H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-950-SAF118-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19726.0
[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 REFLECTOR w/.118"THK FROSTED ACRYLIC LENS
[MORE] 0-10V LED DRIVERS
[LUMCAT] GL-4-L150-950-SAF118-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, High Bay
[_SEARCH_MOUNTING] Cable, Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11103
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	96
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11796	11240	9785
55	10665	9118	8432
65	8398	6973	6684
75	5790	4741	4728
85	2067	1897	2054

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4287.213	4287.213	4287.213	4287.213	4287.213
5	4352.658	4290.059	4262.011	4239.654	4233.151
10	4315.667	4244.532	4226.240	4200.632	4194.941
15	4246.158	4176.242	4161.609	4128.683	4124.619
20	4130.716	4080.718	4059.174	4009.583	4018.932
25	3981.942	3945.765	3915.685	3857.963	3871.784
30	3799.023	3768.130	3745.367	3672.606	3662.850
35	3573.016	3527.083	3521.393	3424.649	3353.514
40	3299.045	3253.518	3222.625	3072.225	2923.045
45	2973.042	2938.085	2832.804	2619.806	2466.154
50	2598.668	2565.743	2363.313	2173.077	2087.715
55	2180.394	2134.867	1864.147	1769.842	1723.909
60	1719.438	1677.570	1426.361	1343.438	1355.226
65	1264.986	1219.053	1050.361	994.266	1006.867
70	875.165	791.429	730.863	688.588	697.124
75	534.123	463.801	437.379	414.210	436.160
80	254.054	219.096	206.495	202.024	214.625
85	64.225	59.754	58.941	61.379	63.818
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1581.82	N.A.	14.20
0-30	3384.43	N.A.	30.50
0-40	5555.97	N.A.	50.00
0-60	9419.8	N.A.	84.80
0-80	11010.73	N.A.	99.20
0-90	11102.57	N.A.	100.00
10-90	10696.09	N.A.	96.30
20-40	3974.16	N.A.	35.80
20-50	6112.84	N.A.	55.10
40-70	4963.15	N.A.	44.70
60-80	1590.93	N.A.	14.30
70-80	491.60	N.A.	4.40
80-90	91.84	N.A.	0.80
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	11102.57	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	406.49
10-20	1175.33
20-30	1802.61
30-40	2171.54
40-50	2138.68
50-60	1725.14
60-70	1099.33
70-80	491.60
80-90	91.84
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	85	73	65	59	82	72	64	58	69	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	50	63	55	50	61	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	48	44	53	48	43	41
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	37
8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33
9	58	45	37	32	57	45	37	32	44	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

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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	20.4	22.0	20.8	22.3	22.6	19.0	20.5	19.3	20.9	21.2
	3H	21.7	23.1	22.1	23.4	23.8	20.2	21.6	20.6	22.0	22.3
	4H	22.0	23.4	22.4	23.7	24.1	20.6	22.0	21.0	22.3	22.7
	6H	22.2	23.5	22.7	23.8	24.2	20.9	22.1	21.3	22.4	22.8
	8H	22.3	23.4	22.7	23.8	24.2	20.9	22.1	21.3	22.5	22.9
	12H	22.3	23.4	22.7	23.8	24.2	20.9	22.0	21.3	22.4	22.8
4H	2H	20.7	22.0	21.1	22.4	22.8	19.5	20.8	19.9	21.2	21.5
	3H	22.2	23.2	22.6	23.6	24.0	20.9	22.0	21.4	22.4	22.8
	4H	22.6	23.6	23.0	24.0	24.4	21.4	22.4	21.9	22.8	23.3
	6H	22.9	23.7	23.3	24.2	24.6	21.7	22.6	22.2	23.0	23.5
	8H	22.9	23.7	23.4	24.2	24.6	21.8	22.6	22.3	23.0	23.5
	12H	23.0	23.7	23.4	24.1	24.6	21.8	22.5	22.3	23.0	23.5
8H	4H	22.7	23.5	23.2	23.9	24.4	21.6	22.4	22.1	22.8	23.3
	6H	23.0	23.7	23.5	24.2	24.6	21.9	22.6	22.4	23.1	23.6
	8H	23.1	23.7	23.6	24.2	24.7	22.0	22.6	22.6	23.1	23.6
	12H	23.2	23.7	23.7	24.2	24.7	22.1	22.6	22.6	23.1	23.7
12H	4H	22.7	23.4	23.2	23.9	24.3	21.6	22.3	22.1	22.8	23.3
	6H	23.0	23.6	23.5	24.1	24.6	22.0	22.6	22.5	23.0	23.6
	8H	23.1	23.6	23.6	24.1	24.7	22.1	22.6	22.6	23.1	23.7

