H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-940-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19323.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1x4'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/WHITE RIBBED ACRYLIC LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L80-940-RA-DIM-UNV
[LAMPCAT] 22" LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6861
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	61.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	0.94 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6421	6707	6805
55	5667	6227	6492
65	4932	5845	5997
75	3583	5020	5233
85	1633	2687	3161

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-L80-940-RA-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2500.356	2500.356	2500.356	2500.356	2500.356
5	2556.826	2538.003	2528.591	2505.062	2490.945
10	2512.905	2498.788	2494.082	2468.984	2456.435
15	2443.887	2431.338	2437.612	2407.809	2407.809
20	2345.064	2340.359	2351.339	2323.104	2332.516
25	2235.262	2224.282	2246.242	2225.850	2219.576
30	2106.636	2086.245	2117.617	2106.636	2103.499
35	1945.070	1929.384	1970.168	1962.325	1971.736
40	1756.838	1753.700	1797.621	1803.896	1796.053
45	1551.350	1556.056	1620.369	1634.486	1643.898
50	1333.314	1356.843	1424.293	1458.803	1458.803
55	1110.572	1154.493	1220.375	1287.825	1272.139
60	909.791	947.437	1025.868	1080.769	1072.926
65	712.147	745.087	843.909	883.125	865.870
70	508.228	569.404	650.971	669.794	661.951
75	316.858	398.426	443.915	462.738	462.738
80	161.566	236.859	254.114	268.231	257.251
85	48.627	92.548	79.999	87.842	94.116
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-14-L80-940-RA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	923.32	N.A.	13.50
0-30	1951.14	N.A.	28.40
0-40	3172.51	N.A.	46.20
0-60	5492.21	N.A.	80.00
0-80	6750.07	N.A.	98.40
0-90	6861.11	N.A.	100.00
10-90	6621.81	N.A.	96.50
20-40	2249.18	N.A.	32.80
20-50	3484.4	N.A.	50.80
40-70	3126.89	N.A.	45.60
60-80	1257.85	N.A.	18.30
70-80	450.67	N.A.	6.60
80-90	111.05	N.A.	1.60
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	6861.11	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	239.31
10-20	684.02
20-30	1027.82
30-40	1221.37
40-50	1235.21
50-60	1084.49
60-70	807.18
70-80	450.67
80-90	111.05
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-L80-940-RA-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	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	78	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	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	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
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-L80-940-RA-DIM-UNV_.IES

