H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L52-827-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-L52-827-SA-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5327
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	128
Total Luminaire Watts	41.6
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	4762	4691	4625
55	4279	4317	4438
65	3745	4085	4587
75	2919	4113	5317
85	1519	3828	5157

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-L52-827-SA-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2111.024	2111.024	2111.024	2111.024	2111.024
5	2111.024	2097.405	2088.649	2089.622	2087.677
10	2066.275	2055.574	2046.818	2042.927	2040.008
15	1993.313	1985.530	1975.802	1968.020	1966.074
20	1910.623	1897.976	1874.629	1869.764	1864.900
25	1789.993	1785.129	1757.890	1744.270	1735.515
30	1652.825	1645.043	1626.559	1605.157	1590.564
35	1498.146	1500.092	1476.744	1455.342	1446.587
40	1339.576	1344.440	1321.093	1306.500	1300.663
45	1187.816	1184.898	1170.305	1165.441	1153.767
50	1026.328	1029.246	1015.626	1027.300	1017.572
55	865.812	874.567	873.594	897.915	897.915
60	708.215	714.052	739.345	772.421	787.013
65	558.400	572.992	608.987	656.655	683.894
70	406.640	431.933	492.248	553.536	586.612
75	266.553	311.303	375.509	446.525	485.438
80	141.059	191.646	263.635	333.678	369.672
85	46.695	77.826	117.711	143.978	158.570
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-L52-827-SA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	755.46	N.A.	14.20
0-30	1566.4	N.A.	29.40
0-40	2490.03	N.A.	46.70
0-60	4185.99	N.A.	78.60
0-80	5195.35	N.A.	97.50
0-90	5326.6	N.A.	100.00
10-90	5128.11	N.A.	96.30
20-40	1734.57	N.A.	32.60
20-50	2640.52	N.A.	49.60
40-70	2306.86	N.A.	43.30
60-80	1009.36	N.A.	18.90
70-80	398.47	N.A.	7.50
80-90	131.24	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	5326.6	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	198.49
10-20	556.97
20-30	810.94
30-40	923.63
40-50	905.95
50-60	790.02
60-70	610.89
70-80	398.47
80-90	131.24
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-L52-827-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	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	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-L52-827-SA-DIM-UNV_.IES

