H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-827-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-L80-827-SA-DIM-UNV
[LAMPCAT] HLM 22" LED ARRAYS

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7971
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
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	7122	6901	6850
55	6409	6447	6589
65	5600	6197	6788
75	4521	6257	7807
85	2095	6754	8160

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-L80-827-SA-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3104.190	3104.190	3104.190	3104.190	3104.190
5	3119.612	3085.340	3068.204	3025.364	3064.777
10	3059.636	3022.794	3000.517	2996.233	3002.231
15	2958.534	2922.548	2902.842	2895.987	2890.846
20	2824.016	2788.887	2756.329	2740.050	2742.620
25	2656.083	2626.952	2613.243	2570.403	2554.124
30	2459.876	2429.888	2399.043	2375.909	2363.057
35	2255.957	2228.539	2191.697	2159.995	2142.002
40	2022.050	1999.773	1961.217	1936.370	1921.805
45	1795.855	1770.151	1740.163	1726.454	1727.311
50	1556.807	1549.096	1516.538	1522.535	1530.247
55	1310.905	1310.905	1318.617	1339.180	1347.748
60	1082.140	1087.280	1122.409	1157.538	1178.958
65	843.949	874.794	933.913	994.746	1023.020
70	615.183	666.591	751.414	832.811	866.226
75	417.262	470.384	577.484	682.870	720.570
80	218.484	309.305	420.689	532.073	567.202
85	65.117	146.513	209.916	238.191	253.613
90	0.000	2.570	3.427	5.998	3.427

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-L80-827-SA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1110.72	N.A.	13.90
0-30	2307.81	N.A.	29.00
0-40	3679.45	N.A.	46.20
0-60	6218.31	N.A.	78.00
0-80	7754.99	N.A.	97.30
0-90	7971.18	N.A.	100.00
10-90	7679.88	N.A.	96.30
20-40	2568.73	N.A.	32.20
20-50	3920.22	N.A.	49.20
40-70	3465.26	N.A.	43.50
60-80	1536.68	N.A.	19.30
70-80	610.29	N.A.	7.70
80-90	216.19	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	7971.18	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	291.30
10-20	819.42
20-30	1197.09
30-40	1371.64
40-50	1351.5
50-60	1187.37
60-70	926.39
70-80	610.29
80-90	216.19
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-L80-827-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	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	83	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	56	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-L80-827-SA-DIM-UNV_.IES

