H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L26-827-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-L26-827-SA-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2922
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	21.5
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	2612	2573	2537
55	2347	2368	2434
65	2054	2240	2516
75	1601	2256	2916
85	833	2100	2829

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-L26-827-SA-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1157.876	1157.876	1157.876	1157.876	1157.876
5	1157.876	1150.406	1145.603	1146.137	1145.070
10	1133.331	1127.461	1122.659	1120.525	1118.924
15	1093.312	1089.043	1083.708	1079.439	1078.372
20	1047.958	1041.021	1028.215	1025.547	1022.879
25	981.793	979.125	964.185	956.715	951.913
30	906.558	902.289	892.151	880.412	872.409
35	821.718	822.785	809.979	798.241	793.438
40	734.744	737.412	724.606	716.602	713.401
45	651.505	649.904	641.901	639.233	632.830
50	562.930	564.531	557.061	563.464	558.128
55	474.889	479.691	479.158	492.497	492.497
60	388.449	391.650	405.523	423.665	431.669
65	306.277	314.281	334.023	360.169	375.109
70	223.038	236.911	269.993	303.609	321.751
75	146.202	170.747	205.963	244.915	266.258
80	77.370	105.116	144.601	183.019	202.762
85	25.612	42.687	64.564	78.970	86.974
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-L26-827-SA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	414.36	N.A.	14.20
0-30	859.16	N.A.	29.40
0-40	1365.76	N.A.	46.70
0-60	2295.98	N.A.	78.60
0-80	2849.6	N.A.	97.50
0-90	2921.59	N.A.	100.00
10-90	2812.72	N.A.	96.30
20-40	951.39	N.A.	32.60
20-50	1448.3	N.A.	49.60
40-70	1265.29	N.A.	43.30
60-80	553.62	N.A.	18.90
70-80	218.55	N.A.	7.50
80-90	71.99	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	2921.59	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	108.87
10-20	305.49
20-30	444.79
30-40	506.60
40-50	496.90
50-60	433.32
60-70	335.07
70-80	218.55
80-90	71.99
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-L26-827-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	90	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	54	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-L26-827-SA-DIM-UNV_.IES