UGR TABLE - CORRECTED

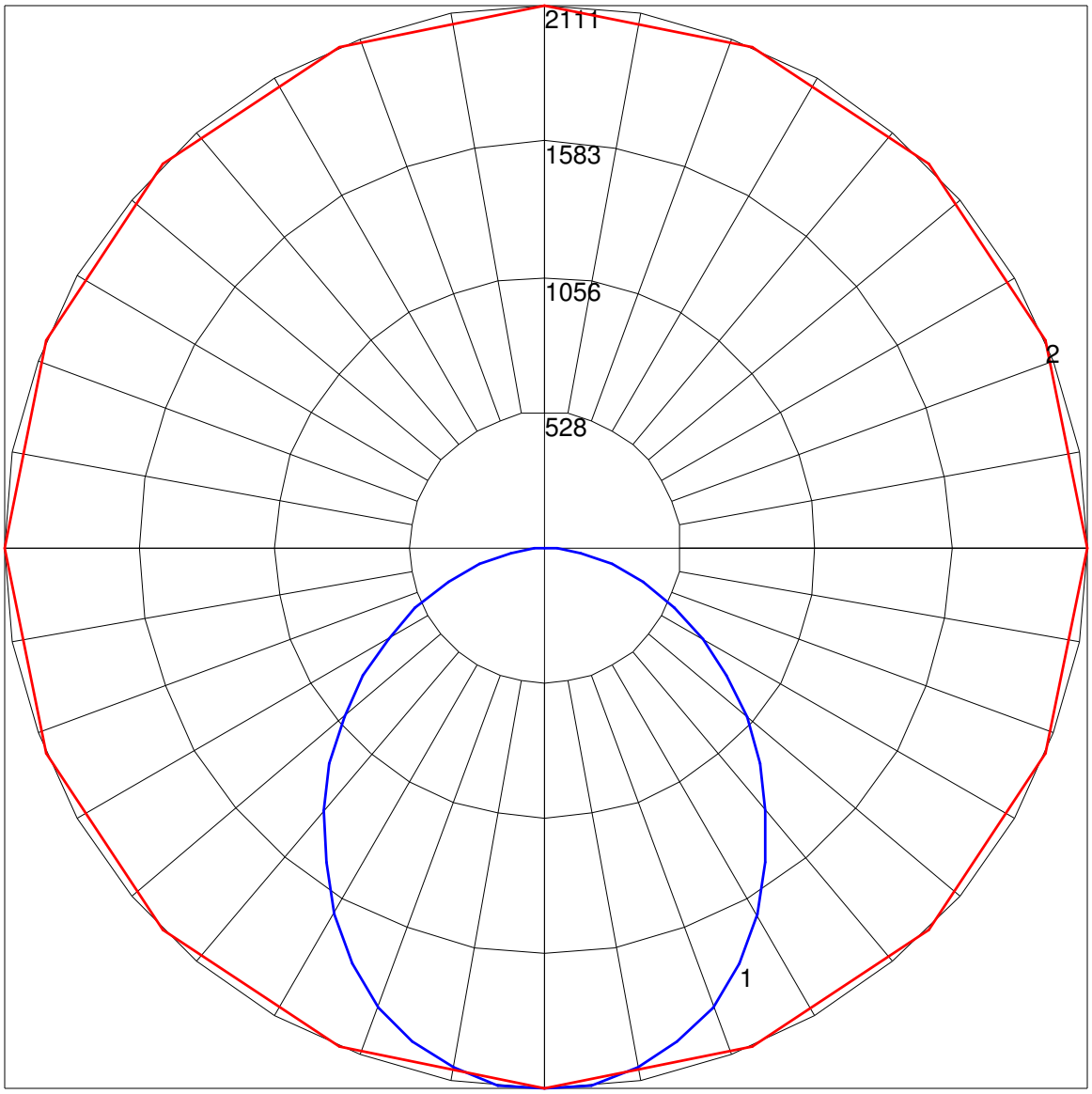
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	16.8	18.4	17.2	18.7	19.0	17.2	18.8	17.5	19.1	19.4
	3H	18.4	19.9	18.8	20.2	20.6	19.4	20.9	19.8	21.2	21.6
	4H	19.0	20.4	19.4	20.7	21.1	20.5	21.9	20.9	22.2	22.6
	6H	19.3	20.6	19.8	21.0	21.4	21.5	22.8	21.9	23.2	23.6
	8H	19.5	20.7	19.9	21.1	21.5	21.9	23.1	22.3	23.5	23.9
	12H	19.5	20.7	19.9	21.1	21.5	22.2	23.3	22.6	23.7	24.2
4H	2H	17.5	18.8	17.9	19.2	19.6	17.8	19.2	18.2	19.5	19.9
	3H	19.3	20.5	19.8	20.9	21.3	20.3	21.4	20.7	21.8	22.2
	4H	20.1	21.1	20.5	21.5	22.0	21.5	22.6	22.0	23.0	23.4
	6H	20.6	21.5	21.0	22.0	22.4	22.7	23.7	23.2	24.1	24.6
	8H	20.7	21.6	21.2	22.0	22.5	23.2	24.1	23.6	24.5	25.0
	12H	20.8	21.6	21.3	22.1	22.5	23.5	24.3	24.0	24.8	25.2
8H	4H	20.6	21.5	21.0	21.9	22.4	21.8	22.7	22.3	23.2	23.6
	6H	21.3	22.0	21.8	22.5	23.0	23.2	24.0	23.7	24.4	24.9
	8H	21.5	22.1	22.0	22.6	23.1	23.8	24.4	24.3	25.0	25.4
	12H	21.6	22.2	22.1	22.7	23.3	24.2	24.8	24.7	25.3	25.8
12H	4H	20.7	21.5	21.2	22.0	22.4	21.9	22.7	22.3	23.1	23.6
	6H	21.4	22.1	22.0	22.6	23.1	23.3	24.0	23.8	24.4	24.9
	8H	21.7	22.3	22.2	22.8	23.4	23.9	24.5	24.4	25.0	25.5

Maximum UGR = 25.8

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-L52-827-SA-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 2111.024 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.