H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-950-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-L150-950-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	12295
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
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	30283	3232	2389
55	20752	2399	1793
65	12558	1819	1845
75	6150	2009	1676
85	2358	742	742

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	12400.580	12400.580	12400.580	12400.580	12400.580
5	12123.378	12027.018	11833.857	11674.136	11581.736
10	12027.018	11632.336	10758.932	10007.848	9869.247
15	11863.337	10994.333	9332.005	8063.919	7644.157
20	12064.858	10070.768	7040.034	5138.345	4533.782
25	11518.815	8681.242	5155.065	3484.377	2988.934
30	11258.774	6959.953	3131.495	1922.809	1658.368
35	10267.889	4991.384	1851.089	1213.086	1100.005
40	9600.406	3421.456	1200.766	910.804	852.284
45	8299.320	2132.690	885.724	692.563	654.723
50	6401.591	1431.327	696.963	566.723	533.283
55	4613.422	1062.165	533.283	436.482	398.642
60	3173.735	755.484	415.802	365.202	340.122
65	2057.010	465.962	297.881	315.042	302.281
70	1217.486	335.722	256.081	264.441	234.961
75	616.883	251.681	201.521	180.401	168.081
80	297.881	184.801	125.841	79.640	67.320
85	79.640	58.960	25.080	25.080	25.080
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3725.15	N.A.	30.30
0-30	6532.41	N.A.	53.10
0-40	8740.15	N.A.	71.10
0-60	11376.35	N.A.	92.50
0-80	12234.33	N.A.	99.50
0-90	12295.27	N.A.	100.00
10-90	11193.93	N.A.	91.00
20-40	5015.00	N.A.	40.80
20-50	6617.00	N.A.	53.80
40-70	3216.76	N.A.	26.20
60-80	857.98	N.A.	7.00
70-80	277.42	N.A.	2.30
80-90	60.94	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	12295.27	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1101.34
10-20	2623.81
20-30	2807.27
30-40	2207.74
40-50	1601.99
50-60	1034.21
60-70	580.56
70-80	277.42
80-90	60.94
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	47	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	18.2	19.5	18.5	19.8	20.1	9.2	10.5	9.5	10.8	11.1
	3H	20.0	21.2	20.4	21.5	21.9	11.2	12.4	11.6	12.7	13.1
	4H	20.5	21.6	20.9	22.0	22.3	12.0	13.0	12.4	13.4	13.8
	6H	20.8	21.8	21.3	22.2	22.6	12.3	13.3	12.7	13.6	14.0
	8H	20.9	21.9	21.3	22.2	22.6	12.3	13.3	12.8	13.7	14.1
	12H	20.9	21.8	21.4	22.2	22.6	12.3	13.2	12.8	13.6	14.1
4H	2H	18.0	19.1	18.4	19.4	19.8	9.8	10.9	10.2	11.2	11.6
	3H	19.9	20.8	20.3	21.2	21.6	12.2	13.0	12.6	13.4	13.8
	4H	20.5	21.3	20.9	21.7	22.1	13.0	13.8	13.4	14.2	14.7
	6H	20.9	21.6	21.4	22.0	22.5	13.4	14.1	13.9	14.5	15.0
	8H	21.0	21.6	21.5	22.1	22.6	13.5	14.1	13.9	14.6	15.0
	12H	21.1	21.6	21.6	22.1	22.6	13.5	14.1	14.0	14.6	15.0
8H	4H	20.4	21.0	20.9	21.5	21.9	13.4	14.1	13.9	14.5	15.0
	6H	20.9	21.4	21.4	21.9	22.4	13.9	14.5	14.4	15.0	15.4
	8H	21.0	21.5	21.5	22.0	22.5	14.1	14.5	14.6	15.0	15.5
	12H	21.1	21.5	21.6	22.0	22.6	14.1	14.5	14.6	15.0	15.6
12H	4H	20.4	20.9	20.9	21.4	21.9	13.5	14.1	14.0	14.6	15.1
	6H	20.8	21.3	21.4	21.8	22.3	14.1	14.6	14.6	15.0	15.6
	8H	21.0	21.4	21.5	21.9	22.5	14.2	14.6	14.8	15.1	15.7

