



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT1-24-P58-8TW-D-(P55)-POE PR_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18880.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 12-10-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 2x4' RECESSED LED POE LUMINAIRE w/WHITE

[MORE] REFL, FROST CONCAVE ACRYLIC LENS w/SHALLOW CENTER LENS

[LUMCAT] AT1-24-P58-8TW-D-(P55)-POE PR 4000K CCT

[LAMPCAT] HLM 80 CRI TUNABLE WHITE CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Educational, Office, Direct

[_SEARCH_MOUNTING] Ceiling, Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5591
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	160
Total Luminaire Watts	35
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2591	3029	3290
55	2247	2753	2985
65	2009	2648	2843
75	1706	2523	2594
85	1513	1528	1603

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	2124.145	2124.145	2124.145	2124.145	2124.145
5	2108.016	2107.209	2108.016	2110.435	2111.242
10	2067.694	2070.114	2080.597	2091.081	2096.726
15	1979.793	1988.664	2012.857	2037.050	2049.146
20	1890.279	1908.021	1952.374	2001.567	2023.340
25	1713.670	1736.250	1798.346	1866.086	1892.698
30	1562.867	1596.737	1679.800	1766.895	1799.959
35	1439.483	1482.224	1589.479	1686.251	1720.928
40	1266.906	1317.712	1438.677	1531.416	1562.867
45	1131.426	1191.102	1322.550	1409.645	1436.257
50	954.010	1013.686	1137.877	1213.682	1234.649
55	795.949	859.658	974.978	1040.299	1057.234
60	645.953	711.274	813.691	862.883	875.786
65	524.181	593.535	691.113	730.628	741.918
70	397.571	470.957	554.019	582.245	588.696
75	272.574	345.960	403.217	414.507	414.507
80	173.383	242.736	261.284	202.415	185.480
85	81.450	112.094	82.256	85.482	86.288
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	770.37	N.A.	13.80
0-30	1604.94	N.A.	28.70
0-40	2588.08	N.A.	46.30
0-60	4432.11	N.A.	79.30
0-80	5480.85	N.A.	98.00
0-90	5590.63	N.A.	100.00
10-90	5390.14	N.A.	96.40
20-40	1817.71	N.A.	32.50
20-50	2811.04	N.A.	50.30
40-70	2496.95	N.A.	44.70
60-80	1048.74	N.A.	18.80
70-80	395.82	N.A.	7.10
80-90	109.78	N.A.	2.00
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	5590.63	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	200.49
10-20	569.88
20-30	834.57
30-40	983.14
40-50	993.34
50-60	850.69
60-70	652.92
70-80	395.82
80-90	109.78
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	94	97	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	63	73	67	62	70	65	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	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	30	40	34	29	28
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

