H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L27-830-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-L27-830-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	2600
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	138
Total Luminaire Watts	18.8
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	2433	2541	2578
55	2147	2360	2460
65	1869	2215	2272
75	1358	1902	1983
85	619	1018	1198

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	947.413	947.413	947.413	947.413	947.413
5	968.810	961.678	958.112	949.196	943.847
10	952.168	946.819	945.036	935.526	930.771
15	926.016	921.261	923.639	912.346	912.346
20	888.571	886.788	890.949	880.250	883.816
25	846.966	842.805	851.126	843.400	841.022
30	798.228	790.502	802.389	798.228	797.040
35	737.009	731.065	746.519	743.547	747.113
40	665.686	664.497	681.139	683.516	680.545
45	587.824	589.607	613.976	619.325	622.891
50	505.208	514.123	539.681	552.757	552.757
55	420.808	437.450	462.414	487.971	482.028
60	344.730	358.995	388.713	409.515	406.544
65	269.840	282.322	319.767	334.626	328.088
70	192.573	215.753	246.660	253.793	250.821
75	120.061	150.968	168.204	175.337	175.337
80	61.219	89.749	96.287	101.636	97.475
85	18.425	35.067	30.312	33.284	35.662
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	349.86	N.A.	13.50
0-30	739.31	N.A.	28.40
0-40	1202.1	N.A.	46.20
0-60	2081.06	N.A.	80.00
0-80	2557.68	N.A.	98.40
0-90	2599.75	N.A.	100.00
10-90	2509.08	N.A.	96.50
20-40	852.24	N.A.	32.80
20-50	1320.28	N.A.	50.80
40-70	1184.81	N.A.	45.60
60-80	476.61	N.A.	18.30
70-80	170.76	N.A.	6.60
80-90	42.08	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	2599.75	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	90.68
10-20	259.18
20-30	389.45
30-40	462.79
40-50	468.04
50-60	410.93
60-70	305.85
70-80	170.76
80-90	42.08
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	72	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	54	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	54	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	14.6	16.2	14.9	16.5	16.8	15.4	17.0	15.8	17.4	17.7
	3H	16.1	17.6	16.5	17.9	18.3	17.2	18.7	17.6	19.0	19.3
	4H	16.6	18.0	17.0	18.4	18.7	17.9	19.2	18.3	19.6	20.0
	6H	16.9	18.2	17.4	18.6	19.0	18.3	19.6	18.7	19.9	20.3
	8H	17.0	18.2	17.4	18.6	19.0	18.4	19.6	18.8	20.0	20.4
	12H	17.0	18.2	17.5	18.6	19.0	18.5	19.7	18.9	20.0	20.5
4H	2H	15.3	16.7	15.7	17.0	17.4	16.0	17.4	16.4	17.7	18.1
	3H	17.1	18.3	17.5	18.7	19.1	18.0	19.2	18.4	19.6	20.0
	4H	17.8	18.8	18.2	19.2	19.7	18.8	19.8	19.2	20.3	20.7
	6H	18.2	19.1	18.7	19.6	20.0	19.4	20.3	19.8	20.7	21.2
	8H	18.3	19.2	18.8	19.6	20.1	19.5	20.4	20.0	20.8	21.3
	12H	18.4	19.2	18.9	19.6	20.1	19.6	20.4	20.1	20.9	21.4
8H	4H	18.2	19.0	18.6	19.5	19.9	19.1	19.9	19.5	20.4	20.8
	6H	18.8	19.5	19.2	19.9	20.4	19.8	20.5	20.3	21.0	21.4
	8H	18.9	19.6	19.4	20.1	20.6	20.0	20.6	20.5	21.1	21.6
	12H	19.1	19.6	19.6	20.1	20.7	20.1	20.7	20.6	21.2	21.8
12H	4H	18.2	19.0	18.7	19.5	19.9	19.1	19.9	19.6	20.3	20.8
	6H	18.8	19.5	19.3	19.9	20.5	19.8	20.4	20.3	20.9	21.4
	8H	19.1	19.6	19.6	20.1	20.7	20.1	20.6	20.6	21.1	21.7

