H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-927-SA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 20790.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1 X 4 RECESSED LED LUMINAIRE
[MORE] W/ FROSTED SQUARE RIBBED LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L80-927-SA-DIM-UNV
[LAMPCAT] HLM 22" LED ARRAYS

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6739
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	61.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	0.98 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6021	5834	5791
55	5418	5450	5570
65	4734	5239	5739
75	3822	5289	6600
85	1771	5710	6898

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-14-L80-927-SA-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2624.161	2624.161	2624.161	2624.161	2624.161
5	2637.198	2608.226	2593.740	2557.524	2590.843
10	2586.497	2555.352	2536.520	2532.898	2537.968
15	2501.029	2470.608	2453.949	2448.154	2443.808
20	2387.313	2357.616	2330.092	2316.331	2318.503
25	2245.349	2220.722	2209.133	2172.918	2159.156
30	2079.482	2054.132	2028.057	2008.501	1997.636
35	1907.098	1883.920	1852.775	1825.975	1810.765
40	1709.362	1690.530	1657.936	1636.932	1624.618
45	1518.145	1496.416	1471.065	1459.477	1460.201
50	1316.064	1309.545	1282.022	1287.092	1293.610
55	1108.188	1108.188	1114.707	1132.090	1139.333
60	914.798	919.144	948.841	978.537	996.645
65	713.441	739.516	789.494	840.919	864.821
70	520.052	563.510	635.216	704.025	732.273
75	352.737	397.644	488.182	577.272	609.141
80	184.698	261.474	355.634	449.794	479.491
85	55.047	123.856	177.455	201.357	214.395
90	0.000	2.173	2.897	5.070	2.897

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-14-L80-927-SA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	938.96	N.A.	13.90
0-30	1950.93	N.A.	29.00
0-40	3110.46	N.A.	46.20
0-60	5256.72	N.A.	78.00
0-80	6555.77	N.A.	97.30
0-90	6738.52	N.A.	100.00
10-90	6492.27	N.A.	96.30
20-40	2171.5	N.A.	32.20
20-50	3314.00	N.A.	49.20
40-70	2929.39	N.A.	43.50
60-80	1299.05	N.A.	19.30
70-80	515.92	N.A.	7.70
80-90	182.76	N.A.	2.70
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	6738.52	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	246.25
10-20	692.70
20-30	1011.98
30-40	1159.53
40-50	1142.5
50-60	1003.76
60-70	783.13
70-80	515.92
80-90	182.76
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-14-L80-927-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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	62	55	80	69	61	55	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	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-14-L80-927-SA-DIM-UNV_.IES

