H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-930-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-L150-930-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	11294
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
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	27818	2969	2195
55	19063	2204	1647
65	11536	1671	1695
75	5649	1845	1539
85	2166	682	682

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	11391.231	11391.231	11391.231	11391.231	11391.231
5	11136.592	11048.075	10870.636	10723.916	10639.037
10	11048.075	10685.518	9883.205	9193.256	9065.937
15	10897.717	10099.446	8572.423	7407.554	7021.958
20	11082.835	9251.055	6467.008	4720.108	4164.753
25	10581.238	7974.629	4735.467	3200.765	2745.649
30	10342.363	6393.446	2876.606	1766.302	1523.385
35	9432.131	4585.109	1700.419	1114.346	1010.470
40	8818.978	3142.966	1103.029	836.669	782.912
45	7623.794	1959.099	813.630	636.192	601.432
50	5880.531	1314.824	640.234	520.594	489.876
55	4237.911	975.710	489.876	400.955	366.194
60	2915.408	693.991	381.958	335.476	312.437
65	1889.579	428.035	273.635	289.399	277.677
70	1118.388	308.395	235.237	242.917	215.836
75	566.672	231.196	185.118	165.717	154.400
80	273.635	169.759	115.598	73.158	61.841
85	73.158	54.161	23.039	23.039	23.039
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3421.94	N.A.	30.30
0-30	6000.71	N.A.	53.10
0-40	8028.74	N.A.	71.10
0-60	10450.37	N.A.	92.50
0-80	11238.52	N.A.	99.50
0-90	11294.5	N.A.	100.00
10-90	10282.8	N.A.	91.00
20-40	4606.81	N.A.	40.80
20-50	6078.41	N.A.	53.80
40-70	2954.94	N.A.	26.20
60-80	788.15	N.A.	7.00
70-80	254.84	N.A.	2.30
80-90	55.98	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	11294.5	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1011.69
10-20	2410.24
20-30	2578.77
30-40	2028.04
40-50	1471.6
50-60	950.03
60-70	533.31
70-80	254.84
80-90	55.98
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	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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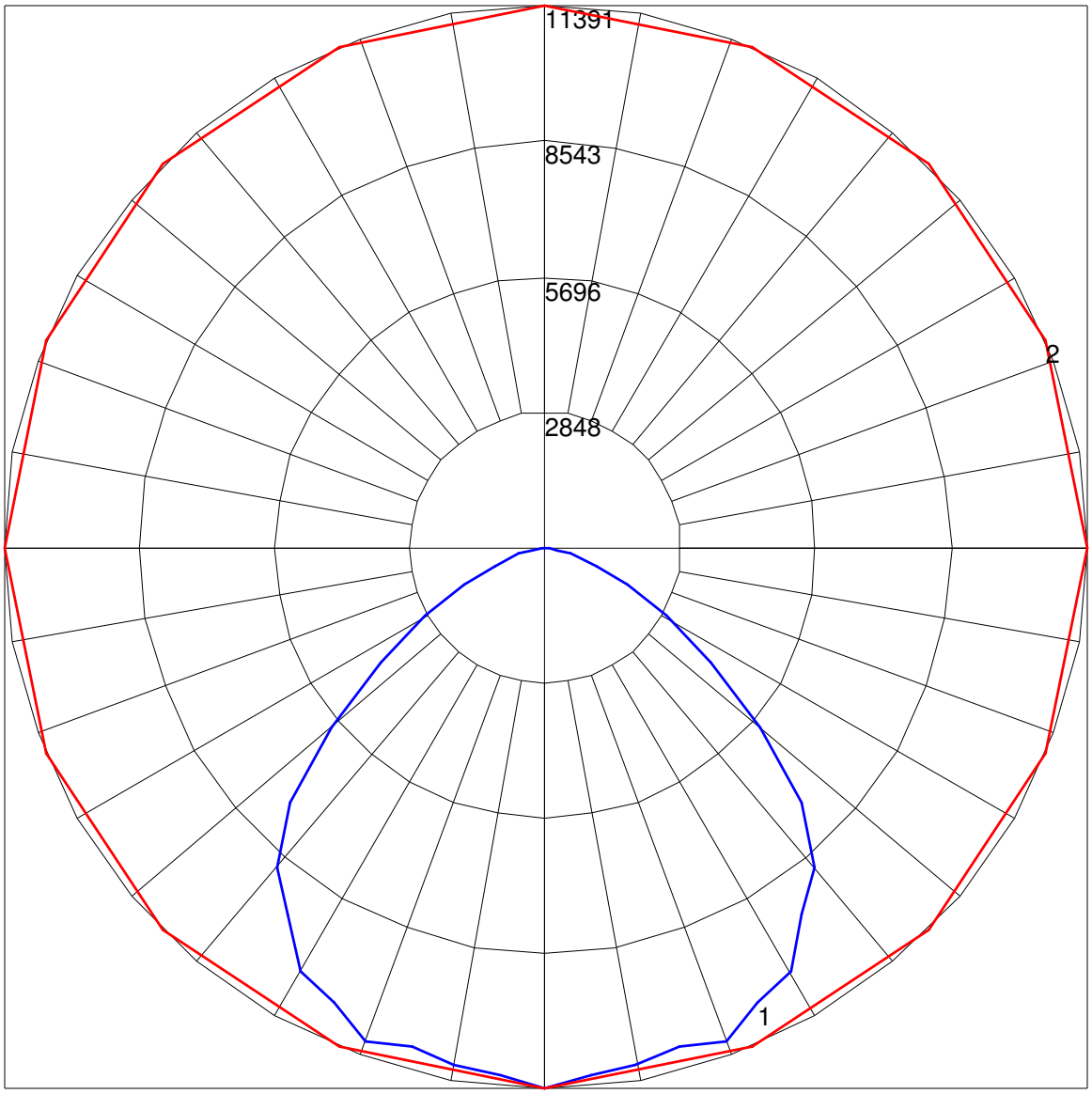
POLAR GRAPH



Maximum Candela = 11391.231 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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