Maximum UGR = 22.6

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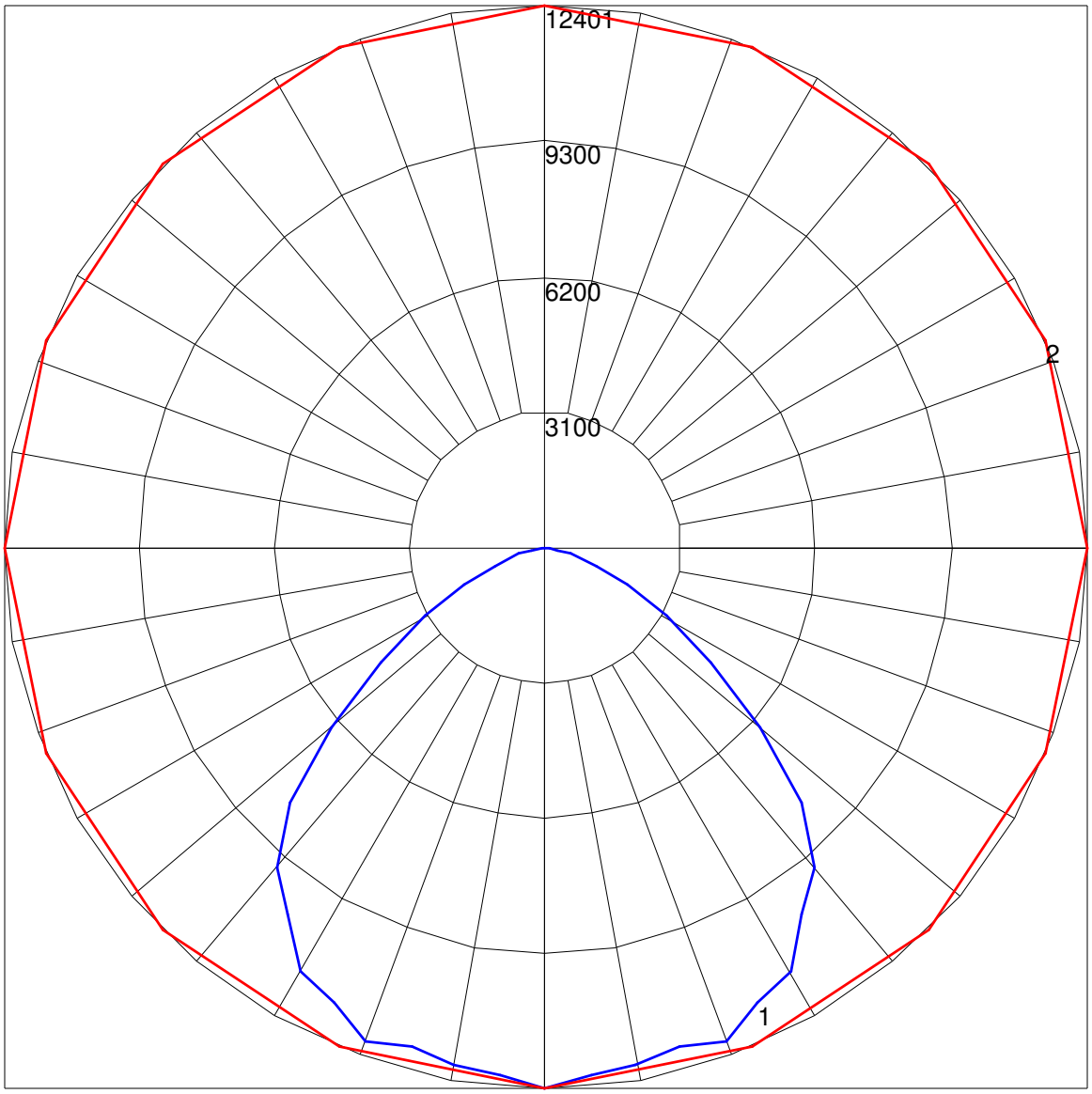
POLAR GRAPH



Maximum Candela = 12400.58 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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