H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-835-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-L150-835-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	14597
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	152
Total Luminaire Watts	96
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	13562	13593	13742
55	12521	13066	9850
65	11777	9434	9604
75	9027	6017	5558
85	4952	3205	3644

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	5309.355	5309.355	5309.355	5309.355	5309.355
5	5232.959	5231.497	5232.959	5234.786	5236.249
10	5228.207	5224.552	5228.207	5234.786	5234.786
15	5118.913	5125.492	5140.114	5141.941	5140.114
20	4920.063	4924.815	4933.222	4939.802	4939.802
25	4638.603	4651.763	4661.632	4643.355	4643.355
30	4370.303	4385.290	4373.593	4370.303	4368.475
35	4083.726	4103.464	4090.305	4098.712	4100.175
40	3901.691	3926.547	3906.443	3918.140	3929.837
45	3752.553	3772.292	3760.961	3789.107	3802.266
50	3316.839	3348.275	3378.248	3401.277	3380.076
55	2810.211	2858.096	2932.665	2306.874	2210.739
60	2354.758	2401.181	2403.009	1902.595	1911.002
65	1947.556	1972.412	1560.091	1606.514	1588.237
70	1427.403	1493.565	1220.512	1068.085	856.076
75	914.196	755.190	609.342	621.039	562.920
80	508.455	455.453	261.721	182.035	160.469
85	168.876	109.294	109.294	122.453	124.281
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1944.72	N.A.	13.30
0-30	4091.64	N.A.	28.00
0-40	6675.89	N.A.	45.70
0-60	11976.63	N.A.	82.00
0-80	14447.06	N.A.	99.00
0-90	14597.37	N.A.	100.00
10-90	14097.03	N.A.	96.60
20-40	4731.17	N.A.	32.40
20-50	7598.9	N.A.	52.10
40-70	7006.65	N.A.	48.00
60-80	2470.43	N.A.	16.90
70-80	764.52	N.A.	5.20
80-90	150.31	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	14597.37	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	500.34
10-20	1444.38
20-30	2146.91
30-40	2584.26
40-50	2867.73
50-60	2433.01
60-70	1705.92
70-80	764.52
80-90	150.31
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	21.2	22.9	21.6	23.2	23.5	19.7	21.3	20.1	21.6	21.9
	3H	23.0	24.5	23.4	24.8	25.2	21.2	22.6	21.5	22.9	23.3
	4H	23.5	24.9	23.9	25.2	25.6	21.5	22.9	21.9	23.2	23.6
	6H	23.8	25.1	24.3	25.5	25.9	21.6	22.9	22.0	23.3	23.7
	8H	23.9	25.1	24.4	25.5	25.9	21.6	22.9	22.1	23.2	23.6
	12H	24.0	25.1	24.4	25.5	25.9	21.7	22.8	22.1	23.2	23.6
4H	2H	21.6	23.0	22.0	23.3	23.7	20.4	21.7	20.7	22.1	22.4
	3H	23.6	24.8	24.0	25.2	25.6	22.0	23.2	22.4	23.6	24.0
	4H	24.2	25.2	24.6	25.6	26.1	22.5	23.5	22.9	23.9	24.4
	6H	24.7	25.5	25.1	26.0	26.4	22.6	23.5	23.1	24.0	24.4
	8H	24.8	25.6	25.2	26.1	26.5	22.7	23.5	23.1	23.9	24.4
	12H	24.8	25.6	25.3	26.1	26.5	22.7	23.4	23.2	23.9	24.4
8H	4H	24.3	25.1	24.8	25.6	26.0	22.7	23.6	23.2	24.0	24.5
	6H	24.8	25.5	25.3	26.0	26.5	22.9	23.6	23.4	24.1	24.6
	8H	25.0	25.6	25.5	26.1	26.6	22.9	23.6	23.4	24.1	24.5
	12H	25.1	25.6	25.6	26.1	26.7	23.0	23.6	23.5	24.1	24.6
12H	4H	24.3	25.0	24.8	25.5	26.0	22.7	23.5	23.2	24.0	24.4
	6H	24.8	25.4	25.3	25.9	26.4	22.9	23.6	23.4	24.0	24.5
	8H	25.0	25.5	25.5	26.0	26.6	23.0	23.5	23.5	24.0	24.6

