H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-830-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-L150-830-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	13725
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
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	33804	3608	2667
55	23165	2678	2002
65	14018	2030	2060
75	6865	2243	1870
85	2632	829	829

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	13842.509	13842.509	13842.509	13842.509	13842.509
5	13533.075	13425.509	13209.888	13031.595	12928.450
10	13425.509	12984.934	12009.971	11171.552	11016.835
15	13242.796	12272.745	10417.123	9001.584	8533.013
20	13467.750	11241.789	7858.643	5735.827	5060.966
25	12858.214	9690.689	5754.491	3889.537	3336.485
30	12567.935	7769.251	3495.623	2146.392	1851.202
35	11461.831	5571.778	2066.332	1354.142	1227.913
40	10716.733	3819.301	1340.390	1016.712	951.387
45	9264.358	2380.678	988.716	773.094	730.854
50	7145.962	1597.760	778.006	632.621	595.292
55	5149.867	1185.673	595.292	487.236	444.996
60	3542.775	843.331	464.151	407.667	379.671
65	2296.197	520.144	332.519	351.674	337.430
70	1359.054	374.759	285.858	295.190	262.282
75	688.614	280.946	224.954	201.378	187.625
80	332.519	206.289	140.473	88.901	75.148
85	88.901	65.816	27.996	27.996	27.996
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4158.3	N.A.	30.30
0-30	7292.00	N.A.	53.10
0-40	9756.45	N.A.	71.10
0-60	12699.18	N.A.	92.50
0-80	13656.93	N.A.	99.50
0-90	13724.96	N.A.	100.00
10-90	12495.56	N.A.	91.00
20-40	5598.14	N.A.	40.80
20-50	7386.42	N.A.	53.80
40-70	3590.81	N.A.	26.20
60-80	957.75	N.A.	7.00
70-80	309.68	N.A.	2.30
80-90	68.03	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	13724.96	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1229.4
10-20	2928.9
20-30	3133.69
30-40	2464.45
40-50	1788.27
50-60	1154.46
60-70	648.07
70-80	309.68
80-90	68.03
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	18.5	19.8	18.8	20.1	20.4	9.5	10.8	9.8	11.1	11.4
	3H	20.3	21.5	20.7	21.8	22.2	11.5	12.7	11.9	13.0	13.4
	4H	20.8	21.9	21.2	22.3	22.6	12.3	13.3	12.7	13.7	14.1
	6H	21.1	22.1	21.6	22.5	22.9	12.6	13.6	13.0	13.9	14.3
	8H	21.2	22.2	21.6	22.5	22.9	12.6	13.6	13.1	14.0	14.4
	12H	21.2	22.1	21.7	22.5	22.9	12.6	13.5	13.1	13.9	14.4
4H	2H	18.3	19.4	18.7	19.7	20.1	10.1	11.2	10.5	11.5	11.9
	3H	20.2	21.1	20.6	21.5	21.9	12.5	13.3	12.9	13.7	14.1
	4H	20.8	21.6	21.2	22.0	22.4	13.3	14.1	13.7	14.5	15.0
	6H	21.2	21.9	21.7	22.3	22.8	13.7	14.4	14.2	14.8	15.3
	8H	21.3	21.9	21.8	22.4	22.9	13.8	14.4	14.2	14.9	15.3
	12H	21.4	21.9	21.9	22.4	22.9	13.8	14.4	14.3	14.9	15.3
8H	4H	20.7	21.3	21.2	21.8	22.2	13.7	14.4	14.2	14.8	15.3
	6H	21.2	21.7	21.7	22.2	22.7	14.2	14.8	14.7	15.3	15.7
	8H	21.3	21.8	21.8	22.3	22.8	14.4	14.8	14.9	15.3	15.8
	12H	21.4	21.8	21.9	22.3	22.9	14.4	14.8	14.9	15.3	15.9
12H	4H	20.7	21.2	21.2	21.7	22.2	13.8	14.4	14.3	14.9	15.4
	6H	21.1	21.6	21.7	22.1	22.6	14.4	14.9	14.9	15.3	15.9
	8H	21.3	21.7	21.8	22.2	22.8	14.5	14.9	15.1	15.4	16.0