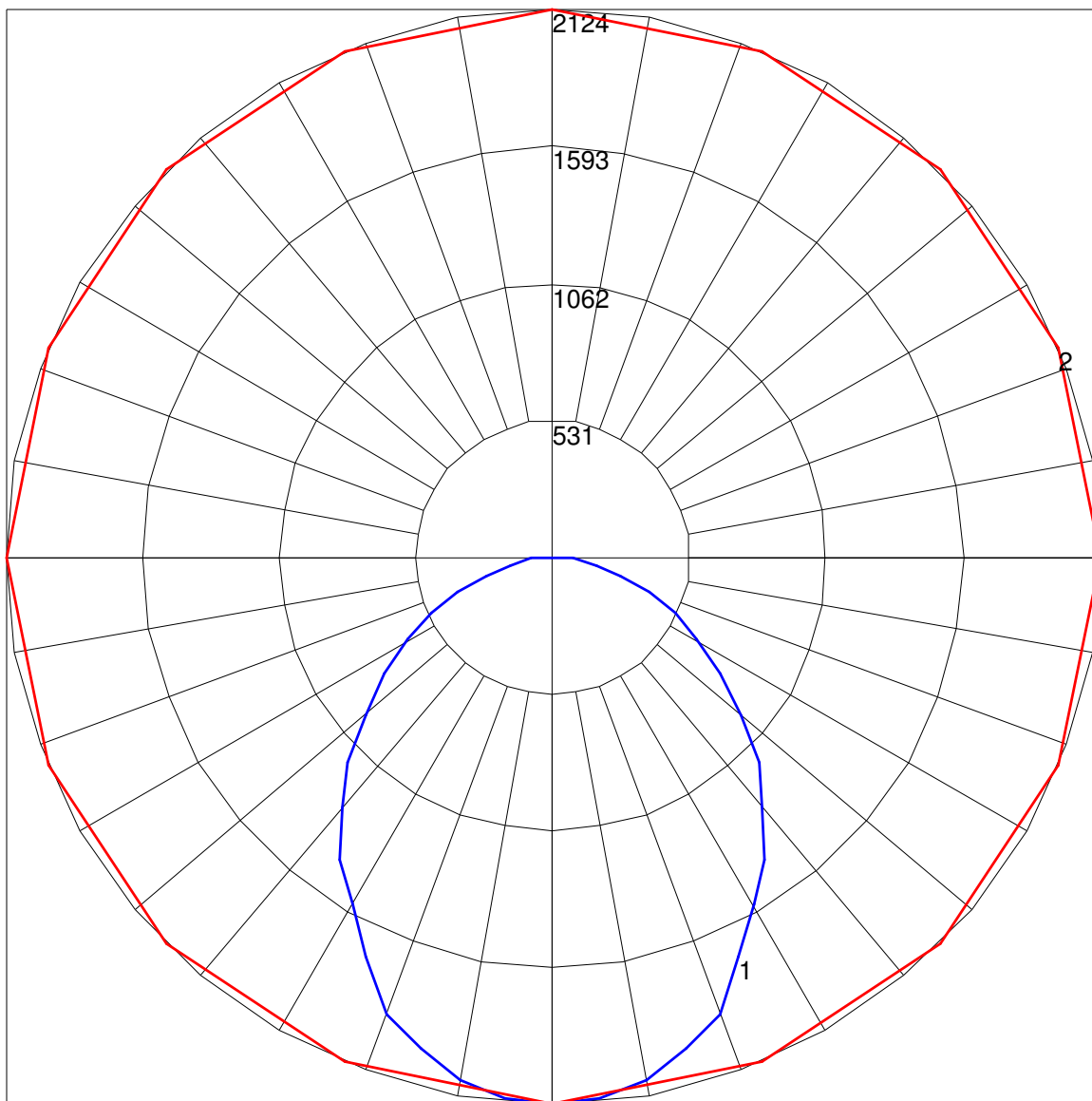
X=2H	Y=2H	14.5	16.2	14.9	16.5	16.8	16.0	17.6	16.4	17.9	18.2
	3H	16.3	17.8	16.7	18.1	18.4	18.0	19.5	18.4	19.8	20.1
	4H	16.9	18.3	17.3	18.7	19.0	18.7	20.1	19.1	20.5	20.8
	6H	17.4	18.7	17.8	19.1	19.5	19.1	20.4	19.5	20.8	21.2
	8H	17.6	18.8	18.0	19.2	19.6	19.2	20.5	19.7	20.9	21.3
	12H	17.7	18.9	18.2	19.3	19.7	19.3	20.5	19.7	20.9	21.3

UGR Viewed Endwise

4H	2H	15.5	16.9	15.9	17.2	17.6	16.6	18.0	17.0	18.3	18.7
	3H	17.5	18.6	17.9	19.0	19.4	18.8	20.0	19.2	20.4	20.8
	4H	18.3	19.3	18.7	19.7	20.2	19.7	20.8	20.1	21.2	21.6
	6H	18.9	19.9	19.4	20.3	20.7	20.2	21.1	20.7	21.6	22.0
	8H	19.2	20.0	19.6	20.5	20.9	20.4	21.2	20.8	21.7	22.1
	12H	19.3	20.1	19.8	20.6	21.1	20.5	21.2	21.0	21.7	22.2
8H	4H	18.8	19.7	19.3	20.1	20.6	20.0	20.9	20.5	21.3	21.8
	6H	19.6	20.4	20.1	20.8	21.3	20.6	21.4	21.1	21.9	22.3
	8H	20.0	20.6	20.5	21.1	21.6	20.9	21.5	21.4	22.0	22.5
	12H	20.3	20.8	20.8	21.3	21.9	21.0	21.6	21.5	22.1	22.6
12H	4H	18.9	19.6	19.3	20.1	20.6	20.1	20.8	20.6	21.3	21.8
	6H	19.8	20.4	20.3	20.9	21.4	20.7	21.4	21.3	21.8	22.4
	8H	20.2	20.7	20.7	21.2	21.8	21.0	21.5	21.5	22.0	22.6

Maximum UGR = 22.6

POLAR GRAPH



Maximum Candela = 2124.145 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.)