H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-950-SA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] BALLABS TEST NO. 20789.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1-84 LED 22"ARRAY 2x2 LUMINAIRE
[MORE] WHITE REFLECTOR w/FROST SQUARED RIBBED LENS
[MORE] ADVANCE #C1042C092V045CNN1
[LUMCAT] PT-22-L61-950-SA-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5630
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	50.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.98 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5033	4959	4889
55	4523	4563	4690
65	3959	4317	4848
75	3086	4347	5620
85	1605	4047	5451

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-950-SA-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2231.302	2231.302	2231.302	2231.302	2231.302
5	2231.302	2216.907	2207.653	2208.681	2206.624
10	2184.003	2172.692	2163.438	2159.325	2156.240
15	2106.884	2098.658	2088.376	2080.150	2078.093
20	2019.483	2006.116	1981.438	1976.296	1971.155
25	1891.980	1886.839	1858.048	1843.652	1834.398
30	1746.997	1738.771	1719.234	1696.612	1681.189
35	1583.505	1585.561	1560.883	1538.262	1529.008
40	1415.900	1421.041	1396.363	1380.940	1374.770
45	1255.493	1252.408	1236.985	1231.843	1219.504
50	1084.804	1087.888	1073.493	1085.832	1075.549
55	915.142	924.397	923.368	949.075	949.075
60	748.566	754.735	781.470	816.430	831.854
65	590.215	605.639	643.684	694.069	722.860
70	429.808	456.543	520.294	585.074	620.035
75	281.740	329.040	396.904	471.967	513.097
80	149.096	202.565	278.656	352.690	390.735
85	49.356	82.260	124.418	152.181	167.605
90	0.000	0.000	0.000	0.000	0.000

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-950-SA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	798.50	N.A.	14.20
0-30	1655.65	N.A.	29.40
0-40	2631.9	N.A.	46.70
0-60	4424.5	N.A.	78.60
0-80	5491.37	N.A.	97.50
0-90	5630.09	N.A.	100.00
10-90	5420.29	N.A.	96.30
20-40	1833.4	N.A.	32.60
20-50	2790.96	N.A.	49.60
40-70	2438.29	N.A.	43.30
60-80	1066.87	N.A.	18.90
70-80	421.17	N.A.	7.50
80-90	138.72	N.A.	2.50
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	5630.09	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	209.80
10-20	588.71
20-30	857.15
30-40	976.25
40-50	957.57
50-60	835.03
60-70	645.70
70-80	421.17
80-90	138.72
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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-950-SA-DIM-UNV_.IES

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	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	80	72	65	88	78	71	64	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	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	55	47	41	53	46	41	51	45	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-950-SA-DIM-UNV_.IES

