H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L400-930-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19438.0
[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 HIGHBAY LUMINAIRE
[MORE] WHITE REFLECTOR w/OPEN BOTTOM
[MORE] 0-10V DIMMING DRIVERS
[LUMCAT] GL-4-L400-930-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	31746
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	267
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.05 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	29495	29561	29885
55	27230	28416	21421
65	25612	20516	20887
75	19631	13085	12088
85	10769	6969	7925

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	11546.583	11546.583	11546.583	11546.583	11546.583
5	11380.439	11377.260	11380.439	11384.414	11387.594
10	11370.105	11362.156	11370.105	11384.414	11384.414
15	11132.416	11146.725	11178.523	11182.498	11178.523
20	10699.966	10710.300	10728.584	10742.893	10742.893
25	10087.858	10116.476	10137.940	10098.192	10098.192
30	9504.368	9536.961	9511.523	9504.368	9500.393
35	8881.131	8924.058	8895.440	8913.724	8916.903
40	8485.248	8539.304	8495.582	8521.021	8546.459
45	8160.910	8203.837	8179.194	8240.405	8269.023
50	7213.335	7281.701	7346.886	7396.968	7350.861
55	6111.541	6215.679	6377.848	5016.901	4807.830
60	5121.039	5221.997	5225.972	4137.691	4155.975
65	4235.470	4289.526	3392.827	3493.785	3454.038
70	3104.262	3248.147	2654.323	2322.831	1861.762
75	1988.159	1642.357	1325.174	1350.612	1224.216
80	1105.769	990.502	569.181	395.883	348.981
85	367.265	237.689	237.689	266.307	270.281
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4229.31	N.A.	13.30
0-30	8898.34	N.A.	28.00
0-40	14518.48	N.A.	45.70
0-60	26046.32	N.A.	82.00
0-80	31418.92	N.A.	99.00
0-90	31745.81	N.A.	100.00
10-90	30657.69	N.A.	96.60
20-40	10289.17	N.A.	32.40
20-50	16525.79	N.A.	52.10
40-70	15237.8	N.A.	48.00
60-80	5372.6	N.A.	16.90
70-80	1662.64	N.A.	5.20
80-90	326.88	N.A.	1.00
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	31745.81	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1088.12
10-20	3141.19
20-30	4669.03
30-40	5620.15
40-50	6236.62
50-60	5291.22
60-70	3709.96
70-80	1662.64
80-90	326.88
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	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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	23.9	25.6	24.3	25.9	26.2	22.4	24.0	22.8	24.3	24.6
	3H	25.7	27.2	26.1	27.5	27.9	23.9	25.3	24.2	25.6	26.0
	4H	26.2	27.6	26.6	27.9	28.3	24.2	25.6	24.6	25.9	26.3
	6H	26.5	27.8	27.0	28.2	28.6	24.3	25.6	24.7	26.0	26.4
	8H	26.6	27.8	27.1	28.2	28.6	24.3	25.6	24.8	25.9	26.3
	12H	26.7	27.8	27.1	28.2	28.6	24.4	25.5	24.8	25.9	26.3
4H	2H	24.3	25.7	24.7	26.0	26.4	23.1	24.4	23.4	24.8	25.1
	3H	26.3	27.5	26.7	27.9	28.3	24.7	25.9	25.1	26.3	26.7
	4H	26.9	27.9	27.3	28.3	28.8	25.2	26.2	25.6	26.6	27.1
	6H	27.4	28.2	27.8	28.7	29.1	25.3	26.2	25.8	26.7	27.1
	8H	27.5	28.3	27.9	28.8	29.2	25.4	26.2	25.8	26.6	27.1
	12H	27.5	28.3	28.0	28.8	29.2	25.4	26.1	25.9	26.6	27.1
8H	4H	27.0	27.8	27.5	28.3	28.7	25.4	26.3	25.9	26.7	27.2
	6H	27.5	28.2	28.0	28.7	29.2	25.6	26.3	26.1	26.8	27.3
	8H	27.7	28.3	28.2	28.8	29.3	25.6	26.3	26.1	26.8	27.2
	12H	27.8	28.3	28.3	28.8	29.4	25.7	26.3	26.2	26.8	27.3
12H	4H	27.0	27.7	27.5	28.2	28.7	25.4	26.2	25.9	26.7	27.1
	6H	27.5	28.1	28.0	28.6	29.1	25.6	26.3	26.1	26.7	27.2
	8H	27.7	28.2	28.2	28.7	29.3	25.7	26.2	26.2	26.7	27.3

