H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-830-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19323.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1x4'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/WHITE RIBBED ACRYLIC LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L80-830-RA-DIM-UNV
[LAMPCAT] 22" LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7898
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	128
Total Luminaire Watts	61.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	0.94 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7392	7721	7833
55	6524	7169	7473
65	5678	6728	6903
75	4125	5779	6024
85	1880	3093	3638

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2878.318	2878.318	2878.318	2878.318	2878.318
5	2943.324	2921.655	2910.821	2883.735	2867.483
10	2892.763	2876.512	2871.095	2842.203	2827.757
15	2813.312	2798.866	2806.089	2771.780	2771.780
20	2699.551	2694.134	2706.774	2674.271	2685.106
25	2573.151	2560.511	2585.791	2562.317	2555.094
30	2425.082	2401.608	2437.722	2425.082	2421.470
35	2239.093	2221.036	2267.984	2258.956	2269.790
40	2022.406	2018.795	2069.355	2076.578	2067.549
45	1785.857	1791.274	1865.309	1881.560	1892.395
50	1534.862	1561.948	1639.594	1679.320	1679.320
55	1278.450	1329.010	1404.850	1482.496	1464.439
60	1047.318	1090.655	1180.941	1244.141	1235.112
65	819.797	857.717	971.477	1016.620	996.757
70	585.053	655.476	749.374	771.042	762.014
75	364.755	458.653	511.019	532.687	532.687
80	185.989	272.664	292.527	308.778	296.138
85	55.977	106.537	92.092	101.120	108.343
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1062.9	N.A.	13.50
0-30	2246.08	N.A.	28.40
0-40	3652.07	N.A.	46.20
0-60	6322.43	N.A.	80.00
0-80	7770.43	N.A.	98.40
0-90	7898.26	N.A.	100.00
10-90	7622.78	N.A.	96.50
20-40	2589.18	N.A.	32.80
20-50	4011.11	N.A.	50.80
40-70	3599.56	N.A.	45.60
60-80	1447.99	N.A.	18.30
70-80	518.80	N.A.	6.60
80-90	127.83	N.A.	1.60
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	7898.26	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	275.48
10-20	787.42
20-30	1183.19
30-40	1405.99
40-50	1421.93
50-60	1248.43
60-70	929.20
70-80	518.80
80-90	127.83
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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	78	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27
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	18.5	20.1	18.8	20.4	20.7	19.3	20.9	19.7	21.3	21.6
	3H	20.0	21.5	20.4	21.8	22.2	21.1	22.6	21.5	22.9	23.3
	4H	20.5	21.9	20.9	22.3	22.6	21.8	23.1	22.2	23.5	23.9
	6H	20.8	22.1	21.3	22.5	22.9	22.2	23.5	22.6	23.8	24.2
	8H	20.9	22.1	21.3	22.5	22.9	22.3	23.5	22.7	23.9	24.3
	12H	20.9	22.1	21.4	22.5	22.9	22.4	23.6	22.8	23.9	24.4
4H	2H	19.2	20.6	19.6	20.9	21.3	19.9	21.3	20.3	21.6	22.0
	3H	21.0	22.2	21.4	22.6	23.0	21.9	23.1	22.3	23.5	23.9
	4H	21.7	22.7	22.1	23.1	23.6	22.7	23.7	23.1	24.2	24.6
	6H	22.1	23.0	22.6	23.5	23.9	23.3	24.2	23.7	24.6	25.1
	8H	22.2	23.1	22.7	23.5	24.0	23.4	24.3	23.9	24.7	25.2
	12H	22.3	23.1	22.8	23.5	24.0	23.5	24.3	24.0	24.8	25.3
8H	4H	22.1	22.9	22.5	23.4	23.8	23.0	23.8	23.4	24.3	24.7
	6H	22.7	23.4	23.1	23.8	24.3	23.7	24.4	24.2	24.9	25.3
	8H	22.8	23.5	23.3	24.0	24.5	23.9	24.5	24.4	25.0	25.5
	12H	23.0	23.5	23.5	24.0	24.6	24.0	24.6	24.5	25.1	25.7
12H	4H	22.1	22.9	22.6	23.4	23.8	23.0	23.8	23.5	24.2	24.7
	6H	22.7	23.4	23.2	23.8	24.4	23.7	24.3	24.2	24.8	25.3
	8H	23.0	23.5	23.5	24.0	24.6	24.0	24.5	24.5	25.0	25.6

