H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-927-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-L80-927-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	6542
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
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	6123	6395	6488
55	5404	5938	6190
65	4703	5573	5718
75	3417	4787	4990
85	1557	2562	3014

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2384.061	2384.061	2384.061	2384.061	2384.061
5	2437.905	2419.957	2410.983	2388.548	2375.087
10	2396.026	2382.566	2378.079	2354.148	2342.183
15	2330.218	2318.253	2324.235	2295.818	2295.818
20	2235.992	2231.505	2241.975	2215.053	2224.027
25	2131.297	2120.827	2141.766	2122.323	2116.340
30	2008.654	1989.210	2019.123	2008.654	2005.663
35	1854.602	1839.646	1878.533	1871.054	1880.028
40	1675.125	1672.133	1714.011	1719.994	1712.516
45	1479.195	1483.682	1545.003	1558.464	1567.438
50	1271.300	1293.735	1358.047	1390.952	1390.952
55	1058.918	1100.796	1163.613	1227.926	1212.970
60	867.475	903.371	978.153	1030.501	1023.023
65	679.024	710.432	804.658	842.049	825.597
70	484.590	542.920	620.693	638.641	631.163
75	302.121	379.894	423.268	441.216	441.216
80	154.052	225.843	242.295	255.756	245.286
85	46.365	88.243	76.278	83.756	89.739
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	880.38	N.A.	13.50
0-30	1860.39	N.A.	28.40
0-40	3024.95	N.A.	46.20
0-60	5236.76	N.A.	80.00
0-80	6436.11	N.A.	98.40
0-90	6541.99	N.A.	100.00
10-90	6313.82	N.A.	96.50
20-40	2144.57	N.A.	32.80
20-50	3322.33	N.A.	50.80
40-70	2981.45	N.A.	45.60
60-80	1199.35	N.A.	18.30
70-80	429.71	N.A.	6.60
80-90	105.88	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	6541.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	228.17
10-20	652.20
20-30	980.01
30-40	1164.56
40-50	1177.76
50-60	1034.05
60-70	769.64
70-80	429.71
80-90	105.88
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	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	17.8	19.4	18.1	19.7	20.0	18.6	20.2	19.0	20.6	20.9
	3H	19.3	20.8	19.7	21.1	21.5	20.4	21.9	20.8	22.2	22.6
	4H	19.8	21.2	20.2	21.6	21.9	21.1	22.4	21.5	22.8	23.2
	6H	20.1	21.4	20.6	21.8	22.2	21.5	22.8	21.9	23.1	23.5
	8H	20.2	21.4	20.6	21.8	22.2	21.6	22.8	22.0	23.2	23.6
	12H	20.2	21.4	20.7	21.8	22.2	21.7	22.9	22.1	23.2	23.7
4H	2H	18.5	19.9	18.9	20.2	20.6	19.2	20.6	19.6	20.9	21.3
	3H	20.3	21.5	20.7	21.9	22.3	21.2	22.4	21.6	22.8	23.2
	4H	21.0	22.0	21.4	22.4	22.9	22.0	23.0	22.4	23.5	23.9
	6H	21.4	22.3	21.9	22.8	23.2	22.6	23.5	23.0	23.9	24.4
	8H	21.5	22.4	22.0	22.8	23.3	22.7	23.6	23.2	24.0	24.5
	12H	21.6	22.4	22.1	22.8	23.3	22.8	23.6	23.3	24.1	24.6
8H	4H	21.4	22.2	21.8	22.7	23.1	22.3	23.1	22.7	23.6	24.0
	6H	22.0	22.7	22.4	23.1	23.6	23.0	23.7	23.5	24.2	24.6
	8H	22.1	22.8	22.6	23.3	23.8	23.2	23.8	23.7	24.3	24.8
	12H	22.3	22.8	22.8	23.3	23.9	23.3	23.9	23.8	24.4	25.0
12H	4H	21.4	22.2	21.9	22.7	23.1	22.3	23.1	22.8	23.5	24.0
	6H	22.0	22.7	22.5	23.1	23.7	23.0	23.6	23.5	24.1	24.6
	8H	22.3	22.8	22.8	23.3	23.9	23.3	23.8	23.8	24.3	24.9

