H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-935-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-L150-935-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	11437
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
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	28170	3006	2222
55	19305	2231	1668
65	11682	1692	1717
75	5720	1869	1559
85	2193	691	691

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	11535.423	11535.423	11535.423	11535.423	11535.423
5	11277.561	11187.923	11008.239	10859.661	10773.708
10	11187.923	10820.778	10008.309	9309.626	9180.695
15	11035.662	10227.286	8680.935	7501.320	7110.843
20	11223.124	9368.157	6548.869	4779.856	4217.471
25	10715.177	8075.574	4795.409	3241.281	2780.404
30	10473.278	6474.375	2913.019	1788.660	1542.668
35	9551.525	4643.148	1721.943	1128.452	1023.261
40	8930.610	3182.750	1116.991	847.260	792.822
45	7720.298	1983.898	823.930	644.245	609.045
50	5954.968	1331.467	648.338	527.184	496.077
55	4291.555	988.061	496.077	406.030	370.830
60	2952.312	702.775	386.793	339.723	316.392
65	1913.498	433.453	277.099	293.062	281.192
70	1132.545	312.299	238.215	245.992	218.568
75	573.845	234.122	187.461	167.815	156.354
80	277.099	171.908	117.061	74.084	62.624
85	74.084	54.847	23.330	23.330	23.330
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3465.25	N.A.	30.30
0-30	6076.66	N.A.	53.10
0-40	8130.37	N.A.	71.10
0-60	10582.65	N.A.	92.50
0-80	11380.78	N.A.	99.50
0-90	11437.46	N.A.	100.00
10-90	10412.96	N.A.	91.00
20-40	4665.12	N.A.	40.80
20-50	6155.35	N.A.	53.80
40-70	2992.34	N.A.	26.20
60-80	798.12	N.A.	7.00
70-80	258.06	N.A.	2.30
80-90	56.69	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	11437.46	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1024.5
10-20	2440.75
20-30	2611.41
30-40	2053.71
40-50	1490.23
50-60	962.05
60-70	540.06
70-80	258.06
80-90	56.69
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	17.9	19.2	18.2	19.5	19.8	8.9	10.2	9.2	10.5	10.8
	3H	19.7	20.9	20.1	21.2	21.6	10.9	12.1	11.3	12.4	12.8
	4H	20.2	21.3	20.6	21.7	22.0	11.7	12.7	12.1	13.1	13.5
	6H	20.5	21.5	21.0	21.9	22.3	12.0	13.0	12.4	13.3	13.7
	8H	20.6	21.6	21.0	21.9	22.3	12.0	13.0	12.5	13.4	13.8
	12H	20.6	21.5	21.1	21.9	22.3	12.0	12.9	12.5	13.3	13.8
4H	2H	17.7	18.8	18.1	19.1	19.5	9.5	10.6	9.9	10.9	11.3
	3H	19.6	20.5	20.0	20.9	21.3	11.9	12.7	12.3	13.1	13.5
	4H	20.2	21.0	20.6	21.4	21.8	12.7	13.5	13.1	13.9	14.4
	6H	20.6	21.3	21.1	21.7	22.2	13.1	13.8	13.6	14.2	14.7
	8H	20.7	21.3	21.2	21.8	22.3	13.2	13.8	13.6	14.3	14.7
	12H	20.8	21.3	21.3	21.8	22.3	13.2	13.8	13.7	14.3	14.7
8H	4H	20.1	20.7	20.6	21.2	21.6	13.1	13.8	13.6	14.2	14.7
	6H	20.6	21.1	21.1	21.6	22.1	13.6	14.2	14.1	14.7	15.1
	8H	20.7	21.2	21.2	21.7	22.2	13.8	14.2	14.3	14.7	15.2
	12H	20.8	21.2	21.3	21.7	22.3	13.8	14.2	14.3	14.7	15.3
12H	4H	20.1	20.6	20.6	21.1	21.6	13.2	13.8	13.7	14.3	14.8
	6H	20.5	21.0	21.1	21.5	22.0	13.8	14.3	14.3	14.7	15.3
	8H	20.7	21.1	21.2	21.6	22.2	13.9	14.3	14.5	14.8	15.4

