H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-830-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-L150-830-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	14447
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	150
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	13422	13452	13600
55	12392	12932	9748
65	11655	9337	9505
75	8934	5955	5501
85	4901	3172	3607

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	5254.621	5254.621	5254.621	5254.621	5254.621
5	5179.012	5177.565	5179.012	5180.821	5182.268
10	5174.309	5170.691	5174.309	5180.821	5180.821
15	5066.142	5072.653	5087.124	5088.933	5087.124
20	4869.342	4874.045	4882.366	4888.877	4888.877
25	4590.784	4603.807	4613.575	4595.487	4595.487
30	4325.249	4340.081	4328.505	4325.249	4323.440
35	4041.626	4061.161	4048.138	4056.459	4057.906
40	3861.468	3886.068	3866.171	3877.747	3889.324
45	3713.868	3733.403	3722.189	3750.045	3763.068
50	3282.646	3313.757	3343.422	3366.213	3345.231
55	2781.241	2828.632	2902.432	2283.092	2187.948
60	2330.483	2376.427	2378.236	1882.981	1891.302
65	1927.478	1952.078	1544.008	1589.952	1571.864
70	1412.688	1478.167	1207.930	1057.074	847.251
75	904.772	747.404	603.060	614.637	557.116
80	503.214	450.758	259.023	180.158	158.814
85	167.135	108.167	108.167	121.191	123.000
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1924.67	N.A.	13.30
0-30	4049.46	N.A.	28.00
0-40	6607.07	N.A.	45.70
0-60	11853.16	N.A.	82.00
0-80	14298.13	N.A.	99.00
0-90	14446.89	N.A.	100.00
10-90	13951.71	N.A.	96.60
20-40	4682.4	N.A.	32.40
20-50	7520.56	N.A.	52.10
40-70	6934.42	N.A.	48.00
60-80	2444.96	N.A.	16.90
70-80	756.64	N.A.	5.20
80-90	148.76	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	14446.89	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	495.18
10-20	1429.49
20-30	2124.78
30-40	2557.62
40-50	2838.16
50-60	2407.93
60-70	1688.33
70-80	756.64
80-90	148.76
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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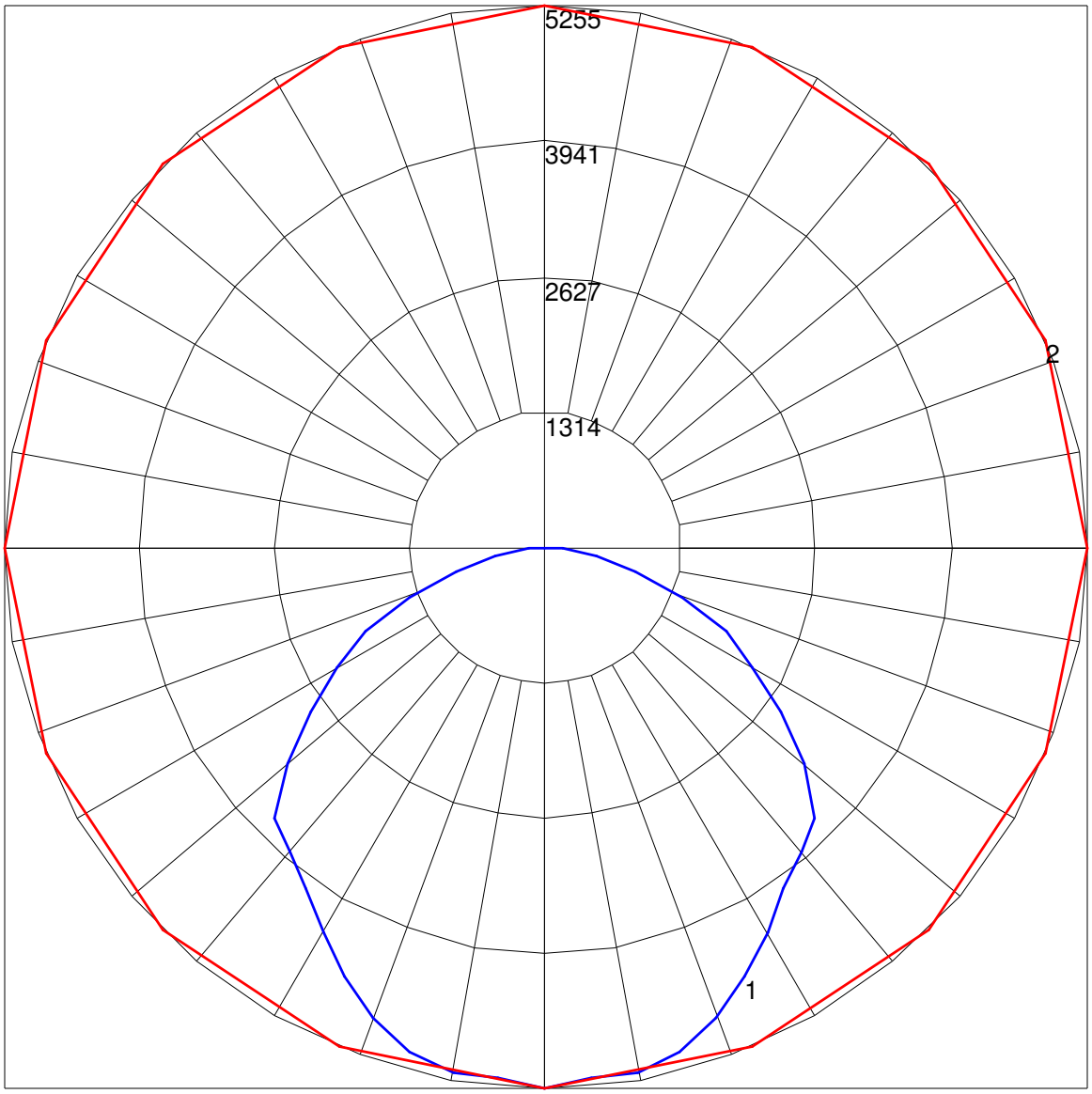
POLAR GRAPH



Maximum Candela = 5254.621 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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