H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L61-930-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-L61-930-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	5130
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
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	4801	5015	5088
55	4237	4656	4854
65	3688	4370	4484
75	2679	3754	3913
85	1221	2009	2363

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1869.590	1869.590	1869.590	1869.590	1869.590
5	1911.814	1897.739	1890.702	1873.108	1862.552
10	1878.973	1868.417	1864.898	1846.132	1836.749
15	1827.366	1817.983	1822.674	1800.389	1800.389
20	1753.474	1749.955	1758.165	1737.053	1744.090
25	1671.371	1663.161	1679.581	1664.334	1659.642
30	1575.194	1559.946	1583.404	1575.194	1572.848
35	1454.386	1442.657	1473.152	1467.288	1474.325
40	1313.639	1311.293	1344.134	1348.826	1342.961
45	1159.990	1163.509	1211.597	1222.153	1229.191
50	996.958	1014.552	1064.986	1090.790	1090.790
55	830.408	863.248	912.510	962.944	951.215
60	680.277	708.427	767.071	808.123	802.258
65	532.493	557.124	631.016	660.338	647.436
70	380.017	425.760	486.750	500.825	494.960
75	236.924	297.915	331.928	346.003	346.003
80	120.808	177.107	190.008	200.565	192.354
85	36.360	69.201	59.817	65.682	70.374
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	690.40	N.A.	13.50
0-30	1458.93	N.A.	28.40
0-40	2372.18	N.A.	46.20
0-60	4106.69	N.A.	80.00
0-80	5047.22	N.A.	98.40
0-90	5130.25	N.A.	100.00
10-90	4951.32	N.A.	96.50
20-40	1681.78	N.A.	32.80
20-50	2605.39	N.A.	50.80
40-70	2338.07	N.A.	45.60
60-80	940.53	N.A.	18.30
70-80	336.98	N.A.	6.60
80-90	83.03	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	5130.25	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	178.94
10-20	511.46
20-30	768.53
30-40	913.25
40-50	923.60
50-60	810.91
60-70	603.55
70-80	336.98
80-90	83.03
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	79	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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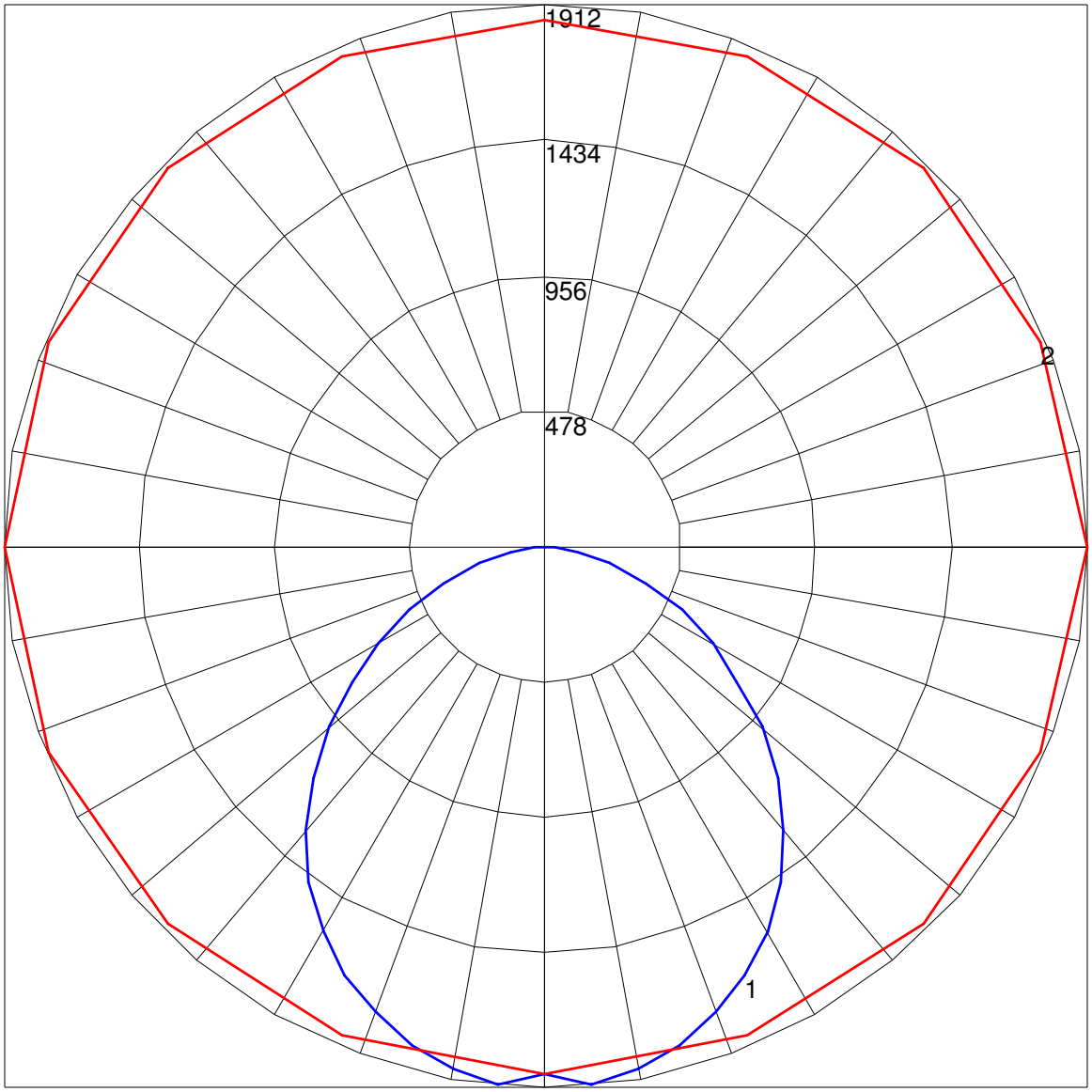
POLAR GRAPH



Maximum Candela = 1911.814 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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