UGR TABLE - CORRECTED

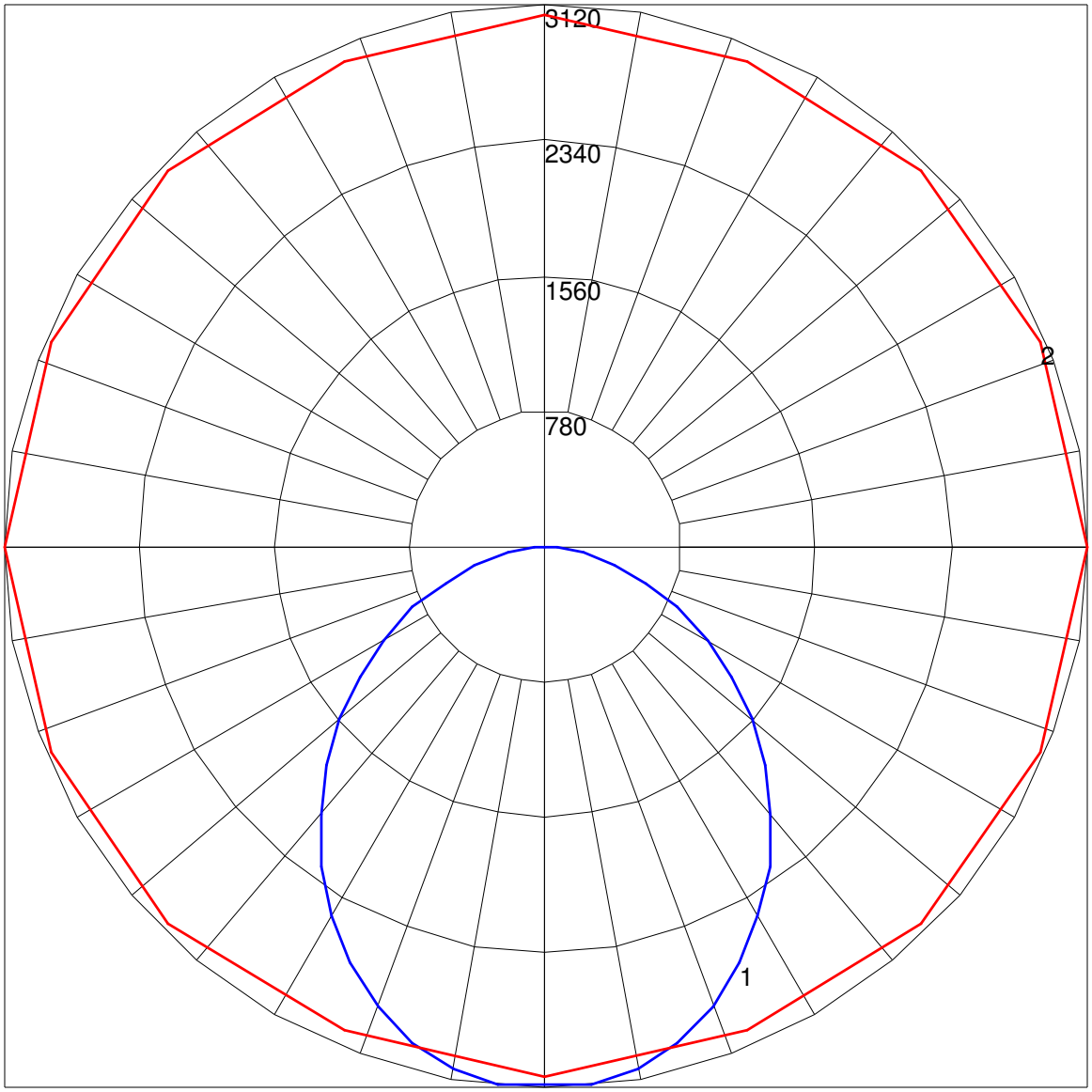
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	18.2	19.8	18.6	20.2	20.5	18.5	20.1	18.9	20.5	20.8
	3H	19.9	21.3	20.2	21.7	22.0	20.8	22.3	21.2	22.6	22.9
	4H	20.5	21.8	20.9	22.2	22.6	21.9	23.3	22.3	23.6	24.0
	6H	20.8	22.1	21.3	22.5	22.9	22.9	24.2	23.3	24.6	25.0
	8H	20.9	22.2	21.4	22.6	23.0	23.3	24.6	23.7	25.0	25.4
	12H	21.0	22.2	21.4	22.6	23.0	23.6	24.8	24.0	25.2	25.6
4H	2H	18.9	20.3	19.3	20.7	21.0	19.2	20.5	19.6	20.9	21.3
	3H	20.8	22.0	21.2	22.4	22.8	21.7	22.8	22.1	23.2	23.6
	4H	21.6	22.6	22.0	23.0	23.5	22.9	24.0	23.4	24.4	24.8
	6H	22.1	23.0	22.6	23.5	23.9	24.2	25.1	24.6	25.6	26.0
	8H	22.3	23.1	22.7	23.6	24.0	24.7	25.5	25.1	26.0	26.5
	12H	22.3	23.1	22.8	23.6	24.1	25.0	25.8	25.5	26.3	26.7
8H	4H	22.1	23.0	22.5	23.4	23.9	23.3	24.1	23.7	24.6	25.0
	6H	22.8	23.5	23.3	24.0	24.5	24.7	25.5	25.2	25.9	26.4
	8H	23.1	23.7	23.6	24.2	24.7	25.3	26.0	25.8	26.5	27.0
	12H	23.2	23.8	23.7	24.3	24.9	25.8	26.4	26.3	26.9	27.4
12H	4H	22.2	23.0	22.7	23.5	23.9	23.3	24.1	23.8	24.6	25.0
	6H	23.0	23.7	23.5	24.1	24.7	24.8	25.5	25.3	25.9	26.5
	8H	23.3	23.9	23.9	24.4	25.0	25.5	26.0	26.0	26.5	27.1

Maximum UGR = 27.4

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-L80-827-SA-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 3119.612 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.