H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-24-L61-950-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-L61-950-RA-DIM-UNV
[LAMPCAT] HLM 90 CRI 5000K 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	5453
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
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	2339	2468	2594
55	2096	2294	2478
65	1842	2183	2481
75	1426	2190	2711
85	861	2873	3292

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2086.237	2086.237	2086.237	2086.237	2086.237
5	2054.381	2051.549	2051.549	2044.470	2040.930
10	2048.010	2048.010	2051.549	2054.381	2054.381
15	1994.208	1997.040	2000.579	2005.535	2009.074
20	1862.535	1869.614	1878.109	1889.436	1892.975
25	1757.055	1763.426	1780.416	1795.283	1802.362
30	1539.724	1492.293	1686.263	1630.337	1621.842
35	1420.086	1433.536	1465.392	1492.293	1502.912
40	1263.635	1280.625	1316.021	1351.417	1364.868
45	1154.616	1169.482	1218.329	1263.635	1280.625
50	1003.121	1026.483	1080.284	1127.715	1143.997
55	839.592	865.077	918.879	972.681	992.502
60	684.558	711.459	772.340	827.557	848.087
65	543.682	579.078	644.206	708.627	731.988
70	400.682	442.449	519.613	587.573	610.934
75	257.683	309.361	395.727	464.395	489.880
80	141.584	208.836	307.945	375.197	395.727
85	52.386	119.638	174.856	196.801	200.341
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	756.26	N.A.	13.90
0-30	1567.34	N.A.	28.70
0-40	2481.65	N.A.	45.50
0-60	4238.12	N.A.	77.70
0-80	5290.16	N.A.	97.00
0-90	5453.24	N.A.	100.00
10-90	5257.13	N.A.	96.40
20-40	1725.39	N.A.	31.60
20-50	2657.96	N.A.	48.70
40-70	2392.48	N.A.	43.90
60-80	1052.04	N.A.	19.30
70-80	416.03	N.A.	7.60
80-90	163.08	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	5453.24	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	196.11
10-20	560.15
20-30	811.08
30-40	914.31
40-50	932.57
50-60	823.90
60-70	636.01
70-80	416.03
80-90	163.08
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	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	14.2	15.9	14.6	16.2	16.5	15.3	16.9	15.6	17.2	17.5
	3H	15.9	17.4	16.3	17.7	18.1	17.4	18.9	17.8	19.3	19.6
	4H	16.5	17.9	16.9	18.2	18.6	18.4	19.8	18.8	20.2	20.6
	6H	16.8	18.2	17.3	18.5	18.9	19.5	20.8	19.9	21.1	21.5
	8H	17.0	18.2	17.4	18.6	19.0	19.9	21.1	20.3	21.5	21.9
	12H	17.0	18.2	17.5	18.6	19.0	20.2	21.4	20.7	21.8	22.2
4H	2H	15.0	16.4	15.4	16.8	17.2	15.8	17.2	16.2	17.6	17.9
	3H	16.9	18.1	17.4	18.5	18.9	18.3	19.5	18.7	19.9	20.2
	4H	17.6	18.7	18.1	19.1	19.6	19.4	20.5	19.9	20.9	21.4
	6H	18.2	19.1	18.6	19.6	20.0	20.7	21.6	21.1	22.1	22.5
	8H	18.3	19.2	18.8	19.7	20.1	21.2	22.1	21.7	22.5	23.0
	12H	18.5	19.3	19.0	19.7	20.2	21.6	22.4	22.1	22.9	23.4
8H	4H	18.2	19.1	18.7	19.6	20.0	19.8	20.7	20.2	21.1	21.6
	6H	19.0	19.7	19.5	20.2	20.7	21.2	22.0	21.7	22.5	22.9
	8H	19.3	19.9	19.8	20.4	20.9	21.9	22.6	22.4	23.1	23.5
	12H	19.5	20.1	20.0	20.6	21.1	22.5	23.0	23.0	23.5	24.1
12H	4H	18.4	19.2	18.9	19.7	20.1	19.8	20.6	20.3	21.1	21.6
	6H	19.2	19.9	19.8	20.4	20.9	21.3	22.0	21.9	22.5	23.0
	8H	19.6	20.2	20.1	20.7	21.3	22.1	22.6	22.6	23.1	23.7