Maximum UGR = 24.7

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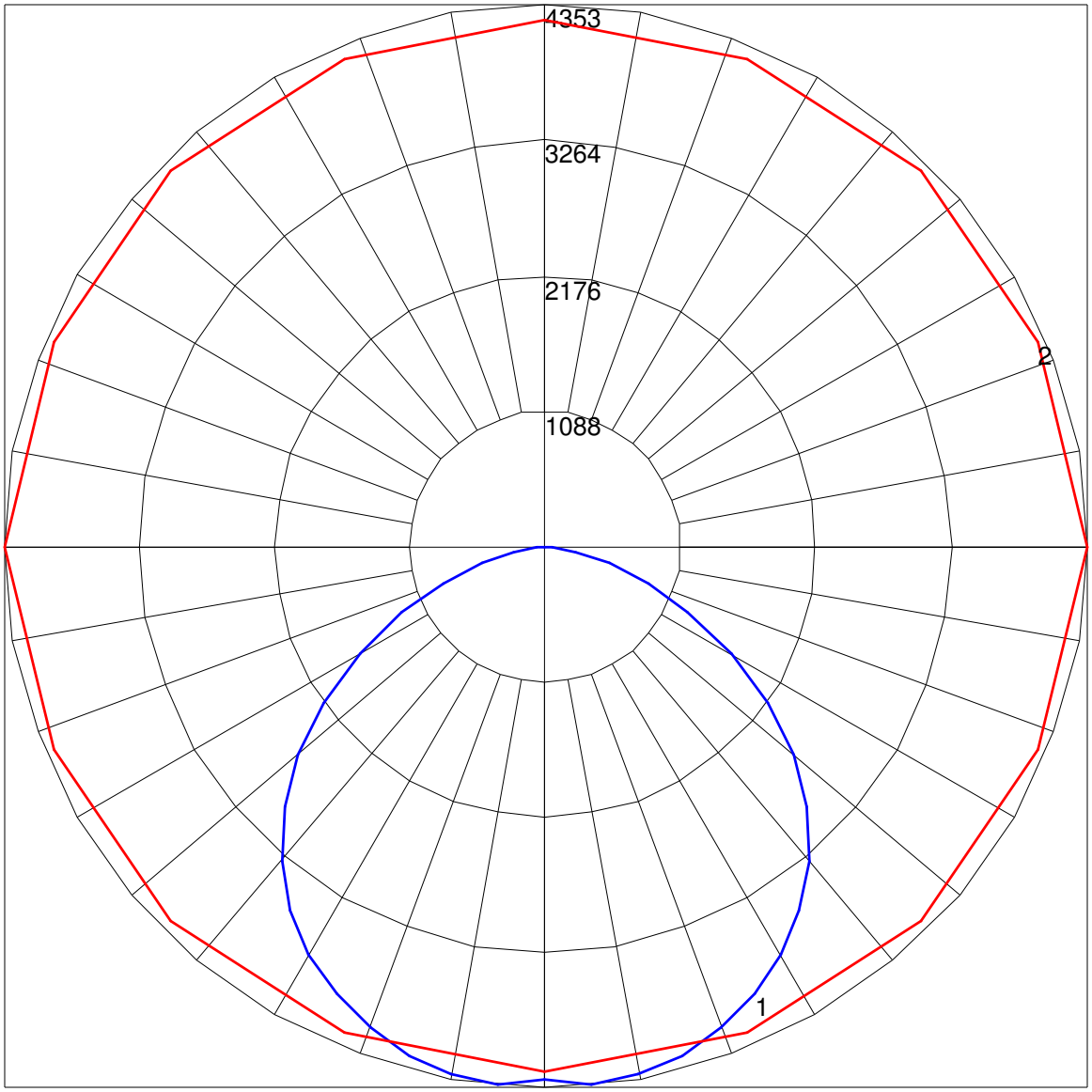
POLAR GRAPH



Maximum Candela = 4352.658 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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