Maximum UGR = 29.4

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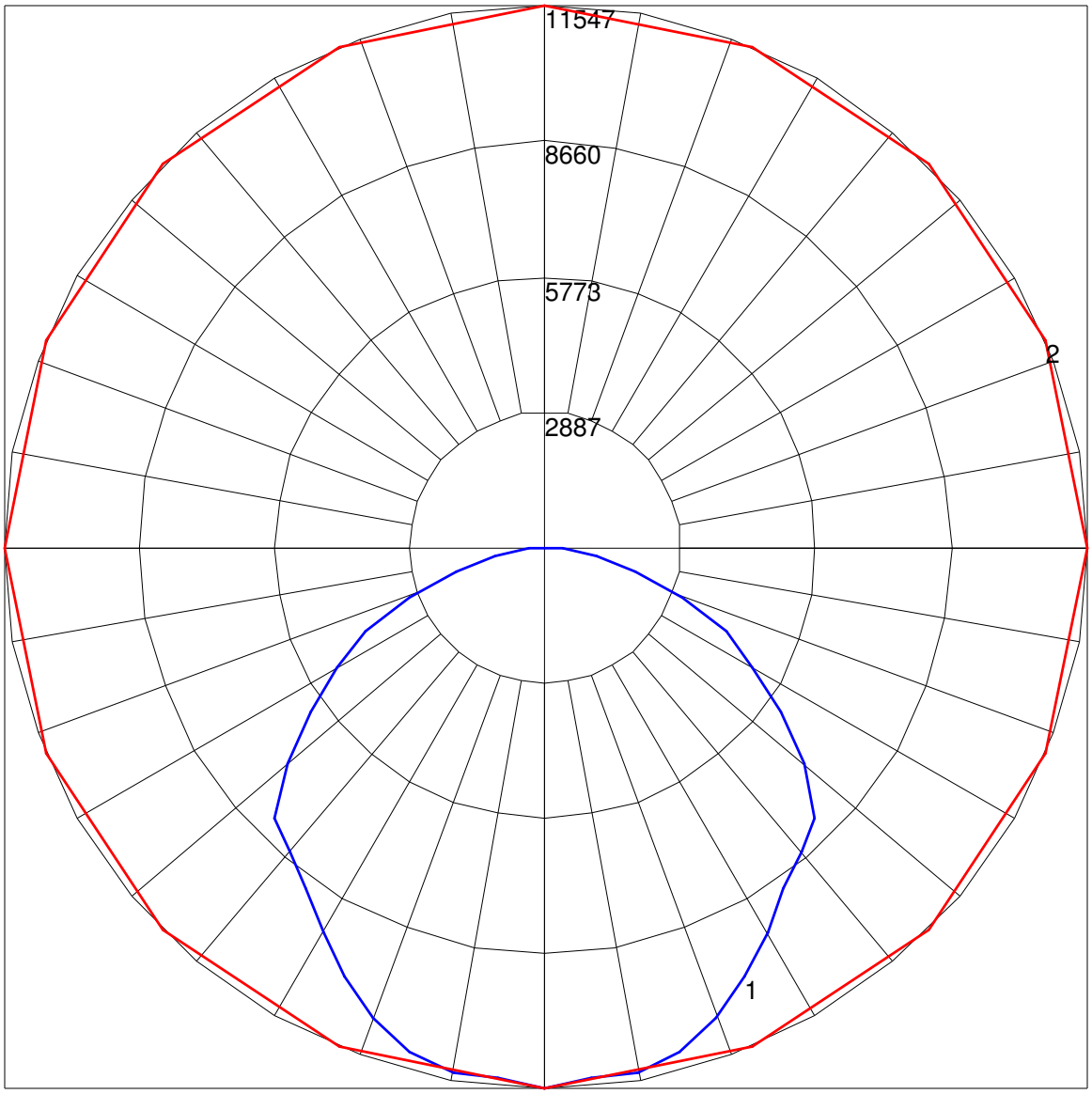
POLAR GRAPH



Maximum Candela = 11546.583 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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