H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-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] 2022-05-06
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
[MORE] w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[LUMCAT] PTDC-24-L61-930-RA-DIM-UNV
[LAMPCAT] HLM 90 CRI 3000K CCT
[_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	5029
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	48.5
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	2157	2276	2392
55	1933	2116	2285
65	1699	2013	2288
75	1315	2019	2500
85	794	2650	3036

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1923.974	1923.974	1923.974	1923.974	1923.974
5	1894.596	1891.984	1891.984	1885.456	1882.191
10	1888.720	1888.720	1891.984	1894.596	1894.596
15	1839.103	1841.714	1844.978	1849.548	1852.813
20	1717.671	1724.200	1732.034	1742.480	1745.744
25	1620.395	1626.271	1641.939	1655.649	1662.178
30	1419.967	1376.226	1555.109	1503.533	1495.699
35	1309.634	1322.039	1351.417	1376.226	1386.019
40	1165.353	1181.021	1213.664	1246.307	1258.711
45	1064.812	1078.522	1123.570	1165.353	1181.021
50	925.101	946.645	996.262	1040.004	1055.020
55	774.290	797.793	847.410	897.028	915.308
60	631.314	656.123	712.269	763.192	782.125
65	501.395	534.038	594.101	653.511	675.056
70	369.518	408.037	479.198	541.873	563.417
75	237.641	285.299	364.948	428.275	451.778
80	130.572	192.593	283.993	346.015	364.948
85	48.312	110.333	161.256	181.495	184.759
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	697.44	N.A.	13.90
0-30	1445.43	N.A.	28.70
0-40	2288.63	N.A.	45.50
0-60	3908.49	N.A.	77.70
0-80	4878.7	N.A.	97.00
0-90	5029.1	N.A.	100.00
10-90	4848.24	N.A.	96.40
20-40	1591.19	N.A.	31.60
20-50	2451.23	N.A.	48.70
40-70	2206.4	N.A.	43.90
60-80	970.21	N.A.	19.30
70-80	383.67	N.A.	7.60
80-90	150.40	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	5029.1	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	180.85
10-20	516.58
20-30	748.00
30-40	843.20
40-50	860.04
50-60	759.82
60-70	586.54
70-80	383.67
80-90	150.40
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	32	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	13.9	15.6	14.3	15.9	16.2	15.0	16.6	15.3	16.9	17.2
	3H	15.6	17.1	16.0	17.4	17.8	17.1	18.6	17.5	19.0	19.3
	4H	16.2	17.6	16.6	17.9	18.3	18.1	19.5	18.5	19.9	20.3
	6H	16.5	17.9	17.0	18.2	18.6	19.2	20.5	19.6	20.8	21.2
	8H	16.7	17.9	17.1	18.3	18.7	19.6	20.8	20.0	21.2	21.6
	12H	16.7	17.9	17.2	18.3	18.7	19.9	21.1	20.4	21.5	21.9
4H	2H	14.7	16.1	15.1	16.5	16.9	15.5	16.9	15.9	17.3	17.6
	3H	16.6	17.8	17.1	18.2	18.6	18.0	19.2	18.4	19.5	19.9
	4H	17.3	18.4	17.8	18.8	19.3	19.1	20.2	19.6	20.6	21.1
	6H	17.9	18.8	18.3	19.3	19.7	20.4	21.3	20.8	21.8	22.2
	8H	18.0	18.9	18.5	19.4	19.8	20.9	21.8	21.4	22.2	22.7
	12H	18.2	19.0	18.7	19.4	19.9	21.3	22.1	21.8	22.6	23.1
8H	4H	17.9	18.8	18.4	19.3	19.7	19.5	20.4	19.9	20.8	21.3
	6H	18.7	19.4	19.2	19.9	20.4	20.9	21.7	21.4	22.2	22.6
	8H	19.0	19.6	19.5	20.1	20.6	21.6	22.3	22.1	22.8	23.2
	12H	19.2	19.8	19.7	20.3	20.8	22.2	22.7	22.7	23.2	23.8
12H	4H	18.1	18.9	18.6	19.4	19.8	19.5	20.3	20.0	20.8	21.3
	6H	18.9	19.6	19.5	20.1	20.6	21.0	21.7	21.6	22.2	22.7
	8H	19.3	19.9	19.8	20.4	21.0	21.8	22.3	22.3	22.8	23.4

