H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L61-940-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-L61-940-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	5316
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	45.5
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	4975	5196	5272
55	4391	4825	5029
65	3821	4528	4646
75	2776	3889	4054
85	1265	2081	2449

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1937.166	1937.166	1937.166	1937.166	1937.166
5	1980.916	1966.333	1959.041	1940.812	1929.874
10	1946.888	1935.951	1932.305	1912.860	1903.138
15	1893.416	1883.693	1888.554	1865.464	1865.464
20	1816.853	1813.207	1821.714	1799.839	1807.130
25	1731.783	1723.276	1740.290	1724.491	1719.630
30	1632.129	1616.330	1640.636	1632.129	1629.699
35	1506.955	1494.802	1526.399	1520.323	1527.615
40	1361.120	1358.690	1392.718	1397.579	1391.502
45	1201.918	1205.564	1255.390	1266.328	1273.620
50	1032.993	1051.222	1103.480	1130.216	1130.216
55	860.422	894.451	945.493	997.750	985.597
60	704.866	734.033	794.797	837.332	831.256
65	551.740	577.261	653.824	684.206	670.838
70	393.753	441.149	504.344	518.927	512.851
75	245.488	308.683	343.926	358.509	358.509
80	125.174	183.508	196.876	207.814	199.307
85	37.674	71.702	61.980	68.056	72.917
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	715.35	N.A.	13.50
0-30	1511.66	N.A.	28.40
0-40	2457.92	N.A.	46.20
0-60	4255.12	N.A.	80.00
0-80	5229.65	N.A.	98.40
0-90	5315.69	N.A.	100.00
10-90	5130.28	N.A.	96.50
20-40	1742.57	N.A.	32.80
20-50	2699.56	N.A.	50.80
40-70	2422.58	N.A.	45.60
60-80	974.53	N.A.	18.30
70-80	349.16	N.A.	6.60
80-90	86.03	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	5315.69	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	185.40
10-20	529.95
20-30	796.31
30-40	946.26
40-50	956.99
50-60	840.22
60-70	625.37
70-80	349.16
80-90	86.03
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

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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	72	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	54	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	54	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

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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	17.1	18.7	17.4	19.0	19.3	17.9	19.5	18.3	19.9	20.2
	3H	18.6	20.1	19.0	20.4	20.8	19.7	21.2	20.1	21.5	21.9
	4H	19.1	20.5	19.5	20.9	21.2	20.4	21.7	20.8	22.1	22.5
	6H	19.4	20.7	19.9	21.1	21.5	20.8	22.1	21.2	22.4	22.8
	8H	19.5	20.7	19.9	21.1	21.5	20.9	22.1	21.3	22.5	22.9
	12H	19.5	20.7	20.0	21.1	21.5	21.0	22.2	21.4	22.5	23.0
4H	2H	17.8	19.2	18.2	19.5	19.9	18.5	19.9	18.9	20.2	20.6
	3H	19.6	20.8	20.0	21.2	21.6	20.5	21.7	20.9	22.1	22.5
	4H	20.3	21.3	20.7	21.7	22.2	21.3	22.3	21.7	22.8	23.2
	6H	20.7	21.6	21.2	22.1	22.5	21.9	22.8	22.3	23.2	23.7
	8H	20.8	21.7	21.3	22.1	22.6	22.0	22.9	22.5	23.3	23.8
	12H	20.9	21.7	21.4	22.1	22.6	22.1	22.9	22.6	23.4	23.9
8H	4H	20.7	21.5	21.1	22.0	22.4	21.6	22.4	22.0	22.9	23.3
	6H	21.3	22.0	21.7	22.4	22.9	22.3	23.0	22.8	23.5	23.9
	8H	21.4	22.1	21.9	22.6	23.1	22.5	23.1	23.0	23.6	24.1
	12H	21.6	22.1	22.1	22.6	23.2	22.6	23.2	23.1	23.7	24.3
12H	4H	20.7	21.5	21.2	22.0	22.4	21.6	22.4	22.1	22.8	23.3
	6H	21.3	22.0	21.8	22.4	23.0	22.3	22.9	22.8	23.4	23.9
	8H	21.6	22.1	22.1	22.6	23.2	22.6	23.1	23.1	23.6	24.2

