H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L61-935-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-L61-935-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	5192
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
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	4859	5076	5149
55	4289	4713	4912
65	3732	4423	4538
75	2712	3799	3960
85	1236	2033	2392

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1892.115	1892.115	1892.115	1892.115	1892.115
5	1934.848	1920.603	1913.481	1895.676	1884.993
10	1901.611	1890.928	1887.367	1868.374	1858.878
15	1849.382	1839.886	1844.634	1822.080	1822.080
20	1774.599	1771.038	1779.348	1757.981	1765.103
25	1691.508	1683.199	1699.817	1684.386	1679.638
30	1594.172	1578.741	1602.481	1594.172	1591.798
35	1471.909	1460.038	1490.901	1484.966	1492.088
40	1329.466	1327.092	1360.328	1365.077	1359.141
45	1173.966	1177.527	1226.195	1236.878	1244.000
50	1008.970	1026.775	1077.817	1103.931	1103.931
55	840.412	873.649	923.504	974.546	962.676
60	688.473	716.962	776.313	817.859	811.924
65	538.908	563.836	638.618	668.294	655.237
70	384.595	430.889	492.615	506.859	500.924
75	239.779	301.504	335.928	350.172	350.172
80	122.263	179.240	192.298	202.981	194.672
85	36.798	70.034	60.538	66.473	71.221
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	698.71	N.A.	13.50
0-30	1476.5	N.A.	28.40
0-40	2400.76	N.A.	46.20
0-60	4156.17	N.A.	80.00
0-80	5108.03	N.A.	98.40
0-90	5192.06	N.A.	100.00
10-90	5010.97	N.A.	96.50
20-40	1702.04	N.A.	32.80
20-50	2636.77	N.A.	50.80
40-70	2366.24	N.A.	45.60
60-80	951.87	N.A.	18.30
70-80	341.04	N.A.	6.60
80-90	84.03	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	5192.06	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	181.09
10-20	517.62
20-30	777.79
30-40	924.25
40-50	934.73
50-60	820.68
60-70	610.83
70-80	341.04
80-90	84.03
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	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

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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	17.0	18.6	17.3	18.9	19.2	17.8	19.4	18.2	19.8	20.1
	3H	18.5	20.0	18.9	20.3	20.7	19.6	21.1	20.0	21.4	21.8
	4H	19.0	20.4	19.4	20.8	21.1	20.3	21.6	20.7	22.0	22.4
	6H	19.3	20.6	19.8	21.0	21.4	20.7	22.0	21.1	22.3	22.7
	8H	19.4	20.6	19.8	21.0	21.4	20.8	22.0	21.2	22.4	22.8
	12H	19.4	20.6	19.9	21.0	21.4	20.9	22.1	21.3	22.4	22.9
4H	2H	17.7	19.1	18.1	19.4	19.8	18.4	19.8	18.8	20.1	20.5
	3H	19.5	20.7	19.9	21.1	21.5	20.4	21.6	20.8	22.0	22.4
	4H	20.2	21.2	20.6	21.6	22.1	21.2	22.2	21.6	22.7	23.1
	6H	20.6	21.5	21.1	22.0	22.4	21.8	22.7	22.2	23.1	23.6
	8H	20.7	21.6	21.2	22.0	22.5	21.9	22.8	22.4	23.2	23.7
	12H	20.8	21.6	21.3	22.0	22.5	22.0	22.8	22.5	23.3	23.8
8H	4H	20.6	21.4	21.0	21.9	22.3	21.5	22.3	21.9	22.8	23.2
	6H	21.2	21.9	21.6	22.3	22.8	22.2	22.9	22.7	23.4	23.8
	8H	21.3	22.0	21.8	22.5	23.0	22.4	23.0	22.9	23.5	24.0
	12H	21.5	22.0	22.0	22.5	23.1	22.5	23.1	23.0	23.6	24.2
12H	4H	20.6	21.4	21.1	21.9	22.3	21.5	22.3	22.0	22.7	23.2
	6H	21.2	21.9	21.7	22.3	22.9	22.2	22.8	22.7	23.3	23.8
	8H	21.5	22.0	22.0	22.5	23.1	22.5	23.0	23.0	23.5	24.1