Maximum UGR = 22.9

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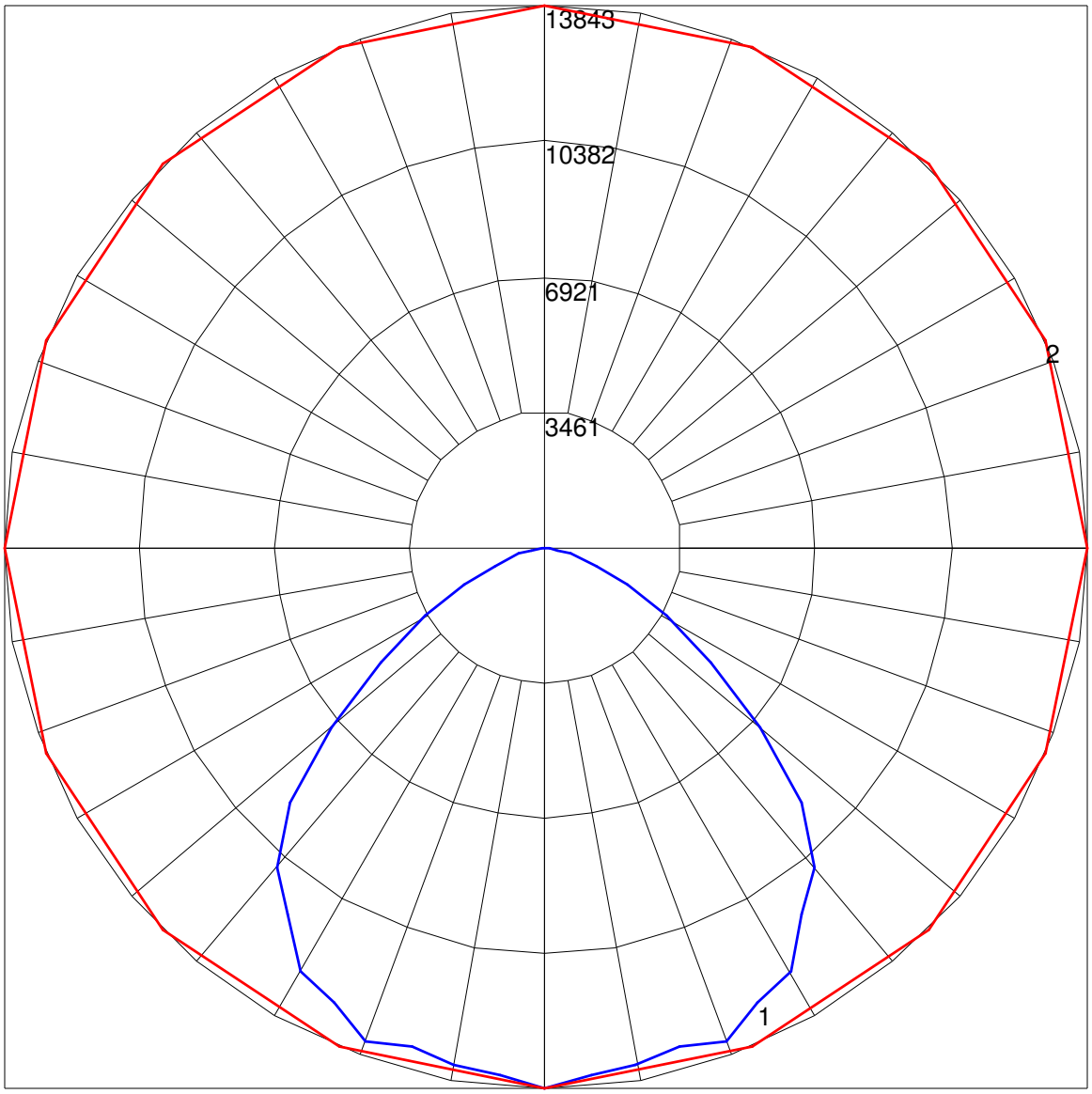
POLAR GRAPH



Maximum Candela = 13842.509 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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