272.128	638.699	522.763	477.443
60	3801.102	904.824	497.995	437.393	407.355
65	2463.628	558.071	356.765	377.317	362.035
70	1458.152	402.085	306.702	316.715	281.407
75	738.825	301.432	241.357	216.062	201.306
80	356.765	221.331	150.716	95.383	80.628
85	95.383	70.615	30.038	30.038	30.038
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4461.51	N.A.	30.30
0-30	7823.71	N.A.	53.10
0-40	10467.86	N.A.	71.10
0-60	13625.17	N.A.	92.50
0-80	14652.75	N.A.	99.50
0-90	14725.73	N.A.	100.00
10-90	13406.69	N.A.	91.00
20-40	6006.34	N.A.	40.80
20-50	7925.01	N.A.	53.80
40-70	3852.64	N.A.	26.20
60-80	1027.58	N.A.	7.00
70-80	332.26	N.A.	2.30
80-90	72.99	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	14725.73	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1319.05
10-20	3142.47
20-30	3362.19
30-40	2644.15
40-50	1918.67
50-60	1238.64
60-70	695.33
70-80	332.26
80-90	72.99
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	18.8	20.1	19.1	20.4	20.7	9.8	11.1	10.1	11.4	11.7
	3H	20.6	21.8	21.0	22.1	22.5	11.8	13.0	12.2	13.3	13.7
	4H	21.1	22.2	21.5	22.6	22.9	12.6	13.6	13.0	14.0	14.4
	6H	21.4	22.4	21.9	22.8	23.2	12.9	13.9	13.3	14.2	14.6
	8H	21.5	22.5	21.9	22.8	23.2	12.9	13.9	13.4	14.3	14.7
	12H	21.5	22.4	22.0	22.8	23.2	12.9	13.8	13.4	14.2	14.7
4H	2H	18.6	19.7	19.0	20.0	20.4	10.4	11.5	10.8	11.8	12.2
	3H	20.5	21.4	20.9	21.8	22.2	12.8	13.6	13.2	14.0	14.4
	4H	21.1	21.9	21.5	22.3	22.7	13.6	14.4	14.0	14.8	15.3
	6H	21.5	22.2	22.0	22.6	23.1	14.0	14.7	14.5	15.1	15.6
	8H	21.6	22.2	22.1	22.7	23.2	14.1	14.7	14.5	15.2	15.6
	12H	21.7	22.2	22.2	22.7	23.2	14.1	14.7	14.6	15.2	15.6
8H	4H	21.0	21.6	21.5	22.1	22.5	14.0	14.7	14.5	15.1	15.6
	6H	21.5	22.0	22.0	22.5	23.0	14.5	15.1	15.0	15.6	16.0
	8H	21.6	22.1	22.1	22.6	23.1	14.7	15.1	15.2	15.6	16.1
	12H	21.7	22.1	22.2	22.6	23.2	14.7	15.1	15.2	15.6	16.2
12H	4H	21.0	21.5	21.4	22.0	22.5	14.1	14.7	14.6	15.2	15.7
	6H	21.4	21.9	22.0	22.4	22.9	14.7	15.2	15.2	15.6	16.2
	8H	21.6	22.0	22.1	22.5	23.1	14.8	15.2	15.4	15.7	16.3

Maximum UGR = 23.2

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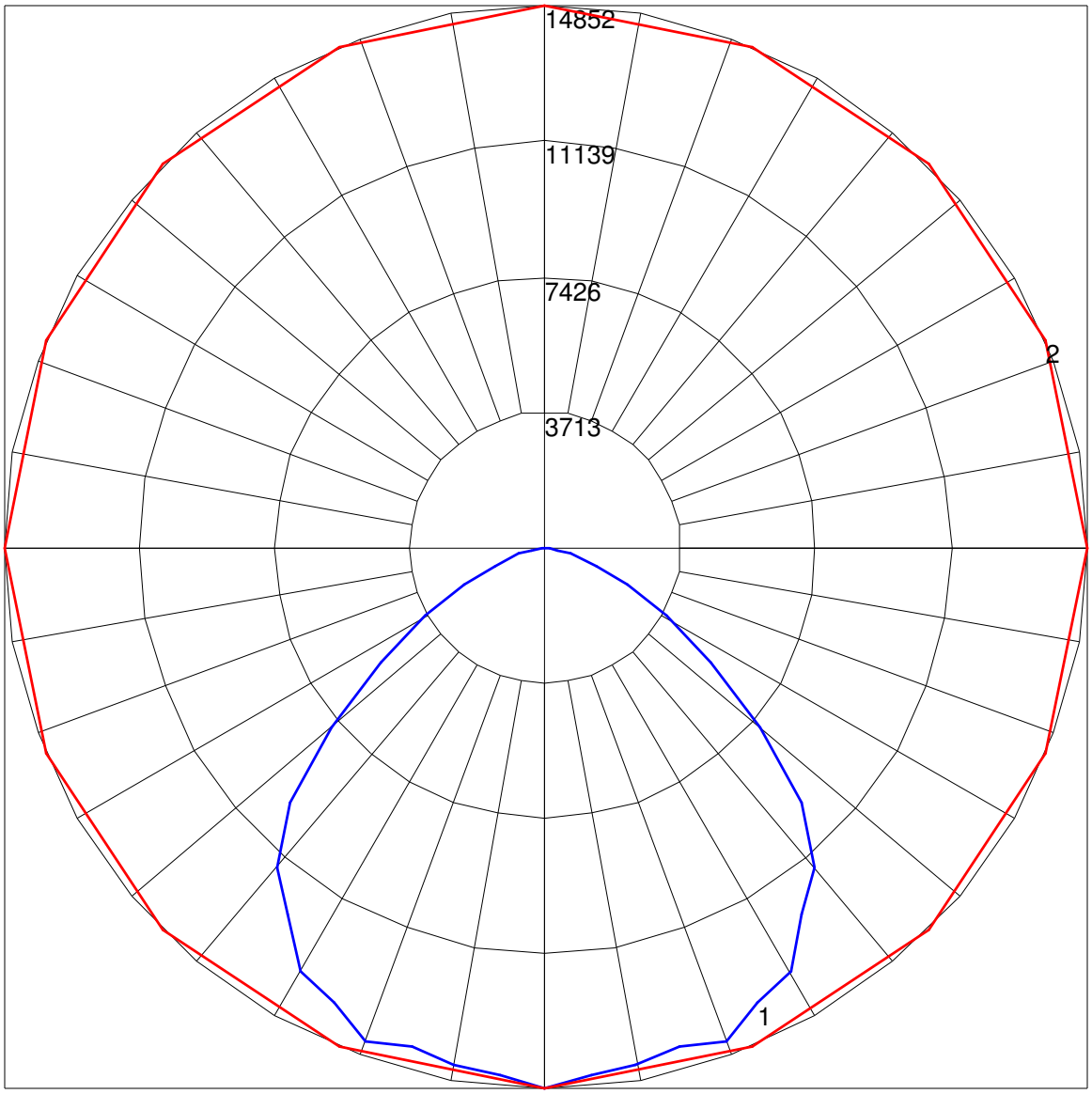
POLAR GRAPH



Maximum Candela = 14851.858 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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