Maximum UGR = 21.8

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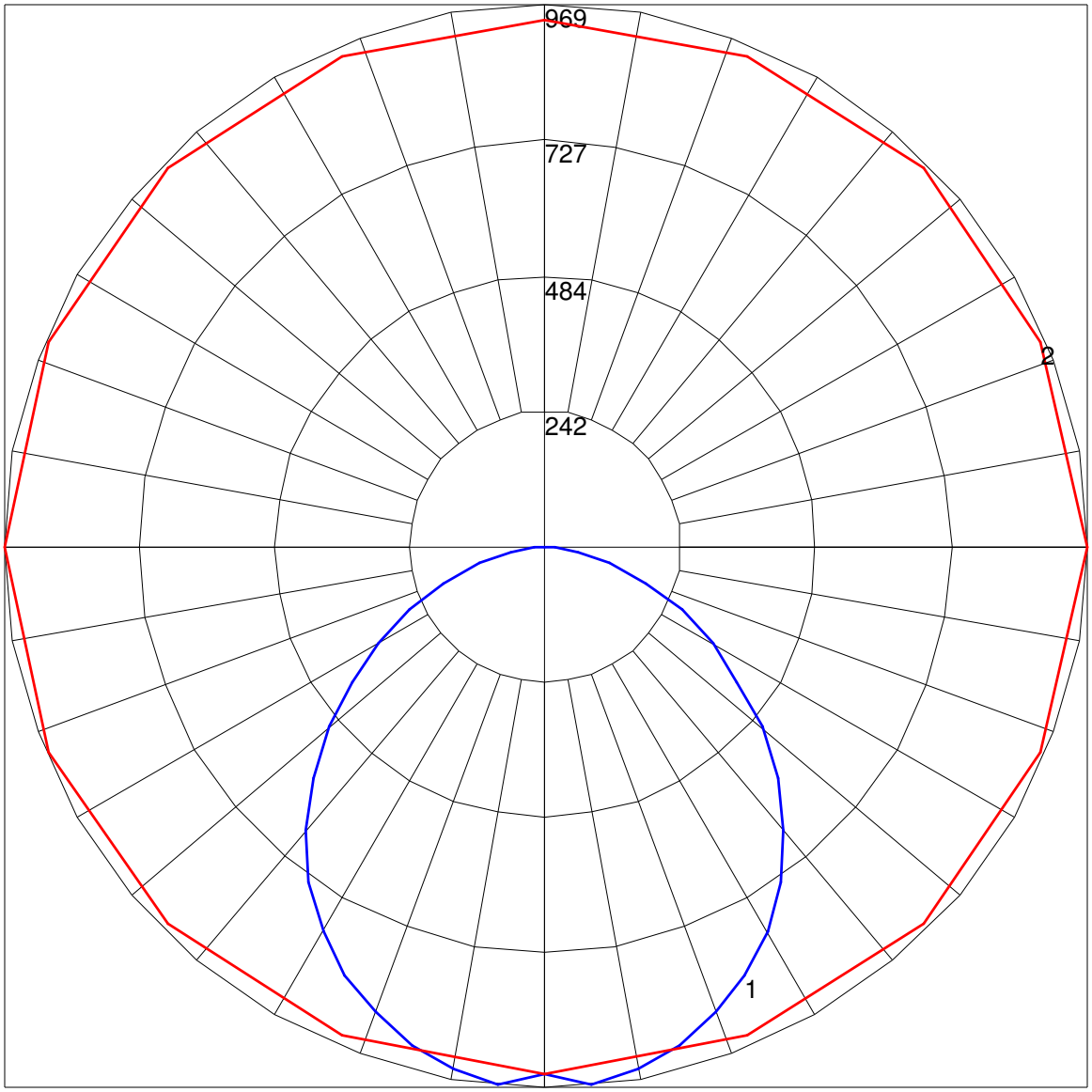
POLAR GRAPH



Maximum Candela = 968.81 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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