Maximum UGR = 24.3

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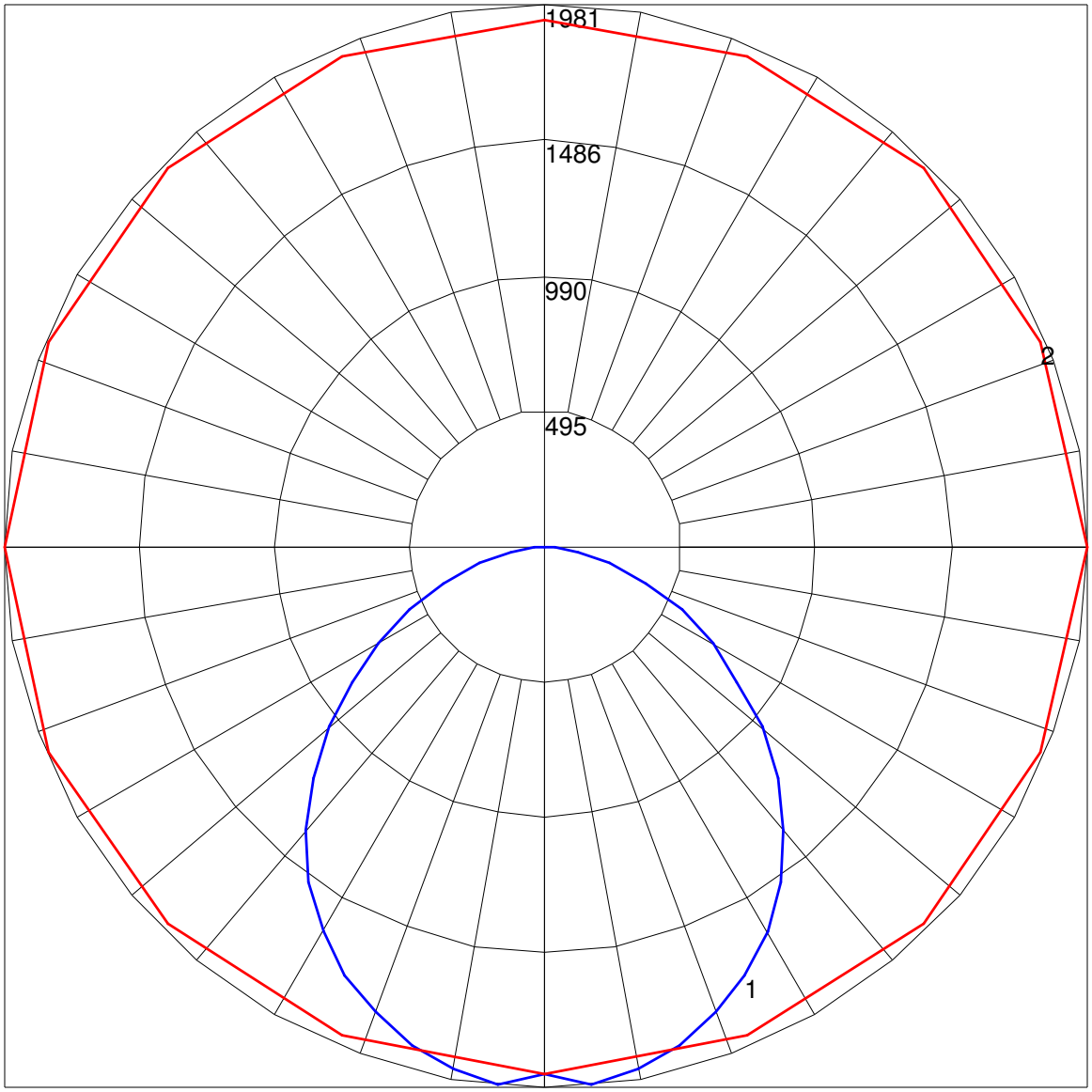
POLAR GRAPH



Maximum Candela = 1980.916 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.)

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