Maximum UGR = 24.2

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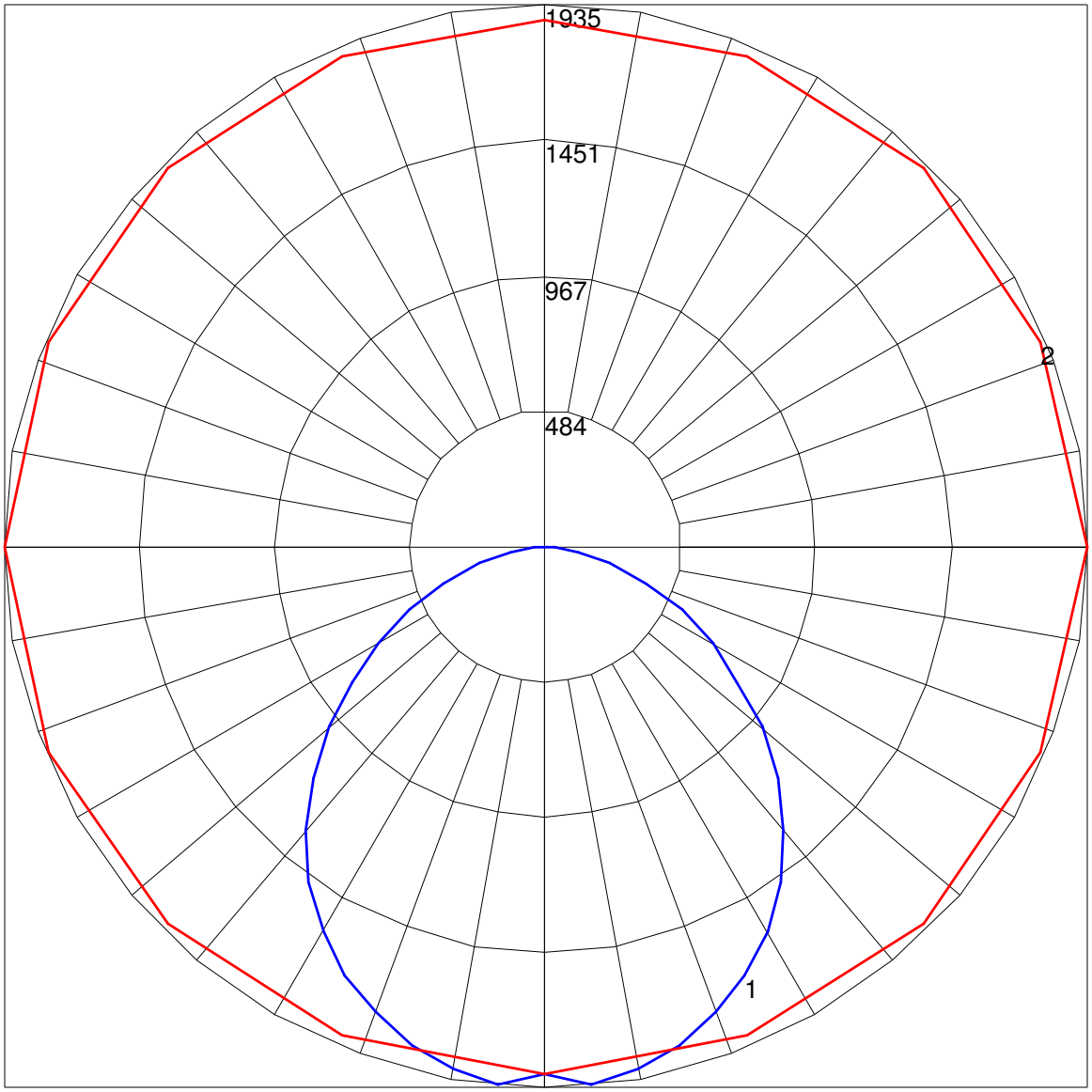
POLAR GRAPH



Maximum Candela = 1934.848 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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