Maximum UGR = 24.1

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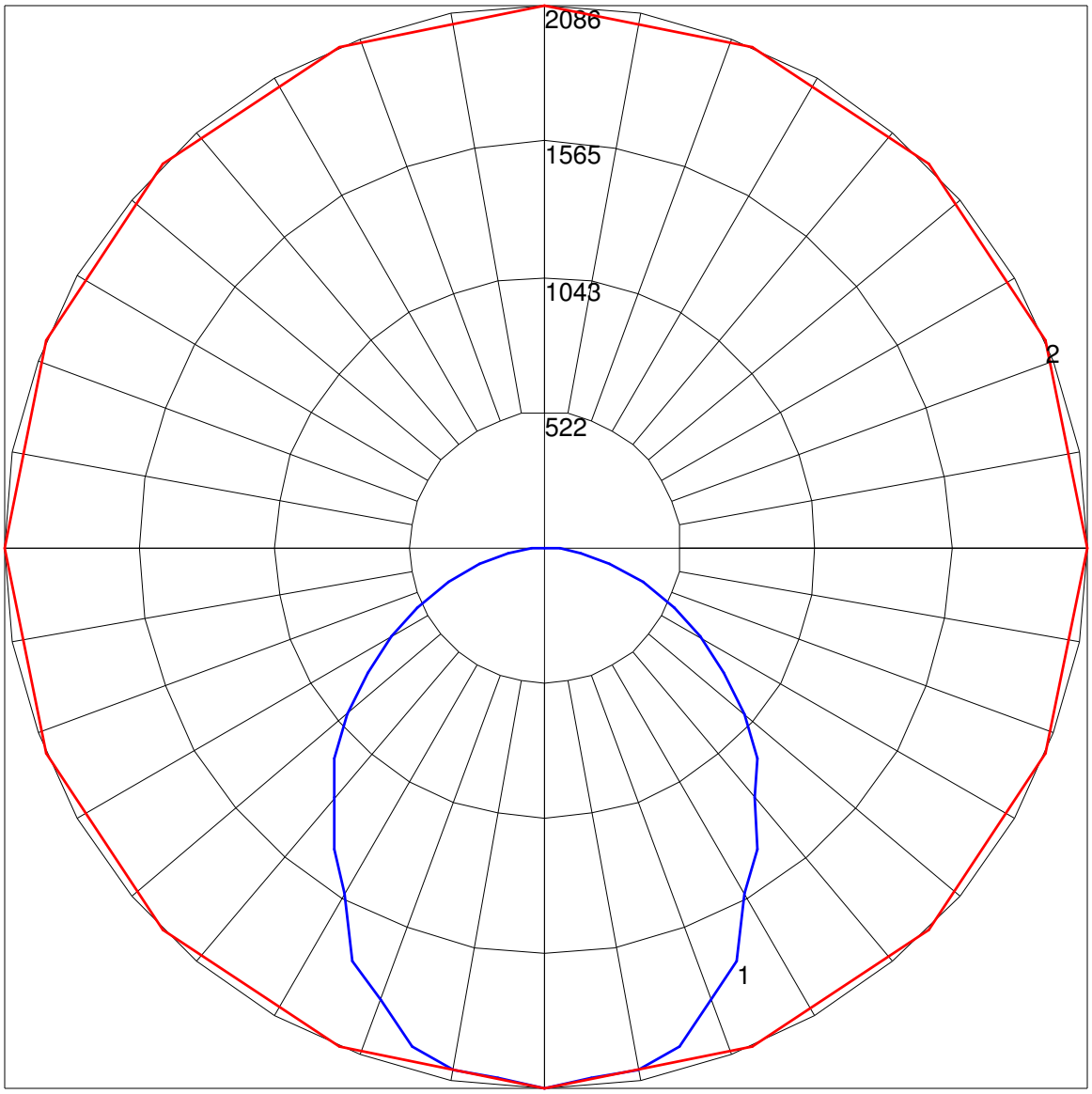
POLAR GRAPH



Maximum Candela = 2086.237 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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