UGR TABLE - CORRECTED

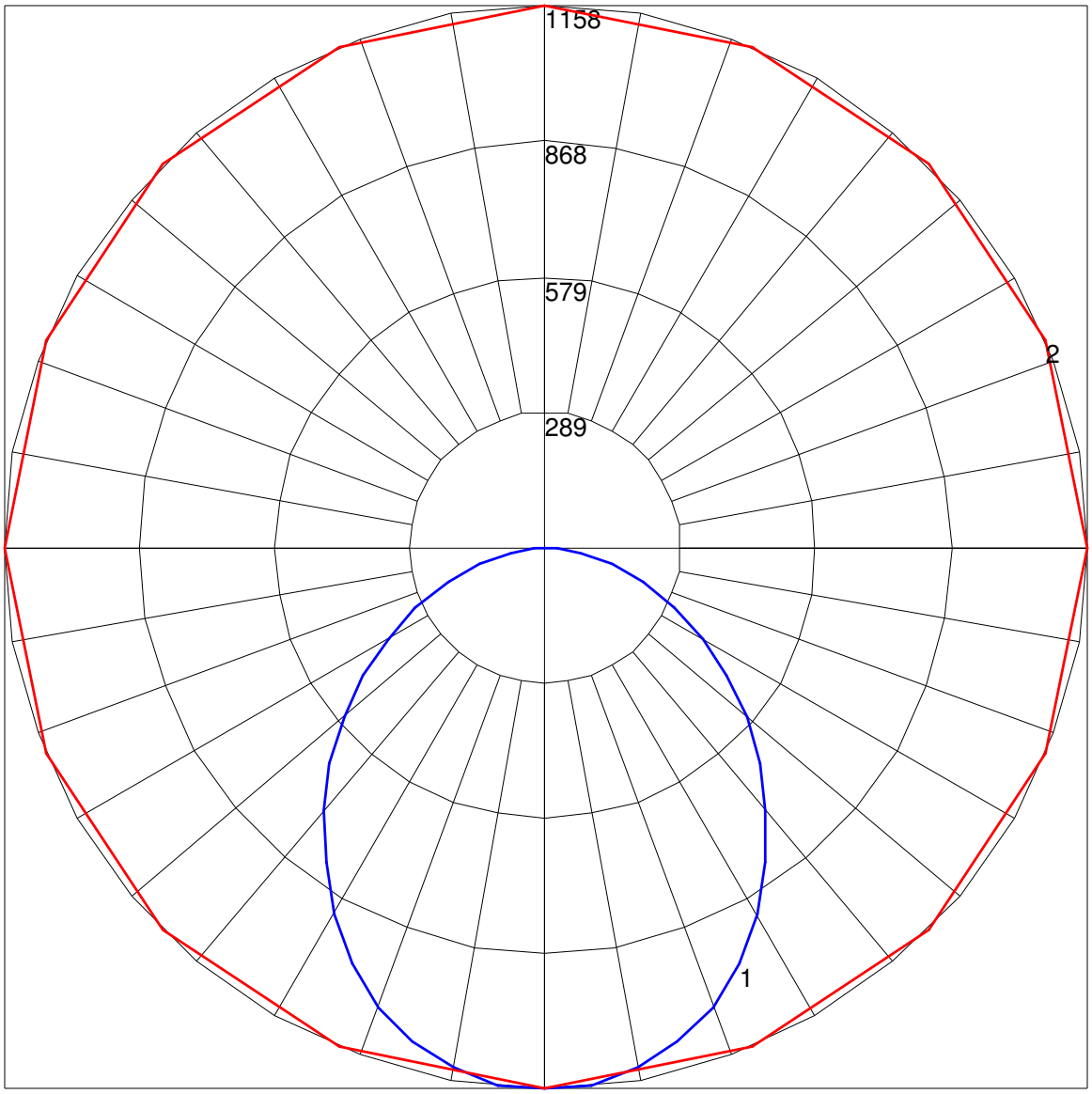
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	14.7	16.3	15.1	16.6	16.9	15.1	16.7	15.4	17.0	17.3
	3H	16.3	17.8	16.7	18.1	18.5	17.3	18.8	17.7	19.1	19.5
	4H	16.9	18.3	17.3	18.6	19.0	18.4	19.8	18.8	20.1	20.5
	6H	17.3	18.5	17.7	18.9	19.3	19.4	20.7	19.8	21.1	21.5
	8H	17.4	18.6	17.8	19.0	19.4	19.8	21.0	20.2	21.4	21.8
	12H	17.4	18.6	17.8	19.0	19.4	20.1	21.2	20.5	21.6	22.1
4H	2H	15.4	16.7	15.8	17.1	17.5	15.7	17.1	16.1	17.4	17.8
	3H	17.2	18.4	17.7	18.8	19.2	18.2	19.4	18.6	19.7	20.1
	4H	18.0	19.0	18.4	19.4	19.9	19.4	20.5	19.9	20.9	21.3
	6H	18.5	19.4	18.9	19.9	20.3	20.6	21.6	21.1	22.0	22.5
	8H	18.6	19.5	19.1	19.9	20.4	21.1	22.0	21.6	22.4	22.9
	12H	18.7	19.5	19.2	20.0	20.4	21.4	22.2	21.9	22.7	23.1
8H	4H	18.5	19.4	18.9	19.8	20.3	19.7	20.6	20.2	21.1	21.5
	6H	19.2	19.9	19.7	20.4	20.9	21.1	21.9	21.6	22.3	22.8
	8H	19.4	20.0	19.9	20.5	21.0	21.7	22.3	22.2	22.9	23.3
	12H	19.5	20.1	20.0	20.6	21.2	22.1	22.7	22.6	23.2	23.7
12H	4H	18.6	19.4	19.1	19.9	20.3	19.8	20.6	20.2	21.0	21.5
	6H	19.3	20.0	19.9	20.5	21.0	21.2	21.9	21.7	22.3	22.8
	8H	19.6	20.2	20.1	20.7	21.3	21.8	22.4	22.3	22.9	23.4

Maximum UGR = 23.7

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-L26-827-SA-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 1157.876 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.