Maximum UGR = 25.0

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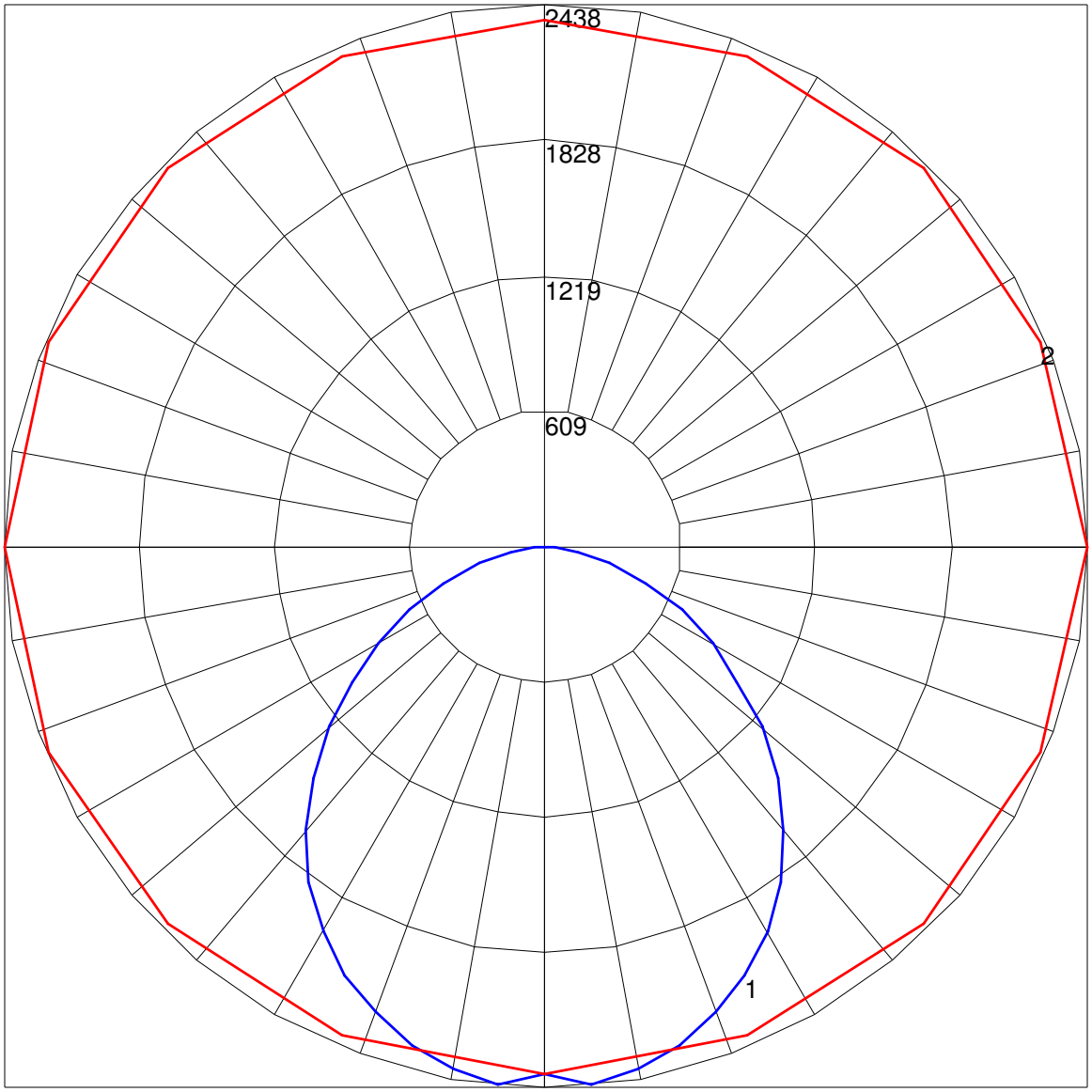
POLAR GRAPH



Maximum Candela = 2437.905 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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