Maximum UGR = 26.7

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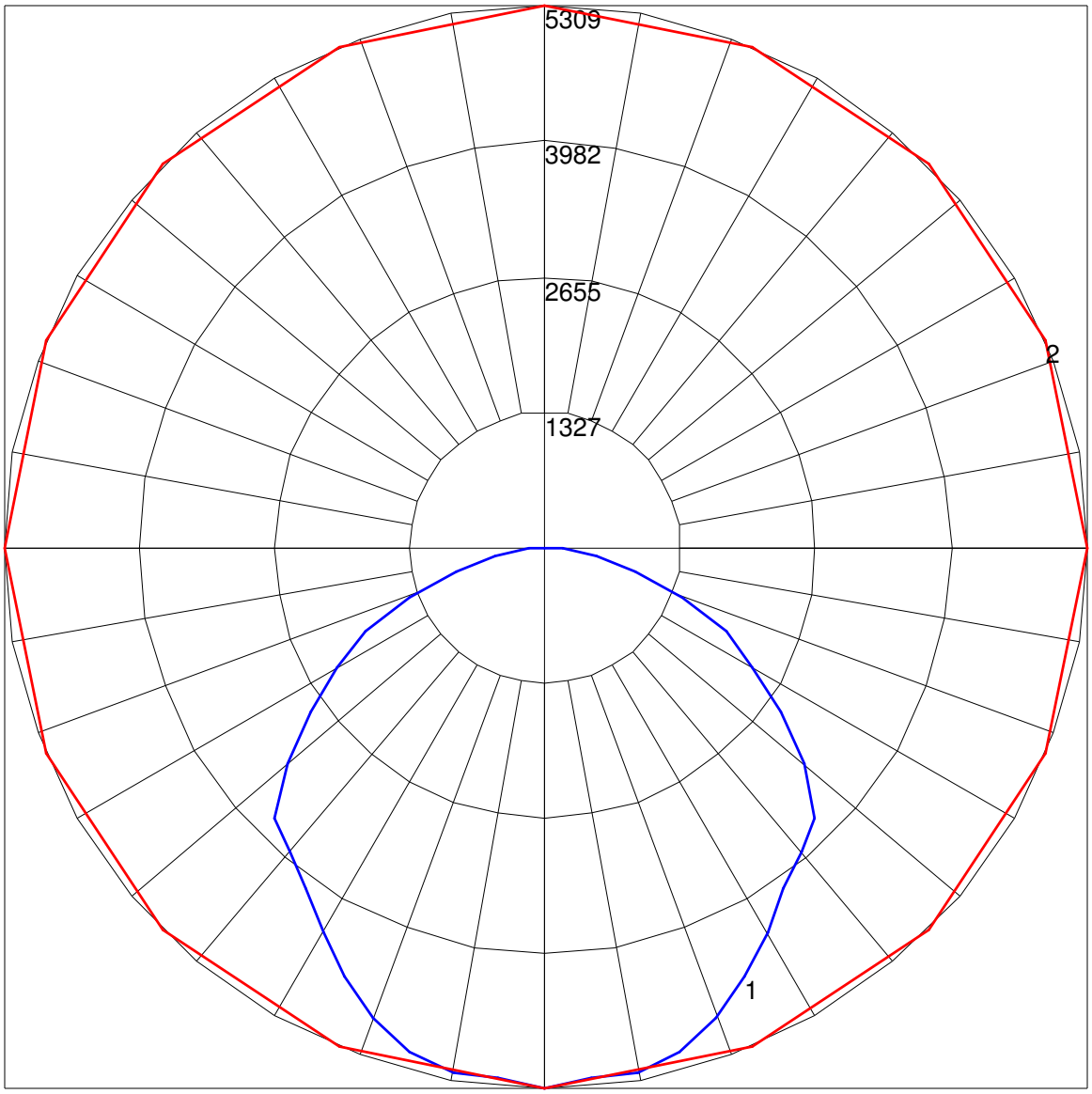
POLAR GRAPH



Maximum Candela = 5309.355 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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