UGR TABLE - CORRECTED

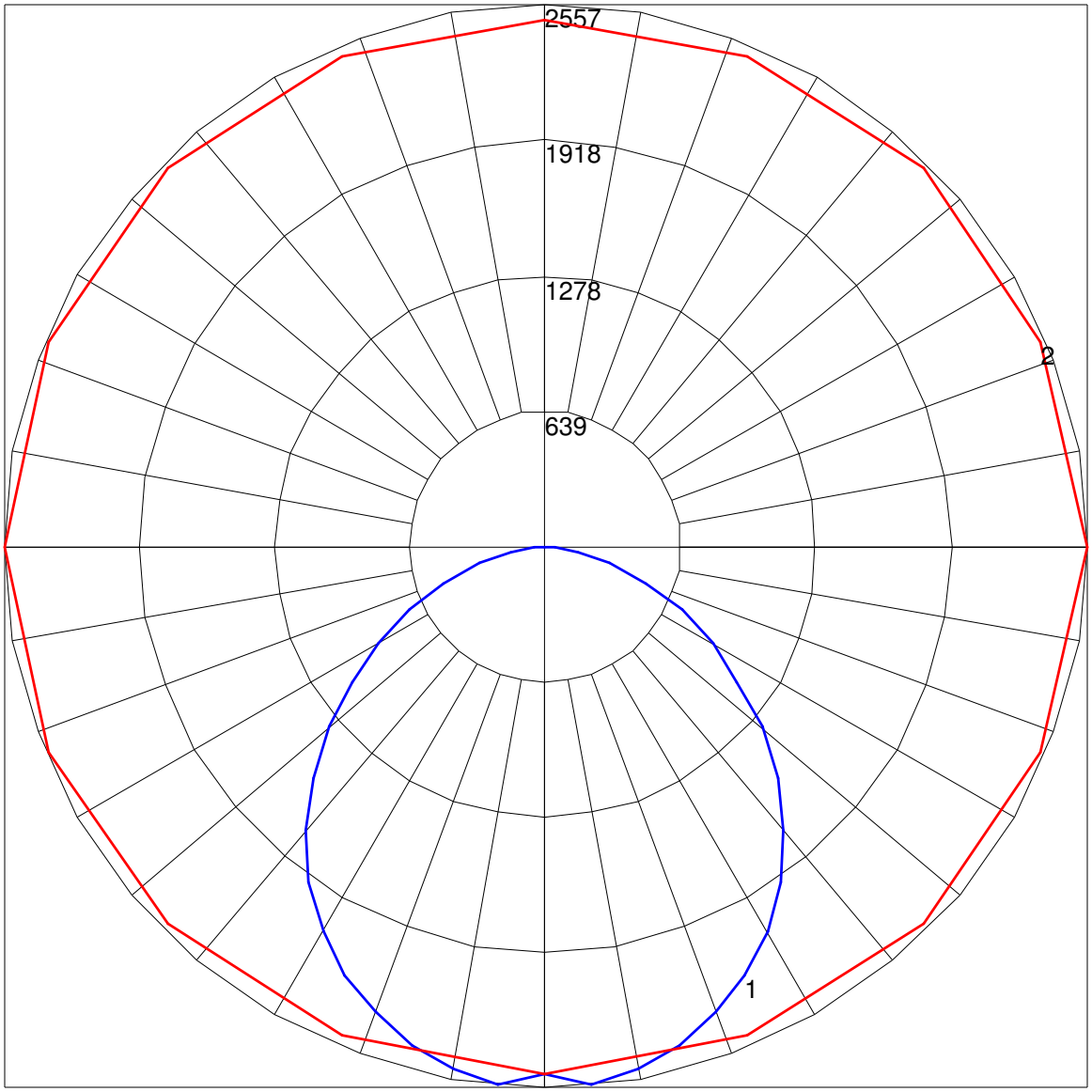
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	18.0	19.6	18.3	19.9	20.2	18.8	20.4	19.2	20.8	21.1
	3H	19.5	21.0	19.9	21.3	21.7	20.6	22.1	21.0	22.4	22.8
	4H	20.0	21.4	20.4	21.8	22.1	21.3	22.6	21.7	23.0	23.4
	6H	20.3	21.6	20.8	22.0	22.4	21.7	23.0	22.1	23.3	23.7
	8H	20.4	21.6	20.8	22.0	22.4	21.8	23.0	22.2	23.4	23.8
	12H	20.4	21.6	20.9	22.0	22.4	21.9	23.1	22.3	23.4	23.9
4H	2H	18.7	20.1	19.1	20.4	20.8	19.4	20.8	19.8	21.1	21.5
	3H	20.5	21.7	20.9	22.1	22.5	21.4	22.6	21.8	23.0	23.4
	4H	21.2	22.2	21.6	22.6	23.1	22.2	23.2	22.6	23.7	24.1
	6H	21.6	22.5	22.1	23.0	23.4	22.8	23.7	23.2	24.1	24.6
	8H	21.7	22.6	22.2	23.0	23.5	22.9	23.8	23.4	24.2	24.7
	12H	21.8	22.6	22.3	23.0	23.5	23.0	23.8	23.5	24.3	24.8
8H	4H	21.6	22.4	22.0	22.9	23.3	22.5	23.3	22.9	23.8	24.2
	6H	22.2	22.9	22.6	23.3	23.8	23.2	23.9	23.7	24.4	24.8
	8H	22.3	23.0	22.8	23.5	24.0	23.4	24.0	23.9	24.5	25.0
	12H	22.5	23.0	23.0	23.5	24.1	23.5	24.1	24.0	24.6	25.2
12H	4H	21.6	22.4	22.1	22.9	23.3	22.5	23.3	23.0	23.7	24.2
	6H	22.2	22.9	22.7	23.3	23.9	23.2	23.8	23.7	24.3	24.8
	8H	22.5	23.0	23.0	23.5	24.1	23.5	24.0	24.0	24.5	25.1

Maximum UGR = 25.2

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-L80-940-RA-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 2556.826 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.