UGR TABLE - CORRECTED

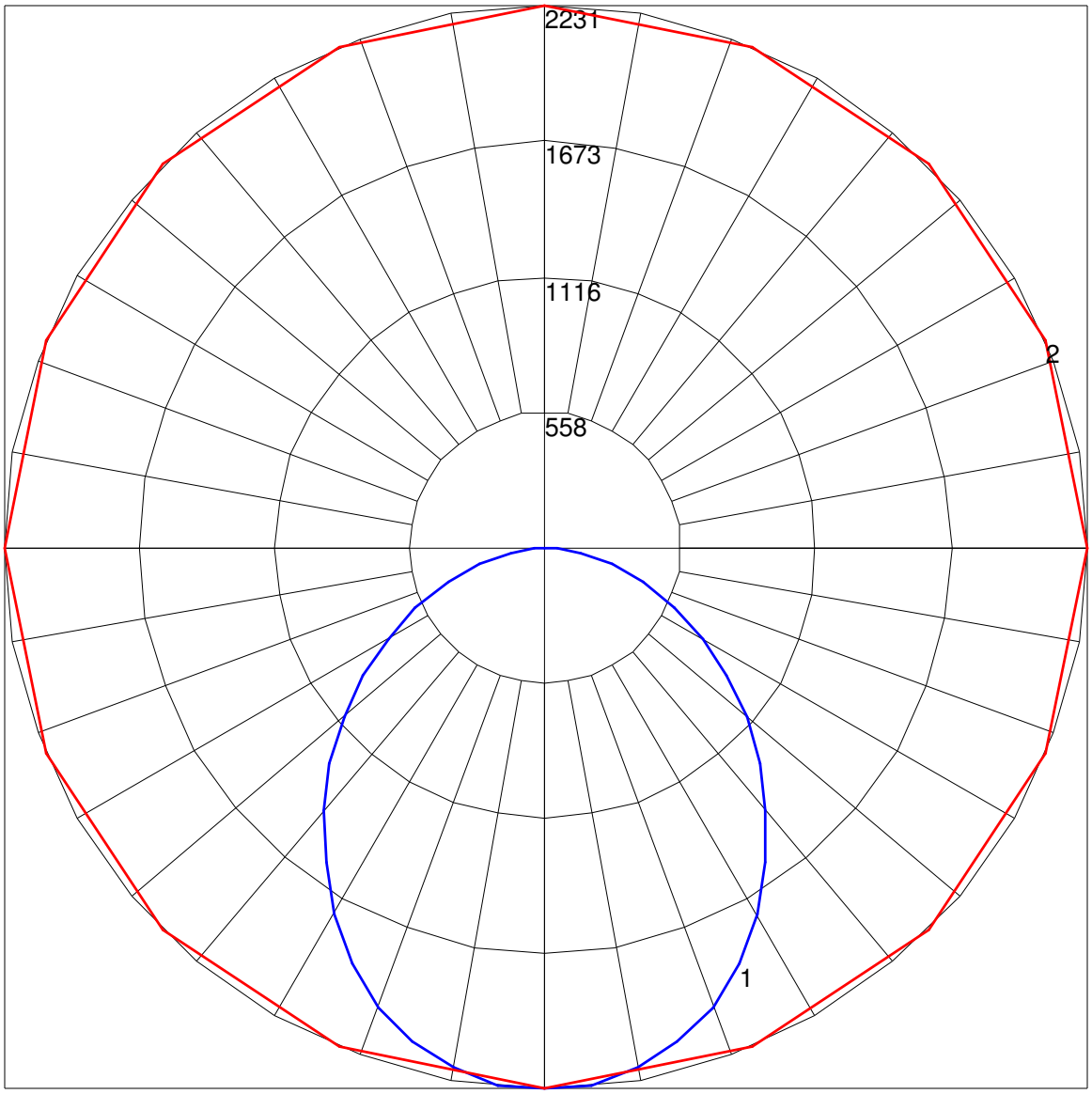
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	17.0	18.6	17.4	18.9	19.2	17.4	19.0	17.7	19.3	19.6
	3H	18.6	20.1	19.0	20.4	20.8	19.6	21.1	20.0	21.4	21.8
	4H	19.2	20.6	19.6	20.9	21.3	20.7	22.1	21.1	22.4	22.8
	6H	19.6	20.8	20.0	21.2	21.6	21.7	23.0	22.1	23.4	23.8
	8H	19.7	20.9	20.1	21.3	21.7	22.1	23.3	22.5	23.7	24.1
	12H	19.7	20.9	20.1	21.3	21.7	22.4	23.5	22.8	23.9	24.4
4H	2H	17.7	19.0	18.1	19.4	19.8	18.0	19.4	18.4	19.7	20.1
	3H	19.5	20.7	20.0	21.1	21.5	20.5	21.7	20.9	22.0	22.4
	4H	20.3	21.3	20.7	21.7	22.2	21.7	22.8	22.2	23.2	23.6
	6H	20.8	21.7	21.2	22.2	22.6	22.9	23.9	23.4	24.3	24.8
	8H	20.9	21.8	21.4	22.2	22.7	23.4	24.3	23.9	24.7	25.2
	12H	21.0	21.8	21.5	22.3	22.7	23.7	24.5	24.2	25.0	25.4
8H	4H	20.8	21.7	21.2	22.1	22.6	22.0	22.9	22.5	23.4	23.8
	6H	21.5	22.2	22.0	22.7	23.2	23.4	24.2	23.9	24.6	25.1
	8H	21.7	22.3	22.2	22.8	23.3	24.0	24.6	24.5	25.2	25.6
	12H	21.8	22.4	22.3	22.9	23.5	24.4	25.0	24.9	25.5	26.0
12H	4H	20.9	21.7	21.4	22.2	22.6	22.1	22.9	22.5	23.3	23.8
	6H	21.6	22.3	22.2	22.8	23.3	23.5	24.2	24.0	24.6	25.1
	8H	21.9	22.5	22.4	23.0	23.6	24.1	24.7	24.6	25.2	25.7

Maximum UGR = 26.0

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-950-SA-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 2231.302 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.)

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.