Maximum UGR = 25.7

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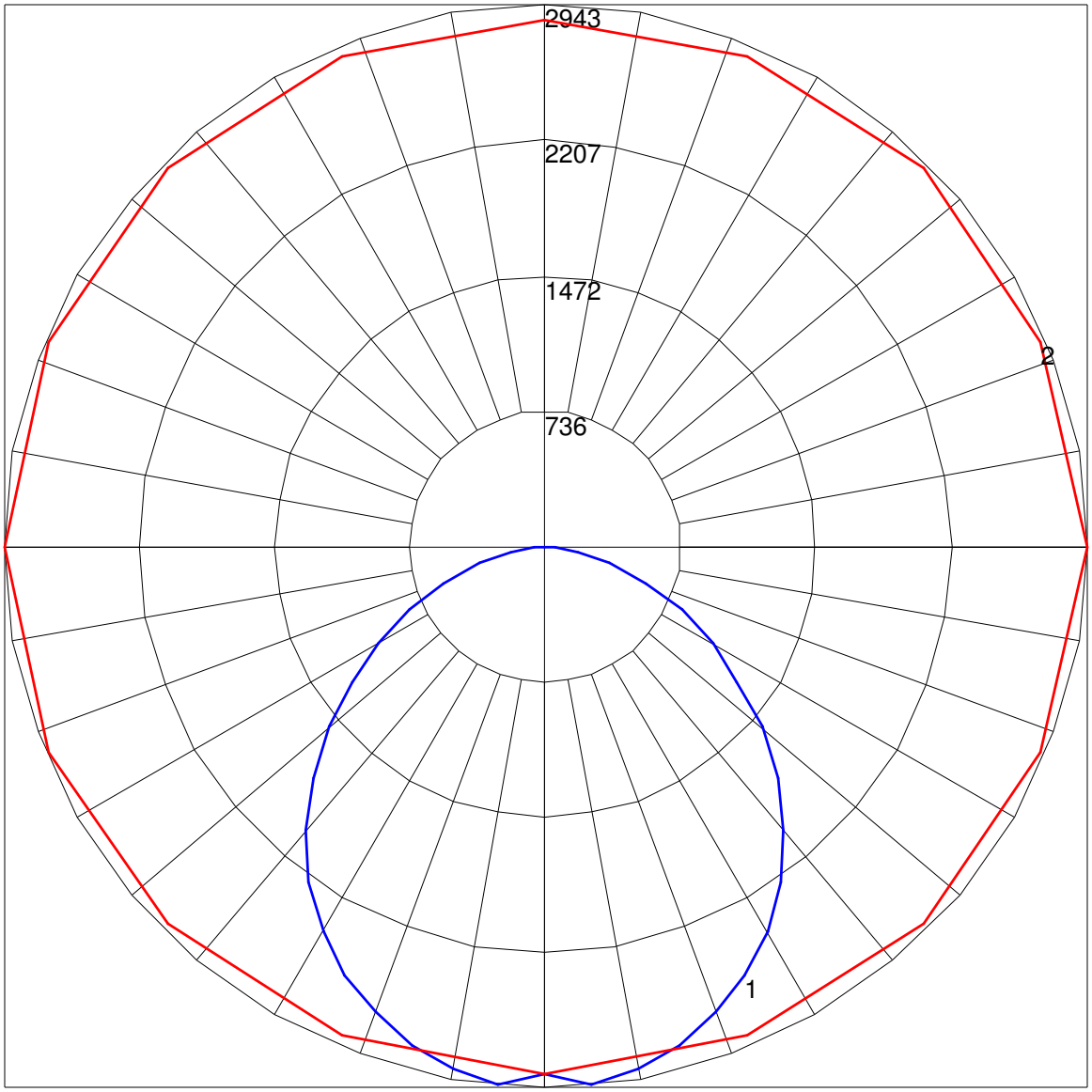
POLAR GRAPH



Maximum Candela = 2943.324 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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