H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-L61-930-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19235.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-27
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[MORE] 0-10V DRIVER
[LUMCAT] PT-24-L61-930-RA-DIM-UNV
[LAMPCAT] 22 INCH HLM 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	5130
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	45.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2200	2321	2440
55	1972	2158	2331
65	1733	2054	2334
75	1341	2060	2550
85	810	2703	3097

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1962.714	1962.714	1962.714	1962.714	1962.714
5	1932.744	1930.080	1930.080	1923.420	1920.090
10	1926.750	1926.750	1930.080	1932.744	1932.744
15	1876.134	1878.798	1882.128	1886.790	1890.120
20	1752.257	1758.917	1766.909	1777.565	1780.895
25	1653.022	1659.016	1675.001	1688.987	1695.647
30	1448.559	1403.937	1586.422	1533.808	1525.816
35	1336.004	1348.658	1378.629	1403.937	1413.927
40	1188.817	1204.802	1238.102	1271.402	1284.056
45	1086.253	1100.239	1146.193	1188.817	1204.802
50	943.728	965.706	1016.322	1060.945	1076.263
55	789.881	813.857	864.473	915.090	933.738
60	644.026	669.334	726.611	778.559	797.873
65	511.491	544.791	606.064	666.670	688.648
70	376.958	416.253	488.847	552.783	574.762
75	242.426	291.044	372.296	436.899	460.875
80	133.201	196.471	289.712	352.982	372.296
85	49.284	112.555	164.503	185.149	188.479
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	711.48	N.A.	13.90
0-30	1474.54	N.A.	28.70
0-40	2334.71	N.A.	45.50
0-60	3987.19	N.A.	77.70
0-80	4976.94	N.A.	97.00
0-90	5130.36	N.A.	100.00
10-90	4945.87	N.A.	96.40
20-40	1623.23	N.A.	31.60
20-50	2500.59	N.A.	48.70
40-70	2250.82	N.A.	43.90
60-80	989.75	N.A.	19.30
70-80	391.40	N.A.	7.60
80-90	153.43	N.A.	3.00
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	5130.36	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	184.50
10-20	526.99
20-30	763.06
30-40	860.17
40-50	877.35
50-60	775.12
60-70	598.35
70-80	391.40
80-90	153.43
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	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	14.0	15.7	14.4	16.0	16.3	15.1	16.7	15.4	17.0	17.3
	3H	15.7	17.2	16.1	17.5	17.9	17.2	18.7	17.6	19.1	19.4
	4H	16.3	17.7	16.7	18.0	18.4	18.2	19.6	18.6	20.0	20.4
	6H	16.6	18.0	17.1	18.3	18.7	19.3	20.6	19.7	20.9	21.3
	8H	16.8	18.0	17.2	18.4	18.8	19.7	20.9	20.1	21.3	21.7
	12H	16.8	18.0	17.3	18.4	18.8	20.0	21.2	20.5	21.6	22.0
4H	2H	14.8	16.2	15.2	16.6	17.0	15.6	17.0	16.0	17.4	17.7
	3H	16.7	17.9	17.2	18.3	18.7	18.1	19.3	18.5	19.7	20.0
	4H	17.4	18.5	17.9	18.9	19.4	19.2	20.3	19.7	20.7	21.2
	6H	18.0	18.9	18.4	19.4	19.8	20.5	21.4	20.9	21.9	22.3
	8H	18.1	19.0	18.6	19.5	19.9	21.0	21.9	21.5	22.3	22.8
	12H	18.3	19.1	18.8	19.5	20.0	21.4	22.2	21.9	22.7	23.2
8H	4H	18.0	18.9	18.5	19.4	19.8	19.6	20.5	20.0	20.9	21.4
	6H	18.8	19.5	19.3	20.0	20.5	21.0	21.8	21.5	22.3	22.7
	8H	19.1	19.7	19.6	20.2	20.7	21.7	22.4	22.2	22.9	23.3
	12H	19.3	19.9	19.8	20.4	20.9	22.3	22.8	22.8	23.3	23.9
12H	4H	18.2	19.0	18.7	19.5	19.9	19.6	20.4	20.1	20.9	21.4
	6H	19.0	19.7	19.6	20.2	20.7	21.1	21.8	21.7	22.3	22.8
	8H	19.4	20.0	19.9	20.5	21.1	21.9	22.4	22.4	22.9	23.5