UGR TABLE - CORRECTED

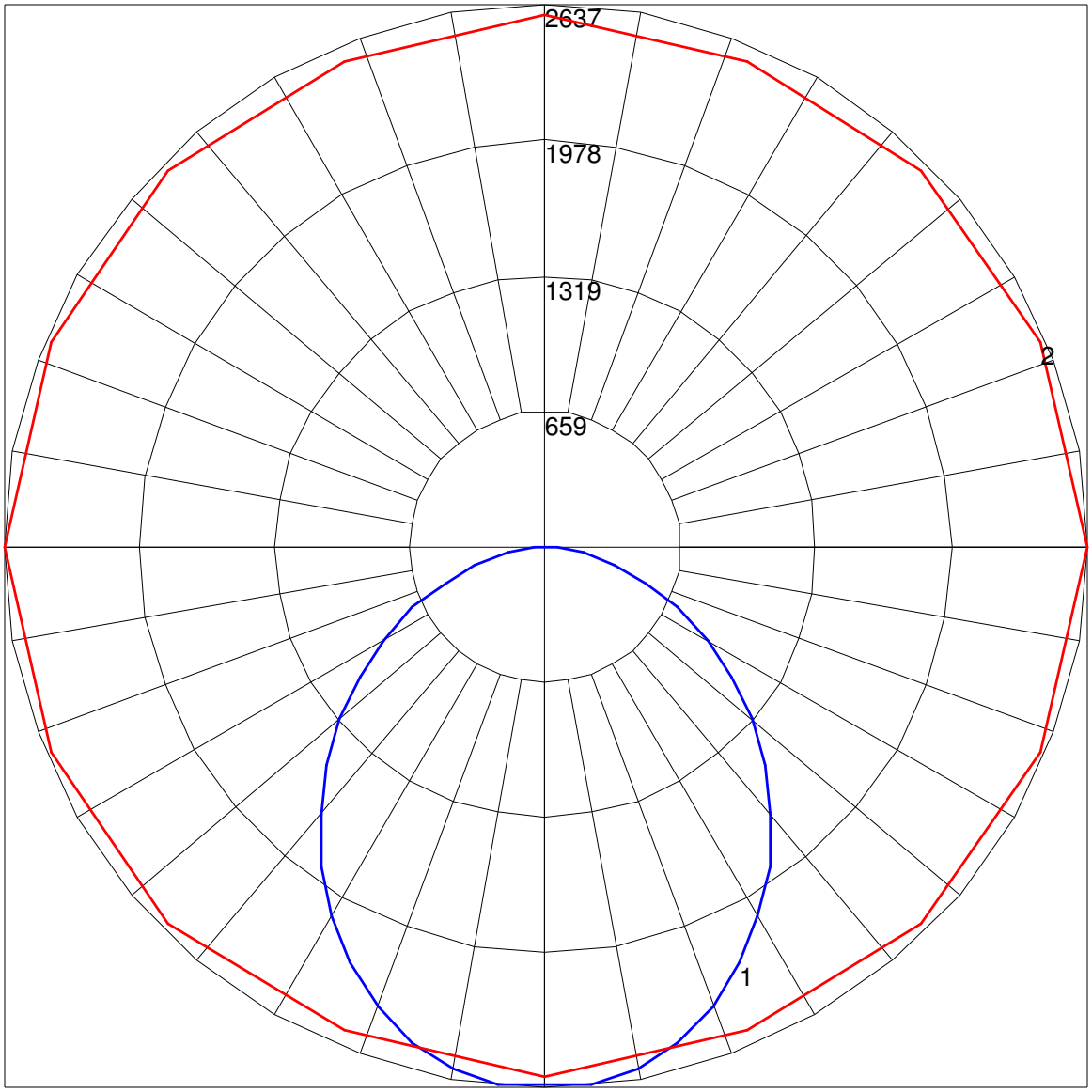
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	17.6	19.2	18.0	19.6	19.9	17.9	19.5	18.3	19.9	20.2
	3H	19.3	20.7	19.6	21.1	21.4	20.2	21.7	20.6	22.0	22.3
	4H	19.9	21.2	20.3	21.6	22.0	21.3	22.7	21.7	23.0	23.4
	6H	20.2	21.5	20.7	21.9	22.3	22.3	23.6	22.7	24.0	24.4
	8H	20.3	21.6	20.8	22.0	22.4	22.7	24.0	23.1	24.4	24.8
	12H	20.4	21.6	20.8	22.0	22.4	23.0	24.2	23.4	24.6	25.0
4H	2H	18.3	19.7	18.7	20.1	20.4	18.6	19.9	19.0	20.3	20.7
	3H	20.2	21.4	20.6	21.8	22.2	21.1	22.2	21.5	22.6	23.0
	4H	21.0	22.0	21.4	22.4	22.9	22.3	23.4	22.8	23.8	24.2
	6H	21.5	22.4	22.0	22.9	23.3	23.6	24.5	24.0	25.0	25.4
	8H	21.7	22.5	22.1	23.0	23.4	24.1	24.9	24.5	25.4	25.9
	12H	21.7	22.5	22.2	23.0	23.5	24.4	25.2	24.9	25.7	26.1
8H	4H	21.5	22.4	21.9	22.8	23.3	22.7	23.5	23.1	24.0	24.4
	6H	22.2	22.9	22.7	23.4	23.9	24.1	24.9	24.6	25.3	25.8
	8H	22.5	23.1	23.0	23.6	24.1	24.7	25.4	25.2	25.9	26.4
	12H	22.6	23.2	23.1	23.7	24.3	25.2	25.8	25.7	26.3	26.8
12H	4H	21.6	22.4	22.1	22.9	23.3	22.7	23.5	23.2	24.0	24.4
	6H	22.4	23.1	22.9	23.5	24.1	24.2	24.9	24.7	25.3	25.9
	8H	22.7	23.3	23.3	23.8	24.4	24.9	25.4	25.4	25.9	26.5

Maximum UGR = 26.8

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-14-L80-927-SA-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 2637.198 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (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.