Maximum UGR = 23.8

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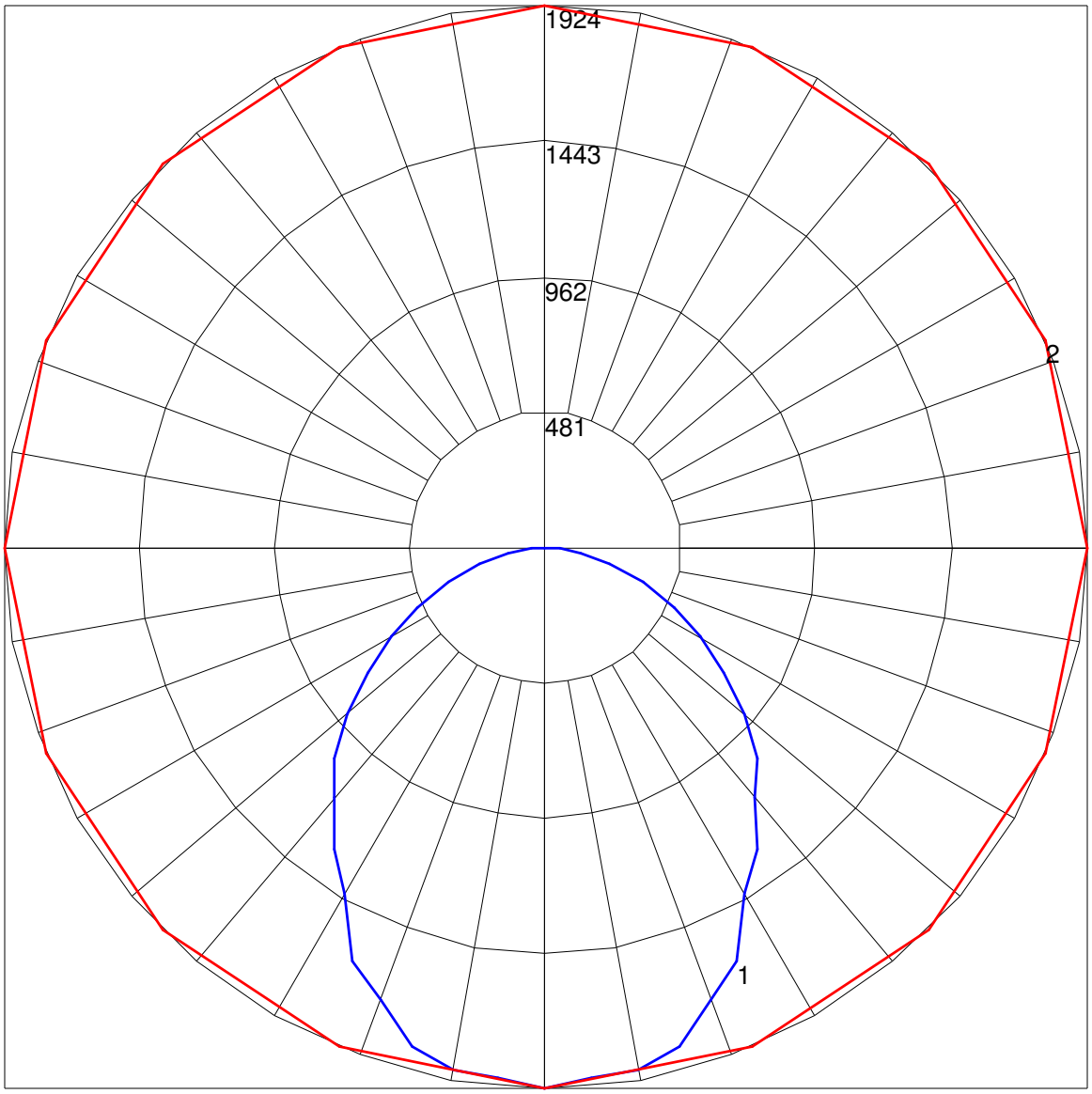
POLAR GRAPH



Maximum Candela = 1923.974 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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