Maximum UGR = 23.9

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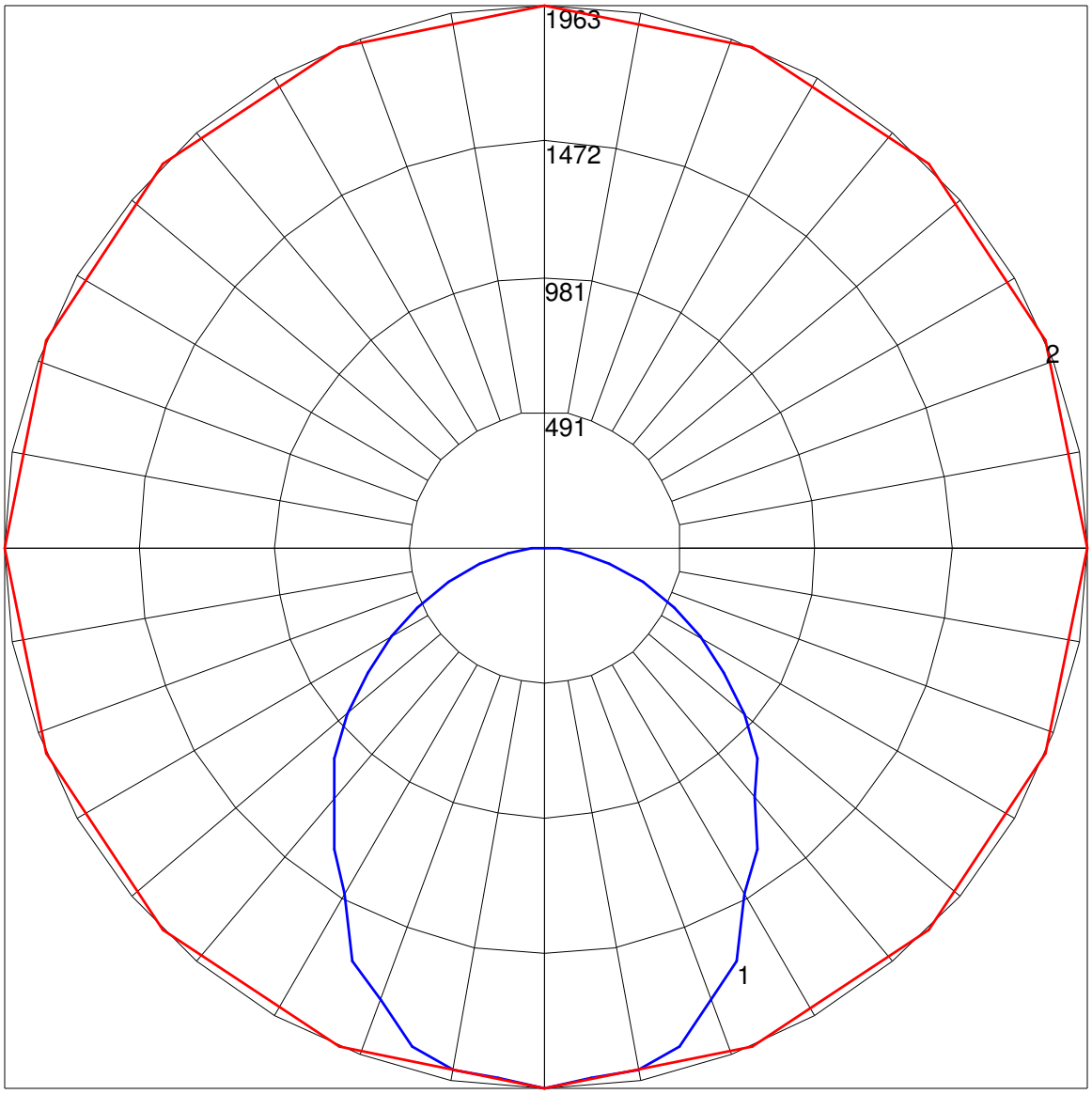
POLAR GRAPH



Maximum Candela = 1962.714 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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