Maximum UGR = 22.3

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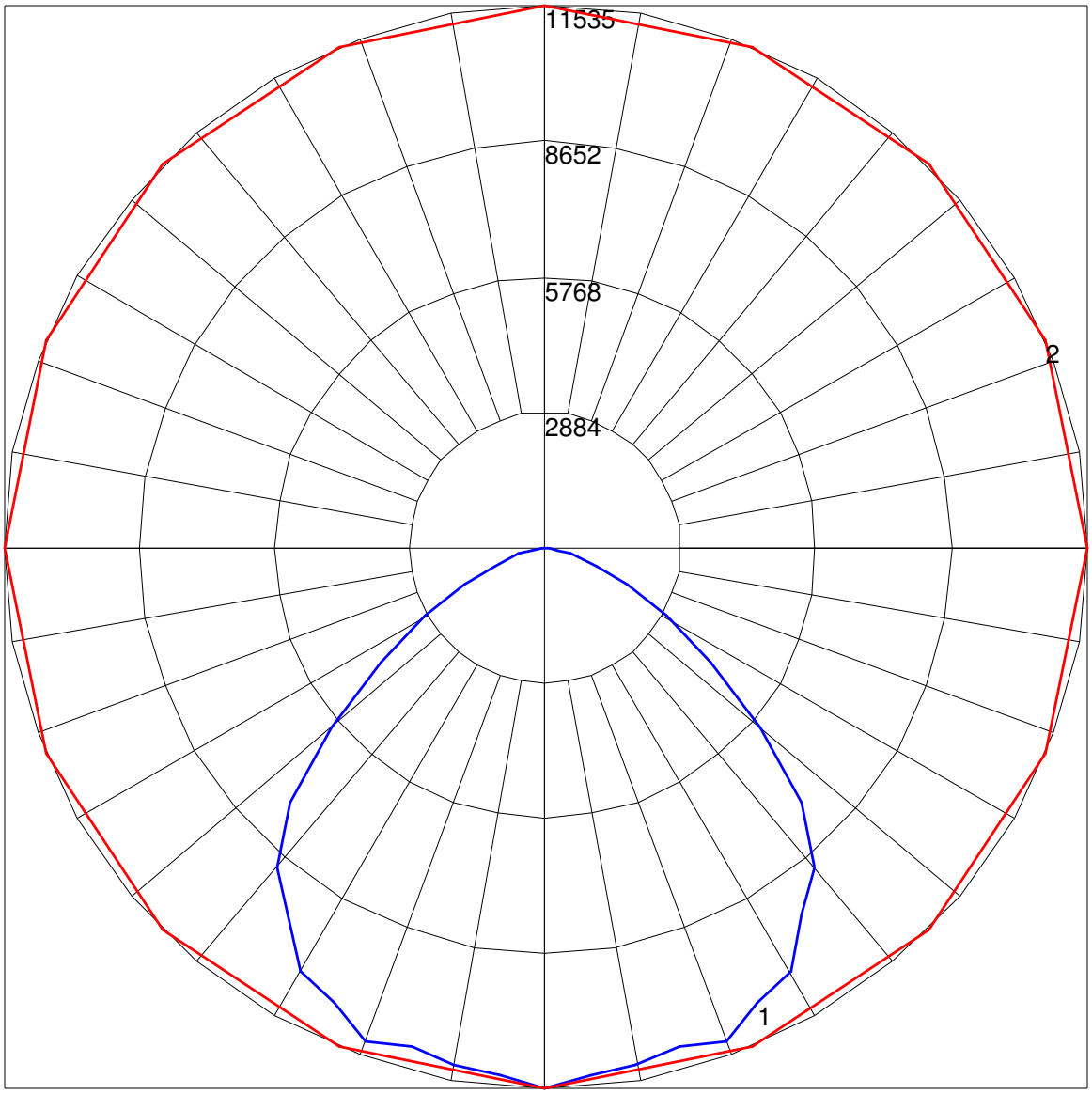
POLAR GRAPH



Maximum Candela = 11535.423 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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